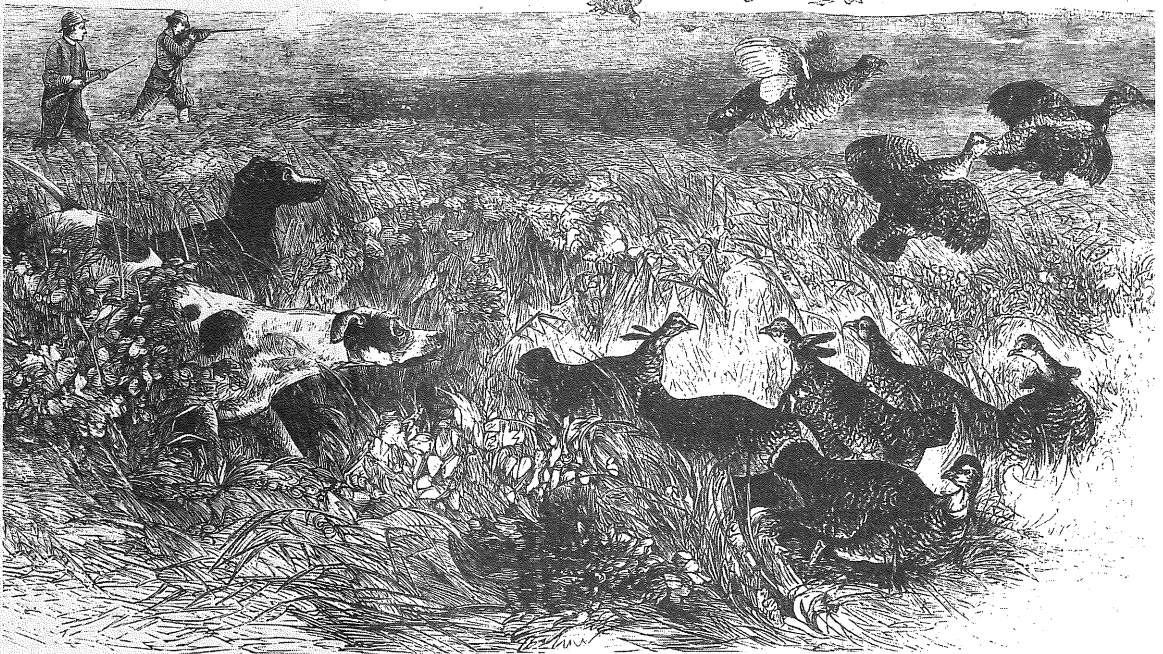




3 0307 00067 4559

THE USE AND CONSERVATION OF MINNESOTA WILDLIFE 1850-1900

07 - 0554



by Evadene Burris Swanson

Foreword by Aldo Leopold

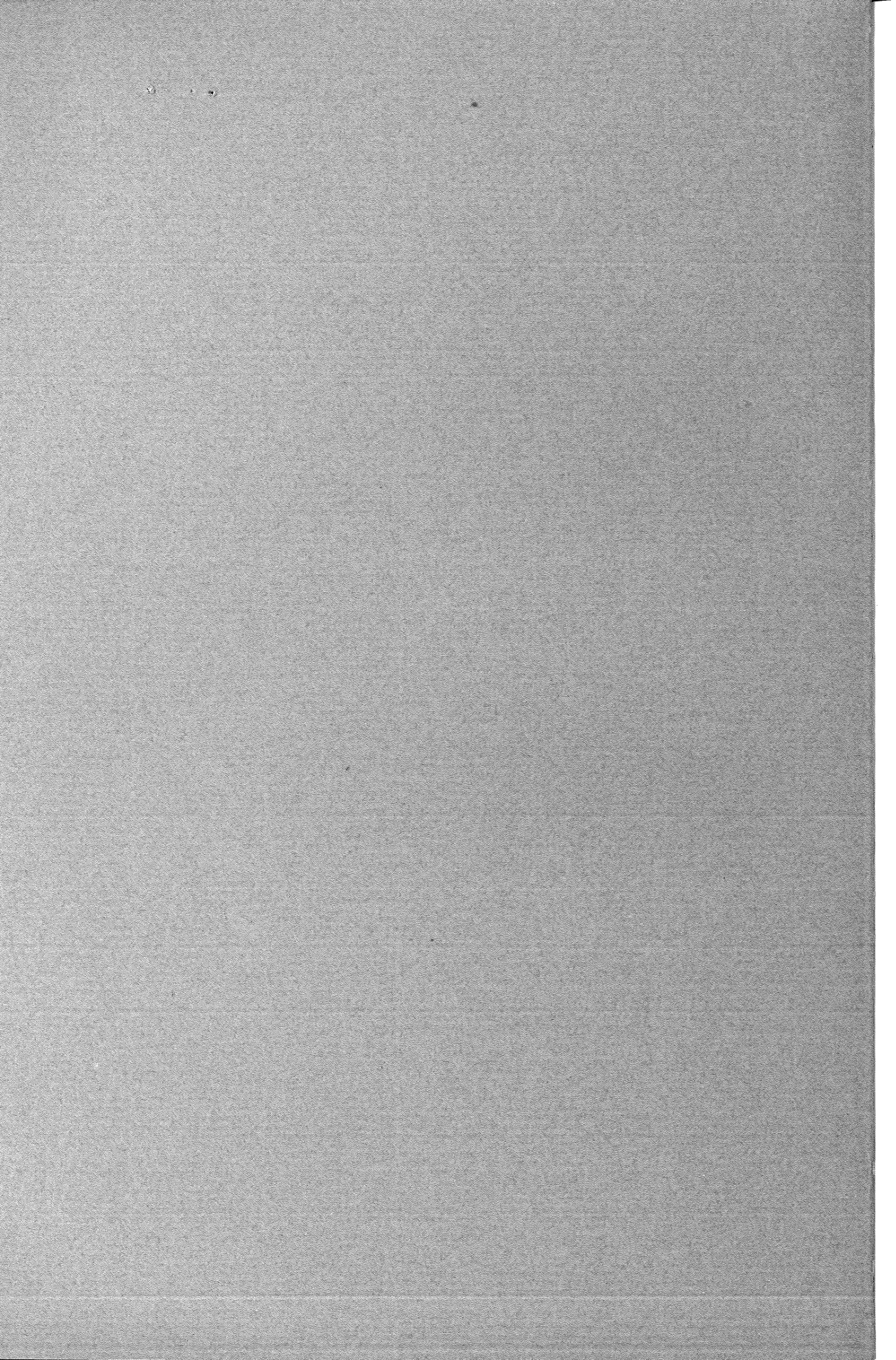
This document is made available electronically by the Minnesota Legislative Reference Library as part of an ongoing digital archiving project. <http://www.leg.state.mn.us/lrl/lrl.asp>

(Funding for document digitization was provided, in part, by a grant from the Minnesota Historical & Cultural Heritage Program.)



SK
411
.S93
2007

NONGAME WILDLIFE PROGRAM
DIVISION OF ECOLOGICAL RESOURCES
MINNESOTA DEPARTMENT OF NATURAL RESOURCES



THE USE AND CONSERVATION OF MINNESOTA WILDLIFE 1850–1900

by Evadene Burris Swanson

A Thesis Submitted to the Faculty of the
Graduate School of the University of Minnesota

In partial fulfillment of the requirements for the
Degree of Doctor of Philosophy

June, 1940



Transcribed and edited by
Nancy Hertzell, Anthony X. Hertzell, and Carrol Henderson

First printing, 2007. Published by the Minnesota's Bookstore, Department of Administration.
ISBN 0-9754388-2-2

©2007, State of Minnesota, Department of Natural Resources. All rights reserved.

Front cover illustration from Harper's Weekly, 1871.

Cover design by Amy Beyer, Minnesota Department of Natural Resources, Information and Education.

A publication of the Minnesota Department of Natural Resources, printed with permission of the writer.
Evadene B. Swanson. Any proceeds generated from the sale of this book will go to the Department of Natural Resources' Nongame Wildlife Fund.



Department of Natural Resources
500 Lafayette Road
St. Paul, MN 55155-4040
(651) 296-6157 (Metro Area)
1-888-MINNDNR (646-6367) (MN Toll Free)
www.dnr.state.mn.us

Equal opportunity to participate in and benefit from programs of the Minnesota Department of Natural Resources is available to all individuals regardless of race, color, creed, religion, national origin, sex, marital status, public assistance status, age, sexual orientation, disability or activity on behalf of a local human rights commission. Discrimination inquiries should be sent to Minnesota DNR, 500 Lafayette Road, St. Paul, MN 55155-4049; or the Equal Opportunity Office, Department of the Interior, Washington, D.C. 20240.

This document is available in alternative formats to individuals with disabilities by calling (651) 296-6157 (Metro Area) or 1-888-MINNDNR (MN Toll Free) or Telecommunication Device for the Deaf/TTY: (651) 296-5484 (Metro Area) or 1-800-657-3929 (Toll Free TTY).

Printed on recycled paper containing a minimum of 30% post-consumer waste and soy-based ink.

FOREWORD

The history of wildlife is too often regarded as the domain of old-timers indulging in nostalgic reflection, or writing postmortems on the good old days.

It has now become apparent that such history has other uses, of both a specific and a general character.

Among the unsolved biological mysteries are the rhythmic fluctuations of animal abundance, known as cycles. At least half of what we know of cycles today stems from historical records which have been *accidentally* preserved. Progress in the diagnosis of cycles is now at a stand-still for lack of preserved records in certain critical localities. Cycles mean life or death to the Eskimo, poverty or opulence to the trapper, success or failure to the forester, bag or no bag to the sportsman.

Wildlife often gives a more accurate clue to the early stages of depletion in soil fertility than is obtainable from agricultural statistics. I am convinced, for example, that the abundance of quail in Wisconsin during the last century varied as the height and vigor of the ragweed, and this in turn as the fertility of the prairie soils. Quail to me are a sensitive index to the status of early farming in this state.

Past changes in distribution of wildlife species often furnish reliable criteria of what artificial manipulations of distribution are worth trying today.

These are samples, selected at random, to illustrate the fundamental interdependence of soils, waters, tame plants and animals, wild plants and animals, and people. The science of ecology tries to decipher the laws and behavior patterns of these elements, which collectively comprise the land. Ecology is the politics and economics of the land, and cannot progress without history.

The history of tame plants and animals, and of people, is fairly well preserved, but the history of soils, waters, and wildlife is lamentably deficient. Even scientists did not learn how to record useful facts about wildlife until a few decades ago, and most early records made by laymen must be sifted with great skill before the useful elements can be extracted and used.

For these reasons it is important to encourage those few investigators who are willing to collect all the wildlife records obtainable in a local region, winnow them of chaff, and organize them for convenient reference by others. It is only by this process that the dramatic past of American wildlife can be made useful to the pressing land problems of the present and the future.

Quite aside from this scientific value of wildlife history, it has a cultural value which will one day amply repay the labor of collecting and the cost of preserving it. We city dwellers are apt to forget, in the luxury of our epiphytic existence, that the beaver and the buffalo played as big a part in the unfolding of what we call "our way of life" as did the threshing machine and the telephone. No man who does not understand wildlife can possibly understand the meaning or origin of his citizenship.

I have read Mrs. Swanson's manuscript, and regard it as a highly competent job. I hope for its early publication, in order that I and my students may have the benefit of the rich and varied treasures of information which she has dug out of Minnesota's attic.

Aldo Leopold
Professor of Wildlife Management
University of Wisconsin



Drs. Gustav and Evadene Swanson, 1981.

INTRODUCTION

Minnesota is known for its wildlife and wild places, from the prairies and marshes in the west to hardwood forests in the southeast, and beautiful lakes and boreal forests in the "Northwoods." The abundance and diversity of wildlife provides a continuing source of inspiration for all who experience it. From moose to mink, and Trumpeter Swans to hummingbirds, there is much to appreciate.

However, dedicated wildlife conservationists realize that preserving, managing, and restoring wildlife and wildlife habitats in Minnesota is a continuing challenge. If conservationists wish to focus their efforts and perennially limited funding in the most effective manner, they need more than short-term goals based on current perspectives. They need to understand where we are, where we are going, and perhaps most importantly, where we have been in terms of wildlife management, wildlife protection, and habitat conservation. We cannot afford to repeat past failures simply because we did not learn the conservation history lessons of the past. Within the stories of the past we may derive ideas and inspiration for future successes in wildlife management and restoration.

In 1977, I had the privilege of becoming acquainted with Drs. Gustav and Evadene Swanson after I was hired as the supervisor of the Minnesota DNR's Nongame Wildlife Program. In their retirement years, the Swansons were still avid conservationists who cared about all wildlife.

Evadene had distinguished herself as a historian at the University of Minnesota who wrote her 1940 Ph.D. dissertation on the "History and Use of Minnesota Game, 1850-1900." It was the story of Minnesota's wildlife in the 1800s—ranging from muskrats and moose to Passenger Pigeons, Greater Prairie-chickens, Whooping Cranes, and Trumpeter Swans. Gus had served as a distinguished professor of wildlife management at the University of Minnesota, Cornell University, and Colorado State University.

Evadene's dissertation is a stunning and comprehensive look at Minnesota's wildlife in the pioneer settlement era. It was a time when wildlife was a focal point of daily life and survival for thousands of Minnesotans, both Indians and white settlers. The abundance and diversity of that wildlife helped feed and clothe pioneer families. Income from the sale of wild game meat, hides, and furs helped homesteading pioneers buy clothing, tools, and farming supplies. Evadene scoured fur buyer records, newspapers, and many obscure documents to learn about this era in which bison still roamed, Passenger Pigeons still darkened the skies, and Whooping Cranes still nested in Minnesota wetlands.

Evadene Swanson did a great service in capturing this historical knowledge. Her dissertation allows us to marvel at the abundant historical wildlife populations in the "good old days" while at the same time lamenting the unrelenting zeal with which wildlife populations were decimated with no thought for the future. Some species have recovered;

others are gone forever. Current wildlife populations continue to inspire us and provide a nature-based cornerstone for our modern Minnesota lifestyles and outdoor traditions.

I told Evadene in 1979 that her dissertation was so important that it needed to be published as a book and that we could make that happen through the Nongame Wildlife Program. We had an opportunity to share her research with wildlife conservationists, hunters, trappers, anglers, birders, politicians, and nature lovers so they could better appreciate our wildlife heritage and work together to preserve what we have left. She graciously agreed to allow the Department of Natural Resources' Nongame Wildlife Program to publish her dissertation. Initial efforts to publish the book failed. Gus had subsequently passed away in 1995 and Evadene passed away at the age of 89 in 2001. However, the publication effort was renewed in 2006 after I met Gus Swanson's brother, David Swanson. This encouraged me to try again.

The Swansons' conservation legacy lives on. There is a state Wildlife Management Area named after them in Colorado, and Evadene's dissertation is a timeless document that also leaves its mark. The value of their contributions to our wildlife heritage will only become greater with the passage of time.

Carrol L. Henderson
Nongame Wildlife Program Supervisor
Minnesota Department of Natural Resources
7 March 2007

ACKNOWLEDGMENTS

The author wishes to express her appreciation of the aid of those whose suggestions have aided much in assembling the material for this thesis. The staff of the Minnesota Historical Society has given many helpful recommendations for the bibliography and contributed also to the enjoyment of the research. Through the courtesy of the manuscript division, new sources otherwise inaccessible were made available, and this division, the museum, and the newspaper department made possible the reproduction of the pictures used for illustrations. Dr. Thomas S. Roberts obtained the photostatic copy of Thoreau's Journal, and allowed the author to use other sources, diaries, notes, and volumes in his library as well as helping through personal recollections where printed and documentary sources left certain problems unsettled. Mr. Harold Rose of Rose Brothers Fur Company gave permission for the use of the Ullmann Company records and several rare volumes on the history of the fur trade. Through his keen interest and appreciation of this industry and his familiarity with the background of other firms, he was able to suggest a number of individuals to be reached by interview or correspondence. Because of his reading the chapter on the fur trade, several errors in the manuscript were eliminated. Miss Helen Claposattle of the University Press and Mr. William P. Handel of the University of Minnesota found many notes of value for the subject. Dr. Theodore C. Blegen has guided the research throughout its course and given much helpful advice on the final arrangement of the material, in spite of the fact that he was on leave from the University and in the midst of preparing a manuscript for publication at the time the thesis was being written.



Minnesota's wildlife needs a future as well as a past. You can personally help preserve Minnesota's wildlife by donating to the Nongame Wildlife Checkoff on Minnesota's tax forms. The loon marks the line where you can make your donation. Over the past 30 years the Nongame Wildlife Program has distinguished itself as one of the most outstanding programs of its kind in the nation. Bluebirds, bald eagles, peregrine falcons, trumpeter swans, river otters, Blanding's turtles, and dozens of other wildlife species have benefited from the conservation projects of the Nongame Wildlife Program.

Your donation is tax deductible and will help preserve Minnesota's wildlife for future generations. You can also donate to the Nongame Wildlife Fund on the Department of Natural Resources' website at www.mndnr.gov/checkoff or you can designate the Nongame Wildlife Program as a beneficiary when you do your estate planning. If you would like to know more about the Nongame Wildlife Program, go to www.mndnr.gov/nongame.

TABLE OF CONTENTS

Chapter I. Introduction.....1

- Wild animals as a natural resource
- Information available on wildlife in the nineteenth century
- Arrangement of material in thesis

Chapter II. The Fur Trade in Minnesota, 1850-1900.....4

- Introduction
 - Comparison with early part of century
 - Modern developments in the industry
- Rural collections
 - Reports in local newspapers scattered about the state
 - Remarks of old trappers
- Minnesota trade as reflected in records of raw fur dealers of the Twin Cities
 - Consideration of various firms operating in St. Paul
 - Details of history of Joseph Ullmann Company
 - Analysis of prices of raw furs throughout the period
- Fur finishing in Minnesota—wholesale and retail furriers
 - Popular fur goods in demand in this period
 - Manufacture of buffalo coats, importance of Gordon and Ferguson Company
 - Records of Albrecht Company
- State legislation on collection of furs

Chapter III. Market Hunting and Other Commercial Interests ...21

- Introduction
 - Period of activity
 - Value of industry of market hunting, gains involved
 - End of legal sale of game
- Markets
 - State
 - St. Paul
 - Out-of-state and shipping interests
- Kind of game involved in trade
 - Big and small game animals
 - Quality
 - Prices
 - Use in restaurants
- Methods of capture
 - Snares, traps
 - Shooting
 - Representative market hunters
 - Individual profits in business
- Other commercial sidelines
 - Oil, tallow, hides
 - Millinery trade
 - Buffalo bones

RECEIVED

SEP 18 2007

LEGISLATIVE REFERENCE LIBRARY
STATE OFFICE BUILDING
ST. PAUL, MN 55155

Chapter IV. The Indian and Wildlife Conservation39

Introduction

Indian behavior before 1800, and changes after contact with white men

General survey of conditions of Minnesota Indians 1850–1900

Commercialized activities

Fur

Game

Efforts of white men to restrict the Indian activities

Jealousy

Indian status in treaty provisions

Law enforcement

Chapter V. Abundance and Scarcity of Game53

Introduction

The relationship of lumbering and agriculture to game populations

Species whose numbers were greatly diminished or exterminated

Big game—bison, elk, caribou

Birds—Passenger Pigeon, Sandhill and Whooping Cranes, Trumpeter Swans

Fur-bearers—wolverines, fisher, marten

Species whose numbers were reduced

Mammals—wolf, bear, moose

Birds—woodcock, plover, grouse

Increase in numbers or appearance of new species

Pinnated Grouse, quail

White-tailed deer

Chapter VI. Activities of the State in Game Conservation 96

Introduction

Leopold's steps in historical evolution of game management

Minnesota's place in such a pattern

Analysis of the Game Laws 1850–1900

Restrictions on hunting

Trespass law, protection of nests etc.

Restriction on sale of game

Development of mechanism within the state government for law enforcement

Attitude of the public toward law enforcement 1860–1900

Work of the Game and Fish Commission

Leadership

Goal and procedure

Use of warden staff to apprehend violators

Confiscation of game at point of shipment

Relationship with railroad and express companies

Check on game by restaurants and hotels

Improvement in legal status

Game propagation

State parks as refuges

Politics

Party rivalry and criticism

Spoils system

Need of political support

**Chapter VII. The Interest of Sportsmen and Naturalists in
Minnesota Wildlife114**

- Introduction**
- Hunters**
 - Visitors
 - Residents
 - Places where they hunted, public and private
 - The number of hunters
 - Size of bag
- Organization of clubs of sportsmen**
 - Law enforcement as a goal
 - Amusement, social life of clubs, competitive hunts
 - Other plans to improve hunting conditions or techniques
- Methods used; equipment**
 - Dogs, ferrets
 - Wagons
 - Decoys
 - Careless shooting
- Change in ethics among sportsmen**
 - Feeling against spring shooting
 - Opposition to shooting on Sunday
 - Hallock code
- The naturalists and game**

Bibliography 144

- Books and articles**
- Newspapers**
- Periodicals devoted to sports**
- Periodicals for farmers**
- Manuscripts**
- Federal, state, and city publications**
- Interviews**

Appendix: Minnesota's Wildlife Heritage

Preface. Introductory Comments by Carrol Henderson 156

Part I. The Wilderness Background 1800–1862..... 156

The setting for gathering furs and living off the wildlife, 1800–1850.

End of Canadian activity in the Hudson's Bay Company.

The North West Company. The Americans take over in a monopoly of the American Fur Company.

A. Traders and Explorers Report on the Wilderness 159

1798. David Thompson for the Canadians. North West Fur Company.

1800–1808. Alexander Henry, the Younger. Ditto early 1800s. John Tanner, American adopted by the Indians.

1804–5. John Sayer. North West Company.

1805–6. Zebulon Montgomery Pike, American soldier.

1820. Lewis Cass, Governor of Michigan Territory which included part of Minnesota. Schoolcraft with him.

1823. Stephen Long, military leader, and with him Thomas Say, William Keating, James Colhoun, others.

1823. Giacomo Beltrami from Italy with Long part of the trip, then on his own for the return.

1823. Dr. John Bigsby from England exploring the northern border for the English.

1826. Thomas L. McKenney with Cass and Schoolcraft near Duluth at the conference with the Indians.

1832. Henry Rowe Schoolcraft at Lake Itasca. The lake is named.

B. Observations of the Early Resident Leaders. 173

Henry Hastings Sibley at Mendota for the American Fur Company.

Seth Eastman at Fort Snelling 1831, 1841–48.

Lawrence Taliaferro, Indian agent for the government 1821–1839.

C. The Early Visitors 175

1835. George Featherstonhaugh

1835–36. George Catlin

1836–67, 1838. Joseph Nicolas Nicollet

1837. Francesco Arese

1838. Captain Frederick Marryat

1844. John and Joseph Le Conte

1846, 1848. Christophe Augustin Lamare-Picquot

1846. Charles Lanman

1847. Sir Frederick Graham

1848. Louis Agassiz from Harvard

1848. David Dale Owen, geologist

1849. Captain John Pope, Major Samuel Weeks, army officers

1851. Frank Mayer, artist at Treaty of Traverse des Sioux

1853. Isaac Stevens leads group through exploring route for a northern railroad.

1855. Johann Kohl on Lake Superior

1857. Henry Youle Hind from Toronto University

- 1859. Captain Thomas W. Blakiston at Pembina
- 1860. Samuel Scudder on the Red River Trail
- 1861. Henry David Thoreau and Horace Mann, Jr. in Minneapolis, and the Minnesota River
- 1862. Viscount W.F. Milton and W.B. Cheadle from England on the Red River Trail

Part II. Impact of White Settlement on the Wilderness of Southern and Western Minnesota 1860–1890 188

A. The Commercial Exploitation of Wildlife 188

- Changes in the fur trade
- Wildlife in the settlers' subsistence; meat hunters
- The railroad network of the 1870s opens more territory
- Market hunters; use of decoys

B. The Sportsmen and the Naturalists. 195

- Charles Hallock encourages hunter-tourists
- Gun clubs and private preserves
- Emphasis upon quantity rather than quality
- The American Ornithologists' Union
- Thomas Sadler Roberts
- Ernest Thompson Seton
- Establishment of museums

C. Man-made Ecological Changes 203

- Damming the Mississippi Flowage
- Agriculture, which aided some species, eliminated others
- Introduction of Carp, House Sparrows
- "Good" and "bad" animals; the bounty system

D. Itasca State Park created, 1890—A Turning Point 206

Endnotes 208

LIST OF MAPS AND ILLUSTRATIONS

Spearing muskrats in winter	33
Snare for quail, etc.	34
Original range of the American Bison in Minnesota	58
A page from Thoreau's journal	64
Passenger Pigeon records.	69
Sandhill Crane records	74
Swans on Swan Lake.	75
Indians hunting bison	76
Pinnated Grouse.	85
Sharp-tailed Grouse	86
"No Woods to Live In"—Cartoon	111
"Anoka Chickens Coming Home to Roost"—Cartoon	112
Hunting party at the Hallock Hotel	117
Jacking deer.	118
"Nimrod the New Woman"	120
Hazards of deer hunting	123
"Wolf Hunt on the Ice"	130
"After the Wolf Hunt"—Cartoon	133
"Lake Superior, 1855"	142

Chapter I. Introduction

The wild animals of the American continent formed a natural resource which like the forests and mines, was made the object of commercial exploitation. The interests of the Spanish in mining and of the English and French in the fur trade and lumbering are familiar stories in American colonial history. Modern research in the fields of social and economic history has revealed the course of the mining and lumbering development in the nineteenth century. Except for a narrow and inadequate treatment in relation to the fur trade, however, the subject of game and its use has been left more exclusively to the scientist. In spite of the broad investigations in the history of the frontier, this topic has not been treated as a phase in the general story of American social and industrial expansion. An investigation of the use and conservation of game in one particular state may well serve as a beginning in the field.

Although the value of wild animals to the Indians and fur traders for sustenance and economic gain may seem obvious, the continued importance of this resource in modern American life may not be as clear. Furs produced within the state of Minnesota in the last half of the century proved a great commercial asset. Marketing of game for food became an industry of considerable proportions when transportation and refrigeration facilities improved. Even the value of game as a tourist attraction received wide discussion in the 1870s. The pleasure of the sportsman in hunting may be counted as a social gain realized through the presence of wildlife.

While no sharp dividing line marks off the period 1850-1900 in the history of the use of Minnesota game, that period is the one in which the most fundamental changes were made by white men. Not until the Indian treaties of 1851 were concluded was settlement on a large scale possible in the area. As population increased, information about wildlife appeared in many documents and publications in proportions meriting intensive study. By 1900, the conservation program was only in its infancy, but experiments had been tried with many modern ideas, and a structure had been laid for progress in the twentieth century. The virtual abolition of market hunting in 1900 ended one epoch in a sense, while Theodore Roosevelt's leadership may be considered as opening a new one. Therefore, the emphasis in this study has been placed on the last half of the nineteenth century.

The modern concept of conservation is one of both use and preservation of wildlife. Unfortunately, this happy combination did not always exist. In the early days of the frontier, the belief was prevalent that all game would be destroyed with the advance of settlement. Moreover, trappers and market hunters were anxious for immediate financial gains, and not concerned with providing for a permanent industry. When ideas of conservation became sufficiently widespread in public opinion to influence government legislation and policy, they were sponsored by sportsmen and naturalists, who had a noncommercial interest in this natural resource. Market hunters and trappers were the opponents of a constructive program of conservation.

Men concerned with the expansion of the nation were interested in wildlife as well as other natural resources. Jefferson's support of the Lewis and Clark expedition set a precedent in the United States for government investigation of natural conditions. Scientifically-trained men were gradually accepted as essential members of the staffs of exploring parties. Zebulon Montgomery Pike's complaint regarding his Mississippi trip was that he had to perform the duties of astronomer, surveyor, commanding officer, clerk, spy, guide, and hunter. He admitted that he was too busy making arrangements for the subsistence and safety of the party "to scrutinize the productions of the country ... with the eye of a Linnaeus or Buffon."¹

Later expeditions profited by Pike's criticism, and considerable information was collected by skilled observers. Most of the journals kept by the scientific explorers were daily records of natural observations with the occasional addition of the remarks of natives or traders on animal life. Little was really known about the numbers of animals in the wilderness. Henry R. Schoolcraft, for example, was concerned about the lack of statistical information about the fur trade in 1820. He declared: "Whether the skins of these animals continue to form the staple articles of the trade—whether the proportion of skins varies greatly in different years—and whether there is an increase or diminution of the total amount are the secrets of a business of which we are ignorant."² All intelligent observers recognized that the fur trade was having an important effect on wildlife populations, but the extent of damage was difficult to estimate until a particular species had become rare or extinct. From the scattered accounts of explorers and fur traders, it is possible, however, to piece together some picture of the game conditions in Minnesota before settlement. Sources for the first half of the century have been used when needed as background to aid in the understanding of later events.

With the coming of white settlement to the country formerly inhabited mainly by Indians, many new factors were added to alter game conditions. The practices of agriculture, lumbering, clearing of land, burning, and drainage were part of a whole series of changes influencing the status of wild animals. Louis Agassiz in 1850 recognized the fact that the immediate effects of civilization were not always to the disadvantage of game. "Birds and animals (except the carnivorous ones) always increase about settlement," he wrote. D.G. Elliot in 1864 agreed that in the case of some species, "the spread of civilization has the effect, not of exterminating the birds, but rather increasing their numbers."³ The general effects of settlement, then, were more complicated and not as completely destructive as many frontiersmen had anticipated. There is no doubt, however, that commercial exploitation of game was a destructive force. This study opens with a discussion of the fur trade, then analyzes market hunting, examines the use of game for food, and considers other commercial uses of wildlife resources in the years between 1850 and 1900. The part of the Indians in these activities involves many special problems, and is therefore considered separately.

The removal of game through commercial channels furnishes an important part of the background for an analysis of the extent of change in Minnesota wildlife after 1850. The influence of lumbering, agriculture, and other activities of white men is added to complete the picture. Treatment by species is essential, in this analysis, for general observations on abundance or scarcity of game animals are likely to be misleading.

After outlining the changes in animal population, this study turns to contemporary efforts to prevent the decline, and to improve the status of wildlife. Governmental activities, legislation, and law enforcement form the subject of a special chapter. The part played by the sportsman in this program is reviewed, with also a consideration of the destructive element in the history of sports. A brief sketch of the interest of naturalists in Minnesota wildlife is included in the final chapter.

II. The Fur Trade in Minnesota, 1850–1900

In 1940, Sioux Indians still brought pelts to the counters of a fur company in St. Paul where they were greeted in their own language. Their skins were appraised by grandsons of a man to whom their ancestors brought furs in the 1850s. In that decade, Joseph Ullmann, with Isidor Rose in his employ, began operations which were to increase to such world-wide importance that he found it necessary to reside in Leipzig, the heart of the continental fur market. Isidor Rose remained as manager, and later became owner of the St. Paul branch of the company. Other shrewd businessmen saw in the fur trade a field to be exploited and continued. The fur trading era in Minnesota did not end with the bankruptcy of the American Fur Company, for the collection of Minnesota furs has continued to occupy an important place in the industrial life of the state.⁴

There are several characteristics which distinguish the fur trade in the first half of the century from that of the latter part. The American Fur Company, which dominated the industry in the early period, depended upon the Indians to collect the furs, and relied upon sales in foreign markets. Later fur dealers found many white men eager to occupy winter months to economic advantage by trapping. These trappers sold their furs at prices closer to the market value than did those in the early days. This did not mean that there were no profits to be made in the field if risks could be calculated. A new group of businessmen, successors of Henry Hastings Sibley and Hercules Dousman, learned to classify the furs with great skill and continued the industry on a profit-paying basis. Although the bulk of the furs collected in St. Paul was shipped to Chicago, New York, and London, there was a demand for fur products by the growing local population, among people who were subjected to cold weather during much of the year. The development of fur finishing and coat and hat manufacturing in the Twin Cities was stimulated by this market.

There were many Indians still living within the state after the removals of the 1860s who depended on game for a large share of their livelihood. Many Sioux adapted themselves to the conditions of white settlements, and continued to follow the trapping techniques of their ancestors. The Chippewa on northern reservations collected a number of furs. They were never inhibited by reservation boundaries to restrict the area which they covered.

The belief that fur-bearing animals were becoming scarce in the last days of the American Fur Company led to the assumption that there was a smaller fur crop within the state to harvest. Some species continued to flourish, however, and formed the basis for a prosperous industry. Intensity of trapping operations led to an increase in the volume of the furs collected in the present century. Today the United States produces more furs than Canada, though the fur resources of the latter are probably greater. Louisiana and New York, with three centuries of settlement, lead in the output of furs. Thus, white settlement and the establishment of Indians on reservations cannot be considered indications of the end of trade in furs.

Though the furs produced in Minnesota were not always the most fashionable, this was not necessarily a limitation on the market. The *Pioneer* explained in 1866 in a comment on the demand for skunk, "Do not imagine that a single muff is sold under the name of the original owner of the fur.... By the wonderful application of chemistry, an entire metamorphosis takes place, rendering it impossible to recognize any of the original features of the skin ... then it is announced as the 'Prairie Badger,' 'the Colorado Catamount,' 'the Australian Wolf' or some other taking title."⁵

An English visitor to St. Paul in 1864 ascribed the prosperity of the town to the fur trade. "Every other shop is a furrier's. The streets are redolent of hides—wolf, fox, bear, mink, wildcat ... seen dangling in the windows."⁶ He too was struck by the transformation which occurred in the pelts, for he saw in operation "a system of deception as I should have thought incredible had I not seen it actually at work.... In the heart of the great fur country commences an elaborate process of dying and skinning and veneering which would astonish the belles of London.... I do not believe one muff in a hundred is what it purports to be. Sable is concocted out of anything, mink is cooked up out of the mangiest of mangy skins. Ermine is deliberately painted on the seediest of repulsive hides." Thus, he found "the genuine thing" was "extremely rare in the district of its native home." Jane Gray Swisshelm praised Mrs. Alexander Ramsey for aiding in the sale of Minnesota products by wearing a muskrat coat "in accordance with our limited state resources." She recommended buffaloskin overcoats for gentlemen in winter.⁷

The extent to which the fur collections were scattered about throughout the state was suggested by items in local newspapers. A fur trader on Lake Superior took east in 1856 a pack including 1,000 martens, 72 bears, and 500 mink. In St. Peter by the end of March 1860, two firms alone had purchased from trappers 5,210 muskrats, 1,307 mink, 125 foxes, 110 raccoon, 55 badgers, and beaver, wolf, marten, and lynx. In Mankato, when the season for 1860 was almost over, a collection worth \$750.00 taken in 10 days included 2,150 muskrats, 130 mink, 21 bear, 19 raccoon, 16 otter, and 2 wolves. The town of Albert Lea had a brisk trade in furs in the fall of 1860. The report was that mink and muskrat had never been so plentiful and were caught in that section by the hundreds. Several Glencoe boys sent their furs to market. Their collection, which filled a two-horse sleigh, was valued at \$2,000.00. It included fox, marten, mink, lynx, wolf, wildcat, bear, and deer. The comment was made: "This fur business brings lots of money into the country—more than wheat."⁸ Catches of several individual trappers were enumerated. Muskrat, mink, fox, and otter amounting to 4,458 pelts were taken within a space of 20 miles near Glencoe. The trappers were reported "in clover" till they were forced to quit because of warm weather. Monticello trappers were busy in the winter of 1860-61. One man in January 1861 had 200 muskrats, 16 raccoon, 15 mink, and 7 otter. Most of the trappers were holding the furs for an advance in prices. A Chatfield trapper by November 29, 1862, had two beaver, two wildcat, several mink, and "any number of muskrats." In 1863, Glencoe had another successful fur season—"furs have never been so plentiful." A Chatfield report listed 107 mink at \$3.00 each, 447 muskrats at 20¢, and a catch of beaver, otter, raccoon, wildcat, and fox. One trapper paid \$1.00 for a

mink track, set his trap, and caught a weasel. He was advised that "buying mink running" was rather uncertain business. From Faribault, Martin, and Jackson counties in 1867 were listed 7,110 muskrats, 70 mink, 4 otter, 18 wolves, and 40 badgers.⁹ A single purchase made by an agent of H.A. Bromley Company of St. Paul brought to that city from Mankato 73,000 muskrats. A shipment of 20,000 more was expected from that town in June 1868. No fewer than 100,000 muskrats were estimated taken in Martin County during the fall and winter of 1867-68.¹⁰ A.J. Lamberton of St. Peter was that year said to own 50,000 rats. He sold 14,000 with mink, fox, and wolf for \$3,700.00 in June 1868. The next fall, he purchased 255 dozen traps from the Oneida Community in New York to supply trappers in that area. About 150 dozen were sold at once and the remainder reported "going off like hot cakes." In December of that year, this dealer furnished the Ullmann Company with 55,000 rat skins.¹¹

The muskrat season of the Chain Lake area in Martin County netted one firm 25,000 rats, and another 15,000 in the winter 1868-69. A report from Long Prairie in the spring of 1869 indicated that the catch of muskrat and mink by hunters and Indians was a successful one. Mankato claimed that the town's trade in furs involved 400,000 pelts, the value of which was placed at \$88,900.00. Two men trapping on the south branch of the Watowan River realized \$800.00 for their efforts. The comment is made: "The profits of individual trappers are sometimes quite large. Many a frontier man makes the fur harvest more valuable than his neighbor's wheat harvest."¹²

The *Alexandria Post* noted in 1869 that "the Scandinavians are nearly all trapping and have been very successful." The mink catch was reported very large; fisher were scarce. The newspapers of the 1870s continued to suggest an active interest in furs. The Sauk Rapids Sentinel remarked about the brisk trade in furs, which were being brought in quite freely. "Our merchants gobble them up," it commented. The *Alexandria Post* reported that the muskrat catch continued large in February 1871. At Monticello, 14 raccoon were taken by two men on one day in February 1872. In St. Paul, the report in that month was that "trappers are making their ever-lasting fortunes in Minnesota this winter." The catch was reported very heavy and the market good. One man's catch on a single day in December 1874 at Greenleaf, consisted of 3 otters, 25 rats and 1 mink. In Litchfield in December 1874, it was asserted that "every able-bodied man in the place owns a rat spear and those who rarely do so at other times are practicing the industry with commendable assiduity" because the swales and sloughs were filled with muskrats. In Fergus Falls at the same time, "the arrival of a farmer with a bundle of 'raate' skins creates as much enthusiasm and excitement among the numerous runners on the streets as a gold mine." In St. Paul, too, furs were reported unusually abundant though not of prime quality because of the over-moderate weather.¹³

One man connected with the *Glyndon Gazette* turned to catching muskrats when he found politics unprofitable. Mankato expected an unusual amount of trapping in 1874 because of crop failures. settlers in Cottonwood, Nobles, Martin, and Rock counties busied themselves trapping mink, muskrat, and some beaver. The *Pioneer* declared that the Minnesota

fur catch by January 1875 exceeded that of any former season. Windom in January 1875 reported a crop of 22,300 rats, 257 mink, 104 foxes and wolves, 36 beaver, 25 badgers, 20 skunk, and 6 otter.¹⁴

The muskrat catch in the northern part of the state was counted a godsend to poor settlers in the winter 1874-75, for many "made more in catching muskrats than they made profit on the crops they raised on their claims."¹⁵ The following year reversed the situation, however, for trapping was said to be very poor on the frontier. All kinds of fur-bearing animals seemed unusually scarce. By 1878, the tide had turned again, and frequent reports of successful work in trapping occur. One man in Worthington by April 1878 had taken 250 rats, 12 skunk, 8 weasels, 7 mink, and 2 badgers within a mile and a half of his home. Martin County announced in October 1878 that the "odoriferous muskrat" was being caught in numbers that surprised even the natives. In Clay County, it was said that hunters were making it lively for deer, foxes, and muskrats. One boy had taken 14 foxes, one man over 700 rats.¹⁶

In Heron Lake in 1881, "ratting" was considered a favorite and profitable pastime. A man and his son killed 285 muskrats with a gun on a single day. Hundreds were being taken daily by other citizens. The opinion in Fergus Falls in December 1882 was that so many muskrat skins were coming into market, there could be few left in the country. In the area of Pillsbury in 1883, it was thought that more trapping was being done than ever before. Experienced men earned from \$3.00 to \$5.00 a day trapping mink, muskrat, and raccoon; several otter were taken also. So the reports run on, sometimes delighted with a successful catch, sometimes lamenting the poor season.¹⁷

The decade of the 1890s does not yield as many comments on the industry, but even in 1897 the *Minneapolis Journal* noted the arrival of two hunters from Red Lake with 11 foxes, 22 marten, 9 buckskins, 30 lynx, 17 otter, 40 wolves, and 7 bear. Many lakes close to Minneapolis were said to have more muskrats than ever in the fall of 1897, though a scarcity was indicated at Minnetonka.

"Hundreds of the furry little fellows are being killed for their fifteen cent hides."¹⁸ The complaint about a poor season was reiterated in 1900 by a trapper from Kimberly, who realized only \$175.00 to \$200.00 for his winter season. Most of the newspaper comments on trapping referred to the activities of the white man and half-breed. Throughout the century, the Indian trade in furs continued to be important in the industry, and undoubtedly supplemented the product of the white trapper.

Among the trappers famous in the Minnesota area in the last part of the century were a number of picturesque individuals. "Old Moscow" was the name by which one man on the St. Croix was known. He trapped in that region from 1858 until his death in 1870, always accompanied by his mule and his pointer, Moses. His reputation had an added glamour because he had witnessed the Napoleonic invasion of Moscow. Alec La Bathe, a French and Indian trapper who is still living on Grey Cloud Island, was born at Hastings in 1864. He

continued throughout the 1890s to trap for mink and muskrat, getting \$1.00 to \$2.00 per skin for the former and 9¢ to 10¢ for the latter. He used steel traps throughout his hunting experience. Often he used a spear to catch muskrats in their houses in the winter. Antoine McCoy and his son, Basil, were mixed bloods who collected furs and hunted for the market. They were especially popular in the Grey Cloud area because they played the fiddle at parties. Louis Robert, born in 1866 at Traverse des Sioux, also of mixed blood, is another old trapper in that community.

Many of the furs handled in St. Paul were not collected in Minnesota. The Red River trade, which drew on Canadian resources, was probably the largest channel for the out-of-state supply. Many of the skins included in these collections, however, may have come from the Roseau River, Lake of the Woods, and the Rainy Lake area. The border country was for the largest part of the period from 1850 to 1900 within the district canvassed by Pembina traders. In 1856 the *Pioneer* asserted that the great proportion of furs exported from St. Paul came from the Red River, "though the head waters of the Minnesota and Mississippi still contribute an annual supply of furs from the Indians who yet linger on their old haunts." The crop of furs which white settlers were to harvest as they scattered throughout the state was not anticipated at this time. The operations of the new settlers were spurred on by the visits of fur buyers from the Twin Cities who represented the wholesale fur business, a field which continued to flourish throughout the century.¹⁹

The advantages of the trade were obvious in 1861 to the editor of the *Pioneer*, who described the daily arrival of sleighs loaded with furs from points 100 to 200 miles distant, many shipments valued at \$1,000.00. "This money is spent again for goods, groceries and merchandise helping to keep trade brisk and circulate money."²⁰

The value of the Red River traffic in furs was forcibly impressed on Samuel Scudder, a scientist traveling in the Winnipeg country, because of a mishap on the journey. An unruly ox carried two carts off the ferry while crossing the Mississippi at Crow Wing in the summer of 1860. By bemoaning the loss of a buffalo skeleton he had collected, Scudder aroused the ire of the master of the train, who was salvaging the valuable furs from the river. A purchase by the Ullmann Company of furs, brought in 16 Pembina carts, was valued at \$12,500.00 in 1866. The *Pioneer* commented: "His (Joseph Ullmann's) extensive capital enables him to 'swing' the market here and secure choice lots at any price." In July 1870, a train of 70 carts loaded with buffalo robes and wolfskins arrived at St. Cloud from the Red River. A collection of furs from that area assigned to A. Moore of St. Paul was sold to H.A. Bromley Company in July 1870. The furs were mink, otter, bear, and fox. A collection of 1,730 buffalo robes as purchased by J.W. Fisher for \$12,715.00.²¹

"Isidor Rose, manager of the fur business of our former townsman, Joseph Ullmann, has bought 4000 buffalo robes amounting to \$30,000.00" and his "store on Jackson street is filled from cellar to garret," announced the *Pioneer* in 1870.²² Norman Kittson was active in the Red River trade at the time when furs were brought down all the way by cart, and

later after 1860 when steamboats carried them up the Red River. The Ullmann Company records show large purchases from him in 1866. Representatives of this firm were sent to Canada to buy furs directly from the trappers. A nephew of Alexander Ramsey was commissioned to buy for Ullmann in the regions about Fort Garry. He traveled to York factory, was paid \$75.00 a month and expenses, a salary which he considered highly satisfactory, and bought \$5,000.00 worth of furs.²³ I.E. Rose made frequent trips to Edmonton, Alberta, for the same firm in the nineties. His letters indicate the large business the company did in this area.

Though the firms operating in St. Paul depended on furs collected beyond the state lines, not all the furs of the state went to the wholesale district of the Twin Cities. Albert Rose buying for Ullmann Company in Oshkosh, Wisconsin, in 1898 found in storage there "a good average lot of mink skins for the most part Minnesota and Wisconsin though there was a small sprinkling of coast skins in them.... Unless you knew they were summered over you could not tell it by their appearance.... Hoping Leipzig will instruct me to buy.... People seem to be getting wild in Mink pretty early this year, don't you think so?"²⁴ A buyer from La Crosse passed through Rochester in February 1865 with a load of furs including 3,500 rats, 1,600 mink, and other valuable skins, valued at \$15,000.00. Many of them had been purchased at Mankato and St. Peter.²⁵ Louis Robert stated that he frequently shipped the furs which he caught to Oshkosh, Wisconsin, when he was dissatisfied with the price quoted by St. Paul raw fur dealers.

It is impossible to ascertain how much of Minnesota's wholesale fur business involved furs collected in Minnesota and how many of the latter went to buyers for the Twin City companies. It seems safe to assume, however, that these firms manipulated the bulk of the furs produced within the state. An agent at Big Stone Lake arrived in St. Paul in January, 1862, with \$6,000.00 worth of furs, which were sold to H.A. Bromley. His company expected a shipment of 20,000 muskrats from Mankato in January, 1868. In 1870, Bromley received 111 bales, a total of 222,000 muskrats, which he said was the collection of 13 days and his 13th shipment of the season. The *Pioneer* puffed his company with flattering comment: "We glean from this that the fur trade of this country reaches the importance few imagine, and is of vast importance to our people, as it brings money into our country at the right season, and especially so this year, when money is scarce. It seems that Mr. Bromley as usual leads the trade, and secures the majority of the furs, and, in fact, the principal portion of the furs of the Northwest pass eventually into the hands of the company of which he is one of the principal members. Although this is one of the leading fur companies of the world, it is nothing more than due them than to say that they have not, like the Hudson Bay Company, formed a monopoly, but have always paid full and liberal prices, as their records show."²⁶

Another prominent fur dealer in St. Paul, Adolphus Moore, advertised his office as "Fur Trappers' Headquarters" in December 1863. He had mink traps for sale at \$6.00 a dozen. He operated in St. Paul until 1888, when he removed to Winnipeg.²⁷

The heavy traffic in buffalo robes was a result of collections made in the territories west of Minnesota for most of this period. Buffalo still occurred in Minnesota in the 1860s, but the number collected was small compared to the bulk of the trade. A total of 905 bales of buffalo robes, "one of the largest shipments in one lot ever made from this point," was shipped down the Mississippi on the War Eagle in July 1866.²⁸ In 1867, the annual value of the fur trade in St. Paul was estimated at from \$250,000.00 to \$300,000.00. St. Paul considered itself the true head of the legitimate fur business, since St. Louis' claim to the title was really based on buffalo robes, not fur. The volume of this trade increased in the following years, for \$510,000.00 was the value placed on furs sold in St. Paul from November 1, 1868, to September 1, 1869. Rat skins numbering over 1,600,000 were bought by St. Paul dealers at a price of \$290,000.00. The large catch of rats in Minnesota and other states led to the prediction that prices would decline. In the same year, 16,000 mink skins sold at \$12,000.00²⁹

A St. Cloud dealer, George H. Spencer, announced the sale of \$22,000.00 worth of furs in June 1868. He promised prices as high as those in St. Paul. "Don't sell your skins in the country to traveling buyers; but ship them to Headquarters, and get the highest market price of G.W. Baldwin, 135 Third St., St. Paul" ran an advertisement in the *Pioneer* in November 1871.³⁰ Baldwin lived to regret these words, however, for in 1881 he became a traveling buyer for Joseph Ullmann, the larger company absorbing the smaller one. H.G. Greenlee and Company of St. Paul, commission merchants in furs, hides, skins, robes, and game, advertised in the *Litchfield Ledger* in 1872.³¹

In 1899, the *Minneapolis Journal* described the hide market as "active on skunk, mink, and marten." Otter, fisher, and red fox were in demand. Andersch Brothers of Minneapolis declared that the collection of furs was much larger than for the past three years, "but we can use a great many more skins." Durgin's store bought hides for cash for the Roseau Tannery in 1897, and this fact was stated in Norwegian for the benefit of the immigrant population.³²

Merrill Ryder was active in the fur trade in St. Paul throughout half the century, until his death in 1896 at the age of 74. In 1880, he was listed in the *City Directory* as "Exporter and Dealer in Furs, Steel Traps, and Game." Solomon Bergman's company began operations in 1867, continued under David Bergman in 1886, and was still doing some business in furs at the end of the century, though the major product handled was hides. The H.A. Bromley Company, already mentioned, was an important concern in the 1860s and 1870s. A.O. Bailey was added to the list of raw fur dealers in St. Paul in 1879. He described himself as "Exporter of raw furs, hides, ginseng, and Seneca snake root." Some companies were listed both as wholesale and retail fur dealers, and fur finishers. Charles Danneburg's company was one of these. He came to the United States from Prussia in 1874, opened his business in St. Paul in 1881, and continued to advertise for raw furs throughout the century. The James McMillan Company in Minneapolis was the outstanding firm in that city. It was founded in 1877 and continues today. The Northwestern Hide and Fur Company,

founded by W.J. Burnett in 1890, issued a *Hunters' and Trappers' Guide* with interesting notes on the industry. Muskrat and bird traps were advertised at \$1.25 a dozen. Reports from trappers received by the company were often quoted with bits of advice which might prove useful to other trappers. An issue of this pamphlet in 1895 had notes from a trapper at Garrison, Minnesota, who was taking wolves, foxes, otters, and muskrats. Another at Rushford, was trapping skunk, rabbits, squirrels, prairie-chickens, quail, wolves, and lynx. One from St. Hilaire reported success in taking wolves.³³ Trappers were advised in 1895 that "northern Minnesota, northeastern North Dakota and northwestern Wisconsin offer the greatest inducement of any portion of North America, the Rainy Lake region covering an immense country ... abounds in Bears, Beaver, Otter, Fisher, Marten, Lynx, Wildcat, Wolf, Foxes, Mink, Skunk, Muskrat in great abundance, Moose, Elk, Caribou, Deer, Grouse, and Pheasants." These remarks, which appeared in the *Hunters' and Trappers' Guide* of 1895 show that the border area was still considered a fruitful region for trapping activities.

The records of only one dealer whose activities began in the fifties have been preserved. This firm provides the opportunity for detailed analysis of fur trade methods. Joseph Ullmann, the founder of the firm, came to the United States from Alsace in 1852 at the age of 26. He went to New Orleans, engaged in the wholesale wine and liquor business, tried his hand at the sale of these articles in frontier sections of Kentucky and Indiana, and then came to St. Paul in 1854. With connections already made in New Orleans and St. Louis, he began a trade in general wares including coffee, sugar, tea, clothing, and liquor. His interest in the fur trade developed because he received parcels of mink, marten, and skunk for these goods. He moved cautiously, developing his skill in classifying furs by shipping to William McNaughton and Company of New York, where the skins were appraised. In 1855, Isidor Rose was taken into the business. Rose had come to New Orleans from Germany in 1850 in a sailing vessel. Looking for business opportunities, he went first to Memphis, Tennessee, then to St. Paul in 1853. By 1856, the company reported a turnover in raw furs of \$300,000.00 to \$400,000.00. This was only two years after the founding of the firm, when Ullmann was but 30 years old and Rose 24.³⁴ The expansion of the company from that date is almost incredible. In 1866, an office was opened in Chicago and Ullmann moved there, leaving Rose in charge of the St. Paul office. In 1867, a New York office was established; in 1868, Ullmann was in London; by 1873, a station in Leipzig had become essential; in 1875, Ullmann made that city his residence, and thereafter it was considered the central house of the company.

Ullmann was offered the United States consulate in Leipzig by Grover Cleveland, but the tremendous pressure of the fur business left him no time for added responsibility and he did not accept. A Paris branch was opened in 1898 and by 1900 the company had outposts in Australia, Newfoundland, Alberta, British Columbia, and China.³⁵ The reputation of the firm was such that the company furnished a large proportion of the bearskins used for the British army and Ullmann's price list issued from St. Paul on May 1, 1901, read: "Such skins as are classed as army bear are about 10 percent higher. Other sorts which could not be sold for army purposes as well as brown bear showed a decline of about 10 percent as

compared to last year."³⁶ Among the company's Parisian customers of the early twentieth century were C. Chanel, Jean Patou, and Paquin.

The course of the company's activities in the St. Paul area began modestly and the records of the late fifties scarcely anticipate the brilliant future of the firm. In October 1856, a Shakopee sale involved brandy, "segars," whiskey, cider, rum, claret, schnapps, and port wine. Fur items noted in November, 1858, include "racouns, muchrats, 3 Kattzen." An entry of January 13, 1859, reads:³⁷

"19	Dirskins	\$11.40
6	Red foks	9.00
2	volf	1.40
399	rats	42.00
200	rats	44.00 "

The company bought wool and sheep hides as well as furs. Wool is frequently cited as "vool." The language difficulties of the immigrant are suggested in the spelling. (These may be Ullmann's own notations).

Records of purchases made by a buyer traveling for the company in 1860 enumerate muskrat, fox, and mink bought; dinner at Lake City; then entries for fox, wolf, marten, fisher, mink, and raccoon purchases; expenses to Red Wing; muskrat, wolf, raccoon, mink, and fox; dinner at Stillwater; mink, marten, fisher, muskrat, bearskin, and cub bear purchased. The order of the entries suggest that the skins were bought on a trip on which the buyer circled south of St. Paul, southeast to Red Wing and north to Stillwater.

Ernest Albrecht, the St. Paul furrier, depended on the company to some extent for his supply of furs, for there are frequent entries of sales to him. One as early as July 20, 1863, listed 1 wolf, 1 wildcat at \$2.50, 52 skunk at \$51.20, and 3 wolverines at \$12.00. An entry on March 26, 1873, listed 7 swans, 25 dogskins, 1 bear, 26 raccoon, 13 wildcats, and 20 deerskins.

Contact with the Great Lake area was illustrated by an item for May 20, 1863. H. Miller of Lake Superior City sent to the company 10 beaver, 11 otter, 43 marten, 3 fisher, 25 mink, 1 wolverine, 9 lynx, and 181 muskrats. The sum of \$400.00 was advanced to him when this shipment arrived.

In 1863 frequent items on the records are socks, flannel shirts, coats, and blankets. Thus it is clear that in this respect the wholesale fur business of the sixties continued to resemble that of the early part of the century, for the man who brought in furs received payment in goods from the merchants in small towns scattered throughout the state, and barter still existed in the wholesale business. An example may be found in 1863. On December 13th of that year an announcement appeared in the *Pioneer*: "Ullmann bought \$1,200.00 worth of

furs from P.C. Barberich, St. Peter." An entry in the Ullmann records dated December 14, 1863, charges to the account of C. Barberich:

"1 box Ct.	Copper Toes – 60 pr at	.50	\$30.00
12	Boys' Boots	1.55	18.60
50 pr.	Men's Shoes	1.60	80.00
12 pr.	Grain Boots	3.50	42.00"

It is clear that dealers in raw furs in the 1860s had a wide range of merchandise.

A St. Cloud purchase in November 1863 for \$440.00 included 67 mink (20 prime) 71 red fox, 2 cross fox, 30 raccoon, 1 bear, 6 prairie dogs, 1 marten, 3 wolves, 4 badger, and 4 deerskins. A Mille Lacs citation for February 1864 included 1,600 rats, 9 bear, 52 mink, 20 raccoon, 8 lynx, 6 otter, 4 marten, and 1 wolf.³⁸

Not all of the Ullmann Company shipping records for the 1860s indicate the locality of fur collection, but they do show the amount of business being done. The large number of deerskins shipped gave evidence of an increase in the number of deer in the northern part of the state. A shipment of 29 bales of deerskins was sent in the cargo of the steamer *Milwaukee* on May 2, 1864. Muskrats packed in 28 bales went on the *McClellan* on May 18. Six bales of deerskins were shipped on May 29, 1865, 13 more on July 11, and 1 bale of elkskins. A shipment of 9 bales of buffalo robes was sent on the *McClellan* on July 15, 1865. A lot of 3 more bales went on the *Northern Belle* on July 19, 1865. The following year was likewise a busy one for the company: 20 bales of deerskins shipped on the *Phil Sheridan*, May 4, 1866; 4 bales on the *Addie Johnston*, June 28; and 3 bales of wolfskins with 18 bales of buffalo robes on the *Far Eagle*, July 5. Some of the shipping records for these years are signed by J.J. Hill, who was then employed by the steamship companies.

An analysis of an Ullmann record book for July 18, 1866, to July 1867 reveals that the shipment of deerskins was distributed in small lots throughout the period of navigation. Buffalo, on the other hand, in 1866, were shipped entirely in July, and in 1867, from July through October. Most of the shipments amounted to more than 100 bales each. These were probably from the Red River collection, while the deerskins were from points within the state. The bulk of the shipments in this period, however, was made up of muskrat and mink, and the company records show many a valuable cargo went down the Mississippi on the *Milwaukee*, the *Diamond Jo*, and other steamers. Each bale of muskrats was protected by two deerskin wrappings. Newspaper comment followed the activity of the company. The *Pioneer* noted on January 18, 1868, that Ullmann shipped 1,200 deerskins to Chicago on the previous day; on January 25, that paper noted the receipt of 15,000 muskrats from Le Sueur in the Ullmann office.

Some legal difficulties arose for the company in 1866 because the city council issued an ordinance prohibiting the storage of green hides within the city limits. The ordinance

was issued as a health measure to prevent the spread of cholera.³⁹ On May 22, the *Pioneer* commented on the trial of Joseph Ullmann for the violation of this ordinance. Ullmann asserted in court that "the hide business was too valuable to the city and was becoming too important to be driven away." Another man testified before the council that in Philadelphia in 1832 workers in leather and hides were believed to gain an immunity to cholera. Apparently there was a popular theory about the beneficial effects of the industry on health, for Solomon Bergman went into the fur business on the advice of his physician as a cure for chronic laryngitis! Which argument was more effective is hard to determine, but the ordinance was repealed.

The total shipping records for 1870 throw some light on the annual volume of the business:

Muskrats	847,788 skins
mink	6,337
buffalo	5,963
deer	3,859
skunk	3,270
lynx	2,286
kit (gray) fox	2,026
red fox	1,896
raccoon	1,949
beaver	1,309
wolf	1,048
fisher	828
bear and cub	694
marten	623
badger	587
otter	202
cross fox	128
wild cat	43
wolverine	39
silver fox	27

In 1871 the muskrat shipment amounted to 588,913 skins, deer 3,062, and other furs fairly similar to the previous season.

The purchases of the traveling buyers give some index to the productiveness of the various localities in the state which were included in their routes. Two of the men who were engaged by Ullmann in the sixties were D.Y. Smith and Levi Lovenstein. They often traveled on the railroads, though occasionally they went by team, in that case bringing in the furs from the last few points visited by wagon. The company owned a boat which was used until after 1900 on the St. Croix River for the collection of furs from the trappers. The *Alexandria Post* on January 15, 1870, mentioned the visit of Ullmann's agent who had gone

to that city from Sauk Center. There had purchased 25,000 muskrats. On December 2, 1871, the same paper noted the purchase of 8,000 muskrats by Ullmann's representative in Alexandria, the first purchase of the season. "Buyer for J. Ullmann returned from trip over Lake Superior and Mississippi Railroad" ran a notice in the *Pioneer* on March 7, 1875. He had a stock of mink, marten, otter, beaver, and two silver foxes, one valued at \$100.00 and the other at \$75.00. Smith included in his area the towns of St. Cloud, Sauk Center, and Alexandria, while Lovenstein usually traveled to Faribault, and up the St. Croix and Minnesota rivers. The individual records of the buyers showed the variety of furs collected in the towns which they visited. The lists of skins have already been considered, however, in the rural newspaper comment on the fur trade. Collection in 1886 and 1887 indicated that all sections of the state were well represented in the fur-producing area. Raccoon, mink, muskrats, skunk, and wildcat were bought by the company from Redwood Falls. From Sleepy Eye came mink, skunk, and red fox; from Winona, mink, skunk, raccoon, and wildcat. Purchases were made at Luverne, Tyler, New Ulm, and Windom. The western part of the state was represented by Brown's Valley, Montevideo, Ortonville, Glencoe, Granite Falls, and Olivia. Farther north were Red Lake Falls, Detroit, St. Hilaire, Fergus Falls, Crookston, Long Prairie, Wadena, and Leech Lake where the company made important purchases. Beaver and marten were bought at Grand Marais, mink and marten at Cloquet and beaver at Stillwater, but these furs were not the common ones. The bulk of the trade was, as in the earlier decades, considered in muskrat and mink, with red fox, raccoon, skunk, and wildcat frequently mentioned.

Many of the trappers brought their furs directly to the office of the company in St. Paul and these transactions are recorded in daybooks, which give no hint to place of collection or the name of the trapper. Even prices quoted in such cases are ambiguous, since the quality of the skin is unknown. One notation on December 16, 1880, "Bought from sqa's—25 pair moccasins \$12.50," indicates one of the daily transactions in the Indian trade.

Prices for furs for a 50-year period are somewhat difficult to summarize, but prices quoted in the Ullmann records and in newspapers seem to justify the following conclusions. Muskrat was worth only about 5¢ to 8¢ in the fifties. In the 1860s, the usual price was about 15¢, in 1869 going up to 17¢. A definite rise is apparent in the seventies, when 20¢ was a low quotation and 27¢ to 30¢ often paid. A real drop occurred in the 1880s when 10¢ was quoted for the best skins. Prices on this article continued to be low throughout the balance of the century. The figure for 1885 was 8¢; for 1895, 8¢; 1897, 14¢; and 1901, 10¢.

Most important to the Minnesota fur dealers was the price of mink, and this shows a great amount of fluctuation during this period. The usual price in the 1850s was about \$1.50, a price still quoted in 1863. In 1866, however, Ullmann sent to New York a shipment of over 1,000 skins which were figured at \$6.75 each. In 1867, \$7.00 was quoted. The price in the 1870s ran from \$2.00 to \$6.00 for the opening years of the decade, but in 1875, \$3.00 was considered high and in 1876, the price was back at the level of the 1850s. The editor of the *Pioneer* observed on March 22, 1878, "It would appear that fashion has at last abandoned

the mink to his fate" since prime winter mink was valued at \$1.50 to \$1.75. Raccoon and red fox were said to be in great demand. The price of mink dropped still further in the 1880s when it was usually quoted under \$1.00. The price range of the nineties was from \$1.35 to \$2.00, rising to a maximum of \$2.50 in 1901.

Bear was quoted at a price between \$7.00 and \$10.00 for most of the time from 1850 to 1890; a single exception was a quotation of \$20.00 in 1875. The value of this article rose decidedly in the nineties. Thirty dollars were offered for Number 1 large Minnesota bear in 1894, and \$25.00 was quoted in 1901.

Red fox was generally quoted under \$2.00 throughout the period of this study with the exception of the last three years. In 1899, \$2.50 was offered, in 1900, \$5.00, and in 1901, \$2.75. Otter showed a rise in price which was maintained quite consistently. They were valued at \$3.50 in 1854, and in 1859, \$5.00, a price which continued throughout much of the sixties. In the seventies and eighties, prices were \$8.00 to \$10.00 but they rose as high as \$16.00 in 1887, and remained over \$10.00 throughout the nineties.

The price of raccoon was below 50¢ for most of the period prior to 1870, was under \$1.00 until 1887 and from that time on valued at slightly over \$1.00. Skunk likewise ran under 50¢ up to 1875 and rarely reached a figure over \$1.00. Marten were valued at a figure between \$2.00 and \$5.00 for most of the half-century until the nineties when the range was \$6.00 to \$15.00. Deerskins were quoted at 25¢ and 30¢ a pound in the fifties and sixties, and Ullmann was still listing them at a similar figure in the nineties. When individual skins were quoted in the seventies, it was usually at a price around 40¢ a piece.

Wildcat was not often worth as much as 50¢; a few quotations for around \$1.00 occurred in the late 1890s. Badger was quoted generally under \$1.00, the usual price about 75¢, except in 1887 when it was listed at \$2.00. Beaver, which was usually quoted by the pound, ran around \$1.00 a pound in the fifties and between \$2.00 and \$3.00 for the latter part of the period. Wolf often ran about \$1.00, though in the eighties figures of \$5.00 occurred for timber wolves. Coyotes were always quoted at a lower figure. Wolverine, rare in Minnesota, was usually priced at \$5.00, and fisher ranged between \$3.00 and \$9.00. Silver fox was quoted at \$35.00 in 1859 and between \$50.00 and \$100.00 after 1885. Cross fox was listed at prices between \$3.00 and \$6.00 and lynx between \$1.00 and \$5.00.

With the development of the wholesale fur business in St. Paul grew up a business in wholesale and retail fur finishing and hat and cap manufacturing to supply the local market and that of neighboring states. Ernst Albrecht was one of St. Paul's first furriers. He came to Montreal in 1849 and to St. Paul in 1855. In 1864, there were only two furriers listed in the city directory, Albrecht and Raymond Patshovsky. The names of Hines and Lanpher, and R.W. Ransom occur in 1869. In 1871, Richards Gordon began the manufacture of hats, caps, and furs; by 1874, the company was organized under the name Gordon and Ferguson. By 1883, Ransom and Horton and Matheny, Haynie and Company were oper-

ating under those names. By 1887, Lanpher, Finch and Skinner had assumed the name by which the firm is still known. McKibbin and Company and Juris and Harris were late comers in the field, beginning operations in 1887 and 1896. Erick Sundkvist was another furrier whose company was first listed in the St. Paul directory in 1891. Some of these firms bought skins from the wholesale dealers, although they frequently received furs directly from the trappers.

Buffalo skins served many citizens of the state in varied guises throughout this period. Buffalo overshoes were on sale in Chatfield at \$1.25 a pair in 1860. Robes were advertised there in 1865. They were worn by farmers plowing in the field in that area in the seventies. Buffalo robes were common in Rochester in 1871. H.C. Greenlee advertised "any number" for sale in St. Paul in 1875. One Albert Lea company had a complete stock of buffalo robes and cloaks in 1880. A good assortment might be examined in Fergus Falls in 1881. The last newspaper reference to this article observed in the course of this study was in the *Minneapolis Journal* on January 13, 1894: "Buffalo overcoat and robe, 540 Lbr. Exchange."

The rushing business of the 1870s at a time when H.L. Young and Company had 12,000 buffalo robes in stock caused newspaper comment: "The buffalo may perhaps ... perish from the face of the earth, but the evil day is so far ahead that it don't trouble the present generation of St. Paul merchants and manufacturers who are doing a thriving and profitable business in accumulating the hides of the noble monarchs of the prairie."⁴⁰

Gordon and Ferguson's entry into the field of buffalo coat manufacturing is said to have been in 1875. In a short history of the company appears a story of one of the firm's first ventures, which involved 1,000 coats ordered by the government for army use. The company economized on resources and bought enough skins to fill the order. A flippant young officer sent to examine the coats rejected part of each lot shown him to prove his efficiency. In order to avoid loss of the order, Mr. Gordon quietly instructed his helper and rejected coats were brought down with each new lot. At the end of the day, the officer ended his tally with a selection of 1,000 from 5,000 coats inspected, though there were probably not many over the original 1,000 in the company's stock.⁴¹

An estimate on a single buffalo coat made by Gordon and Ferguson in 1880 itemized the cost to the company:

1 large robe	\$7.00
4 yds. linsey	.50
2 " sleeve lining	.25
percentage labor, fuel	.38
cutting .60 sewing .60	<u>1.20</u>
	9.53

A coat with a beaver collar ran in cost about \$9.00 for the robe, two yards of "repellent" lining at \$1.15, the beaver collar at \$2.50, other items \$2.18, making a total of \$14.83. In 1885, the price list of the same company shows that the cost in buffalo coats ranged from \$14.00 to \$45.00. The coat priced at \$15.00 had plain linsey lining, the next quality, cassimere lining, and a still finer quality had quilted farmer's satin lining. A nutria-trimmed coat with repellent or the quilted farmer's satin lining cost \$20.00. Nutria cuffs meant an additional charge of \$1.00. Black lamb trimming quoted at \$24.00. Beaver trimming and repellent lining meant an investment of \$27.00, wide beaver cuffs with quilted Italian cloth lining \$30.00, and unplucked otter trimming \$33.00. Two robes, quilted Italian cloth lining with beaver trimming and extra wide cuffs cost \$40.00 and the finest unplucked otter trimming \$45.00. Thus it is clear that there was considerable variety in the style of buffalo coats.⁴²

Other coats made by Gordon and Ferguson in 1880 included raccoon at \$22.03. This was counting 29 skins at a cost of 50¢ each, making the fur cost \$14.50 for the coat. The company purchased 2,449 raccoon of No. 2 grade from Ullmann at 45¢ each and 1,033 of No. 3 at 30¢ each in that year. If the raccoon was trimmed with beaver, the price ran up to \$30.83. A prairie wolf or coyote coat cost \$14.74, or with beaver collar, \$2.50 more. A wildcat coat cost \$15.61. Buffalo mitts were \$9.05 in 1880, leggins if long \$4.95, to the knee \$3.63. In 1885, raccoon coats cost the firm \$24.00 to \$45.00, wildcat \$21.00 to \$24.00, wolf, the same figure, mink \$60.00 to \$100.00, beaver \$100.00 to \$200.00. All of these prices were in estimates in clothing for men. A lady's sacque in buffalo, "fine and dark with beaver trimming and Italian cloth lining" could be made at a cost of \$35.00. Indian-tanned hides were used in all the costs. Ladies' mink sacques were advertised from \$75.00 to \$187.50 in 1890, beaver at \$112.50 to \$156.25. A mink shoulder cape cost \$33.75. Muffs varied in price—skunk was quoted at \$5.00, beaver \$6.25 from the backs, \$7.50 from the bellies, mink \$5.75 to \$9.50, red fox \$5.75. Lynx muffs quoted by the dozen were \$7.50 made from the bellies, raccoon \$37.50. According to one account, it was an over-supply of mink which caused the company to make an effort to replace buffalo with mink-lined coats for men in the decade of the eighties. Mr. Gordon bought the skins at 55¢ each, getting a lot of 5,000 or 6,000. Working from this stock, the company successfully created a demand for mink-lined coats for men.⁴³ However, buffalo coats were listed throughout the period in the catalogue of the firm.

The ledgers of Ernst Albrecht Company in the seventies likewise show a big business in buffalo coats and robes.⁴⁴ On November 25, 1874, this company listed a buffalo coat with beaver trimming at \$20.00, a badger robe at \$30.00. Two plain buffalo coats were priced at \$17.00 and \$19.00 on November 26, 1874. On December 9, 1875, appeared the entry: "one Bar Robe—\$12.00; Gold Frinche on bear skin \$2.50." Peter Swanson from Cottage Grove bought one pair of raccoon mitts at \$3.00, one pair otter mitts at \$7.00, and one lady's cap in 1874. He paid for these articles partly with cash, and the balance with one load of hay. An ermine boa was priced at \$10.00, a cap at \$4.50 and muff at \$3.00 in 1874. Buck gloves were quoted at \$2.00, otter mitts at \$6.00. The account of Isidor Rose at Albrecht's in 1875 enumerated among other articles a buffalo coat at \$19.00, beaver gloves at \$8.00, a coat

made for Lovenstein \$10.00. In 1876, Rose had a mink cap made for \$2.50, a mink set at \$10.35 and a cape at \$19.30. He settled his account by giving Albrecht dogskins worth \$32.00, 44 mink at \$3.00 each, and the balance in cash.

An Alexandria customer had a mink set made at Albrecht's for \$18.00 and furnished two skins himself. He settled his account by paying \$11.50 and three mink skins. A Lake City customer ordered a wolf coat at \$35.00, a badger coat at \$3.00, and a lined buffalo robe at \$16.50 in 1875. A wolverine robe for Mannheimer Brothers in 1879 cost them \$75.00. A lynx set was listed at \$18.00, wildcat mitts at \$2.50, a wildcat coat and mitts at \$31.00, and an otter cap at \$5.00 in 1875 and 1876. Lovenstein bought an otter cap for \$6.00, and beaver gloves for \$8.00 on November 26, 1875. "Dreifuss at Ullmann's" was charged \$25.00 for a buffalo coat on December 2, 1875.

A minor article of some interest handled by furriers in the seventies was swanskin. Ullmann's records show the purchase of one swan in 1870 at 50¢. Seven were sold by that company to Albrecht's in 1873. The finished product was used for trimming and was sold by that firm by the yard, usually at a price of 50¢ a yard. It is listed in the ledger occasionally, eight yards in 1875, three in 1876, and 26 yards sold at various times between 1877 and 1879. The article had a long period of popularity and had been collected in Minnesota throughout the century. In John Baptiste Faribault's inventory dated July 20, 1836, a total of 80 swanskins was listed.

It is interesting to note in the finishing of furs that frequently whole families were employed in the trade. The city directory of St. Paul in the last 20 years of the century reveals a number of cases where whole households are listed in the employ of different concerns handling furs as cutters, trimmers, and dressers in the humble pursuits of the industry. Some of the men in this field were trained in the craft in Europe. The tradition in the Albrecht family is that according to church records in Saxe-Cobury there has been in each generation a worker in the fur industry from the early eighteenth century. The background of family training was not as common in the raw fur dealers in St. Paul. Ullmann, Rose, and Bergman were all newcomers in the field.

While native furs of Minnesota were going to Leipzig auctions in the 1880s, foreign furs were gaining popularity in the Middlewest. Theodore Thorer Company, now famous for Persian lamb and Russian furs, opened a branch in St. Paul in that decade. A history of that company stated: "In the town of St. Paul and its close neighbor, Minneapolis, large firms had grown up which satisfied the great demand of the Western States for furs, hats, etc. It was not difficult to interest these progressive people in astrachans which were up to that time little known to them.... It was good for ladies' fur coats, and absolute necessity there in the cold winter months."⁴⁵ The Albrecht Company used astrachan, krimmer, nutria, and China goat in the 1870s. Gordon and Ferguson in the eighties were making articles of apparel from krimmer, Persian lamb, black-dyed Australian beaver, white Mandarin lamb, and white llama.

State legislation to protect fur-bearing animals resulted in the first close season for Minnesota trappers in 1867. Muskrat, mink, and otter were protected from May 1 to November 15. This law did not meet with a very hearty reception. A Stillwater correspondent suggested in the *Pioneer* that the legislature introduce a bill to elevate the "social, moral, and physical conditions of muskrats." He proposed that 50,000 acres be set up as a reserve where dams, canals, and underground water passages might be constructed. "Every muskrat desiring to avail him or herself of this act shall be a bona fide resident of the state of Minnesota, and shall obligate themselves to build ... habitation built in accordance with such plans ... as may be furnished by the Commissioner of Muskrats."⁴⁶ The tone of this article indicates that the writer may have been a piqued muskrat trapper ridiculing the seasonal limitation.

The close season was an attempt to prevent trapping during the period when the skins were of little value. Apparently it made little impression, for the purchase of the pelts of these animals continued on throughout the year. The law was repealed in 1869. Six years later, a close season on mink, muskrat, otter, and beaver was set for May 1 to November 1. The penalty for breaking the law was \$5.00 for each animal taken unless it was destroying private property. Half of the fine was promised the complainant, the remainder allotted to the common school fund of the country. The first legislation on deer and elk was passed in 1858, but no real protection was afforded these species until the 1890s.

Chapter III. Market and Other Commercial Interests

The delicacies afforded by the wildlife of the forests and prairies had long been recognized by the people of the United States when Minnesota became a state. George W. Featherstonhaugh noted an abundance of game on the markets in St. Louis in 1835. Deer and wild ducks, especially Wood Ducks, were commonly displayed. Captain Frederick Marryat corroborated these observations two years later. He mentioned the practice of bringing bear cubs down to be fattened before being killed. He saw one cub in Alton, Illinois, which was being fed up for a gala feast on the fourth of July.⁴⁷ With the arrival of settlers in Minnesota in the 1850s, game quickly appeared on the market in St. Paul and other towns. Much of it was then brought to business centers by Indian hunters.

The American demand for game was sufficient to absorb new supplies as transport lines tapped new resources. In the 1860s, Minnesota game was sold on the New York market. Elliot, in his study of game birds of the United States in 1864 explained the increasing amount handled on the market: "The reason why so many are to be seen at once is not that their numbers have become greater anywhere within the United States, but because the facilities for transporting them have increased, and now birds killed in Minnesota can be brought to New York perfectly fresh and fit for the trade during the winter months, and if packed in ice, in summer also."⁴⁸ Elliot sent circulars to individuals and corporations in an effort to learn the amount shipped to markets and consumed locally, but he received no reliable reports. He considered the Passenger Pigeon in his study because it was recognized as an important article of food. He stated that Pinnated Grouse or prairie-chickens were abundant on the prairies of Iowa and Minnesota in 1864, though they had practically disappeared in the East. He found that one New York firm received 20 tons of prairie-chickens in one consignment on one day. If the birds averaged two pounds in weight, 20,000 birds were involved in one shipment. The usual receipts of one firm on successive Saturdays were 500 pair of Ruffed Grouse.

In the decade of the 1870s, market hunting as an industry gained considerable impetus in Minnesota. Railroad statistics in 1871 indicated that a larger share of the game shipped into St. Paul was consumed locally than was sent to out-of-state markets.⁴⁹ The increasing traffic in the next few years led to an official estimate in 1877 of the shipments of November and December in the preceding year. Venison saddles and carcasses were numbered at 7,409; hams in boxes amounted to 4,000 pounds, in barrels—750 pounds. Bear carcasses were listed as 50. Rabbits shipped in boxes numbered 3,200 pounds. Birds in barrels weighed 25,810 pounds, in boxes—1,200 pounds.⁵⁰

On August 12, 1882, the editor of the *Pioneer Press* observed: "Supplying birds to the Chicago and other markets had become a lucrative business and it adds materially to the income of many persons residing in the state." It was hoped that the crop of prairie-chickens would "aggregate thousands upon thousands." Special favor for Minnesota birds on the market was prophesied: "The laws of Iowa, Dakota, and Wisconsin, which forbid shipment outside the state or territorial limits, will enhance the value of Minnesota

birds." Minnesota game had been a boon for market hunters coming from outside the state since the 1870s, however, and the gains of the industry were not reserved to residents.

Improvements in refrigeration and rapid transportation after 1880 favored the shippers. Even so, a great amount of game spoiled if warm weather occurred during the hunting season, for there was frequently some delay in getting birds from the hunters' camps to the railroads. Commission men in the Twin Cities and Chicago handled game for the men who reveled in the newly accessible hunting grounds. Newspaper comments in towns scattered throughout the state indicated a growing interest in game shipment. Regular quotations of game prices appeared in the Minneapolis and St. Paul papers. Markets were rapidly supplied as soon as hunting was allowed. The season on prairie-chickens in 1876 opened on August 15; on August 17, the local market was well supplied; on August 19, commission houses were beginning to receive consignments.⁵¹

Just as mechanical inventions were proving a great aid to men concerned with market hunting, less tangible factors arose to hamper them. Game laws limiting the season and prohibiting out-of-state shipment were counted a minor nuisance in the 1880s and a real menace in the 1890s. The traffic in venison flourished openly in the former decade and under cover in the latter after the creation of the Game and Fish Commission. A large number of birds was quoted by species after 1890, a fact which gave evidence of even greater concentration on game sales. The vigor with which game dealers locally and out-of-state fought for the continuation of the industry indicated the vested interests at stake in the battle. When federal enactment supported state action in the passage of the Lacey Act in 1900, game shipment in interstate commerce became subject to federal regulation, and the day of the market hunter was over.

In a detailed analysis of this story, the marketing of game will be considered first as a commercial enterprise in many Minnesota towns, then as an important industry of the capital of the state in supplying local demand, and finally as a field of export. The third phase is the one which eventually clashed with the concept that game belonged to residents of Minnesota.

Glowing letters to prospective immigrants or relatives in the East often painted a rosy picture of game abundance on the table of Minnesota settlers in the 1850s. One pioneer woman wrote: "Pigeons can be had for the shooting, and fish swim ashore to be caught."⁵² A more reliable index to the amount of game available for food may be found, however, in the market announcements and butcher shop advertisements. Chatfield had venison for sale in April 1857. In November 1873, it was listed as a commodity on the market and was considered more plentiful than at any time since 1857. In December 1874, there was an ample supply. Venison steaks were advertised in December 1879 in Chatfield, though a close season on deer had been declared for Fillmore County from 1875 to 1877 because of the scarcity of that species in the area. In November 1881, venison was again available to

purchasers in that town. A Winona meat market had a large supply of "venison, fowls, and game" in May 1857.⁵³

Hastings had several geographical advantages which aided local hunters in furnishing its residents a supply of game. The course of bird migration led along the river, the swampy lowlands furnished favorable nesting sites for ducks, and the timber near the river was a popular roosting area for Passenger Pigeons. Ducks were on the market in that town by August 18, and venison by November 24, 1859. Though not plentiful, there was some of the latter for sale in December 1861. Bear meat was offered in February 1865. Ducks were beginning to come in by August 31, 1867. Complaint against the high price of venison was made in November of that year since it was said to be selling at 3¢ a pound in Taylors Falls. The spring flight of ducks opened the way for sales on March 28, 1868. In November 1868, venison was announced on the market at a price lower than prevailing charges for beef and pork. A few ducks had come in by April 24, 1869, though high water prevented large bags. A large supply of venison was reported on December 15, 1883.⁵⁴

Rochester boasted of quantities of venison at a low price in November 1859. In 1866, one meat market urged sportsmen "to make amusement profitable" and bring in prairie-chickens, quail, and partridges. Residents of Stillwater could buy venison in January 1859. In 1862, the market in that town was flooded with deer carcasses. Taylors Falls reported good business for hunters bringing in deer in January 1861. Pheasants (Ruffed Grouse) and rabbits "white as snow" were offered for sale in St. Cloud in 1863 and 1864. An unusual item for menus in that town in August 1865 was buffalo steak, for one animal had been killed in the locality. In 1865, bear was so plentiful there that butchers called it pork to speed the sales. "Pork cub" steaks were reported "becoming intensely popular."⁵⁵

As many as 250 deer were killed within a square of 10 miles surrounding Anoka in the winter of 1860-61. Venison was available on the market in Wabasha in December 1870; quail and partridge were offered in January 1871. Enormous quantities of Passenger Pigeons were shipped from Wabasha in May 1871, but these birds found very little local sale. So many were slaughtered with little effort, they were generally distributed free to residents of towns near nesting colonies. There was little demand for the ample supply on the Hastings market in August 1857, for example. One man operated a net so successfully at Chatfield in May 1864, he was able to distribute birds to all who wished them without charge. Seven thousand squabs were brought into Chatfield in 10 days. The "Quaker-looking birds" were on sale at a Rochester grocery in June 1871. A supply of venison from the country about Waseca was on the market of that town in November 1868 and in December 1869.⁵⁶

Several announcements of game for sale appeared in Glencoe papers, for example, bear steaks in May 1868, and venison in October 1873. Mankato quoted venison at a price equal to other meat in November 1868. Faribault had wild ducks on its markets in April 1873. A light snow aided hunters in that region and venison was for sale in December 1876. The presence of pigeons in 1877 near Faribault gave market hunters another field of activity.⁵⁷

The references to game as a part of the food supply of these towns are scattered throughout the years from 1850 to 1890. Game in the countryside surrounding each of the towns was sufficient for local demands, but, except for the Passenger Pigeon, the amount of game shipped from these points was probably not large. Most of the towns mentioned so far are located in southern and central Minnesota.

The heavy collections of game at several points meant that furnishing the local market was only a minor part of the business. Alexandria, Sauk Rapids, Osakis, Fergus Falls, Moorhead, Detroit Lakes, and Litchfield were all centers where quantities of venison and birds were brought. During the period from 1868 to 1885, supplies of game entering these towns received frequent comment in the newspapers. Venison was reported to be coming into Alexandria by wagon loads in November 1868. Mallards and teal were abundant and cheap in April 1871. Venison was considered inexpensive that fall. Pigeons were available on the market in the same season. One Alexandria butcher reported buying and selling 175 deer in the season of 1871. A guess of the number of deer taken in the county placed the figure at 350. The editor of the *Alexandria Post* considered this too great a reduction of the deer population: "At this rate venison will in a few years be scarce in Douglas County."⁵⁸ The amount on the market there in the fall of 1872 was not so great as that in the preceding year. In 1873, hunters had favorable results in that area. One man killed 88 deer, getting 20 in four days. Another hunter got 13 in four days. This time, the estimate of the deer taken in the surrounding country-side was placed at 300. In 1876, one man had killed 27 when the season was half over and he expected to double the count before its close. In November 1880, the announcement of venison on the market appeared with the remark: "It will no longer be called wild mutton." Ruffed Grouse and prairie-chickens appeared frequently on Alexandria markets.⁵⁹

The story in neighboring towns was similar. Two men near Fergus Falls killed 25 deer in three weeks in 1877. Deer carcasses were said to be "coming in lively" there in 1881. An estimate of 2,000 was made for the number of deer taken within 15 miles of Osakis in the fall of 1880 and was probably closer to the truth than the low figures in the Alexandria estimates of 1871 and 1873. Moorhead had elk on its market in October 1879, an uncommon article on the public counters.⁶⁰ Park Rapids, Bemidji, Duluth, Roseau, and other new towns in northern Minnesota were important game markets in the last 10 years of market hunting.

The marketing of game in St. Paul was an important phase of the enterprise, and the development of wholesale and retail trade in the Twin Cities gives some picture of the volume of the business. The market in St. Paul was not well supplied with venison in January 1852. In April, there were reports of Indians shooting ducks "which we are all so greedy for," but none had arrived in the shops. In January 1853, more game was available. One Indian hunter had taken 70 deer since the snow came and many white men were said to average from 5 to 10 a week. In August 1854, the editor of the *Pioneer* saw horse-loads of game birds pass his office brought in for sale "by some of our good friends from the country." The

season for the sale of wild ducks and geese in St. Paul in the spring of 1855 was under way by April 7. By April 13, great numbers of ducks were being brought in. Though sportsmen were having good luck hunting in August 1859, there was not much game on the market in St. Paul. The editor of the *Pioneer* expected a greater supply when the farmers had completed the harvesting and turned to hunting.⁶¹

St. Paul housewives could choose from a liberal supply of venison in January 1861. One load of deer and elk meat arrived at the market after a journey of 100 miles. The sale of venison in 1862 was noted on January 21. A few days later, bear meat was also available. The arrival of a supply of wild geese in December 1862 received mention. A supply of venison reached the market early in the fall of 1863 from the Sunrise River. Two bears from the St. Croix came in the same shipment. In 1864, venison was reported more plentiful than in many years. Wagon loads were brought in every day. Throughout the 1850s and early 1860s, deer carcasses were frequently brought into St. Paul from the outskirts of the city. There was some venison on sale there every year usually from November through January in these years. In January 1869, 20 saddles arrived from Sauk Rapids. In November, 50 saddles were received by train from St. Cloud.⁶²

In October 1872, St. Paul buyers were active in the neighborhood of Alexandria, buying all the venison available. A man from Philadelphia declared of St. Paul in September 1870, "You can eat grouse three times a day if you please, and the finest flavored of trout and venison are a drug on the market." Wild pigeons, ducks, and geese were sold in St. Paul in April 1869. Hotel keepers in Duluth ordered 100 dozen prairie-chickens from St. Paul in August 1870. Buffalo meat had been offered for sale in January of that year.⁶³

St. Paul newspapers carried market quotations on game regularly after 1880. On October 18, 1882, the *Pioneer Press* noted: "Lately the supply of ducks has increased materially but prices remain nearly unchanged. Prairie-chickens are also in better supply, but not enough to equal the demand. Plover and quail are so scarce as not to be quotable. A few pigeons are coming in. Demand for all classes of game active and strong." Ten years later, there was just as much interest in the sale of game. On April 22, 1892, the *Minneapolis Journal* remarked: "The market is not well established yet, as the small and irregular receipts will not admit of it. Mallard ducks are in good demand but small supply. Mixed ducks sell very well." On April 11, 1893, ducks were coming in freely and being sold readily. In October of that year, it was stated that the market for game was in fair shape. Receipts were liberal throughout the month. In September 1893, a good demand for game existed; prices declined because of the large supply received.⁶⁴ So the story throughout the years gave evidence of a continued busy traffic in game until it could no longer be offered on the market.

Supplying out-of-state buyers had been a practice begun in the 1880s. The next decade witnessed the organization of the trade on a business-like basis. In November 1870, the *Pioneer* remarked about the activities of a man from Pennsylvania who was in St. Cloud buying all

the saddles of venison he could and shipping them directly to Philadelphia. In January 1871, a shipment on the Milwaukee and St. Paul Railroad took from St. Paul dealers 430 saddles of venison, 19 whole deer, 4 bear, and 2 barrels of prairie-chickens, a consignment weighing 26,000 pounds. A few days later there was complaint about the small amount of venison in St. Paul shops, a shortage occasioned by the large shipments east.⁶⁵

Comments in a Litchfield paper likewise gave evidence of the growing export business. In December 1872, a freight car loaded at Litchfield contained 12,000 pounds of venison, 2,000 pheasants and 2 bear cubs. It was destined for the Boston market where it would arrive eight days after leaving St. Paul. Under the proud headline: "Meeker County Supplies New England with Game," the *Litchfield Ledger* commented on the experiment: "The venture ought to prove a paying one, if the car goes through without accident, as there is quite a margin between the value of this shipment here and at the hub." The next fall, there was cause for regret in the success of the business. The editor complained, "It has been an impossibility to purchase a prairie-chicken in this town this season, though thousands have been shipped East.... When we want a taste of 'em, have to go to St. Paul or Minneapolis after them."⁶⁶

Professional pigeoners from out-of-state came to St. Charles in 1864 and Chatfield in 1865. The freight rates from St. Charles to New York made squabbling less profitable than in Wisconsin, however. "Many barrels" of birds were sent from the Rochester area to Chicago in the spring of 1869. Professional hunters were active at Wabasha in 1871. Popularity of pigeons on the market dated from about 1840. By 1879, there were 5,000 men in the United States pursuing these birds as a business. They were called "pigeon butchers" by one writer in that year but another individual in their defense declared: "The pigeon never will be exterminated so long as forests large enough for their nestings and mast enough for their food remain."⁶⁷

A carload of venison destined for New York left St. Paul on December 23, 1873. According to observations made on the New York market, Minnesota was the largest shipper to that point in 1874, and venison from Minnesota was quoted at 5¢ more a pound than New York deer. In August 1876, commission houses in St. Paul were receiving large consignments of prairie-chickens which were sold for the market hunters. A spurt in energy was manifest just before the winter holidays because the demand for venison and game birds increased at that time. Thousands of Ruffed Grouse and prairie-chickens, hundreds of deer, and a number of bear from Alexandria were furnished eastern markets in December 1876.⁶⁸ Shippers were advised throughout the 1880s on weather conditions, public demand, and eastern prices to aid them in handling game.

Shipments continued in the last decade of the century, but under a constant barrage of protest. Freight cars loaded with game ran the gauntlet of official inspection in St. Paul. In the fall of 1894, shippers reported a poor season apparently due to scarcity of game birds. Railroad companies reported that less game was carried in that season than for many years

past. Cold storage companies announced an unusually small amount of game in their cellars. State intervention in venison shipment was given as the cause for smaller export of this article. An estimate of the shipments of venison saddles from St. Paul for a brief period gave the following figures:⁶⁹

1889	12,000
1891	9,000
1892	6,000
1893	4,000
1894	3,000

The Northern Produce Company stated that its receipt had fallen off 25 percent from former years. The Thurston Cold Storage Company considered the game laws responsible for a loss of income amounting to \$6,000.00 in 1894. Though many people claimed that the game laws were still a farce, it was an unhappy period for the industry.

The kinds of game which found a sale offered considerable variety throughout the year, and few weeks went by without some wild animals on the market. In January, venison was almost always for sale. Rabbits and squirrels filled in the interval until spring shooting provided ducks and geese. April was the popular month for these birds. May and June were sometimes dull periods unless wild pigeons were offered. The woodcock season usually made available a limited supply of these birds in July. Prairie-chickens were popular in August. Ducks and geese began to sell on the market in September, along with smaller birds. Heavy receipts of Ruffed Grouse were common in October and continued into winter months. Venison was once more the important item in mid-November, thus making the cycle complete.

Venison was undoubtedly the most important article in all big game sold. Elk meat was rarely offered and was never quoted regularly in any of the papers. Moose meat likewise was not considered in market quotations though it undoubtedly was handled by butchers. One shop in Roseau advertised in September 1897: "Wanted—1000 pounds of smoked moose meat, must be first class." Lumber camps were believed to absorb large quantities of moose in the 1890s. Since this meat was sold directly by the hunters to the camps, it never went through regular marketing channels. There was a close season on moose from 1891 to 1898, but the traffic carried on deep in the forest was hard to stop. Most of the camps around Red Lake were supplied with moose at 2¢ a pound in March 1896. Sales to camps in March 1900, were observed by guides. The Commissioner of Game and Fish fumed about the practice in January 1901: "The big lumbermen have an idea that they can supply their camps with meat more economically by hiring men to kill deer and moose than to buy beef and pork."⁷⁰

Bear was advertised in St. Peter in November 1857. It was frequently listed in the *Pioneer Press* in the 1880s. The *Roseau County Times* referred to the sale of bear in April 1896, and

as late as January 1897, the *Minneapolis Journal* quoted the price of bear by the pound for saddles skinned and carcasses in the hides.⁷¹ Minnesota buffalo were too rare by 1850 to play any significant part in the sale of game.

Small game was represented by a large number of species in the 50-year period under consideration. Wild ducks were listed in 1859. Mallards and teal, two common species nesting in Minnesota, were not listed individually until 1881. Wood Ducks and black ducks were cited separately in that year. In 1884, Canvasbacks were specified, in 1885, Redheads. In 1892, a citation, "gray backs," probably referred to Ring-necked Ducks. The spring flight was really on by April 1, 1895, for then Minneapolis people could buy Mallard, Canvasbacks, Redheads, Blue-winged Teal, Green-winged Teal, and mixed ducks. This was the usual listing in the 1890s during migration, though Mallards and teal were offered before the other species had started to cross Minnesota in their fall flight. Other ducks of small size were quoted along with teal and not listed separately. One writer declared that the western market hunters seldom shot Buffleheads even when they came to his decoys, though they found a ready sale on the market. Wild geese always commanded a good market regardless of species.⁷²

Upland game birds and shore birds were highly prized for the table. When the editor of the *Pioneer* announced in January 1852: "Prairie-chickens we never have here offered for sale," and remarked about their scarcity but excellent quality, he referred to Pinnated Grouse. Sharp-tailed Grouse were common, however, and the two species were in demand on the market. In 1859, quotations appear for prairie-chickens; they occur infrequently during the 1860s, and regularly in the next decade, in open season. In an article by Dr. Thomas S. Roberts in the *Pioneer Press* on January 30, 1881, appeared the statement: "Great numbers of Sharp-tailed Grouse are sold in our markets every season." Ruffed Grouse, listed as "pheasant," were advertised in January 1868, and similar notices appeared almost every year from then on throughout the rest of the century.⁷³

"Snipe" was the vague classification which appeared in August 1859. That name occurred frequently on market lists of the 1880s. In 1889, jack snipe was specified for the first time. Sandsnipe was a separate category from jack snipe which appeared in September 1893. It probably referred to sandpipers; "small snipe" in 1895 listings may be interpreted as referring to that group of birds also. Woodcock and plover were first mentioned in August 1882, but they may have been counted with "snipe" in the preceding years. Plovers were divided into two groups in 1894, "golden and grass plover" (probably Upland Plover), in April 1896, "golden and prairie plover." In August 1898, "Upland Plover," the common name used today, was first used in market quotations. Golden plover from Minnesota and other states west of the Mississippi River were common on the Chicago markets as early as the 1870s, though the species were not quoted separately in St. Paul or Minneapolis papers until after 1890. "Large yellow legs" was a new species for listing in September 1896; "small yellow legs" was cited in April 1897.⁷⁴

One of the earliest notes on the presence of bob-white or quail on the markets appeared in the *Pioneer* in January 1868. They were not received in great numbers in St. Paul during the following 10 years. Listing was more frequent in the 1880s and fairly regular in the nineties. Wild pigeons were available for purchasers in St. Paul in August 1859. They were probably sold during the next 25 years, but they were not considered in local quotations. In May 1881, some demand for them existed, but the supply was small. They were available from August 17 until October 18 in 1882. The following year wild pigeons were quoted from August 9 until November 9.⁷⁵ No formal listing in St. Paul newspapers appeared in Twin City papers thereafter.

Rabbits and squirrels did not cause much comment in discussions on market hunting and probably did not enter into the trade regularly until after 1880. The desire to reap a profit on all of the animals provided in nature was intensified then, and the smallest game was not overlooked. The sale of rabbits in St. Cloud in 1865 has already been noted. This article was sold in St. Paul in January 1868, but regular listing of jack rabbits, cottontails, and "small white rabbits" (snowshoe hares) characterized the last 20 years of the century. The claim was made in 1899 that "a few years ago" 25,000 jack rabbits were sold on the Minneapolis market, 12,000 in St. Paul, 96,000 in San Francisco, 9,200 in Los Angeles, and 30,000 in Denver. Squirrels were quoted frequently during the winter months after 1882. In the nineties, gray or black squirrels were specified, and in 1900, red squirrels too were available.⁷⁶

Most of the game sold within the state was produced locally, but a few interesting items occurred which indicated an out-of-state supply. Buffalo saddles arrived in October and November 1881, and in January 1882, to add to the market's variety of big game. In January and February 1883, buffalo hams were listed. Antelope was available in January and February 1883, January 1885, and November 1887. Mountain sheep, a third species rare in St. Paul shops, was offered in January 1885. Wild turkeys were listed in February and November 1883. One mention of opossum occurred, in December 1893. These scattered items undoubtedly added variety to the menu of the epicure, although they were not significant as an economic venture.⁷⁷

In order to lengthen the season in which game could be offered to the local market, the same species of birds which were shipped from the Twin Cities while the fall migration crossed Minnesota were later shipped into the state from the south. On December 1, 1891, the *Minneapolis Journal* noted that the principal shipments of ducks and geese were from Kansas. On December 11, the supply was said to be small and "principally from the Southwest." On October 29, 1892, the arrival of Kansas quail on the market received comment.

The quality of game varied with weather conditions. Birds spoiled quickly because dealers preferred that they be shipped undrawn. Prairie-chickens, for example, depreciated 50¢ a dozen if drawn. Wild pigeons were probably the one exception, for they could be captured

alive in large numbers, and the price of "stall fed wild pigeons" was raised 50¢ above the normal quotation. The statement was made that housekeepers preferred venison to either beef or pork in 1856. It would seem that it was a question of taste, not price, for game was considered a treat. In 1883, the *Pioneer Press* observed: "the gentleman who wishes to celebrate himself by giving a game dinner to his friends will have to skirmish around considerable to find just what he wants for the dealers who have a good supply and a full line are the exception to the rule."⁷⁸

Prairie-chickens on the market in St. Paul in 1874 were described as "a trifle larger than a canary bird and as poor as a crow." They were priced at 60¢ a pair, a figure which J. Fletcher Williams declared was cheap. His birds cost him over \$3.00 a pair and he went over 100 miles to get them.⁷⁹ A more encouraging picture of this quality of the birds was given in August 1883. One dealer in St. Paul received 250 brace of prairie-chickens by express and disposed of them in an hour or two. The "majority of the birds were plump and feathered out, the proportion of scrawnies being smaller than usual. There is even greater demand for the wild chicks for table use than is customary," ran the comment, "and the fortunate dealer in game who has any for sale can get almost any price he chooses to ask."⁸⁰ Mild weather during the hunting season played havoc with the shippers in many fall seasons between 1870 and 1900, for the game often spoiled before it reached St. Paul. Large quantities of prairie-chickens arrived in St. Paul in August 1873 in poor condition. On one day, 400 spoiled birds were thrown over the bluff. Freezing of game helped to some extent but large losses continued. "Ducks from ice house stocks" were mentioned in February 1885 in St. Paul. A Booth Storage Company advertised storage ducks in March 1886, and storage Mallards were frequently offered in the late winter months of the nineties.⁸¹

Prices of game did not increase in later years as much as might be expected. Venison, for example, sold at 8¢ to 10¢ a pound in November 1854, and 8¢ to 9¢ in November 1893. A figure of 12½¢ in January 1852 was considered exorbitant since beef was selling at 6¢ to 8¢ and pork at 8¢ to 10¢. Venison usually sold at a price between 8¢ to 11¢ for choice cuts from a saddle with the hide on, or 6¢ to 8¢ from a carcass which had been skinned. The *Alexandria Post* gave one of the lowest quotations, 4¢ a pound, on November 4, 1871. Venison steaks were priced at 18¢ a pound on November 25, 1883, in St. Paul, and roasts for Thanksgiving at 15¢ a pound. In New York in October 1874, Minnesota venison was quoted at 30¢ a pound, in November, 25¢ and in January 1875, 20¢. In September 1884, the price there for the same article was 25¢. Contemporary prices on other meats give an interesting comparison. Ham was 11¢ to 11½¢ in January 1860. Dressed veal was 10¢ to 11¢ in May 1870. In January 1880, dressed beef sold at 4½¢ and mutton at 5½¢. In January 1890, mutton was listed at 6¢ to 7¢, pork 3½¢, beef 3¢ to 4¢, and veal 2¢ to 6¢. The prices in January 1900, were veal 7½¢, lamb 7¢, and beef 6½¢.⁸²

Bear meat showed a greater fluctuation than did venison. It was valued at 20¢ a pound in 1857, 15¢ a pound in November 1884, 9 to 10¢ in December, 15¢ to 16¢ in January 1885, 7¢ to 9¢ in November 1887, 11¢ to 12¢ in January 1897, and 15¢ to 18¢ in January

1900. Rabbits were 20¢ each in December 1864, 25¢ each in January 1868, and over \$1.00 a dozen in the 1880s. A typical quotation for the 1890s ran:

jack rabbits	\$1.75	to	\$2.00	a dozen, large, clean
	1.00	to	1.25	dirty, mussed
cottontails	.75	to	1.00	
small, white (snowshoe hare)	.40	to	.50	

Squirrels were frequently 75¢ to \$1.00 a dozen before 1890 and somewhat lower afterwards, running about 30¢ to 60¢. In April 1901, gray or black squirrels were worth only 30¢ to 40¢ and red ones 20¢.⁸³

The price of birds depended much upon size. Wild geese sold at \$1.00 to \$1.25 each in April 1869, for \$1.00 in October 1882, for 50¢ in November 1882, for \$1.00 to \$1.50 in December 1883, and \$6.00 a dozen in April and November 1884. The price after that time was usually at least \$6.00 a dozen though in November 1886 they were only \$3.00 a dozen. In October 1895, they were \$9.00 a dozen, a price which was customary in the fall throughout the balance of that decade.⁸⁴

Ducks sold at 30¢ a pair in August 1859. Mallards were priced at 50¢ a pair in October 1868, teal at 20¢. In January 1875, wild ducks were listed at 75¢ to \$1.00 a pair. In May 1881, Mallards were quoted at \$2.75 to \$3.00 a dozen, and in September in the same year \$2.00 to \$2.50. It seemed that the price was not cheaper in the spring though they were not as choice for eating in that season. Wood Ducks were valued at \$1.50 to \$2.00 in September 1881, and teal at \$1.00 to \$1.50. In January 1890, the price of Mallards was somewhat higher, \$3.00 to \$3.50 a dozen. This figure was maintained in the following years. By February 1899, prices were slightly higher still; Mallards were quoted at \$4.00 a dozen, Blue-winged Teal at \$2.00, Green-winged Teal at \$1.50, Redheads at \$4.50 and Canvasbacks at \$9.00. The last two species are still considered especially choice for eating because they feed heavily on wild rice and wild celery while in their northern range. Common ducks were still listed at \$1.50 to \$2.00 and small ones, \$1.00 to \$1.25.⁸⁵

The price of prairie-chickens was 30¢ a pair in August 1859, and 50¢ to 60¢ a pair in August 1874. In August, 1876, they were listed at \$2.00 to \$2.25 a dozen, and in October and November 1881, at \$3.00 to \$4.00 a dozen. The usual figure in that decade was \$2.50 to \$3.00. In September 1892, prairie-chickens were quoted at \$4.25 to \$4.50, in September 1894, at \$3.00 to \$3.25, and in October 1898, at the highest figure of the period, \$5.00 a dozen undrawn, and \$4.50 to \$4.75 drawn. Prices on Ruffed Grouse usually ranged between \$2.00 and \$3.00 and showed a fluctuation similar to prairie-chickens. Woodcock were often scarce and were considered choice. They generally commanded a price of at least \$3.00 a dozen, high compared to other game considering the small size of the bird. In November 1884, they were quoted at \$4.50 a dozen. Quail and snipe showed wide fluctuation, but \$1.50 to \$2.25 was the customary range when other birds were on the market.

golden- and Upland plover quoted most frequently in the nineties were usually listed under \$1.00 a dozen. The few figures given for wild pigeon show a price of 50¢ a dozen in August 1859, and \$1.00 in August 1882, while stall-fed wild pigeons sold at \$1.50 a dozen at the latter date. Prices by the pair or in small lots ran somewhat higher on all game birds than those by the dozen.⁸⁶

There were extensive use of game in restaurants. At such places hunters could often dispose of their birds directly in large quantities. The Metropolitan Saloon in St. Paul was proud of the game on its menus. In October 1862, woodcock, snipe, Ruffed Grouse, prairie-chickens, Mallards, and teal were being served. In September 1863, "young cub bar meat" was the specialty along with teal and prairie-chickens. Woodcock were served in September 1864, and Wood Ducks in October. In January 1865, the proprietor, Jo Hall, announced the arrival of some buffalo and bear steaks from Fort Abercrombie "which he will serve up in his usual *recherché* style." The Massasoit House in St. Paul advertised bear soup, "a rare dish," in February, 1863. Prairie-chickens were being served by "Our House" by August 2, 1863. In Willmar, wild ducks and geese were served at the Pacific House in April 1871. In 1873, Murray's Coffee House in St. Paul had "woodcock on toast, reed birds (Bobolink), English snipe (?), prairie-chickens and (ruffed) grouse." The practice was continued in the nineties and one report in March 1893, from St. Paul stated that "all the restaurants and shops in town are selling all kinds of game now, which is out of season, from quail to deer, but the game warden does nothing"⁸⁷

Special celebrations always meant the preparation of some game. As a part of an excursion of the Northern Pacific Railroad to Duluth in March 1871, a gala dinner was served with venison as the entrée. Buffalo tongue was included in the cold meats at a banquet at the Metropolitan Hotel in February 1872. Church organizations frequently gave game suppers. The First Baptist Church of St. Paul, for example, offered game in different styles for 50¢ in August 1875. Appetizing sauces to accompany the meats are revealed in a sample menu from December 1875:

"Saddle of venison – currant jelly
young grouse – cranberry sauce
Mallard duck
pheasants stuffed with oysters
Redhead ducks – onion sauce
prairie-chickens – bread sauce
saddle of antelope
cub bear – currant jelly
quail"⁸⁸

In the nineties, it was necessary to obtain special permission to bring game from out-of-state into Minnesota. In October 1898, the executive agent of the Game and Fish commission, Samuel Fullerton, gave permission to the superintendent of the dining car



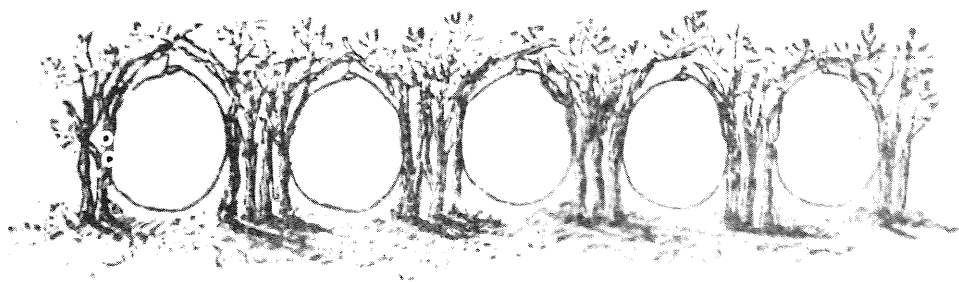
"Spearing Muskrats in Winter" by Seth Eastman, reproduced in Henry R. Schoolcraft, *Information Respecting the History, Condition and Prospects of the Indian Tribes of the United States*, 2:250.

service on one railroad to serve Chinese Pheasants on board the train. One month later, he included California quail as a similar concession. He wrote, "I see no objections ... as long as they are not at all like our own quail.... I enjoyed a dinner on the car where the Mongolian Pheasants were a part of the bill of fare on my last trip to Moorhead, and considered them very fine."⁸⁹

Methods used by market hunters in capturing birds were observed by D.G. Elliot in his study in 1864. He asserted, "In the western country entire flocks of grouse and partridges are taken at one haul, in nets, and none left to propagate the species."⁹⁰ He believed that one-half of all game birds brought to market except woodcock and snipe were snared or trapped. These two species were not gregarious, hence could not be caught in large numbers in one net. A trap for prairie-chickens used in the sixties near Rochester was constructed of lath, four feet square and one foot high, with swinging doors on one side. The doors, which would swing in but not out, were fastened with leather strap hinges. Birds were attracted to the trap by corn scattered on the ground within the enclosure. As soon as they entered, the doors snapped shut.⁹¹ Another device was described in a leaflet enclosed in a pamphlet of the Northwestern Hide and Fur Company in 1895. This consisted of loop nooses arranged in a line. The use of the leaflet instead of a page in the pamphlet to

HOOP NOOSES

Are used for quails, partridges and prairie chickens. A low hedge is constructed, if not natural; if desired, it can be several hundred yards long, with openings here and there in which the nooses are placed, as shown in engraving; the bait—wheat, corn, etc.,—is



strewn around on both sides of hedge, so it will catch from either direction. Birds do not fly when feeding if they can reach their food by walking to it. Do not have too much feed on the ground so they can fill up on

Snare for quail, Ruffed Grouse, and prairie-chickens recommended in 1895, 24 years after the snaring of game birds had been prohibited by law.

describe this method may have been a measure to protect the company since trapping or snaring the birds mentioned was then illegal.⁹²

Wild pigeons were frequently caught in nets when bait and live decoys were used, according to reminiscences of old settlers. Men took squabs on the nests by beating them with tall poles. Even in this phase of market hunting guns were used, however. One example of the numerous descriptions which occurred in the papers of the sixties and seventies in an account in the *Wabasha Herald* on May 11, 1871:

“There is an electric something about these clouds of birds as they wheel and circle about here in countless myriads that sets every sportsman’s blood bounding. All the guns in the country have been brought to bear on the game, and a fusillade is kept up from dawn to twilight. Powder and shot is a scarcity in the market, butchers are thinking of suspension, and dry goods’ clerks have taken unceremonious leave of absence for indefinite periods. Immense numbers are slaughtered. Large quantities, alive and dressed, are shipped daily to market.”

The bag of a crack shot from Montreal was 375 pigeons in one day.

Improvements in gun-making added to the efficiency of market hunters. Breech-loaders replaced the awkward muzzle loaders. One man proposed as a game law measure "a special good round tax on firearms of every description. It would kill off the 'zulus' and other abominable weapons."⁹³ A new gun recommended for big game in 1898 was "a Mauser Sporting rifle which took a military cartridge, seven millimeters, with full mantled bullet." Dogs were used in hunting both deer and birds although use on deer was declared illegal in 1889. Securing large bags of deer around Alexandria in the 1870s was probably facilitated by that practice, for the presence of deer hounds in the neighborhood received comment. The game warden in St. Louis County reported that out-of-state men were running deer with dogs in 1891. It was considered an outrage by the editor of the *Grand Marais Pioneer* in September 1891, that "men are hunting deer with bloodhounds in Itasca County." Other warden reports confirmed the rumor that dogs were frequently used for deer in the nineties. J.K. Gilfillan noted, too, that "white men also bring hounds and hunt in the uninhabited country, outside of the reservations."⁹⁴

"Jacking" deer, the practice of blinding the animals by dazzling lights which made them easy targets, was a technique used frequently by poachers around Duluth in the 1890s. Use of artificial lights in deer hunting was prohibited in 1893, but the warden saw hunters with lights on their heads on the old Vermilion road in October 1898. One headlight was confiscated in January 1899. Deer appeared on the market in Duluth in 1898 so soon after the season had opened they had obviously been killed illegally.⁹⁵

The presence of market hunters often received comment in the papers but individual records or descriptions of personalities were rarely given. A note in the *Minneapolis Journal* in April, 1894, remarked about the activities of "the butcher shop brigade" in removing quail in the neighborhood of Long Lake. Market hunters were traveling on the Great Northern Railroad to Crookston and St. Vincent in September 1893, in search of prairie-chickens. Many hunters were at Brown's Valley in October 1898, waiting for the fall flight of ducks and geese. Billy Griggs, a famous market hunter, stopped in Emerson Hough's office in Chicago to report on game prospects in Minnesota for the fall season in 1892.⁹⁶ He had heard that game prospects were good. It was considered safe to go to northwestern Minnesota for grouse, but hunters "must know their area in advance." Griggs was typical of the itinerant hunter who enjoyed the bounty of Minnesota's wildlife.

Even hunters in search of deer for the market came from out-of-state, but this involved a longer stay and more equipment. The camp of a Minnesota hunter near Sunrise in December 1860, was somewhat unique. It consisted of "a small house on runners in which he had a cooking stove and convenience for living." Burton Harris, a professional hunter who made his home in Pelan, Kittson County, had quite a successful record in taking big game. In the winter of 1889-90, he killed 15 moose. In 1890-01, he took 18 moose, 3 elk, 1 caribou, and many deer. That spring, he caught 16 moose calves and 2 elk calves. In November, 1893, he complained about a 10 day hunting trip near his home, because he

shot only 1 deer, 1 bear, and 50 partridges (Ruffed Grouse) though he saw 2 elk and tracks of 20 more.⁹⁷

Unfortunately very little information is available on the amount of game taken by individual market hunters, though sportsmen's bags were often published. Some of the early settlers kept a count of the number of deer they had killed. One man at the Winnebago Agency in 1860 had killed 2,000, his father living in Sherburne County claimed a total of 4,000, and his brother, captain of the steamer, Antelope, had a record running into hundreds. One man in St. Cloud took 4,800 pounds of venison in the season of 1858-1859. Undoubtedly such large quantities of meat were not intended for home consumption. Since so little is known regarding the amounts taken by individuals, however, it is difficult to gauge the income of professional hunters. Men near Pillsbury were paid 20¢ each for Ruffed Grouse in December 1883. At Roseau, the hunter got 30¢ a brace in November 1897. It was asserted that "the pot-hunter was making \$10.00 to \$20.00 a day" in the prairie-chicken country in August 1882.⁹⁸ According to tradition, one St. Paul market hunter, who killed a moose a week to feed his bird dogs, had calculated the number of birds he must get with a specified amount of ammunition in order to get his usual profits. A hunter at Preston, South Dakota, in 1888 killed 8,200 ducks between September 1 and November 11, without shooting on Sunday. Most of his bag was teal.

Business panics apparently had some effect on the industry. A report in November 1893, declared that "the statement that hard times would have a visible effect on the game preserves of the Northwest is proving correct, for dozens of men, who as a rule have no time for sport, are out killing game for a living now-a-days." Many of them found they had to dispose of their bags at very low prices, however, and the net profits were probably not large. The panic of 1857 had likewise sent more hunters into the field. It was observed then in St. Paul that "want of business among our merchants had left a number of men with scarcely any employment; and the consequence is various means are adopted to keep themselves active. The mania for hunting has seized upon a large number, and small parties have been leaving town daily for a good time in the woods." In this instance, it appears that the hunting was just an activity for enforced leisure, and not a measure to supplement dwindling incomes.⁹⁹

Criticism of the activities and methods of market hunters in Minnesota was almost as old as the profession. One of the best statements of growing public opinion was expressed in a letter from a man in Hastings published in the *Pioneer* on January 28, 1873: "If the venison killed was designed for home consumption, there would be no objection ... but when our Minnesota Nimrods go in for a wholesale slaughter, with no better motives in view than to fill their pockets with greenbacks and sweeten the palates of New York epicures, they should in the future be restrained from any further violation of the spirit and intent of the game law of 1871." Ideas such as these formed the background for constructive game legislation and a program of law enforcement.

There were some by-products of game which served an economic purpose. One family in St. Cloud used candles all winter in 1859 made of tallow from deer killed nearby. A hunter near Fergus Falls in 1872 sold a bearskin for \$20.00 and then had "nine gallons of genuine bear oil which for the convenience of those who wish it has been placed in the grocery store of M.V. Austin for sale." Deerskins were used as well as the meat. One man in a small town near St. Cloud, with the aid of one helper, was tanning four hides a day in February 1866. An advertisement for deer hair ran in the *Detroit Record* on February 24, 1886. Hides of deer taken in summer were more desirable than winter ones, but the meat was harder to transport in hot weather. Apparently, there was some hope of domesticating deer and breeding them for the market. In 1899, a bill was introduced into the senate to allow breeders and domesticators of deer to sell venison, if tagged, after three years in the business. No further information appeared on the success of the enterprise.¹⁰⁰

Demand in the millinery trade offered another line of sale for market hunters. They were offered 25¢ in Litchfield in 1875 for whole wild goose wings or crane wings if the feathers were not mutilated. Swans were purchased frequently by fur buyers, as was noted in the discussion of the fur trade. Minnesota milliners were not content with native birds any more than the restaurants were with only local game. A shop on Nicollet Avenue in Minneapolis in 1886 had "choice Birds in all the new designs and colorings—Birds of Paradise, Mearl Birds, Waterfowl, Doves, Impron, and a thousand others."¹⁰¹

A curious financial enterprise which developed in the last part of the nineteenth century was the collection of buffalo bones. These were converted into charcoal and used in southern sugar refineries or for fertilizer on wheat and tobacco fields. Some of the travelers in the western part of the state reported that skeletons were a common sight on the prairies. A visitor to the Pipestone quarry in the 1860s said that the whitening skull of the buffalo or cast-off antlers of elk were familiar objects on the landscape. Government surveyors in southwestern Minnesota used buffalo skulls to mark section corners in the seventies. A report in 1874 stated that many buffalo skulls lay on unbroken prairie west of Mankato. "Bleaching buffalo bones cover many a goodly acre of wheatland in the valley" ran a description of Pembina and the Red River country in 1881.¹⁰² A man in the vicinity of Breckenridge began to gather bones in that same year, according to the report.

The activities of one individual in the enterprise of bone collection were described in an article by Charles Hallock. He stated that E.F. Warner of St. Paul, member of a wealthy syndicate operating farms in Rock County, had a special hunter's wagon constructed. When traveling over that county hunting prairie-chickens (apparently about 1878) he was impressed by the amount of buffalo skeletons and elk and antelope horns scattered over the prairie. In Hallock's words, "He gathered up this ghastly legacy and realized \$70,000.00 in a single year ... the bone industry becoming the most lucrative of any in that treeless region."¹⁰³

A curious *Minneapolis Journal* reporter noticed a letterhead on a business statement in 1893: "B.W. Hicks, Dealer in Buffalo Bones," and he decided to check up on that title. He suspected a joke until he found the individual in an office on Nicollet Avenue. The territory supervised by this office reached far beyond the limits of Minnesota. The area stretched 400 miles west of Winnipeg to the Rocky Mountains, and south through the Dakotas and Montana. The description which the reporter received was a colorful one. The work was done by Indians and half breeds loading bones in Red River carts during the months from May to December. Heaviest shipments occurred in June, July, October, and November. Bones were from animals dead at least 10 years, most of them 15 or 20. Six years of steady picking by 400 families working over a strip of country six miles on each side of the railroad had not exhausted the supply. The reporter was told that 400 carloads had been the average annual shipment during the preceding five years. One carload of bones weighed 426,000 pounds. A carload was worth \$100.00 at point of shipment. Pickers averaged \$5.00 to \$7.00 a ton according to the distance from the station. It was estimated that bones from 16 million buffalo had been collected in the previous five years of work. A unique reason for building a railroad was suggested: "The great bone region is far from being exhausted, but the strip along the railroad which has been extensively picked for a number of years past now begins to show signs of a diminishing crop and unless railroads are extended farther into the region it will not be long before the buffalo bones are at a premium."¹⁰⁴ Thus the western part of Minnesota shared in an ephemeral industry which by its very existence illustrated the flagrant waste in utilizing wildlife resources which had preceded it.

Chapter IV. The Indian and Wildlife Conservation

The popular picture of the American Indian in the history of conservation has been a flattering one. Martin Garretson's description of the use made of the bison by the Plains Indian illustrates the usual attitude. "They were, truly, the 'Indians' cattle', from which they derived food, shelter, and clothing. Every part of the buffalo was made use of by the Indians. Skin, hair, flesh, blood, bones, entrails, horns, sinews, contents of the bladder and paunch, kidneys, heart, liver, trachea and pericardium were all utilized; even the stones found in the gall bladder were employed as a 'medicine' paint. The foetus, cooked in its enveloping fluid was esteemed a special delicacy."¹⁰⁵ Clothing, lodges, boats, ropes, cooking utensils, spoons, and even runners for dogsleds made from the ribs were among the articles provided by that species.

Many observers of Indian life in Minnesota were impressed by similar ingenuity in using all parts of an animal. Edmund F. Ely, traveling among the Chippewa near Pokegama in May 1834 observed after a meal of dried sturgeon, "I found the *Gills* of the Sturgeon, a delicacy.... We then had some Griddle Cakes, made of *Sturgeon Eggs*, with a little flour which, we ate with Maple Syrup.... I partook heartily—every part of a Sturgeon is eaten—even the Skin of back (crisped) of which I ate a little yesterday, is deemed good, & in fact I should not Starve on Sturgeon."¹⁰⁶ All parts of caribou, moose, and deer were used by Indians in the forests of Minnesota where the bison did not range. As late as the 1880s, the natives in the Pigeon River area were said to convert every part of a moose killed into a useful object.¹⁰⁷

The admirable side of such customs could be emphasized further if contrasted to examples of waste among white men. Garretson recounted an incident in which a railroad near Dodge City, Kansas, was halted by the passage of a buffalo herd. In the two hours' delay, everyone on the train passed the time by shooting indiscriminately. At least 500 animals were slaughtered before the train could go on. The profligate attitude of white settlers in Minnesota was based upon the assumption that game must all disappear eventually, hence no thought of the future need spoil their pleasure of the day. Roseau in the 1890s was located in one of the best areas for game in the state. It was a notorious section for poaching, and local public opinion supported the practice. Editorial comment expressed the common point of view: "Great country this for game in and out of season. We have venison, elk, caribou, and moose any time we take the trouble to have it brought in. Nothing like enjoying the good things on the frontier while they last and before civilization makes the game scarce."¹⁰⁸

Drawing upon examples such as these, modern authors have come to the conclusion that Indians used game wisely while white men wasted it. Gurth Whipple in *Fifty Years of Conservation in New York State* declared: "The Indian was a conservationist. The white man was a destructionist. The Indian took only what he required to meet his personal needs—trees, game, and land. The white man was a predator; he took everything he could whether he needed it or not. The Indian was scrupulously careful about setting forest fires....

The record of the pale-face was different. He was the reason for the greatest Saturnalia of forest devastation the world has known."¹⁰⁹ In a discussion of vanished game, Henry W. Shoemaker stated in regard to killing of game by white men: "It is a gruesome story of greed, waste, and modern savagery, in contrast to the fine spirit of conservation and sportsmanship practiced by our Indian predecessors; the white man's part is as sordid as the Indians was sublime and these facts, repulsive as they are, must be preserved and used in any true history of our game."¹¹⁰ Unfortunately, observers of Indian life in Minnesota did not find the case so definitely one-sided. An examination in detail of the Indians' part in the use of game gives a more confused picture, and the resulting conclusions are less sweeping.

Hennepin in 1680 found that the Indians on a buffalo hunt near the Mississippi River sometimes killed 40 or 50 animals, took the tongues and most delicate morsels, and left the rest rather than add to their burdens in travel. He had already observed the practice in the Miami country southeast of Lake Michigan of firing the prairie to aid in hunting. Burning in the Red River Valley made a vivid impression on Alexander Henry in 1804. He noted: "Plains burned in every direction and blind buffalo seen every moment wandering about. The poor beasts have all the hair singed off; even the skin in many places is shriveled up and terribly burned, and their eyes are swollen and closed fast. It was really pitiful to see them staggering about, sometimes running afoul of a large stone, at other times tumbling down hill and falling into creeks not yet frozen over. In one spot we found a whole herd lying dead. The fires having passed only yesterday these animals were still good and fresh and many of them exceedingly fat.... At sunset we arrived at the Indian camp, having made an extraordinary day's ride and seen an incredible number of dead and dying, blind, lame, singed, and roasted buffalo."¹¹¹

William H. Keating, James E. Colhoun, and Giacomo Beltrami in 1823 were agreed on the fact that the Indian set fire to the prairies deliberately to aid in hunting. Schoolcraft likewise made similar comment. Featherstonhaugh discussed the question with an Indian while going up the Minnesota River: "I could not understand from him that they ever purposely set the prairies on fire." After more experience, however, he was forced to conclude: "In most cases the natives fire the prairies to prevent the buffalo wandering too far from them,—a practice which answers their purpose for a while, but ... is found very inconvenient in the end."¹¹² Joseph N. Nicollet considered prairie fires an annual event. Sibley was prevented from taking home his game on a hunting trip in 1842 because "the prairies had been set on fire by some Indians to windward of us, and as the wind blew violently, the flames came down upon us with such rapidity that we had not even time to secure the meat of the two buffalo killed." Horace Mann, Jr. observed in 1861 that the prairies usually burned over in the spring or fall.¹¹³

Not all fires were started intentionally. Beltrami seemed little concerned about one which resulted from his camp. "My Indian, for the convenience of drying ourselves, kindled a flame under the trees which had crossed one another in falling, and we soon had a noble,

bonfire, which comprehended in its blaze some portion of the forest; and which not improbably is burning yet." Frederick Ulric Graham, who traveled in the buffalo country in 1847, believed that many fires resulted from the Indians' carelessness.¹¹⁴ Thus it seems that Indians were responsible for forest and prairie fires even before the introduction of white men's vices. There were probably also many fires due to natural causes such as lightning.

Dependence upon hunting and fishing for sustenance always meant a variable existence. During part of the period when Hennepin was encamped at Mille Lacs, there was a scarcity of food among the band. A deer killed in July spoiled in one day because of the heat. Fish and wild rice were valuable parts of the diet of the Chippewa in northern Minnesota. David Thompson declared that the natives living in the area from Lake Superior to Winnipeg depended upon these two items for most of their food in 1797. He estimated that in the area of the Rainy River, one family had an area of at least 150 square miles in hunting ground, yet they had few provisions to spare. The Indians he met en route to Sandy Lake in 1798 were "all very poor from the animals being almost wholly destroyed in this section of the country; their provisions were of wild rice and sugar."¹¹⁵

Joseph R. Brown felt Sibley would be moved by the condition of his Indian trappers in November 1836. They had been unable to kill enough rats for subsistence. "Their appearance would convince you they had suffered, as they are as poor as snakes." The first trappers to return to the Lac qui Parle post in March 1839 were reported in a starving condition. Lack of snow added to the difficulties in hunting and frequently led to food shortage. Schoolcraft believed that (before 1820) the Indians on the upper Mississippi River sometimes took over a 1,000 buffalo on one trip hunting them by use of fire, without horses.¹¹⁶ Periods of plenty undoubtedly were interspersed with periods of scarcity. This situation was typical of a civilization dependent upon hunting and fishing, however, and not necessarily due to the encroachment of the trader.

The amount of game needed to supply a small group of individuals with food seems quite large. Ely noted that during a two-month period in the winter of 1834-35, men from two or three lodges hunting together near the St. Croix River killed 13 moose, 9 bear, and 2 deer, "not counting Hedge Hogs (porcupines)—Rabbits & pheasants (Ruffed Grouse) & furred Game." This supplied provisions for five men, six women, and six children. A modern anthropologist has estimated the average amount of meat consumed by an Indian a day at four pounds. Considering the weight of a deer at 100 pounds, he felt that an Indian band numbering 100 would need four deer a day. According to this standard, the Indians Ely mentioned had more than adequate food, a supply sufficient for almost 50 people. Since the Indian's pursuit of game was essential for his existence, it was natural that he take advantage of the periods when birds could be obtained most easily, when they were too young to fly, or unable to do so because they had moulted their flight feathers. John Tanner, describing his life among the Indians, recorded the collection of gulls' eggs from islands in Lake Superior. In Lake of the Woods, his companions found an island covered with young gulls and cormorants, which were killed, dried, and packed in sacks. Alexander

Henry observed that the Indians pursued ducks in the moulting stage, killed them with sticks, and collected them in their canoes. Jack Frazer, a famous hunter who was part Indian, considered this a common practice.¹¹⁷

Occasional references indicate the use of wise conservation measures. A correspondent of Ely's had heard that Indians extended their wild rice fields by sowing seeds in lakes where it had not been growing before. If this was true, the procedure was probably beneficial to both Indians and game birds. The fur traders, too, were not always without forethought in their dealings with the Indians. Tanner believed that trading posts were withdrawn when game became scarce, partly to give the region time to recover. There were regulations forbidding agents to accept skins of certain animals if not of full growth, and prohibiting use of traps which destroyed old and young indiscriminately. Steps were taken in the early nineteenth century by Hudson's Bay Company employees to re-establish beaver in some regions where over-trapping had entirely exterminated the species. On the other hand, the advice of Dousman to Sibley in 1839 had little of a conservation attitude: "Go ahead and exterminate all the rats as quick as you can, leave the kittens for next year."¹¹⁸ The demands of the fur trade undoubtedly led to concentration of trapping on species, the fur of which was popular on the market. In spite of some precautions, the general effect on the Indian was not to the advantage of wildlife.

As white settlement extended across the continent, reducing the hunting area of the Indian, some of the wasteful practices became more pronounced. Keating speculated in 1823 on the explanation for scarcity of game in areas remote from civilization. He expressed the opinion that the custom in former days had been to spare the deer in rutting season, the doe with young, and the fawns. The Indians had turned to indiscriminate hunting because they foresaw eventual loss of the land anyway. Relations with the government were often ambiguous and treaty terms little understood. The idea that this hunting ground was being yielded in exchange for permanent support by the government was quite logical. Dousman grumbled in 1837, "Your rascally Sioux are not making hunts they say it is not necessary to work for the traders any more as they will now have plenty to live on independent of the Traders' goods."¹¹⁹

Reports on Indian affairs give a general picture of wildlife conditions in northern Minnesota as well as some details of the commercial activities in hunting and trapping. Indian agents in many areas continued to report growing scarcity of game throughout the years, though in a few regions inhabited by Indians there was abundant wild life even in the last years of the century. Alexander Ramsey talking to the Indians at Leech and Cass Lakes in 1850 urged them to turn to agriculture because of the diminution of game. In 1851, the Chippewa east of the Mississippi were reported unable to depend much longer on game as a means of living. In the same year, news from Long Prairie was that the Winnebago were fast abandoning their savage habits for those of the white man, though a great abundance of game of every description existed in the area. The Red Lake Indians had plenty of excellent fish in that year. Report from the Yellow Medicine River was that buffalo were

within three hours' walk of the Indian village in 1855. The Indians in the Crow Wing area still actively followed the chase in 1857. In that year, both Sioux and Chippewa hunted in the Big Woods. The agent in 1860 warned the Sioux under his supervision to avoid settled country on their hunts on penalty of loss of annuities in the ensuing payment. He had heard that many disregarded the order and he feared more would report to the Big Woods when snow fell.¹²⁰

In 1860, the blacksmith at the Yellow Medicine station did not feel that as many Indians were engaging in hunting and trapping as had been the case in former years. His work was more in the field of repairing agricultural implements than guns, traps, and other apparatus for hunting. The blacksmith at the Winnebago Agency did considerable work for those Indians in that line, however, the same fall. In the early 1860s, game about Vermilion Lake was ample for the needs of the Indians dwelling in that area.¹²¹

After the outbreak of 1862, it was no longer safe for any Indian to wander about white settlements, shoot game, sell berries, dig ginseng, and beg to eke out an existence with his annuities. Public sentiment among white settlers demanded a definite solution to the Indian problem. The Winnebago and Sioux were moved out of the state and the Chippewa allotted to reservations scattered about the northern part of Minnesota.¹²² In 1864, there were bands at Leech Lake, Mille Lacs, Lake Winnibigoshish, Red Lake, and Pembina. The report from Cass Lake and Winnibigoshish in 1868 reiterated the complaint about growing scarcity of game and fish. Indians near Pembina no longer had the buffalo as a resource. Even at Vermilion Lake, scarcity was reported in 1871.¹²³

Throughout the century after 1870, the story continued to be one of growing scarcity although some few carried on hunting and fishing operations. Bands at the White Earth Reservation, at Fond du Lac, and at Grand Portage had trappers and hunters in their number in 1878. The agent at White Earth recommended moving the bands at Leech and Red lakes nearer their White Earth station in 1879 since there was a growing inclination to abandon hunting and fishing, "which has now become a most precarious means of subsistence." The recommendation was not accepted, however. In January 1884, Indians at Mille Lacs were said to be starving. Lack of snow had prevented successful deer hunts. The population under the supervision of the White Earth Agency in 1880 numbered about 6,000. An estimate in 1895 gave the figure at 7,000. At Grand Portage and Fond du Lac in 1880, the bands totaled over 600.¹²⁴

In the 1890s, there was no improvement in conditions. The agent at White Earth stated in 1894: "Hunting and fishing, while yet furnishing almost the entire subsistence of a great many (and these yet prevent their starving), are getting poorer every year, and are no longer sufficient to supply them with ... food upon which to exist properly." At Deer River in 1893, however, the reservation was declared a veritable hunter's paradise.¹²⁵

From time to time throughout the period from 1850 to 1900, there was complaint made by the Indians against treaty violations of the white man. In 1854, white pine on Chippewa land near the Mississippi was being illegally taken by lumbermen. A dam built by a lumbering company in 1855 across the Rum River flooded the wild rice fields and destroyed two-thirds of the crop. In 1861, the Rabbit Lake band objected to the cutting of timber on their reservation by Dorilus Morrison because it was destroying their hunting grounds. In 1885, dams at Leech Lake and Winnibigoshish were said to subject 74,080 acres to overflow and affect rice fields, fisheries, hay meadows, and cranberry marshes. In 1893, a per capita addition to the usual annuity was promised to a number of Indians under the White Earth Agency for damages caused to areas because of dams near the headwaters of the Mississippi River.¹²⁶ These incidents serve as a reminder of some of the changes which were being made by man in natural conditions which affected wildlife.

The extent of the Indians' dealings in furs is not easily estimated. Many trappers disposed of their collections in small lots in the towns, while others sold them to white traders who penetrated the Indian country. The arrival of "Ye bloody In-ji-ans" received comment in St. Peter in January 1860, when one native sold furs valued at \$75.00. Collections from Leech and Otter Tail lakes and the Crow Wing River, which were sold in June 1862, were priced at \$12,000.00. A trader among the Indians at Leech Lake in January 1863 purchased a collection at a cost of \$7,000.00. Another man paid \$2,000.00 for furs at the Chippewa station at Lake Winnibigoshish in March 1863. He took to St. Paul also a male and a female silver fox valued at \$300.00. These animals were presented to John Farrington of that city, who intended to keep them for breeding purposes.¹²⁷ They were regarded as great curiosities. Old Betz, "the venerable antediluvian, was in town yesterday with quite a number of her interesting sisterhood," announced the *Pioneer* on March 17, 1863. They had quantities of furs to sell.

It is difficult to know how much confidence can be placed in yearly statistics on the subject of collections of furs. There was some movement of Indians from one point to another so that the number of hunters in the group under one agent's supervision occasionally changed. The ability of the agent himself and the length of his stay at one post were important factors in aiding accurate analysis. Indians at Fond du Lac and Grand Portage were under the Wisconsin superintendency and separate Minnesota figures were not usually quoted. It would seem however that the Chippewa in northern Minnesota probably gathered annually furs worth from \$40,000.00 to \$50,000.00 until 1878. The amounts from then on were listed under \$10,000.00.

Information about Indian activity in selling game is as fragmentary as that on furs. Newspaper comments gave evidence of considerable energy in the field. St. Peter residents bought game, fish, and maple sugar from Indians "like hot cakes" in April 1856. A band of 100 Indians near St. Cloud took 87 deer and 13 bear before the middle of December 1857. Some Indians near St. Paul were said to be taking 10 to 12 deer a day in November 1859. They supplied the store of William Golcher, the gunmaker, with a good stock of ducks

and geese in March 1860. In April, Indian women were a familiar sight there laden with ducks. They asked a price of 25¢ to 50¢ a pair and insisted on payment "in hard money and American coin." Ducks and geese on the Hastings market in April 1861 were furnished by Indian hunters. Some of the venison sold in Detroit in 1874 was credited to the Indian supply. Many Indians were hunting deer near Alexandria in December 1876. A valuation of \$3,000.00 was placed on venison and game birds sold by Indians residing at Leech Lake in 1878. Moose were frequently brought into the market at Hallock by Indians in 1881. There were frequent reports of successful Indian hunters in the area of Park Rapids in 1862.¹²⁸ These scattered comments give some indication of the Indian's work as a market hunter before 1890.

One of the best observations on the Chippewa take of game in the 1890s is the report of J.A. Gilfillan, the missionary. His usual route was from White Earth to Leech Lake, about 100 miles, then 30 miles north to Raven's Point, Lake Winnibigoshish, west 20 miles to the head of Cass Lake, northwest 45 miles to the Red Lake agency, then southwest 100 miles to White Earth. He made a definite effort to estimate the amount of big game taken by Indians under his supervision. He felt that each hunter at White Earth averaged 30 deer each in a season. His figures, based on keen observation, probably represent a fair picture, and so are quoted in full:

	deer	moose
Leech Lake	1,200	20
Cass Lake	300	25
Winnibigoshish and Bowstring	300	70
Red Lake	1,000	200
White Earth	1,700	20
Sandy Oaks and White Oak Point	<u>200</u>	<u>20</u>
	4,700	355 (excluding Big Fork area)

He remarked about the capture of 87 moose in one bay on the north shore of the southern lobe of Red Lake near the Agency at the Narrows during one summer season a few years previous to this report. The animals had come to the water for relief during fly season. Moose were constantly killed near Cass, Itasca, Winnibigoshish, and Leech lakes, and many more in the Big Fork River country. He thought that 600 deer were marketed at Park Rapids in 1893, most of which were killed by Indians. Deer were taken in almost every month of the year. Near Cass Lake, hunting was frequently done on land owned by white people. The Indians used torches to hunt deer in summer, just as the Chippewa did whom Ely met in 1834. Lamps in the bows of canoes were commonly used.¹²⁹ Another effective system to capture deer was the use of cedar slashings. About six to twelve white cedar trees were cut down a mile or so apart. Indians visited these routes at night and found deer feeding on the cedar an easy prey.¹³⁰ The commercial value of fish, wild rice, and cranberries was not overlooked in the same period. Charles Hallock advised readers of *Forest and Stream* in September 1892 to get a supply of rice from a certain trader at the White Earth

Reservation because "the feet of his clients are somewhat cleaner than those of most other bands, which is a comfort to know if the grain is to be eaten."¹³¹

Although the Indians hunted bison with bow and arrow in the 1820s, they used guns for big game in a large part of the nineteenth century. Those furnished by the government as part of the subsidies were not much of an improvement over more primitive weapons. The agent at Redwood reported in 1854 that the smith was kept busy half his time repairing them. Many had to be repaired as soon as they were taken from the box after delivery. Occasional explosions had caused fatalities. One Indian was killed by the bursting of his gun in the smith's shop and his relatives had sworn to kill the smith.¹³² Deerskins prepared by Indians were usually preferred to those brought in by white hunters. Many snares and native-designed traps were used to catch animals, but Sibley's traders often sold manufactured traps to their Indians.¹³³

The early settlers resented the hunting activities of the Indians. "Now that the Indians are vamoosed Deer will be more plentiful and killed with less labor than heretofore" was the hopeful comment of the *Pioneer* on July 18, 1854. A party of Sioux prowling about the northern part of Washington County taking game in January 1857 led to the calling of an "indignation meeting" at Marine. The natives were no more popular in Stearns County in 1858. A band of over 200 was said to have taken 1,000 deer, many bear, and other animals. They were accused of sweeping the country free of game. "If our deer were protected from these savage foes, it appears as if in a few years they would be surpassingly abundant" was the opinion expressed in St. Cloud. The number of Indians after deer around Henderson in November 1859 was so large that interference with white settlers' sport resulted!¹³⁴

Residents of many other towns resented the hunting of the Indians in their localities. At Mankato in June 1862, a party of Winnebago disturbed a nearby nesting colony of pigeons, took 500 birds, and anticipated raids by white men. Abundance of deer near Stillwater in 1862 was explained by the absence of the Indians. In Glencoe in January 1863, it was believed that game was "bound to be abundant so soon as the Indians are banished from the precincts of Minnesota." The increase of deer near Mankato in December 1868 was considered a result of the removal of the Winnebago. Residents in the vicinity of Brainerd hoped for more deer in October 1874 because "the prowling Chippewa has been kept on his reservation." People in that area were grateful for the mild winter and lack of snow in 1876 since the Indians were deprived of the chance to "butcher" deer. Citizens of Alexandria bemoaned the loss of 100 deer in the surrounding country taken by "strolling Indians" in 1877.¹³⁵ Thus ran the protests against the native hunters.

The legal status of the Indian in relation to game did not become much of an issue until after 1890. A state law in 1858 required Indians leaving reservations to get passports from the superintendent, agent, sub-agent, or the officer of the United States commanding the nearest military fort. It was clearly stated that this passport did not confer on them "the right or power" for hunting and fishing on grounds belonging to white inhabitants. In

1861, objection was raised in St. Paul against Indians' killing deer out of season. In 1871, Indians from the Mille Lacs band were reported trespassing on settlers' land. "For the most part this trespass has been a violation of the game laws of the State," admitted the agent. The next year, he noted that the governor had ordered the Indians to stay on their reservations. In 1874, the agent declared that "they are forbidden by the state to leave the reserve for hunting, and must starve if they stay." By 1877, the privileged position of the Indian who was not restricted by the seasonal limitation set by the state for white hunters was more clearly understood. When the period for hunting in Morrison and Houston counties was announced in one paper, the advice followed: "Look sharp for the lines, boys. None but Indians are allowed to follow game into these counties and kill it."¹³⁶

After the creation of a Game and Fish Commission in 1890, Indians' activity in market hunting became a legal issue in the state government. Their positions as wards of the federal government and exempt from state laws put local officials in a difficult position in law enforcement. They had long been exercising the privilege of taking game at any time of the year. The questions which were not clear were, first, whether they might take game outside of reservation limits out of season, and second, whether they might hunt for the market in either or both cases. In the course of the 1890s, these main issues were settled, although a number of cases relating to Indians and game and fish matters were left over for decisions in the twentieth century.

There was much confusion in the public mind about the special privileges of the Indians. Newspaper articles frequently cited Indian hunting rights provided in "ancient treaties"¹³⁷ although, in fact, there were no special clauses on this matter in the Chippewa treaties. Pike, in arranging for a grant of land for a military post in 1805, inserted the statement: "the United States promise on their part to permit the Sioux to pass, repass, hunt or make other use of the said districts, as they have formerly done, without any other exception, but those specified in article first (which provided yielding of sovereignty)." Later cessions of land were granted without the exaction of such promises.¹³⁸

The legal issues were actually decided in court opinions. Indians had no right to hunt out of season off reservations. A federal court decision in 1886 declared that if an Indian committed a crime outside Indian country, he was amenable to the criminal laws of the place where the crime was committed. The fact that Indians off the reservation were subject to the state laws and jurisdiction of state courts for violation of them was considered an inconsistency established "by long-continued custom most probably arising from the need of the early settlers for protection," according to a modern scholar's explanation. They could hunt in season anywhere in the state under the same legal restrictions as white hunters. When hunting game for export out of the state was forbidden, Indians could no more hunt for the market legally than white men. This point was clarified in a state supreme court decision in 1897.¹³⁹

The Indians' relationship to game on the reservation was carried to the supreme court of the state. In 1893, that court determined that the state legislature could not pass laws governing the actions of Indians on reservations, since that sphere of legislation was reserved for Congress. Thus the game laws could not be enforced on Indians while on the reservation. However, in 1897, it was clearly stated by the court that in theory the game on the reservations belonged to the state, as did game in any other region within the borders of Minnesota. When the Indians ceded the land to the United States in 1855, all Indian rights were extinguished, and the laws of Minnesota Territory became active in the whole area. The jurisdiction of the state was likewise complete in 1858, and the state owned the game. When at later dates reservations were created, the state did not part with this ownership. It accepted certain modifications on its jurisdiction (it could not tax Indians on property or punish them for violating state laws), but these limitations were caused by the fact that the Indians were wards of the United States government. Therefore the state still owned the game on the reservation in the 1890s, game laws were operative there, but the remedies of the state for enforcing them were imperfect since the Indians could not be punished for violations.¹⁴⁰

The fact that the state owned the game was significant, for as soon as game taken in violation of state laws passed from Indian to non-Indian by gift or sale, it was liable to seizure by state officers. An Indian woman, Julia Selkirk, who lived on the White Earth Reservation and had a federal license to trade with the other Indians, bought prairie-chickens and Ruffed Grouse on the reservation valued at \$495.00 in the fall of 1896. She took them by wagon to Detroit Lakes for shipment. P.O. Stephens, the game warden, seized them when in possession of the express company, had the shipment sent to St. Paul, where it was sold and the proceeds turned into the state treasury. The court decided that the fact the game was killed on the reservation by Indians did not exempt it from seizure at a place within the state and off the reservation in the possession of a company arranging shipment out-of-state, action specifically prohibited by the game laws. This decision meant that the Indians could take game for their own use at any time on the reservation, but market hunting could be prevented. White men and half-breeds or full-blooded Indians not actual residents were subject to state laws on the reservations, according to a state supreme court decision in 1893. A decision of the federal supreme court in 1896 stated that the principle of state ownership of wild game extended to the public lands of the United States unless the act of admission of the state specifically excepted such lands from state sovereignty, as in the case of certain Indian reservations in Kansas.¹⁴¹

The story of the troubles of the Game and Fish Commission with the Indians in the 1890s is an exciting one, and probably more important in the history of Indian relations than has been recognized. The complaints about Indians' hunting for the market were numerous. Settlers near Park Rapids were bitter in July 1891 because Indians roamed from Leech Lake to the White Earth Reservation and were said to "interfere greatly with the game supply." Indians from Grand Portage were accused of killing moose, caribou, and deer whenever they could find them in Lake County in 1891. The game warden near Ely could see "no use

in one man risking his life in the woods alone up here arresting Indians and others who kill and sell meat of moose and deer to white people when the town officials won't do anything to punish them or stop it." He reported that game was so plentiful about Ely, officials saw no need for protection. Indians arrested for selling moose were dismissed by local justices. Indian women were commonly seen on the streets selling game. The warden in Hubbard County in 1892 was unable to cope with the situation. He wrote to his chief, "I would like your idea in regard to stopping these redskins. You can get no fine from them and the agents will not keep them on the reservations." The warden in Crow Wing County declared that the Indians were shooting moose at every opportunity and it was almost impossible "to catch the red devils."¹⁴²

Criticism in 1893 was just as violent. One man in Pelan near Lake of the Woods declared that Indians started fires outside reservations to drive game. They chose a time when winds were from the southwest so the fires traveled northeastward, and the hunters formed a skirmish line along the Rainy River and Lake of the Woods. "While I write, I can look across to the east and see three of their fires burning which were lit two days ago. At night they throw a red glare against the clouds, suggestive of the blood that will flow a week hence when all these fires have united and driven the poor beasts into the death trap." He felt white men were foolish to obey laws which saved moose for Indians to kill.¹⁴³ Indians at Red Lake were accused of serious ravages among moose, elk, and caribou in November 1893. One Indian was said to have taken 47 deer just for the skins. Complaints about Indian deer hunters at Leech Lake were made in December 1893. Special reference to the seriousness of the Indian problem was made in the annual report of the Game and Fish Commissioners.¹⁴⁴

One report from the same individual in Pelan who described fires set by Indians to capture big game should be mentioned because he expressed a different point of view on the subject of small game. He found Sharp-tailed Grouse abundant near Lake of the Woods and Red Lake, an area which was "a dense wilderness with a settler to only every 10 or 20 miles of trail, and in some instances you may travel a 100 miles without seeing a cabin. Most of the region is within the Red Lake Indian reservation and as your Red Indian never shoots at the birds and this region is inaccessible to the average sportsman, this will remain a safe and extensive breeding ground for Sharp-tailed and Ruffed grouse for many years to come. Enough of the birds will come out into the Red River Valley each season to afford fair shooting if only the market-hunter will not pursue them too industriously."¹⁴⁵ The statement that the birds were safe since they were on a reservation does not conform with reports of seizures of shipments from traders, and the difference in attitude in the two cases is not clear.

There was no decrease in complaints against the Indians as the decade waned. In January 1894, word from Park Rapids was that hundreds of deer were snared by wire ropes. In the fall of the year, one man was said to have had a staff of 30 Indian hunters to whom he extended enormous credit. Often moose were killed for the head and hide only. In

October 1895, Indians at Aitkin were selling Ruffed Grouse at 8¢ to 10¢ a bird as a daily occurrence. Poaching by Indians at Itasca Park was reported in November 1895. Samuel Fullerton believed the Indian market hunters took 5,000 more deer in 1896 than in the previous season. An Ely man believed that 70,000 Ruffed Grouse were captured by Indians in 1896. The bands at Leech Lake were accused of taking many moose to sell heads in August 1897. A *Minneapolis Journal* reporter declared that he had found 100 heads in a run of 100 miles. They were being sold at \$10.00 to \$15.00 each.¹⁴⁶

Two trappers announced a profit of \$400.00 on 40 carcasses of venison in January 1899. They camped and trapped near Sandy Lake and the Savanna River in November 1898. At that time, they bought several loads of venison at 4¢ a pound from Indians, selling it later at 15¢. They also purchased at \$1.25 eight dozen Ruffed Grouse snared by Indians and sold them at \$4.50. They could not see that this action had been "prejudicial to the game interests of the state" since the deer were already killed and therefore should not have been left to rot in the Indian camps. In 1901, complaints were still expressed on Indians' killing deer for the hides.¹⁴⁷

The action of the state's officials against market hunting by Indians was vigorous in view of the newness of the department and the legal difficulties involved. In 1892, a commission merchant in Buffalo was arrested. A seizure of 24 saddles of venison and 200 Ruffed Grouse all taken on the White Earth Reservation was made when they were shipped out of season. In 1893, after a conference of game and fish commissioners in Chicago held during the World's Fair, the problem was brought to the attention of the Department of the Interior. In January 1897, a shipment of game from the White Earth and Red Lake reservations was confiscated in Fargo which contained eight barrels of 1,172 ducks and three barrels of 428 Ruffed Grouse and prairie-chickens. A court in Moorhead decided this case in favor of the defendant the following July, basing the opinion on the fact that the birds were taken on the reservations. The decision in the case of the seizure of Julia Selkirk's game put the state officers in a more favorable position. Two half-breeds living near Fond du Lac were jailed at Carlton for taking deer in April 1897. The state board of pardons denied a plea for their release basing its decision on the case of *Ward v. Race Horse*.¹⁴⁸

According to a newspaper account, a United States district court in April 1897 ordered release of all Indians imprisoned in Minnesota for violating state game laws. The name of the particular case involved was not given, however, and the action was not in line with the general trend of judicial interpretation. In October 1897, the Commissioner of Indian Affairs issued an order from Washington prohibiting shipment of game by Indians out of season, and shipment at any time out-of-state. He agreed with state officials that Indians had no greater rights than white men and so instructed Indian agents. Samuel Fullerton, of the Game and Fish Commission, told reporters: "This is the best news I have had in my line of business this season. It practically solves the problem of the preservation of the fish and game of the state." These events indicate progress in the solution of a difficult problem in the conservation policy of Minnesota.¹⁴⁹

The duties of the Game and Fish Commission and staff were not just in official correspondence, in exerting pressure on government officials, and in getting legal action. The work in the field with the Indians required a bold heart on the part of these men, and the murder of a game warden in October 1897 did not relieve the tension. Charles Wetsel caught an Indian, Ka-Ka-Quash, and his family encamped in Beltrami County off the reservation about 10 miles from Cass Lake, taking muskrats out of season. In the course of his efforts to confiscate traps and skins, he and one Indian were killed, and two others wounded. The wounded individuals managed to get back to the reservation and it was believed at first that the Indians would resist attempts to arrest them. In November 1897, it was stated that Governor Clough had requested a Bemidji physician to examine the Indians. If they survived, an eventuality not then anticipated, they would be arrested. Indian guards were placed at their home to prevent flight. Unfortunately, the ensuing details of the incident are difficult to piece together since no annual report of the Commission was printed that year and the archival material preserved is incomplete. In Roseau it was said in March 1898 that Beltrami County officials were asking the Game and Fish Commission to pay an \$80.00 medical fee arising from the Wetsel incident and that the Commission planned to prosecute the murderers though Gilfillan urged them not to.¹⁵⁰

The Leech Lake uprising and Indian difficulties in the fall of 1898 were traced to long-standing disputes arising over timber settlement and sale of liquor. Trouble broke out in September when several Indians resisted arrest. Apparently, the policy of the state on game and fish was another underlying cause for unrest in the area. Wetsel and other wardens in trying to enforce the law were dealing with a group embittered against the government on a number of scores. It was stated in Park Rapids in October 1898 that one of the immediate causes of the Leech Lake trouble was "the attempt of marshals to arrest the murderers of game warden Wetsel and others of the Pillager tribe." Fullerton, in a letter to a Bemidji man in October 1898, one year after the murder, expressed the hope that the Indians would be indicted by the grand jury for killing Warden Wetsel. He may have felt resentment against the Indians as a group however, and not meant that the actual murderer of Wetsel was among the men on trial at Duluth or he may have been referring to a separate case. In the general accounts of Leech Lake disturbance, no mention was made of the Wetsel incident. Arthur J. Pegler, a correspondent for the *Minneapolis Journal* personally much interested in conservation, was at Leech Lake reporting the affair and he noted no aspect involving problems of game and fish.¹⁵¹

Fullerton frequently went out himself to bolster up the morale of his staff in dealing with the Indians. In December 1898, he wrote: "I thought I was going to have a scrap with the Indians ... but everything turned out all right and the Indians were more scared than I was, and that is saying a good deal. They did not wait until we got there but ran for the reservation as fast as they possibly could." He notified the Commissioner of Indian Affairs in Washington of an encounter with 14 Indians from Pine Point of the White Earth Reservation and stated that while no blood was shed "it might have been otherwise and another Indian outbreak inaugurated." He complained about traders "of inferior social

standing" who were licensed by the federal government and getting the lion's share out of the taking of illegal game."¹⁵²

P.O. Stephens confiscated 42 saddles of venison in December 1898 at Pine Point in possession of a trader who shipped from Detroit Lakes. "There were a large number of Indians about Cooney's place when the venison was captured and some of them were disposed to be ugly and to resist seizure of the game and the arrest of Cooney, but others expressed satisfaction over Mr. Stephens' action.... The wiser Indians, as well as white men realize that all game will be exterminated in a few years if wholesale slaughter for market is not stopped," ran the account in Park Rapids. Fullerton notified Indians that game on the White Earth Reservation out of season was liable to seizure. He asked the Indian agent at Detroit Lakes for authority to enter the reservation and seize it under the direction of Indian police. His report of a seizure made by Stephens at Detroit Lakes contained the statement that 48 saddles of venison were taken and 127 Ruffed Grouse. "The Indians got away with a good deal of venison and partridges because Stephens was alone with the sheriff who was scared to death."¹⁵³ The questions involved in the whole problem were hard to meet. A framework of laws designed for white sportsmen was unfamiliar and incomprehensible to Indians. Avaricious traders encouraged them to destroy game which should have been used for their own needs. The forceful stand for state officials was probably the only one which could have stamped out the traffic in which the Indians were the tools of unscrupulous dealers.

Chapter V. Abundance and Scarcity of Game.

Many animals reacted in different ways to the changes made by settlers in their natural habitat. The popular concept that there was a steady and continuous decline in game populations as the frontier gained more inhabitants was true only for certain species. Among the big game animals which vanished or suffered great decline in numbers were the bison, elk, and caribou. Bird species were represented by the Passenger Pigeon, the Sandhill and Whooping cranes, and the Trumpeter Swan. Fur-bearers included the wolverine, fisher, and marten. Other species, like the moose, were probably reduced from previous numbers but were in no danger of becoming extinct at the end of the century. The habitat favorable for timber wolves and Canada Spruce Grouse grew smaller with the reduction of the coniferous forest. The numbers of woodcock, and golden- and Upland plover, declined because of overhunting. The plowing of the prairie made the Sharp-tailed Grouse seek other cover. On the other hand, the changes which made land unfavorable for some species improved it for others. The white tailed deer expanded its range into northern Minnesota as a growth of hardwood replaced the pine taken by the lumbermen. Two new species, the Pinnated Grouse and quail, came into the state to enjoy the stubble of the wheat-fields.

Natural causes were also significant among the reasons for scarcity and abundance of game. Population fluctuations occurred at fairly regular intervals in some species. Disease and extreme climatic variation, especially drouth or over-abundant rainfall, played an important part. The activities of men responsible for drastic variations in wildlife populations were in the fields of market hunting, trapping, agriculture, burning, lumbering, and drainage.

The Relationship of Lumbering to Game Populations

The different vegetational areas of early Minnesota, coniferous forest, hardwood, and prairie were first mapped scientifically by Warren Upham. The southwestern and western prairie land was separated from the pine area of the north, central, and eastern portion by a narrow belt of hardwood which widened in its southern part into the "Big Woods," the forest between the valleys of the Minnesota and Mississippi rivers centering about the Twin Cities. Even in 1860, the northern coniferous area was not a pure stand. Intermingled with the pine was "a considerable proportion of birch, maple, aspen, ash, and elm." Rivers in the extreme north had in surrounding low areas a heavy growth of hardwoods. Observers reported that "whenever the cone-bearing woods are burned off in this district, the hardwoods take their place." The principal pineries where lumber was bought in 1860 were at the headwaters of the Kettle, Snake, Rum, and Crow Wing rivers, along the Mississippi, and near the upper waters of the Otter Tail River.¹⁵⁴

By 1880, according to Charles S. Sargent, the pine had been removed from the principal streams of the state. That which remained, except in the region tributary to Lake Superior and in the vicinity of Red Lake, much of which was on reservations, was inaccessible or of inferior quality. The best hardwood forests had suffered seriously by fires started in abandoned pineries or in clearing land for agriculture. A map prepared under Sargent's direction for the Department of Agriculture gave some idea of the areas which

had been lumbered. The first pine taken was that near rivers, but with the development of railroads, the industry extended into the northern interior. Elliot Coues in 1895 declared of the Sandy Lake region, "It would be a pity if the government dam now constructing on the outlet should convert this beautiful sheet of water into such a dismal cesspool as Lake Winnibigoshish had become since that was dammed; but lumberjacks prevail in northern Minnesota by a large majority, and logging-booms have nothing in common with scenic effects."¹⁵⁵

Christopher C. Andrews in his first report as Chief Fire Warden in 1895 gave evidence of the mercenary, ignorant, and improvident attitude of many lumber magnates. The following excerpts from a questionnaire and the responses of E.W. Backus were enlightening:

"How many times have you known the same pine land to be cut over and at what number of years interval?" "If cut over clear once there is never occasion to go over it again."

"How do you account for pine not growing on land that has been cleared of pine?" "A conundrum to me."

"What, if any, economical way is there for maintaining the regrowth of white pine and preserving a permanent supply?" "I don't know of any."

"How long will the supply of white pine last if lumbering continues as at present?" "Fifteen to twenty years, but not at present rate of cut."¹⁵⁶

A newspaper appeal to sportsmen in 1897 was headed: "A Tip for Hunters, Game Cover Being Destroyed." Only a handful of sportsmen was said to be interested in the forestry movement. Legislation for state forests needed their support. Railroad construction in northern Minnesota threatened the existence of the forests and consequently, wildlife. In 1898, a sports reporter bemoaned the construction of a logging railroad for the lumberman, Al Powers, "right through the finest shooting ground in Minnesota." The wildlife conservation program was too new at that time, however, to grapple with the powerful financial interests in the lumbering industry.¹⁵⁷

The Relationship of Agriculture to Game

Agriculture had both good and bad effects on game animals. Clearing of land and cultivation of grain improved some areas for certain species, while others retreated to the wilderness. Few farmers saw the economic advantages to be gained by encouraging wildlife, until grasshopper damage in the 1870s aroused speculation on such problems. In April 1883, Chatfield farmers complained about the destruction of newly-sown wheat by prairie-chickens. One man destroyed nests in June "to protect his 'beans' from the ravages of the young birds," but he was roundly scored for his action by the local editor. In 1868, a farmer near Rochester urged that prairie-chickens be spared by hunters because he was

convinced of their aid in clearing fields of potato borers. A similar opinion was expressed in Faribault in 1876.¹⁵⁸

The Sharp-tailed Grouse was called the "Grasshopper Bird" by Coues. In the time of its abundance, "it was a powerful check on the increase of these destructive insects," according to Dr. Roberts. In August 1875, *Forest and Stream* noted that "the agricultural interests ... can ill afford to have these enemies of the pestilent grasshopper destroyed, while, reinforced by the young broods, they are doing such noble service. But man must and will have his fun, hoppers or no hoppers." A farmer near Alexandria who did not "believe overmuch in some of the game laws" thought it might be well to obey them since "the grasshoppers eaten by a single prairie-chicken would be sufficient in number to destroy several bushels of grain." Farmers in the Red River Valley announced their intention of preventing unnecessary slaughter of prairie-chickens in the fall season of 1875. "The birds are too valuable as grasshopper exterminators to allow their wholesale destruction by city sportsmen."¹⁵⁹

Legislation was urged in 1876 to prevent hunting until quail and prairie-chickens were no longer needed to protect the crops. A hunting party traveling in southern Minnesota in 1876 reported that they had limited their bags to 25 birds each, "respecting the farmers' wishes," since grasshoppers were plentiful. Spring burning to kill grasshoppers menaced nesting birds. One individual in Alexandria in 1877 declared that burning after May 15 destroyed eggs or young broods "thus entailing a permanent and great loss upon the country, compensated only by the possible mitigation of a temporary evil." Another person in Moorhead in 1878 blamed the whole grasshopper invasion on the thinning out of grouse. State officials hoped that the increase of grouse might be a solution for the evil. In 1886, a five-year close season on prairie-chickens was suggested by one writer in *Farm, Stock and Home*. "Every farmer would commend it."¹⁶⁰

An article on the agricultural gains by the feeding habits of hawks and owls supported by the opinion of C. Hart Merriam was published in the same journal in 1886. This scientific fact is still not widely understood in rural areas. "Virtue in Skunks," a headline in the *Minneapolis Journal* in 1898 introduced an article on a speech by Otto Luggar that defended this "malignant friend of man" because of its insect-eating habits. The rumor was that Lacey, in support of his bill in 1900, gave Joe Cannon an apple with a worm in it "to prove the point that man kills the bird that killed the insect that laid the egg that hatched the worm."¹⁶¹

The farmer's attitude toward Passenger Pigeons was quite generally one of annoyance. In the vicinity of Hastings, the birds in late August 1857 were accused of "eating up the wheat still standing in the shock." More complaints appeared on May 12, 1859, when they were taking seed. Cornfields near Mankato suffered in June 1861. At Rochester on May 31, 1862, the birds were "making sad havoc of the young corn. Where pigeons really 'pitch in' they are as destructive to a cornfield as long-nosed swine—and clean out a field as they go." Near Chatfield in late April 1863, they gathered up the wheat as fast as it was sown. One

man dragged his field while another man with two dogs and a gun tried to keep the birds away. It was feared that some wheatfields would have to be resown. On April 16, 1864, it was reported that the pigeons had disappeared and "if they never come back our farmers will not mourn."¹⁶²

Hastings farmers remarked about the absence of the pigeon nuisance in May 1865, while Chatfield farmers bore the burden of feeding them! Need for re-planting was anticipated in St. Paul on May 4 and May 9, 1867. Near Rochester in 1869, birds abounded in the newly-sown wheatfields by April 24. By May 6, farmers near Albert Lea shared in the difficulty. Grainfields near Wabasha were popular with the birds by May 11, 1871. The corn crop at Chester near Rochester was "almost destroyed" by the marauders on June 8, 1871. They were accused of pulling up the corn at Kalmar on June 19. One farmer killed 81 of "these corn-pullers" in four shots, getting 30 birds in a single shot. It was noted in St. Paul on June 7, 1860, that farmers were using strychnine in cornfields to rid themselves of the birds. People were warned against eating pigeons because of poisoning dangers! A Hastings paper warned in May 1877 that pigeons might eat gopher poison, hence should not be shot for the table.¹⁶³

One lone voice was raised in favor of the pigeon in Chatfield on May 15, 1875. "If the grasshoppers have any idea of visiting this 'neck o' woods' the sooner they come the better. The millions of wild pigeons in the Chatfield woods are prepared to give *them* a hearty reception." Unfortunately there was little scientific foundation for such promises. Insect food was a minor part in the diet of the species; fruit, berries, seeds, and grain formed the major portion.¹⁶⁴

The farmer's destruction of game by shooting or burning nests was a minor part of the story. The demands of agriculture for more land initiated a program of drainage in Minnesota that was a far greater menace to wildlife. Bills were introduced in the state legislature by men from Crookston and Ada in January 1887 as parts of such projects. Reports on progress of drainage in the Crookston area were published in 1893. Intercepting canals to connect with Red River drainage ditches were begun in Polk County in 1897. This was just the beginning of a vast program continued in the twentieth century, which destroyed valuable nesting areas for ducks, often without the gain of more tillable land.¹⁶⁵

While these physical changes were being made some species of animals disappeared entirely in Minnesota. Bison, elk, and caribou were three species of big game which no longer provided sport for hunters by the close of the century.

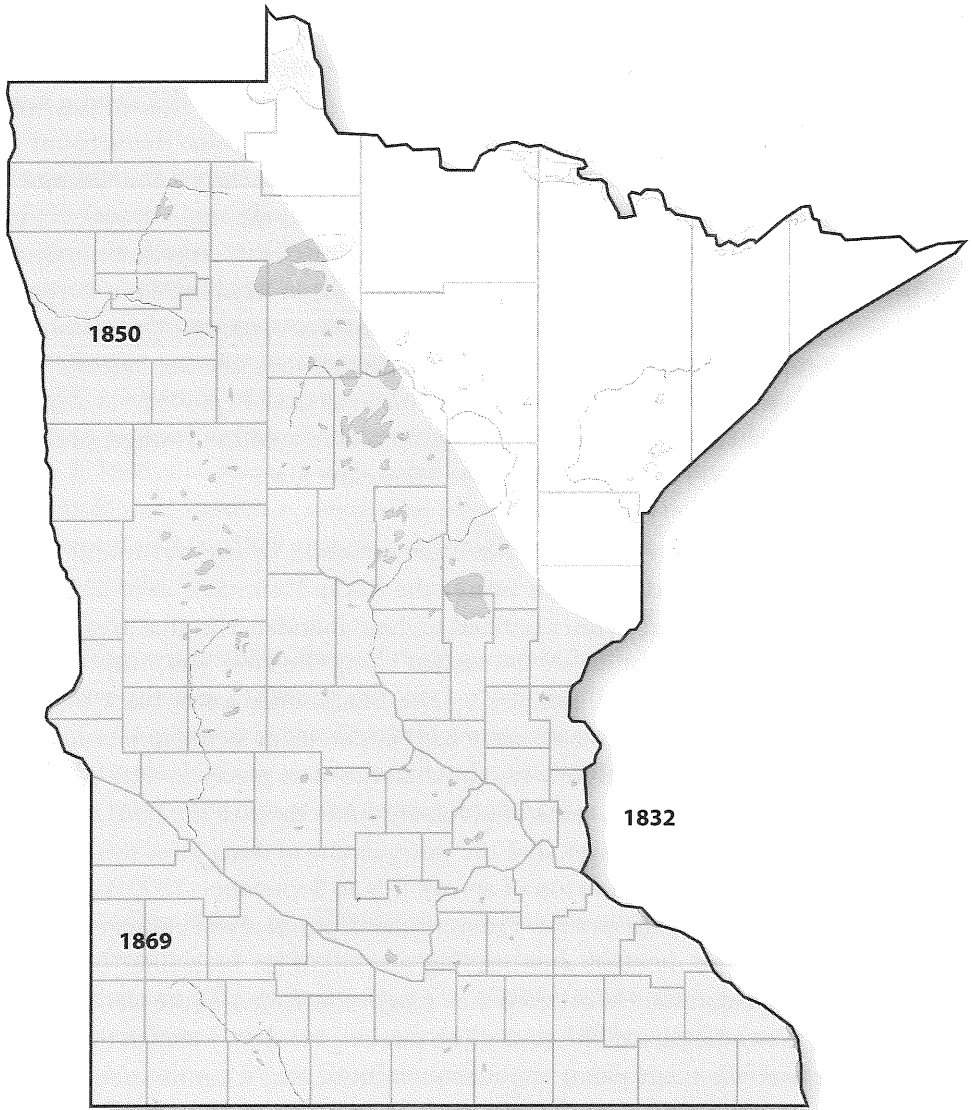
Disappearance of the Bison

The recorded history of the bison in Minnesota opened with the accounts of seventeenth-century explorers who encountered the animals near the Mississippi River. Hennepin and his Indian companions were delighted to see 60 bison crossing the river in July, 1680. Although the biggest hunt he described was probably not in Minnesota, the account suggested that the species ranged in the prairies not far from the Mississippi River "beyond the mountains" which he indicated on his map. La Salle's interest in the trade in robes caused him to plead that beaver traders operate in the interior via the Great Lakes and not disturb his monopoly with the Sioux. Le Sueur's men killed 400 bison near the Blue Earth and Minnesota rivers in September 1700, for winter provisions. La Verendrye's men were not particularly interested in trade in robes in the 1730s though they saw the animals in the Red River area. Carver believed that he saw larger herds near Lake Pepin than at any other place on his journey. Peter Pond noted that wolves often destroyed the younger and older beasts, but they were still "Verey Plentsy" along the Minnesota River.¹⁶⁶

Thompson, Tanner, and Henry all frequently observed bison in the northwestern part of the state. Thompson believed the herds nearer the Rocky Mountains were larger than those in the Red River Valley, but Tanner testified to their abundance in that area. Henry's description of the effect of the bison on the terrain along the river was vivid. "The ravages of buffaloes at this place are astonishing.... The beach, once a soft black mud into which a man would sink knee-deep, is now made hard as pavement by the numerous herds coming to drink. The willows are entirely trampled and torn to pieces.... The grass ... is entirely worn away. Numerous paths, some of which are a foot deep in the hard turf, come from the plains to the brink of the river, and the vast quantity of dung gives this place the appearance of a cattle yard." From the top of an oak tree in September, 1800, he was able to count 15 separate herds on the prairie. From a similar position in February, 1801, he counted over 20 herds. The numbers seen moving northward on both sides of the Red River dwarfed previous estimates. He believed they sought the shelter of the woods though he was surprised at the endurance of the cows. "The piercing N. wind, which at times blows with such violence over the bleak plains ... raises such drifts, that it cannot be faced; still those animals graze in the open field."¹⁶⁷

The mortality among the herds from accidental drowning in early spring when the ice was weak was stupendous. The dead beasts drifting by Henry's fort formed a continuous line in the current for two days and nights in April 1801. Even in May, drowned buffalo continued to drift past. "The stench from the vast numbers ... was intolerable.... They tell me the number of buffalo lying along the beach and on the banks above passes all imagination.... I am informed that every spring it is about the same." In 1803, Henry noted that the mortality from this cause was not as extensive. Apparently, he was not anxious to trade in robes, for less than 100 were taken in the years from 1801 to 1808.¹⁶⁸

The natural range of bison in Minnesota was throughout all the prairie section and far into the forested area. William T. Hornaday's map included as bison territory all of the



Original range of the bison in Minnesota. The range of the bison in Minnesota was southwest of this line according to William T. Hornaday, *The Extirpation of the American Bison*, 549. Dates indicate the approximate time of the disappearance of the species. Hornaday included almost all of Minnesota in the area of "desultory extirpation," while the region immediately beyond the western boundary was the area of "systematic destruction."

state except the portion north and east of a line running from Lake of the Woods to southern Pine County. A.W. Schorger believed that early Wisconsin had more prairie than exists under modern conditions because of Indian burning. A similar thesis might be advanced for Minnesota. Pike, Long, Schoolcraft, and Keating described in their journals a significant reduction in the range of bison in the southern, central and eastern part of the state. Pike hunted these animals near the Sauk River in 1805. Long in 1817 noted near Lake

Pepin that "the Indians hunt them here in all seasons; they are not, however, very numerous. In 1823, he did not see them in that region. Since the establishment of the garrison at Fort Snelling, they had been destroyed or driven farther west."¹⁶⁹

Schoolcraft in 1820 found bison along the Mississippi River above St. Anthony Falls. He believed they were found east as far as Sandy Lake. He was told in 1832 that they had not appeared in that area since 1820. Colhoun's diary, Keating's official report, and Beltrami's writings all gave details on the bison encountered in Minnesota. Colhoun was told by Renville that Swan Lake was the eastern limit of the wanderings of the bison in 1822. In the vicinity of Lac qui Parle, bones of the animals were almost constantly in sight. Farther up the Red River, the bones were abundant but "not so thickly strewn as between the two Lakes of the St. Peter's." His first sight of a rutting male reminded him of a line in the *Georgice*: Animals wallowing in the dust resembled spouting whales. The party saw an Indian kill one with an arrow using a bow four feet long. Colhoun doubted that there had been a great decline in numbers of bison but predicted that when there was, it would be because "civilization in its steady, destroying march, destroys the larger gregarious animals."¹⁷⁰

Keating wrote that buffalo dung was used for fuel in encampment. Long forbade the party to run bison because the horses became so exhausted. In spite of that, 15 animals were killed and great sport enjoyed. Beltrami picked up many stories about Indian hunting methods. Since Rindisbacher traveled from Pembina to Fort Snelling only three years later, he may have gained ideas for his paintings from observations in this same area.¹⁷¹

In the 1830s, bison wandered irregularly in the western part of the state, occasionally entering the central section. Sibley believed that two animals killed by Sioux near Trempealeau in 1832 "were the last specimens of the noble bison which trod, or will ever again tread, the soil of the region lying east of the Mississippi River." Featherstonhaugh in 1835 saw a bison path on the banks of the Minnesota River near the Yellow Medicine; he was told that it was made about 1817. He heard that one animal had been killed at Big Stone Lake in 1830, and that they seldom came south of Lake Traverse. Albert Lea believed some were found in southern Minnesota in 1835. Catlin saw the prairies near Pipestone speckled with the animals.¹⁷²

Sibley was advised by Ramsey Crooke to develop the trade in robes as much as possible. "They have become an article of necessity and for as many as the St. Peter's can furnish, you may always calculate on getting better prices than our St. Louis friend, though their robes are in general better than yours in consequence of the Indians leaving the whole neck on, while yours are ... much smaller in appearance by having the skin cut square off at the shoulders—Induce the Sioux by all means to leave the skin its full natural size cutting it close to the animal's head and knees.... As the country settles, the demand will increase for the emigrants are principally from New England where they are very much used, and so long as you can supply the country above Buffalo with Robes, you will have the

market pretty much to yourselves." John Baptiste Faribault had 1,039 robes for the Sioux Outfit on July 20, 1836. Indians near the Des Moines River in February 1835 killed many animals, and were dressing the skin for lodges. A Sioux hunting party in Mower County and northern Iowa in 1841 took "only a few buffalo." Renville reported from Traverse des Sioux in August 1840 that his Indians had killed 60 cows. Indians trading at Lake Traverse brought in the largest collections, probably from the Dakota country. In September 1835, herds were within two days' march of Lake Traverse. Joseph Brown was disturbed because they attracted the Indians at a time when the robes were not prime, and the hunters should have concentrated on muskrats. Summer robes were worth only \$1.50 in February 1840, while "plain seasonable, sound" ones were quoted at \$4.00.¹⁷³

Sibley's sporting adventures in the 1840s gave him an opportunity to see the reduction in numbers of bison. A hunting party composed of nine men traveling to Spirit Lake in 1842 took only 15 animals. By 1846, he noted that a hunter might roam for days without seeing a single herd, a great contrast to "former years." He wrote to the editor of *The Spirit of the Times* in February 1848: "The buffalo are now within fifty miles of the spot where I am writing, and I am off in two or three days to give them a benefit. I should be much pleased to have you and 'Frank Forester' along, as I should like to have 'the cutting of the eye teeth' of both of you, so far as this kind of hunting is concerned."¹⁷⁴

Pembina hunters and half-breeds from the Canadian side of the border sought bison in the prairies west of Minnesota. In 1821, the animals were scarce near Pembina. In 1826, the hunters had to go over 100 miles west to find them. The herd seen by the dragoons marching up the Red River Valley in 1849 numbered only 100, and was on the western side of the river. Within the area bounded by Big Stone Lake and the Missouri River, the hunters took about 20,000 animals each year. A private soldier describing the trip warned his "Uncle Sam:" "The stock in your great pasture is getting thinned out." David Dale Owen believed that bison still frequented western Minnesota at the middle of the century because of "their deeply trodden paths, their lairs, their dung, their skeletons, and their half-decayed carcasses; but no herds were actually seen." When Frank B. Mayer saw the Indians do a buffalo dance at Traverse des Sioux in 1851, he was told that some animals were 60 to 100 miles distant from that point.¹⁷⁵

Though bison had ceased to range in Minnesota in large herds before settlement began, occasional animals were seen after 1850. Men on the Pacific Railroad Survey in 1853 did not see bison until they crossed the Red River. In February 1856, some animals were reported in the area 100 to 150 miles northeast of St. Cloud. A party guided by Pierre Bottineau in January 1857 saw a herd of 80 animals east of the Red River, near the Otter Tail. One bison was seen 9 miles northwest of Glencoe in September 1858.¹⁷⁶

In 1866, an essay on Minnesota as a home for immigrants noted that "buffalo occasionally visit the western frontier." A calf was killed west of Mankato in June 1862. Great excitement resulted when another was killed on a farm in Sibley County in November 1882. The

Pioneer's comment was: "We know not how many years it has been since the last buffalo crossed the Mississippi, yet a few days since one was caught in dangerous proximity to that stream.... As the Indians are going west it is possible the buffalo are coming east." Five animals were seen near New Ulm in 1863, one was killed. Another was killed near St. Cloud in 1865. Two men traveling between Big Stone Lake and St. Cloud in August 1866 shot two bison. The *St. Cloud Democrat* reported: "It is the first time in a number of years, that these shaggy monsters have been so near to us. They are now moving about in large herds." Hunters leaving Redwood in September 1867 expected to find large herds 75 miles from there. An old settler near Glenwood recalled that a herd of 50 crossed the inlet to Lake Minnewaska in 1868.¹⁷⁷

Dr. Roberts, in discussing late records of bison, considered reports of a large herd at White Earth Lake, Becker County in 1858, five animals killed in a herd of eight in Clay County in December 1850, a herd of 10,000 to 100,000 seen on the Red River near Georgetown, Clay County in July 1866, 25 animals in the same area in 1867, only two in September 1868, one at Lake Shetek, Murray County in 1879, and four in Norman County, 25 miles east of the Red River in 1880.¹⁷⁸ These were the stragglers of the species whose numbers Henry could not estimate in the early part of the century.

The Decline in Numbers of Elk

Elk occurred in Minnesota originally throughout the southern part of the state, as far north as Aitkin County, then northwest to the border. Many of the explorers saw large herds. By 1850, in the opinion of Dr. Roberts, the range in the southern part had been reduced, by 1860 eliminated, though the species still existed in western counties. The last record accepted by Thaddeus Surber was one of 16 animals seen in 1896 in Roseau County.¹⁷⁹

As early as 1834, Samuel Pond believed elk were becoming rare along the Minnesota River. Two animals were killed near Bloomington about 1840, an event he considered unusual. Sibley saw two herds in southern Minnesota in 1840 totalling about 1,000. A group of his Indian hunters took over 50 animals the next year hunting in Mower County and northern Iowa. On his trip to Spirit Lake in 1842, only three elk were taken. Several were seen on another excursion in 1847 near the Crow and Sauk Rivers. A Red River train encountered a herd on the Pomme de Terre River in 1844. Belcourt believed elk was rare near the northern border in the 1840s. The dragoons in 1849 were able to purchase elk meat from the Chippewa in the northwestern part of the state.¹⁸⁰

Most of the reports after 1850 were from the western area, though a few indicated stragglers farther south and east. Several animals were seen on the Sunrise River in November 1854. Some were observed near St. Peter in September 1856, and July 1857. Elk tracks were seen west of St. Cloud in January 1857. A few animals were seen near Glencoe in August 1857. Fifteen were seen five miles from that town in January 1872. A soldier killed one elk near Alexandria in December, 1865. Several hunters saw elk west of St. Cloud in October 1866. Two were shot near Willmar in August, several near Alexandria in December 1870.

According to a newspaper story, one elk appeared near Albert Lea in October 1871, was chased south, and killed at Cresco, Iowa. Two more were reported for the same area in June 1874. A man in Moorhead captured two young elk and tried to teach them to draw his sulky in 1873. Elk were exhibited in harness at the state fair in 1878, possibly the same pair. A man in Otter Tail County shot an elk and sold it for \$75.00 in January 1875. The species was reported in Swift and Crow Wing counties in 1874, again in the latter in 1877. Some were taken near Moorhead in 1879. An observer at Hallock in 1880 when several elk were killed there, declared that there had been a great reduction in their numbers in the preceding decade. "Our Museum," a column in *Farm, Stock and Home* noted in 1886 that elk were rare south of the Northern Pacific line, while only small herds remained even in the north.¹⁸¹

Newspapers reported elk in the 1890s in Aitkin, Itasca, and Roseau counties. A warden testified to their presence in Kittson County in 1891. Chief Game Warden Andrus asserted in 1894 that the area near Thief River Falls was the only place where they might still be found within Minnesota. One newspaper described a panic in Roseau in 1895 caused by the appearance of a game warden. Merchants quickly stored away heads and hides of caribou, elk, and moose. All three species were said to be feeding "on the edge of the Great Swamp a few miles from town," but the animals were driven over the Canadian line! Some elk were reported near Roseau in 1896. During the last 20 years of the century, the growing scarcity of both elk and caribou was recognized generally. The sale of heads to trophy hunters opened up a new market, and also hastened the destruction of the animals. The collection of specimens of big game was by no means a hobby of recent origin, but one observer in northern Minnesota stated in 1881 that the sale of heads and antlers had greatly increased in the preceding two years. Indians were urged to hunt moose, elk, and caribou for this reason alone.¹⁸²

The Decline in Numbers of the Caribou

Caribou at one time ranged throughout the northern part of Minnesota from Lake Superior to Lake of the Woods. Carver said they were found near the Rum River in 1766. Thompson mentioned their occurrence in the headwaters area of the Mississippi. Many travelers and traders enjoyed caribou meat in their diet along the border. Ely watched the Indians prepare it near Lake Superior in 1833. Apparently, the animal was always important as a food supply for the inhabitants of the north country, but not plentiful enough to be significant in the fur trade. William A. Aitkin made special note of sending two caribou skins to Sibley from Sandy Lake in February 1837. Graham saw the trail of caribou near Mille Lacs in 1847. Surber stated that caribou were probably abundant up to 1870 in the northern part of the state, and up to 1885 still comparatively common in Lake and Cook counties. After that time, their numbers declined in the Arrowhead Country. By the end of the century, the swamp area near upper Red Lake was probably their only range south of the Canadian boundary.¹⁸³

Caribou was not often mentioned in newspapers and sporting magazines. Hallock believed in 1877 that the range of the species extended through a strip 100 miles wide from Lake Superior to Lake Athabasca. In 1881, he said some animals were still found on the North Shore and in the northwestern part of the state. In 1887, they were reported for the Pigeon River area by the Geological and Natural History Survey. Sportswriters claimed that the close season from 1891 to 1893 gave the species a chance to come back. Itasca, Aitkin, and Roseau counties were all listed in areas where they were found. The only region in which Gilfillen saw the Indians actually take any in 1895 was near Cass Lake. One animal was seen floating on the ice out in Lake Superior in April 1895. As settlement spread even into the north country, this species could find the solitude it preferred only in muskeg, difficult for men to penetrate, and across the border.¹⁸⁴

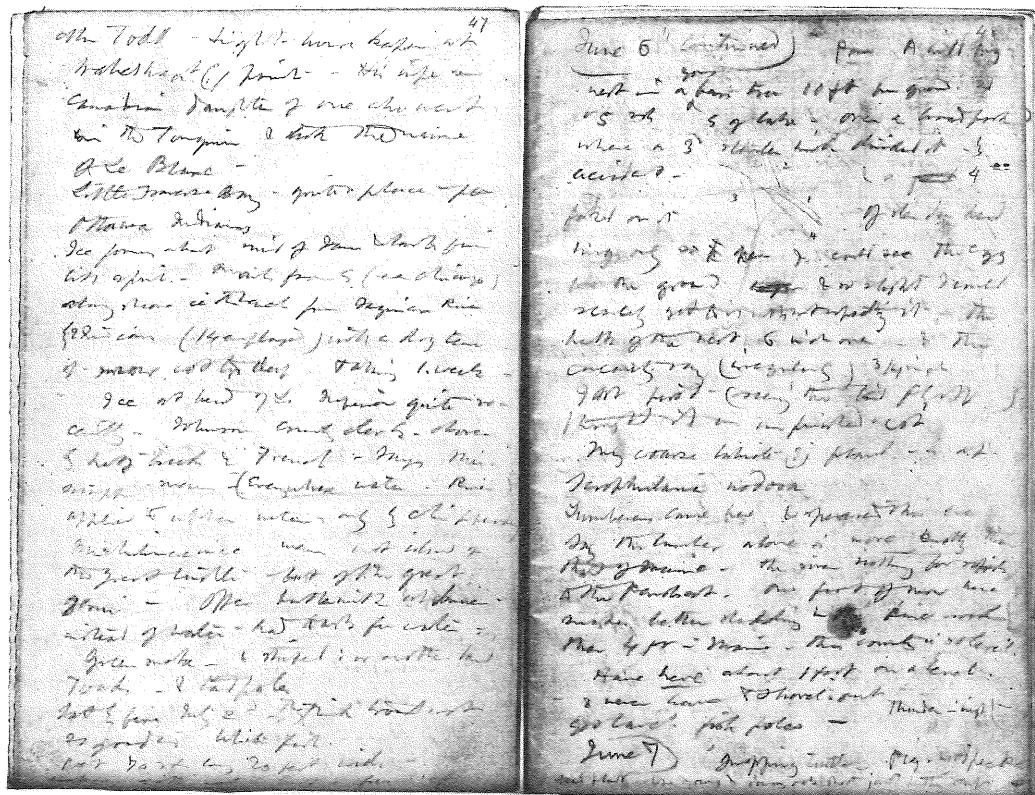
Other Rare Species of Big Game

A species of the black-tailed deer known as Minnesota mule deer or brush deer was described by Charles Hallock. Its range was limited to Kittson County, where three animals were killed in 1887, and one in 1889, according to records accepted by Surber and Roberts. It is believed the Rocky Mountain mule deer might also have occurred in western Minnesota counties since it was seen in 1887 near the eastern Dakota line.¹⁸⁵ Among other comments on this animal, probably the first species, was a statement that one black-tailed deer from Minnesota was on the New York market in December 1875. Hallock reported in January 1881 that he had seen the skin of one animal hanging in a carpenter shop in the town named for him. One newspaper remarked in December 1886 that some black-tailed deer had been killed in northern Minnesota. A discussion of game in the same area in November 1896 stated that this kind of deer was sometimes found.¹⁸⁶

The prong-horned antelope, like the preceding species, was never common along the western border, and has not been recorded since 1900. La Verandrye and Keating referred to its occurrence west and north of Minnesota respectively. Featherstonhaugh saw some animals near Big Stone Lake in Dakota. Roberts believed that stragglers from the western prairies appeared occasionally, and cited one record near Lake Shetek, Murray County in 1885. C.L. Herrick considered reports of the species in Traverse County in 1881 and Redwood County in 1885.¹⁸⁷

The Disappearance of the Passenger Pigeon

Some species of birds fairly abundant in 1850 but extinct or almost vanished by 1900 included the Eskimo Curlew, the Passenger Pigeon, the Sandhill and Whooping cranes, and the Trumpeter Swan. There were many observers of Passenger Pigeons in Minnesota and the Northwest before 1850. Hennepin, Carver, Pike and Long saw them along the Mississippi River. Colhoun noted that the birds were numerous on one of the islands above Lake Pepin. Indians in that area gave his party a number of birds. Schoolcraft saw them at Sandy Lake and Sauk Rapids in 1820, and near Leech and Itasca lakes in 1832. Featherstonhaugh welcomed fat wild pigeons, "very acceptable addition to our larder," near Wabashaw's village in September 1835. Catlin saw pigeons near Pipestone a year later.



A page from Thoreau's Journal. See pages 133 and 134, note 37. Thoreau's field notes are so difficult to decipher, the following transcription for June 6, 1861, is suggested:

PM A wild pig. nest in a young bass tree 10 ft from ground. 4 or 5 rds s of lake — over a broad fork where a 3 slender birch divided it — by accident — 4 forked on it of slender hard twigs only so open I could see the egg from the ground & so slight I could scarcely get to it without upsetting it — the bulk of the nest, 6 inch over — & the concavity say (irregularly) $\frac{3}{4}$ inch I at first (seeing the bird fly off) thought it an unfinished nest

Charles Lanman saw the bird near Crow Wing in 1846.¹⁸⁸ On the northern border of the state, an abundance of pigeons was observed by La Verendrye, Henry, John J. Bigsby, and Keating. In 1849, the dragoons saw "worlds of pigeons" flying along the Red River. In the same year Agassiz's expedition saw some birds near Fort William north of Minnesota's northeastern boundary.¹⁸⁹ The species was apparently distributed over the whole state in the days before settlement.

During the 30 years between 1853 and 1863, large concentrations of Passenger Pigeons were recorded for at least 27 points in the state, while important nesting colonies were recorded in 12 areas. Hunters took large numbers near farms in the vicinity of the Twin Cities in July 1854. "Indiscriminate slaughter" was predicted in the oak openings and high timbers. One sportsman came into town with 200 pigeons strung across his saddle, all taken in one day. Immense flocks flew over St. Paul on April 9 and May 24, 1855. Hunters took

some birds in 1856. Pigeons were reported "almost innumerable" in September 1859 and easy to take if sportsmen were content with them in the presence of better game.

Henry David Thoreau and Horace Mann, Jr. saw pigeons near Lake Calhoun in June 1861. Thoreau described one nest in great detail in his journal, and sketched the tree in which it was located. On June 2, 1884, a great flock of pigeons flew over St. Paul at dawn. The birds flew so low, many were killed with clubs and stones. The ordinance against use of firearms within the city limits was disregarded. Several people killed three dozen birds on their own premises. Those who went to the bluffs got 50 or 60 in an hour. All agreed that "much exciting sport has never been had in the city before." "Countless flocks" were observed on April 13, May 4, and May 9, 1867. Pigeons were for sale on the market by April 10, 1869. Coues described a large flight over St. Paul in 1873. Hunters were after pigeons near Lake Calhoun in May 1874. John Roberts collected one bird in Minneapolis on August 6. A few birds were seen there on April 19, 1876; large flights were recorded on April 24. In 1878, the date for the arrival of a few birds was March 9, of large flocks, March 26. Many birds were in nearby woods in September. No spring flight was recorded in 1830 in the Twin City area.¹⁹⁰

Pigeons were common in the neighborhood of Hastings in August 1857, in May and August 1859, and in May 1860. No mention of their appearance in 1861 was made until June 6. On June 13, "innumerable multitudes" were building nests on the island four miles below the city. On June 19, 1862, pigeons were reported nesting "on the Island." An earlier arrival was recorded in 1863. On April 9, the forests were "alive with pigeons." Many young birds were seen by June 2. On May 25, 1865, it was noted that while pigeons had been seen in migration earlier in the spring, they were not nesting in the usual locality.¹⁹¹ The editor of the Hastings Gazette acknowledged the reception of "a nice mess of pigeons" on May 4, 1867. The comment on April 24, 1869, was that "the timber ... is full of pigeons." Mention in the same paper on May 20, 1876, May 5, 1877, May 3, 1879, and May 21, 1881 concerned hunting adventures.

The appearance of the "birds of passage" was hailed with delight in Rochester on May 20, 1858, for it brought visions of pot-pies. A large concentration of pigeon nests was reported in the Big Woods 10 miles northwest of the town on March 24, 1859. Many birds had been seen by May 31, 1862. On April 24, 1869, great flocks were considered a good omen of a favorable wheat crop. Two reports of nesting areas near Rochester in that year, one near Genoa, another in the timber at Pine Island, may have been describing the same concentration of birds. Mantorville papers gave its location as nine miles from that town. This was probably the place which William J. Mayo visited and described in a letter to Dr. Roberts. Flights of birds were observed by April 30, 1870. A number of pigeons had been seen by June 8, 1871, by April 13, 1872. Flocks appearing near the city in late August and early September were considered unusual. The only explanation was "that they have heard of our big wheat crop ... and have come up to collect their tithe in it." The last mention

of pigeons near Rochester appeared on May 17, 1873, when a concentration of nests was reported "near the old village of New Haven in this country."¹⁹²

Residents of Chatfield reveled in the presence of the Passenger Pigeon from 1863 to 1883. In 1863, 10 years after the founding of the town, it was asserted on April 25 that the "oldest inhabitants" had never seen the birds in such vast numbers in that part of Minnesota. Birds were nesting in great numbers two miles west of the village near Bear Creek. Pigeons appeared early in April, 1864, disappeared toward the middle of the month, and were back by April 23, nesting three miles west of Chatfield in the timber. On May 7, hunters were already disturbing them. By May 21, young birds were almost ready to fly. Squabs were still taken on May 28. In spite of the persecution by hunters, many birds nested in the same area in the following year. On May 20, 1865, the local editor informed "all who have set their mouths for squabs that the late frosts had done no damage to that promising crop, which is expected to be ripe in about 10 days. It is thought by many that the number of pigeons is two to one greater than last year." On June 3, he was given 50 birds by a couple hunters. His benefactors drove a wagon loaded with birds through the town and cried as they went: "Here's where you get your squabs."¹⁹³

Four years elapsed before pigeons aroused much excitement in Chatfield again. In 1869, the birds had appeared by April 3. Residents hoped they would go into "the squabbing business" on April 21. Thousands were roosting in the woods on May 1, and were expected to nest. No comment followed to indicate whether the birds stayed. On April 9, 1870, pigeons were "reconnoitering the timber." Residents were assured that "our reporter is on the watch, and should they conclude to settle and proceed to the production of that tender and early vegetable highly seasoned with acorns and wild beans he will give due notice to those fond of pin-feather hash." No further notice came in that season, however. By June 3, 1871, they were reported as quite abundant and nesting in the timber. Some birds were flying over on April 13, 1872. The editor of the *Chatfield Democrat*, though he was "not as heavy on squabs as some folks," promised to welcome them "with bloody hands to hospitable graves." No record of nesting followed this ominous greeting. Birds were flying over in great numbers on April 5, 1875. There were many in the timber on May 10. No mention was made of pigeons in 1874. In the following year, nest-building activity had been observed in the same area "where they have nested two or three times before." This was the fifth and last known instance of the use of the site near Chatfield for nesting. Birds were seen on August 23, 1877 and April 26, 1879, and some of the residents were "praying for another roost." On March 10, 1883, one hunter reported great success shooting pigeons.¹⁹⁴

In Alexandria, the flight of pigeons provoked newspaper comment during a number of years. Birds were flying over by April 26, 1869. They were abundant on September 2, 1871, and September 7, 1872. Some birds had appeared by April 12, 1875. A few birds but no large flocks were seen in the spring, 1874. More pigeons than had been observed in the area for many years had been observed by April 23, 1875. No enormous migrations were recorded after that spring, though hunters bagged a number of birds in September 1876

and late August 1878. Of the five points where the flight of pigeons received repeated comment, the Twin Cities, Rochester, Chatfield, and Hastings were located in the southeastern section of the state; Alexandria alone represented the western area.¹⁹⁵

In a number of other towns south of St. Paul, occasional references to pigeons appeared in newspapers in the period from 1853 to 1877. Hunters at Glencoe had shot many birds by September 11, 1859. Those at St. Peter had similar good luck in September 1856 and July 1857. Large flocks were seen at Belle Plaine before May 5, 1860. Many birds began building nests in the woods below Mankato in May 1860, but disturbance "by Indians and others" caused them to desert the area. "Countless thousands" were reported in the woods east of Mankato on June 10, 1861. By June 25, 1862, many young birds had been killed in "the roost below town." Pigeons had been seen in flight at Fairmont by May 13, 1869. Hunters killed only a few birds in late August 1868, near Albert Lea, but by May 6 in the following year, residents saw great flocks "miles in length which almost darkened the air in their flight." People living on the Cannon River shot pigeons from the doors of their houses in July 1853. Large flocks were seen at Faribault before April 11, 1873. In 1877, many birds nested 15 miles from that town near Hader. This was probably the same concentration of nests reported near Wanamingo.¹⁹⁶

In the extreme southeastern part of the state, pigeons were recorded at three towns, two of which were near nesting colonies. In 1864, many birds nested at St. Charles. By April 6, 1871, pigeons were abundant in the neighborhood near Wabasha. Many nests had been built by May 11. "People who ought to know" said that they haven't been so numerous in twenty-five years." The next year, however, the scarcity of birds made "dull time for sportsmen." A few pigeons were seen about Caledonia before April 24, 1875. A Chatfield paper printed in 1875 a statement credited to the *Caledonia Journal* describing a pigeon roost at Preston, nine miles long, three miles wide, and "blue with birds." The comment was added: "O, what a whopper! No pigeon roost at Preston." Chatfield, proud of her own popularity with pigeons that year, did not intend to pass over claims of rival towns lightly.¹⁹⁷

North of the Twin Cities, pigeons were frequently observed in migration, but only three, possibly four, large nesting colonies were recorded. Apparently none of these nesting sites was used over a period of years. Hunters were killing birds at Sauk Rapids about June 17, 1856, and again by April 23, 1869. Large bags were taken near St. Cloud by June 21, 1860. The fields at Winnebago Prairie were covered with pigeons. They probably nested near St. Cloud in 1863, for young birds were reported abundant on June 25. The woods were "literally alive with them." Great flocks had been seen by April 27, 1865, "more than in many years." Hunters had good luck on August 9 and September 6, 1866, in the same locality. Flights over Litchfield received comment on April 19 and May 17, 1871. Old settlers in Stearns County claimed that a large nesting colony was located near Lake Koronis in the late 1860s. North of St. Cloud at Pillsbury, Todd County, pigeons were reported by June 21, 1881. In the next spring, many birds nested in that locality for the first time, according to one observer.¹⁹⁸

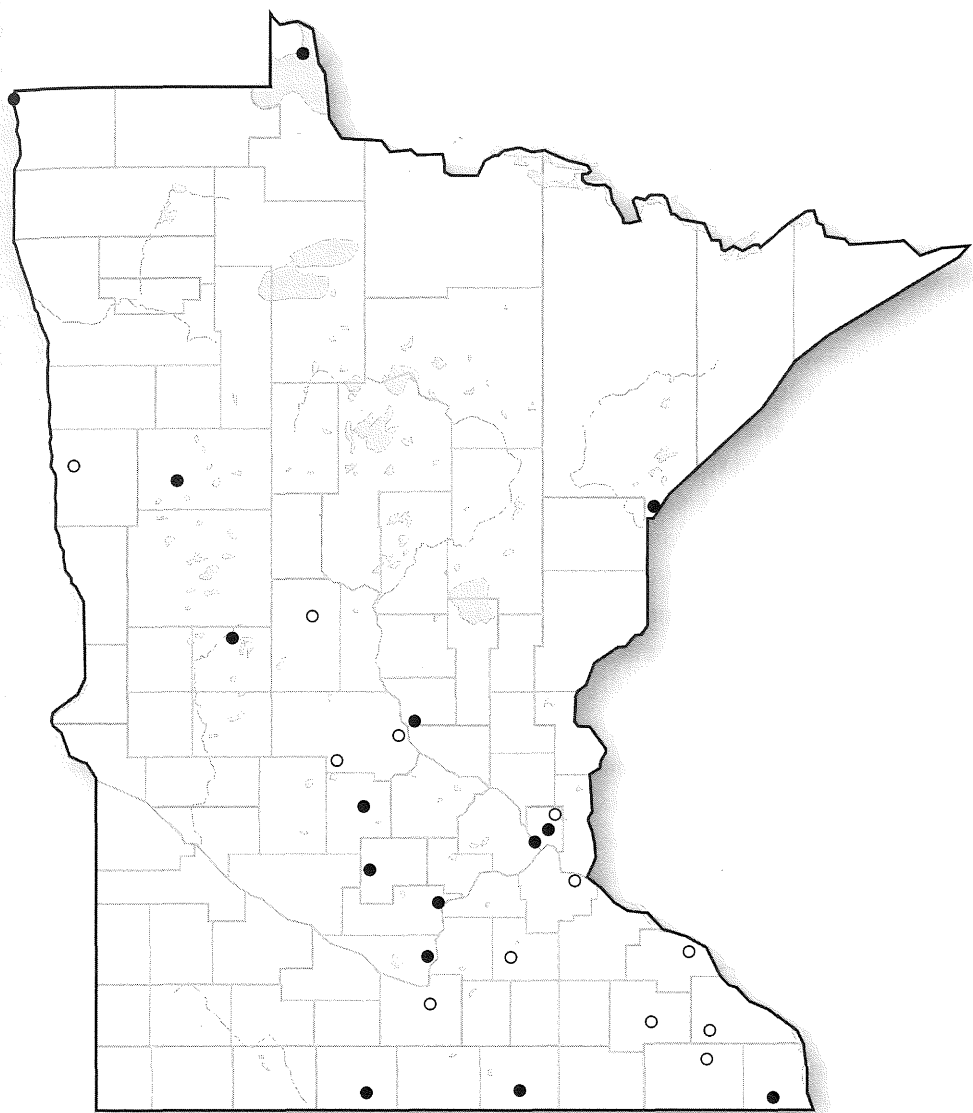
From farther west came accounts of the flight of pigeons. A contractor working on the Northern Pacific Railroad in the area from Detroit Lakes to the Red River described their abundance in 1871. Birds were plentiful near Detroit Lakes by June 8, and again in September 1872. Similar notice was made on August 15, 1874. Residents of Moorhead were impressed by the size of flocks seen during the week preceding June 7, 1873. On June 21, there were many nests at a site three miles down the river. The editor of the *Red River Star*, after a visit to the area reported: "The trees were perfectly alive and the air densely filled with the screaming pigeons.... We had conceived what might be expected, but were completely dumbfounded at the reality." It seemed to him that 100 birds appeared to fill the gap made by the death of one. He concluded, "While some portions of the world are suffering from starvation, our beautiful section rolls in the fat of pigeons." The arrival of the birds in 1876 was noted on June 10.¹⁹⁹

Travelers along the northwestern border frequently saw wild pigeons. A Canadian expedition in 1857 reported many birds in the vicinity of Garden Island, Lake of the Woods, on August 24. Samuel Scudder's party bagged some near the border on July 20, 1860. Canadian sources gave evidence regarding nesting colonies north of Lake of the Woods and Rainy Lake in blueberry and cranberry sections during this period. Coues saw vast flocks in late May 1873 along the Red River south of Pembina. He found some nests in June, but discovered no large colony. A party in the same area in July 1879 encountered only one small flock.²⁰⁰

Pigeons were a common sight near Lake Superior according to observers in the late 1860s and early 1870s. George Shiras III, whose familiarity with the South Shore began in 1870, commented on their presence. Large numbers were seen near Superior for about a week, then they seemed to disappear suddenly by July 18, 1868. Many birds flew over Duluth in the week preceding September 11, 1869. No nesting colony was found though birds were present all summer in 1871. Traveling along the North Shore in August 1879, Dr. Roberts saw some birds at the Poplar River, and considerable flocks near Grand Marais.²⁰¹ No reliable evidence of the pigeon's occurrence in that area after 1884 appeared.

From all of these accounts, those which clearly referred to pigeons' nesting in large colonies were: Two more cases in which the evidence was not as positive were nestings at St. Cloud in 1863 where many young birds were seen, and at Lake Koronis in the late 1860s. Information gathered by T.S. Roberts pointed to another at White Bear Lake, the date of which was not known, and one in southern Minnesota in 1867.

Comments on the size of nesting areas furnished some basis for comparison with famous colonies in other states. At Chatfield in 1863, the territory filled with nests of pigeons was six miles long and four miles wide. One observer claimed that 1,500 nests could be counted from any point within the area. Seventy-three nests were built in one tree. It was asserted that the nesting site near Rochester in 1869 extended seven miles, in 1873 four miles. The *Wabasha Herald* claimed that the one located in that town in 1871 was 30



Passenger Pigeon records, 1853–1883. Black circle indicates points where large flights of Passenger Pigeon were observed. White circle indicates points where large nesting colonies of Passenger Pigeon were reported.

miles long, but an old settler recalled the length as seven miles and width one-half mile in from the river. None of the Minnesota colonies approached the dimensions of the one at Petoskey, Michigan in 1878, which was 40 miles long and 3 to 10 miles wide, or that at Kilbourne City, Wisconsin, in 1871, a strip running 50 miles east of the Wisconsin River, eight miles wide, and 75 miles west of the river, six miles wide. The fame of the Wisconsin area received comment in contemporary Minnesota newspapers. In May 1882, Chatfield sportsmen went to Wisconsin to engage in “squabbing.”²⁰²

The marketing of the Passenger Pigeon has been considered in many detailed studies of the bird in the United States and Canada. A phase in the killing of pigeons which received less attention is the social and convivial aspects of these occasions. The jollity emphasized in accounts of southern Minnesota "squabbings," so different from sordid tales of systematic slaughter by professional hunters in Michigan and Wisconsin, may be an indication that this group did not seek the birds in Minnesota to the same extent as in states farther east. Hunters in Chatfield were warned on May 2, 1863, to cease shooting old birds and wait for squabs, which could be eaten "without being run through a sausage mill." By June 6, they were "in their prime for the gridiron." Hundreds were taken by crowds of men, women, and children who "made the forests ring with their shouts of merry glee. Strong men shook the saplings, little boys climbed the trees and women filled their aprons with the young birds. All infant pigeons that could not by strength of wing make their way to the highest trees met with a sure and certain fate." Gentlemen from Carimona joined in the fun. One reveler who enjoyed "pigeons cooked in every style with divers and sundry nightcaps" admitted at last that "fat squabs, whiskey, and boiled eggs are a bad mixture which refuse most decidedly to mix together."²⁰³

On April 23, 1864, the editor of the *Chatfield Democrat* invited "all creation" to a feast when the squabs were "ripe." It was said that "stewed squabs with whiskey sauce" were "not bad to take if you knew when you have eaten enough." On May 21, when the young birds were larger, residents of Carimona were urged to join in the raid upon the "animated pigeon eggs" growing in the Chatfield woods. One "squabber," in climbing a tree to oust young birds from the nests, suffered a rent in his trousers and had to descend in the midst of a circle of smiling friends "with their *backs turned toward him*." Thousands of squabs were eaten in the woods or carried off to neighboring towns during the last part of May. The fun was almost over by May 28 for the young birds were strong enough to avoid all injury except by shooting.²⁰⁴

The celebration at Chatfield in May 1865 was even more colorful. Delegations from Winona, Rochester, Preston, Troy, Carimona, Fillmore, and other localities were expected at the "camp-meeting of epicures" beginning May 27. The announcement stated: "Preying will commence at early dawn and continue till early candlelight each day. That the evening *exercises* will be, can be better imagined than described." All who expected to climb trees were urged to wear stout pants. People from Winona were arriving on June 2, more from St. Charles on June 3. "All the brethren" in attendance were "spiritually inclined." On June 10, it was estimated that 10,000 squabs were eaten or carried off on the previous Saturday and Sunday. A novelty feature had been made of the ascent of the "old squabber," Isaac Day, whose trousers made news in 1864. Crowds cheered, flags waved, and a band played while he climbed to the top of a tree. During his descent, the band struck up "Yankee Doodle" and the ladies "clapped their pretty little hands ... crying out in the fullness of their overjoyed hearts did you ever see such a day." The death of Isaac Day occurred in the fall of 1875 only a few months after the last opportunity for a "squabbling" celebration in the Chatfield woods.²⁰⁵

An interesting theory was evolved by A.W. Schorger about the location of pigeon roosts in the 1870s after his study of Wisconsin records. Nesting colonies were reported in Minnesota and Wisconsin during that period only in odd years and in Michigan and farther east in even years. He believed this choice of site was governed by the presence of oak mast in the west and beech nuts in the east. He found that in that decade, the beech throughout its range produced nuts in large abundance only in the fall of odd years, thus increasing the food supply for pigeons the following spring. Because of this fact, Minnesota, which had no beech at all, would have been less attractive to the birds than areas in Michigan, Pennsylvania, and the part of Wisconsin where that tree was native.²⁰⁶ The fact that large nesting colonies were formed at Rochester in 1869, at Chatfield and Wabasha in 1871, at Rochester and Moorhead in 1873, at Chatfield in 1875, and at Faribault in 1877 presents a curious alternation in years otherwise unexplained.

Because nestings might have occurred but remained undiscovered, records on the time of the year pigeons were seen and the numbers in flight during the even years were important. On April 9, 1870, flocks were seen at Chatfield. More were noted at Rochester on April 30. Many birds were seen by April 13, 1872, in both towns. They were considered unusually scarce later in the summer in the southern part of the state. No large spring flight was observed in Minneapolis in 1874. Franklin Benner commented on the scarcity of pigeons along the Minnesota River that summer. Flocks at Detroit Lakes on August 15 and at Alexandria on June 13 and August 21 were probably just feeding in those regions. In 1876, large flights were recorded in Minneapolis on April 24, and in Moorhead on June 10. Hunters killed some birds at Hastings on May 20. In 1878, a large flight was observed in Minneapolis on March 26, and many birds frequented nearby woods in September. No spring flight was seen in 1880.²⁰⁷ These records showed that large numbers of pigeons appeared in Minnesota early enough for nesting in 1872, 1876, and 1878. Whether the birds deserted the state entirely for nesting operations remains a mystery.

In Schorger's opinion, practically all the pigeons in the United States nested at Kilbourne City, Wisconsin, in 1871. Other small colonies separate from that one he considered were formed by birds disturbed in their first nest-building. He found that construction of nests began at Kilbourne City about April 15, young birds were flying on May 19, and adult birds were leaving for Minnesota on May 26. Since many pigeons were in the neighborhood of Wabasha before April 6 and squabs were hatching on May 16, this could not have been a second nesting. Information about the birds at Chatfield was brief. On June 3, it was noted that the birds "are building nests in the timber. Squabs—for those who like 'em." These might have been pigeons disturbed in another area seeking a new nesting location or just feeding in the vicinity. Hunting of squabs was almost over at Kilbourne City by May 19.²⁰⁸ Most of the Minnesota records gave a later date for birds' leaving the nests. The greatest activity of hunters among the nests was quite generally during the last 10 days in May and the first week in June.

The last nesting concentration reported in Minnesota was that at Pillsbury in 1882. Dr. Roberts considered reliable a record of a pigeon's nest near Minneapolis in 1895. The last surviving bird known of the species was a captive one in the gardens of the Cincinnati Zoological Society in 1910.²⁰⁹

Legislation for the protection of the Passenger Pigeon during its nesting period was provided in New York in 1862, in Michigan in 1860, and Pennsylvania in 1878. Massachusetts had a close season in 1870. Minnesota lawmakers had little interest in the birds. Mosquitoes were considered able defenders of the species at Hastings in June 1862. St. Paul residents reproached men in Wabasha for killing birds on the nest. "No 'sportsman' would kill a bird while breeding." A law passed by the state in 1877 protected pigeons during the nesting season in Olmsted and Dodge counties, but the large nesting colony in that year was located in Rice County. Even when harmless passerine birds were protected by law, wild pigeons were made an exception to these provisions, along with blackbirds and sparrows. In 1891, snaring or netting of pigeons was still legal in Minnesota.²¹⁰

The Decline in Numbers of Sandhill and Whooping Cranes

Sandhill Cranes were noted in Minnesota by several observers in the period before 1860. Henry considered "gray" cranes common near Pembina. Colhoun listed the species among birds seen on the Minnesota River. Keating noted that the party at first glance believed a flock of Sandhill Cranes to be a group of elk because it was so difficult to estimate size on the prairie. Some birds were seen near the Cannon River on July 12, 1852. J.G. Cooper, the ornithologist on the Pacific Railroad Survey, collected one young bird on June 15, 1853. Hunters brought in another on June 27 before the party reached the Red River. Scudder saw some of these birds on his return through the northwestern prairies from Pembina in 1860.²¹¹

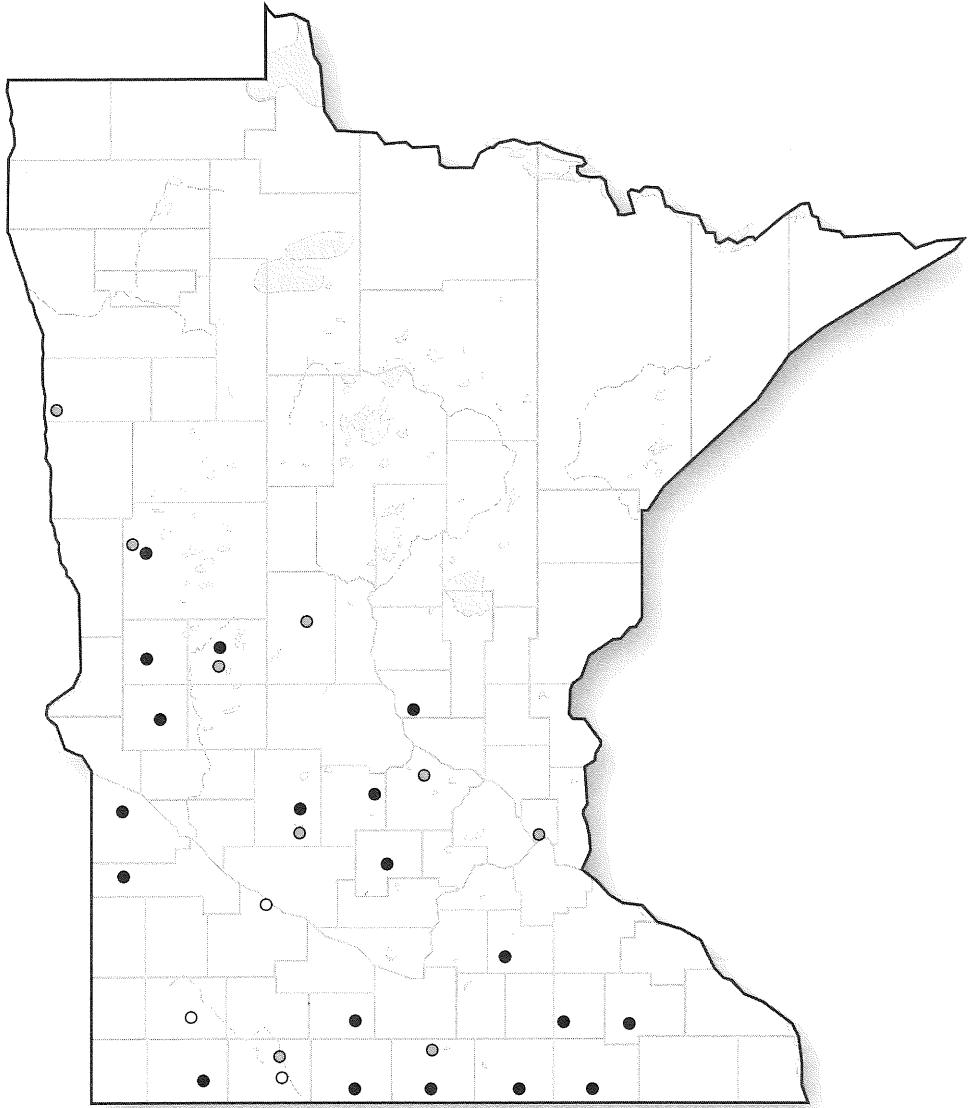
Dr. Roberts, in summarizing data on Sandhill Cranes in southern counties noted that they probably nested near Heron Lake, Jackson County, in the 1860s and 1870s. Nesting was reported in 1893 for that county and migration on April 12, 1898. Birds were seen in flight also in Redwood County on April 9, 1899. News from hunters and sportsmen published during the period from 1870 to 1891 frequently concerned this popular game bird of the prairies. Large numbers were seen in Martin County before September 24, 1870. One bird was taken by a hunter in Dodge County in October 1870, another near Rochester, in April 1872. Near Faribault in October, they were almost as plentiful as wild ducks. The report was that "it is not an infrequent sight to see forty or fifty of them standing at regular intervals upon some elevated piece of ground like so many sentinels." Two birds were killed in Freeborn County in October 1875. According to a note in *Forest and Stream* signed by T. Vernon Hatch, there were thousands on the prairie during the summer of 1873. Coues believed they nested in the state at that time.²¹²

Hunters at Buffalo Lake near Glencoe in 1875 claimed they saw 12 to 15 Sandhill Cranes performing the elaborate dance for which the species was noted. "Two of them stepped to

the front, saluted, danced up and back, right and left through, bills up, dos-a-dos with wing accompaniment. This set would then take their places in the rank and a new set would go through the same evolution." One witness declared the performance was "better than the Can-Can." Cranes were seen near Austin in 1875, near Madelia in 1877. In that year, Hallock's *Gazetteer* listed the bird for Mower, Freeborn, Faribault, and Nobles counties, all located on the southern border. Cranes appeared in Martin County in migration by March 1, 1878. Sportsmen hunting geese, ducks, and prairie-chickens there in the fall got a "fine sprinkling" of cranes. Some birds were seen in Minneapolis by March 29, 1880. A nest was found near St. Paul on June 29. Three cranes were shot at Heron Lake before October 1. Sportsmen said that the bird was found near Fairmont in August 1891 and at Slayton in May 1892.²¹³

In considering the region farther to the north and west, Dr. Roberts noted that Sandhill Cranes nested in central Minnesota up to 1880, in Grant County in 1879, and were seen between Fergus Falls and Breckenridge in 1885. He saw the bird in April 1880 at Ada, Norman County, and in May 1861 near Monticello, Wright County. Other towns were mentioned in information from sportsmen and remarks in newspapers. One bird was killed near Sauk Rapids in September 1868. The spring migration was observed in Litchfield by March 30, 1871, and April 6, 1872. One bird was killed there in September. Hunters after geese in April 1874 killed a number of cranes near Alexandria. A man in Fergus Falls had a young bird in June 1876, "not a month old," which he was trying to domesticate. It was "sandy-haired, tall as a year old turkey, full of fight, and talks a good deal with his mouth."²¹⁴

Hunters took some cranes in Kandiyohi County in 1877. Grain-fields where grasshopper destruction was exceptionally bad were left uncleaned, thus furnished some food for ducks, geese, and cranes. Hallock listed the birds for Lac qui Parle and Yellow Medicine counties. One man killed eight cranes near Fergus Falls before October 5, 1877. Late in September 1878, "geese and Sandhills" drew "the fire from the chickens." On October 4, the editor of the *Fergus Falls Journal* acknowledged the gift of a "Park Region turkey—a Sandhill Crane." In 1879, residents of that area declared that no wild fowl except possibly the partridge equaled the Sandhill Crane "when nicely served for dinner." Birds were seen in Stevens County that year. The unusual height of migration characteristic of the species impressed observers in Alexandria in April 1880. Some Sandhill Cranes "circled around our town last Wednesday noon, up so high that their gurgling could scarce be heard, while the immense birds looked no larger than sparrows." Sportsmen in Kandiyohi County were pleased with the delicious flavor of birds they bagged in 1884. A hunter from Todd County in that season boasted: "Sandhill Cranes were seen in vast numbers and one monster, evidently the king of all the cranes, fell to the gun of the writer." A warden reported the species in Kittson County in 1892. It still occurs and nests within the state, but its importance as a game bird ended in the 1880s.²¹⁵



Sandhill Crane records, 1868–1900. Black circle indicates a record for the county from 1868–1879. Gray circle indicates a record for the county from 1880–1889. White circle indicates a record for the county from 1890–1900.

The Whooping Crane has not been observed in Minnesota since 1917. Dr. Roberts enumerated reports of the bird near Mille Lacs in 1870, of a Minnesota migration in 1874, a Grant County nesting in 1876, and migration through Fillmore County in 1884, Jackson County in 1895, Kittson County in 1898, and Faribault County in 1898. Coues believed it nested in Minnesota in the 1870s. Hunters’ stories added only a little information. A young white crane was captured alive near Fergus Falls in 1876. In the same locality a man shot a “pure white crane with black wing tips,” a bird about six feet high, in October 1879. Three Whooping Cranes were seen on July 6, 1879 near Pembina, the same area where



"Laque du Cygna" from George Catlin, *Letters and Notes on the Manners, Customs, and Condition of the North American Indians*, 2:206. Some of the travelers along the Minnesota River, who preceded Catlin, mentioned the occurrence of swans on Swan Lake. In this picture the artist has represented a number of the birds gliding over its waters.

Henry observed the bird in the early years of the century. An "enormous white crane" was killed near Fergus Falls in April 1883. The species was reported near Fairmont in 1891, in Kittson County in 1892. When one bird was shot in Lac qui Parle County in October 1896, local hunters did not know whether it was edible. Arthur James Pegler assured them that it was.²¹⁶ Little evidence on the population status of this species was given in the sparse comments throughout the century. It was probably never as common as the Sandhill Crane. When that bird was still abundant enough to furnish some sport, hunters rarely killed a Whooping Crane. Both birds were considered rare species by 1860.

The Disappearance of the Trumpeter Swan

The Trumpeter and Whistling swans were both found in Minnesota in the 1850s. The former, the larger bird, nested in the state. It was observed by explorers in the 1820s and 1830s. Keating, Beltrami, and others saw or heard of many birds on the lake named for them near Mankato. Featherstonhaugh saw hundreds of birds with cygnets on Lake Pepin. Later evidence of its occurrence within the state was given by the dragoons en route to Pembina and by men on the Pacific Railroad Survey. A swan killed at Lake Phalen in April 1858 was probably a Trumpeter since its wing spread measured eight feet. Though that was the usual size of the birds, local pride or humor led to the theory that "the large development could be accounted for in no way except by the extraordinary fertility of the soil and the purity of the atmosphere." Coues and Hallock believed the species still bred in



"A Party of Indians in Chase of a Herd of Bison" in the vicinity of the Teton River, in the upper Missouri country from Catlin, *Letters and Notes*, 1:252.

Minnesota in the 1870s. There must have been a marked decline in numbers by that time since it caused general comment. When one Whistling Swan was shot and seven more seen on Cannon Lake in March 1878, the editor of a Faribault newspaper remarked: "We understand that swans were quite frequent in the lakes when Mr. Faribault first came here. There were two varieties." Dr. Roberts found no valid nesting record later than the middle 1880s.²¹⁷ The Trumpeter Swan vanished entirely from the state.

The Increasing Rarity of Certain Fur-bearers

Population changes among fur-bearers in Minnesota presented a complicated picture. Wolverine, fisher, and marten were three species which were disappearing by 1900. Apparently wolverine was not really abundant at any time during the nineteenth century. Tanner, Keating, and Pope listed it among furs taken along the border in the vicinity of Rainy Lake. Henry's statistics for the early years of the century showed that only 21 skins were taken in seven years. Nicollet and Lewis counted it among fur-bearers taken by the Chippewa of the upper Mississippi. Schoolcraft and Ely actually saw the wolverine on their journeys in the north. Schoolcraft, on July 23, 1820, saw one that was swimming across the river near Pokegama Falls. Ely's observation was made while he was en route from Fond du Lac to Sandy Lake on the Savanna River, March 25, 1837. "Saw a wolverine coming toward us on the Ice about 8 or 10 Rods distant, he stopped—looked at us, and again approached took alarm and ran. William sprang upon his feet—flourished his hatchet—ran after him

a few rods uttering a yell that only tended to quicken the animal's speed. We could see him for a Mile or more, pursuing his run up the River."²¹⁸

Among the records of traveling buyers of the Ullmann Company, purchases of 13 wolverines in Minnesota were cited. A single skin came in a shipment from Superior City (Wisconsin) on May 20, 1883. One was bought at St. Cloud on January 14, 1869, another December 15, 1869, and two on August 5, 1870. One was included in furs collected at Taylors Falls on February 2, 1870, another at Duluth in March 1870, six at Crow Wing, February 13 to 15, 1871, and one at Leech Lake in January 1887. The total number handled by the company from all points of collection in 1870 was under 40. A correspondent of *Forest and Stream* at Leech Lake in 1875 declared that Indians occasionally took wolverines. Hallock listed the species for that region in 1877. A Grand Rapids newspaper reported the capture of one animal near the Rainy River in 1894. Surber accepted a record for Itasca County in 1899. There was no great demand for the skin in the fur trade, so it was not especially sought. Moreover, the species was noted for exceptional skill in escaping from traps, hence the records of capture were not as reliable an index to its abundance as in some animals. Surber believed it was fairly common in the evergreen forests up to 1897. One animal was captured in St. Louis County in 1918.²¹⁹

Trapping of fisher and marten made these two species rare in Minnesota by 1900. Fisher were probably fairly common in the early part of the century. At Henry's post on the Red River, 429 skins were taken between 1801 and 1808. Thompson said that those taken between Lake Superior and the Mississippi River were "uncommonly large, the color a rich glossy black brown, and the furr fine." Pike listed 38 fisher for Red Lake, 66 for Leech Lake, 62 for Sandy Lake, and 17 for Fond du Lac in 1805. Keating said both marten and fisher were "very abundant" near the Rainy River. Sibley urged his Indians to seek both furs. The season was "favorable" in 1834. In 1839, Provencalle had 38 fisher and 62 marten. From the mouth of the St. Croix, Sibley received in the same season 75 fisher and about as many marten. He noticed that fewer were taken in 1841. Trappers still collected fisher in the 1840s near Pembina.²²⁰

Some idea of the status of fisher in later years was gained from purchase records specified within Minnesota made by the Ullmann Company buyers. From 1860 to 1890, the number was only a little over 100. Among the entries, those of more than two or three skins were:

St. Cloud	-12-	October 7, 1869
Duluth	-19-	March, 1870
Crow Wing	-62-	February 13-15, 1871.

The only points of collection in the 1880s were Duluth and St. Hilaire. The company got a larger number in its Red River trade, 149 from that source alone in 1877. Ullmann's handled 828 skins of fisher in 1870. The bulk of these were probably from Canada since there were so few purchase records in the state. The numbers purchased by dealers were

undoubtedly influenced by market demand for this species. Sibley was anxious to get fisher in the 1830s and 1840s, but a circular of the Ullmann Company in May 1901 stated: "Fisher are neglected and showed a decline in London of from 25 to 30 percent. This article is used almost exclusively by Russia and at the present time is not at all fashionable."²²⁰ Despite this factor, a comparison of the records for the early and later part of the century gave evidence of a decline in the numbers. The range of fisher was predominantly within the coniferous forest. With the expansion of the lumbering industry, the animal retreated to the remaining wilderness.

Marten was probably not much more abundant than fisher in the early days, but its fur was sought more by trappers. La Verendrye was concerned with its collection. Two men at Hugh Faries' post at Rainy Lake made 180 marten traps in five days in February, 1805. Henry said his men took a "chance marten." A wide fluctuation was indicated from 1801 to 1808 in the numbers of the catch at his post—6, 9, 5, 3, 271, 75, 69. Pike understood that 47 were taken at Red Lake, 26 at Leech Lake, 61 at Sandy Lake, and 201 at Fond du Lac. Sibley did not get as many as he wanted. Ullmann's purchases within the state from 1860 to 1890 numbered less than 200 skins. The largest entries were:

Crow Wing	-96-	February 13, 15, 1871
Duluth	-18-	February 1880

The total number of marten skins handled by the company in 1870 was 623. This species suffered along with fisher because of the reduction of the coniferous forests.²²¹

The fluctuation in numbers of other fur-bearers did not clearly indicate a decline. Minnesota beaver had been so reduced by 1800 that the fur trade in this article was small under the American Fur Company. One observer said that it was never found near Lake Superior in the 1840s. It was not important in the trade after 1850. Statements like that of Lanman in 1846 that beaver and otter were becoming extinct and the glory of the American Fur Company had departed, led to the general belief that fur-bearing animals were scarce thereafter. However, some species which had suffered from over-trapping may have actually increased after 1850 when the furs were no longer fashionable. Isaac Stevens' party in 1853 observed that "the beaver and land otter, particularly the former, have multiplied rapidly.... They are now in greater numbers than they have been at any time since the first flush of the trade. The natives no longer seek them, as they get clothing from the whites, and also because the skins bring such small returns, a dollar being the present price of a large beaver skin in the stores. The Hudson Bay Company gives much less for them in trade."²²²

Mink and muskrats were commonly taken by trappers throughout the century. Fox, wolf, wildcat, lynx, skunk, raccoon, badger, and weasel were represented in the state after 1850, but the mass of records on their collection did not indicate any general trend in their numbers.

The Reduction in Numbers of Timber Wolves

Timber wolves were found in southern Minnesota until 1885, but had been gradually retreating to northern areas, their only range within the state at the close of the century. The northern coyote or "prairie wolf" extended its range into cut-over and burned-over forest land, but newspaper accounts and sporting records did not differentiate the species frequently enough to give much information on the dates of the change. Southern Minnesota towns where timber wolves were taken in the 1860s and 1870s included Owatonna, Mankato, Chatfield, Spring Valley, Worthington, and Faribault. Sixty-one were taken near Hastings from January 1, 1882, to March 24, 1883. One of the last southern reports was from Dodge County in 1884. Much annoyance was caused by coyotes in southern Minnesota about 1875, particularly near Zumbrota. One of these animals observed near Fergus Falls in 1873 was considered an unusual sight since the departure of the bison.²²³

The Reduction in Numbers of Bears

Records of explorers and traders and notices in early newspapers indicated that the black bear was distributed throughout the wooded part of the state, but they gave little evidence on its numbers. At Henry's post, the numbers of black or brown bear, color phases of one species, which were taken from 1801 to 1808 were 22, 38, 29, 34, 71, 150, 55. Pike's list including cubs gave 30 at Sandy Lake, 28 at Fond du Lac, 50 at Red Lake, and 56 at Leech Lake. Gilfillan's estimate of 300 taken by Indians in 1895 was the largest of the figures for this animal. The skin was a minor article in the fur trade. The meat was often sold on local markets. The editor of a Mankato paper called bear steak a luxury, but it did not have the wide popularity of other game. Advancing settlement limited the range of the species to northern wilderness areas. Henry's statement that grizzly bear was found rarely on the Red River was the only reference about the occurrence of this animal in Minnesota.²²⁴

The Reduction in Numbers of Moose

Moose did not suffer to the same extent as elk and caribou, but there was great concern about the status of the species in the 1890s when many people believed it had declined so greatly it was in danger of becoming extinct. Records of the traders and explorers did not indicate that it was ever very numerous. Henry's trappers captured five animals in 1802 and in the following five years, 25, 1, 179, 97, and 40. Pike gave 21 moose for the Leech Lake catch, 47 for Red Lake, 25 for Fond du Lac, and 15 for Sandy Lake. Beltrami heard that it was very rare and hence he was doubly proud of the costume in which he appeared at Fort Snelling: "shoes, coat, and pantaloons ... formed of original skins sewed together by thread made of the muscles of that animal."²²⁵

The southern boundary of the moose range in 1857 according to Thaddeus Surber was a line running southeast from Kittson to southern Pine County. He considered it scarce even north of that line in Cook and Lake counties in the 1870s and 1880s when caribou still inhabited the region, and he suggested a possible succession of species: caribou, moose, white-tailed deer in the Arrowhead Country. Between 1850 and 1890, one moose was seen

near the Twin Cities, but most reports were from northern counties. There were some people who believed them numerous within the northern range in the 1880s. A number of animals were seen near Lake Itasca in November 1884. The column, "Our Museum," in *Farm, Stock, and Home* noted that they were "more numerous" in 1886. One hunter who killed a moose at Lake Itasca in April 1887 brought it into Park Rapids and "divided the meat among his neighbors free of charge. Almost everybody had a taste of moose meat," and consequently there was keen resentment against the action of the game warden for arresting the hunter.²²⁶

There was a close season on moose from 1891 to 1898 and many conflicting opinions arose on the question of the population of the species. The belief at Aitkin was that there were more animals because of the protection. The vicinity of Red Lake was a popular range. Of the 358 animals taken by Indians in 1895, according to Gilfillen, 200 were captured there. A sportswriter in the *Minneapolis Journal* believed the species would have been extinct if the close season had not been provided. Two authorities out of the state expressed themselves on the matter. Madison Grant, in a discussion on moose as a vanishing species, in 1894 stated: "They are rather plentiful (that is, for moose, which is everywhere a scarce animal) in the tamarack swamps of northern Minnesota around Red Lake. A very few are found in Wisconsin and the northern peninsula of Michigan." Hornaday traveling through Minneapolis in November 1900 told reporters in an interview that he believed the species was declining in Minnesota because the moose country was being gridironed with railroads and overrun with settlers. He was afraid that "in a few years moose will be little more than memory." Fullerton, on the contrary, insisted in January 1901 that there were "plenty of moose in Minnesota for all time to come if they are only properly taken care of."²²⁷

The Reduction in Bird Populations

There were a number of bird species which suffered a decline in numbers, though the extent was not that of the pigeon, cranes, and Trumpeter Swan. Woodcock, always popular among eastern hunters, was considered a vanishing game bird by the United States Department of Agriculture in 1901. Dr. Roberts concluded that it was never abundant enough in Minnesota to encourage hunting, though he noted a possible exception in one area. The territory along the Mississippi River below Lake Pepin was described by T.S. Van Dyke in 1878 as excellent woodcock country. He commented on the excellent sport, the certainty of finding birds, and ease in following them. Other records accumulated by Dr. Roberts gave no evidence of such conditions.²²⁸

Newspaper reports indicated that there were periods at which woodcock were sufficiently numerous to provide good sport. In September 1859, William Golcher shot two dozen woodcock in a few hours on the west side of the Mississippi near St. Paul. The *Pioneer* remarked of that season, "the choicest of all, the woodcock, can be bagged by the experienced hunter without much trouble." Though woodcock were scarce on the market in 1873, in the following year, 30 to 60 birds were considered the usual bag of each hunter on the Minnesota River bottoms. Three men hunting in Dakota County on July 4, 1874, got 57

woodcock. In July 1876, two men hunting one day in low country above Hastings considered their efforts of "indifferent success" since they shot "only thirteen birds." The average bag in that locality in 1879 was 20 woodcock a morning. Van Dyke in 1878 stated that there were hundreds of acres along the Mississippi where there were nearly always plenty. He did not think western sportsmen were interested in them however. "The woodcock is not disturbed by the majority of hunters in this section."²²⁹

The remarks of a hunter in 1882 after a trip to Prairie du Chien indicated that the upper Mississippi Valley was famous among woodcock hunters. He was disappointed in his own experiences, for he had heard of "the large number of woodcock which are yearly killed on the banks of the Mississippi ... I heard of many woodcock, both dead and alive during my brief stay at Prairie du Chien ... In fact I never saw but one cock." The area had a reputation for woodcock among hunters which dated back to 1830 in sporting periodicals. An army officer reported the bird to Coues in 1874 as a summer resident near Fort Snelling. That area was said to be "fair" ground for woodcock in August 1882. In September 1835, two men shot 55 birds in one day near Hastings."²³⁰

Even in the 1890s, there was considerable interest in woodcock hunting. In July 1895, great numbers of birds were reported making their "summer quarters" between Fort Snelling and Bloomington. Good sport was expected considering that "woodcock are scarce in this part of the west. The scrub patch out toward Fort Snelling used to be a famous woodcock ground, but for years past the birds have been so few that it has been hardly worth while going after them. There are said to be plenty of birds in the oak scrub south of Aitkin even now." It was noted that well-trained cocker spaniels were needed in hunting these birds. This was an unusual observation in the Northwest, for although this dog was named because of its value in hunting this species, it was never widely used by Minnesota sportsmen. In July 1896, one observer believed hunters would find sport among woodcock near Fort Snelling, Glencoe, Excelsior, and at Lake Lucy and Lake Ann, Carver County. In 1897, sportsmen reported good bags, found "more birds than usual." One hunter got 11 in a half-day tramp on the Minnesota River bottoms. This was considered not bad since "the woodcock is scarce enough wherever you find him." It was remarked that only a few years before the woodcock seemed to have disappeared entirely from the state. Hunters were advised in 1899 to go to willow patches along the Minnesota River, to follow sluggish streams fringed with alder near Glencoe, and to search near Carver County lakes. Borings in the ground, made by the bird's bill, and the spectacular twilight flight were wisely suggested as signs of good country. In these districts, sportsmen were promised shots at 3 to 12 birds without moving 20 yards from the spot where the first bird was flushed. These comments contained few specific remarks on numbers of woodcock, but the amount of space devoted to the bird on the sport page of the 1890s indicated a widespread interest among hunters.²³¹

Another game bird of some importance was Wilson's Snipe or Jack Snipe. Golcher shot 81 of these in a few hours near St. Paul in 1889. A glorious season on snipe was reported.

Hunters were out in every direction with dogs and guns, getting large bags. In September 1897, a hunter in the area between Minneapolis and the Minnesota River got 57 snipe in two and one-half hours. Thirty were Jack Snipe, the rest "tip ups" (probably a species of sandpiper). Near Pipestone in the same season, a hunting party got 200 Jack Snipe in one day. In October 1899, it was possible "to put up a brace or two almost any time in season" in the area along Lyndale Avenue to the Minnesota River, according to one report. Hunters were shooting coots or mud hens in October 1896. The breast of this species was considered good food.²³²

Rails were not often counted among game species. A sportswriter in 1899 heard that hunters at the Long Meadow Gun Club had taken only seven Wood Ducks and many mud hens by September 19. They were shooting at Carolina, King, and Virginia rails while waiting for the fall flight, although these were "rather indifferent substitutes for ducks." A rail furnished "fairly good sport though he will not fly anything like so hard as a Mallard or teal. There have never been so many rail in Minnesota ... When ducks are plentiful nobody bothers about rail."²³³

Golden- and Upland plover, sometimes sought by sportsmen, suffered most because of market hunting. Dr. Roberts noted a reduction in the numbers of golden-plover by 1890 in the eastern part of the state, somewhat later in the west. Upland Plover, a common bird in the open country of Minnesota in the 1870s, declined in numbers during the same period. Even in ducks and geese, a reduction in numbers was apparent from the period described by Sibley when a good hunter could take 1,000 ducks in one day!²³⁴

The Ruffed Grouse was found originally in wooded districts in many parts of the state, possibly in the open country also. Carver, Pike, Keating, and Graham were all familiar with the species. Sibley, on a hunting trip in 1847 near the Crow River, heard "a peculiar chuckle issuing from a poplar grove nearby which warned us of the vicinity of a number of Ruffed Grouse." Birds were shot on their roosts to satisfy the appetites of the hungry men.²³⁵ It continued to be a popular game bird throughout the years. With the cutting of the Big Woods and other hardwood forests, the cover was limited and the number of birds in the southern part of the state declined. Market hunting in the northern forests caused a great mortality, but the species was maintaining itself where cover and food existed in 1900.

The Canada Spruce Grouse was much more abundant in the early part of the century, gradually declining with the reduction of the coniferous forests. Pike mentioned the capture of 15 partridges in February 1806 near Cass Lake. Some, "nearly black with a red mark over their eyes," he called the savanna partridge. Graham's comments on "swamp" partridge near Fort William and Mille Lacs probably referred to Spruce Grouse also. Agassiz in 1849 found Spruce Grouse abundant near Lake Superior. He noticed that Ruffed Grouse often nested in the wettest part of the swamps, while spruce partridge chose higher ground. He compared the situation with the White Mountains where "the spruce-partridge is met with only at considerable elevations, among the spruces of 'black growth,' and the other bird

in the valleys or lower slopes. But here where the spruces come down to the general level of the country, the difference of distribution is still expressed." The bird was considered common about Mille Lacs about 1865, but had been exterminated in that area by 1885. A surveyor reported its occurrence in the upper St. Croix country in 1870. It was said to breed in the central part of Minnesota from Carlton County west to the Mississippi River "where it finds congenial resorts." Immigrants used it for food, though its spruce needle diet did not add to the flavor of the meat.²³⁶ It made little effort to escape and was easily killed by clubs. The chief enemy of the species, however, was the lumberman. By 1900, it survived only in the forests in the northeastern part of the state and near the northern border.

Before 1850, a third species of grouse, the Sharp-tailed, had been common throughout the western, central, and southern areas of Minnesota. Carver, Pike, Colhoun, Beltrami, Featherstonhaugh, and Catlin saw numerous grouse which must have been this species. Some indications of its abundance in the middle of the century appeared in the records of Lanman, Graham, Sibley, Stevens, and Scudder. In the case of this bird, the farmer, not the lumberman, sought the land which had formerly been its home. Its habits demanded some open country but brushy cover as well, and the clearing of the land for wheat-farming destroyed its value for this bird. The years after 1850 saw its gradual retreat to the north until it was to be found only in a few northern counties. Though its numbers were steadily depleted in its former range, it may have entered some sections of Minnesota where it was not found in the early days. A contributor to *Forest and Stream* declared in 1892 that he had visited Isle Royale in 1868 and seen only Ruffed Grouse. In 1890, he saw "prairie-chickens" and learned from settlers and fishermen that the birds had appeared "three or four years ago." Indian guides near Grand Marais told him that the birds were occasionally seen in burned-over areas in that vicinity.²³⁷

The Appearance and Increase of the Pinnated Grouse

There were some game species which benefited by the changes produced by white men. The coming of the Pinnated Grouse or the prairie-chicken to Minnesota and the northern retreat of the Sharp-tailed Grouse well illustrated the different adaptation of birds to farming conditions. An article in *The American Turf Register* in 1832 recognized the Sharp-tailed Grouse as the original resident of the state, and reproduced a painting of the bird by Peter Rindisbacher. This "Grouse of the Western and Northwestern Prairies" was reported very abundant in all the great western prairies, where it afforded fine shooting. It was "the most northern kind, not seen below 42° of north latitude." Rindisbacher's painting of the Pinnated Grouse appeared in 1833. An article in the same periodical in 1835 described the efforts of an army contractor to take six prairie hens from the upper Mississippi River to Pittsburgh. He had little success since three birds escaped and two cocks killed each other. Aldo Leopold placed the original boundary line between Sharp-tailed and Pinnated grouse near the southern boundary of Wisconsin, though he felt the two species overlapped in the area north of Chicago. Early records distinguishing the birds in Minnesota were vague. E.G. Gear, who came to St. Paul in 1839, considered the Sharp-tailed Grouse the dominant

species, and stated that Pinnated Grouse, rarely seen at first, increased after settlement. Sibley said the second bird had replaced the first within his memory but gave no specific dates. Goodhue noted that Pinnated Grouse were scarce in 1852.²³⁸

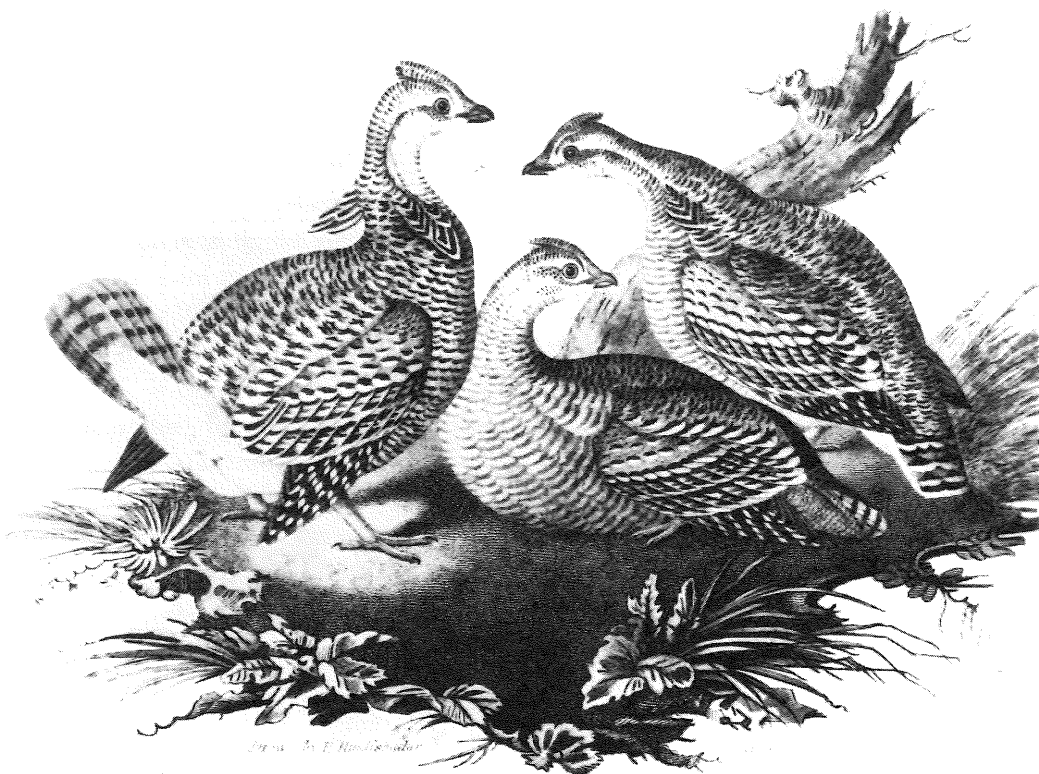
Apparently the Pinnated Grouse was well established in southeastern Minnesota by 1850. Its continued expansion following the grainfields was observed by ornithologists and sportsmen. Coues found in 1873 that the Pinnated Grouse was the common bird about St. Paul. A few Sharp-tailed Grouse remained near White Bear Lake and that was the only species in the Red River Valley. In 1873, a Pinnated Grouse was shot at Fort Ripley. Prairies near Wadena in 1875 were "alive" with Sharp-tailed. Some Pinnated were taken by hunters near Herman in 1877, but Sharp-tailed farther to the northwest. In 1879, Pinnated Grouse were seen up to 47° latitude, 40 miles from the Dakota line. T.S. Roberts and Franklin Benner saw only Sharp-tailed near Hermann in 1879.²³⁹

The northwestern advance of the new species continued in the 1880s. Three Pinnated Grouse shot at Hallock the same year were seen by T.S. Roberts. Charles Hallock the same year was surprised at the number of Pinnated Grouse seen as far north as Pembina. By 1864, he considered it abundant in the area. One sportsman reported an equal number of the two species for the hunting season of 1883 in Kittson County, although Pinnated Grouse had been rare in 1890. Washburn testified to its abundance in the northwestern part of the state in 1885. One Canadian author believed the bird had entered Manitoba by 1881. Several reports of the species in Canada were made by 1884.²⁴⁰

Contemporary recognition of the shifting range of the two species probably added to the accuracy in the observations. Hallock's *Gazetteer* announced in 1877: "In Minnesota where formerly the white-bellies abounded, and the prairie-chicken was unknown, the former are now becoming each year more scarce, and the latter more abundant. The Pinnated Grouse seems to follow the husbandman, and to be far less wild and untamable than the Sharp-tailed." Although the natural expansion of prairie-chickens was through grainfields and open country, it adapted itself to clearings and crop plantings in forested areas. It was reported in cut-over land near Mille Lacs in 1885. Its appearance along the North Shore, in St. Louis County, and on the iron range was not observed until after 1900.²⁴¹

The Appearance and Increase of the Quail

Quail or bobwhite was another species like the Pinnated Grouse, not native to Minnesota, which gained a foothold after farming activity had increased its food supply. According to John H. Stevens, some of these birds were introduced by Franklin Steele. They were brought up the Mississippi River and released about two miles from Fort Snelling. Grain for their use was placed in the area, and although they lived through one winter, Stevens believed they did not survive a second one. An account of this experiment in the *Alexandria Post* in 1869 stated that it occurred in 1845, and that the birds were from Iowa.²⁴²

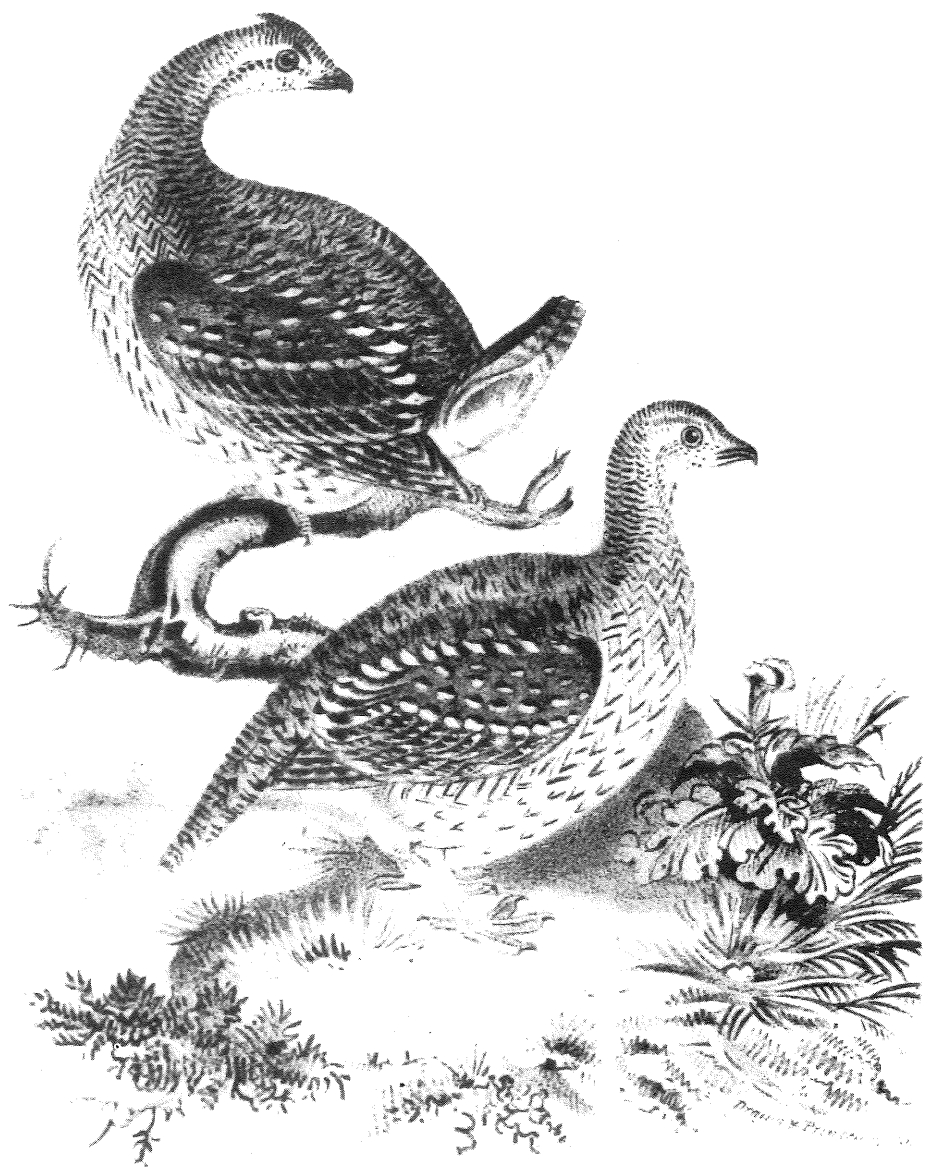


WILSON'S PINNATED GROUSE.

"Wilson's Pinnated Grouse" by Peter Rindisbacher in *The American Turf Register*, 4:605 (August 1833).

When the birds became established in the southern part of the state, it was not by purposeful introduction by man, but a gradual expansion of the species northward. It was easily identified by laymen, in contrast to the incoming species of grouse, which was often confused with its predecessor. Newspaper comments therefore gave a better picture of its advance. It was reported near the Cannon River in July 1852. In July 1854, the *Pioneer* stated: "Quail are making their entrance among us but not yet in any numbers. These birds follow the farmer everywhere frequenting the cultivated fields, and as the country gradually opens in culture, they will be found in any quantity—certain attributes of civilization." A similar report came from Belle Plaine in May 1859. "For two or three mornings past our ears have been regaled with the shrill but welcome whistle of the delicious quail, numbers of which have emigrated to this vicinity from Iowa, perhaps, where they abound in great numbers. It is a peculiarity of the quail to follow and never precede civilization." In September 1859 in St. Paul, it was remarked that "quail may occasionally be found but as these always follow settlement they have not yet become numerous."²⁴³

During the 1860s and 1870s, quail were still not common. Some birds were seen near Belle Plaine on May 1861 and near Chatfield, in October 1863, January 1864, March 1873, and



GROUSE.

The Western Grouse of the Prairie.

"Grouse of the Western and Northwestern Prairies," by Rindisbacher in *The American Turf Register*, 3:588 (March, 1832). The species at that time was the Sharp-tailed Grouse, but it was to be replaced in the course of settlement in Minnesota by the Pinnated Grouse. Some of the explorers confused the species, but the pointed tail and V-shaped markings on the breast of the former resident show distinctly in the illustration, in contrast to the broad tail, barring on the breast, and the conspicuous pinnae of the newcomer.

August 1878. Another report came from Red Wing in September 1864. Near St. Paul in the summer of 1865, they were considered "more abundant than ever before." They were seen at Wabasha in January 1871. Coues in 1874 described quail as "abundant in southern portions of the state, appears to be spreading with the advance of settlements, like the Pinnated Grouse, but is not yet found along the Red River." Franklin Benner considered them common along the Minnesota River that year. Hatch believed they were becoming acclimatized, increasing, but not yet common in Minnesota. By 1879, he thought the species had made even more advance because of a succession of mild winters. In 1877, they were found near White Bear Lake. Along the line of the Southern Minnesota Railroad they were abundant in 1878.²⁴⁴

During the 1880s, the bird became firmly established in southern Minnesota. Quail were numerous near Mankato in January 1880, and near Chatfield in November 1881, and January 1883. A hunter near Hastings killed 39 quail in a single day in November 1882. Farther north, the climate was a deterring factor. Some birds were seen near Mille Lacs in 1886. Roberts heard that the bird was in Polk County in October 1881, but he did not see any on a trip to the Red River. A correspondent of *Forest and Stream* describing game near Pillsbury in April 1883, stated that "the bob-white has never to my knowledge, taken up a claim in this county."²⁴⁵

By 1890, quail had become fairly common, according to Dr. Roberts. Some birds feeding at Lyndale Avenue and 27th Street in September 1895 received newspaper comment. More quail than usual were noticed at Minnetonka. Similar news came from Stearns, Wright, McLeod, Carver, and Hennepin counties. Much satisfaction at the change was current in October 1896, for "less than three years ago it was difficult to make a good bag of ... quail ... near Minneapolis." A report in October 1897 declared that while hardly a quail was to be found in Minnesota in 1895 there were many birds to be seen that season. Sportsmen were told that the best area for quail in 1899 was along the Minnesota River in Sibley and Nicollet counties, in Scott and La Sueur counties, and eastward. In 1900, both quail and prairie-chickens wintered in close proximity to the Minneapolis City Hall.²⁴⁶

The progress of quail in the state was impeded by severe winters and hunting by sportsmen and marketmen. It was aided by occasional successions of mild winters, periodic legislative protection and feeding by farmers during rigorous winters. In July 1854, when the birds were just coming in, it was considered "capital sport to catch them alive in nets" near St. Paul. When they sold for 25¢ a dozen in Galena they were said to be almost as cheap for the frontiersman as they had been for the Israelites. The price at Wabasha in 1871, where they were "regular visitors" on the tables, was 60¢ a dozen. In St. Paul, live quail were sold in cages in February 1874. The market listings of quail in St. Paul probably did not depend entirely on a supply of birds from within the state.²⁴⁷

Interest in the welfare of the bird was indicated in an appeal in February 1856 "to feed and not feed on the bob-white." Farmers at Chatfield were urged to prevent shooting or trap-

ping of the birds which sought food near farm dwellings after heavy snowfalls. Similar pleas appeared in March 1873 and January 1883. A hunter near St. Paul noted in his diary in September 1865: "Quail are plentier this summer than ever before, but we do not kill them and wish others would not that they might obtain a firm foothold." A severe winter in 1873 was considered quite disastrous for the species in St. Paul and southern areas. An early settler in Blue Earth County stated that 200 quail gathered in his log henhouse, which contained 30 chickens, after a blizzard that season. He had seen many birds feeding on wheat screenings which he placed out for them, but never such a large number.²⁴⁸

No hunting of quail was allowed from 1861 to 1864. Certain men taking quail near Chatfield were warned by a notice in the paper in October 1863: "Look out, gentlemen, you are watched." An Alexandria paper in 1869 stated that quail had complete protection until 1873, but the published laws for those years specified an open season from September 1 to December 1. A law in 1871 provided that railroads must not carry protected game birds out of season, nor export them for the purpose of sale. This was probably the statute which made possible the arrest of a man in February 1872 for shipping a barrel of quail labeled "eggs" from Houston County to La Crosse. Some hunting was allowed each year although one sportsman in December 1898 urged a close season of three to five years "to give these birds a secure footing in Minnesota." Lacey stated in April 1900 that quail had increased remarkably in Iowa because of protection.²⁴⁹

The Increase in the Range of the White-tailed Deer

Another species that successfully adapted itself to the changes made by man in the latter half of the nineteenth century was the white-tailed deer. Before 1850, it was common in southern Minnesota. Its range extended unevenly into the north-central part of the state where the coniferous forests were interspersed with hardwoods. Apparently it was not found in the evergreen forests near Lake Superior and along the border. Numbers taken by Indians gave some evidence of the abundance in its southern range. One early trader purchased 1,500 deerskins from the bands of Shakopee and Carver. Those two groups usually took over 2,000 deer a year in the 1830s. Sibley recalled that Sioux, hunting in Dodge and Mower counties and northern Iowa, took 2,000 in 1841. Contemporary records showed, however, that he did not have a sufficient supply to wrap his furs in deerskins, the customary procedure for shipment, in that season.²⁵⁰

Pike's figures in 1803 for northern areas were much smaller, 775 at Leech Lake, and 442 at Sandy Lake. His men killed over 65 animals for food. The usual allowance in rations was two pounds of venison a day. Schoolcraft saw many deer near Cass Lake in 1832. On his arrival at the source of the Mississippi he saw a deer in the east arm of Lake Itasca, an interesting observation since that area today affords tourists daily opportunities to see deer. Nicollet, Lanman, and Lewis considered deer common in this hunting ground of the Chippewa. Lewis' painting, "Hunting Deer by Moonlight," might well illustrate stories he had heard about that locality.²⁵¹

The scarcity of deer near Lake Superior and on the border was indicated by its omission from lists of game for those regions by La Verendrye, Carver, Tanner, and Faries. Thompson believed that deer was rarely found in that territory in 1797. He did not see a track of a deer from Red Lake River to Sandy Lake River in May 1798. In a comment on the Northwest Company's trading post on Lake Superior and the St. Louis River, he said, "Deer are almost unknown, and they are supplied with leather, as with other necessities." Only two skins were listed for the Fond du Lac post by Pike. Ely's mention of "deer" near Lake Superior in the 1830s undoubtedly referred to caribou since in one case he spoke of a female "deer" with antlers. The scarcity of the white-tailed deer in the Northwest was observed by Henry, who noted on the capture of one animal in March 1866 that it was "the first of the kind ever seen in this quarter." When he went to Red Lake River in October 1900, he commented on the "fallow" deer, jumping in every direction. Colhoun thought that Lake Traverse was the northern limit of the range of deer in the western area in 1823.²⁵²

Agassiz had stated in 1850 that "deer continue to increase for some time about settlement." Minnesota reports in the 1830s confirmed this belief. The Lake Colhoun band of Indians killed 400 deer east of the Mississippi River in the winter season of 1851-52, three hunters taking 130 deer. A settler near Wayzata in 1854 counted 34 animals at one time in a swamp near her home. St. Peter residents in 1858 said that deer had never been so abundant in the Big Woods. It was thought in Taylors Falls in 1864 that forest fires in the north must have been driving game southward, so many deer were seen. The number of deer seen near St. Paul in 1868 was believed to exceed that of many preceding seasons. People in Stillwater declared in 1871 that farmers had to stuff old suits of clothes and put them in the fields to save their crops from depredations of deer. In cut-over areas in the pine forests, a new growth appeared, increasing the food supply for the species. From Pine County in December 1874 came the report that deer were so thick, lumbermen had to drive them away to make room to fell their trees. "The deer actually browse in the tops of the fallen trees while the choppers cut the butt of the trees into logs."²⁵³

Gradually, the range of deer in southern Minnesota was reduced. An engineer on the Winona and St. Peter Railroad killed a deer from the train in Olmsted County, in December 1869. One deer was captured in Red Wing in April 1870. Deer were reported at Wabasha in December 1870, Rochester in July 1871, Mankato in October 1875, and Chatfield in the late autumn or winter of 1871, 1872, 1873, 1874, 1878, 1879, 1881, 1883, and 1884. One taken at Albert Lea in December 1868 was considered unusual, yet another was caught a year later. The capture of a deer at Fairmont in March 1872, was described as "an unusual occurrence in this county," but more animals were seen in that locality in November 1878. Hallock's *Gazetteer* noted the presence of deer near St. Peter and Shakopee in 1877. Though some hunters from Hastings went to Hinckley in October of that year, they learned that "those who go 100 miles for deer often make a mistake." By November 24, four men had taken 6 deer just 12 miles below the town, and a farmer reported 11 more in the neighborhood. In November 1879, another deer was taken. Some

were captured near Faribault in December 1876. They were reported numerous at Heron Lake in December 1880.²⁵⁴

Though deer still occurred in the southern range, an index to a growing scarcity appeared in the development of opinion favoring protection. A Chatfield paper stated in February 1873: "We agree with the *Austin Register* when it suggests that our legislature ... pass a law prohibiting the killing of deer for the next five years." In 1875, close season was provided in Fillmore and Olmsted counties until January 1877. Later the period was extended to November 1878. Deer in Houston County were also protected in 1877. One animal was seen there that season. In the last two decades of the century, deer did not figure at all in newspaper reports in southern Minnesota.²⁵⁵

Meanwhile, deer were observed in areas in northern Minnesota where they had been rare or absent earlier. A description of game near Lake Superior published in 1887 noted: "A few bear, caribos and red deer sometimes seen by hunters. The red deer was until a few years ago unknown on the north shore but the advancing settlements below have driven them up." George Shiras III believed they were newcomers near the lake in 1870. One deer was shot near Superior in October 1866, and others reported within easy distance of town. Indians were killing large numbers in the valley of the St. Louis River. Venison was advertised on Superior meat markets in 1870. Farther to the west the case was similar, though the expansion of the deer range was somewhat later. Gilfillan stated in 1895 that the Indians at Red Lake killed very few deer in 1877, but many more in recent years. "The English working up north on the Canadian Pacific Railroad seemed to have scared them down that way, or else it was by the white settlers in Minnesota to the south."²⁵⁶

Records of the shipment of venison and deerskins from St. Cloud, Sauk Rapids, Osakis, Alexandria, and Detroit Lakes in the 1870s and 1880s and from Duluth, Bemidji, Park Rapids, and Roseau in the 1890s were evidence of the abundance of deer in those regions. A train near Duluth in November 1890 dashed into a herd of more than 50 deer running along the track. Several were hit. One was disabled, became lodged in the engine pilot, and was taken into the baggage car at the next station. Beltrami County settlers complained that deer were tramping down their grasslands in September 1897. A sportswriter declared in October: "My opinion is that under the present laws it would not be possible to kill off the deer, because there are too many of them and they really seem to me to be increasing in numbers rather than the reverse." A man near Aitkin declared in 1900 that there were more deer in the surrounding forests than there had been 15 years previously.²⁵⁷ Minnesota's northwoods gained a wide reputation and popularity in that period with deer hunters throughout the country. The whole picture of widespread abundance made a striking contrast with the conditions at the beginning of the century described by Thompson, Henry, and Tanner.

Disease as a Cause in the Decline of Game Populations

Natural causes were also responsible for periods of scarcity and abundance in wild animals. Tanner's account of an epidemic among beaver was an outstanding example of the mortality resulting from disease. "Some kind of distemper was prevailing among these animals, which destroyed them in vast numbers. I found them dead and dying in the water, on the ice, and on the land; sometimes I found one that, having a tree half down, had died at its roots; sometimes one who had drawn a stick of timber half way to his lodge was lying dead by his burthen. Many of them, which I opened, were red and bloody about the heart. Those in large rivers and running water suffered less; almost all of those that lived in ponds and stagnant water, died. Since that year the beaver have never been so plentiful in the country of the Red River and Hudson's Bay as they used formerly to be."²⁵⁸

Cyclic Fluctuations in Animal Populations

Writers on game agree that cycles occur in many species of wild animals at the present time, and they were probably present to some extent in former days. Great fluctuation in the numbers of prairie-chickens was definitely recognized in Minnesota in the early days of settlement. The value of the first records was limited by the fact that the bird was new to the region, but the trend continued long after the Pinnated Grouse had established itself as an important game bird of the prairies. Among early comments on the prairie-chicken population in the Middlewest were three references to unusual abundance, one at Fairfield, Iowa, in 1849, another in Wisconsin near the Mississippi in 1852, and another in Indiana in 1859. In 1860 in St. Paul, prairie-chickens were reported more plentiful than ever before in that section. Toward the end of the decade, they were considered scarce. Sportsmen had poor luck near Hastings in 1867. They remarked: "We are fearful that the birds will not be found very abundant." A similar report came from Waseca County. At St. Cloud, although the season was open, "few have found their way from the prairie to the pot." In 1869, the oldest settlers at Hastings believed the scarcity unprecedented in former years. It was hoped that the season in 1869 would be better, but small bags were the rule at Rochester, Glencoe, Mankato, Alexandria, and Sauk Rapids. At Rochester it was "generally conceded that these birds have never been as scarce in this region at this season of the year as at present."²⁵⁹

A turn for the better came in the early 1870s. Birds were more plentiful near Chatfield and near St. Paul than they had been "for several years." The number of Pinnated Grouse seemed to be increasing in 1872 about Alexandria. Faribault sportsmen believed they had not had as good a season "in the last five years." In 1873, reports showed a downward trend about St. Paul, Litchfield, Hastings, and Willmar. William Colcher despaired of getting any prairie-chickens in Minnesota and planned a trip to Iowa. The season of 1874 proved no better, in the opinion of St. Paul sportsmen. A scarcity was the case in 1873 at Glencoe, Hastings, and Moorhead. The comment in Hastings in 1878 was: "It is thought that the chickens are more plenty this season in this vicinity than for several years before." It is interesting to note that grouse in Great Britain were considered more abundant in 1876 than in the previous four years. English birds were "reported healthy and strong and the

disease which played such havoc in their numbers in 1873 and 1874, now seems to have entirely died out. All papers agree that these facts afford a strong argument in favor of the cycle theory."²⁶⁰

A tendency toward increasing numbers was revealed in the late 1870s. More birds "than ever before" were seen in Martin County in 1878 and Otter Tail County in 1879. The territory around Hastings was not very good in 1880, but the vicinity of Austin and Mankato in 1881 had more prairie-chickens "than for many years past." The large numbers near Albert Lea led to resentment against the late date of the opening of the season. Except for the report from Austin in 1882, a continued increase was indicated from 1881 to 1885.²⁶¹

Apparently, the Pinnated Grouse population declined in the late 1880s, for there was great delight at the numbers seen after 1890. The game warden in 1891 said that chickens could be found within two miles of Hastings, while in past seasons it was almost impossible to find a whole covey of birds in the county. The warden in Kittson County believed that both Pinnated and Sharp-tailed grouse were more numerous. A sportswriter for the *Minneapolis Journal* heard in 1894 that prairie-chickens were more plentiful than for the previous 10 years. There was an occasional complaint about scarcity, but the general opinion favored the side of abundance. One reporter was puzzled in 1896 about "the renewed presence of Pinnated Grouse on prairie and stubble ... more birds than in the last five years" although there had been many complaints about the poachers' slaughter. Another observer remarked that "less than three years ago" it had been difficult to get a good bag of prairie-chickens near Minneapolis. In 1897, the "best hunters" could not recall as excellent a season. Even Dakota people were impressed by the numbers of the birds. The rejoicing did not last, however, for in 1899 the scarcity seemed so pronounced, some sportsmen advocated a close season all summer.²⁶²

The trends suggested in these reports from sportsmen and other observers were:

Abundance	Scarcity
1860-1866	1867-1869
1870-1872	1873-1875
1876-1885	1885-1890
1891-1898	1899

Leopold found clear evidence of a high peak in the prairie-chicken cycle in Wisconsin in 1896 and considered temporary low points occurring in 1880, 1887, 1892, and 1899.²⁶³ While the newspaper references to the problem in Minnesota were probably not always reliable, the conclusions point to some parallel with the situation in Wisconsin. The 10 year cycle postulated for Pinnated Grouse at the present time could not be applied to such general observations.

Ruffed Grouse was a species not as popular with Minnesota sportsmen, hence not as often in the news. Only a few scattered remarks on its numbers were made. In 1871, the birds seemed unusually abundant near Alexandria. In 1882, it was believed that an increase was the case about Pillsbury from the preceding three seasons. In 1895, the scarcity about Park Rapids led to the demand for a close season. Except in Grand Rapids, northern regions reported a scarcity in 1898, 1899, and 1900. A trapper and guide at Kimberly declared in 1900: "The grouse which used to be very plentiful are scarcer than I have ever known them to be." Leopold found some evidence of a peak for this species in Wisconsin in 1880 and definite records of one in 1891.²⁶⁴

The snowshoe rabbit or varying hare is another species which is subject to cyclic fluctuation. Its population in the nineteenth century did not often receive comment from sportsmen, however. In November 1863, these rabbits were unusually plentiful near St. Cloud. In 1865, they were so numerous, over 14,000 were collected by Chippewa. Trappers from Red Lake in February 1897, said they had never seen so many hares. There may have been a peak at that time. It is believed, however, that the high point in the rabbit cycle is close to but later than that of Ruffed Grouse. A peak for that species was definitely recorded for the early 1890s.²⁶⁵

Popular Beliefs Regarding Occurrence and Numbers of Wild Animals

Some popular ideas or misconceptions regarding game persisted throughout the years with remarkable tenacity. An example was the belief that the true Canvasback beloved of hunters on the Chesapeake, never ventured so far from the eastern path. Featherstonhaugh saw some birds taken near the Minnesota River in 1835, "so like the Canvasback in every particular, that I could see no distinction." Sibley sent some specimens from Kandiyohi County to "Frank Forestar" as proof of their occurrence in Minnesota. In April 1874, when several were killed in Freeborn County, they were reported "a variety seldom seen in these parts before." A hunter in August 1884, in his bag at Willmar, had many "Mallards, a few teal and Redheads and three that Forsyth said were Canvasbacks, but I was quite sure that the Canvasback never came so far west."²⁶⁶ Even with the bird in hand to examine, the sportsman put his faith in the tradition. The brant, on the other hand, was often listed among birds in sportsmen's bags or in market supplies, yet it did not occur in Minnesota.

Some reports implied that bears were occasionally seen in large numbers. Henry commented on the ravages made by numerous animals in fruit and oak trees. "The havoc they commit is astonishing; their dung lies about in the woods as plentiful as that of the buffalo in the meadow." Bigsby noted that on one trip over the boundary he saw only a few bears, but in 1854 he saw nearly 20, not all at one time however. Samuel Pond noted that the Indians sometimes found bears in large numbers. Jack Frazer claimed that he saw 30 bears together feeding near Maiden Rock. He believed a great assemblage of bears might be found in areas where food was abundant. Sibley found the underbrush near the Crow River in 1847 torn up in the recent passage of "immense numbers of bear." His Sioux guide told him that all old hunters knew that "where the black bear is to be found in troops

other animals are proportionately rare." The destruction done to the underbrush by a few animals might well have led him to believe large numbers were involved. Sibley may have been misled by some of Frazer's exaggerated reports of his hunting feats. He had heard from Frazer about two species of black bears in Minnesota "one short-legged and clumsy, easily overtaken, with other with long and powerful legs, a match in running for any ordinary Indian pony." The exploit of "overtaking and slaying a long-limbed, red-snouted bear, after a whole day's chase in the woods, was justly regarded as surpassing all Jack's previous achievements."²⁶⁷

Sportsmen, woodsmen, and guides did not observe the changing population of prairie-chickens without offering some explanations for the current trends. Frequently, weather conditions during spring nesting were considered unfavorable. Spring rains were blamed for flooding nests in 1867, 1875, and 1899; hailstorms were bad in 1870; moderate conditions in 1871 and 1894 produced good results. If there was a very wet spring, as in 1897, and still an abundance, the "indefatigable nature of the female bird" was given some credit, for she "if drowned off her nest and bereaved of one brood promptly asks preparation for rearing another." When one observer pointed out that the many young birds flushed on the prairie were of good size, not indicative of late broods, more confusion resulted. One opinion in Sioux Falls in 1899 was that a very wet spring followed by an abundance of birds was due to the luxuriant growth of cover, which made the grouse safer from predators. The severity of the preceding winter was the excuse in the hunting seasons of 1874, 1897, 1898, and 1900. The discrepancy bothered some observers, however, for there were many birds in 1881 after a very cold winter and in 1895 "on top of two or three hard winters."²⁶⁸

Forest and prairie fires were held responsible for a scarcity by destroying nests, and an abundance by driving game to new areas. Glencoe residents believed that thousands of nests were destroyed by spring prairie fires in 1875. This factor was important in 1881 also. In Faribault in 1871, the larger number of prairie-chickens than usual was thought a result of fires in the Big Woods driving birds into smaller wooded sections.²⁶⁹

It was quite natural that a larger population would be thought to be an unusual invasion, regardless of fire. Some people believed that Manitoba birds moved southward, making a scarcity there, but a gain for Minnesota in 1896. In 1861, though many prairie-chickens were believed to have followed "the usual migration," large flocks were feeding on corn left in the fields near Mankato. If birds wintered in the state, it was considered an advantage the following summer. In 1807, a sportswriter for the *Minneapolis Journal* was told by "one of the best students of game bird-life" that "the reason for the plentiful supply of prairie-chickens ... is to be found in the fact that the birds have not migrated to any extent during the last couple of years, but have found sufficient shelter within the state to enable them to winter comfortably. This is a theory that finds plentiful support among hunters." In this case, there was a real change in the habits of the birds, for in earlier years, great migrations of the species had been observed. One observer in Chatfield in October 1865 described

hundreds of prairie-chickens going over the village. "Anyone who has a gun and can shoot can have a chicken for breakfast by merely stepping to his door and shooting one down as they fly past." Modern scientists agree that winter migration of Minnesota and Wisconsin prairie-chickens has become less regular and extensive since the food supply within the areas has increased, but this, of course, was no real explanation for a great increase in the summer population.²⁷⁰

The belief in Rochester in 1869 was that prairie-chickens were scarce in southern Minnesota because of the advance of civilization. The bird was retreating to the wilderness! In 1874, farmers were accused of early shooting, spoiling the sportsmen's fun. Market hunters were blamed near Hastings in 1875. Those men and the Indians were the guilty ones, according to general opinion in the late 1890s. Game law advocates claimed the credit for legislation in 1884, 1892, and 1893 when there seemed to be more birds. A unique theory in 1882 for a decrease was "not pot hunter, hawk, owl, fox, or wing shot" but "the diminutive but active tick."²⁷¹

The modern concern about grasshopper poison in Chinese Pheasants had its nineteenth century counterpart in the belief in 1869 that prairie-chicken scarcity was due to widespread poisoning of the birds by overconsumption of potato bugs. The beetle was believed to contain poison in nature. The editor of the *Pioneer* asked: "If anybody is fortunate enough to kill one (not a bug) and eat it, will the virus lie in the system and kill the eater?" The editor of the *Hastings Gazette* apparently was amused at the popular talk: "Yes, be cautious about them but if you are anyways squeamish bring them to us; we agree to settle the question of poisoned chickens or die in the last ditch."²⁷²

Chapter VI. Activities of the State in Game Conservation

Leopold has sketched a pattern for the historical evolution of game management which involves five steps: restriction of hunting, predator control, establishment of refuges, artificial propagation, and environmental control. The first of these is the most obvious, but is often ineffective; the last the most difficult, but most valuable. It is interesting to see how the activities of Minnesota's state government before 1900 conformed with this pattern. The aim in most of the game laws is quite generally to restrict hunting. Predator control consisted chiefly of granting wolf bounties, and was designed to aid the farmer more than wildlife. The concept of refuges as an aid to conservation influenced the provisions in the creation of Itasca State Park. Artificial propagation became important in experiments with Chinese Pheasants shortly after 1900, but concerned only fish in the nineteenth century. Environmental control was represented only by the planting of foods for waterfowl by private gun clubs. It had no place in the state's program.²⁷³

The game laws of Minnesota were described by the Fish Commissioner in 1874 as a heterogeneous mass of special enactments, passed at the suggestion of various members of the legislature without coherence or design. If carried out, he considered it questionable whether they would benefit or harm wildlife.²⁷⁴ There was a concerted effort made in the 1890s to develop a game code, and considerable simplification in the statutes resulted. A theme for the 50 years may be traced, however, in the development of hunting restriction. This policy in the game laws was of real value, because it limited the market hunter even more than the sportsman. Many provisions were, of course, designed to eliminate market hunting entirely.

A limitation on the hunting period for some species was provided in 1858 to protect these animals during the breeding season. Prairie-chickens, grouse, and quail could be taken between July 15 and February 15, deer and elk between September 1 and February 1. Aquatic fowl did not receive such protection until 1877, when the open season extended from September 1 to May 15. (It was easier to get legislation to protect resident game than migratory birds. In the first case, the aim was clearly to conserve the animals for Minnesotans, but a program imposing restrictions which might be interpreted to benefit neighboring states at the expense of residents was not as popular.) Legally, spring shooting of waterfowl was prohibited between 1887 and 1891. Had such seasonal limitation been permanent, Minnesota conservation leaders might have claimed an early victory. In 1891, however, the period was extended to April 25. In 1893, the law allowed shooting from April 25 to September 1 because of a printer's error, technically barring any hunting during the big fall flight! In 1895, the open season was from September 1 to April 15. The final victory came in 1899, when spring shooting was prohibited permanently.²⁷⁵

Sometimes a closed season was provided for a period of years if a particular species was considered in need of a respite from hunting. In 1881, a close season on quail was proclaimed for three years. A five-year close for this species was provided in 1889, but this apparently was not adhered to, because the seasons in 1891 listed quail open between

September 1 and November 1. In 1891, moose and caribou hunting was prohibited for five years; in 1893, the time was extended to 1898, and elk and antelope were added to the protected species. Although the chief aim in seasonal limitation was protection of game during the breeding season, it was also designed to defer hunting until the young birds could offer both sport and meat. The early date allowed for woodcock hunting, July 4, could not be justified on such grounds, however. The opening of the prairie-chicken season was frequently changed. The time when the young birds were large enough to shoot was a debatable issue, and the farmers had some objection to hunters entering standing grain with dogs. The close season on some fur-bearers during the summer months protected those species during breeding, and also avoided waste by prohibiting the killing when the pelts were of less value.

A second method of hunting restriction was limitation of methods or equipment. In 1871, Pinnated, Sharp-tailed, and Ruffed grouse, and quail were listed as game birds to be taken only by shooting with a gun, thus eliminating snaring or trapping. Woodcock were added to the list in 1874, but waterfowl were classed with blackbirds and pigeons and might be netted until 1877. In 1885, the use of artificial light in taking ducks, geese, and swans was prohibited. Two years later, the clause was broadened to prohibit the use of artificial light, decoy, battery, or deception on waterfowl, but decoys were again made legal for ducks, geese, and Brant. The 1887 law required guns used on birds to be held by the hunter, and the 1889 law specified that the gun must be held at the shoulder for the capture of big and small game. This outlawed the practice of mounting large guns in boats, a system sometimes used by market hunters. The use of hounds on deer and elk was forbidden in 1889 and snaring of these animals was made illegal. In 1893, the use of artificial light for deer hunting was barred.

A limit on the hours of hunting was set in 1887 when aquatic fowl could not be taken between sunset and sunrise. A bag limit first appeared among the restrictions in 1891, with the aim of preventing "wanton destruction." Hunters were forbidden to take quantities in excess of what could be used for food purposes. A quote of 25 birds a day for each gun was set. In 1893, a hunter was limited to five deer a season, in 1897 to one moose and one caribou. The antecedent of the modern "buck law" appeared in that year also, for only antlered moose and caribou could be shot. Since female caribou generally have antlers, the law of 1901 definitely specified males.

The requirement of a license was designed to aid the law enforcement and to penalize non-residents. In 1895, a fee of \$25.00 for hunting any game was required from sportsmen whose home states discriminated against non-residents. In 1899, a big game license costing \$25.00 was required for out-of-state hunters, while a charge of 23¢ was made of residents. There was apparently no thought of gaining revenue for conservation purposes in this policy, for the fees were turned into the general treasury of the state.

Hunters were required to get the owner's permission to enter land covered by growing crops in 1864. In 1874, a penalty for trespass was specified for hunting out of season, and in 1878, for hunting at any time without the landowner's permission. In 1874, a special clause noted that the seasonal restriction for the hunting of prairie-chickens did not limit the farmer's hunting on his own land. Nests and eggs of prairie-chickens, woodcock, snipe, Ruffed Grouse, quail, plover, wild ducks, brants, and geese were protected from molestation in 1871.

The problem of game export was attacked at an early date by Minnesota legislators. In 1871, the export of protected game animals beyond the state line for purposes of sale was declared unlawful. The broad character of this clause was considerably reduced by the provisions of another section, which specified that railroads or express companies were liable for penalty only when possessing game out of season. In 1877, all the protected game birds except Ruffed Grouse were not to be exported. In 1883, the law was re-stated to prohibit the export of protected game at any time, and this clause reappeared in the 1889 law. Since the penalties on game transportation applied only to the close season, however, total non-export was apparently recognized as an ideal, and not an enforceable requirement. In 1893, the law clearly stated that game was the property of the state in its sovereign capacity; therefore, the state could and did prohibit its export at any time, even though it might have been legally killed. State and federal supreme court decisions held this law constitutional. Federal provision in the Lacey Act of 1900 forbade game shipment as a part of interstate commerce in violation of state non-export laws, and consequently aided in the enforcement. The statute of 1893 was one of fundamental importance in the history of Minnesota conservation legislation, however.

The question of the sale of game within the state was a separate one, because, of course, in this case the benefits were gained by residents. In 1877, one clause prohibited the sale of wildfowl except pigeons, Ruffed Grouse, and waterfowl for three years, but another section permitted the sale of all game birds during the open season. In 1879, a law prohibited the sale of protected game birds out of season, and this principle was continued throughout the century. The bag limit of 1891 was directed against taking game except for the hunter's own needs. Venison came under the same ruling in 1893. Prohibition of the transport of game to market by rail or express gave state officials a loop-hole to prevent market hunting in 1895, but if it was brought down on wagons, it could still be sold. The sale of Ruffed Grouse at any time was prohibited in 1897. Sale of game of all kinds was not definitely prohibited without reservation until 1905.

The mechanism provided by the state for the enforcement of these laws improved during the years. In 1861, the sheriff, constables, or town superintendent of schools were to complain to a justice of the peace in the county where the game laws were violated. School officials had a financial interest in apprehending lawbreakers because part of the fines went into the common school funds of the county. In 1864, constables and supervisors of the town were to report violations. In 1871, a provision required the publication of the

game laws in a newspaper in the county seat in the first week of April. The law of 1874 anticipated more elaborate action. Cases involving sums over \$100.00 in the confiscation of game or equipment were to be tried in district courts, and action prosecuted by the county attorneys. In 1887, the governor of the state was authorized to appoint a game warden for a four-year term, whose duties would consist of game law enforcement with the assistance of deputies. His salary was to be derived from penalties for violations. In 1859, the old system was revived; sheriffs and local police officers were to act as wardens and receive fines. If the case was started by another individual, the complainant would receive one-half of the fine and the balance go into the common school fund. A sheriff neglecting his duties could be disqualified.

In 1891, real progress was made in the provision for a board of five game and fish commissioners and the abolition of the old Fish Commission which had been instituted in 1874. These men were to be appointed by the governor for terms of six years, the expiration dates of which were staggered. They would serve without compensation and could appoint a salaried game warden for a term of two years. In 1893, the law was again changed, this time to give the Commission the power of choosing an executive agent, who would serve on the Commission and act for it when it was not in session. His salary was fixed at \$1,200.00. A few changes were made in 1897. The terms of commission members were limited to two years, a biennial report required instead of an annual one, and the salary of the executive agent raised to \$2,000.00. A share in penalties collected was offered as compensation for part-time wardens, but the money accruing from confiscations or the action of full-time, salaried state employees went into the state revenues. An isolated case of a different policy appeared in 1877, when fines from fish law violations were to be expended by the Fish Commission for the propagation and preservation of fish. The appropriation for the work of the Commission in 1893 was \$15,000.00, in 1895, \$12,000.00, and in 1897 \$26,000.00. Such was the general structure erected by the state for the conservation of wildlife.

The reaction of the public to the laws and the enforcement of the state program had various aspects in the years from 1860 to 1890. Many comments indicated that the laws were not taken very seriously. In Stillwater, it was naively assumed in 1860 that the sportsmen had been waiting patiently for the expiration of the close season on prairie-chickens to enjoy their "favorite amusement without the fear of the law before their eyes." Other observers were not as optimistic. A deer "peddled to good advantage" in St. Paul in August 1862 had, according to the peddler, broken its leg, so he had cut its throat. The truth of the story was questioned by one who had been told that "the deer ... had a perforation in a vital part very much resembling a bullet hole." In Stillwater in 1864, a newspaper editor hoped that none of his sporting friends anticipated the expiration of the time required by law to "slip away to the fields on the Sabbath day with dog and gun" but "some suspicious indications on Saturday ... induced that belief." Many deerskins and pelts of muskrats, mink, and otter were purchased by fur dealers in the close season during the late 1860s. In May 1871, a well-known citizen of Lake City sold woodcock at auction at 60¢ a dozen. The local news-

paper referring to the incident declared that “any constable can find proof of it if he will inquire.”²⁷⁶

Many newspaper remarks implied that sportsmen disregarded the law entirely. In Glencoe in 1871, the prairie-chickens taken in season resembled the “snipe” the hunters had been getting earlier in the summer. A deer appeared at dawn on the market in St. Paul in 1872 on the first day of the season. Prairie-chickens made similar good time in 1873, but “*of course*, none were killed before August 1.” At Blue Earth, “Prairie ‘Blue Jays’” were big enough to kill by July 18, 1874. The editor of the newspaper found himself attacked by a covey and had to fire in self-defense. In January 1875, a deer wandered into Stillwater, where it was killed. “The poor animal evidently took too much stock in the efficacy of the game law,” observed the *Pioneer*. Hunters out early in August 1876 in Martin County got 28 “fine prairie snipes(?)” In 1877, it was announced that prairie-chickens could be legally taken after August 14, but until that time “snipe (?) shooting” would amuse the sportsmen. Later in the month it was agreed that “when prairie-chickens die now it’s a lawful death by powder and shot.” At Hastings when the season opened in 1882, the event was “a sort of after-math in this vicinity.” Venison was no longer known as “mutton” in Hubbard County after November 1, 1887.²⁷⁷ Such comments suggest a tolerant disregard of the legislative enactments.

Occasional outbursts against the whole system appeared. The *Faribault Democrat* in 1873 published the law as required by statute, then advised no hunter to go into the field without a copy of the *Democrat* or revised statutes in his pocket. “When a bird gets up, glance over the law, and ascertain if it is lawful to shoot it, if so blaze away. One can’t be expected to remember all the red tape that can be crowded into two columns.” The Ramsey County sheriff took into custody game exposed for sale after the end of the season in December 1875, none of which had been consigned during the legal hunting period. The *Pioneer* announced that the inanimate remains of quail, grouse, prairie-chickens, and woodcock reposed in the basement of the county jail while a post-mortem examination was scheduled to determine whether or not they had been legally killed. It was suggested that if the controversy lasted much longer they should be “taxidermized” and handed over to the centennial commissioners.²⁷⁸

Sometimes there was a half-hearted effort to enforce the seasonal limitations. In Alexandria in February 1869, deer hunters were warned that the season was over, and no sales were to be allowed after February 1. In March, it was announced that “after this week all persons found so violating the law will be proceeded against and must take the consequences.” In St. Paul in February 1871, an extra week after the expiration date was allowed for disposal of game on hand “*this year*,” since the law had never been enforced before.²⁷⁹

In January 1882, game was scarce on the St. Paul market. All that was sold had to “come in ‘on the sly,’ as there are game laws in force that are the torment of Merrill Ryder who in times past spent some money to get some common sense into the lawmakers, as he says.”

The sale of venison was almost over, for during the previous month it had been "risky to buy it, if there had been anybody malicious enough to make complaint. It was not lawful to sell, or lawful to buy, but when a staple article of healthy food is in question, who is there to be afraid of law? Pheasants and quail occasionally fly into game stores by an underground route, and disappear as silently." In January 1883, according to market announcements, "venison is not a legal article ... yet it can be quoted." Birds, it was felt, however, were not legally quotable since they were not legally salable. A customer might find a few, but the transaction would be ample cause for prosecution and fine. In spite of such evidence of restriction, a *Minneapolis Journal* reporter believed in 1889 that "the game laws of the state have, in most counties, been a dead letter for the past year, and little or no attempt has been made to enforce them."²⁸⁰

Opinion about the value of the prairie-chicken season was divided. Farmers in Glencoe in April 1860 were annoyed because they could not protect their fields. "This game law may answer every purpose for old settled countries, but it is not the thing for the frontier." The season opened on August 1, 1873, two weeks earlier than in Wisconsin and Iowa, and Alexandria residents considered that provision "foul discrimination against our birds." In 1881, the opening date was September 1, and again much discussion was the result. In 1882, farmers were urged to accept the late date and to remember the money they made out of the hunters. In April 1882, they blamed St. Paul sportsmen for the date of the season. The *Pioneer* announced that "the authors and finishers of the present chicken law were a couple of Granger legislators who ... couldn't well leave their harvesting before that date. The sportsmen of St. Paul ... are just as mad about it as the farmers." A man from Mankato declared that while game protection was all very well, "You must be reasonable. Men cannot be expected to wait till September 1 because a couple of Granger politicians want to monopolize the shooting in their own section." Similar complaints were made in Fergus Falls. In June 1883, a "Minnesota Growl" received notice in *Forest and Stream*. It came from a man who "did not believe in doctoring our laws all the time and not living up to them." Farmers near the Twin Cities complained in 1886 about the trampling of grain and the gates left open by sportsmen, but they were reminded of their recourse in the trespass laws.²⁸¹

One of the forces which did encourage obedience to the laws was the power of newspaper publicity. In February 1863, the same papers which carried headlines on the progress of the war urged acceptance of the game laws to prevent the depopulation of game demesnes. The editor of the *Chatfield Democrat* in 1863 found space to remind sportsmen in July that the prairie-chicken season did not open until in August. In January 1886, when he heard a man boast of taking 14 game birds, sufficient for two meals for his family, he wrote: "Be careful, W.B., those two meals may yet cost you seventy dollars and costs. All persons convicted under this act stand committed to the county jail until the fine is paid." In 1871, he asked his readers to watch for poachers using "nets, traps, and all other barbarous and unsportsmanlike devices." He was thankful when the middle of December approached and deer would be protected in 1874. One year later "shootists" were warned to obey the law

protecting grouse, prairie-chickens, and quail. In an announcement in December 1876, pothunters were warned against trapping. In August 1876, the report was that "that fellow who killed fifteen prairie-chickens the other day and called them 'rabbits' is spotted." In 1881, the editor hoped that some of the Chatfield sportsmen with full bags before September 1 would "get picked up."²⁸²

The *Pioneer* did not neglect its duty on the same score. In July 1863, readers were reminded that a heavy penalty was incurred for shooting chickens out of season. In 1865, the editor "blushed to say that the parties guilty of this offence are St. Paul men, and from their standing in society should know and do better and set a law-abiding example to their neighbors." A Glencoe paper decided in March 1866 that it was time to put a stop to the action of men who killed deer with dogs, took only the hind-quarters, and left the rest of the carcass in the woods. In Albert Lea, a confiscation in 1872 was announced with the statement: "We publish these items as a warning to our neighbors to whom the large flocks of chickens and quails hereabouts might prove too strong temptation." The editor of the *Fergus Falls Journal* in 1883 explained that he had not declared war on the farmers and would be sorry to see one of them prosecuted, but he believed the laws must be enforced. Papers in Hastings, Fairmont, Litchfield, Alexandria, and other towns warned hunters and trappers about the expiration of the open season and the penalties for violation of the laws.²⁸³ Such publicity undoubtedly aided the cause of conservation and influenced public opinion on law enforcement.

Another argument used by advocates of the game laws was the preservation of game because of its attraction for tourists. This feature was emphasized in 1877. In 1882, readers of the *Pioneer* were asked to explain the reason for the influx of summer and fall visitors. "Men care not to lie on their backs all day and gaze at azure skies while the gentle mosquito banquets off the ends of their noses.... It is ... because of the present abundance of game, especially prairie-chickens ... that they come here, bag and baggage.... By means of our game, has our state been to a great extent, peopled, our early settlers especially being men of sporting proclivities.... It is not below the mark to say that 1,000 single men come ... average fifteen days each ... spending \$60,000.00 in those small towns ... where \$1.00 does as much good as \$20.00 would in St. Paul or Minneapolis." In spite of this monetary value of game, the laws were broken in St. Paul and Minneapolis "under the eyes of our ... law-makers."²⁸⁴

The years before 1890 brought many experiments in efforts to improve the laws and to uphold them in the courts. A case in St. Paul in 1882, in which a sportsman was to be tried for hunting out of season, was dropped from the calendar. In 1871, another individual tried in police court for having game in possession out of season. He finally pleaded guilty to having one bird and was fined \$3.00. A warrant was issued against Merrill Ryder in December 1872 for a similar offence. Ryder insisted that the law was unconstitutional. In 1877, one judge maintained that game birds could not be raised as they formed personal

property. The railroads cooperated in 1881 by ordering station agents not to receive venison before November 15.²⁸⁵

In January 1883, the *Pioneer* announced that Illinois courts had decided that possession counted as evidence of law violation. "We in Minnesota have our game yet with us; and ... we must take steps to preserve it effectually or ... there will be no game left to attract summer tourists.... The present law is a miserable hash and if it had not been that the game was so openly exposed, and sales of the same actually witnessed, no charge could have been made against the violators, on account of the many clauses ... that seem to contradict each other." It was urged that the law be simplified "so that county justices of the meanest capacity may grasp its meaning." The game dates for open seasons on all birds were recommended for purposes of enforcement, although such an arrangement might not be preferable for biological reasons. A game warden was considered essential since "at present it is no man's cause. The law says the city and county officers shall do this and that but it is very hard to get those officers to set against violators in their own towns."²⁸⁶

The non-export clauses in the Minnesota laws were held unconstitutional in 1883. Legal advisors told sportsmen that the officers had no right to confiscate dogs and guns. New clauses were framed, however, to meet each set of objections. *Forest and Stream* commented in March 1883 on the vigor of the Minnesota movement. "There has been in certain quarters a tendency to decry non-export laws as wholly unconstitutional, but this criticism has come from a source which is not altogether above suspicion of ... entangling alliances with the game dealers." The relationship of the game laws to the English common law was also considered. In spite of the reformers, the law of 1883 was little better than its predecessors. One observer considered the legislative battle between the city sportsmen and the farmer typical of every session. A bill introduced by a senator from Hastings was hotly discussed and amendments came thick and fast until the president, secretary, members, and "even reporters" were confused about the actual provisions. In the end, the law was passed as an amendment to the law of 1877, which in turn was an amendment to the law of 1874.²⁸⁷

A farmer asked the editor of *Farm, Stock and Home* in 1887 if he could hunt game on his own land at any time, and received an emphatic "No" for an answer. He was told that the game belonged to the state. The *Minneapolis Journal* disapproved of the abolition of the newly-created office of game warden in 1889, and considered the action a backward step.²⁸⁸ When the Game and Fish Commission was created in 1891, the modern period in state activities opened. Concern with wildlife resources had passed from the preliminary debatable stages to become the definite responsibility of a branch of the government.

The first president of the Game and Fish Commission was R.O. Sweeney, a St. Paul druggist, who had acted on the Fish Commission since 1875. In 1893, W.P. Andrus, a Minneapolis broker, became executive agent. He was succeeded in 1895 by Samuel Fullerton, who had previously been acting as warden for the St. Louis County Sportsmen's Club. Fullerton held the office for four years. He was then replaced by John Beutner, a former liquor dealer in

Winona who, previous to his appointment, was engaged in the hotel business in Proctor. Fullerton was reappointed in 1901 and continued in office for six more years. Carlos Avery, a newspaper publisher in Hutchinson and member of the Game and Fish Commission, became executive agent in 1907, but Fullerton was made Superintendent of Fisheries. He aided the movement for the introduction of Chinese Pheasants in 1908 and continued to take an active interest in the conservation movement in Minnesota throughout the rest of his life. The vigorous administration he gave the office of executive agent in the 1890s was a brilliant phase in his career.

The chief goal of the Commission in the first 10 years of its existence was to put a stop to market hunting. Violations by sportsmen were regarded as a minor field of operation. Even in that field, there was some change in public sentiment. A *Minneapolis Journal* reporter in 1891 praised the new game law, but bemoaned the light sentences given by justices, citing as an example a case in which a local justice had fined the sons of J.J. Gill the sum of \$10.00 for shooting 110 prairie-chickens out of season in Kittson County. It was said that the local papers had objected to that treatment of "the sons of the man who has done so much for that country." The opinion in the *Journal*, however, was that "the boys ought to have been held to the grand jury, and Jim Hill himself would have been the first to approve.... There is one thing that isn't understood in some quarters, and that is that all game is the property of the state."²⁸⁹

In December 1894, when Governor Nelson cancelled a fine of \$50.00 a hunter owed for deer taken out of season, the report was that "those who have been endeavoring to secure convictions under the game laws are very much disgusted." In August 1897 came the story that certain gentlemen in Minneapolis would have to borrow or rent guns or stay at home in the hunting season, for they "had encountered one of Fullerton's minions" and lost some valuable guns. "If that sort of treatment doesn't defer the poachers nothing will.... Fullerton has exhibited a really praiseworthy energy in defence of the prairie grouse this year. It is the first time that anything like active enforcement of the law has been attempted, and the effect of the new and aggressive policy has been excellent." Fullerton had little sympathy with a hunter who complained about the seizure of his deer in December 1898. "The warden found you(r) deer out of season and seized it, and like every other pot-hunter and game law violator in the state, you roar."²⁹⁰

Lines of procedure open to the state department fall in two channels, either putting a warden force in the field to search for lawbreakers or confiscating the game at points of shipment. One observer said that the first course would necessitate a warden staff as large as the United States army. An attorney from Chicago active in the National Game Protective Association told a *Journal* reporter in August 1894 that he had heard about the slaughter of big game in northern Minnesota. He did not see how it could be prevented unless the state patrolled "the infected country at all times. This would cost a mint of money and is almost an impracticable idea."²⁹¹

Regardless of pessimism, the department launched out on its law enforcement program. It was said there "would be some dead poachers" if the new policy of the Commission was enforced in 1894. Fullerton's advice to his warden suggested vigor tempered with common sense. "Go for the Market Hunter.... Show them no mercy—The poor fellow that wants a mess of fish for himself and family Shut your eyes when you see him You will have to show tact in this work and not persecute any man but be firm." He didn't want his wardens to risk their lives unnecessarily, however. "Don't let them get the drop on you. If they attempt to do any shooting kill them on sight." He believed that his life would not be "worth two cents" if he went "twenty miles into the woods in Itasca County and any of those poachers knew about it. Not one of them would dare to come out openly ... but they would sneak around and do the coward's act."²⁹²

In 1897, two deer hunters near Roseau boasted that they had successfully eluded Fullerton. One of them declared that Fullerton had his whole army of deputies could never catch him "when he gets into those Roseau Jack pines guided by Dean and Scot." The governor suggested that a full-time warden be appointed for the Hallock district in 1899, because the area was a breeding ground for wild birds that needed protection during nesting.²⁹³

Fullerton demanded action from his staff. He wrote one man: "You don't seem to be doing much of anything but write me letters. If you expect to hold your Commission you must make a showing because that is the only way I am going to know and judge wardens." He chided one individual for rash expenditures. Rental of horses and buggies seemed higher in rural areas than in St. Paul. He told one warden frankly: "If your expenses are going to run as indicated by your first three days, you would be costing the Commission \$150.00 per month." He wrote to another individual: "You are too valuable a man to be Deputy Game Warden, you ought to be filling some more important position. It is impossible for us to give you a salary of \$50.00 per month."²⁹⁴

Sometimes wardens were urged to keep their appointments a secret. The system of part-time warden service with compensation from the penalties was confusing. Complete lists of all men operating under this arrangement were not available for the new executive agent when he came into office. When Fullerton heard about violations in one locality, he wrote the informant: "Write me again and let me know the name of the warden in your county." Beutner received complaints about the Hibbing warden, but stated: "I of course do not know who the person is.... I have just entered the office, and cannot find a list of his old deputies." A volunteer un-salaried warden was caught hunting prairie-chickens out of season in Anoka County in 1901. Another man on the state pay-roll at \$50.00 a month was apprehended selling prairie-chickens to a hotel-keeper in Fergus Falls. Fullerton told reporters, "It's a hard matter to enforce the game laws when your own deputies go back on you."²⁹⁵

Political opponents did not miss any such opportunities. Wardens were accused of accepting bribes from poachers to allow game shipments in 1897. "Exposés of this character indicate a state of rotteness among the wardens that will require radical action on the part

of the Commission," ran one account. On the whole, it is surprising that so vigorous an administration could have been developed in such a short time when the aspects of local unpopularity and small recompense are considered. Wardens were often handicapped by a lack of cooperation from other officials. An Ely justice refused to hear a complaint in 1891 and reprimanded the special warden for "not being in a better business." When seventeen arrests made in Itasca County in 1897 failed to result in one conviction, Fullerton withdrew his wardens and threw the responsibility on the people. He promised to make an effort to enforce the law in that district when public sentiment existed to influence the action of the justices. Until that time, "he does not propose to turn a wheel in Itasca County."²⁹⁶

A second line of attack used by the Commission was the confiscation of illegal game at railroad and express stations. A Cloquet paper called the game warden's attention to large shipments of venison leaving Floodwood for St. Paul in March 1891. E.S. Bond, "King of Game Dealers," in Chicago was anxious to aid Minnesota shippers. In February 1892, a seizure in St. Paul involved 4,300 pounds of venison. Although the Commission reported the railroads uncooperative in 1893, there was actually some improvement in the relationship between companies and state officials. In September, employees of railroad and express companies were notified not to accept game for shipment beyond the state line, and to post the game laws in conspicuous places. The *Minneapolis Journal* believed that the best thing the wardens had done was to secure an agreement with the express companies and railroad companies not to carry game out of season.²⁹⁷

The Commission issued a circular in 1893 notifying express company employees that they would be held personally responsible for shipments in violation of the game laws, but the courts did not uphold this action. It was then found necessary to proceed against the consignors of the game. In 1894, two wardens were detailed to watch a freight car coming into St. Paul, which was known to be loaded with 82 saddles of venison. Railroad officials aware of their surveillance, switched the car rapidly to a yard in Minneapolis and put the freight in another car. By the time search warrants were available, the game was on its way to Chicago. A better statement prohibiting big game shipment for sale purposes even within the state was inserted in the law in 1895 through the efforts of T.B. Byrnes, attorney for the Commission. It was upheld by Ramsey County courts. Transportation companies operating within the state were advised by their legal departments that the law could be enforced.²⁹⁸

A package containing 600 Ruffed Grouse was seized at Duluth in December 1895. An editorial in *The American Naturalist* in January 1897 discussed a seizure of several tons of venison in St. Paul. Hope was expressed that the action would be "a check upon the extinction of the game mammals that has been going rapidly onward for some time." A *Minneapolis Journal* reporter observed in 1898 that Fullerton did not have "as many sources of information as the Russian imperial commissioner of police," and only a small part of the game consignments for the market was seized. "Railroads are after business and a carload of venison is just as good business in dollars and cents as any other."²⁹⁹

In October 1897, Fullerton suffered "a swollen knee, wrenched arm, badly lacerated feelings, and possible other internal injuries" when he was attacked by freight agents in Staples. He was trying to prevent the shipment of 100 Ruffed Grouse to Superior, Wisconsin. In spite of his injuries, he followed the game to Wisconsin and finally got it with the aid of a Wisconsin warden. When interviewed after the incident, he declared: "If you know of a big, husky fellow who has a rhinoceros hide and can take more abuse than a mule, just send him round to see me and I will trade jobs with him 'unsight unseen'." Fullerton's teeth snapped with rage when he talked to the reporters. "I don't understand what people make laws for if they don't want them enforced," he concluded. He arranged for an Illinois warden to seize Minnesota game in Chicago and wrote him, "Don't let a shipment get away." He agreed with hunters in 1898 that the law did not impose a penalty for marketing, but he based his program on the clause restricting the manner of shipment. It was required that game on trains *must* be accompanied by the hunter.³⁰⁰

A new issue arose in the disputes with railroad companies about game confiscated at points in the northern part of the state, but not taken over by officials until it reached St. Paul. Fullerton demanded payment from the railroad for missing saddles of venison in 1898. He wrote: "I will admit that it is considered quite a joke among the railroad employees generally to help themselves to any game that may be seized." In 1899, the Commission worked out an agreement with the Northern Pacific Railroad which provided that the Game and Fish Commission would defend cases if the railroad was sued. Favorable opinions were gained in district and municipal courts in St. Paul. In November 1899, venison piled up at the depots in northern towns because the railroads would not allow game on the trains.³⁰¹

The general trend was one of marked improvement in cooperation although occasional incidents ruffled the feelings of the officers. Fullerton wrote a railroad employee in 1898: "I am informed that you told Mr. Farnham (a game warden) if you caught him in the general baggage room of the Union Depot again, you would 'kick him out.'.... If I brought it to the attention of the officials of the Great Northern Road, they would not tolerate it, because both Mr. J.J. Hill and Mr. Whitney wish to render the game and fish commission every possible assistance."³⁰²

Eastern hunters were amused at the tactics of the wardens. One hunter wrote a humorous description of the baggage examination for the *American Field*, an article that greatly displeased Fullerton. He quoted it in a letter to the editor and added his own views: "When the Great Northern train arrived in St. Paul with the party from the East.... Mr. Shepard noticed 'a tall, burly, rough-looking fellow examining the railroad checks.' ... The language he attributes to the game warden—'I allers open 'em,' is, I am sure, wide of the mark." Fullerton declared that the non-residents hunters wished only to report the killing of several hundred ducks, and if they received interference from law enforcement officers they stigmatized such men as rowdies and blackguards.³⁰³

Wardens watched restaurants and hotels for game out of season. One proprietor insisted in 1894 that the prairie-chickens found in barrels in his basement were "Rocky Mountain owls." A scheme known as the "Pony Express" was devised in 1898 to get venison to Twin City markets in season when railroad and express companies refused to carry it. Three men were assigned to ride on each wagon loaded with 15 deer carcasses, each claiming five as his legal bag. They drove up and back to the deer country where professional hunters had the game ready for the riders. This was apparently only a short-lived experiment in blockade-running, however. No matter what tactics were used in law enforcement, there was always criticism. When Fullerton put 100 wardens in the field during the hunting season, he was advised by the *Journal* to save expenses by capturing a few offenders and making examples of them. Yet his successor announced that he was going to concentrate on "the actual bailiwicks of the poachers" and not wait to capture game after it was killed.³⁰⁴

In addition to warden patrol and prevention of shipment, a third field of achievement in which the department was active was improvement in the laws. The abolition of spring shooting was recommended in August 1892. H.O. Sweeney urged in January 1893 that all sale and shipment of game and fish be prohibited. Fullerton reiterated this request in October 1896. He anticipated a fight in the legislature between the champions of game and those of the market such as had never been witnessed. The law of 1893 embodied, in the opinion of conservation leaders, a broad economic viewpoint and not just a program to benefit sportsmen.³⁰⁵

In 1898, "Tim's new law," worked out by Byrnes, was planned to supersede "the Chinese puzzle." Spring shooting was upheld by the people in the eastern part of the state in 1897. They claimed it was their only shooting since the birds flew farther west in the fall. A tag system for hunter's game in possession after the close of the season was worked out in that year. Fullerton promised F.I. Whitney of the Great Northern Railroad that he might insert in his pamphlet a clause promising non-resident deer hunters permission to take samples of the meat and the heads and horns out of the state. Publicity for the cause of conservation appeared even in children's literature. The *Journal Junior* in 1898 described an imaginary "duck council." Mr. Ruddy Duck asked if "Men Folks ... couldn't make a law forbidding shooting in the spring at least," and Secretary Butterball drew up the minutes urging boys and girls to "use their influence against the dreadful slaughter of wild ducks."³⁰⁶

The Lacey bill of 1900 was the work of an Iowa congressman. Five of Minnesota's seven representatives voted in favor of the bill in the House; the remaining two refrained from voting. The Game and Fish Commissioners told reporters they were highly pleased with its provisions. Fullerton believed that the decisions of the state supreme court were 10 years ahead of the action in other areas. He corresponded with Thomas Miller of Heron Lake, Uri L. Lamprey of St. Paul, and many other sportsmen on game law improvement. He was pleased that a sportsmen's group in Sioux Falls, South Dakota, adopted the Minnesota laws as a model. He exchanged copies of laws and reports with game officials at Albany and

Augusta. When he requested the New York report, he wrote that he had heard it described as "a work of art," and he advised the other department not to "expect anything approaching what we understand yours is."³⁰⁷

The important court decisions included one in December 1894, accepting the principle that the wild animals belong to the state in its sovereign capacity. According to Connery, this reasoning was based on Blackstone's interpretation of the English common law, an interpretation not followed in modern English legal interpretation. The principle has become a fundamental one in American game conservation. In 1896, laws prohibiting transport of big game and consignment to commission merchants were held constitutional. The Selkirk case in 1898 aided the wardens dealing with Indian market hunters. A famous case arose in 1904 when a market hunter was arrested with 2,000 ducks taken at Heron Lake. He was fined the minimum amount, \$10.00 a bird. The supreme court held that the total fine of \$20,000.00 was justified. Robert Poole, the offender, had taken the ducks to an ice house in Lakefield, removed them at night, and driven to Montgomery, Iowa. As he approached his destination at 3:00 a.m., he was over-taken by the sheriff of Jackson, who had pursued the law-breaker in his buggy. The wagon with 2,498 ducks was brought back across the Minnesota line. Despite the fact that the decision of the lower court was upheld, the fine was never paid nor the offender imprisoned.³⁰⁸

An effort to make the laws of neighboring states uniform was put forth during the 1890s. A conference at Minneapolis in 1892 was attended by delegates from North and South Dakota, Iowa, Wisconsin, Michigan, and Illinois. Uniform open seasons were considered to prevent interstate shipping. The questions of license requirement and abolition of spring shooting were discussed frequently with Iowa, Wisconsin, and Dakota officials. One observer in 1899 claimed that "well-controlled lobbies supported by wealthy sportsmen kept up a system of a consecutive date chain in season which made Minnesota the tail end of a game preserve embracing several contiguous states." An interstate conference in Chicago in April 1899 was not brave enough to go on record supporting the abolition of spring shooting, a program considered "too rigid for the farmers," but Minnesota's own legislature took the step independently.³⁰⁹

The question of game propagation interested state officials, although little progress was made before 1900. The President of the Game and Fish Commission in 1891 optimistically hoped that there would be no more violations of the game laws after that year so the appropriations might go not for prosecutions but for the introduction, propagation, and distribution of new and native species. News from the United States minister at Stockholm in 1890 carried stories of the proposals to introduce capercaillie and blackcock. An experiment with the introduction of 100 birds of each species at a cost of \$3,000.00 was projected. The *Minneapolis Journal* asserted that Minnesota would prove a most congenial home for these birds. A man at Westerly, Rhode Island, in 1893 actually received one brace of birds from the minister and claimed the credit for introducing "a most superb member of the grouse family."³¹⁰

Minnesota was well adapted for the English pheasant, according to the opinion of a game breeder in 1897. Although no records of experiments with Chinese Pheasants by the state or private individuals appeared before 1900, the legislature passed a law in 1897 closing the season on these birds until 1904. In September 1898, 12 prairie-chickens were promised to Iowa for propagation purposes. Permission was likewise granted for the removal of one dozen "live grouse" to Ohio in October. In 1863, the idea of importing birds had shocked St. Paul residents. The opinion then was that "the beginning of the end has arrived" when 300 pair of English Pheasants were imported to stock eastern preserves, 100 of them going to Pierre Lorillard in New York. Such action in the East gave middle-western conservationists more arguments for the need of protecting the wildlife to prevent Minnesota hunting from becoming a pleasure open only to wealthy owners of preserves.³¹¹

Fullerton urged the enlargement of Itasca Park in 1899 as a measure to increase the breeding ground of game. He believed the beneficial results of the refuge were already apparent and that the surplus would stock adjoining ground to the hunter's advantage. William W. Folwell with other men at the University of Minnesota urged in 1900 that state parks be planned to "preserve ... such living creatures as ... the caribou, or other animals of economic or scientific interest." He recommended that sections of prairie be included in the program as well as forests because no single area could preserve both prairie and forest flora and fauna.³¹²

Party politics in conservation became a problem early in the history of the department. In December 1893, the Commission was accused of taking no practical steps in preserving game and doing nothing but christen a few lakes in honor of the various members. A disgruntled ex-warden persuaded a *Minneapolis Journal* reporter that the \$15,000.00 appropriation was being wasted while he, if given a team and wagon, could clear Hubbard County of poachers at \$50.00 a month. A man with a scientific license granted by Andrus took some moose calves near Thief River Falls in 1894 and Andrus was accused of "sharing in the profits of this moose business." Fullerton in 1895 asked a Brainerd man to collect information of any crookedness, and to assist in the investigation of the official acts of the former executive agent. The rumor in that year was that "Mr. Andrus' system of book-keeping and doing the State's business was a trifle peculiar."³¹³

Fullerton had no sympathy, however, for fellow Republicans who expected party favors from him. When two aldermen from Minneapolis were caught taking prairie-chickens out of season, he announced: "The day of the political pull is as much a thing of the past as the American bison and ... hereafter any man who claims political influence ... will have to pay a double fine." A candidate for representative on the Republican ticket caught in a similar predicament in 1898 begged Fullerton to release him because "he could do the game and fish commission enough good when he got into the house." The staunch executive agent gave him to understand that "it cut no ice at all and he would have to take his medicine like any other citizen." Of another important Republican, he wrote: "This man has violated the law and should not expect anything else when he has game come to market. He is a



NO WOODS TO LIVE IN.

At the rate at which the railroads and the lumbermen are attacking the forests the bears will soon have to move to Canada.

"No Woods To Live In" and the Three Bears are forced to move to Canada, from *The Minneapolis Journal*, the Journal Junior section, January 14, 1900. Such cartoons were part of the campaign to arouse the public to the need for a constructive conservation program, even through an appeal to children.

very poor Republican ... if he goes back on the party because he is not granted privileges above any other citizens."³¹⁴ Fullerton believed that a venison seizure in 1899 might have been made in error when "Representative Mallette came in the office and nearly talked an arm off the whole force, and rather than have him come in here every day bothering us, we paid the bill." He ignored an attack on the Commission in the *Minneapolis Journal* in 1899. He had heard that the reporter had written attacks on the Andrus administration and exacted bribes for not printing them; he was angry because his tactics failed. He considered the department that Pegler controlled a disgrace to journalism.³¹⁵



"Anoka Chickens Coming Home to Roost," from *The Minneapolis Journal*, August 28, 1893. "Some of our law-makers turn law-breakers and prove the truth of an old adage." The alderman arrested for hunting out of season learned that "the day of the political pull is as much a thing of the past as the American bison."

The most scurrilous newspaper attack on Fullerton's work was probably that in the *Roseau County Times*. The editor of this paper and county attorney, R.J. Bell, was accused of laxity in game law enforcement and of having moose meat in possession. Apparently, there was some truth in the accusations, for Bell stated that he had been made an example. "He had been living too high and altogether has lost 46 pounds of flesh from his body since he settled on the frontier. He had no business to eat moose meat such provender is only for rich people." He heard rumors about Fullerton's hunting prairie-chickens in Dakota out of season but avoiding detention by paying a sum and "setting up two kegs of beer. This is not quite as bad as eating moose meat." He claimed later that the moose came from Canada and was duly registered with the custom officer at Roseau. Headlines ran: "Is Fullerton crooked?" and editorial comments grew caustic. "There is a growing suspicion that the execution of the game laws by Sam Fullerton is a farce.... He waits until the game is slaughtered when he pounces down upon it ... disposes of the game and puts the money to the credit of the Commission.... If Governor Clough can afford to keep such a man in office then can the Republican Party afford to suffer defeat, in this state."³¹⁶

Fullerton answered an article in the *Minneapolis Journal* in 1897, which hinted at irregularities in his use of the state funds and urged that the Commission be abolished because of "its reckless expenditures of public money." He stated that of the \$50,000.00 appropriation since April 1895, \$14,000.00 was used to clear up debts of the preceding administration. He had used the balance for salaries, stenographic help, legal advice, and other services. He had written at least 15, sometimes 100, letters a day and 9,000 since he had come into office.³¹⁷

The need of political support could not always be ignored, however. Fullerton hoped in 1898 that the ranges would not carry out the threat they had made: "to vote for every Populist.... I am going up that way and I will take a trip along the ranges and see what I can do toward allaying the feeling there may be there. It would be an awful calamity if our county offices were filled with 'Pope' this fall." He feared that a new party in power would drop the system of game protection and undo the work of the preceding five years. He found it difficult to remove one inefficient warden because of the attitude of a member of the Commission who believed this man had the backing of "a lot of prominent men ... in St. Paul."³¹⁸

When the defeat of the Republican Party in the election became known, Fullerton warned his wardens: "Mr. Lind will have his own friends and very likely they will all be remembered." He advised them to avoid discussing politics and keep on about their work as if nothing had happened. He expressed his ideas about the future: "I hope Governor-elect Lind will put someone in who will take an interest in the work, which I presume, since he is a sportsman himself, he will do if the pressure brought to bear upon him is not too great from sources he cannot control."³¹⁹

The new appointments were heralded with headlines, "S. Fullerton's Scalp, It's Not Likely To Stay With Him Long," and John Beutner of Proctor received the position of executive agent. Beutner announced his staff as a "reform Board and it is expected that we place good men who belong to our party in office." He enumerated the requirements for the position of game warden. The first question to be asked of candidates was: "Is he a Democrat." Others on the list were: "is he married or single, is he a drinking man, can you rely upon him, is he honest."³²⁰ So the hazardous life of a state conservation commission got under way.

Chapter VII. The Interest of Sportsmen and Naturalists in Minnesota Wildlife

Sportsmen enjoyed Minnesota game throughout the nineteenth century. Many eastern and southern hunters and foreign sportsmen planned excursions into the upper Mississippi Valley. A few men chose Minnesota as a permanent residence because of their interest in game. Settlers in new communities found a recreational outlet at hand and organized competitive hunts to stimulate interest in the field. At first, these men roamed to whatever points were favorable for the particular game they sought, but by the 1870s, provisions for the tourist-sportsman trade had been developed on an elaborate scale, to accommodate the influx of visitors. As their numbers increased and the settled area expanded, it became a real problem to take care of these men. Some information was published to show the areas where hunters would be welcome.

With the growing metropolitan character of the Twin Cities, game in the surrounding country-side was depleted and sportsmen had to travel further to get good shooting. Private clubs were formed which gained control of favorable hunting areas. These groups were somewhat different from the sportsmen's organizations by towns or districts which flourished about the same time. Their members were prosperous business and professional men who could afford the luxury of private hunting preserves. The other organizations evolved to meet a need in law enforcement which had not been provided for in the structure of the government. They were usually open to all interested in hunting without limitation of numbers. Other changes in the sporting world appeared in methods, styles, and equipment. In the less tangible field of ethics, there was considerable development also.

One of the early English visitors who recognized the possibilities for hunting in Minnesota was Featherstonhaugh. He was reminded of the moors of Yorkshire when he saw so many grouse along the Minnesota River in 1835. Graham remarked in 1847: "I could have fancied myself on the moors, the broods of prairie fowl were springing from all sides, chuckling as they went off with a sort of bad imitation of the 'nicking' of a moor cock." He believed that a run "over the stiffest part of Leicestershire is a joke to running buffalo with half-breeds through a bad rolling prairie." He was disappointed that he could

not persuade a half-breed guide from Pembina to accompany him into the Sioux country, but consoled himself with the thought that he would have been as inadequate a guide as a Highland deer-stalker replaced by a cockney. He was impressed by the courtesy of an Indian guide who went a "league and a half" out of his way to thank him. Graham asked: "Would an English keeper have gone half a mile out of his way, on a similar errand, had I given him a sovereign, after one day's covert shooting?"³²¹

Sir Francis Sykes' hunting party enjoyed a trip for several hundred miles along the Red River in 1859. When the sportsmen crossed Minnesota near Sauk Center, they reported capturing 13 elk, over 20 deer, and some moose, antelope, and bison. An Englishman, T.R. Clapham, hunting prairie-chicken near St. Paul in 1864, begged enough "to fill a buggy." A fellow countryman, Thomas Emsley, hunted in Minnesota in the winter of 1868. According to a newspaper report, he was a railroad man who owned a country seat in Yorkshire, and was an important stockholder in the Lake Superior Railroad. He so fancied the flavor of Minnesota venison that he arranged for later shipments of saddles to his British home. An Englishman who attended the Chicago World's Fair in 1893 extended his trip to include some hunting in western Minnesota. He bagged 17 snipe in two hours on one October day, and concluded that "this cover beats the spots off our turnip fields." It was rumored that Mohammed Pasha and other distinguished Turkish visitors intended to hunt in Minnesota in 1858, but there was no report of their actual arrival.³²²

The presence of numerous American visitors was noticed also in many localities. At Hastings in September 1859, there were several parties from New Orleans "playing havoc with the game." The editor of the local paper believed that "if strangers continued to kill our game ... we will have to resort to making game of them." In May 1860, the *Pioneer* approved of the fact that in the previous season, large parties had come from the south and east, and "met with so much success in the healthful chase." There were a number of visiting sportsmen registered at the Winslow House in August 1860, during the prairie-chicken season. Chatfield residents claimed the honor of having "Mr. McCormick, the great 'Reaper' man" among the hunters in that locality in August 1862. There were some wealthy hunters who arranged for magnificently equipped private cars on the Northern Pacific Railroad in the 1870s. Two New York sportsmen had great success among prairie-chickens in Martin County in 1878. Several Chicago hunters who went to Heron Lake in October 1891 reported good bags of both ducks and prairie-chickens. There were 200 men from Chicago in the vicinity of Aitkin after deer in 1898, according to the estimate of one guide.³²³

The pleasures of the chase were not enjoyed only by travelers. The Baptist minister in St. Cloud had taken a deer by the middle of December in 1858. He was compared to Bold Synesius, the jolly hunting bishop of the primitive church." A home built in Minnesota which expressed the owner's love of hunting in the architectural features was St. Hubert's Lodge at Frontenac. Israel and Lewis Garrard had come up the Mississippi River from Kentucky on a hunting trip in 1854, when they chose the site. Construction was started

the following year, and the insignia of St. Hubert, the patron saint of hunters, was used to decorate the hall. Deer, bears, foxes, and Passenger Pigeons were hunted near-by. Pigeons were netted and released in the park for the sport of the hunters.³²⁴

Country life as a combination of farming and hunting was the aim of Charles Hallock in founding a community in Kittson County in 1879. Hallock announced in August that he had secured a locality "accessible by rail ... which embraces a ... greater variety of game than can be found in any specified area in America." He was not exaggerating, for the region was on the border of prairie and forest, and contained species common to both types of cover. Moose, elk, caribou, white-tailed and mule deer, Sharp-tailed, Pinnated, and Ruffed grouse, and water-fowl might be taken in that locality in the 1880s. Hallock wrote: "*Forest and Stream* ... proposes to plant a colony of sportsmen who may combine farming with sport at their option." The district developed its popularity with visiting sportsmen as did the Frontenac area, but the resident-sportsman-farmer combination did not become a success on the scale anticipated. Hallock built a large hotel in 1880 to encourage the tourist trade, but the structure burned in 1892 and the enthusiasm waned.³²⁵

A similar experiment of the 1870s was made by a colony of Englishmen at Fairmont. Several of the men were Oxford and Cambridge graduates; a few had titles. Their red coats were reputedly made by a local tailoress. They gained great fame throughout the state for their riding exploits and their colorful appearance, but little has been written on the actual outcome of their hunts. Game was not nearly as abundant in that area as in the region chosen by Hallock for his colony. The cover was satisfactory for prairie-chickens and water-fowl, but the equipment of the Englishmen was not intended for such hunting. There were not sufficient foxes in the wild to furnish interesting game and several had to be released for the fall hunts in 1876. In June, 1877, the lair hounds were taken to Madelia to locate wolves which had been annoying a farmer's sheep, and six "nearly full grown cubs" were killed. The local paper asserted that the master should be proud of the hounds in spite of the disparaging remarks appearing in the *London Field* "about the 'bobbery pack' who have nothing but aniseed to hunt!" An advertisement in the *Martin County Sentinel* in August read:

"Information as to the whereabouts of Wolves and Foxes, within twenty miles of Fairmont will be thankfully received by Arthur Lyon, M.F.H. Premptitude earnestly requested."³²⁶

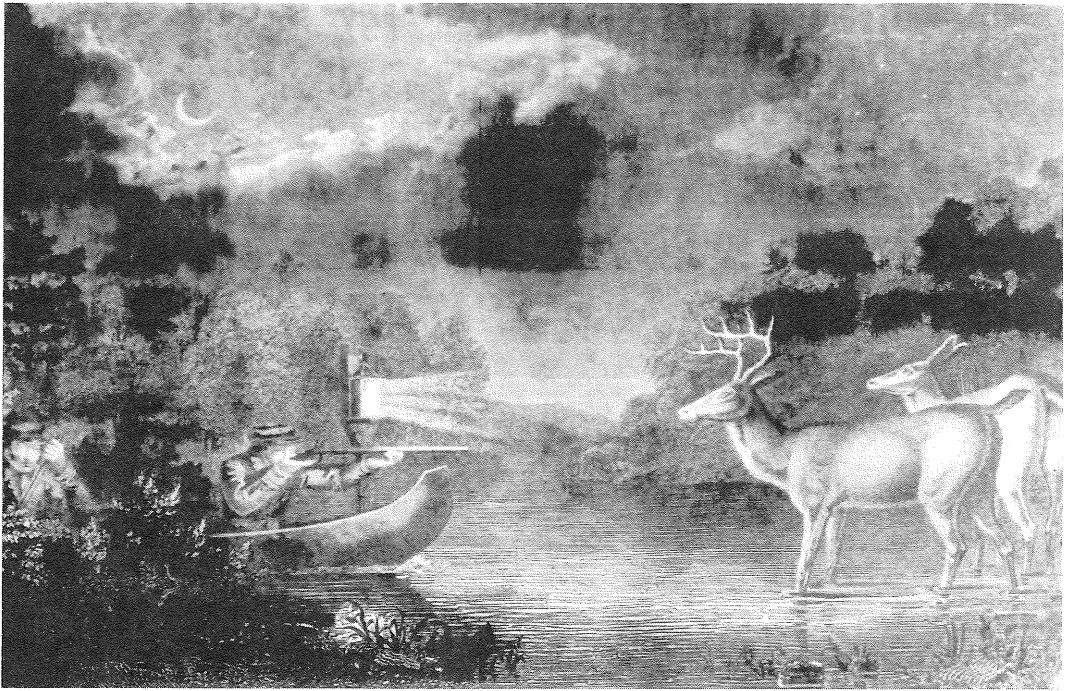
In June 1878, the capture of two foxes by the hunters was reported, but there was no indication whether they were in the wild or released. Announcements of the state fair of that year referred to the presence of the "English colony of Martin County, who keep up the fox hunting and hurdle racing of their native country." In December, the hunters were enjoying the pursuit of rabbits, their "favorite sport," so they claimed.³²⁷



The Hallock Hotel in Kittson County with a party of big game hunters in the fall of 1889. This picture is reproduced from a photograph in the museum of the Minnesota Historical Society. Moose, elk, and white-tailed deer show conspicuously in the fore-ground. Wolf pelts hang from the stairway.

Another Englishman with marked interest in hunting who took up residence in Minnesota was Sydney Gray of Pipestone. In 1894, it was said that he thought more of the game on his property than the land itself. He saw seven coveys of prairie-chickens on a field of 160 acres planted with flax.³²⁸

The places where sportsmen sought game changed from year to year. In 1856, there was good hunting for prairie-chickens, ducks, and geese near Henderson. In 1862, Captain Few of Little Canada had a camp at Rice Lake for the accommodation of sportsmen shooting ducks and deer. He had a team run back and forth to St. Paul every few days in September 1862 for the benefit of hunters who wished to come and go frequently. He supplied the outfit for deer hunters. The editor of the *Pioneer* enjoyed Mallard and pickerel from that source in December 1882 and accorded the camp some publicity. In 1863, it opened for guests on September 23. Rice Lake continued to be a popular resort for St. Paul duck hunters throughout the 1870s. The flat ground near Pig's Eye was another favorite place. Portions of Minnetonka were black with ducks in October 1871. Litchfield, Willmar, Glencoe, and Fergus Falls were well known to hunters after prairie-chickens. Silver Lake Township invited hunters to Martin County in 1878. They would find geese, ducks, cranes,



Rindisbacher's "Deer-Hunting, Nocturnal and Aquatic," from *The American Turf Register*, 3:257 (June 1831). This represents a typical scene on the Mississippi River.

and pigeons. Frontenac, too, was "open and in its glory" in August 1879. "Hotels on the Lake all in fine condition, and rates generally reduced, from Frontenac all round.... Fun and fishing the order. Next week fun and shooting will be thrown in as an extra."³²⁹

The section devoted to Minnesota in Hallock's *Sportsman's Gazetteer* published in 1877 gave sportsmen advice on particular routes and the game available. In 1861, the "whole management of the Northern Pacific Railroad" was described as "obliging to the sporting fraternity." A summer publication called *Tourist and Sportsman* advertised the desirability of the Lake Minnetonka region for sportsmen in the same year. In October 1882, Pickerel Lake, Sugar Island, and sloughs near West St. Paul had more hunters than ducks. Arthur Pegler in an issue of *Sports and Amusements* in 1892 recommended Mountain Lake for chickens, snipe, curlews, and plover, Heron Lake for ducks, geese, swans, and pelicans, and Slayton for ducks and Sandhill Cranes. Many lakes in northern Minnesota became accessible to hunters in the 1890s. In the south and west, Heron, Big Stone, and Traverse lakes continued to be popular. One man described the northern trek of duck hunters for the fall flight in 1895 to Tower, Grand Rapids, and other points in "the land of plenty where nobody pays rent and T.B. Walker puts up the taxes."³³⁰

Hunters were told that they might get prairie-chickens, ducks, and rabbits near Prior, Long, Crystal, Barden, and Round lakes not far from Minneapolis in 1897. Landowners in those areas "do not object to gunning." Prairie-Chickens throughout the southwestern part

of the state and geese in western counties attracted many sportsmen. The Great Northern Railroad and the Soo Line were still planning special prairie-chicken excursions in 1899.³³¹

It was recognized that with all this enthusiasm for hunting there was need for sportsmen to treat landowners with respect. In 1863, the Hastings Sportsmen's Club condemned the practice of entering standing grain. A farmer in Glencoe ran a notice in the paper in September 1875, which stated that no hunting of prairie-chickens would be allowed on his land. A resident of Martin County, who signed his letter as "A Sportsman of the old School," complained about the inundation "of 'sports' from the east, whose sole object appears to be slaughter," without any consideration of the size of the game or "whether it be shot sitting or flying." He declared that bad partridge shooting in England was worth 25¢ an acre and he had paid as high as 60¢ for thousands of acres. He proposed that a small fee be exacted of sportsmen by landowners for the privilege of hunting on private property. Residents in the vicinity of Lake City decided to hunt before the season opened in 1879 to get in their share before "the gentlemen sportsmen' come to gather them in."³³²

The advantages in buying good land for hunting were recognized by sportsmen at an early date. In 1869, the *Pioneer* looked with approval on the development of private hunting preserves in the East. It was thought then that the practice would "satisfy gentlemen of wealth and their hunting propensities," for they would no longer be compelled "to seek the western wilds or prairies." T.R. Huddleston and his guests enjoyed good woodcock hunting on his preserve in Dakota County in July 1874. Arrangements were made for other private hunting areas. Only a few years had elapsed before a change of sentiment was indicated toward this development. The *Pioneer* observed in 1882 that "wealthy sportsmen," seeing the results of over-hunting and promiscuous shooting, were "buying up these favored localities and excluding the public from them so that they at least may be sure of good shooting."³³³

Many good duck passes went under the control of individuals or private clubs in the 1880s. The Van Ness place on the Minnesota River was one of the excellent ones near the Twin Cities. A chain of lake marshes, known as the Island Pass, formed good duck area not far from St. Paul. It began at Forest Lake in Washington County, extended to Long Lake in Hennepin County, and included part of the area near Rice Creek which emptied into the Mississippi River at Fridley. Hunters got Mallards, teal, scaups, baldpate, and black ducks at that pass. The men stayed at Von Ellsberg's house, the location of which was given in 1887 as "a short mile from the pass on the old government road to Lake Superior." Van Ellsberg was of a noble German family, was devoted to hunting, and had, like the Garrards, considered this factor when selecting his residential site in the 1850s. The *Pioneer* stated in 1887: "The Island Pass Club, who now control that part of the lakes, is composed mostly of men who have hunted there for more than 20 years and who still (though the score for a shoot is far lighter) would rather take a day at the old 'pass' than in what are now more favored localities." Members included Horace Thompson, the St. Paul banker, Reuben Warner, who was active in the campaign of the St. Paul Sportsman's Club against market



AUTUMN EVOLUTION OF UP-TO-DATE FEMININITY.

to be a clever sportsman or sport-woman nowadays is quite as important a matter as it was early in the summer season to be an expert cocher. It may be the charm of

great sailor collar of leather (pink or white). A row of leather pouches are on left of the skirt, to hold the cartridges. Small yachting cap of seal bath material.

"Nimrod the New Roman," an illustration of styles for feminine hunters appearing in the *Minneapolis Journal*, October 6, 1895.

hunting, W.S. Timberlake, who served on the Game and Fish Commission in the 1890s, Bruno Beaupre, George R. Finch, R.L. Mathews, and a few others. Rondo's pass, Robert's pass and the Bridge Pass were gaining in popularity at that time.³³⁴

The Long Meadow Gun Club controlled a valuable section of Minnesota River bottoms which furnished excellent duck hunting on the outskirts of Minneapolis in the 1890s. The club house burned but a new one replaced it in 1892 well adapted for the accommodation of the members. J.C. Joyslin, James W. Griffin, W.S. Ankeny, Charles C. Bushnell,

and Harry Legg were some of the men in this group. In August 1892, James Pye, Joseph Regan, J.H. McClay, George Morse, and Dr. Roberts of the Interlachen Club were planning their fall hunting. This club controlled land near Christine and Pelican lakes in Grant County. Fred Whitcomb and Henry Richter of the Minneapolis Gun Club were going to a Kandiyohi County pass. Professions represented among these sportsmen included law, medicine, construction work, loans and investment, restaurant work, and the sale of cigars and jewelry.³³⁵

Not all of the good duck passes were controlled by private clubs by 1900, however. A pass between Lizzie and Lida lakes near Pelican Rapids was said to be "the prettiest hunting ground in the state." Solomon Lake in Kandiyohi County was considered excellent in 1897, although many hunters went to nearby Florida Lake, where boats were available. Another individual considered the Okabena pass near Worthington one of the best places.³³⁶

The hunters continued to come. "Minnetonka's Bayous Draw a Big Crowd with Guns for Sunday Shooting," ran a headline in October 1898. B.J. Kennedy told reporters that the number of hunters outfitted for northern trips had not been materially diminished by the Indian scare.

His company had never sold as many shells as it had in the last week of October. Even women, apparently, were urged to try their luck. The fashionable appearance which they might make was well illustrated in the *Minneapolis Journal* in 1895 under the caption, "Nimrod the New Woman." The outfit recommended, if used, must certainly have caught the eye of male hunters. It was made of scarlet and navy blue striped wool. "A natty little shirt of crisp white linen ... fastened demurely down the front with tiny silver studs, and a club bow of scarlet stands out fetchingly at the throat." The Eton coat with flaring collar was of plain wool. The gloves were scarlet suede, the belt and field glass case of scarlet Russian leather. The Scotch cap of navy blue was made of velvet "with a smart chou of scarlet directly in front, and two quills, one of scarlet and one of blue, standing upright."³³⁷

Just how large the army of hunters in the field actually was is left to conjecture, since no licensing system had been established. The *Pioneer* in August 1866, still conscious of the timely character of the Austrian Prussian War, announced the opening of the prairie-chicken season thus: "This morning will witness the grand forward movement and a fusillade equal to the battle of Sadowa." In August 1893, there were in Fergus Falls "ten thousand dogs and as many hunters ready for the prairie-chicken season." One estimate of the number of out-of-state hunters who came without their families in 1882 placed the figure at 1,000. It was not considered possible to guess the number of families who vacationed in Minnesota, attracted by the game and fish. The *Minneapolis Journal* announced the "Hegira of Nimrods" in August 1889, when 800 to 1,000 gunners were leaving town. The Game and Fish Commission estimated in 1894 that there might be about 20,000 hunters in the field during the summer months.³³⁸ All of these numbers were, of course, only guesses, but they indicate the widespread popularity of hunting.

The amount of game taken by these hunters is also uncertain because of incomplete data. It had been thought by some writers that the individual hunter's bag was small in spite of the abundance of game in the early days because of the inefficiency of the guns used. Thus in the 1880s and 1890s, when the breech-loader was replacing the muzzle-loader, the numbers of birds taken might be about the same, although there had been a decline in some game populations. Newspaper accounts give some figures on this problem, although many stories do not state the number of guns in the party or the length of the hunting period. Specific numbers were cited most frequently in the cases of prairie-chickens and ducks. In these fields, the bags were appallingly large throughout the century. Even in the 1890s, there were hunts which compared favorably with those 30 years earlier. Complaints about small bags in prairie-chickens occurred in the 1860s and 1870s, not just in the 1890s, and were probably due to cyclic fluctuation, not just over-hunting, although the latter was usually believed to be the explanation.

Hunters seeking prairie-chickens frequently took from 50 to 100 birds a day each. Without regard for locality of hunting, a few bags may be cited for each decade. One man in 1856 had a score of 21 in one-half hour. Hunters in 1859 got 30 or 40 in an afternoon. In 1864, two men got 100 birds in seven hours. In 1868, one man got 44 birds in one day. In 1869, two men reported 200 in four days. From 25 to 75 was considered the average bag for a party of two or three men. One individual took 197 in one day. In 1870, three men got 105 in three hours. In 1871, two men got 113 in an afternoon. One man, a beginner in the sport of hunting prairie-chickens, took over 600 in the season in 1874. The usual bag for one gun in a few hours was 50. A score of 100 in one day was not considered extraordinary in 1877. One man took 72 birds in one day in 1878. A hunter returned from two and one-half days in the field in 1881 with 130 prairie-chickens as well as a number of hawks and herons. In 1888, it was expected that one gun would take from 50 to 75 birds a morning. In 1892, four men got 300 birds in three days. A party, the number of which was not given, took 1,212 in the season. Apparently some hunters could still claim about 50 birds a day in the 1890s, if it was a good season. The bag limit set in that decade limited him to 25 a day.³³⁹

When prairie-chickens were increasing in 1894, the *Minneapolis Journal* commented on eastern publications in which sportsmen bragged about the "old times" and 100 birds a day, while "now, if a brace of guns score as many dozen birds in a day, the performance is ... better than average luck." More birds than that were usually taken by individual hunters, but it was felt that no thanks was due to the "hundred bird sportsman." It was not his fault that prairie-chickens were more abundant than he believed. Evidence of the cyclic decline in 1899 caused one person to recommend 10 instead of 25 for a daily bag limit, and it was then repeated that 100 a day was the typical bag of the 1860s.³⁴⁰ The numbers listed, however, indicate that a bag of 50 to 100 birds a day was not unusual throughout the century during the years when the birds were on the upward part of the cycle.



NOW IS THE TIME 'I-THOUGHT-IT-WAS-A-DEER' FOOL GETS IN HIS WORK.

A cartoon entitled "Now Is The Time 'I-Thought-It-Was-A-Deer' Fool Gets In His Work," from the *Pioneer Press*, November 14, 1897.

The bag of ducks or geese was more seriously affected by the number of guns in the field than that of prairie-chickens because of the difference in the type of hunting. Flocks of birds in flight were easily frightened away from the lakes especially close to metropolitan areas, so hunters had to travel farther as the years went by, or gain exclusive rights to specific territory. The numbers taken in this field of hunting were by no means small even at the end of the century. One man got over 20 ducks in an afternoon in August 1868. In April 1870, two men got 239 in two days. Two men took 100 in two days in October 1873. Three men got 180 in two days in November 1878. In October 1881, two men took 300 in two days while another pair of hunters got 110 in the same length of time. The aver-

age spring bag was said to be from 8 to 25 a day in 1882. In October 1885, two men got 24 geese in one day. In October 1895, four men shot 183 ducks in three days.³⁴¹

Some of the bags at the favorite passes or areas are interesting to note. Von Ellsberg got 28 geese at Rice Lake on one April day in 1868. He and another hunter shot 32 prairie-chickens and 24 Sharp-tailed Grouse on the first day of the season in 1874. He commented that the two species were about equal in abundance in that area. Two other hunters at Rice Creek in the spring of 1870 shot 239 ducks, 8 geese, and 46 pigeons in two days. The report was: "They represent the hunting as tip-top." Two men in the same area in July 1875 took 5 Mallards, 3 teal, 1 Wood Duck, and 3 scaups on one trip. At the Van Ness pass on the Minnesota River three men shot 100 ducks on one day in April 1882. One man at Long Meadow on August 20, 1892, shot 22 teal and 2 shovelers. On August 21, the score of another hunter there was 10 Mallards, while a third man took 24 Mallards and teal. The Ankeny party reported 14 Mallards in one hour in April 1895. One of the members of the club went out before business hours on a day in October 1898 shot 17 Mallards and teal, and then repaired to his office.³⁴²

It is scarcely to be wondered that hunters needed large wagons in which to bring back the game. The 11 geese and 72 ducks which one party shot on the St. Croix River in September 1883, or even 29 geese taken near Alexandria by another group in October 1885 meant quite a sizeable load. Frequent items in newspapers on the return of sportsmen summarized the take as "a dray-load" or "a wagon-load." Of course, parties in the field for long periods often had considerable variety in their game. Two men out from St. Paul two days brought back 2 deer, 11 geese, "ducks and pheasants without number," and 150 wall-eyed pike. The hunting season of 1878 meant for one hunter near Alexandria the capture of 13 deer, 255 ducks, 51 prairie-chickens, 51 Ruffed Grouse, 2 jack rabbits, "and other game." A party in the western part of the state in one week in 1879 got 31 geese, 5 cranes, 14 prairie-chickens, 17 Canvasbacks, 110 Mallards and other ducks, and 28 Wilson's Snipe and golden-plover. Two men from Walker in November 1897 managed to chalk up 1 moose, 5 deer, 110 Mallards, and some other game on their hunting trip.³⁴³

Obviously, much of this game must have been wasted. Guides and hunters for the exploring expeditions usually took precautions to shoot only the amount needed for food, but later hunters did not realize, in the excitement of the shooting, the problems involved in shipping extra ducks back east. One man said that the prairie-chicken hunters of the 1870s made little effort to take their birds home. Four men taking 300 geese in one week in October 1894 had to bury half of them before their trip was over.³⁴⁴

A more pleasant topic in the history of the sportsmen and game is the movement toward conservation of wildlife. The organization of groups of hunters interested in this problem was recommended in several towns in 1861. The *Pioneer* advised St. Paul sportsmen to form a club "like the Cincinnati Walton Club and Chicago Audubon Club of sportsmen who make annual rides on the prairie hens and see that the game laws are enforced." In

Mankato, a sportsmen's club was suggested as the most efficient method to enforce the laws. The *Chatfield Democrat* put forth the idea in vigorous terms: "We would suggest the propriety and absolute necessity of the organization of a 'Sportsman's Club' in Fillmore County, for the purpose of securing the strict enforcement of the game law of the State. The *Poachers* must be looked after, and by the organization of a club for that purpose, every member will feel himself authorized to make complaint of all offenders."³⁴⁵

The organization of a sportsman's club in St. Paul was announced in April 1861. Meetings were held at the gun store of William Golcher. When the editor of the *Pioneer* heard of violations of the game law in February 1862, he asked: "Who are members of the Sportsmen's Club of this city?" Auguste L. Larpenteur was president that year. The group brought suit against one individual for hunting prairie-chickens before the season opened. The *Pioneer* approved heartily of the determination of the sportsmen "to execute the Game Law to its fullest extent.... If he is guilty he should swing." It was rumored that prosecution would even involve several members of the club and "an ex-governor for ... netting trout and for killing deer by 'firing'." These cases were settled out of court, however. In January 1863, the Sportsmen's Club warned game dealers when the legal time for the sale of Ruffed Grouse had expired.³⁴⁶

Throughout the next 30 years, members of the organization in St. Paul made spasmodic efforts to encourage observance of the laws and occasionally received high praise for their accomplishments. At other times, the group lapsed into an apathetic state. In July 1864, a reward of \$25.00 was offered for information leading to convictions on violations of the game laws. The month of August passed without the calling of an annual meeting or an election of officers. A meeting was held at Golcher's store in July 1870, to reorganize the club because the game laws were "being violated with such impunity." The new officers included O.D. Greene, Horace Thompson, J. Fletcher Williams, and C.S. Kline. Mr. Larpenteur declared that the object of the organization "should command the interest of every gentleman in the city fond of sporting." Initiation of new members was held and their pockets searched for gun wads and old percussion caps. The reward was offered again and members declared that the game law was "less infracted this year than ever before."³⁴⁷

An editorial on game preservation appeared in the *Pioneer* in January 1871. Sportsmen were urged to act while there was yet time. The fact that other states had enacted game laws, the enforcement of which was undertaken by private organizations was emphasized. In February, it was said that St. Paul sportsmen were studying the statutes of other states with a view to affecting greater stringency in the Minnesota laws. There was considerable activity among the members in that year. Regular meetings were held, dealers were warned, and mounted patrolmen engaged. By July 20, the opinion was that "the law is no longer a dead letter as it once was." In July 1872, there came a similar announcement: "Our sportsmen are not asleep by any means." Members advocated a later opening of the prairie-chicken season and asked the opinion of other clubs in the state on that matter. In December, they

were resolved "to 'go for' the venison exporters," and they asked other clubs "to contribute to the sinews of war."³⁴⁸

Such waves of enthusiasm were apparently short-lived. In August 1873, the club failed to get a quorum and election of new officers was postponed. In 1875, one member called attention to "the inadvertent dereliction of duty on the part of the club ... in failing to extend its protection to the prairie-chickens this year." No reward had been offered or detectives employed. The new officers promised to take a more aggressive policy. Reuben Warner, the new president, was a vigorous opponent of market hunting and the club was responsible for several large seizures of venison and game birds in 1877. Funds were raised to defray the expenses of prosecutions. In 1880, the plans of the club provided for monthly meetings. During the next 10 years, the members kept up a fairly regular attack on the illegal action of the game dealers. In 1884, a man in Brainerd declared that lawbreakers "dread the members of the shooting club in St. Paul more than the local authorities."³⁴⁹

Many other towns in the state had sportsmen with similar ideas. In July 1865, a club was organized in Hastings for the protection of game. It had to be "revived" in July 1872, and "reorganized" in August 1876. At that time, a reward of \$25.00 was promised for information about violations and 50 handbills were issued publicizing the offer. Plans for the organization of such a group in Chatfield were announced in April 1871. It was proposed in 1874 that a representative be sent to the National Sportsman's Convention. In spite of the propaganda, there was still no active club in 1862. When the sportsmen's club in Lake City offered a \$10.00 reward in 1871, a cynic suggested that anyone might kill a prairie-chicken, inform on himself, collect the money, pay the fine, which was only \$5.00 and have a fair profit. There was a Freeborn County Sportsmen's Club in September 1872. This group offered a reward in May 1874 for information leading to the arrest of lawbreakers. The Albert Lea Sportsmen's Club was active in the same area during that decade. At Alexandria in December 1872, there was "some talk of organizing a society to enforce the game law." By August 1885, the "Rod and Gun Club" was busy in the cause of law enforcement in that region.³⁵⁰

Although the exact dates of origin of many other clubs were not clear, there were existing at the following points some organizations of sportsmen aiming at law enforcement at the dates indicated:

Lake Pepin	March 23, 1876
Faribault	May 31, 1876
Waseca	July 28, 1877
Lanesboro	April 30, 1881
Heron Lake	August 11, 1881
Fairmont	August 11, 1881
Eyota	August 13, 1881
Fergus Falls	March 22, 1883

Duluth	October 14, 1893
Park Rapids	1894
Breckenridge	1894
Goodhue County	1894
Douglas County	July 30, 1896
Willmar	August 20, 1896
Grand Rapids	July 20, 1897

There undoubtedly were many small groups interested in conservation. Typical of the sentiment expressed by sportsmen about poachers was the remark of H.J. Pyle of the Minneapolis Gun Club, quoted by a *Minneapolis Journal* reporter in August 1889: "I'll contribute twenty dollars to a fund to help bring those fellows to justice."³⁵¹

A model recommended to these sportsmen's groups in 1890 was the Cuvier Club of Cincinnati. One writer claimed that this organization, formed in 1871, had been copied in Indiana, Kentucky, and West Virginia. He hoped that a Minnesota organization with 300 or 400 members and dues of \$5.00 or \$10.00 a year could be formed. He believed that railroad employees and managers of summer hotels would cooperate.³⁵²

The need was felt for some state-wide organization which would coalesce the efforts of the various groups. Such a federation was proposed in 1870. In 1882, the *Pioneer* described the existing association for unifying Minnesota sportsmen. It was "not a very live one, in fact a more moribund carcass in the way of associations it would be hard to find, considering that the last apparent active effort made by it was its selection of officers in 1876." The leaders chosen in that year were from St. Paul, Minneapolis, Lake City, and Barnesville. Committees included men from St. Cloud and Henderson. The constitution provided for individual annual dues of \$1.00 and \$10.00 membership fees for clubs. Four men had paid the first fee, and clubs at St. Paul, Minneapolis, Stillwater, Lake City, and Henderson had responded to the second arrangement. This led to the conclusion that "the sportsmen of Minnesota valued their game and fish privileges at \$54.00." It was asserted that at least 500 men in the state would willingly pay \$1.00 each to see a good law enacted and vigorously enforced. The cry was: "Let the dead arise. Let this associate Rip Van Winkle awake from its five year slumber." When a circular letter explaining the purpose of the state organization was received in Mankato, one individual responded approvingly: "We sportsmen are as sheep without a shepherd—lead us into pleasant pastures."³⁵³

The federation formed in 1882 advocated a better law prohibiting the export of game "in the name of the associated sportsmen of Minnesota." Other recommendations of the body were the abolition of summer woodcock hunting and the appointment of game wardens by the state. A reward of \$25.00 was offered, and some of the member organizations added a similar amount to spur on informers. In August 1884, a detective sent by the state association to Appleton was "waylaid in broad daylight ... by a score of poachers ... who, after pounding him to their hearts' content, dispersed." Steps were being taken by the

association to punish the offenders. Later in that year the American Field, in praise of the Minnesota organization, declared that it ranked with the Michigan Sportsmen's Association in its efforts to protect game.³⁵⁴ The scattered individual clubs throughout the state and the federation were really serving as a quasi-governmental body to put the legislative enactments into effect.

After the creation of the Game and Fish Commission in 1891 and the creation of a regular warden staff to patrol the state, there was still a need for the services of voluntary groups. The Minnesota Game and Fish Protective Association, organized in 1895, planned to aid local clubs and to act as an auxiliary of the Commission. Uri Lamprey of St. Paul was its president. Other officers represented St. Cloud, Minneapolis, and Duluth. A membership list of 241 people was obtained. A semi-monthly publication was planned to be known as the *Northwestern Field and Stream*. Committee members included men from Stillwater, Dalton, Montevideo, Waterville, and Buffalo. Fullerton commended the helpfulness of the group in his report for 1895. In 1899, the formation of a "hunters' and Anglers' Protective Association" in Minneapolis was announced. The charter members met in the Board of Trade rooms and made plans to extend the organization over the whole state. Its program was likewise chiefly one of law enforcement. It also advocated the prohibition of the sale of game and the use of money from licenses, confiscations, and fines for the department's own needs. Although such voluntary organizations did not maintain a steady and continuous line of achievements, they probably did prevent useless destruction and raised the standards of sportsmen themselves in local communities.³⁵⁵

The aims of some of the sportsmen's groups were not limited to programs for law enforcement. Plans for social entertainment often included organized hunts with teams competing against each other, ending with a gala dinner in honor of the victors. Occasionally, cooperative efforts to improve hunting conditions were envisaged. Some of the ideas which these groups entertained showed considerable variety and originality.

Typical of the social plans of the clubs were the announcements of the Hastings group in July 1883 that members of the Vigilance Committee and others in the club would participate in a grand match on August 15. "Those who have constituted themselves the especial guardians of the game, will become the instruments of their destruction." The St. Paul club did not hold an annual hunt in 1884 and it was felt that the sportsmen of Hastings and Mankato were better organized. The *Pioneer* asserted: "There are enough good sportsmen here to get up a live club, which would be composed of just the society that stranger sportsmen visiting our city would be glad to meet." The Freeborn County Sportsmen's Club planned two hunts in 1872, one in September for prairie-chickens, and one in October for ducks. Another was held in that locality in 1874. Waseca's club of 30 members planned a hunt in August 1877.³⁵⁶

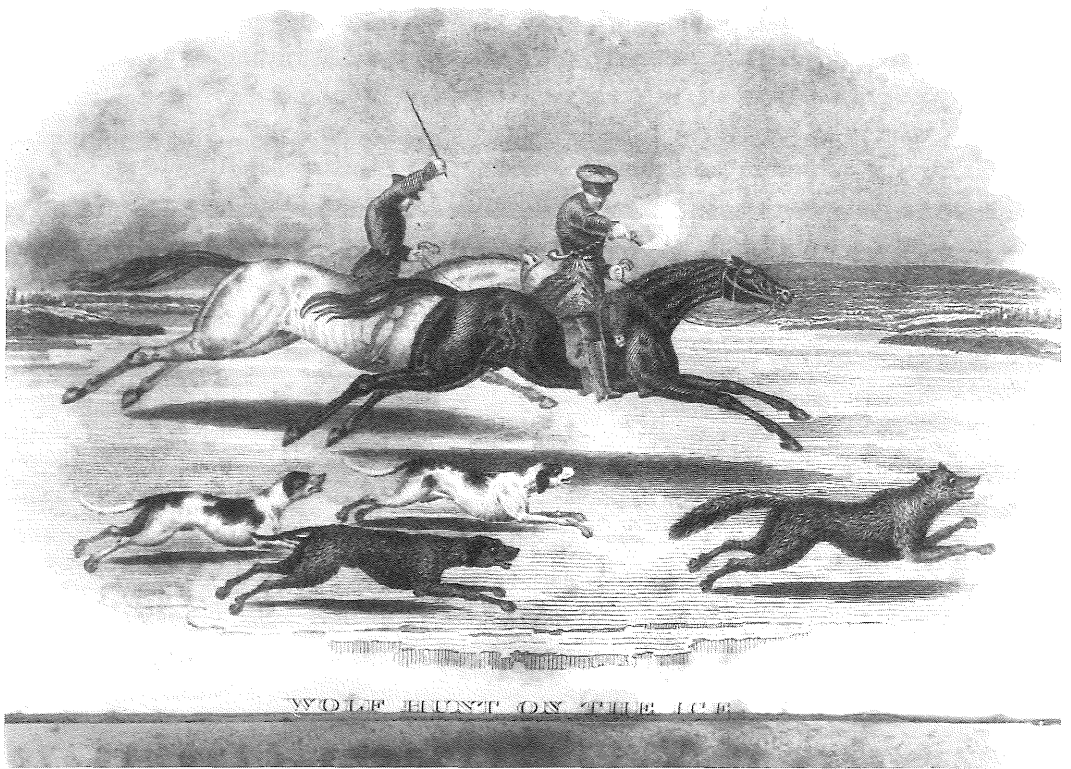
Sometimes, the hunts were planned by groups which did not keep up a formal organization throughout the year. Occasionally, the goal sought was to rid the community of a nuisance. Gophers, blackbirds, or wolves were pursued.

The total score of tails brought in after a gopher hunt in Fillmore County held on spring election day in 1863 was 10,003. One man's individual score was 1,420. The guests at a gala dinner number 120. Apparently the country-side about Mankato was not as good "gopher country," for hunters there took only 1,276 in May 1864. Local opinion was that the result "exceeds Grant's slaughter of rebels on the Potomac." In Olmsted County in June 1875, pocket gophers were scored at 25 points, "gray" gophers at 15, and "streaked" ones at 10. The total score was 36,030.³⁵⁷

Hastings sportsmen were divided into two teams on a hunt for prairie-chickens in August 1863, and again in the following year. The adventure ended with a "game supper and round-up." There were 14 men on a side in Mankato in August 1864. The scores in prairie-chickens for one day were 243 and 173. In 1886, there were only seven men on a team, yet one side got 224 chickens and 7 ducks, the other 54 chickens and 31 ducks. Henderson sportsmen planned an annual hunt in October 1873. Scores for the two teams of 18 men on a hunt in Freeborn County in August 1874 were: prairie-chickens, 409 and 395; ducks, 107 and 22. There was some contemporary disapproval of such contests. This particular event was reported in La Crosse with a scathing rebuke: "They hunt chickens as is often done in hunting gophers, the side that brings in the smaller amount of game has to pay for the suppers.... In this wholesale slaughter of chickens we fail to see where the real sportsmen come in unless it is desirable to exterminate that game entirely, and leave no sport for the future.... If the course adopted by the club at Albert Lea is a proper one, then fishing for trout in our creeks with nets is in order." The chickens, ducks, and geese brought in by Fergus Falls participants in a match hunt in 1874 "filled stables and lay heaped upon the sidewalks."³⁵⁸

Wolf hunts aroused much excitement in some communities, although the numbers captured were amusingly small, considering the number of men in the field. Seven hundred men joined in one in Fillmore County on Christmas Day 1875. They scared up 50 wolves and captured 3. People near Faribault in February 1877 were urged to join in a wolf hunt. They were invited to bring horses or come on foot, "with bells, horns, guns, etc., and make the movement a successful one." The report later was that the hunt was well attended, but no game was killed. The outcome of one held at Cedar Lake, Minneapolis, in February 1889 was similar. Seventy-five men and boys scared up two wolves and killed none. A wolf hunt planned for the Litchfield club in January 1891 was admittedly arranged for the pleasure of the participants, although "it is expected also that the farming community will be greatly benefited as a result of it."³⁵⁹

The *Minneapolis Journal* promised "Death to Wolves" when an invasion of hunters planned to enter Anoka County in December 1893. A pack of wolves had been reported near



"Wolf Hunt On The Ice" of the Mississippi River, from *The American Turf Register*, 3:153 (December, 1831). Army officers at military posts on the frontier gained considerable fame for their hunting exploits.

Fridley. Cartoons pictured the fear of the wolves before the event, and the reaction of the animals afterwards with the headline "Wild Lupine Laughs." Five hundred men signed the list of volunteers to go to Coon Creek. The reporter described the adventure vividly. "The crusade ... turned out a fiasco.... Not a single wolf is the worse for yesterday's campaign." The actual results for most individuals were "an illimitable amount of coughing and sneezing, a fairish lot of damning, the waste of something like 2,000 rounds of ammunition, and the cost of team hire. R.R. Odell, dubbed "Red Riding Hood Odell," was ill in bed, and "Mr. (Lawrence) Kennedy isn't saying a word." Hounds had been used in the hunt to little avail. The touch which added final ignominy was the report one day later that a farmer living near Anoka went over the same area traversed by the army of hunters, captured three timber wolves, and had already collected the bounties!³⁶⁰

It was naturally much harder to arouse any enthusiasm in the Twin Cities for a wolf hunt in 1894. One led by H.A. Hokemeier was scheduled in December, but little was expected of it. The report was that Hokemeier and his company started off into "a patch of scrub oak and sumac bushes from which they may emerge if they have luck, but it is the same scrub oak patch in which Col. Lawrence Kennedy got hopelessly lost, compass and all, last season." In 1895, the whole arrangement was revised. "The Minneapolis Wolf Destroying Association"

had held two meetings by November 28. The group did not plan to "ride roughshod over Anoka County," but offered farmers \$10.00 for every wild live wolf received in the following two weeks, \$5.00 for foxes, and \$1.50 for jack rabbits. Instructions to farmers on methods of catching these animals were given. They were to dig pits and place a sheep in a crate near the top to attract wolves, a chicken as bait for foxes. The hunt would then be held near Lake Harriet, where these animals would be released. On December 5, Hokemeier announced that he was receiving a number of responses, but no further news of the event appeared in later papers.³⁶¹

Beltrami County welcomed the idea of a wolf hunt in 1897 because of farmers' losses in sheep. "Why don't the gun clubs organize a grand bear and wolf hunt instead of driving away the peaceful moose?" J.W. Shields took his hounds out in Kittson County for a wolf round-up in February 1898, and caught one animal. A hunt planned near Crookston in March 1899 included citizens from Brandsvold and McIntosh and farmers from nearby areas. No firearms, only pitchforks were to be used. A drive over the township was planned to start the animals from their lairs. Ladies were to accompany the hunters and bring a picnic lunch. The bounties to be obtained were promised to the poor fund of the region hunted over. If the experiment was in any degree successful, another township would be hunted over on the following Sunday. No further reports were made on this venture, either. Wolves were seen near Columbia Heights in February 1901 and one was killed, but apparently the citizens were then too sophisticated to rouse the old cry.³⁶²

Another organization to amuse sportsmen which was advocated in Minneapolis in 1899 was a fox hunting club. Those interested were invited to meet at the West Hotel. Thirty members were expected, all of whom had traveled in England. The terrain around Excelsior was recommended. It was believed that local foxes and wolves would be as good sport as "the simon-pure Reynard of Tidman's Gorse." Dogs were to be obtained from kennels at Pipestone, Sibley, Lemars, and "other strongholds of the British resident." The hope was that fox hunting would eventually enjoy the same reception that golf had, although that had been ridiculed only a few years ago. This plan likewise faded into oblivion.³⁶³

Another type of hunt was that in which sportsmen scoured the country-side for all kinds of game, and received various points for different animals which were scaled for size and rarity. A hunt of this type at Henderson on December 24, 1856, allowed the following scores: bear-1,000, deer-200, timber wolf-200, prairie wolf-100, fox-100, otter-75, marten and fisher-50, mink and raccoon-25, skunk and goose-20, eagle-15, muskrat, badger, prairie-chicken, and duck-10, rabbit and Ruffed Grouse-8, owl, hawk, and crow-4, fish under five pounds, 1 point a pound, five to ten pounds-20, ten to twenty pounds-40, and over twenty pounds-100. There were 30 men on each team. Indians were not allowed to participate. Piles of game were brought in after the day in the field. Another such hunt planned in Anoka in September 1864, for two days with overnight camping, offered 100 points for a bear, 75 for a wolf, 50 for a deer, 40 for a fox, and 25 for a Sandhill Crane. "The St. Paul Sporting Club, and all others interested" were invited to join in the fun and

the supper at the end of the second day. On September 22 came the news in the *Pioneer* that the "St. Paul sportsmen did not respond.... The fraternity of hunters is weak in numbers and lacking in enterprise, in our city." About 100 men from Anoka were expected to participate. Thirty really came and were entertained at the dinner. The bag included nine bears, ten deer, and an "immense count of smaller game." When a similar hunt was proposed in Sauk Rapids in 1869, one individual suggested that skunk be given the highest rating since they seemed unusually bothersome that season.³⁶⁴

The game collected by one team near St. Paul on a one-day hunt in October 1871 included 1 goose, 1 raccoon, 89 ducks, 4 prairie-chickens, 1 Ruffed Grouse, 15 snipe, 1 plover, 28 blackbirds, 3 hawks, and 2 owls, making a score of 5,793 points. The losing team whose score was 2,425 points, had 35 ducks, 10 Ruffed Grouse, 6 snipe, and 1 crow. There were 25 men in the field. Points accorded for various species in Glencoe in October 1873 were plover and snipe-1, rabbit-5, "teal duck"-7, Ruffed Grouse-10, duck other than teal-10, prairie-chicken-15, woodcock-20, goose and brant-50, Sandhill Crane-60, white crane-100, fox, wolf, and lynx-125, deer-400, and bear and elk-1,000. Two teams composed of eight men each on a two day hunt near Alexandria in October 1875, took 6 prairie-chickens, 8 ducks, 4 geese, 6 rabbits, 204 squirrels, 3 deer, 80 Ruffed Grouse, and 25 pounds of fish.³⁶⁵

A goal of many groups of sportsmen was also to "perfect sporting amateurs in the scientific use of the gun." Target practice and shooting matches were planned to meet this part of the program as well as field excursions after game. Wild pigeons were commonly used in the matches during the 1860s and 1870s. One contest was scheduled in June 1869 near Lake Como in St. Paul. The editor of the *Pioneer* noticed a very large coop of live wild pigeons which had come down on the Mankato boat for the event. About 200 birds were needed. In July 1870, shooting matches were held in St. Paul. The Sportsmen's Club wanted 1,500 live pigeons for that occasion. Sportsmen were buying live pigeons in Lake City for target practice in May 1871. A match between Lake City and St. Paul men was arranged in June. The St. Paul contestants killed 98 birds, the Lake City men 85. The badge awarded the victors "must have cost \$25.00 or \$30.00," according to one report.³⁶⁶

For a Twin City shooting match in June 1872, 20 dozen pigeons were secured. The word before the contest was that members of the St. Paul Sportsmen's Club were nervous. They or their agents had been raking the country unsuccessfully for several weeks to get pigeons. Meanwhile their Minneapolis opponents "through some mysterious way known only to themselves and the birds" had a fine supply for daily practice. St. Paul men said they must practice on blackbirds and tame chickens. On May 15, the "Zoo-Zoo Club" of St. Paul was to "blaze away" at 15 dozen pigeons. On June 21, the "Minneapolis Sporting Club" promised to make 20 dozen pigeons suffer. Coues stated that hundreds of pigeons were netted near St. Paul for use in shooting matches. In April 1874, the St. Paul Sportsmen's Club planned to erect a coop which would hold several thousand pigeons."³⁶⁷



AFTER THE WOLF HUNT

WILD LUPINE LAUGHS

less, caked two inches from the curls representative of another afternoon. took to the trail several L cards from The Journal.

"After the Wolf Hunt" in Anoka County from *The Minneapolis Journal*, December 22, 1893. For this hunt the men were divided into companies to cover the area. Several hundred men participated, but not one wolf was killed.

In one match at Hastings in early August 1874, 15 men were allowed five birds each. At a later event, there were seven men with 8 birds each, but the scores were higher in this case because the birds used were "doves, or tame pigeons, not more than half rising when the trap was sprung, and often having to be driven up with clubs." The observers were anxious "to see a match with wild pigeons." After a contest in October, the winner felt he would hold the title until the following year, because "it is late, and hardly probable that other birds can be procured this fall." The *Pioneer* announced in September 1875, that the "Trap and Field Club" had secured 250 wild pigeons for a match to be held at "Adam's place on Minnehaha Avenue." Except at its first contest that season, the club had been using tame birds. It was anticipated that "the change to wild ones will make it somewhat more lively for the boys, and add to the fun at the expense of the score-perhaps." Among the names listed for another match were Larpenteur, Zimmerman, and Golcher. In 1878 the report was that 10,000 birds were received in St. Paul for a state shooting tournament.³⁶⁸

Artificial targets replaced live birds for most of the meets after 1880. In February 1862, the *Pioneer* expressed hearty approval of the new trend. "The advent of clay pigeons, rather a misnomer for the flat saucers of unglazed clay, is a sure index that humanity and the higher feelings of our nature are becoming recognized and asserted among the best classes of sportsmen." A description of their manufacture quoted from the *American Field* was given for the benefit of readers unfamiliar with these objects. For a match at Hastings in July 1882, the leaders got 300 wild pigeons from Kilbourn City, Wisconsin. The usual announcement of that decade, however, was like that of a contest in Hubbard County in October 1885 that "glass balls and clay pigeons" would be used. The disappearance of the birds forced the change in custom.³⁶⁹

There were still other projects included in the plans of sportsmen's groups. The St. Paul organization in 1874 expected to provide a reading room for members furnished with books and sporting papers. The Lake Pepin Sportsmen's Club gave as its object: "the enforcement of the game laws, the promotion of an interest in the study of natural history, and the collection and preservation of specimens relating thereto." It aimed to make the neighborhood "attractive to naturalists and sportsmen from abroad." Improvement of the region for game was probably considered by many groups, but the Long Meadow Gun Club was one of the first to report on its experiments. *Forest and Stream* advised "wildfowlers" in 1892 that wild rice planting was one of the most satisfactory enterprises open to them. There was a fair amount of this plant in the Long Meadow area, but another valuable duck food which could be planted was wild celery. In 1893, members planned to introduce this as a lure to Canvasbacks and Redheads. In April 1895, it was said that the celery planted the previous year was growing well. The finding of wild celery in some crops of ducks killed at Wyoming, Minnesota, in November, was considered proof of the value of the activity. The opinion in 1896 was that about half of the 1894 plantings had survived and was doing well. The other portion had suffered because of the German carp which had been introduced much earlier. The questions of duck foods, wild rice, wild celery, and duck potato,

were considered by this club again in 1897 and 1899. Shooting was prohibited in part of the area in 1899 and in another section in 1900.³⁷⁰

The Minnesota Game and Fish Protective Association planned to plant wastelands for birds, to correspond with neighboring states regarding conservation measures, and to introduce suitable species of game birds. This last measure intrigued sportsmen even when there was still excellent hunting in native wildfowl. A man in Winnebago City wrote to the *Chicago Field* in 1878 urging the introduction of the migratory quail, which he called the "Mediterranean quail of Messina." Some of these birds were introduced into Maine, according to a report of 1882. Capercaillie were tried in that state in 1893, English Pheasants in New York in 1883, Chinese Pheasants in various states in the 1890s, and Chukar Partridges in Illinois in 1893, among various private ventures. No record appeared of any actual experiment with any of those species in Minnesota, however. A car-load of live jack rabbits from South Dakota crossed the state in 1895. They were being shipped to England where some wealthy sportsmen "planned to breed them for the chase." One Minnesota sportsman at Long Lake in 1900 reported some success in the propagation of quail on his country estate.³⁷¹

The methods and equipment used by hunters changed somewhat during the century. Dogs were used by early sportsmen in Minnesota. Captain Frederick Marryat remarked after his visit to Fort Snelling in 1837 that the "principal amusement of the officers is, as may be supposed, the chase; there is no want of game in the season, and they have some very good dogs of every variety." He met Captain Martin Scott whom he considered "one of the first Nimrods of the United States," and was impressed by his skill. A wolf chase on the ice of the upper Mississippi River was used as a subject for a painting reproduced in a sporting magazine in 1831. Contemporary opinion did not begrudge the army men this sport. "It is gratifying to think they have such delightful means of dissipating the otherwise dull monotony of a soldier's life beyond the bounds of civilization without for years together, even a speck of war to sustain and animate them."³⁷²

Sibley acquired some dogs to aid in his enjoyment of hunting in August 1839. They arrived at Mendota when he was absent, but he received notice of their coming. The name of one setter, Moses, so displeased a friend of Sibley's that he wrote to the latter: "Quite satisfied that your taste will never permit you to call him by so unsportsmanlike a name, I have this morning taken the liberty of christening him, with all becoming ceremony, anew. Hereafter be it known to all whom it may concern (subject always to your approval) that he is to be called 'Grouse.'" The prowess of Sibley's dogs gained color as the years unfolded. A Minnesota newspaper reprinted a story from "a New York journal devoted to out-door life" which was in turn based on an interview with "Mrs. Fremont." This lady's husband, when acting as "top-engineer to a surveying party," saw two Irish wolfhounds, "Lion," and "Tiger," which were used by Sibley for wolf hunts about 1840. The story was that they had access to a lookout especially constructed for them to ascend and scan the horizon for wolves!³⁷³

There were many hunting trips in the 1860s and 1870s in which dogs were used. A man working on the construction of the Northern Pacific Railroad near the Otter Tail River in November 1870, had three good dogs which helped him get 13 prairie-chickens before dinner on one occasion. A hunting party near Wabasha was proud of the action of the dogs in August 1871. Good dogs for duck hunting were very much in demand in Alexandria in April 1874. An officer at Fort Abercrombie in 1874 had two packs of dogs. He claimed that two of his staghounds were from General Custer's pack and were descendants of a pair given to Custer by the Duke Alexis. They could catch an antelope in four hours.³⁷⁴

The Sportsmen's Club at Brainerd was trying to raise good dogs in 1874. S.B. Dilley of Lake City had famous kennels. He took five blooded dogs to show in Chicago in 1876. Charles Hallock visited his kennels in 1878. Some of them were entered at the national field trials held at Sauk Center in September 1878. A writer for *Forest and Stream* declared that Minnesota hunters looked upon the trials as "pop-in-jay affairs," unsuitable for the prairies. They deserted the showings after the first half-day and returned with wagon-loads of ducks and chickens and an occasional hawk or owl. There was considerable difference in the value of dogs trained for eastern and western hunting, however, and some sportsmen who brought theirs along found them less effective in prairie-chicken cover. This may have affected the attitude of the Minnesota hunters at the trials.³⁷⁵

One man advertised for a trained bird dog in Fergus Falls in 1879. The *Pioneer* observed in 1884 that good bags of prairie-chickens were not expected unless the hunters had good dogs. Two contestants in a prairie-chicken hunt in Freeborn County in 1874 apologized for their low score, and felt that it was due to the fact that they had young dogs. Baggage men on the St. Paul, Minneapolis, and Manitoba Railroad charged a 25¢ fee for the care of hunters' dogs in 1890. The Interlachen Gun Club provided a kennel in 1892 for the dogs of the members during the season. Kennels managed by Englishmen at Pipestone, Minnesota, and Sibley and Lemars, Iowa, were mentioned in 1899. The National Kennel Club held trials at Fairmont in 1882. Foxhounds were used near Wayzata to capture a timber wolf in January 1899.³⁷⁶

For the benefit of rabbit hunters, ferrets were advertised at several Minneapolis stores in 1894. A hunt using three animals was planned in October 1895. "Fun with the Ferrets, Local Hunters will Chase the Tonka Cottontail," ran the headlines. One hunter lost a ferret in the sport near Bloomington in December 1897.³⁷⁷

Wooden decoys were used by many duck hunters. Those used by one man in Kandiyohi County in 1884 were cut from sheet iron. According to one report, a hunter used dead mud hens to decoy Mallards and teal in September 1899. Another aid which a Winona duck hunter hoped to have in 1886 was revealed in a letter to the *American Field*: "Can you inform me where I can obtain the eggs of the call duck for hatching?" This I believe is the Wood Duck domesticated. I saw an advertisement in some sporting paper last season but have forgotten the address." Answer—"We can not."³⁷⁸

The art of "moose-calling" was said to be of value in some cases. Madison Grant in 1894 described it as a legitimate but rather lazy way of hunting, practiced in September, chiefly in Maine and New Brunswick. In the opinion of a Minnesota woodsman in 1897, this art demanded more patience, nerve, and skill than any other branch of woodcraft. He believed it questionable that the animal was really deceived even by adept "callers," but just was coming out to investigate the noise. He declared: "Most of the calling done by Indian guides is a monumental farce. It would never fool the moose at any other time than the mating season, when he has not the full possession of his faculties." The usual procedure for a hunt was outlined, "the guide gives the moose call with all his usual variations," and then the moose comes.³⁷⁹

A valuable new topographical map covering the prairie-chicken country in Minnesota was recommended to hunters in *Forest and Stream* in 1880. Guides were usually available, but special services of men in the northern counties were frequently advertised in the 1890s. Hunters also needed wagons and boats. In Litchfield in April 1871, when ducks were plentiful, hunters were advised to "get a rig from Chase and Dunn and try a day among them. "Sometimes wagons were driven right on the prairie. The editor of a Hastings newspaper watched two hunters bag 25 birds one day in August 1876, and concluded that it was "less fatiguing to see the shooting from a buggy seat than to beat the prairies to get them up." The livery men in Fairmont rigged up two three-seated sporting wagons which "prairie-chicken shooters will find just suited to their convenience."³⁸⁰

Some elaborate provisions in wagons were made by private individuals. K.K. Warner, superintendent of the American Express Company, had converted an express wagon into a hunting cart in 1878. It boasted sections for ice and provisions, racks for guns, lockers for ammunition, and a canvas-covered kennel large enough for six dogs. The seats were fitted with springs. Awnings and side curtains were included. The low arrangement of the sides was of convenience in mounting and dismounting. In 1893, Charles Hallock recalled this wagon as the epitome of "Comfort in the Field." Another luxuriously equipped hunting wagon built by W.P. Shattuck drew up in front of the *Journal* building in August 1894, and "in less time than it had taken to hitch the horses a crowd of some fifty people had gathered." It had "bedding locker, grub closet, kitchen equipment from skillet to nutmeg grater, berths, movable seats, and gun and ammunition lockers." There was "no portable cocktail factory," however. The space was ample for four people and a cook. The next year, the claim was made that the prairie-chicken wagon was first designed by Charles Winship in the early 1880s, when he had to drive only 25 or 30 miles from Minneapolis for good hunting.³⁸¹

The practice of archery in taking game was gaining popularity throughout the United States. In 1880 a correspondent of *Forest and Stream* in Detroit Lakes referred to some activity of this sort in northern Minnesota.³⁸²

Devices unilaterally banned by sportsmen were occasionally mentioned. The *Stillwater Messenger* in 1862 rebuked those who used spring guns. "A loaded gun is arranged to command a certain position or road where game is supposed to travel with a small cord attached to the catch or trigger, and anything coming in contact with the string will discharge the piece." The killing of a lumberman on an unfrequented road leading to a camp near the Apple River was the incident which aroused the outburst. It was said that five men and seven deer had been killed by such an arrangement in the previous four years in the vicinity of the St. Croix River. When a hunter reported "shining deer" on a canoe trip from Aitkin to Brainerd on the Mississippi River in 1872, he aroused some criticism by readers of *Forest and Stream*. He defended his action on the grounds that he had no dogs, was unfamiliar with the country, and wanted to shoot only a buck.³⁸³

A boy in Martin County in September 1868 set traps in the water to catch geese. This was a practice sometimes used by market hunters. Although there was no law with such a prohibition, a writer in the *Pioneer* in 1882 described a "sneak boat" built by a hunter and suggested that "the Minnesota State Sportsmen's Association will think that the ducks require protection from his too insidious approaches. Sneak boats are illegal in the Northwest at least."³⁸⁴

A charge frequently made against hunters was that of careless shooting. In Fergus Falls, the influx of deer hunters in 1880 set up an "infernal picket skirmish that has been kept up in our rural districts for the past month" and been "frightful to the settlers as well as the deer and things." A striking cartoon appeared in the *Pioneer* in 1897 entitled "Now is the Time 'I-Thought-it-was-a-deer' Fool Gets in His Work." The report in November 1899 was that residents of Aitkin and Itasca counties were resolved to send the next man who killed an individual through carelessness to Stillwater. It was thought that the killing of a lumberman in the forest would probably be followed by a lynching. Fullerton advocated a buckshot limit to protect the lives of hunters in 1901.³⁸⁵

There were some residents of Minnesota with strong convictions against Sunday hunting. In Sauk Rapids in 1868 it was said that such action was "unbecoming, certainly, in a Christian community, and a moment's reflection would deter those who practice it from indulging in such recreation." When a nattily-outfitted sportsman who was engaged in hunting on a Sunday in May 1872 in Litchfield had the misfortune to have his gun burst and his appearance disheveled in the accident, local opinion denied him any sympathy. In 1875, the announcement in that town was: "The discharge of firearms within the village limits of a Sunday is not just the thing." The decision in this matter was left to the individual conscience, however, and it was not prohibited by law as it had been in many eastern states.³⁸⁶

More important for conservation was the development of opinion among sportsmen supporting the campaign against spring shooting. Such sentiment was slow in coming. It was generally assumed for many years that, as one writer stated, "after a long winter of inaction and confinement within doors the spring shooting season is as fascinating as release

from prison doors is to the time expired prisoner." Wild ducks were "warmly received" by Chatfield sportsmen in March 1858. Hastings hunters bagged large numbers in April 1862. The *Pioneer* announced in March 1866 that sportsmen were "cleaning up their double barreled guns for a crack" at the ducks as soon as the spring flight was on. The appearance of wild geese and ducks in Glencoe in April 1869, brought forth the command "Nimrods, prepare for the hunt." Sportsmen in Fergus Falls were busy "scouring up the implements of war" in April 1876. Crookston residents were advised in April 1880 to get out their "fowling pieces and dogs" for there was an abundance of ducks in the neighborhood. Good spring shooting was enjoyed at Heron Lake in 1861, and along the Minnesota River in 1882. There was some disappointment in 1884 because of low spring bags. One observer believed that the ducks had taken a different route because the high water in the fall of 1882 had destroyed the wild rice crop. "We have to content ourselves with looking forward with high hopes for the fall shooting."³⁸⁷

There was scarcely any disapproval of the spring sport until after 1890. Hallock told a St. Paul reporter in April 1881 that "there will not be very much spring shooting, as nesting time is already near at hand," but his attitude was not commonly shared by Minnesota hunters. Measures to abolish spring shooting were gaining support, however, and the backing of the sportsmen in the 1890s was an aid to conservation leaders. The Cressdale Club and the Long Meadow Gun Club announced in March 1893 that there would be little spring shooting in the areas under their control along the Minnesota River. "There is a pretty general desire to let the ducks that come in the spring stay there and breed." In March 1894, sportsmen were said to oppose spring shooting and to resent the "bungling of the legislature," which had resulted in an open season in the spring. Some of the large bags were reported and the comment added: "It will not take long at this rate to knock out the breeding prospects." A member of the Minneapolis Gun Club was glad to find many ducks breeding on the Minnesota River bottoms that summer "as though there was no such iniquity as spring shooting." The St. Paul Gun Club upheld the movement in the senate to prohibit spring shooting in 1897, and the sentiment of sportsmen was undoubtedly back of the final action on this question in 1899.³⁸⁸

Charles Hallock was a pioneer in developing high standards of conservation among sportsmen. He made a rigorous plea for cooperation among neighboring states in questions of game in 1874 and formulated a platform which was known as the "Hallock Code." He showed by use of tables "how strangely the laws conflict, even in States which are contiguous and homogeneous in their flora and fauna." The slow reception in the sporting world of the truths which he considered obvious was a great disappointment to him. In 1891, at a dinner in Northampton, Massachusetts, he reviewed sporting literature for the previous 20 years. He deprecated "the absorption of extensive areas by a few favored persons of wealth to the exclusion of the old habitués of the streams and woods." He considered "the rivalry which fifteen years ago had divided sentiment on the subject of game protection and conservation of species responsible for "a heterogeneous and unintelligible code of laws with little game to hunt or preserve." His opinion was that "feral economy" had

not advanced since 1876 and that "irreparable mischief" had been done meanwhile. The *Minneapolis Journal* referred to "Hallock's new code" in 1897 which was being considered by a national game and fish convention in Michigan. So slowly did public opinion appreciate his program, ideas which he had advocated for 25 years were still "new." It is interesting to note as an isolated example of unusually high standards of sportsmanship the fact that the officers at Fort Snelling had a self-imposed seasonal limitation on prairie-chicken hunting in the 1840s, according to the report of Joseph and John L. Le Conte.³⁸⁹

Hunting activities on the frontier offered a subject which appealed to many nineteenth century artists. One of the most gifted was Peter Rindisbacher, who painted scenes with such titles as "Deer Hunting, Nocturnal and Aquatic," "Killing Two Deer with a Bird Gun," and "American Hunter's Camp." George Catlin portrayed the Indians in pursuit of game, and sketched several scenes of Minnesota in the 1830s. Captain Seth Eastman was also attracted by such subjects while engaged in military duties on the frontier. Charles Zimmerman, a St. Paul sportsman, though much less gifted than men like Rindisbacher, Catlin, and Eastman, tried his hand on sporting subjects and achieved some measure of popularity. He worked for J.E. Whitney, the St. Paul daguerro-typist and photographer, and after the civil War, became owner of the Whitney studio. In 1879, it was said that his "water color scenes of out door life in Minnesota ... are having a great run all over the United States, and he can scarcely supply the demand, not alone for the copies of the subjects by chromo lithography, but the originals themselves." In 1883, he added "A Lost Opportunity," "Stopping an Incomer," and "A Side Shot," to his list of water colors which already included "The Tight Shell" and "Trying for a Double." The new ones were expected to "add to his already pleasant reputation as a sportsman artist."³⁹⁰

Minnesota's wildlife was an absorbing interest of many naturalists. One of the earliest and most diligent students in this field was a Frenchman, Lemare-Picquot, who was at Mendota in the summer of 1846. He was busy "collecting specimens in every department of natural history, and for that purpose is constantly wandering along the rivers, through the woods, and over the prairies ... with no companions but Half-Breeds or Indians." An observer's description of his "temporary store-room" gives a picture of the side range in his interests. "Here, an immense buffalo stares at you with its glassy eyes, while just above it, pinned to the wall, may be seen a collection of curious beetles, butterflies, and other insects; then an elk and a deer will display their graceful forms, while at their feet will be coiled up the rattlesnake, the adder, and other frightful serpents; here the otter, the beaver, the fox, the wolf, the bear, and other native animals; there a complete flock of web-footed creatures, from the wild swan and pelican to the common duck; here an eagle and hawk, a partridge and scarlet-bird; and there, embalmed in spirit, a vast variety of curious reptiles."³⁹¹

According to French publications, Lamare-Picquot had been collecting on the Gaspé peninsula and in the region near Quebec when he read of the potato famine and the difficulties of French peasants. He resolved to travel into the interior of North America and determine the value of the Indian potato for introduction into France. He used this object

in 1848 as an excuse for a second trip to Minnesota, this one financed by the newly-formed French government after the February Revolution. On this expedition the fur traders along the Minnesota River recognized the difference in his status, since he was traveling on a government mission, by charging him for privileges which might otherwise have been granted as hospitality. His collections arrived in Paris in February 1849 and were examined by a committee of the Academy of Sciences. One memoir submitted by him to that group had attached to it a sample of dried buffalo meat.³⁹²

There was some curiosity about wild animals which resulted in a few attempts to keep some in captivity. A trader on the Minnesota River in the 1840s had a "menagerie" which included a grizzly bear, two black bears, two fawns, one fox, one raccoon, one eagle, one crow, one cormorant, two swans, one owl, a flock of wild geese, and a herd of Indian dogs. The Game and Fish Commission kept a few moose and deer in captivity at the Willow Brook Fish Hatchery in the 1890s for the entertainment of visitors. J.J. Hill's herd of bison were famous around St. Paul in the latter part of the century. Hornaday visited the city park at Minnehaha in 1900 and advised Minneapolis residents to employ a keeper with some zoological training. He declared: "If we fed our moose in New York what I saw given to your animals, they would certainly die in very short order."³⁹³

The idea of establishing a local museum with specimens of native animals was expressed in the early days of settlement. When a caribou head which had been obtained on Vermilion Lake was exhibited in St. Paul in 1866, one individual, for a pessimistic reason, suggested that the Minnesota Historical Society give the taxidermist an order for a stuffed caribou or other rare animal. "In a few years all our game and fur-bearing animals will be extinct. Ere that time the Historical Society Cabinet should contain a specimen of every bird and beast that has a home in or State. Shall we commence now?" When a man tried to collect a bounty on a lynx captured near Shakopee in July 1887, the state auditor recommended that "the terrible animal be turned over to the Historical Society, to have stuffed and placed in the Natural History Department."³⁹⁴

There were some individuals who believed that a separate organization from the Historical Society was needed for such activities. In March 1889, "all who feel an interest in the Natural Sciences" were invited to meet in the rooms of the Historical Society in the Capital building to organize a "State Society of Natural History." Among the members were W.H. Sibley, H.P. Van Cleve, R.O. Sweeney, and from the university, W.W. Washburn and Ira Moore. On the Biology Committee were Dr. Hatch, Sweeney, R.J. Mendenhall, and William Kilgore. In 1871, Sweeney was president of the St. Paul Academy of Natural Sciences organized in the preceding year. The topics for discussion at the meetings of this group were usually of general biological character; for example, at an April meeting in 1871, Sweeney argued "very sensibly" against "the Darwin theory of the origin of species." The St. Paul Academy began to collect in its cabinet a number of ornithological specimens and hoped to have "a specimen of every bird in Minnesota ere long." Sweeney was credited with "a remarkable talent for beguiling gifts of money and curiosities out of persons," and he knew

“no such word as fail when he starts anything.” In October 1875, the *Pioneer*, on behalf of the Academy, suggested that sportsmen “do themselves honor and the cause of natural history a benefit” by sending to that institution specimens of Minnesota birds, “especially those varieties that are getting rare.” It was reported that a collection of Minnesota birds, some “fully mounted and others simply stuffed” had been presented to the organization by Colonel William Crooks. The Minnesota Academy of Natural Sciences drew up a constitution in 1873 and in the following years sponsored lectures and published some articles on Minnesota birds and mammals. The “State Society” mentioned in 1869 may have been a predecessor of this organization. A taxidermist in St. Paul opened a private museum in July 1889, which he claimed contained about 1,000 items, “the largest collection of birds and animals ... in the Northwest.” He charged an admission fee of 25¢ for adults and 10¢ for children.³⁹⁵

Meanwhile, the need for the state to make some provision for the study of wildlife was recognized by Dr. E.E. Folwell. He drew up the bill, which the legislature passed in 1872, providing for the Geological and Natural History Survey and the establishment of a museum of natural history at the University of Minnesota. Under the leadership of Professor R.F. Nachtrieb, who directed the museum work from 1889 to 1919, the university’s program in this field gained impetus. Fullerton wrote to Dr. Nachtrieb in 1898, offering the cooperation of the Game and Fish Commission with university projects. The activities of the university and many individuals living in the state in the last part of the century



Copy
H.C.W.

“Lake Superior, 1855” from a water color by R.O. Sweeney, in the manuscript division of the Minnesota Historical Society.

whose hobby was natural history have been well summarized in publications by Dr. Roberts, one of the foremost leaders in the field.³⁹⁶

Thus, fur trader, market hunter, Indian, conservationist, sportsman, and naturalist were all vitally concerned with the wildlife of the state, and the role of each group is an important part in the story of the use and conservation of Minnesota game.

BIBLIOGRAPHY

1. Books and articles

- Agassiz, Louis, *Lake Superior: Its Physical Character, Vegetation and Animals Compared with those of Other and Similar Regions* (Boston, 1850).
- Ainslie, Charles Nichols, *At the Turn of a Century*. This is a mimeographed publication containing the reminiscences of an early settler near Rochester, (____, 1938).
- Andrews, Christopher C., *Report of the Chief Fire Warden for 1895* (St. Paul, 1896).
- Andrus, W.P., *Annual Report of the Game and Fish Commission of Minnesota for 1893* (Minneapolis, 1894).
- _____, *Annual Report of the Game and Fish Commission of Minnesota for 1894* (St. Paul, 1895).
- Anon., *Denkschrift zum 50 Jahrigen Geschafst-jubelaum, Die Firma Jos-Ullmann: 1854 bis 1904* (Leipzig, 1905).
- Anon., "Editorial on Game Seizure," in *The American Naturalist*, 31:42 (January, 1897).
- Anon., "Penalties Insufficient," in *Fin, Feathers, and Furs*, 1:12 (March, 1915).
- Armstrong, John M., "The Asiatic Cholera in St. Paul," in *Minnesota History*, 14:288-302 (September, 1933).
- Auld, Robert C., "A Means of Preserving the Purity and Establishing a Career for the American Bison of the Future," in *The American Naturalist*, 24:787-796 (September, 1890).
- Beltrami, Giacomo, *A Pilgrimage in Europe and America* (London, 1828).
- Berthel, Mary Wheelhouse, "Hunting in Minnesota in the Seventies," in *Minnesota History*, 16:259-271 (September, 1935).
- Bigsby, John J., *The Shoe and Canoe* (London, 1850).
- Blegen, Theodore C., ed., *The Unfinished Autobiography of Henry Hastings Sibley* (Minneapolis, 1932).
- Borrett, George Tuthill, *Letters from Canada and the United States* (London, 1865).
- Burnett, W.J., ed., *Hunters' and Trappers' Guide* (Minneapolis, 1895).
- Burpee, Lawrence J., ed., *Journals and Letters of Pierre Gaultier de Varennes de la Verendrye and his Sons* (Toronto, 1927).
- Carver, Jonathan, *Three Years Travels Throughout the Interior Parts of North America* (Boston, 1797).
- Catlin, George, *Letters and Notes on the Manners, Customs, and Conditions of the North American Indians* (London, 1842).
- Colburn, Mary J., "Essay," in *Minnesota as a Home for Immigrants*, 5-58 (St. Paul, 1866).
- Connery, Robert H., *Governmental Problems in Wild Life Conservation* (New York, 1935).
- Coues, Elliot, *Birds of the Northwest* (Washington, 1874).
- _____, *The Expeditions of Zebulon Montgomery Pike* (New York, 1895).
- _____, *New Light on the Early History of the Greater Northwest*. The manuscript journals of Alexander Henry ... and of David Thompson.... 1799-1814 (New York, 1877).
- Day, David, *First Annual Report of the State Fish Commissioners of Minnesota* (St. Paul, 1875).
- Densmore, Frances, "The Garrard Family in Frontenac," in *Minnesota History*, 14:31-43 (March, 1933).
- Elliot, D.G., "The 'Game Birds' of the United States," in *Report of the Department of Agriculture, 1864-1865* (Washington, 1865).

- Ely, Alfred, H.E. Anthony, R.R.M. Carpenter, ed., *North American Big Game* (New York, 1939).
- Featherstonhaugh, George W., *A Canoe Voyage up the Minnaw Sator* (London, 1847).
- _____, *Report of a Geological Reconnaissance made in 1835* (Washington, 1836).
- Fisher, A.K., *United States Department of Agriculture, Yearbook 1901*, 447-458 (Washington, 1901).
- Flandrau, Charles E., *Encyclopedia of Biography of Minnesota* (Chicago, 1900).
- Folwell, William Watts, *A History of Minnesota* (St. Paul, 1930).
- Fullerton, Samuel F., *Annual Report of the Game and Fish Commission of Minnesota for 1895* (St. Paul, 1895).
- _____, *Annual Report of the Game and Fish Commission of Minnesota for 1896* (St. Paul, 1897).
- Garretson, Martin S., *The American Bison* (New York, 1938).
- Gates, Charles M., ed., *Five Fur Traders of the Northwest* (Minneapolis, 1933).
- Gilfillan, Joseph A., "The Ojibways in Minnesota," in *Minnesota Historical Society Collections*, 9:55-128 (April, 1901).
- Gordon & Ferguson, *Account Book*, 1875, 1880; catalog quotation, 1885-1890.
- Graham, Frederick Ulric, *Notes of a Sporting Expedition in the Far West of Canada* (London, 1898).
- Grant, Madison, "The Vanishing Moose," in *The Century Magazine*, 47:345-356 (January, 1894).
- Hallock, Charles, *The Sportsmen's Gazetteer* (New York, 1877).
- Heilbron, Bertha L., "Seth Eastman's Water Colors," in *Minnesota History*, 19:419-423 (December, 1938).
- _____, *With Pen and Pencil on the Frontier in 1851* (St. Paul, 1932).
- Hennepin, Father Louis, *Description de la Louisiane* (Paris, 1683).
- Hill, A.J., tr., "Relation of M. Penicault," in *Minnesota Historical Society Collections* 3:4-11 (St. Paul, 1880).
- Hornaday, William T., *The Extirpation of the American Bison* (Annual Report of the National Museum, 1887).
- Jacobson, John F., *Statistics of Minnesota for 1878* (Minneapolis, 1879).
- James, Edwin, ed., *A Narrative of the Captivity and Adventures of John Tanner* (New York, 1830).
- Kappler, Charles J., *Indian Affairs: Law and Treaties* (Washington, 1904).
- Keating, William H., *Narrative of an Expedition in the Source of St. Peter's River, Lake Winnepeg, Lake of the Woods* (Philadelphia, 1824).
- "Lamare - Picquot," various articles and reports in *Comptes Rendus Hebdomadaires Des Seances De L' Academie Des Sciences*, 26:326; 27:563; 28:236, 271, 709, 722; 29:271, 339, 701 (Paris, 1848-1849).
- Lanman, Charles, *A Summer in the Wilderness* (New York, 1847).
- Lea, Albert, *A Book that Gave to Iowa Its Name, Reprint: Notes on Wisconsin Territory* (Iowa City, 1936).
- Leopold, Aldo, *Game Management* (New York, 1937).
- _____, *Report on a Game Survey of the North Central States* (Madison, 1931).
- Lewis, Elisha J., *The American Sportsman* (Philadelphia, 1885).
- Lewis, Henry, *Das Illustrierte Mississippthal* (Leipzig, 1923).

- Long, Joseph W., "Voyage in a Six-oared Skiff to the Falls of St. Anthony in 1817," in *Minnesota Historical Society Collections*, 2:9-83 (St. Paul, 1889, reprint edition).
- Marryat, Captain Frederick, *A Diary in America* (London, 1829).
- Mershon, W.B., *The Passenger Pigeon* (New York, 1907).
- Metcalf, T.M., *Statistics of Minnesota for 1877* (St. Paul, 1878).
- Mitchell, Margaret, *The Passenger Pigeon in Ontario* (Toronto, 1936).
- Moro, Arthur R., "The English Colony at Fairmont in the Seventies," in *Minnesota History*, 8:140-149 (June, 1927).
- Morris, Lucy L.W., *Old Rail Fence Corners* (Austin, Minnesota, 1914).
- Nicollet, Joseph W., *Report Intended to Illustrate a Map of the Hydrographical Basin of the Upper Mississippi River*, 3-169 (26 Congress, 2 session, *Senate Documents*, No. 237 – serial 380).
- Nute, Grace Lee, "Peter Rindisbacher, Artist," in *Minnesota History*, 14:283-287 (September, 1933).
- Owen, David Dale, *Report of a Geological Survey of Wisconsin, Iowa and Minnesota* (Philadelphia, 1852).
- Phillips, John C., *Wild Birds Introduced or Transplanted in North* (Washington, 1926).
- Pond, Samuel W., "The Dakotas or Sioux in Minnesota as they were in 1834," in *Minnesota Historical Society Collections*, 12:319-501 (St. Paul, 1908).
- Pope, John, *Report of an Exploration of the Territory of Minnesota*, 1-56 (31 Congress, 1 session, *Senate Executive Documents*, No. 42 – serial 558).
- Pyle, Joseph Gilpin, *The Years since '71* (St. Paul, 1921).
- Roberts, Thomas S., *Annals of Museum of Natural History, University of Minnesota, 1872-1939* (Minneapolis, 1939).
- _____, *Birds of Minnesota* (Minneapolis, 1932).
- Roddis, Louis M., "The Last Indian Uprising in the United States," in *Minnesota History Bulletin*, 3:273-290 (February, 1920).
- Ross, Alexander, *The Red River Settlement* (London, 1856).
- Sanborn, Franklin Benjamin, ed., *The First and Last Journeys of Thoreau* (Boston, 1905).
- Sargent, Charles S., *Report on the Forests of North America* (Washington, 1884).
- Schoolcraft, Henry R., *Information Respecting the History, Condition and Prospects of the Indian Tribes of the United States* (Philadelphia, 1851-57).
- _____, *Narrative Journal of Travels from Detroit Northwest through the Great Chain of American Lakes to the Sources of The Mississippi River in the Year 1820* (Albany, 1821).
- _____, *Narrative of an Expedition through the Upper Mississippi to Itasca Lake* (New York, 1834).
- Schorger, A.W., "The Great Wisconsin Passenger Pigeons' Nesting of 1871," in *Proceedings of the Linnaean Society of New York*, 48:1-26 (October, 1937).
- _____, "The Range of the Bison in Wisconsin," in *Transactions of the Wisconsin Academy of Sciences, Arts, and Letters*, 30:117-120 (Madison, 1930).
- Scudder, Samuel H., *The Winnipeg Country* (Boston, 1886).
- Seton, Ernest E.T., "The Prairie Chicken," in *Transactions of the Manitoba Historical and Scientific Society*, 14:13-18 (May 22, 1884).
- Shea, John Gilmary, ed., *A Description of Louisiana by Father Louis Hennepin* (New York, 1880).
- Shiras, George, III, "The Wild Life of Lake Superior, Past and Present," in *The National Geographic Magazine*, 40:113-204 (August, 1921).

- Sibley, Henry Hastings, "Reminiscences of the Early Days of Minnesota," in *Minnesota Historical Society Collections*, 3:242-277 (St. Paul, 1880).
- Solberg, C.F., *Statistics of Minnesota for 1871* (St. Paul, 1872).
- Stevens, Isaac, *Reports of Explorations and Surveys ... from the Mississippi River to the Pacific Ocean*, 12, Part 1, 12 (36 Congress, 1 session, *House Executive Documents*, No. 56 – serial 1054).
- Stevens, John H., *Personal Recollections of Minnesota and its People* (Minneapolis, 1890).
- Surber, Thaddeus, *The Mammals of Minnesota* (St. Paul, 1939).
- Sutley, Zack T., *The Last Frontier* (New York, 1920).
- Sweeney, Robert O., *Annual Report of the Game and Fish Commission of Minnesota for 1891* (Minneapolis, 1892).
- _____, *Annual Report of the Game and Fish Commission of Minnesota for 1892* (Minneapolis, 1892).
- Thorer, Paul Albert, Carl Praetorius, Paul Hollender, *300 Jahre Familie Thorer 1612-1912* (Leipzig, 1912).
- Tyrrell, J.B., ed., *David Thompson's Narrative of his Explorations in Western America* (Toronto, 1916).
- Wheelock, J.A. *First Annual Report of the Commissioner of Statistics for Minnesota* (Hartford, 1860).
- Whipple, Gurth, *Fifty Years of Conservation in New York State* (Albany, 1935).
- White, C.A., "A Trip to the Great Red Pipestone Quarry," in *The American Naturalist*, 2:644-653 (February, 1869).
- Williams, J. Fletcher, "Memoir of Captain Martin Scott," in *Minnesota Historical Society Collections*, 2:180-187 (St. Paul, 1880).
- Winchell, Alexander, "Report," in *Geological and Natural History Survey of Minnesota, Report for 1887* (St. Paul, 1888).
- Wiesler, Clark, *Indians of the United States* (New York, 1940).
- Woods, Samuel, *Report of Major Woods, Relative to His Expedition to Pembina Settlement*, 1-51 (31 Congress, 1 session, *House Executive Documents*, No. 51 – serial 577).
- Zimmerman, Charles, "Field Sports in Minnesota," in *Scribner's Monthly*, 18:826-829 (October, 1879).

2. Newspapers

Local newspapers contributed many items on Minnesota game, especially in the pioneer period. As towns grew older, there was less casual comment on the luck of hunters and many of the papers in southern Minnesota ceased to be of value after 1880. New towns in the northern part of the state were going through the early stages of development at this time and contained much of great value. The files of the *Pioneer Press* and the *Minneapolis Journal* were used to supplement each other for the entire period and these newspapers gave a comprehensive picture of game throughout the state. Even though they had a definite metropolitan character by 1890, the development of special pages devoted to sports meant that seasonal conditions were always presented in review, sometimes representing interviews with guides and hunters fresh from the field. The *Minneapolis Journal* reported in great detail on the activities of the newly formed Game and Fish Commission and hence added to the meager archival material which has been preserved. The other papers were selected to represent various sections of the state.

Becker County

The Weekly Record (Detroit), 1872.

Detroit Weekly Record, 1873-1874.

Detroit Record, 1888.

Beltrami County

Beltrami Eagle (Bemidji), 1897-1898.

Benton County

Sauk Rapids Frontiersman, 1855-1859.

New Era (Sauk Rapids), 1860.

Sauk Rapids Sentinel, 1868-1870.

Blue Earth County

Mankato Record, 1859-1863.

Mankato Independent, 1861.

Mankato Weekly Union, 1863-1864.

Carlton County

Pine Knot (Cloquet), 1890-1892.

Carver County

Valley Herald (Chaska), 1862.

Cass County

Cass County Pioneer (Walker), 1897.

Chisago County

Taylor's Falls Reporter, 1861.

Clay County

Red River Star (Moorhead), 1872-1876.

Clay County Advocate (Moorhead), 1878-1879.

Moorhead Daily News, 1862.

Cook County

Grand Marais Pioneer, 1891.

Cook County Herald (Grand Marais), 1893-1896.

Dakota County

Hastings Independent, 1857-1866.

Hastings Gazette, 1867-1883.

Dodge County

Mantorville Express, 1869-1871.

Douglas County

Alexandria Post, 1868-1881; 1885-1887.

Faribault County

Blue Earth City News, 1861-1862.

Southwest Minnesotan (Blue Earth), 1862.

Minnesota Southwest (Blue Earth), 1869-1871.

Blue Earth City Post, 1869-1870; 1873-1876.

Fillmore County

Chatfield Democrat, 1857-1884.

Freeborn County

Southern Minnesota Star (Albert Lea), 1857.

Freeborn County Eagle (Albert Lea), 1858.

Freeborn County Standard (Albert Lea), 1860-1862; 1866; 1868-1874; 1879-1880.

Goodhue County

Goodhue County Republican (Red Wing), 1871.

Hennepin County

St. Anthony Weekly Express, 1851-1852.

The State Atlas (Minneapolis), 1861-1862.

The State News (St. Anthony), 1861-1863.

Minneapolis Journal, 1885-1901.

Houston County

La Crescent Plain Dealer, 1851-1862.

Hubbard County

Park Rapids Enterprise, 1882-1883; 1939.

Hubbard County Enterprise (Park Rapids), 1883-1888; 1897-1898.

Itasca County

Grand Rapids Magnet, 1891-1894.

Jackson County

The Guardian (Heron Lake), 1880-1883.

Kandiyohi County

Willmar Republican, 1871-1873.

Western Minnesota Press (Willmar), 1880-1881.

Willmar Daily Tribune, 1939.

Kittson County

Kittson County Enterprise (Hallock), 1898-1899.

Lac qui Parle County

Lac qui Parle County Press (Madison), 1872-1875.

Martin County

Martin County Atlas (Fairmont), 1868-1869.

Martin County Review (Fairmont), 1870-1872.

Martin County Sentinel (Fairmont), 1875-1878.

McLeod County

Glencoe Register, 1857-1863; 1866-1875.

McLeod County Register (Glencoe), 1868.

Meeker County

Litchfield Republican, 1871.

Litchfield Ledger, 1872-1873.

Litchfield News Ledger, 1874-1875.

Nicollet County

St. Peter Courier, 1855-1868.

Minnesota Free Press (St. Peter), 1857-1858.

Minnesota Statesman (St. Peter), 1856-1859.

St. Peter Tribune, 1860-1863.

Olmsted County

Rochester Democrat, 1858.

Rochester Free Press, 1859.

Rochester City Post, 1859-1861; 1864-1865.

Rochester Republican, 1862.

Rochester Post, 1866-1873.

Otter Tail County

Fergus Falls Advocate, 1872-1875.

Fergus Falls Journal, 1876-1883.

Fergus Falls Independent, 1882.

Pine County

Pine County News (Pine City), 1874.

Polk County

Northern Tier (Crookston), 1879-1880.

Pope County

Glenwood Herald, 1939.

Ramsey County

Daily Minnesotan (St. Paul), 1854-1856.

The Minnesota Pioneer (St. Paul), 1849-1855.

The Weekly Pioneer Press (St. Paul), 1855-1859; 1862-1865.

The Weekly Pioneer and Democrat (St. Paul), 1865-1874.

Daily Minnesota Pioneer (St. Paul), 1854-1855.

Daily Pioneer and Democrat (St. Paul), 1857-1861.

St. Paul Pioneer Press, 1875-1876.

Pioneer Press and Tribune (St. Paul), 1876-1879.

Pioneer Press (St. Paul), 1879-1889.

Rice County

Faribault Herald, 1857-1858.

Central Republican (Faribault), 1859.

Northern Statesman and Western Farmer (Faribault), 1861-1862.

Faribault Leader, 1870-1871.

Faribault Democrat, 1871-1873.

Faribault Republican, 1876-1878.

Roseau County

Roseau County Times (Roseau), 1895-1899.

Roseau Plaindealer, 1897-1898.

Saint Louis County

Duluth Minnesotian, 1869-1874.

Scott County

Belle Plaine Inquirer, 1856-1861.

Scott County Journal (Belle Plaine), 1862.

Sibley County

Henderson Democrat, 1856-1860.

Stearns County

St. Cloud Visitor, 1857-1858.

St. Cloud Democrat, 1858-1866.

St. Cloud Journal, 1867.

Wabasha County

Wabasha Herald, 1870-1872.

Wabashaw County Sentinel (Lake City), 1871.

Wadena County

Wadena Tribune, 1877-1878.

Waseca County

Waseca Home Views, 1860-1861.

Wilton Weekly News, 1867.

Weekly News (Waseca), 1867-1868.

Waseca News, 1869.

Minnesota Radical (Waseca), 1875-1876.

Waseca Leader, 1876-1878.

Waseca Weekly Herald, 1878-1879.

Washington County

Stillwater Messenger, 1860-1865; 1871.

Winona County

Winona Republican, 1857; 1865.

Wright County

Wright County Republican (Monticello), 1861.

Northwestern Weekly Union (Monticello), 1862.

The Big Woods Citizen (Delano), 1872.

Wright County Eagle (Delano), 1872-1875.

Superior, Wisconsin.

Superior Gazette (Wisconsin), 1864; 1868-1869.

Superior Times (Wisconsin), 1870-1873.

3. Periodicals Devoted to Sports

American Turf Register and Sporting Magazine (Baltimore, 1829-1844). Although this periodical does not contain many items that apply definitely to Minnesota, frequent comments on game along the Mississippi River are presented which form an interesting contrast with the latter part of the century.

The Spirit of the Times, 15-26, 29 (New York, 1845-57, 1859). The most significant contributions to Minnesota wildlife which appeared in this magazine were the articles of Henry Hastings Sibley: "A Buffalo and Elk Hunt in 1842," in 26:73 (1846); "Hunting in the Western Prairies," in 27:87 (1847); "Hunting in the Northwest," in 28:66 (1848). Occasional items on Minnesota were printed, but the real value of this magazine, like the preceding one, was the picture which it gave of general interest in game in the period before 1850.

Forest and Stream, 1-18, 20-23, 35-41 (New York, 1873-1882, 1883-1884, 1890-1893). Numerous letters and comments on Minnesota hunting conditions appeared in the pages of this magazine. There was a special stimulus in the 1870s when Charles Hallock was the editor, for he had many acquaintances in the state. The items of value for this subject were not generally indicated in the ornithological index, which covers only the first 12 volumes; therefore volumes from each of the three decades were chosen as samples to represent the period.

The Chicago Field (Chicago, 1879-1880); *The American Field* (Chicago, 1886-1887). A file of this periodical in the John Crerar Library, Chicago, was consulted for comparison with the contemporary *Forest and Stream*. Contributions from Minnesota correspondents were not as numerous in the decade of the 1880s.

Sports and Amusements (Minneapolis, 1890-1892). "A Weekly Journal devoted to the General Sporting Interests of the Twin Cities and the Northwest," was edited by Arthur James Pegler. It contained many articles on game conditions written for the advice of hunters, but it did not contribute as much to the history of the conservation movement as did Pegler's column in the *Minneapolis Journal*, which appeared in the same decade.

Fins, Feathers, and Fur (St. Paul, 1915). The publication of the state department was begun at too late a date to contribute much on this subject, but there are some surveys of Minnesota conditions compared with other states which contain interesting comments on the forward position assumed by conservation leaders in the period before 1900.

4. Periodicals for Farmers with Some Comment on Minnesota Wildlife and Occasional Records on the Trapping of Fur-bearing Animals

Minnesota Monthly, 1, 2 (St. Paul, 1869-1870).

Independent Farmer and Fireside Companion (Minneapolis, 1879).

Farm, Stock and Home, 2-6 (St. Paul, 1886-1890).

5. Manuscripts

The diaries of T.S. Roberts, John Roberts, and Franklin Benner, and the photostatic copy of Thoreau's Journal for 1861 are in the Museum of Natural History of the University of Minnesota. The Ullmann Company records are in the possession of the Rose Brothers Fur Company. All other papers cited are in the manuscript division of the Minnesota Historical Society.

Albrecht (Ernst) Account Book, 1874-1880. A valuable source for prices of the finished products of the fur industry.

Benner (Franklin), Diary of Grant County Trip, 1879. The records of a naturalist.

Colhoun (James Edward) Diary, 1823, film slides. The original diary is in the possession of Mrs. John Galligan, Lanesboro, Minnesota.

Ely (Edmund F.) Papers. Diaries and letters for the years between 1834 and 1848 contain the records of game observed near Lake Superior. The original journals are in the custody of the St. Louis County Historical Society.

Fuller (Abby Abbe and Family) Papers, 1848-1863. Letters of a housewife on game used as food on the frontier.

Game and Fish Commission, archives. The only records preserved for years before 1900 are letter press copies of the correspondence of the executive agents. Large sections of this material were blurred by water, and even this source on state departmental activity is fragmentary. The letters are the only actual record for the period from 1897 to 1900 when no annual or biennial report was published.

Johnston, D.S.B., "Townsite Speculation in the Fifties," film slides in manuscript division. The original account is in the possession of C.L. Johnston, St. Paul. This account contains a few observations on game near the Otter Tail and Red rivers.

Jordan, E.C., Diary, 1870-1871, photostatic copy. The original diary is in the archives of the Northern Pacific Railroad, St. Paul.

Le Conte, Joseph, "An Early Geological Excursion," 1-27. A typewritten copy of this paper is in the manuscript division of the Minnesota Historical Society. The original essay was presented at the meeting of the Cordilleran Section of the Geological Society of America in San Francisco, December 30, 1899. The observations on natural history in this paper are brief and far from numerous considering the later interests of the author and John L. Le Conte in the field.

Mann, Horace, Jr., typewritten letters copied from originals in the possession of Robert L. Straker of New York. These letters of Thoreau's companion reveal the keen observation of a boy not yet in college regarding natural history. His comments on the nests of Passenger Pigeons near Lake Calhoun, Minneapolis, are of especial interest.

McLeod (Martin) Papers, 1840-1850. The status of the fur trade at the middle of the century is revealed in many of the accounts in these papers.

Moniteur Universel, Le, March 22, 1849. Photostatic copy of the article on Lamare-Picquot's second journey to Minnesota.

Murray (John W.) Papers, 1856-1873. Murray's diary, 1865, has some information on birds in the vicinity of Minneapolis.

Northampton Courier, articles, 1853. Describes Minnesota conditions. These are among typewritten extracts from eastern newspapers in the manuscript division.

- Quinn, James H., "Some Early Minnesota History from the autobiography of Judge James H. Quinn," 1-35. Typewritten reminiscences on life in Blue Earth County.
- Ramsey (Alexander) Papers. Diary, 1850. Contains a vivid sketch of conditions among the Chippewas.
- Roberts (John) Diary, 1874. Observations of a naturalist in the vicinity of Minneapolis.
- Roberts (T.S.) "Diary of North Shore Trip," 1879, Diaries, 1880, 1881. Notes kept by Dr. Roberts on his early trips about the state.
- Sibley (Henry Hastings) Papers, 1834-1849. This collection is the outstanding source for conditions in the fur trade before 1850.
- Thoreau, Henry David, "Journal," 1861. Photostatic copy of the manuscript owned by the Huntington Library, San Marino, California. Thoreau's notes are more detailed on botanical observations than on wildlife, but the Passenger Pigeon references are of considerable interest.
- Sweeney (Robert Ormsby) Papers. Includes an interesting collection of paintings, water colors, etc. on Minnesota, though very little material actually on game.
- Ullmann (Joseph) Records, 1858-1900. Account books of the St. Paul company; miscellaneous volumes containing the records of the business in furs.
- Whitefield (Edwin) Papers. The Wilfred J. Whitefield Diary, 1859, contains some comments on wildlife near the Sauk River.

6. Federal, State, and City Publications

United States

Congressional Record: Containing the Proceedings and Debates of the Fifty-sixth Congress, First Session (Washington, 1900).

Indian Affairs, Annual Reports of the Commissioner of, 1851-1900 (Washington, 1851-1900).

Court Cases

"In re Wolf," in *The Federal Reporter*, 27:606-615 (St. Paul, 1886).

"Ward vs. Race Horse," in *United States Reports*, 163:504-520 (New York, 1896).

Minnesota

General Laws, Special Laws (St. Paul, 1858-1901).

Legislative Manual, 1891-1901 (St. Paul, 1891-1901).

Court Cases

Selkirk vs. Stephens in *Minnesota Reports*, 72:335-339 (St. Paul, 1899).

State vs. Campbell in *Minnesota Reports*, 53:354-360 (St. Paul, 1894).

State vs. Al Cooney in *Minnesota Reports*, 77:518-523 (St. Paul, 1900).

State ex rel. William Corcoran vs. Charles E. Chapel, sheriff, in *Minnesota Reports*, 64:130-133 (St. Paul, 1897).

State vs. Joseph Mrozinski in *Minnesota Reports*, 59:465-467 (St. Paul, 1896).

State vs. Robert Poole in *Minnesota Reports*, 93:148-154 (St. Paul, 1905).

State vs. Rodman in *Minnesota Reports*, 58:393-403 (St. Paul, 1905).

State vs. Rodman in *Minnesota Reports*, 58:393-403 (St. Paul, 1895).

St. Paul

City Directory, 1864-1900.

7. Interviews

Albrecht, Robert, October 18, 1939, St. Paul furrier, descendant of Ernst Albrecht, founder of firm.

Kennedy, Walter, October 18, 1939, nephew of Martin Kennedy, whose company furnished sportsmen with ammunition during the last 20 years of the period covered by this thesis.

La Bathe, Alex, November 19, 1939, former market hunter and trapper living on Grey Cloud Island near St. Paul.

Larson, E.P., November 9, 1939, of Gordon and Ferguson Company.

Robert, Louis, November 19, 1939, former market hunter and trapper in the same area as La Bathe; both of these men traded with the Ullmann Company and were noted for their skill in their professions.

Rose, Harold, October, November, 1939, frequent conferences on Ullmann Company records and fur trade history.

Sundkvist, Carl, October 16, 1939, relative of Eric Sundkvist, St. Paul furrier active in the 1890s.

Warren, Dr. E.L., November 9, 1939, sportsmen assembling material on history of conservation in Minnesota.

The interview method was found so unsatisfactory for collecting material on this subject, it was not continued. It was found that business men were inclined to read present conditions into the past, and were able to give little accurate information unless they had referred to documentary records still extant. The author hoped to obtain some data on actual amounts of ammunition sold by the Kennedy Company, but Mr. Walter Kennedy was convinced that the research was being done "to prove something" for political reasons and refused to permit any use of the company records. Many of the market hunters were unable to write, hence had kept no records of actual bags, and could remember few details with any degree of accuracy for the period before 1900.

Appendix: Minnesota's Wildlife Heritage

Preface

by Carrol Henderson

When I first began working with Evadene to publish her dissertation in 1979, the publisher wanted her to rewrite the work to provide an updated perspective on the history of wildlife conservation in Minnesota. This undertaking was never completed, but she did write two of the four proposed chapters which follow. These chapters traced wildlife observations by Minnesota's early explorers and fur traders from 1800 up through the era reported in her original dissertation.

Part I. The Wilderness Background 1800–1862

When Jefferson negotiated the Louisiana Purchase in 1803, he added an immense stretch of land, a small part of which later formed two-thirds of the state of Minnesota. Jefferson had bought a pig in the poke and his first job was to find out what this wilderness was worth. He dispatched Lewis and Clark to the far west in 1804 and approved of Zebulon Pike's trip up the Mississippi in 1805. Little was known about the Minnesota area east of the Mississippi either, though it had been part of the U.S. since the 1780s. Pike carried a gazetteer of the U.S. in his luggage, but it dated from 1795 and had no information on the region he was entering. The government was still trying to settle a boundary that went "west to the Mississippi" without knowledge of the source of the river and presuming that it was north of the 49th parallel.

This hazy knowledge about the geography and natural resources made Pike's report a valuable document. He and his soldiers were in Minnesota about seven months, from mid-September 1805 until mid-April 1806. Congressmen were eagerly reading his journal one year later.

In July 1928, Aldo Leopold started out on a similar survey of the north-central states, with the broad purpose of checking out game conditions and "the human machinery" acting on the wildlife. His trip was financed by the Sporting Arms and Ammunition Manufacturing Institute. The publication appeared in 1931. His Minnesota section depended on interviewing about 40 people to collect information. They included a barber, several game wardens, an ex-governor, university faculty, foresters, and sportsmen from various professions. In late July and August, he traveled up the eastern boundary to Duluth and took a brief swing through southern Minnesota.

In the century and more which separates these two men, much had happened to Minnesota's wildlife, and the "human machinery" was responsible for most, but not all of the changes. Many travelers and settlers jotted down what they saw. Each journal added valuable comments on the nature of the wilderness, contributing to the overall picture. In

the southwestern prairies, the buffalo was gone long before the farmers took over. In the early 1870s, the skulls still remained as a reminder of their former abundance. The government surveyors during that period sometimes marked section corners with four buffalo skulls and half-sections with one, to aid the settlers in locating claims.

In northern Minnesota, however, the pattern of life around 1900 had scarcely changed from one of close dependence on wildlife. The settlers and their children trapped furs to trade for necessities, food or clothing, just as the Indians had in the early part of the century. Descendants of the Chippewa still lived about the same lakes their ancestors had known, though their freedom to roam had been limited. Alexander Henry the Younger, a British fur trader, saw Indians making canoes for sale along the border trail in July 1800. He bought one at Rainy Lake, paying 60 beaver skins for it. Chief Busticogan sold his beautiful birch-bark ones in 1903 for \$8.00 on the Big Fork, a canoe route leading to Rainy River. Even in the 1980s, handmade birch-bark canoes were produced near the Big Fork.

In the early 1800s, the big fur trading companies competed with one another and with independent traders for the furs taken along the Minnesota rivers and in the prairies and marshes. The Hudson's Bay Company with a charter from 1670 had started in another era. Charles II and the court wanted beaver. In 1786, the company introduced the wool blankets with the "points" or lines stitched on the fabric, indicating the number of beaver pelts needed to buy one. This was the symbol of barter which was characteristic of the industry and the trademark for the integrity of the company. Strong competition moved into northern Minnesota against the monopoly when the Montreal merchants formed the North West Company in the 1780s. In 1798, Hudson's Bay gave up its Rainy Lake post to this competitor. The new company was then challenged by a rival, the X Y Company, from 1797 until 1804, when the opponent was absorbed. Then in 1821, the North West merged with Hudson's Bay.

These Canadian interests used the border trail from Lake Superior. They built and maintained Grand Portage as a depot for shipping furs from 1768 until just after 1800. In this period, sometimes 1,000 white men gathered during the summer in the little bay on Lake Superior to transfer the furs from the interior and re-load in the bigger boats for the Great Lakes. The traders at Grand Portage picked up the winter supplies they needed for the Indians and themselves and went back into the interior. Soon after 1800, they still used the border trail but shifted to Fort William to have a base north of the American boundary.

The trade in furs to reach the market by shipping down the Mississippi was an innovation of the nineteenth century. John Jacob Astor chartered his American Fur Company in the state of New York in 1808, aiming for profits from the far west, but not overlooking the upper Mississippi on which Pike reported. The American government had operated trading posts east of Minnesota to supply the Indians with goods from 1796 to 1822, but when this program was dropped, Astor's employees took over the field. By 1817, he had absorbed the North West Company posts in the Mississippi Valley. His traders fought strong competi-

tion in Minnesota from independent traders and a small company, the Columbia, which was absorbed in 1827. Astor sold out in 1834 and the company was bankrupt in 1842. This didn't mean that Minnesota had run out of furs, but the structure of the business was changed.

Pike and other explorers like Schoolcraft, as well as the white men serving as Indian agents at Fort Snelling, all gathered statistics on the take, but these records present a confused picture on the value of the industry. When Robert Stuart testified before a House of Representatives committee in 1838, he illustrated the problems. He worked for the American Fur Company from 1817 to 1834.

Most of the traders have been illiterate men; some could not write at all, and could not afford to keep clerks. Such kept their accounts of credits by hieroglyphics, by notches on a stick, with some mark to designate the Indian.... Most of those who could write kept a rough book or sketch of accounts for a year or two, when they were considered of no value, and often destroyed, used as waste paper, or thrown aside. I myself had many of them thrown away. Few of the traders, even of the present day, do or can keep books.

He believed that the American Fur Company lost money between 1817 and 1824. After that, the years varied; some were prosperous, some not. Only Astor's wealth, made in Manhattan real estate, made it possible to hold the furs when the market was low. He could think of only three traders who made money, one about \$12,000.00, one \$3,000.00, and one \$4,000.00 over a long series of years.

He cited the chief danger as the bad debts of the Indians, not the failure of the country to produce furs. At the base of the company structure were the Indians who collected the furs and needed traps, clothing, and other supplies on credit. They sometimes lost interest in trapping, were killed in warfare, moved to a new region, or were enticed or forced to trade with an opponent in spite of the debt.

Even though the American Fur Company was in trouble, the half century closed in Minnesota with an election for the territorial delegate to Congress based on its reputation. Henry H. Sibley ran and won on a "Fur" ticket against Henry M. Rice, "Anti-Fur." National politics were not strong in the newly-formed territory which boasted a population of fewer than 4,000 in 1849, and only 6,077 at the 1850 census. The Whig party was dying, the Republican Party not born, and the Democratic campaign issues vague on the frontier. Personalities counted more. Both Rice and Sibley were leaders in the struggling little capital of St. Paul. Other evidence of the wilderness flavor were the qualifications Thomas A. Holmes gave for his membership in the territorial legislature. He could not sign his own name but he could "skin a muskrat quicker than an Indian."

A. Traders and Explorers Report on the Wilderness

This then was the system in which the fur traders operated and the explorers shared in the first half of the century. From the mass of literature on the fur trade, four white men well acquainted with one another and living in northern Minnesota may be singled out for keeping journals or dictating reminiscences. David Thompson and Alexander Henry the Younger wrote theirs, which were carefully edited and published in 1916 and 1897, respectively. An unsigned journal for a North West Company post on the Snake River near the St. Croix was first published in 1933. It is now attributed to John Sayer. John Tanner, a white man who lived with the Indians, told his story to Edwin James at Michilimackinac and it was published in 1830. The accounts of these four contemporaries supplement one another.

David Thompson was a gifted child from a poor family in London, who was educated at a great charity school. He was apprenticed to the Hudson's Bay Company when only 14 and sent to Canada, so he grew up in the fur trade. He developed great skills in mapmaking and wilderness survival. He made his own birch-bark canoe. He married the daughter of an Indian woman and a white trader. He was active in the interior from 1789 to 1812. In 1797, he left the Hudson's Bay Company to work for the rival North West Company.

In late April 1798, he traveled from the Red River over to the Mississippi and found it hard work, pond to pond, brook to brook, with many carrying places. He saw swans, geese, ducks, cranes, bitterns, pelicans, and cormorants. He was delighted with the loon on every pond that had open water. Many ponds were shallow and full of rice stalks, so "this wily bird, as soon as he saw us set up his cry and was at a loss whether to fly or dive.... Before he could raise his flight he had to beat the water with Wings and Feet." The men shot several and Chippewa Indians in two passing canoes were glad to get them as they were favorites for caps.

Thompson speculated about the geese which fed in the spring on the wild rice on the lake bottoms, residue from the fall harvest. Later, they were captured at Churchill 780 miles distant with rice in their crops possibly from Minnesota or the similar area to the north. At Cass Lake, Thompson visited with John Sayer at his post. Thompson gave these men wild ducks he had killed, for they were tired of their diet of wild rice and maple sugar and hadn't had meat for some time. "A mess of rice and sugar was equally acceptable to me who had lived wholly on meat." In June 1798, he saw Sayer again, this time at Grand Portage when he came up from Fond du Lac with his winter furs.

Modern studies on rice have shown that every third year there is a drop in production, so the periodic low yield must have been a situation to which hungry Indians and migratory birds frequently had to adjust.

He described the way the buffalo meat was packed, combining 40 pounds of two kinds of fat with 50 pounds of meat. The fat was of two types, one soft like butter and the other

hard from the inside of the buffalo. Both were needed to preserve the meat. At the post near Savanna Portage approaching Lake Superior, he found the winter hunt had included 50 beaver, large fisher, but no fox or wolf. Wolves were almost unknown, he believed, for there was nothing for them to live on.

Alexander Henry was the nephew of an earlier trader with the same name. The younger man was an energetic North West Company representative whose trade with the Indians fanned out in Canada, the Dakotas, and northern Minnesota from two bases on the North Dakota side of the Red River. He used these posts from 1800 to 1808. Occasionally he noted statistics on furs collected in specific regions. From Red Lake in 1802-03 there were 85 beaver, 4 bear, 3 fisher, 10 otter, 12 marten, 2 mink, 1 wolverine, 2 lynx, 13 moose and elk, 4 muskrats, and 1 badger, amounting to two packs of 90 pounds each. He was shocked at the damage the buffalo did to the river banks.

"The ravages of buffaloes at this place are astonishing.... The beach, once a soft black mud into which a man would sink knee-deep, is now made hard as pavement by the numerous herds coming to drink. The willows are entirely trampled and torn to pieces.... The grass ... is entirely worn away. Numerous paths some of which are a foot deep in the hard turf, come from the plains to the brink of the river, and the vast quantity of dung gives this place the appearance of a cattle yard."

Near the Minnesota boundary from the top of an oak tree in September 1800, he was able to count 15 separate herds on the prairie. From a similar position in February 1801, he counted over 20 herds. The number seen moving northward on both sides of the Red River dwarfed previous estimates. He believed they sought the shelter of the woods though he was surprised at the endurance of the cows. "The piercing N. wind, which at times blows with such violence over the bleak plains ... raises such drifts, that it cannot be faced; still those animals graze in the open field."

The mortality among the herds from accidental drowning in early spring when the ice was weak was stupendous. The dead beasts drifting by formed a continuous line in the current of the Red River for two days and nights in April 1801. Even in May, drowned buffalo continued to drift past. "The stench from the vast numbers ... was intolerable.... They tell me the number of buffalo lying along the beach and on the banks above passes all imagination.... I am informed that every spring it is about the same." In 1803, he saw less loss.

In November 1804, prairie fires were causing terrible destruction. "Blind buffalo were seen every moment wandering about. The poor beasts have all the hair singed off; even the skin in many places is shriveled and terribly burned, and their eyes are swollen and closed fast. In one spot we found a whole herd lying dead. The fire having passed only yesterday these animals were still good and fresh, and many of them exceedingly fat." Henry's men dried the buffalo for pemmican and packed it just as Thompson had described, 50 pounds

of meat with 40 of grease, for the tallow was valuable food too and if prepared right kept for years. The skins were not yet important to the whites for less than 100 were taken in the years from 1801 to 1808.

Henry fought tough battles to get his furs. In 1804, he forced Big Throat, a Chippewa, to trade with him instead of with the X Y Company, risking his life over the encounter. He didn't receive news until 1805 that his North West Company had absorbed the X Y in 1804. He fought with Indian women to get their catch, getting "all they had, about a pack of good furs," but he found this effort distasteful.

He saw deer and elk in October 1800 as he traveled eastward in from the Red River along Thief River and Red Lake River. He described the terrain. The plums and fruit bushes were torn to pieces by bears. Going was slow through patches of poplar, willow, and long grass. The spot where the Clearwater River entered the Red Lake River had rapids and was a favorite pool for sturgeon fishing for the Indians, sometimes all summer though not this particular season as the water was low.

John Tanner was stolen by Indians as a child in 1789 and raised as one of their own until maturity. In the early 1800s when he was about 20, he was living in northern Minnesota near Pembina, Rainy Lake, and the border when Thompson and Henry were there. He participated in the fur trade as an Indian and traded at Henry's post. At Rainy Lake, he bought beaver traps, paying five skins for each. Since he had never gone to school, he could not write a journal and his story was dictated long after the events occurred. It is vague on dates and locations, but it rounds out the story of the fur trade in the north. Henry had observed beaver numerous between the Wild Rice River and the Pelican River in late 1800, but in 1805 the north country was almost destitute of these animals. Tanner's vivid description of "some kind of distemper" destroying them may refer to the same time.

"I found them dead and dying in the water, on the ice, and on the land. Sometimes I found one that, having cut a tree half down, had died at its roots; sometimes one who had drawn a stick half way to his lodge was lying dead by his burthen. Many of them which I opened, were red and bloody about the heart. Those in large rivers and running water suffered less. Almost all of those that lived in ponds and stagnant water died. Since that year the beaver have never been so plentiful in the country of Red River and Hudson's Bay, as they used formerly to be. Those animals which died of this sickness we were afraid to eat, but their skins were good."

Tanner and the Indians ate gulls' eggs from islands in Lake Superior. They killed young gulls and cormorants they captured on islands in Lake of the Woods and dried and packed the meat. Tanner believed the trading posts were sometimes withdrawn to give the region time to recover when the catch was poor.

John Sayer is now believed to be the author of the anonymous diary written from September 15, 1804, until April 27, 1805, not far from the St. Croix at a North West Company post on the Snake River. He had an Indian wife and children with him and he knew how to provide for the winter and deal with the Indians. He had spent winters at Cass Lake and Pembina in the late 1790s and on the Yellow River in Wisconsin in 1803-04. The site on the Snake was chosen because of the good prospects for furs, game, wild rice, and maple sugar. It was used only the one season of 1804-05 and then abandoned. Later, it burned. The site was re-discovered in the 1950s, purchased by the state, the post restored and opened to the public in 1970. Sayer, if the present identification holds, provided a beautiful site for an historic restoration near modern Pine City and easily accessible to the Twin Cities. It is a choice historical replica. While the contents of the diary seem rather brief and sketchy next to those of the other men, it's more of a literary achievement than most fur traders produced, and it covers the St. Croix area before the loggers and settlers arrived.

Just how many people Sayer fed is not clear, but he itemized some 90 deer, 339 ducks, 12 geese, 13 bear, and 4 beaver for a period of 7½ months. A hunter came in with 200 beaver skins on November 3. It took from October 8 until November 7 to build the post, put in chimneys, plaster, and erect the stockade. The British flag was raised November 21. On December 31, he heard of the North West and X Y merger long before the news reached Henry over in Pembina. The first duck in the spring migration was shot March 17, 1805. Maple sugar weighing 70 pounds was put in one vessel, 60 pounds in another. The men put four kegs of this precious commodity in a cache under the fireplace.

Most of the wildlife observations are not significant, but one stands out. On March 28, 1805, one of Sayer's men found a wolf devouring a deer and salvaged the animal, making an excellent feast for the traders. Since Thompson had commented on the absence of wolves near Lake Superior in 1798, this reference near the north St. Croix is important. Wolves in northeastern Minnesota followed the white-tailed deer invasion much later in the century.

After storing food for a return, the men packed their baggage and left the spot forever April 27. The brief occupation of the post was forgotten until the first publication of the diary in 1933 and ensuing location of the site, with continued research identifying the writer.

Sayer paddled up the St. Croix in the spring and the same fall, Zebulon Pike started north from St. Louis to check out these Canadians operating so far south of the border.

Pike was only 26 and a novice in the wilderness when he led 20 soldiers up the Mississippi in late August 1805. They lacked the skills of the voyageur and fur trader, but they soon learned to live off the country. The soldiers asked Indians for venison on the Illinois shore, but didn't get any. After they had pushed their boats off, they saw the Indians on the shore

laughing and holding up two hams. Chief Red Wing near Lake Pepin treated them better and gave them presents, including one buffalo skin. Before the trip was over, they had developed much more skill in making friends with the Indians. They received many important gifts from the Chippewa in the north, as well as information, and they got a site for a future fort (Fort Snelling) from the Sioux.

When the expedition passed St. Anthony Falls and approached the present Little Falls, deer, beaver, mink, and duck were all common. In the good fall weather, hunting along the river was fairly easy. Pike realized though, when they awoke to snow in October, he must make a winter quarter. He had to build light canoes for the last leg of the route, and cache food at some spots if he was to go as far north as he had planned so late in the season. Just because deer, elk, and buffalo were seen along the Mississippi didn't mean success in hunting. It took several days to bag an elk after he had determined to get one. He wounded a buffalo but didn't bring it down.

On one occasion, Pike lost his shoes and was fortunate that his men rescued him, bringing extra moccasins. Hunting had ceased to be fun by November. Pike wrote: "I began to consider the life of a hunter a very slavish life and extremely precarious as to support.... I have myself although no hunter, killed 600 weight of meat in one day; and I have hunted three days successively without killing anything but a few small birds ... to keep my men from starving."

Sometimes the thongs of his snowshoes caused his feet to bleed through socks and shoes. When he arrived at the fur traders' posts on Sandy Lake and Cass Lake, part of the domain of the North West Company, their accommodations and food looked really good. The Indians were selling traders wild rice for \$1.50 a bushel. Cass Lake was as far north as Pike went and there the trader gave him dogs. The Indians gave them game for dog food, and the soldiers made a sleigh for the dogs to pull and thus lighten their loads. At the Sandy Lake post, Pike ate boiled moose head and liked it. While traveling, he allowed his men two pounds of frozen venison a day and rations were often slim. The Chippewa sugar camp he visited in March 1806 was a real joy. He slept on the chief's bearskins. He had a choice in menu of beaver, swan, elk, or deer, and he selected beaver.

In spite of the hardships, the men made it back to Prairie du Chien in April 1806, leaving almost regretfully, for the spring migration of waterfowl was just beginning. They were seasoned enough to tackle further explorations in the far west. Although untrained, Pike had a good eye for field work and he noted many details in his daily journal which provided a kind of manual for later sportsmen and adventurers. Game was commonest in groves of pine broken with hardwood and prairie. Elk and buffalo followed the tributaries to the Mississippi driven by prairie fires. Wounded game often required several days' followup of tracking. Ammunition should be protected from water. If it does get wet, don't dry it too close to the camp fire. Get the best gun available. His rifle, probably .35 or .40 caliber, had too small

balls for buffalo hunting. The Indians had better luck with bow and arrow. Their moccasins were good footwear. A few books were worth the extra weight at dull times in camp.

Pike's journal was translated into Dutch and French by 1812. Thoreau read it before making his Minnesota trip in 1861. Elliot Coues edited a new edition in 1895 and followed the trail locating the remnants of the fireplace for the winter camp, and often commenting in footnotes on important ecological changes since 1805. Donald Jackson, who edited and produced another edition in 1966, discounts the scientific value of Pike's records, but they were the best for that time in the area.

What's more, he tried to get figures on Indian hunting and trapping success. Those for the Chippewa are more complete. The 45 warriors at Sandy Lake near the Mississippi and on the portage route from Lake Superior took 1,284 beaver, 443 deer, and 1,155 muskrat that year. At Leech Lake, there were 150 warriors who secured 1,608 beaver, 737 deer, and 1,821 muskrat.

[*Here the original manuscript is missing two pages.*]

Such news filtered into Schoolcraft's upper Michigan post, where he tried to adjudicate complaints, cut out liquor traffic, and work with honest traders.

The government agent at Mendota, Lawrence Taliaferro, played a parallel role for the Sioux in southern Minnesota. One of the traders he licensed, Alexander Faribault, in a good season on the Cannon River collected 50 buffalo robes, 130 marten, 1,100 minks, 663 raccoons, 25 lynx, 5 foxes, 2,050 pounds of deerskins, and 39,080 muskrats. In the years between 1826 and 1831 the numbers of traders to whom Taliaferro issued licenses varied from 11 to 25.

Taliaferro had the special pleasure of riding on the first steamboat up the Mississippi to Fort Snelling in May 1823. When the boat arrived at the river bank where Wabasha's village stood, it stopped and the Indian chief came aboard to admire the new invention. It was to open the era which doomed Indian living in the old fashioned way since it brought people up quickly and comfortably and transported goods downstream to big markets. Taliaferro explained the methods for wilderness travel to another passenger, Giacomo Beltrami, of Bergamo, Italy, out to see the frontier. Later in that summer Beltrami joined a government expedition at Fort Snelling under the leadership of Major Stephen H. Long.

Besides the dramatic arrival of the steamboat, something else had been added to make the wilderness more available. Two little islands of white settlement were developing in the 1820s which provided a destination for explorers beyond Fort Snelling besides the fur trading posts. These were at Pembina (North Dakota) and Fort Douglas, 45 miles north in Canada and were established as the Selkirk Colony, Lord Selkirk, who owned a controlling interest in the Hudson's Bay Company, arranged for a grant of land from the Company's

territory to encourage settlers. He was a philanthropist and had already helped Scottish settlers move to Ontario and Prince Edward Island.

The first farmers came to the prairies in 1812. They faced fierce attacks by the North West Company, grasshoppers, and Indians, as well as the terrible isolation. Their best connections with civilization were via the Red River, the Minnesota, and down the Mississippi. The village in Canada eventually became Winnipeg, and the capital of the prairie province of Manitoba in 1867. Ironically, it was Lord Selkirk, a Hudson's Bay official, who introduced the settlers and provided the nucleus for the settlement which ended the Company's political power.

A few of the brave pioneers still holding out got some cattle driven north in the 1820s. One of the heroic deeds which accounted for survival was the tremendous effort the manager of the experimental farm at the Selkirk colony and a companion made in the early spring of 1820. They went down through southern Minnesota to civilization to get seed for spring planting. On the return trip up the Minnesota when the water was high, they used big Mackinac boats which they pushed across from Lake Traverse to Big Stone Lake! This was the height of land between the Mississippi and the Red River of the North. Rhoda Gilman in writing *The Red River Trails* notes it as the only known example for making the whole trip by water.

The settlers included Swiss craftsmen, one an apothecary and one a watch maker. Some French Canadians with Indian wives chose one or the other of these villages as retirement homes, preferring the life there to the more formal society of Montreal and eastern Canada. The next big expedition into Minnesota from the south led by Stephen H. Long in 1823 used these points as their northern goal.

Long had already made one quick trip up the Mississippi to St. Anthony Falls in 1817 before Fort Snelling was established. His hasty impressions then of wildlife convinced him that a party could live off game. On July 15, he had noted the mouth of the St. Croix as a favorite hunting ground for Indians. His men killed Passenger Pigeons above Lake Pepin. This encouraged him to plan fishing equipment, butcher knives, and guns in his supplies in organizing provisions for the 1823 expedition.

It was no accident that Philadelphia was the gathering place for the takeoff. It had long been the scientific and cultural capital of the United States. The American Philosophical Society drew together the men most interested in the findings of such expedition. Thomas Say, its curator, was the professor of natural history at the University of Pennsylvania there and he was selected to go with Long. Charles Willson Peale painted both Say's and Long's portraits. Peale had painted the Revolutionary war heroes. He had opened the first science museum. He had rushed to paint the digging up of the first mastodon found on a New York farm in 1801 and put it in his museum. He loved both art and science and named

four of his 17 children Titian, Rembrandt, Raphaele, and Rubens. In the 1820s, he was an old man but not without zest for the excitement of new discoveries.

Launched with such enthusiastic support, the party started out in April 1823 in Dearborn wagons. The whole trip involved using saddle horses, canoes, skiffs, steamboats, and stage coaches as well and covered 4,500 miles. For the part going up the Mississippi to Fort Snelling they went, some in an eight oar barge using their tent fly for sail, and some by land march. Say and William Keating, another professor and official writer, insisted that the party stop many times to collect flowers, rocks, and other items. The new steamboat would not have been able to afford opportunity for the collecting they had in mind. Once Say was bitten by a rattlesnake he was examining. The naturalists collected one above Lake Pepin, an unusual record, they believed. It took seven and a half days to go a little over 200 miles to the Fort from Prairie du Chien.

Passenger Pigeons were numerous on the islands in Lake Pepin, near Red Wing, and on the Cannon River in early July. The land party saw elk; neither group saw buffalo. Keating wrote: "Game will be judged to be very scarce where two parties traveling by land and by water can kill but two or three dozen birds traveling over two hundred miles." However, they passed two Indian villages, those of Chiefs Wabasha and Red Wing, so this stretch was a much used hunting area.

Going up the Minnesota River, some of the men on horseback, some in canoes, they didn't have much luck hunting. They killed a few ducks in the middle of July. Many of the Indians along the Minnesota were off on summer hunts. The 12 fur trading posts on that stream had made up 236 packs that year, mostly buffalo—168, muskrat 40, and 6 packs or less for raccoon, bear, beaver, otter, fisher, mink, and red fox. The mosquitoes were so bad, they slept with their boots on. Long sent back nine soldiers, keeping only twelve, and all traveled overland finally because the river was low. This way they made better time to get to the buffalo country on the Red River while these animals were grazing there.

Two important observations on natural history of the Minnesota River were added by James E. Colhoun, a relative of Secretary of War Calhoun, who was assigned to the expedition at the last minute. On July 13, he saw two Swallow-tailed Kites soaring over the river. Since this bird later disappeared from Minnesota, every early record is precious. He also mentioned the "Big Woods" or "Bois Franc" (pure woods) and asked his French-Canadian guide for an explanation.

He was told it meant a stand of one kind of hardwood, not broken up with conifers or prairie. Colhoun noted that he saw a mixture of oak and elm at that point. The region around St. Anthony Falls and Lakes Calhoun and Harriet had open meadows and groves of hardwood trees. In later decades, all the early pioneers marveled at this block of hardwood intersected by the Minnesota River.

The boundaries of the Big Woods given in modern terms ran on the west from Mankato to St. Cloud, then east to the Mississippi, and south on a line 15 miles west of Minneapolis to Faribault and Northfield, then west to Mankato. The area was about 100 miles long north to south, and 40 miles wide in the southern section. The only break in the solid stand of timber was the bottomland and marsh along the Minnesota. Its accessibility to saw mills meant it was used early, yet some small relics like that near Faribault, the Nerstrand Woods, received protection in the twentieth century.

When the party arrived at Lake Traverse, they found buffalo and elk abundant. There they were entertained by the Indians with their first meal of dried buffalo, which was tough, tasteless and disappointing to most of the party. They met one Indian wearing a buffalo robe with eight bear tracks painted on it. He had a live Sparrow Hawk on his head. Colhoun killed a buffalo along the Red River and tried to determine its age by counting the annual rings of the horn. Down the Red River to Pembina they continued, and this they rated a less important fur area than the Minnesota.

The Red River Valley impressed the naturalists with its prospects for future agriculture and they speculated about the use of deliberate burning as a technique to keep the prairie open and encourage game. Keating wrote:

"The Indian frequently sets the prairies on fire in order to distract the pursuit of his enemies by the smoke, or to destroy all trace of his passage; to keep the country open, and thus invite the buffalo to it; to be able to see and chase his game with more facility.... The traders often burn the prairies with the same view.... We may therefore consider fire as the cause of the continuance, if not the original existence, of prairies, at least over much of our country; but there are some parts, and in this class we would be induced to include the country on Red River, where the great drought, the want of streams to moisten the soil, and perhaps some other causes, united in preventing the growth of trees."

At Pembina, Long was advised to go on into Canada and sell the horses and change to canoes for the border trip to Lake Superior. After outfitting and some changes in personnel, 29 members of the party started out in three canoes on August 17. On the border trail, the men collected information about wildlife and the habitat. On the Rainy River, the animals seen occasionally were bear, otter, wolverine, moose, squirrel, wolf, weasel, beaver, muskrat, and fox. Marten and fisher were very abundant. The principal fish in the river was the sturgeon. They also met John Tanner, who was recovering from a wound and recuperating at the post, and heard the story about his wilderness life with the Indians.

One disappointment was the poor quality of the pemmican which they had got at the Selkirk Colony. They had used salt pork and biscuits from Fort Snelling going up the Minnesota, and fresh buffalo on the Red River, but this leg of the trip was the worst for rations. They tried plants like wintergreen (*Gaultheria procumbens*) for tea infusion. At the

Rainy Lake post, Say killed a Ruby-throated Hummingbird, a titmouse (chickadee) and a Pileated Woodpecker. They saw the remains of an old beaver dam.

The trip from Rainy Lake to Lake Superior was a bit disappointing. They did not meet with a single quadruped and they spoke of the scarcity of birds. They did see ducks, Canada Jays, Blue Jays, Hairy Woodpeckers, American Golden-Plover, and woodcock. In mid-September, they were at Fort Williams on Lake Superior.

That winter Keating spent in Philadelphia writing his report on the trip, an official government document, which was read widely and attracted a stream of sportsmen, hunters, and adventurers to the Minnesota country. Keating was paid \$2.00 a day, room rent, fuel, candles, paper, ink, and pen to produce this publication.

Giocomo Beltrami, a restless adventurer and European politician-in-exile, attached himself to the Long party at Fort Snelling. His account gives the viewpoint of an outsider and foreign adventurer, so is an interesting variation from Keating's official one, which embodied reports from all the naturalists. Beltrami first published his version in French in New Orleans and then in English in London. None of the Americans on the trip liked it.

Beltrami had been disappointed with European and Italian politics after the Napoleonic wars. The return of north Italy to Austria made him seek adventure on the American frontier. He was elated to board the first steamboat up the Mississippi to Mendota. He found Chief Wabasha a "man of quality wrapped in wretched buffalo skins," when the chief came on deck to see the ship. He examined the Sioux tents of buffalo and elk on the shore.

At Mendota, he witnessed the arrival of Flat Mouth and other Chippewa from the north. A scare that trouble might erupt between the Sioux and the Chippewa excited the Italian, but frightened the local traders. "These worthy men trembled for at least four days afterwards, at the recollection of the danger they had run, in losing the advances they had made to the Indians. They thought it scandalously dishonest in them to kill one another before they had killed the beasts whose skins were to constitute the payment." After joining Long's party for the trip up the Minnesota, he saw as their first stop the camp of Black Dog, the Sioux Chief. He and his warriors were away hunting. Beltrami reported seeing the moulting swans at Swan Lake in July and all the waterfowl. He resented Long's haste in departure with no time for shooting, for he "was intent on making an expedition and consulted nothing but his compass."

Beltrami was more pleased with the encounter with buffalo after leaving Lake Traverse. He wrote that he imitated Renville, one of the guides. He pursued a buffalo and drove him "toward our people and I shot him before their eyes." He noted the appearance of wolves following the buffalo hunters. The buffalo weren't afraid of wolves, so the Indians hunted them hiding under wolf skins.

At the Selkirk Colony, across the Canadian border in August, he saw 100 buffalo hunters with 114 carts laden with dried meat. Their families who had accompanied them south of the 49th parallel were fat from the good summer diet, but not for long, he expected.

"Several of these poor devils soon saw their carts emptied: either the Company which had advanced him some money, or one man who had let him have powder and shot, or another who offered him the clothes he wanted in exchange; or the tinker, or the carpenter, the barber, the apothecary, the tax-gatherer, all fall upon him at once. The meat disappears, his numerous family remains around him, and the usual state of misery and famine returns."

Since the rest of the party was going to Lake Superior along the border lakes, Beltrami made arrangements for his own return trip to Mendota by way of the upper Mississippi through marshes and woods. He noticed his Indian guides rarely aimed at birds on the wing, choosing instead the sitting target to save ammunition. He saw the maples used earlier in the season for sugaries. He passed Cass and Leech Lakes and displayed a red umbrella in his canoe as a signal to the Indians that it was "navigated by a foreign and neutral power." He tried shooting deer by dazzling the animal with a lighted torch.

After all these adventures, he lived for a while in Germany and died in Bergamo, Italy, in 1855 at 76. An Italian artist painted his portrait with canoe and umbrella. Minnesota pioneers named a county in his memory.

Another traveler on the northern border the same summer as Long, Keating, and others was Dr. John Bigsby from Nuttingham, England. He was a geographer and sent by the British government to check the boundary between the two countries. He saw Chippewa collecting furs at Lake Vermilion. On the British side of Rainy River at a Hudson's Bay post, his host pointed across the river to a tall shabby-looking man, angling near the falls. He was told: "The two or three houses you see form a fur trading post of John Jacob Astor, the great merchant of New York. The man is one of his agents. He is fishing for a dinner. If he catches nothing, he will not dine. He and his party are contending with us for the Indian trade. We are starving them out, and have nearly succeeded."

Bigsby concluded: "The expedients for preventing a rival from entering a rich fur country are sometimes decisive. Every animal is advisedly exterminated, and the district is ruined for years." Bigsby's judgment on the short-sighted policy of the furtraders may have been limited, however, for one scholar examining the Hudson's Bay Company records for the early part of the century found that the Company had warned the Indians on the border about overtrapping. In the mid-1820s, the Rainy Lake Indians were accepting advice not to kill beaver. They were disappointed though when Indians from Sturgeon Lake came and took them from resting lodges.

Bigsby estimated the distance from the north end of the Lake of the Woods to Grand Portage as 431 miles. In that section of the trip, he saw several bear, killed one, and had three good meals of him. He saw Indians collecting wild rice even early in the summer. His party wore gloves, veils, and caps for protection against the mosquitoes.

Bigsby met Schoolcraft at Sault Ste. Marie in 1823 after his trip on the Minnesota border and did not impress the American Indian agent. Schoolcraft had learned Hebrew and German back in upstate New York, was acquainted with Governor De Witt Clinton and was a member of New York's Lyceum of Natural History. He had been received by President Monroe and members of his Cabinet. Though his career in the 1820s and '30s kept him on the frontier where "butcher meat is a thing only to be talked about," Schoolcraft found it an exciting and satisfying experience intellectually. He wrote of Bigsby: "The doctor has a very bustling, clerk-like manner, which does not impress one with the quiet and repose of a philosopher. He evidently thinks we Americans, at this remote point, are mere barbarians."

When Thomas L. McKenney visited the American Fur Trading Company's post at Fond du Lac in the summer of 1826, he had several political and professional reasons for getting in on the junket. He joined a party of 100 men sent to interpret the Indian Treaty made at Prairie du Chien the previous summer. McKenney was a business man hired in Washington to run the government trading houses which dealt with the Indians. This job ended when they were abolished in 1822. In 1824, he became superintendent of Indian Affairs but he had no firsthand experiences with his charges. On the way to Michigan to meet Cass, Schoolcraft and others running the expedition, he campaigned for John Quincy Adams against the rising opposition of Andrew Jackson.

Cass and Schoolcraft, having been in the region in 1820 and in 1825 for the Prairie du Chien treaty, planned the trip to stage an impressive arrival for the benefit of the Indians. The party left Sault Sainte Marie with McKenney riding in Schoolcraft's large canopy-covered canoe manned by 10 voyageurs and "equipped with every appendage to render the trip convenient and agreeable." Cass went in one of three barges propelled by 12 oarsmen. McKenney was fascinated with the beauty and the wildlife. He found the St. Louis River where they entered, leaving Lake Superior, filled with white and yellow water lilies in late July. The canoe waited for the barges' arrival so they could advance in a group on the tiny post of Fond du Lac in Minnesota where the Indians were gathering.

McKenney had heard that small birds prefer the surroundings of settlers' cabins to real wilderness and felt their travels confirmed that. In all the extent of coast, 514 miles for the length of Lake Superior, he heard only a robin and a bluebird. At Fond du Lac and Michilimackinac, the birds had assembled where "the sound of the axe and hammer and rural operations were part of the background."

He saw the remains of a stuffed "moose deer" which had been set up at Fond du Lac. The Indians believed that a fall-off in moose hunting occurred because of this indignity to

the moose spirit and the animal was taken down. Like all the other travelers, McKenney believed in preparing for mosquitoes. "I find my mosquito net invaluable at this place. I have it fixed permanently and am quite delighted to hear the singing of this biting tribe, while I feel secure from their attacks." Raspberry jelly made from wild berries was a pleasant surprise in the diet.

Cass decided to make his return trip in a birch-bark canoe instead and the Indians built one 36 feet long and 5 feet wide in the middle. McKenney's notes were published in 1827 and long forgotten. In 1972, they were reprinted to add another personal view of wilderness conditions.

Schoolcraft's work with the Indians at Michilimackinac had taken him to the Wisconsin-Minnesota area several times but not until 1832 did he reach the source of the Mississippi. The exploring was secondary to the improving Indian relations and vaccinating them against smallpox. Cass as Secretary of War for Andrew Jackson authorized the trip. The party left Sault Ste. Marie on June 7, 1832, and returned there on August 14, having traveled 2,800 miles.

The route, well known to the Indian guides, led across Lake Superior and up the St. Louis River; then, using portages and lakes to Sandy Lake, Schoolcraft estimated the distance from Lake Superior to the Mississippi about 150 miles, with less than 20 of portaging. He tried to get figures on the size of the Indian population and the take of furs all along the way.

At Leech Lake, there were 832 Indians. Deer and bear were seen along the shore. Muskrat and marten were the principal items; beaver, formerly abundant, had disappeared. The Indian chief entertained Schoolcraft at tea, which he sweetened with maple sugar. The buffalo which Schoolcraft remembered from his 1820 trip, were not to be seen any more along the river. Deer and elk were abundant.

Schoolcraft believed the fur trade was still economically profitable. He estimated the goods needed for trading at Cass Lake, Big Sandy Lake, and Fond du Lac at \$13,817.00, the return in furs about \$36,845.33. Lieutenant James Allen, the military leader and escort, recorded that Aitkin's income summarized at Big Sandy Lake, his headquarters, that year was \$5,000.00 for Leech Lake, \$5,000.00 for Big Sandy, \$4,000.00 for Rainy, \$2,000.00 for Vermilion, \$1,500.00 for Cass, \$2,000.00 from Fond du Lac, and \$1,000.00 from Grand Portage. The post at Winnibigoshish brought in eight packs of bearskin, not as valuable as the other furs. This was "less than usual."

Allen observed that the 148 Indians at Cass Lake had a rich hunting ground, with abundance of deer and bear. Around Aitkin's post at Big Sandy Lake, however, he thought the trade in furs was all that saved them from starvation. They had overhunted the furbearers. A small group went on with Schoolcraft to locate the source of the Mississippi. This party changed the name from the Indian Elk Lake, or Lac La Biche, to Itasca. They saw deer,

"several species of falcons," and Passenger Pigeons in mid-July. Swimming about were "the duck, teal, and loon in possession of their favorite seclusion." The men spent less than four hours exploring Itasca, then hurried back, as this was not officially recognized as a major goal of the expedition. On the way back to Leech Lake, Schoolcraft was surprised to see the Swallow-tailed Kite for he had not expected it so far north.

After the trip down the Mississippi to Fort Snelling, they paddled up the St. Croix toward Michilimackinac so fast they left Lieutenant Allen's group behind, much to his annoyance. Soon Schoolcraft was busy back at his home office, writing the official report from his journal and publishing his findings.

During the late 1830s and the following decade, the only drastic change in wildlife was that the Indians must go west of the Red River to find the buffalo herds. Most of the wildlife was still there, such as before, and the uneasy truce between the Sioux and the Chippewa meant a delicate balance for the white intruder. A few missionaries, moved by the zeal of revivals, found a challenge in wilderness living. Most of them were too swamped trying to explain Christianity and the Bible to these tribes to make many notes on the natural resources. An exception was Edmund F. Ely who had a mission at Pokegama, not far from the spot where John Sayer had built the North West Company post.

Ely described a group of Indians in the winter of 1834-35 hunting near the St. Croix. Two or three lodges took 13 moose, 9 bear, and 2 deer together with rabbits, porcupines, grouse and furred game in a two-month period. This fed five men, six women, and six children.

He thoroughly enjoyed a meal of dried sturgeon in May 1834. "I found the *Gills* of the sturgeon a delicacy.... We then had some griddle cakes, made of Sturgeon Eggs, with a little flour." These were eaten with maple syrup. He ate the crisp skin of the back and concluded: "I should not starve on Sturgeon."

Since the Indians got so much nourishment out of fish, the American Fur Company experimented with this resource on Lake Superior between 1836 and 1841. The deserted Grand Portage was chosen for the site. A schooner was built on the lake to handle transportation and replace the unwieldy Mackinac boat. The Company did not want the displaced oarsmen, with their valuable skills, to go to the opposition so those men were employed in the new fishery project. After the fish were netted, they were dried and salted with coarse salt from New York state. Barrels were made from trees near the shore. The plan was to barter fish for corn, cheese, lard, and other supplies in Ohio needed for employees in the interior. Muskrat demand in the fur market was low. The Company needed some tasks to keep longtime employees busy, for if they were discharged, they might join the "opposition."

Unfortunately, the economics did not develop favorably. The wrong size nets arrived and this was only one of many discouraging setback. The panic of 1837, the low interest in the fish, and the poor management all added up to a failure and the fishery enterprise closed in 1841.

B. Observations of the Early Residents Leaders

Even if the white residents had to scramble hard to make a living, there were some who liked living in Minnesota all the same. Henry H. Sibley, representing the American Fur Company and private enterprise, Seth Eastman as Military Commander of Fort Snelling, and Lawrence Taliaferro, part of the civilian bureaucracy, were among these. All three considered the life on the frontier full of challenge and excitement. They all had children by Indian women. They were impressed with the beauty of the wilderness.

Sibley had been a clerk at Mackinac in 1829 when he was 18 and he was shifted to Minnesota in 1834 in time to get in on the last period of the Company's activities and the freedom of good hunting before the coming of white farmers. His big stone house in Mendota, built in 1835, was a center for hospitality for all the travelers. He was in constant touch with the news of conditions up the rivers. In November 1836, Joseph Brown reported on the Sioux up the Minnesota. They hadn't captured enough muskrats for subsistence. "Their appearance would convince you they had suffered, as they are as poor as snakes."

In March 1838, the trappers coming into Lac qui Parle were starving. Lack of snow was blamed for hunting and trapping failure. In 1842-43, there was too much and they couldn't fish through the ice. These stories persisted after the reorganization of the Company. Norman Kittson, who worked on the Canadian border to help Sibley make the industry profitable, reported the Indians at Pembina destitute in 1844-45. Most were without ammunition. Many lacked axes. Fish was the mainstay of the diet. In 1849-50, the corn and wild rice failed in the Pembina-Lake of the Woods area. Disease was taking rabbits and lynx. Kittson was extending credit in hopes of some recovery of his investments. For the Indians, it was always feast or famine, and the picture painted in the first half of the century seems about as dismal as that later on reservations.

Alexander Ramsey, governor of the newly-formed Minnesota Territory, reported to Washington a distemper among rabbits which swept them away. Caribou, too, were short, so their winter food was reduced. The Chippewa band of 800, called "Men who live among the thick fir woods," Bois Forts, hunted from Lake of the Woods to Lake Superior. They had villages at Rainy Lake and Vermilion Lakes. In 1850, the rice crop failed and 13 Indians starved to death. Ramsey estimated the whole Minnesota Chippewa population in 1850 around 4,500. They did not receive annuities and he believed they would gladly sell land to escape from poverty. He expected help from Flat Mouth, the influential Pillager Chief.

Longevity for the Indians with so many mortality hazards as wildlife shortage, war, and disease would not be considered a good gamble, but Flat Mouth was one who survived all these risks. He was born about 1774, was in his thirties when he met Pike in 1806, knew Schoolcraft in the late 1820s and early 30s, talked with Nicollet in 1836, and was the person on whom Ramsey pinned his hopes in 1850 when he was 78. He had been on the warpath 25 times, killed many Sioux, and never been wounded.

Ramsey's optimism about the Indians' yielding their prior claim to the wilderness was justified. The treaties with the Sioux at Traverse des Sioux and Mendota in 1851 opened southern and western Minnesota, and settlers poured into the beautiful farm lands along the Minnesota. The Sioux retained only a small tract on the banks of the Upper Minnesota. The Chippewa had already ceded the land between the Mississippi and the St. Croix in 1837. Six more treaties between 1847 and 1889 opened up the northern part of the state. The last one contained the two Red Lakes and the "Big Bog," so poor for farming it could be left longest to the Indians, the caribou, and the ducks.

As for matching wits with the Hudson's Bay, Kittson wrote Sibley in April 1848: "Our little post at Lac des Roseau has played the devil with their trade this year."

The white sportsman, hunting for recreation in southern Minnesota, presented a sharp contrast to the subsistence-hunting Indian. Sibley's life as a hunter was a spectacular success. In a three-year period, he shot 1,798 ducks. His stories provided colorful reading in the hunting magazines of the era. His dogs had arrived at Mendota in August 1839. In the winter of 1840-41, he joined the Sioux for a hunt on the Cedar River in Mower and Dodge counties and down into Iowa. The 100 hunters took 2,000 deer, 50 or 60 elk, many bear, a few buffalo, and five or six cougars. A century later, Theodore Blegen and Thomas S. Roberts studied this account, hoping that some of the cougars were taken in Minnesota and could be counted as definite records. Unfortunately, no such precise records on sites for taking of game were important to these roving hunters.

In a smaller party in 1842, Sibley and three other hunters, with eight horses and six Canadian and American helpers for the carts, got three elk and grouse, ducks, geese, "as much as they wanted." They could have killed 1,000 geese, ducks, or swans in a day. They saw an elk herd of 600 or 700. Sibley sent a Canvasback east to a friend to prove that this choice duck was available to Minnesota sportsmen.

Taliaferro, the Indian agent, tried to keep order among the white traders and really help the Indians survive. He was at Mendota from 1821 to 1839, as his period only slightly overlapped with Sibley's. He had a blacksmith shop at the fort and others at the Indian villages. He made traps, rat spears, and fish spears, as well as axes and hoes. He was drawn back to the frontier for a visit in 1856. He felt like Rip Van Winkle seeing the area after 17 years' absence—neat houses where he recalled only open prairies.

Seth Eastman, whose Indian name was "Chaska," came to Fort Snelling for his first assignment after West Point in the spring of 1830 and stayed until November 1831. The youthful graduate was only 22, excited about the hunting, and brash in arguing with a drunk Indian who mistreated his hunting dog. He had matured by the time he arrived in 1841 for duty. He brought a young wife, daughter of a West Point doctor, and she started collecting notes to write on Indian life. He painted and sketched the same subjects, and felt this a good

combination with his military career. Charles Lanman, writer and visitor, saw 400 such drawings in his studio at Fort Snelling in July 1846.

Eastman was commander at Fort Snelling at four different times, but his main interest was sketching. In one scene, he used the tame buffalo grazing with the cows as his model. While Catlin, in his inspection of the west, was looking for spectacular material for wildwest shows, Eastman chose accurate, natural, everyday scenes like spearing muskrats and fish. The bow for the fish was short—only one and a half or two feet long. After he left the fort, he worked on these Minnesota themes in Washington, D.C.

These were the “residents,” the men who welcomed and advised the continual stream of travelers, the explorers, scholars, and adventurer seekers of the 1830s and 40s. Though their stay was brief, the travelers also contributed, in their written observations, information about the wildlife they encountered.

C. The Early Visitors

George Featherstonhaugh was an English geologist hired by the U.S. government to explore southern Minnesota in September 1835. He went up the Minnesota to Lac qui Parle, recording many details of the autumn landscape. He, like Colhoun in 1823, observed the Bois Franc or Big Woods. He saw an abundance of wild rice. Many sugar maples were on the banks. The water was covered with wild ducks. An otter was swimming about and muskrats were using the reeds of the rice for houses in the water. Near Patterson’s Rapids, not far from the mouth of the Red Wood, a “gaudy crested Wood Duck” floated by.

Featherstonhaugh ate grouse and wild rice and saved his supply of pork and ham for the return trip down the Minnesota. His companions broke camp early, often before dawn, as the mosquitoes wouldn’t let them sleep. This inconvenienced Featherstonhaugh on one occasion, for his private tea kettle was left behind when they packed in the dark.

At one point, he saw marks of a buffalo crossing on the river where he thought a herd of 15,000 to 20,000 had passed. He saw fires all around Lakes Traverse and Big Stone, and going down stream on the same route he had come, he wrote: “I found the prairies on fire in every direction.” He arrived at Fort Snelling to find the landscape covered with snow. In spite of the threat of winter, he continued by canoe to Prairie du Chien.

He preferred the canoe to steamboat so he could examine the banks of the Mississippi better. Twelve years later, his account was published in London as *A Canoe Voyage up the Minnay Sotor* with more colorful comments than the official report for the government which appeared the year following the journey.

George Catlin had decided to make the Indians his specialty as an artist and writer by the time he first visited Fort Snelling in the spring of 1835. He recognized that wildlife was essential to their survival. He wrote: “Sioux in these parts who are out of reach of the bea-

ver and buffalos, are poor and very meanly clad, compared to those on the Missouri where they are in the midst of those and other wild animals whose skins supply them with picturesque and comfortable dress."

Catlin painted a Chippewa woman who wore materials of "civilized manufacture." The Chippewa were delighted with his wife, who accompanied him on his first trip. They gave her presents of maple sugar they had brought to Mendota to sell. He liked the steamer trip up so much, he recommended the riverboat trip to St. Anthony Falls as a fashionable outing and popularized this form of excursion.

In late August 1836, he came back to Minnesota and made his trip to the famous Pipestone Quarry. He later wrote of it as though he were the only white man to have seen that place so significant to the Indians, thus annoying the traders and soldiers at Fort Snelling who roamed over the area.

He failed to catch a steamer at Fort Snelling so went downstream by canoe. In his diet on that leg of this trip, he tried snails, frogs, and rattlesnake. The latter "properly dressed and broiled, was the most delicious food of the land."

Joseph Nicolas Nicollet, a French geographer and mathematician, arrived at Fort Snelling in the summer of 1836 eager to explore the Minnesota wilderness. He had left his native France in 1832 to make a new career in America and settled first in Washington, D.C. He had an inquiring mind and wished to explore waterways particularly, as he visualized the future of America depending on them. He had already seen the lower Mississippi.

By late July, he was outfitted and ready to leave Mendota and go north on the Mississippi, covering the same area that Schoolcraft had, but spending more time on geographical detail for his map work. He described the wildlife at Leech Lake. The fish included whitefish, jackfish, tullibee, pike, sucker, and pickerel. Game included ducks, geese, pelicans, loons, gulls, fish hawks, bald eagles, wolves, bears, fishers, muskrats, minks, raccoons, foxes, martens, porcupines, woodchucks, weasels, red, striped and flying squirrels, and three species of turtles.

Beyond Leech Lake going to Lake Itasca, Nicollet selected a different route than that followed by Schoolcraft in 1832. This way, he could chart new country. He was awakened by the "terrifying dawn chorus of the wolves" and found no trouble in getting his men on the trail with this kind of reveille.

Nicollet was back at Mendota in late September. He described the prairie below Fort Snelling, where he observed fox, deer, and elk, and among the birds, hawks, gulls, plovers, phalaropes, geese, cranes, and swans. He spent the winter and following summer near the fort and witnessed the signing of the Sioux and Chippewa treaty in the summer of 1837.

He canoed up the St. Croix and back to Mendota, then went down stream to Prairie du Chien in a canoe with William Aitkin, the furtrader he knew from Big Sandy Lake.

This period in Minnesota was financed by private funds, some probably contributed by the American Fur Company officials. His reports and maps so impressed the War Department, he was sent back by the government in 1838. He took a swing through southwestern Minnesota and found more wildlife for food than Catlin had two years before; he traveled earlier in the season, however. He found Lake Shetek "full of fish." The men shot 30 birds, Canada Geese and ducks. At Pipestone on July 3, the bag was 7 ducks, the next day only a poor young crane.

Having been in northern Minnesota so recently, he contrasted the living pattern of the two Indian tribes: "If these beautiful lakes were in the country of the Chippewa their borders would be decorated with fishing nets. But the Sioux of this region, because of the nature of their country are forced to chase the buffalo." They were off then on their summer hunt. He heard that in 1830 they could hunt herds of buffalo in southern Minnesota, but now the animals were farther west. Near Lac qui Parle, he met Indians who had delayed their buffalo hunt to meet him. Among the presents he gave them were a paper of hawk bells and a dozen scalping knives.

The hawk bells were the same type known since medieval falconry became a sport at the time of the Crusades. The Indians used them to add glamour to their apparel in dances. At the reconstruction of Sayer's fur trading post on the Pine River, they are exhibited on the counters as a typical article of trade. White men staging modern reproductions of nineteenth century hunting wear them today on costumes and they are for sale at sporting goods stores who cater to these events and sell replicas of old-fashioned muzzle-loading guns.

The "scalping knives" seem a questionable present considering that the goal of the government was to keep peace between the Sioux and the Chippewa. Bishop Henry B. Whipple railed against this government-supplied item in defending the Sioux after the 1862 outbreak. However, a knife must have been a man's most versatile tool in the wilderness though the adjective was poorly chosen.

Nicollet had good opportunity to observe the mechanics of the fur trade since he spent a whole year in Minnesota. He realized that the American Fur Company people were the game managers of that period. He wrote his good friend, Joel Poinsett, who was then Secretary of War: "The traders work with the government. It is not the traders who are the enemy of the law.... Things have changed much during the last several years, especially since the furs are fewer and since following the treaties, the traders sell their merchandise to the Indians for ready money instead of for the results of the hunt, which is reduced to a privilege without any attraction."

One of the most colorful and least known adventurers to the Minnesota wilderness was Francesco Arese of Milan. He was a revolutionary leader in the movement for a united Italy and an ardent sportsman and hunting companion of Louis Napoleon, later Napoleon III of France. Arese had two years' experience with the French Foreign Legion in north Africa. Then he came to New York to join Louis, temporarily in exile from France for plotting against the current French government. Louis returned to Europe in the summer of 1837, but Francesco decided to have a try at the hunting on the middlewestern frontier before going back to active participation in Italian politics. He took a steamer to St. Louis where he met Ramsay Crooks, director of the Mississippi and Great Lakes division of the American Fur Company, and Chouteau, head of the Missouri-Rocky Mountain area. With their help, he roamed through Iowa, South Dakota, and southern Minnesota on horseback and by canoe in August 1837. He did not hook up with an official expedition of soldiers as his compatriot, Giacomo Beltrami, had done for most of his route in 1823, but had just two companions most of the time. He depended on them and his own compass and maps.

From the Council Bluffs, then just a trading post, he went overland on horseback through Iowa and South Dakota, visiting a Sioux village. There he dined one day on huge quantities of dried buffalo meat, the next day on dog, and then enjoyed a farewell vegetarian feast mostly of Indian turnip (*Psoralea esculenta*) boiled in buffalo fat. With his Sioux guide and a Canadian, he killed ducks and herons for food on the way to the Minnesota River. Hearing from passing Sioux that the buffalo were near Pipestone, they went that way in hope of a hunt. The season was August. Black flies and mosquitoes were thick and they started early in the mornings after restless nights. The horses Arese had bought were thin and bruised from bites and lacked the strength to pursue deer. They were utterly useless after buffalo. Arese was shocked to find a deserted Indian village, with wolves devouring the bodies of smallpox victims. Wolves were abundant as well as enemy Indians and the men kept careful guard at night.

After a two day fast, they were thankful for a bag of 19 ducks in a half hour near the headwaters of the Des Moines River. They shot them by working their way on their stomachs through long grass to the lake. They cooked six, all their kettle would hold, and ate them partly raw, while the next six simmered. One good meal was turtle cooked without salt, by necessity, for that staple had dissolved when they forded a stream.

At a fur trading post on the Minnesota, they found a generous trader who furnished powder, shot, tobacco, cornmeal, and salt, and they were off again. The "land rats" or gophers caught Arese's eye. At Traverse des Sioux, Arese got rid of the horses and went down stream in a boat. Some Canadian hunters and employees of the American Fur Company were coming up and they, not recognizing this stranger, asked if he belonged to the "Opposition." Arese learned that this term on the Minnesota prairie referred to fur trading rivals, not parliamentary ones.

He visited Fort Snelling and as a soldier was impressed with the small force, outnumbered by traders at Mendota. He saw Minnehaha and St. Anthony Falls, Lakes Calhoun and Harriet, and went down river with two Canadians in a dugout canoe to Prairie du Chien. On Lake Pepin and Sandy Point, he hit rough water and rain; they were soaked through and couldn't even make a campfire.

Arese summarized the problems: "When I speak of bad weather ... I mean a rain of seven or eight days never stopping, and during which your clothes and overcoat are wet through ... when you go to bed in the mud in rain, with clothing still so drenched that it is useless to try to dry it at a fire.... I had the bugs to amuse me during my whole land trip ... and the bad weather to keep up the fun during my whole voyage as far as Green Bay. That was almost all by canoe."

The same season that this colorful Italian appeared at Fort Snelling, the soldiers entertained the English novelist, Captain Frederick Marryat. Though he was interested in sports, he did not envy those stationed there for long periods. He wrote in his *Diary of America* after his trip in 1837:

"The principal amusement of the officers is, as may be supposed, the chase; there is no want of game in the season, and they have some very good dogs of every variety."

He was impressed with Captain Martin Scott, whom he considered "one of the first nimrods of the United States." Scott, who ranked as commandant for a while that year, had a pack of 20 dogs. A negro servant took care of them.

Maryatt watched the Indian hunters and jotted down some of the customs. The Sioux warriors wore one feather on the head for the scalp of an enemy or a grizzly bear. Though many had rifles, they preferred bow and arrow on the buffalo hunt. He thought the Indians he saw at Mendota were the first primitive, unspoiled ones he observed. At less remote forts, they were all drunk. He speculated that whiskey killed more than wars.

The French Canadians with Indian wives produced large families. "Children in this fine climate are so numerous they almost appear to spring from the earth." The only live creatures more prolific were mosquitoes which raised "bumps as big as pigeon eggs."

Joseph Le Conte, a nineteenth century geologist, was only 21 and studying medicine in New York City at the time he decided to take a "frontier vacation" between semesters in the summer of 1844. He invited his cousin, John Lawrence Le Conte, two years younger and already concentrating on entomology, to go with him. John Lawrence and his father were friends of Audubon, who had named a new species of sparrow he discovered on the Missouri for him just the year before. The two Le Contes went to the American Fur Company post at LaPointe on Lake Superior. There, William Oakes, the Indian agent, and

Dr. W.W. Borup, the company agent, advised them about a trip through Minnesota. Even so, they weren't well prepared for many aspects of a wilderness outing.

They wore moccasins instead of boots, a good choice most of the time. They found some of the pebbles of the Lake Superior beach were smooth. Those the size of hickory nuts moulded to the form and made a better bed than sand. They wore veils over their hats, faces, and shoulders. They needed gloves too for protection against mosquitoes going up the St. Louis River and the Savanna and portaging to Sandy Lake. They lifted the veils to eat, but put their faces in the campfire. The section of the route known as Knife Portage cut their moccasins to pieces.

The food which the voyageurs prepared, mess pork and dough boiled together in a kettle, was unappealing. Joseph put his share of the dough on a stick and tried baking it in the fire. Bringing trunks for baggage was a mistake. John's trousers were not tough enough and he had to patch the frayed seat with stout bed ticking. When they got down the Mississippi to Fort Snelling in late July, they found the departure of the next steamer was a week off. Fortunately, "the game season on prairie-chicken opened the day after we arrived." So they joined the hunters. The officers brought in 100, 30 of which were bagged by Dr. Turner.

This observance of a hunting season at the fort must have been an agreement among the soldiers, for the first legal regulation was not to come until Minnesota was ready to become a state.

A French naturalist, Christophe Augustin Lamare-Picquot was 57 and a seasoned traveler when he first visited Minnesota in 1846. He had grown up in Normandy and worked as a pharmacist in Brittany. He lived for a while in Mauritius and Madagascar. He traveled along the Ganges. He shared quarters with fur traders in Labrador and survived scurvy in Canada. Some of his Asiatic collections were displayed in the imperial palace in Vienna where they attracted Liszt and other notables.

His specific goal was to learn about the Indians' use of the tubers of the wild plant, *Psoralea*, and consider it as a substitute for the Irish potato because of the blight and famine in Europe.

Lamare-Picquot collected a wide range of wildlife in a storeroom at Mendota. One list included butterflies, beetles, elk, deer, buffalo, rattlesnakes, otter, beaver, fox, wolf, swan, eagle, hawk, and partridge. He took back to Paris some of the *Psoralea* tubers, mixed them with wheat for bread, and got the new government to support a second trip after the February Revolution in 1848. When he arrived at Mendota that summer, everything was in a turmoil because the government had decided to move the Winnebagoes from Wisconsin into Minnesota as a buffer between Sioux and Chippewa. Every wagon and animal had been requisitioned for this big operation.

Finally, Lemare-Picquot did get one wagon, three oxen, and seven men. He set out on the first part of the Woods Trail north to Sauk Rapids and then west towards the Red River. This had been blazed only a few years before. He commented on the swampy bogs, the century-old fallen trees, and the tedious work getting a wagon through. He turned off to go to Lac qui Parle. There, he couldn't get seed of the *Psoralea* so he took living plants down the Minnesota and all the way to Paris. Since the plant took five or six years to develop tubers the size of a hen's egg, it was abandoned for cultivation, but Indians in the Dakotas still dug and ate the roots in the twentieth century.

Charles Lanman's summer in Minnesota coincided with Lamare-Picquot's first visit. He admired the Frenchman's collections, especially the reptiles embalmed in spirit. Lanman wrote in a romantic way to glamorize vistas of the wilderness, much to the admiration of Washington Irving. Along the Mississippi, passing the mouth of the St. Croix and going to that of the Minnesota, he selected three scenes that were memorable. One was that of a black bear eating a deer, then the rolling prairie with grouse and "robber wolf," and Fort Snelling itself picturesque on the top of the cliff.

He went from St. Anthony Falls to Crow Wing on horseback over prairies alive with grouse. He shot 50 birds by sunset without a dog to point, but having a well trained horse. He found fishing by spear and torch exciting. He caught a 50 pound muskelunge and a 24 pound pike. At Leech Lake there were loons, swans, cranes, and pigeons.

Sir Frederick Ulric Graham was winding up a great hunting trip in the Far West when he came to Pembina in October 1847. He was going through Minnesota on the last part and could enjoy every phase without responsibilities of a job, unlike many of the earlier explorers. He followed the Red River Trail south on horseback and went east to the Crow Wing River, the northern route among the Red River trails. His horses were weak and had sore backs, so he bought a canoe from a white trader. He thoroughly enjoyed the trip down the Crow Wing and the Mississippi to Fort Snelling.

"The river was full of ducks and geese so I dawdled along the stream now shooting down a succession of rapids, then paddling lazily through the long flats of water ... and landing every now and then to have a stalk at the innumerable flocks of wild-fowl congregated along the shore."

He had three Chippewa companion guides; one left as they approached the area where Sioux might be encountered.

This Englishman with his sportsman's enthusiasm was a curiosity to the Maine lumbermen clustered about St. Anthony Falls. He showed off his light canoe, his skill in cooking a goose and two ducks, and making tea over an open fire. Graham quoted one onlooker in his diary: "I should somehow like to join your company, if it warn't for them darned Injuns and buffaloes and sich like!"

David Dale Owen worked on a geological survey of Wisconsin, Iowa, and Minnesota in 1848-49 and his report was published in Philadelphia in 1852. He went up the Mississippi to Crow Wing and then northwest. At Otter Tail Lake, he saw a few elk, large yellow wolves, and sign of buffalo. He predicted that the wild rice at Lake Winnebigoishish would always attract waterfowl and could yield enough for bread stuff. The party visited Pembina and followed the border trail to Lake Superior.

Louis Agassiz's trip to 1848 to Lake Superior from Harvard University, bringing other scientists, was one of the early expeditions in that area with its major goal science and natural history. Agassiz studied the water levels on the north shore. J. Elliot Cabot was interested in birds, John Lawrence Le Conte was back for his third period of collecting in the area, so he was no longer the novice at wilderness outfitting he had been on the canoe trip four years earlier. He was even more dedicated in his pursuit of entomology. They left Boston on June 15 and came by way of Mackinac, where they prepared for the trip to the interior.

They bought a large Mackinac boat for \$80.00 to use for bulky luggage and the specimens collected. They also had two canoes 24 feet long. On one of these, they attached a frying pan for a figurehead. This was a valuable utensil, for "little can be eaten raw." Camping equipment included mosquito veils, camphorated oil for black flies, and buffalo robes for beds. Afterwards, they thought a blowup mattress of India rubber would have been a good thing "because of the large angular stones on the beaches." They used a sheet of India rubber for a sail on their canoe on Lake Superior.

For wilderness food, the Agassiz party recommended a good supply of wild rice and maple sugar. "The sugar is as good as any. One's taste becomes unsophisticated in the woods.... The rice must be boiled in a bag, and not loose in the camp-kettle as the professor's man did it one day, when it came out in the shape of mutton broth without the mutton."

The narrative noted the scarcity of birds and quadrupeds about the lake but credited that to the period, late July, when many had migrated farther north or were incubating. Even so, more were seen at Sault Sainte Marie than in Massachusetts at the same time. As the travelers approached Indian camps and trading posts, they saw a greater number of birds, even though Indians killed many of the smaller species. "The neighborhood of man is in some way attractive to birds—partly due to the freedom from beasts and birds of prey."

Around Fort William on July 21, they saw Passenger Pigeons, crossbills, and ravens. In the swamps were partridges. They noticed an old marten trap. By August 23, they were back in Toronto by gaslight time. The return to civilization was disappointing. "We found nobody awake but a train of geese who were solemnly waddling across the street. We went to the Wellington Hotel, a very dirty place."

Captain John Pope and his soldiers exploring Minnesota Territory in June 1849 had a tough military march on the way to northwestern Minnesota. They left Fort Snelling, fol-

lowing the middle trail of the Red River carts, which was by this time fairly well marked. It followed the Mississippi to Sauk Rapids, then west to the Red River and on north. It took the men five weeks to go 140 miles, measuring by an odometer attached to a wagon wheel. Their progress was slow with heavy wagons that bogged down in the muddy marshes. Friendly and curious Chippewa along the way kept pace with them on foot.

Pope contrasted his own cumbersome equipment with the Pembina hunters and 800 or so of the two-wheeled carts they met on a buffalo hunt. "They can march farther and with far less baggage and supplies than any people I have ever seen." He heard that immense herds of buffalo were seen winter and summer along the Red River. In the neighborhood of Pembina, elk, antelope, moose and waterfowl were found. Furbearers included beaver, marten, otter, wolves, and foxes.

Major Samuel Woods, another officer who also wrote a report, killed a moulting swan in the lake area before they reached the Red River and injured his foot hunting buffalo. The buffalo added excitement, but the mosquitoes in June were bad. He checked Long's marker on the 49th parallel put up in 1823 and found that it had almost rotted away.

Pope felt it inappropriate in an official army report to expand much on the beauty of both the forest and lake area and the prairie in June, but he appreciated it so much he chose to use a canoe for the return trip and send the soldiers back under other leadership. He rode in one of the 33-foot birch-bark canoes in a party of 11 voyageurs and one soldier who asked to join this small party. From the Red River, they ascended the Otter Tail, a tributary, then portaged to the Leaf on the other side of the height of land and down the Mississippi. They took a supply of pemmican for 30 days.

Ascending the Otter Tail, "we found immense quantities of wild fowl ... so little accustomed to the presence of human beings we had not the slightest difficulty from our canoes in killing as many as we could possibly use." The elk were also numerous along the wooded bank. The beautiful scenes around Otter Tail Lake with wild rice and maple trees in abundance were part of the setting they enjoyed.

By taking a canoe instead of marching with the army, Pope felt he was seeing an area new to white man. He studied the beaver dams and measured the portages, taking two hours to get from the Otter Tail to the Leaf, thus passing from the Red River drainage to the Mississippi. Since the two are so close, at many points, he guessed they might have found a series of shorter portages. The canoe trip took from August 26 to September 27 to reach Fort Snelling.

Frank Mayer, a Baltimore artist, sketching the activities of the Indians at the Treaty of Traverse des Sioux in 1851 watched the Sioux hunters leaving for the summer deer hunt wearing capes or capuchins on their heads, introduced by the French Canadians for mos-

quito protection. The mosquito he termed the "Minnesota minstrel." He slept in Governor Ramsey's tent with a buffalo robe and his great coat beneath him.

He heard that one must go 60 or 100 miles west to find buffalo, and he was impressed with the Sioux dependence upon them. Their hides were tanned like buckskin and sewed together for winter tipis. Inside these homes, their robes and furs kept the Indians warm.

Governor Isaac Stevens of Washington Territory led a group from Fort Snelling west for the Pacific Railroad Survey in June 1853, following the same route Pope had taken in 1849. He had a military escort, astronomers, a surgeon and naturalist, and many trained people. His trip in June through Minnesota is a bit disappointing, however, for wildlife reports, not as detailed as many other survey reports of the period. His group did not come back, but went on west to meet another party coming east. They saw a Trumpeter Swan nesting at Pike Lake, killed a couple Sandhill Cranes and ducks to eat at Elbow Lake, and had some good dinners of game and fish before they got to the Red River and North Dakota. The birds cooked "hunter's style on sticks" over the fire were not ready until midnight. They liked cooking fish in coals by wrapping them in brown paper which took off the scales.

Johann Kohl, a German who described his *Wanderings Round Lake Superior* in the summer of 1855, had his account of his observations published in Bremen in 1859 and then in London in 1860. He wanted to learn about wildlife. He heard that the loon lived in a community with muskrats, like the owl and the prairie dog. Loons were said to nest on muskrat houses, but he couldn't verify that report. He heard that Canadian boatmen imitating the bird's call enticed it near them.

Kohl was interested in stories about early migrations of bear. One such movement across the St. Croix, he believed occurred about 1811. Bearskins were "as cheap as calico." The common practice of the Indians hunting deer at night with torches on the streams was successful because the animals came to the water to escape mosquitoes.

Canadian scientists were as curious about the potential resources of the interior as Agassiz and David Dale Owen a decade earlier. Henry Yule Hind, a geologist and naturalist from Trinity College, Toronto, spent the summers of 1857 and 1858 along the Minnesota border, at Pembina and in Canada. He was enthusiastic about the agricultural possibilities and thought the Hudson's Bay Company might be circulating rumors about the late springs and the early frosts to discourage immigration.

Hind followed the Red River Trail south to St. Paul in the fall of 1857. He saw many prairie hens, pelicans, and geese flying north. An October snowstorm added to the difficulties. He considered the terrain as they crossed the height of land from the Otter Tail to Leaf River and the Mississippi and concluded that under flood conditions, a traveler could paddle across without portage.

The crossing point of the divide between Lakes Traverse and Big Stone on the Red River-Minnesota River route was part of a beaten path from ancient times, and the exact spot was marked by buffalo skulls so the traveler could stop and smoke a pipe upon reaching it. One Red River colonist philosophized:

"Should I gain nothing else by traveling, I have gained at least this much, viz, that I have had the pleasure of seeing water running to(ward) both poles.... Thus, said I, should Newton never have been born, I could at least have known that this our world was not as flat as a pancake."

The *Ibis* in London in 1863 published the Minnesota observations of Captain Thomas W. Blakiston, a British naturalist who made field trips to such distant parts of the world as the interior of British North America and China. In 1857-58, he was collecting birds around Fort Carlton on the Saskatchewan River in Canada. He saw Passenger Pigeons and killed a Trumpeter Swan. On one of his daily bird walks, he startled a large light-colored owl, but missed his shot. "Having the buffalo-leather cover on my fowling-piece as is the usual custom of the Indian country, I was not ready for him when he rose."

He dipped down into the new state of Minnesota in early May 1859 for a little birding below the 49th parallel. He saw many vultures. He heard a Whip-poor-will. He found the wilderness a special thrill in that season, for "the spring flight was a delight." He identified Sprague's Pipit, a bird characteristic of the Red River valley and one with a spectacular flight song like the skylark's in his native England.

More people than ever went through the Red River valley in that same year, for the stage-coach opened a route from St. Cloud through Alexandria to Breckenridge. It ran on a very rough road and the meals at shanties consisted of salt pork and raw bread with potatoes. By way of compensation, the drivers routinely stopped for a round of shooting if the passengers included sportsmen. One rider described the inside of the stage resembling "a poulterer's shop on the last Saturday before Christmas." Pelican Lake was white with the birds for which it was named. They looked like whitecaps from a distance.

Samuel Scudder was with a party going north of Winnipeg in 1860 to see the eclipse. His return trip through Minnesota took him up the Red River by boat. He learned how to prepare pemmican, boiled in water and fried with salt pork. It was served with a bit of broken biscuit. If it was necessary to eat in a canoe, the pemmican could be eaten raw, chopped out of a bag with a hatchet and accompanied with a biscuit known as "Red River granite." For serving the latter, a geologist's hammer was helpful.

This group saw little game in the prairie—more when they reached the wooded area on the way to Crow Wing. They listed one bear, one deer, a few dozen prairie-chickens, ducks, plover, and Sandhill Cranes.

Scudder aroused the anger of the master of the train, who had to rescue the luggage when an accident submerged it while ferrying across the Crow Wing at the Mississippi. Scudder bemoaned the loss of some buffalo bones he had collected, which were floating down stream while the train leader was trying to rescue valuable furs.

Henry David Thoreau was ailing when he traveled through Minnesota in May and June 1861. His family sent his young nephew, Horace Mann, Jr., along to help him on the trip. Both kept interesting though sketchy records. From their Mississippi steamer, they saw a Sioux encampment being Wabasha and soon after that loons along the water.

They found the Rose-breasted Grosbeak abundant in woods near Minnehaha Falls and around the fort. They stayed for a while at the Widow Hamilton's boarding house on Lake Calhoun, then four miles southwest of Minneapolis. Her husband had preempted the great meadow seven years before. Here they heard the call of the loon and were told it nested on muskrat houses. They did not say they saw a nest so it cannot be counted as a nesting record. June is too late for migration, however, and loon nests were reported near Minneapolis in May 1879 and in August 1922. When the loon was officially designated as the Minnesota state bird in 1961, Walter Breckenridge said it was "the essence of the wilderness." By that time, it was associated only with the northern Minnesota wilderness, but when Thoreau was listening to its call, Minneapolis was on the edge of the wilderness.

Thoreau noticed weeds and nettles about the ice house. The young bird from a Passenger Pigeon's nest caught his eye and the old bird fluttered as if wounded two or three times before going off in the shrubs. Pigeons were near both Calhoun and Lake of the Isles.

Mann added details:

"The house is surrounded by very thick woods full of great big mosquitoes so when you walk in them near nightfall they swarm around you in such a cloud that you can hardly see through them. There are also a great many pigeons in the wood back of the house, (though I should hardly know them from a mosquito here by size) which are breeding, and I found the nest of one this afternoon which had but one egg in it which I took."

Mann collected birds and mammals with a gun that hurt his shoulder with every shot, preserved them in a five gallon keg of alcohol, which he kept in a drug store. He instructed his mother to see that the bung was removed and alcohol content checked when the keg arrived back home, to await his return. Along the Minnesota River, they saw many birds familiar to them in Concord. Fifteen miles below Mankato, they noted a Maryland yellowthroat.

Later, going down the Mississippi, they botanized around Barn Bluff at Red Wing. Mann recommended that his mother turn to page 46 of David Dale Owen's Geological Survey

of Wisconsin, Iowa, and Minnesota to see a picture of their whereabouts. They had heard that six or seven years earlier, one could have killed 100 rattlesnakes a day in that area, they were so thick on the hillside.

When viscount W.F. Milton and W.B. Cheadle left Liverpool, England, on June 19, 1862, for a trip to Minnesota and Manitoba, the U.S. was torn with Civil War. Robert E. Lee was leading a spectacular resistance and Lincoln had not yet found a general to match him. In the confusion in Washington, supplies for the Sioux in Minnesota were neglected. Money and provisions promised for June never arrived. All summer, the Sioux gathered and threatened. Little Crow warned the Indian agent of their hunger. One of the white traders reputedly answered: "If they are hungry, let them eat grass."

Rumors of Indian unrest were circulating, but Milton and Cheadle went calmly on with their plans, and solving such serious problems as finding a retriever to help with their hunting. Their route took them by rail from Quebec to Chicago and La Crosse. There they took a steamboat to St. Paul and were often aground on sandbars. They continued by stage-coach along the Red River trail to Sauk Centre, where they had an hour of hunting before sundown.

Though they shot several ducks, they couldn't retrieve them without a dog because they hated to strip and enter the water and expose themselves to the mosquitoes. They bargained with their host for his dog, one that was the size of a beagle and resembled a black and tan terrier. He helped them secure the major part of their food all the way to Canada. They reached the Red River by July 18. They had admired the cattle feeding on grassy pastures along the way, as good as "stall fed cattle of the Baker Street Show." At Georgetown, the depot on the Red River for changing from stage to boat, they found the steamer not due for a week. They decided to patch up two leaky canoes and proceed north. They caught many young geese unable to fly. Often geese and ducks were their whole meal. They sought the shade on the river's edge whenever possible and there saw woodpeckers, orioles, and hawks. They heard the call of the loon on nearby lakes and that of the Whip-poor-will. They shot a Passenger Pigeon. All these adventures were described in a co-authored London publication in 1865 which was reprinted in Toronto in 1970. Cheadle's own journal was published in 1862 and reprinted in Edmonton in 1971.

Milton and Cheadle had barely completed this delightful expedition when the young Sioux warriors overrode Little Crow's counsel and went on the warpath in southern Minnesota. The first person killed by the hungry Indians was the callous trader whose mouth they stuffed with grass. The whole state was thrown into panic, and travel on the frontier became a less inviting holiday.

Part II. Impact of White Settlement on the Wilderness

1860–1890

During the early decades of statehood, the fate of Minnesota's wildlife was balanced on delicate scales. On one side were the trappers, meat hunters, and market hunters. Some of these believed the abundance of game was so great, nature would always provide. Others thought the supply would disappear with the advance of the settlers, and the first ones should reap the profits. In either case, they trapped and killed as much as they could.

On the other side were the scientists, scholars, and naturalists surveying the resources, determining what life did exist, and recording the effect of farming, lumbering, and road and railroad building. They were joined on many occasions by sportsmen, hunters and fishermen from many professions. These men found recreation seeking game and fish and escaping from city life either to the primitive wilderness in the north or the picturesque rural landscape in the south and west.

The quick jump from territorial status in 1849 to statehood in 1858 depended on the coming of white settlers, most of whom arrived by steamboat. The substantial homes built in St. Paul and the new little towns on the Minnesota River meant a big change in the human machinery controlling wildlife. Sibley became the first state governor and moved from his big stone house in Mendota to St. Paul.

When Mendota and Fort Snelling had ruled Minnesota, Pig's Eye was the place where squatters lived and where a simple chapel was built in honor of St. Paul. But roles changed so that St. Paul was flourishing as the capital, and Mendota became a relic of the past. The army had felt for some time it needed outposts farther west than Fort Snelling. Pope's trip in 1849 and Stevens' in 1853 were part of that reconnaissance. Fort Ripley on the Mississippi opened in 1849 (north of Little Falls). Fort Ridgely was constructed on the Minnesota (northwest of New Ulm) in 1853. Fort Abercrombie on the Red River (north of Breckenridge) was new in 1857. That same year, the reservation at Fort Snelling was sold to Sibley's brother-in-law. He raised sheep and herded them inside the walls at night.

A. The Commercial Exploitation of Wildlife

Sibley closed out his interests in the fur trade in 1853, just as a German immigrant, Joseph Ullmann, started a new fur company. This set up the system for the continuation of the fur trade, with white immigrants doing most of the hunting and trapping, and companies like that founded by Ullmann and Isidore Rose finishing and marketing the crop.

Ullmann came to America from Alsace in 1852 at the age of 26. He engaged in the wholesale wine and liquor business in New Orleans, sold these articles in frontier sections of Kentucky and Indiana, then moved to St. Paul in 1854. There he traded in general wares including coffee, sugar, tea, clothing, and liquor. He received parcels of mink, marten, skunk, and muskrat for these goods. In 1855, Isidore Rose, a German only two years in

St. Paul, joined the company. By 1856, they had a turnover in raw furs over \$300,000.00. Ullmann was only 30 and Rose 24. In 1866, Rose took over the management of the St. Paul office and warehouse and Ullmann moved to Chicago. In 1868, he went to London. In 1875, he made Leipzig his home and the central office of the firm.

A Paris branch was opened in 1898. By 1900, they had outposts in China, Australia, Newfoundland, Alberta, and British Columbia. Parisian customers in the twentieth century included C. Chanel, Jean Patou, and Paquin. In spite of all these impressive connections, the St. Paul business was conducted in a humble day-to-day exchange of goods for furs, the same kind of barter that the Indians and white traders had known.

Nearby white trappers and Indians brought their furs directly to the St. Paul office. Buyers traveled around to the new towns collecting furs. In early December, 1863, Ullmann's agent purchased furs valued at \$1,200.00 from a store in St. Peter. Among the supplies furnished the store were 60 pair of copper toes for boots at 50¢ each, 12 pair of boys' boots at \$1.55, 50 pair men's shoes at \$1.60, and 12 pair grain boots at \$3.50 each. Frequent items used to barter for furs in the 1860s were socks, flannel shirts, coats, and blankets.

As the railroad network grew, buyers sometimes went by rail to reach the supply of furs, and often by team, bringing back the furs and deerskins in wagons. The company owned a boat on the St. Croix River which was used to collect furs until after 1900. Sometimes the buyer dealt with a small town merchant who had extended credit to a trapper or outfitted him. Ullmann bought traps too from the east, using the Newhouse steel trap invented in 1823 and in mid-century produced by the Oneida Community in upstate New York, which Samuel Newhouse had joined.

Deerskins were often mentioned in Ullmann's cargo records in the 1860s. A shipment of 29 bales went on the steamer, the Milwaukee, on May 2, 1864. Six bales went out on May 29, 1865, 13 more on July 11, and 1 bale of elkskins. On the Phil Sheridan March 4, 1866, were 20 bales of deerskins. On June 28, four more bales followed on the Addie Johnston. Some of the shipping records for these years were signed by James J. Hill, then a young clerk employed by the steamship companies.

A minor item of trade occurring in the 1870s was "swanskin." Ullmann bought one swan in 1870 at 50¢. He sold seven to the St. Paul furrier, Ernst Albrecht, in 1873. The finished product was used for trimming and sold by that firm at 50¢ a yard. It is mentioned again several times later in that decade. It had long been popular. Even in the early period, an inventory of Jean Baptiste Faribault from 1836 listed 80 swanskins. Cranes' wings if in good condition were worth 25¢ in 1875.

Ullmann's biggest trade item in furs within the state was the muskrat. Packs of this fur were protected by wrapping in deerskin. In 1870, over 800,000 muskrats were sent down river. The numbers on the list tapered to 600 of marten and 39 of wolverine. Rhoda Gilman,

studying the Minnesota fur trade, estimates that Ullmann shipped three times the number of pelts and skins in 1870 that Sibley had in 1836. Though the area of collection was not just the same since Rose bought furs in Canada, he also had several competitors in the fur business in Minneapolis and St. Paul, while Sibley's company had been a monopoly. The sons and grandsons of Isidore Rose continued the business, finally dissolving the company in 1957. The invaluable records of their many years of business were deposited in the archives of the Minnesota Historical Society.

The continuation of the fur trade in Minnesota after settlement clearly depended on the muskrat. Jane Gray Swisshelm, pioneer newspaper woman, praised Mrs. Alexander Ramsey for wearing a muskrat coat "in accordance with our limited state resources." Local newspapers throughout the years from 1858 to 1890 ran articles on the success and value of trapping by the new settlers. Trappers around Albert Lea and Mankato had a brisk trade in furs in 1860. Those around Glencoe were "in clover" till forced to quit by the warm weather in 1861. The take was good in Chatfield in November 1861. Furs were never so plentiful in Glencoe in 1863. A Mankato editor believed in 1869: "Many a frontier man makes the fur harvest more valuable than his neighbor's wheat harvest." In Alexandria "the Scandinavians are nearly all trapping and have been very successful."

In Litchfield in December, "every able-bodied man in the place owns a rat spear and those who rarely do so at other times are practicing the industry with commendable assiduity" because the swales and sloughs were filled with muskrats. The season in 1875-76 was poor but most reports were favorable throughout the 1880s. This was all winter work, a chance for extra income to supplement that gained from farming in summer.

The letters back to the State of Maine by one young trapper gave a picture of the low income for the professional trapper. Rufus Philbrook arrived in Minnesota October 25, 1863, with a chest weighing 240 pounds containing guns and traps, seven of the latter for bear. He had experience in Maine and New Brunswick and was eager to try his luck in this new wilderness. He went to Princeton and the Rum River, where he saw 50 Indians who lived by hunting. Muskrats were everywhere, a few mink and deer.

In February 1864, he had 39 mink, 3 rats, 1 otter, and 3 deer from the Rum River and he made \$200.00. Then he crossed over to the Snake, the tributary of the St. Croix on which Sayer had his post 60 years earlier. He got six sable (pine marten), four mink, and two fisher. In January 1865, he wrote of his discouragement in hunting and trapping as a profession. He had only \$160.00 for his efforts. Wandering Indians stole some of his traps. He was living on partridge, ducks, and rabbits. He tried to spring hunt in 1865 toward Lake Superior. He took his traps along in case it looked good to set up a line. This was his fourth trapping effort. He was worried about the Chippewa disturbing his sets. He realized \$25.00 a month when he could have made \$40.00 working in the woods. His last report was based on efforts around Duluth in 1866. He concluded: "I come home discouraged about ever getting rich hunting."

A gap in his letters followed till he picked up the correspondence in 1887. By this time, he was married, farming, and living in north-east Minneapolis. He still had his traps and guns as reminders of his youthful adventures.

The Indians were bringing in furs in St. Paul, too. The paper there noted in December 1859 that furs were arriving from the headwaters of the Minnesota and the Mississippi taken by Indians "who yet linger in their old haunts." After the outbreak in 1862, the Sioux were sent west to South Dakota reservations with the exception of a few friendly Christian ones. Several of these appeared on the streets of St. Paul in March 1863, peddling furs. One of them was a well known figure: "Old Bets, the venerable antediluvian, was in town yesterday with quite a number of her interesting sisterhood. They had quantities of furs to sell."

She was noted for her friendliness to the white settlers. She was born around 1798 near the mouth of the Minnesota long before Mendota was settled. Her whole life had been spent in that area. Her Sioux name meant "Berry Picker." She and her son opposed the outbreak and negotiated with the Indians for the rescue of the white hostages. During the removal of the Sioux, Bishop Whipple arranged for her to live near his headquarters in Faribault, but she longed for Mendota where she could make begging trips to Minneapolis and St. Paul. James Goodhue, the editor of the *Pioneer*, said of her: "She steals more and works more than anyone else of the tribe."

Old Bets was photographed hundreds of times. Her picture was reproduced on the customary 2½ inch by 3½ inch *carte de visite* of the period. Thousands were sold to tourists and saved in albums. She died in Mendota in 1873.

Another *carte de visite* from the same period preserved at the Minnesota Historical Society is that of a lynx shot in Kandiyohi County around 1860. The animal is often confused with the bobcat, but has larger feet, tufted ears, and the tail tipped wholly black. It was never common in Minnesota and perhaps for this reason was selected for the photograph to be reproduced and sold. Such cards were collected as souvenirs like stereopticon views somewhat later. The lynx and bobcat eat rabbits, hares, and small mammals and both were found in the timbered country. The bobcat is more common today and the lynx very rare, becoming cyclically abundant once every 10 years.

During Sibley's first year as governor in 1858, a game law was passed, establishing a hunting season on white-tailed deer from September 1 to February 1, and on prairie-chicken, grouse, and quail from July 15 to February 15. This was designed to give protection during the breeding season, not only because of scarcity, but because Sibley stressed that meat must not be wasted, and deer shot in summer often were.

The abundance of food provided by nature was part of the rosy picture emphasized to encourage settlement. Just as the results of the trapline could be bartered for shoes or blankets, the grocery bill was reduced by venison, fish, and birds. A meat hunter in the fam-

ily, husband or son, was a necessity unless the cook took on this task herself. Jane DeBow Gibbs, whose home at 2097 Larpeur West is now a farm house museum representing the 1850s, was one who did. She provided prairie-chicken, quail, ducks, and geese for her own table.

It was easy for her. She liked to shoot and the farm was on an old Indian trail leading from Lake Harriet to the marshes near White Bear Lake. She was no novice to wilderness life. She had been kidnapped as a child in Batavia, New York, in 1835 by a missionary going west and brought to Mackinac in a covered wagon. The family then went by boat to Prairie du Chien and up to St. Paul to live near Lake Harriet. She learned Sioux as a child and was given the name "Little Bird That was Caught." The family, discouraged with missionary efforts, went down the Mississippi to Illinois. Later she returned as a young bride to live on the farm near St. Paul. The house, expanded as the family grew, stayed in the Gibbs family possession until 1941, a historic treasure and symbol of the life style of the frontier family like Sibley's Mendota home.

The number of farms like that of the Gibbs took a sudden spurt in the period after the Civil War. This was directly related to the development of more reliable methods of transportation to markets. The steamboat did help bring in settlers and carry out furs, but it was far from reliable. There was no real schedule to Mendota until the 1840s. In 1847, four or five boats ran between Prairie du Chien and Mendota and a weekly boat from Galena, Illinois. In 1852, there were daily lines (maybe) from Prairie du Chien to St. Paul. The Minnesota River ones that Thoreau took could be matched in speed part of the way by people walking on the bank. Keelboats were poled frequently from Traverse des Sioux on up.

The Red River steamboats were even more of a gamble. Eventually, as the rails were laid northwest, the carts met the railroad at the end of track, Willmar in 1869, Breckenridge in 1871. When the railroad ran through Moorhead in 1872, the two-wheeled Red River carts going to St. Paul on their old trails disappeared. Kittson went back to the Red River in the 1860s to run the steamboats and James J. Hill was his agent to ship goods and furs in St. Paul. A new era was opening.

William Watts Folwell, the new president of the little university in Minneapolis watched this railroad network expand and believed this the remarkable phenomenon of the 1870s. In 1870, when the rails reached the new town of Duluth, most of the counties north of a line extending from Duluth west were either not surveyed at all or only by townships. They were still wilderness, accessible only in the ways the explorers and traders had used in the early 1800s. In 1875, with a railroad from Moorhead to Duluth and a network in the southern part of the state, the area south of that rail line was peppered with settlements of 100 people or more.

The cultivated area in the state was around 600,000 acres in 1865, 1,800,000 in 1870, and almost 3,000,000 in 1875. These people, the railroads, the big wheat farms, and the other

industries like the flour mills, all profoundly affected the wildlife of the state. The transition from "meat" hunters to market hunters was sometimes a quick one. One target for the latter in the 1870s and 1880s was the small bird easily taken, requiring no great skill as a hunter. The shorebirds, songbirds, the Passenger Pigeons, were among these.

It was not always necessary to be a good shot to collect food. Many of these birds were garnered by snares, nets, or decoys of several types. The French-Canadians who settled in Faribault commonly used decoys or snares for taking fish, songbirds, and shorebirds. Some decoys were modeled after old Indian patterns. They took meadowlarks, Bobolinks, thrushes, and flickers. Meadowlarks were brought in by a special decoy. Mirrors were attached to a ball, then this was fastened to a stick and twirled. Young crows were attracted by raising crow decoys lashed on long poles to the side of the nest.

George Leonard Herter, Waseca, Minnesota, heard many stories of these techniques from his father, Edward Otto Herter, who lived in Faribault in the 1880s and later in Waseca, a town whose name meant "good hunting." Ed Herter began carving decoys of white cedar in Faribault when he was 11 years old. He enjoyed this hobby, made squirrels, crows, and shorebirds. He also fashioned many wooden fishing plugs based on Indian bone fish decoys he had seen. George Herter's maternal grandfather, John McLin, came to Minnesota after serving as a captain in the Confederate army. He was skilled in wood work. He built bridges and churches, and made wooden duck decoys widely used in Minnesota. Herter was told they were used as models for the famous decoy factory, Mason's in Detroit. This company supplied hunters from the late 1890s until selling out in 1926. Today antique reproductions of Mason's decoys are sold in gift shops along with crates stamped with a decoy label. Herter's grandmother, Mrs. McLin, used Passenger Pigeon decoys placed on low branches to attract these birds for capture. They were commonly caught in nets when bait and live decoys were used.

The appearance of the Passenger Pigeon in May 1858 in the Rochester area brought visions of pot pies. A large concentration of nests in the Big Woods 10 miles from town was as early as March the next year. Will Mayo recalled to his friend, Thomas S. Roberts, the experience of squab collecting in his childhood. From 1853 to 1883, large concentrations of birds were reported in 27 points in Minnesota and large nesting colonies in 12 areas.

Most of the big nesting colonies were in the southern part of the state. Rochester had one in 1858, 1869, and 1873. Mankato was favored in 1860, 1861, and 1862. Hastings had three big nestings—1861, 1862, and 1864. Chatfield had the best record, 1863, 1864, 1865, 1871 and 1875. Single colonies were in St. Charles, Winona County in 1864, Wabasha in 1871, and Faribault in 1877. A few records farther north were unusual. There were two in Stearns County in the 1860s, one in Moorhead in 1873, another in Pillsbury in 1882, and several in Stearns County in the 1860s.

The Minnesota colonies never ranked in size with the enormous ones in Kilbourne City, Wisconsin in 1871, or Petoskey, Michigan, in 1878. Still, they were so large that those enjoying the pot pies or watching the market hunters could not conceive that the bird could disappear. The bounty of nature was an occasion for joyous revelry. One squabber climbing a tree in Chatfield in 1864 tore his trousers so badly he descended with embarrassment. In June the next year, he was the hero of the fun and the band played Yankee Doodle as he repeated his high climb, this time with more dignity. The thousand squabs were eaten or carried off by residents or visitors from neighboring towns.

A.W. Schorger studied pigeon roosts in Wisconsin and its bordering states and offered an explanation for the birds' preference for Minnesota and Wisconsin in the odd years while nesting in Michigan and farther east in even ones. He considered the food supply in the range which had beech trees preferable in even years in that decade, for the beech produced a bigger crop of nuts in the odd years and these were available the next spring. In Minnesota and much of Wisconsin which had no beech they lived on oak mast.

Harvesting a wild crop that nature provided in such abundance was done with such joy that any worry about the future was brushed aside. Minnesota did protect the pigeon in 1877 in Olmsted and Dodge Counties. The nesting around Pillsbury in Todd County in 1882 might have meant that the birds were just changing locality. It was in reality the last big roost in Minnesota. A single nest was reported in Minneapolis in 1895. The last surviving bird in the whole country died in a Cincinnati zoo in 1916.

Where so little was understood about the tremendous variation in wildlife needs, no one knew what to do during the crisis. Market hunting did not seem so disastrous to *all* species and people were accustomed to buying wildfowl and venison at the butcher shops. The pigeon typically nested in large, dense colonies, thus it was especially vulnerable. Railroad expansion and improvement in refrigeration after the Civil War made it easy to clean out the "roosts."

The market hunters pursued many kinds of game, supplying eastern markets with species that had become rare there. D.G. Elliot in an official report for the Department of Agriculture in 1865 noted that 20,000 Pinnated Grouse from the middlewest arrived in New York in the preceding year, some from Minnesota. They had disappeared in the east, but Iowa and Minnesota prairies had them in abundance. Litchfield, Minnesota, was proud of supplying New England with venison for the holiday season in 1872. A freight car from that city was expected to arrive in Boston in eight days loaded with 12,000 pounds of venison, 2,000 "Pheasants" (Ruffed Grouse) and 2 bear cubs. When the pigeon was wiped out, deer, waterfowl, and shorebirds found a ready sale.

David and James Kimball in *The Market Hunter* present the stories of several men earning their living in this field. The Dewey brothers near Fergus Falls became famous for their marksmanship developed in market hunting. Charles, the youngest of seven boys, was born

in 1880 and he joined the others as a child helping their father ship game to St. Paul. They had a big 16 pound, 8 gauge gun with a single 3 foot barrel. Five of the brothers shot from a boat, getting 365 ducks one morning. They won world records on their skill. They shot Eskimo Curlew, golden- and Upland plover, and prairie-chickens as well as geese and ducks. They sold deer and moose to the cooks at lumber camps.

The pattern of life for market hunters at Heron Lake in Jackson County as described by the Kimballs was trapping muskrats and carving decoys in winter, then spring hunting, a little farmwork like cutting hay in summer, then fall hunting and repeating the cycle. The market hunters like Abe Nelson or Tom Miller at Heron Lake used 60 or 70 decoys at one time, floating them away out in the lake. They had to get one duck for every two shells to make money. In this type of shooting, one man rarely got more than 100 ducks in a day, for his shoulder became sore and the black powder discharges caused a headache if the hunter worked at it too long. Many dropped to the ground or jumped aside to escape inhaling the fumes, and waited for the air to clear.

B. The Sportsmen and the Naturalists

While Minnesota settlers were enjoying the wildlife and market hunters were shipping it to New York, eastern hunters were invading the state to participate in the harvest. An article in *Scribner's Monthly*, October 1879, gave widespread publicity to the sport that awaited them. Charles A. Zimmerman, the author, had come to St. Paul as a child in 1856. He began working for a photographer and daguerrotypist the next year when he was 13. He fought in the Civil War, and returned to buy out his employer. He owned the large photographic store in St. Paul till his death in 1910. In 1929, it was bought by Eastman.

Zimmerman's hobby was hunting. His writing of his adventures was vivid. The illustrations, developed by an artist, may have been based on photographs. In the *Scribner's* article he described his outing in Meeker County. He and his companions bagged 31 geese, 14 Pinnated Grouse, 17 Canvasback, 28 Wilson's Snipe and plover, and 110 Mallards and other ducks. He himself was responsible for five Sandhill Cranes which he lured to his gun range by three cardboard silhouette decoys he had cut out and painted light gray.

The men also went to Kandiyohi County where the shooting for Canada Geese was especially easy. The grasshopper invasion had been so bad, many farmers didn't even harvest their fields and the geese were undisturbed to feed on these. Zimmerman believed Sibley had once hunted in that area and collected the Canvasback there, which he sent east as proof of that species' occurrence in Minnesota.

A more comprehensive coverage of hunting opportunities in Minnesota as well as the whole country was Charles Hallock's *Sportsman's Gazetteer and General Guide* published by *Forest and Stream* in 1879. It contained "copious instructions in shooting, fishing, taxidermy and woodcraft."

Hallock's love for hunting and fishing dominated his adult life. He lived and worked in the New York area, but hunted everywhere in America and Canada. He followed one of the Red River trails through Minnesota in 1858 when he was 24. One of the Indian ponies on this trip sank in a slough up to his neck. The men poured poor whiskey down his throat. He revived and got out, according to Hallock's account of this adventure in *Harper's*, June 1859. In 1873, he founded and edited *Forest and Stream* and on its pages published reports from contributors throughout the country. The *Gazetteer* summarized the information he had been accumulating, arranging it by counties.

Hallock's comments were enough to start any enthusiastic hunter or fisherman packing his bags. He recommended Carlton County near Duluth for bear, deer, Ruffed Grouse, pike, pickerel, and bass. Visitors must plan to camp, for there were no accommodations; Indian guides were available at \$2.00 to \$3.00 a day. Birch-bark canoes were for sale at \$5.00 to \$10.00. At Leech Lake, the muskrats were common, often large, and "vicious when wounded or cornered." The "swamp wolf" and "prairie wolf" were numerous. From 50 to 100 ducks were often bagged in a few hours.

In Crow Wing County, a favorite area of Hallock's, there were excellent hotels or outfitters for campers. "West from Brainerd to the Red River along the line of the Northern Pacific Railroad, the country grows more open and streams, lakes, marshes increase until you reach the wonderful Red River Flats. Here it is entirely within bounds to say ducks can be found by the million.... It is no uncommon thing to see a thousand at once from the car window. Passing on a hand-car between stations, with a good dog, one could make a big bag without leaving the track. At times Pinnated Grouse are almost as abundant."

The hand-car Hallock recommended was part of the system for checking and repairing tracks between the runs of regular trains. As a means of access for hunters to primitive areas, it was probably practical, for the railroad in the north country went through much area with poor or no roads. Fires were frequently started by flying sparks from the locomotives and this burning kept some areas along the lines in the forest open, thus attracting game.

Hallock warned that deer hunters near Long Prairie in Todd County should wear mocasins and leggings to avoid rustling the leaves which were thick on the ground. There the deer fed on acorns in the oak timber at night and hid in tamarack swamps in the day. Parker's Prairie in Otter Tail County had one disadvantage. It was far from the railroad and game could not be brought home. Giving it away was impossible, as the settler kills all he can eat from his dooryard. "So killing of game degenerates into needless butchery. As a place to break young dogs and spend a few days in luxurious idleness among the hospitable settlers at a moderate cost, we know not its equal in the state."

The settled counties in the south offered much sport too, comfortable farm house accommodations near Lake Pepin, or hotels at St. Peter and Litchfield. Game included grouse,

geese, duck, cranes, and plover. Even around Minneapolis, hunting was good. The chain of lakes, Harriet, Calhoun, Lake of the Isles, and Cedar, three miles from the city, was recommended. Steamers could be chartered for trips down the St. Croix for duck and goose shooting.

Hallock was so experienced a sportsman, he fully understood the value of a variety in habitat for abundance in game—open spaces, woods near the prairie, conifers mixed with hardwood. This gave the animals choice of food and cover. Hallock's selection of a site in northwestern Minnesota in Kittson County for a sportsmen's colony was based on this. He felt it offered a greater variety in game than any other specific area in America. It had mule deer from the Red River and the Dakotas, white-tailed deer, moose, elk, caribou, Sharp-tailed and Pinnated grouse, and waterfowl in abundance. He founded the town of Hallock in 1879 and built a hotel for hunters the following year. Hunters posed with their game before this structure in 1889. In 1892, the building burned.

Hallock developed a sportsman's code in the 1870s, promoting ideas which were embodied in the game laws in later decades—no spring shooting of migratory birds, protection of native ones during the breeding season, etc. He prepared a paper on the wildlife near the town of Hallock for the Minnesota Academy of Natural Science Proceedings in 1881. He described the flyways of waterfowl in the fall, the birds coming from Hudson Bay, the Nelson River, and Lake Winnipeg, then *not* continuing on the Red River but going to Lake of the Woods where they divided, some taking the Mississippi south, others going east through Wisconsin, Ohio, and Virginia. He believed there were "five grand thoroughfares, the choicest that through Minnesota." Secretary for the organization where this paper was considered was Thomas S. Roberts, only 23 years old and equally absorbed in learning about Minnesota's wildlife.

While Roberts' interest and maturity developed in scientific study he watched and participated in the general movement of the period after 1860 which was the founding of sportsmen's clubs. These organizations united a core of interested people who exchanged tips on local wildlife and ideas for enjoying hunting. One formed in St. Paul in April 1861 met at the gun store of William Golcher. The trend was part of a national movement. The *St. Paul Pioneer* in 1861 recommended as models for Minnesota clubs "the Cincinnati Walton Club" and the "Chicago Audubon Club." This was 25 years before the Audubon Society initiated by George Bird Grinnell which is usually considered the first such organization. In later years, the Cuvier Club of Cincinnati was also praised.

Some of the members traveled together for outings. In 1881, "the whole management of the Northern Pacific Railroad" was obliging to the sporting fraternity. In 1899, the Great Northern and the Soo Line planned special prairie-chicken excursions.

Some clubs bought property, limited their membership, had club houses, and sponsored target practices and other events to encourage skills. The German immigrants were par-

ticularly delighted with a system in which the game belonged to the state. They were accustomed to the European arrangement, where it belonged to the wealthy landowners and hunting was restricted to permittees, usually the upper classes. A hunter's club near New Ulm named the acre plot purchased near the Cottonwood River "Jaeger's Ruh."

Clubs spread throughout the state. They existed at Lake Pepin, Faribault, and Waseca in the 1870s, at Lanesboro, Heron Lake, Fairmont and Eyota in the '80s, and Park Rapids, Breckenridge, Grand Rapids, Willmar, and Fergus Falls in the '90s. An attempt to coordinate their efforts in a statewide federation began in 1882. Some were open to anyone interested, others only by invitation.

Uri Lamprey, an enthusiastic St. Paul hunter, was president of the Forest and Lake Club in 1881. This group with 10 members paid \$75.00 each for a share in a hunting area near Forest Lake. Lamprey owned a farm in Washington County, touching several lakes and the passes between them provided top duck hunting.

The Island Pass Club in 1887 controlled lakes extending from Forest Lake in Washington County to Long Lake in Hennepin County and included a stream from Rice Lake flowing into the Mississippi at Fridley. The owners were men who had hunted there for 20 years. Among them were Horace Thompson, Reuben Warner, and W.S. Timberlake. The latter was on the Game and Fish Commission in the 1890s and they were all working for the abolition of spring shooting and market hunting, the two big drains on the migratory water fowl.

Horace Thompson really loved hunting, going to Georgia with Governor Merriam for quail shooting and keeping records of the bags on an area he owned, Willow Lake Farm, near Windom for the years 1886 to 1891. At this farm in September 1888, the bag included 62 ducks, 8 Pinnated Grouse, 2 Wilson's Snipe, 10 golden-plover, 12 yellowlegs, and 1 jack rabbit. Another day at Thompson's Point at Heron Lake the record showed 117 Canvasback and Redhead.

The Long Meadow Gun Club with its land on the Minnesota River bottoms furnished excellent duck hunting. The members had to replace the clubhouse burned in a fire in 1892. Members included E.L. Carpenter, Harry Legg, J.C. Joyslin, and T.S. Roberts. Members of the Interlachen Club went to Christine and Pelican Lakes in Grant County in 1893, where the club owned a shooting area. The professions represented in these sportsmen's groups showed a cross section—construction work, loans and investments, medicine, restaurant work and the sale of cigars and jewelry. Occasional criticism of such clubs giving privileges to the wealthy, overlooked the fact that the members maintained and controlled the hunting rules and protected their areas where they would otherwise have been destroyed, since the interest in government protection of such areas was far in the future.

Live pigeons were used for target practice in the 1870s. In Hastings in July 1882, the local committee brought in 300 wild pigeons from Kilbourne City, Wisconsin, just when a substitute came on the market. That same year, artificial targets called “‘clay pigeons’ ... not a good name for the flat saucers of unglazed clay” were recommended as the humane target used by the best classes of sportsmen. The Minneapolis Gun Club, started in 1875, had a spectacular hunting preserve on the Minnesota River bottoms near where Black Dog and his Sioux had hunted early in the century. The shoot sponsored by this club in 1896 was highly publicized. Spectators could reach the event by the Bloomington Avenue streetcar, and then by foot and cart. Mrs. W.P. Shattuck won honors, as she had in many similar tournaments around the state. She recommended trap practice before hunting in the field. Mrs. T.B. Walker was one of the prominent wives who enjoyed going with her husband on hunting trips. She and her husband hunted from an open wagon or a boat, but not on horseback.

Hunting acquired social prestige. James J. Hill in his mansion on Summit Avenue had a special set of dishes for game dinners. He had a herd of bison on his farm north of St. Paul. He was ranked as a staunch advocate of wildlife protection. In 1891, his two sons were arrested in Kittson County for shooting 110 prairie-chickens out of season. Local opinion supported a light sentence for the sons of the man who had built the Northern Pacific, but the *Minneapolis Journal* held: “The boys ought to have been held to the grand jury, and Jim Hill himself would have been the first to approve.... There is one thing that isn’t understood in some quarters, and that is that all game is the property of the state.”

The use of dogs in hunting was encouraged by the clubs too. National field trials were held at Sauk Centre in September 1879. Some early settlers scoffed at these “pop-in-jay affairs” and left after the first half day to return with wagonloads of ducks, chickens, and a few hawks and owls. But as the sport developed and recreation, not meat hunting, was the essential goal, good dogs, wooden decoys, and calling added to the excitement of the outings.

Many of these clubs eagerly accepted the advice of the federal government in the early 1880s to introduce German carp. This recommendation was based on the carp’s popularity in Europe for food. The release of carp at the mouth of the Sandusky River in Ohio in 1883 was hailed as the opening of the experiment. Unfortunately in the American situation the carp thrived beyond expectation and were not harvested closely enough to keep their numbers under control. Their populations, and the size of individual fish too, grew so large that they muddied the waters and destroyed favorite duck food. Already in 1896, the Long Meadow Gun Club reported damage to wild celery by the carp which had been introduced earlier.

By 1904, the Sandusky River planting was a matter of deep regret. Leon Cole, fishery expert and a later collaborator with Aldo Leopold on wildlife surveys, reported in a government bulletin: “Like the House Sparrow it (the carp) is here to stay. It cannot be extermi-

nated." Its destructive influence, combined with ill[®] advised drainage programs in western Minnesota, was one of the tragic developments that emerges in the twentieth century.

The American Ornithologists' Union

The American Ornithologists' Union was organized in 1883 in the American Museum of Natural History in New York. Among the founders were William Brewster of Cambridge and Elliot Coues of the Smithsonian. The immediate goals for the group were the study of bird migration, distribution, and economic importance. All three of these subjects, Herrick, Roberts, and their friends were curious about Minnesota.

Thomas Sadler Roberts

Among the naturalists who studied the wildlife of Minnesota in this period, Thomas S. Roberts stands out. Roberts' parents had moved to Minnesota in 1867 when he was nine. He learned to make his first birdskin in 1874. The James Ford Bell Museum today still has in its collection several skins of warblers from that year. One is a yellow-throat collected by Roberts in Minneapolis, one a Palm Warbler from William Brewster, Cambridge, Mass. Roberts and several friends organized their own "Young Naturalists' Society" in 1875. Clarence Herrick, one of the members, had an army Springfield rifle his father brought home from the Civil War. This was transformed into a muzzle-loading shotgun and used with a charge of black powder to collect birds. Herrick collected Le Conte's Sparrow in 1878. This was the bird named for the Le Conte who collected insects in Minnesota and visited Fort Snelling 30 years before.

In 1879, Roberts collected on Lake Superior and elsewhere for the Geological and Natural History Survey. He went to the University of Pennsylvania to study medicine from 1882 to 1885, then practiced in Minneapolis until well into the twentieth century. Along with his busy medical career, he was constantly in touch with all the new discoveries in Minnesota's natural history. During medical school days, he spent his summers surveying for the St. Paul, Minneapolis, and Manitoba Railroad, which became the Northern Pacific. All this time, he kept meticulous notes in his diary of his observations.

One vivid entry is that from western Minnesota in Grant County. Roberts wrote:

"June 9, 1879 on the low ground along the Mustinka River ... where we went to look for the site of the pelicanry of last year, there were a great many Marbled Godwits. They were continually hovering about the team, perfectly fearless and nearly deafening us with their loud, harsh cries—'go-wit, go-wit.'"

When the men got out of the wagons to search for their nests:

"The birds became fairly frantic until we were fain to stop our ears to shut out the din. Now and then the birds would all disappear and peace would ensue for a brief period, but they only returned to muster their forces anew, for shortly a great

company would bear down upon us, flying low over the prairie, and spread out in wide array, all the birds silent, until, when almost upon us, they swerved suddenly upward over our heads and broke out again in a wild discordant clamor. Once I counted fifty birds in one of these charging companies."

The only "bird book" which Roberts had was the Pacific Railroad Survey from the 1850s. He and his young friends speculated on the total number of bird species that would form the state's population. The Minnesota Geological and Natural History Survey founded in 1872 at Folwell's urging had guessed 500 in 1883. Roberts thought that far too large and suggested a possible 326. Today the count is 374. (In 2007, the count is 432.)

Ernest Thompson Seton

A newcomer to the middlewestern prairies contemporary with these men was Ernest Thompson Seton, who went on one of the new railroads through Minnesota to Manitoba in March 1882. He saw a wolf through the train window near Pembina and later sketched its silhouette along with that of the coyote and fox to help in identification.

Seton was born in England in 1860. Six years later his father moved the family including 12 sons to Canada where he hoped for the life of an English country gentleman with a castle on a lake. He brought a dozen different sporting guns. Life in Toronto was not as easy as he anticipated and the boys struggled to develop careers. Ernest was sent back to London to study art in 1879. In 1882, he headed for the prairie province of Manitoba to join a brother, by way of Minnesota. There he became fascinated with the wildlife and made that his profession.

He later explained the development of his technique in identifying birds and mammals by silhouette. The first ideas had occurred on tramps around Toronto. The study of the wolf seen near Pembina was the next step. In October 1897, he wrote an article for the *Auk* comparing the underside marks of 12 hawks and 6 owls. He referred to these ideas in *Bird Lore* in 1901 and *Two Little Savages* in 1903. Roger Tory Peterson admired the idea and the drawings in this book and made it standard treatment in his later guidebooks. Seton's observations in Manitoba for the late nineteenth century were particularly helpful for naturalists searching in similar habitat in Minnesota, especially since he deposited some finds in the Smithsonian. An example of his importance is the long search for a record of a nesting Connecticut Warbler. Seton found the nest of this bird in a Manitoba tamarack swamp in 1883. The first Minnesota nests were not found until June 1929.

Johan Hvoslef

While Seton was spotting wolves in northwestern Minnesota near Pembina, a Norwegian ornithologist and doctor was watching them in the southeastern part of the state. Johan Hvoslef, born in Oslo (then Christiania) in 1839 and educated in the Norwegian capital, came to America in 1872 when he was 33. He studied medicine at Rush College, Chicago, and practiced from 1876 until his death in 1920 in Lanesboro, Fillmore County. He kept

diaries for 54 years on his natural history observations—at first in Norwegian, then in English.

He noted the discovery of a wolf den with 10 pups on April 27, 1881. The fortunate individual near whose home the den was found received \$77.00 in bounty and declared “One such piece of good luck in a lifetime wasn’t so much after all.” The wolf bounty established in 1849 provided a welcome bit of cash for many a penniless immigrant.

On June 2, 1882, he saw a coyote against a haystack—“grayishbreasted, many dark hairs inblended especially along his back. A glorious animal.” On August 18, 1882, “Wolves are positively frightful.” Again February 5, 1883, “wolves heard and seen many places.”

He bought several rabbits in November 1882 and his wife produced a delicious ragout. He reported “an unbelievable number of quail” that month. They were selling at 9¢ each. In February 1883, he paid 50¢ for 13.

Hvoslef was disgusted with a returning group of “sports” in August 1882, who had bagged 60 prairie-chicken in the heat and thrown them away spoiled. Such action he wanted controlled. “How can there be a law that permits such depredation?”

His pleasure in the spring migration there in the Root River valley kept him watching for new arrivals—warblers, sparrows, butterflies, and flowers. He wore a buffalo coat, sometimes needing it even in May when he made home visits. His records on migration sent to the U.S. Biological Survey were ranked as some of the most complete and satisfactory received from any source.

Establishment of Museums

The idea of establishing a natural history museum with specimens of native animals was expressed early. A caribou head obtained an Vermilion Lake and exhibited in St. Paul in 1866 prompted the proposal that the Minnesota Historical Society give the taxidermist an order to stuff such rare animals. “In a few years all our game and furbearing animals will be extinct. Ere that time the Historical Society Cabinet should contain a specimen of every bird and beast that has a home in our State. Shall we commence now?” When a man tried to collect a bounty on a lynx captured near Shakopee in July 1867, the state auditor recommended that “the terrible animal be turned over to the Historical Society, to have stuffed and placed in the Natural History Department.”

Soon the plan to make natural history a separate entity emerged. In March 1869, all interested in natural science were invited to meet in the Historical Society room on the Capitol to organize a state society. Among the members were Henry H. Sibley, H.P. Van Cleve, Robert Ormsby Sweeney, and from the university, W.W. Washburn and Ira Moore. The Biology committee included Sweeney, Dr. Hatch, R.J. Mendenhall, and William Kilgore. In 1870, The St. Paul Academy of Natural Sciences was organized and Sweeney, a St. Paul

druggist, was president in 1871. At the April meeting, Sweeney “argued very sensibly” against the Darwin theory of the origin of species.

The St. Paul Academy began to collect in its cabinet a number of ornithological specimens and hoped to have a specimen of every bird in Minnesota. Sweeney was praised for his talent in beguiling gifts of money and curiosities out of people. The large collection of Colonel William Crooks was acquired in 1875. Unfortunately, Sweeney’s small museum was destroyed completely in the burning of the first state Capitol in 1881. The Academy was liquidated and interest languished with this discouraging loss until new leadership emerged in the 1890s.

A parallel movement in Minneapolis favored a museum located at the university. The Minnesota Geological and Natural History Survey placed its collection in quarters in Old Main from 1875 to 1889. Then it moved into the new Pillsbury Hall where Henry Nachtrieb headed the zoological section. Its funds ran out in 1903. Both of these small beginnings were to become outstanding museums in the twentieth century.

C. Man-made Ecological Changes

In the first three decades after statehood, Minnesota’s total population grew from 172,000 in 1860 to 1.3 million in 1890, and man’s impact upon the environment was substantial and increasing. One of the first examples of serious damage to wildlife habitat by damming came about in the 1870s because of a sequence of complicated events involving danger to the Falls of St. Anthony and to the flour milling industry barely getting started. William Watts Folwell, the university’s young president, had just arrived in Minneapolis in 1869, so he shared personally in the catastrophe that befell the little community. He watched the drama unfold and described the story vividly in his history. He wrote:

“Early settlers presumed that the pineries of the upper Mississippi and St. Croix were inexhaustible, so the people about the Falls of St. Anthony assumed that there would be water power enough for all the mills and factories that would be built at any time.”

Two companies had joined in 1856 to dam the river just above the Falls and utilize the water power, but they neglected to secure riparian rights on the shores of Nicollet Island near their dams. A new owner of the island objected to bank damage in the late 1860s. As part of the settlement, he was given permission by the early companies to build a tunnel under the island for water power.

Meanwhile, for centuries the Falls itself had been retreating upstream, as the soft sandstone layer at the base was eroded away by water crashing over the hard limestone ledge on the top. During an estimated 8,000 years since the last glacier retreated, the Falls had moved from Fort Snelling where the Mississippi entered the much larger glacial River Warren, to Minneapolis. This change produced a boulder-filled gorge in the river, blocking steamboat

traffic for that strip. Between 1860 and 1869, the erosion moved the falls 375 feet. The engineers of the day made little provision for this physical condition. The one effort was starting a timbered water slide or "apron" over part of the Falls. Moreover, the millpond diversions they built added to the erosion by alternating freezing and thawing.

The building of a tunnel on the island in the bed of the river brought all the defects in the whole complex to the crisis. On October 4, 1869, an unusual seepage into the tunnel caused the workmen to stop abruptly and flee to safety. As the hole enlarged, not only the companies but city firemen and citizen volunteers responded to the emergency. Lucile Kane in *The Waterfall That Built a City* describes the pandemonium when the cry spread, "The Falls are going out!" Bakers deserted their ovens, barbers left customers unshorn, lawyers shut their books, and physicians abandoned their offices.

Further breaks kept everyone searching for solutions. It took the federal government, the army engineers, many schemes, and many appropriations to save the Falls. Minneapolis and St. Anthony, with a population of 18,000 contributed over \$300,000.00. Much of the work was completed by 1876. By 1880, the army engineers finished an apron and a dike of concrete.

Lest the emergency arise again and threaten the milling industry which was the industrial core of the city, plans were launched for water control upstream near the headwaters. A reservoir system with dams on Lake Winnibigoshish and Leech Lake and other related waters was begun in 1880, supported by federal appropriations. No sooner was the first dam completed than the Indian agents started relaying the Indian complaints of flood damage to the wild rice. The rice had been as important to waterfowl as to the Indians, who claimed a loss of one fourth of their subsistence.

Elliot Coues described Lake Winnibigoshish as "a dismal cesspool" after the construction of the government dam. It was built to encourage the economic prosperity of Minneapolis and the state in general, and to the developers, this goal outweighed damage to the wilderness. This chain of events, from milling of flour in Minneapolis to destruction of waterfowl food production 200 miles away in Winnibigoshish, provides a classic example of the ecosystem relationships which John Muir put so simply: "Everything is connected to everything else."

Not all the changes made by the settlers were bad for wildlife. Gardens, fruit trees, and fields not too thoroughly harvested were all a help. The Sioux and Winnebago, moved to South Dakota after the Outbreak, expressed their longing for their old haunts in southern Minnesota in 1864. They had no Big Woods where they could dig ginseng. They thought more game could be found within 50 miles of any point in the settled portions of the U.S. than could be found within a similar limit in Dakota Territory. The idea that some wildlife and man could enjoy co-existence was dawning.

Two species not native that advanced into Minnesota with the farmer were the Pinnated Grouse or Greater Prairie-Chicken and the quail. According to Harrison Tordoff, the grouse needed two-thirds natural food of the prairie and one-third crop for winter food. They were first seen in southern Minnesota in the 1850s. Coues found them common around St. Paul in 1873. Hallock saw them in Kittson County in the 1880s and about the same time, Seton recorded them in Manitoba. They had crossed the state from south to north in the first three decades of farming in Minnesota. They were adapted to clearings and crop plantings in forested areas too and were reported around Mille Lacs in 1885. The Sharp-tailed Grouse, the native one in the prairies, retreated as the prairie-chicken advanced. It preferred a habitat of some open country but also needed brushy cover. Wheat farming was not to its advantage.

During the 1870s, both grouse were birds the farmers liked because it was a decade with terrible plagues of grasshoppers. Coues called the Sharp-tailed Grouse the "Grasshopper Bird." *Forest and Stream* urged sportsmen to spare the grouse and quail because of the grasshoppers. A farmer in Alexandria who did not "believe overmuch in some of the game laws" urged that the season be obeyed for a single prairie-chicken might eat enough grasshoppers to save several bushels of grain. This was part of an era when great claims were made for birds in controlling insect pests and no careful study had been done.

The bobwhite quail appeared along with the prairie-chicken. Some may have been introduced around St. Paul. The succession of mild winters in the late 1870s helped its advance. It was seen around Hastings in 1882. Few records north of Minneapolis occurred and winter survival was always precarious even in southern Minnesota.

The English or House Sparrow was another introduced species of this period. Several hundred pairs had been released in New York parks in the 1860s. The *St. Paul Pioneer* wrote on August 20, 1874: "Where are the sparrows that were to be received here for Rice Park?" In June, 1875 a dozen were brought to the city and released in a garden. Roberts saw these birds first in downtown Minneapolis in 1876. They survived the winter and bred under the eaves of business buildings the next spring. Their appearance in southeastern Minnesota coming in from the south was noted by Hvoslef in the fall of 1886.

Another important change in habitat in the early days of settlement caused the movement of the white-tailed deer northward, especially into northeastern Minnesota where it did not occur in the days of the voyageur and early furtrader. In 1860, it was found in the hardwood forests and scattered groves along the southern rivers, but not in the northern coniferous forest. Newspapers in Red Wing, Mankato, Chatfield, and Albert Lea are filled with references to deer taken in the 1860s and 70s. Since deer could thrive on gardens and orchards, the settler plagued by grasshoppers and the unpredictable variations in nature felt justified in eliminating this hazard. The people did like having them available for meat, however. Fillmore and Olmsted Counties had a closed season from 1875 to 1877 and Houston County protected them in 1877, evidence of their scarcity or disappearance.

Thomas Roberts witnessed the killing of the last deer near Lake Harriet in 1885. Hunters with dogs drove them all day, finally killing three.

The fires along the new railroad tracks into the north produced openings. The new growth of brush and aspen after logging of pines provided food. Many observers refer to their earlier absence along Lake Superior and appearance after 1870. The one most frequently quoted is George Shiras III in his writings on the area. The newspapers in Superior and Duluth and the reminiscences of early settlers all confirm this.

After 1890, the decline in moose and caribou as the deer advanced became more evident, but in this first stage of settlement, hunters were pleased that the deer did not go the way of the buffalo and they could still go north to bag one. It was not dreamed that in the twentieth century, they would gradually come back south, to be found in every county of the state.

The sportsmen's interest in wildlife and the private citizen's code to support it was a start. By the 1890s, however, it was clear to a few discerning people that powerful financial interests were too great to expect unselfish policies among lumbermen and landowners. The government, federal and state as well as local, would have to mediate and provide safeguards for the natural resources. The few game laws of the 1860s and '70s depended on the sheriff, the constable, or the superintendent of schools to report violations to the justice of the peace. There was not yet even one "state game warden." Fines went into the county common school fund. This system naturally led to friction and bitterness among neighbors and was rarely utilized. The change to government responsibility did not come fast, but a cause emerged in the late 1880s which set new goals, saving the headwaters of the Mississippi by creating a state park which would also protect its wildlife.

D. Itasca State Park Created, 1890—A Turning Point

In many phases of the conservation movement, the basic ideas have been introduced by a few individuals who became crusaders for a specific goal. Itasca State Park was no exception. Jacob Brower, incensed by the publication of a journalist disputing Schoolcraft's and Nicollet's findings and claiming a new source for the Mississippi, went to Lake Itasca in October 1888 and again in the following year. His report to the Minnesota Historical Society supported the early explorers and went further, urging protection for the area, sentiments also expressed that year by the Minnesota Geological and Natural History Survey.

Early in 1890, two thoughtful letters in the St. Paul press caused a flurry of interest. In January 1891, the Minnesota Historical Society asked for legislative action. Brower drew up the bill. He was a lawyer, former member of the legislature, and once county attorney and county superintendent of schools. A Ramsey County senator introduced the bill and it passed by a narrow margin. Enemies tacked on an amendment limiting the salary of the new job created, that of park commissioner, to payment for 60 days in one year at \$5.00 a day. It was thought no one would take it. But Brower accepted the appointment and faced

discouraging conditions which were almost overwhelming in the park he was to administer. The state owned only 10,000 acres within the boundaries prescribed while Frederick Weyerhaeuser, T.B. Walker, and the Pillsburys owned 8,000. They planned logging and refused to sell at a figure Brower could reach, so he was faced with considering condemnation. The future of both wildlife and trees was far from secure. Yet he hung on to the job against political foes until 1897. The park had become a reality, and eventually a reserve in which future generations could enjoy and study the fauna and flora of the state.

ENDNOTES[®]

1. Elliot Coues, ed., *The Expeditions of Zebulon Montgomery Pike*, 1:iii (New York, 1895).
2. Henry R. Schoolcraft, *Narrative Journal of Travels from Detroit Northwest through the Great Chain of American Lakes to the Sources of the Mississippi River in the year 1820*, 123 (Albany, 1821).
3. Louis Agassiz, *Lake Superior: Its Physical Character, Vegetation and Animals compared with those of Other and Similar Regions*. 68 (Boston, 1850); D.G. Elliot, "The 'Game Birds' of the United States," in *Report of the Department of Agriculture*, 1864-1865, 385 (Washington, 1865).
4. There were 16,357 licensed trappers in Minnesota in 1938 according to the records of the Conservation Department. No license is required where trapping is done by the owner on his land, so this figure does not represent all trappers operating within the state.
5. *St. Paul Pioneer*, December 27, 1866. The name of this paper was changed many times during the nineteenth century. It is cited hereafter as *Pioneer*, and the complete titles appear in the bibliography. The newspapers quoted are in the possession of the Minnesota Historical Society unless otherwise specified.
6. George Tuthill Borrett, *Letters from Canada and the United States*, 152 (London, 1865).
7. *Pioneer*, February 11, 1862; January 9, 1859.
8. *Pioneer*, June 13, 1856; *St. Peter Statesman*, March 23, 1860; *Mankato Record*, May 1, 1860; *Freeborn County Standard* (Albert Lea), December 5, 1860; *Glencoe Register*, December 22, 1860; June 1, 1861.
9. *Chatfield Democrat*, November 29, 1862; January 31, December 12, 1863; *Glencoe Register*, January 10, 1863; *Mankato Union*, June 21, 1867.
10. *Pioneer*, December 29, 1887; June 9, 27, September 30, 1868; *Martin County Atlas* (Fairmont), May 2, 1868; November 26, 1868.
11. *Pioneer*, September 30, December 27, 1868; *Game Laws of Northwestern States*, appendix 31 (St. Paul, 1902). One copy of this book is owned by The John Crerar Library, Chicago. The article on trapping which appeared in the appendix was extracted from John Humphrey Noyes, ed., *The Trappers' Guide*, a book published by the Oneida Community sketching the history of trap manufacture by the group. Samuel Newhouse, the inventor of a popular trap, joined the community in 1849, and by 1855 was producing a large number of traps. His device was probably the kind ordered by the dealer in St. Peter. Advertisements of Newhouse traps were common in literature sent to trappers by fur dealers throughout the century.
12. *Alexandria Post*, March 17, 1869; *Mankato Union*, July 2, 1869.
13. *Sauk Rapids Sentinel*, November 25, 1870; *Alexandria Post*, February 4, 1871; *Pioneer*, February 1, 1872, December 5, 1874, *Litchfield News Ledger*, December 3, 1874; *Fergus Falls Advocate*, December 9, 1874.
14. *Pioneer*, January 16, 1875; February 6, 1876; *Forest and Stream*, 10:179 (April 11, 1878).
15. *Pioneer*, January 16, 1875.
16. *Martin County Sentinel* (Fairmont), October 11, 1878; *Clay County Advocate* (Moorhead), December 21, 1878.
17. *The Guardian* (Heron Lake), April 14, 1881; *Fergus Falls Journal*, December 28, 1882; *Forest and Stream*, 21:410 (December 20, 1883).
18. *Minneapolis Journal*, February 25, September 28, October 9, 1897; March 2, 1900.
19. *Pioneer*, December 10, 1856.
20. *Pioneer*, January 22, 1861.
21. Samuel H. Scudder, *The Winnipeg Country*, 138 (Boston, 1866); *Pioneer*, June 1, 1866.
22. *Pioneer*, July 12, 1870.
23. Zack T. Sutley, *The Last Frontier*, 57 (New York, 1930).
24. Albert Rose to J. Ullmann Company, Oshkosh, Wisconsin, October 26, 1898. The correspondence of Albert and I.E. Rose is preserved in the files of Rose Brothers Fur Company of St. Paul, who have permitted the above quotations.
25. *Rochester City Post*, February 4, 1865. This paper is in the files of the Olmsted County Historical Society.
26. *Pioneer*, January 7, 1862; January 9, 1868; January 15, 1870.
27. *Pioneer*, December 4, 1863.
28. *Pioneer*, July 2, 1866.
29. *Minnesota Monthly*, 1:293 (September, 1869); *Pioneer*, September 4, 1869.

30. *Sauk Rapids Sentinel*, July 3, 1868; *Pioneer*, November 23, 1871.
31. *Litchfield Ledger*, December 5, 1872.
32. *Minneapolis Journal*, January 4, 1899; *Roseau County Times* (Roseau), December 10, 1897.
33. W.J. Burnett, ed., *Hunters' and Trappers' Guide*, 23, 25, 17 (Minneapolis, 1895). This copy is owned by the Rose Bros. Fur Company. An 1896 edition is in the possession of the Minnesota Historical Society.
34. *Denkschrift zum 50 Jahrigen Geschäfts-jubelaum, Die Firma Jos Ullmann: 1854 bis 1904*, 13 (Leipzig, 1905).
35. Mr. Harold Rose states that Isidor Rose owned the St. Paul branch, Ullmann the New York branch, and foreign ones were owned jointly.
36. The skin classified as army bear was not collected in Minnesota but in the area of Fort Smith and Fort Pelly, Canada. The bear in the northerly latitude had a thinner hide and thicker fur, which was preferable in this specialized field.
37. The records of Joseph Ullmann Company are in the possession of Rose Brothers Fur Company, through whose courtesy they have been made available for this study.
38. *Pioneer*, November 25, 1863.
39. John M. Armstrong, "The Asiatic Cholera in St. Paul," *Minnesota History*, 14:299 (September, 1933).
40. *Pioneer*, August 15, 1876.
41. Joseph Gilpin Pyle, *The Years Since '71*, 7 (St. Paul, 1921).
42. Two account books with records for 1875 and 1880 and catalogue quotations for 1885 and 1890 were used in this study through the courtesy of Gordon and Ferguson Company. Other records for the period prior to 1900, if extant, were not made available.
43. Pyle, *The Years Since '71*, 10.
44. A ledger covering accounts of Ernst Albrecht 1874-78 is in the manuscript division of the Minnesota Historical Society. This is the only remaining record of this company for the period prior to 1900.
45. Paul Albert Thorer, Carl Practorius, Paul Hollender, *300 Jahre Familie Thorer 1612-1912*, 39 (Leipzig, 1912). One copy of this volume is in the possession of Rose Brothers Fur Company.
46. *Pioneer*, February 9, 1867.
47. G.W. Featherstonhaugh, *A Canoe Voyage up the Minnaw Sotor*, 2:53 (London, 1847); Captain Frederick Marryat, *A Diary In America*, 2:139 (London, 1839).
48. Elliot, "The 'Game Birds' of the United States," 383.
49. C.F. Solberg, *Statistics of Minnesota for 1871*, 185 (St. Paul, 1872).
50. T.M. Metcalf, *Statistics of Minnesota for 1877*, 226 (St. Paul, 1878).
51. *Pioneer*, August 18, August 19, 1876.
52. Abby Fuller Abbe to Elizabeth Fuller, December 30, 1860. The Fuller papers are in the manuscript division of the Minnesota Historical Society.
53. *Winona Republican*, May 19, 26, 1857; *Chatfield Democrat*, November 6, 1873; December 3, 1874; December 27, 1879; November 26, 1881.
54. *Hastings Independent*, August 18, November 24, 1859; December 5, 1861; February 2, 1865; *Hastings Gazette*, August 31, November 30, 1867; March 28, November 28, 1868; April 24, 1869; December 15, 1883.
55. *Rochester City Post*, November 26, 1859; *Rochester Post*, December 22, 1866; *Minnesota Statesman* (St. Peter), January 14, 1859; *Stillwater Messenger*, November 18, 1862; *Taylor's Falls Reporter*, January 24, 1861; *St. Cloud Democrat*, November 26, 1863; December 8, 1864; August 31, 1865; *Pioneer*, January 30, 1875.
56. *Hastings Independent*, August 27, 1857; *Stillwater Messenger*, April 2, 1861; *Chatfield Democrat*, May 7, 28, 1864; *Weekly News* (Waseca), November 25, 1868; *Waseca News*, December 22, 1869; *Wabasha Herald*, December 29, 1870; January 5, May 11, 1871; *Rochester Post*, June 17, 1871.
57. *McLeod County Register*, (Glencoe), May 21, 1868; *Glencoe Weekly Register*, October 16, 1873; *Mankato Union*, November 20, 1868; *Faribault Democrat*, April 11, 1873; *Faribault Republican*, December 6, 1876; May 30, 1877.
58. *Alexandria Post*, November 18, 1868; April 15, September 2, 9, 1871; January 6, 1872.
59. *Alexandria Post*, August 10, September 7, October 26, November 23, 1872; January 18, 1873; November 31, December 15, 1876; November 5, 1880.

60. *Fergus Falls Journal*, December 21, 1877; December 3, 1880; November 17, 1881; *Forest and Stream*, 17:30 (August 11, 1881); *Clay County Advocate*, October 25, November 8, December 27, 1879.
61. *Pioneer*, January 29, April 1, 1852; August 30, 1854; April 7, 13, 1855; August 23, 1859; *Northampton Courier*, (Northampton, Mass.), January 4, 1853. The latter article is among typewritten extracts of Minnesota interest appearing in eastern newspapers which are filed in the manuscript division of the Historical Society.
62. *Pioneer*, January 12, 1861; January 21, February 8, December 24, 1862; September 27, 1863; November 19, 1864; November 28, 1869; *Sauk Rapids Sentinel*, January 8, 1869.
63. *Alexandria Post*, December 21, 1872; *Pioneer*, September 17, 1870; April 10, 18, 20, 1869; August 21, January 8, 1870.
64. *Minneapolis Journal*, April 11, September 7, October 26, November 13, 1893.
65. *Pioneer*, November 19, 1870; January 14, 20, 1871.
66. *Litchfield Ledger*, December 19, 1872; September 11, 1873.
67. W.B. Mershon, *The Passenger Pigeon*, 103, 111, 112 (New York, 1907); *Mantorville Express*, May 14, 1869; *Wabasha Herald*, May 11, 1871.
68. *Pioneer*, December 23, 1873; August 19, November 22, 1876; *Forest and Stream*, 3:186 (October 29, 1874); *Alexandria Post*, December 13, 1876.
69. *Minneapolis Journal*, September 22, December 5, 13, 1894.
70. *Roseau Plaindealer*, September 16, 1897; *Roseau County Times*, March 23, 1896; *Minneapolis Journal*, March 2, 1900; January 31, 1901.
71. *St. Peter Courier*, November 13, 1857; *Pioneer*, November 30, December 1, 31, 1884; January 1, 18, 25, February 1, 1885; *Roseau County Times*, April 17, 24, 1896; *Minneapolis Journal*, January 1, 1897.
72. *Pioneer*, August 23, 1859; April 29, May 6, September 12, 1881; April 18, 1884, October 25, 1885; *Minneapolis Journal*, April 19, 1892; April 1, 1895; June 1, 1897; Joseph W. Long, *American Wild-Fowl Shooting*, 282 (New York, 1874).
73. *Pioneer*, January 1, 1852; August 23, 1859; January 22, 1868; January 5, 1871; August 19, 1874; November 17, 1875; September 13, 1876.
74. *Pioneer*, August 23, 1859; August 17, 1882; *Minneapolis Journal*, September 26, 1893; May 31, 1894; October 21, 1895; April 18, August 22, September 23, 1898; April 2, 1897; *Farm, Stock and Home*, 6:31, December 1, 1889; Charles Hallock, *The Sportsman's Gazelleer*, 151 (New York, 1877).
75. *Pioneer*, August 23, 1859; January 22, 1868; May 11, 1881; August 17, October 18, December 6, 1882; August 9, November 7, 1883; November 17, 1887; *Wabasha Herald*, January 5, 1871.
76. *Minneapolis Journal*, March 29, 1899; January 2, 1900; April 1, 1901.
77. *Pioneer*, October 28, November 21, 26, 1881; January 2, 17, 1882; January 3, February 11, 14, 28, November 9, 1883; January 1, 1885; November 17, 1887; *Minneapolis Journal*, December 1, 1893.
78. *Pioneer*, November 20, 1856; November 18, 1883; *Minneapolis Journal*, January 1, 1897.
79. *Pioneer*, August 18, 1874.
80. *Pioneer*, August 20, 1883.
81. *Pioneer*, October 23, 1875; August 18, 1876; September 12, 24, 1881; September 26, 1883; February 22, 1885; *Minneapolis Journal*, February 17, March 4, 1886; December 13, 1893.
82. *Pioneer*, January 1, 1852; November 7, 1854; January 1, 1860; May 15, 1870; January 1, 1880; November 25, 1883; January 1, 1890; January 4, 1900; *Forest and Stream* 3:186 (October 29, 1874), 3:230 (November 19, 1874), 3:362 (January 14, 1875), 23:166 (September 25, 1884).
83. *St. Peter Courier*, November 13, 1857; *St. Cloud Democrat*, December 8, 1864; *Pioneer*, January 21, 1868; November 18, December 13, 1882; November 30, December 31, 1884; January 18, 1885; November 17, 1887; January 4, 1900; *Minneapolis Journal*, February 25, 1892; January 21, 1896; January 1, 1897; April 1, 1901.
84. *Pioneer*, April 20, 1869; October 4, November 18, 1882; November 9, 1883; April 18, December 31, 1884; November 1, 1886; *Minneapolis Journal*, October 21, 1893.
85. *Pioneer*, August 23, 1859; January 6, 1875; May 6, September 12, 1881; *Superior Gazette* (Wisconsin), October 10, 1868; *Minneapolis Journal*, January 7, 1890; February 8, 1899.
86. *Pioneer*, August 23, 1859; August 18, 1874; August 18, 1876; October 19, November 3, 1881; August 23, 1882; November 9, 1884; *Minneapolis Journal*, September 5, 1892; September 13, 1894; October 1, 1898.

87. *Pioneer*, October 14, 1862; February 6, August 2, September 11, 1863; September 3, October 1, 1864; January 4, 1865; August 20, 1873; *Willmar Republican*, April 21, 1871; *Forest and Stream*, 40:232 (March 16, 1893).
88. *Pioneer*, March 14, 1871; August 31, December 22, 1875; banquet menu, February 22, 1872; in R.O. Sweeney Papers, manuscript division.
89. Sam F. Fullerton to W.S. Hay, October 28, November 26, 1898; letter press copy in archives of Game and Fish Commission, manuscript division.
90. Elliot, "Game Birds," 384; Elisha J. Lewis, *The American Sportsman*, 200 (Philadelphia, 1885).
91. Charles Nichols Ainslie, *At the Turn of a Century*, 32. This is a mimeographed publication in the University of Minnesota Department of Agriculture Library.
92. Burnett, ed. *Hunters' and Trappers' Guide*, leaflet enclosure.
93. *Forest and Stream*, 21:410 (December 20, 1883). A musket of the 'zulu' pattern" was used near Cedar Lake on a wolf hunt which was described in the *Minneapolis Journal*, February 25, 1889.
94. *Forest and Stream*, 3:346 (January 7, 1875); *General Laws of Minnesota for 1889*, 327 (Minneapolis, 1889); R.O. Sweeney, *Annual Report of the Game and Fish Commission of Minnesota for 1891*, 15, 19 (Minneapolis, 1892); Sweeney, *Annual Report for 1892*, 19 (Minneapolis, 1892); *Grand Marais Pioneer*, September 24, 1891; J.A. Gilfillan, "Report," in C.C. Andrews, *First Annual Report of the Chief Fire Warden for 1895*, 101 (St. Paul, 1896).
95. *General Laws of Minnesota for 1893*, 240 (St. Paul, 1893); Sam F. Fullerton to Louis R. Helbing, October 26, 1898; January 10, 1899, archives of Game and Fish Commission.
96. *Forest and Stream*, 39:180 (September 1, 1892), 41:230 (September 16, 1893); *Minneapolis Journal*, April 14, 1894; October 13, 1898. Emerson Hough, the journalist and author, took charge of the Chicago office of *Forest and Stream* in 1889. Throughout the 1890s, he gained a wide reputation as a propagandist for conservation of wild life.
97. *St. Peter Tribune*, December 26, 1860; *Minneapolis Journal*, October 21, 1893; November 18, 1893.
98. *St. Cloud Democrat*, February 3, 1859; *Mankato Record*, February 14, 1860; *Pioneer*, August 12, 1882, *Roseau Plaindealer*, November 11, 1897; *Forest and Stream*, 21:40 (December 20, 1883); 37:146 (September 10, 1891).
99. *Minneapolis Journal*, November 18, 1893; *Pioneer*, November 6, 1857.
100. *St. Cloud Democrat*, December 23, 1858; February 8, 1866; *Fergus Falls Advocate*, December 18, 1872; *Detroit Record*, February 24, 1888; *Minneapolis Journal*, March 23, 1899.
101. *Litchfield News Ledger*, June 10, 1875; *Minneapolis Journal*, August 30, 1886.
102. C.A. White, "A Trip to the Great Red Pipestone Quarry," in *The American Naturalist*, 2:649 (February, 1869); Martin S. Garretson, *The American Bison*, 165 (New York, 1938); *Forest and Stream*, 3:330 (December 31, 1874); *Pioneer*, January 4, 1881; *Hastings Gazette*, May 7, 1881.
103. *Forest and Stream*, 41:408 (November 11, 1893).
104. *Minneapolis Journal*, October 6, 1893.
105. Garretson, *The American Bison*, 172.
106. Edmund T. Ely, *Diary*, May 30, 1834. Typewritten copies of Ely's journals and letters are in the manuscript division. The original diaries are in the custody of the St. Louis County Historical Society.
107. Alexander Winchell, "Report," in *Geological and Natural History Survey of Minnesota, Report for 1887*, 138 (St. Paul, 1888); Clark Wissler, *Indians of the United States*, 160, 244 (New York, 1940).
108. *Roseau County Times*, April 10, 1896.
109. Gurth Whipple, *Fifty Years of Conservation in New York State*, 47 (Albany, 1935).
110. Alfred Ely, H.E. Anthony, R.R.M. Carpenter, ed., *North American Big Game*, 16 (New York, 1939).
111. Father Louis Hennepin, *Description de la Louisiane*, 228, 122 (Paris, 1683); Elliot Coues, ed., *New Light on the Early History of the Greater Northwest*, 1:253, 254 (New York, 1897).
112. William H. Keating, *Narrative of an Expedition to the Source of St. Peter's River, Lake Winnepeek, Lake of the Woods*, 2:40 (Philadelphia, 1824); Giacomo C. Beltrami, *A Pilgrimage in Europe and America*, 2:176 (London, 1828); Schoolcraft, *Narrative Journal of Travels from Detroit Northwest*, 270; Featherstonhaugh, *A Canoe Voyage*, 1:325, 411; James Edward Colhoun, *Diary*, 1823, 103. Film slides of this diary in the manuscript division were used. The original manuscript is in the possession of Mrs. John Galligan, Lanesboro, Minnesota.

113. Joseph N. Nicollet, *Report...*, 13 (26 Congress, 2 session, *Senate Documents*, No. 237-serial 380); *Spirit of the Times*, 16:73 (April 11, 1846); Horace Mann to Mary Mann, June 7, 1861. Typewritten copies of a number of letters written by Horace Mann to his mother are in the manuscript division. The original letters are in the possession of Robert L. Straker of New York.
114. Beltrami, *Pilgrimage*, 2:422; Frederick Ulric Graham, *Notes of a Sporting Expedition in the Far West of Canada*, August 2, 1847 (London, 1898). This book was published in a limited edition. One volume was used for this study which was loaned temporarily to the Minnesota Historical Society by Sir Fergus Graham, Crofthead, England.
115. Hennepin, *Description de la Louisiane*, 254; J.B. Tyrrell, ed., *David Thompson's Narrative of his Explorations in Western America*, 249, 281 (Toronto, 1916).
116. Schoolcraft, *Narrative Journal*, 279; Joseph R. Brown to H.H. Sibley, November 30, 1836; S.R. Riggs to Sibley, March 16, 1839, Sibley Papers.
117. Ely, *Diary*, March 7, 1835; Edwin James, ed., *A Narrative of the Captivity and Adventures of John Tanner*, 45, 80 (New York, 1830); Coues, ed., *New Light*, 1:291; *Pioneer*, December 16, 1866; Wissler, *Indians of the United States*, 242.
118. James, ed., *Narrative of the Captivity*, 11; Hercules L. Dousman to H.H. Sibley, February 19, 1839, Sibley Papers; A. Randall to Edmund F. Ely, October 23, 1848, typewritten copy in manuscript division.
119. Keating, *Narrative of an Expedition*, 1:232; Hercules L. Dousman to H.H. Sibley, December 22, 1837, Sibley Papers.
120. Alexander Ramsey, *Diary*, June 28, 1850, manuscript division; *Annual Report of the Commissioner of Indian Affairs: 1851*, 4, 166, 179 (Washington, 1851); *Report: 1855*, 67 (Washington, 1856); *Report: 1857*, 55, 57 (Washington, 1858); *Report: 1860*, 61 (Washington, 1860).
121. *Report: 1860*, 72, 75 (Washington, 1860); *Report: 1862*, 90 (Washington, 1863); *Report: 1863*, 300 (Washington, 1864).
122. *Report: 1862*, 92; *Report: 1864*, 395, 403, 411 (Washington, 1865). The Indians who were moved out of the state regretted the action. Winnebago at Fort Randall complained in 1864 because "they had no Big Woods to dig ginseng in." The assertion was made that more game could be found within 50 miles of any point in the settled portion of the United States than could be found within a similar limit in Dakota Territory.
123. *Report: 1868*, 302 (Washington, 1868); *Report: 1871*, 599 (Washington, 1872).
124. *Report: 1878*, 82, 305, 310 (Washington, 1878); *Report: 1879*, 89 (Washington, 1879); *Report: 1880*, 246, 254 (Washington, 1880); *Pioneer*, January 1, 1884; Andrews, *First Annual Report of the Chief Fire Warden*, 99.
125. *Report: 1893*, 166 (Washington, 1893); *Report: 1894*, 150 (Washington, 1895).
126. *Report: 1854*, 54 (Washington, 1854); *Report: 1855*, 53; *Report: 1861*, 83 (Washington, 1861); *Report: 1885*, 117 (Washington, 1885); *Report: 1893*, 164.
127. *St. Peter Tribune*, December 5, 1860; *Pioneer*, June 26, 1862; January 28, March 10, 1863. This early reference to breeding of silver foxes is an interesting observation. In 1895 the *Hunters' and Trappers' Guide* stated that beaver farmers could get stock from northern Minnesota and Manitoba. Sixteen live beavers cost \$160.00. Fur farming in the modern sense was a development of the twentieth century, however.
128. *St. Peter Courier*, April 22, 1856; *St. Cloud Visitor*, December 10, 1857; *Pioneer*, November 13, 1859; March 31, April 3, 1860; January 4, 1881; *Hastings Independent*, April 11, 1861; *Detroit Weekly Record*, January 3, 1874; *Alexandria Post*, December 15, 1876; *Park Rapids Enterprise*, November 16, 1882; John P. Jacobson, *Statistics of Minnesota for 1878*, 276 (Minneapolis, 1879).
129. J.A. Gilfillan, "Report," in Andrews, *First Annual Report of the Chief Fire Warden*, 99, 100, 101; Ely, *Diary*, June 29, 1834.
130. *Minneapolis Journal*, January 31, 1899.
131. *Forest and Stream*, 39:203 (September 8, 1892).
132. *Report: 1854*, 75.
133. H.H. Sibley to Ramsey Crooks, November 1, 1834; Ramsey Crooks to Hercules Dousman, April 19, 1841, Sibley Papers.
134. *Pioneer*, January 5, 1857; December 17, 1858; *Henderson Democrat*, November 26, 1859.
135. *Mankato Record*, June 25, 1862; *Stillwater Messenger*, November 18, 1862; *Glencoe Register*, January 10, 1863; *Chalfield Democrat*, December 5, 1868; *Alexandria Post*, November 9, 1877; *Forest and Stream*, 3:187 (October 29, 1874), 6:204 (May 4, 1876).

136. *Pioneer*, August 14, 1861; *Wadena Tribune*, October 27, 1877; *Report*: 1871, 589; *Report*: 1872, 208 (Washington, 1872); *Report*: 1874, 30 (Washington, 1874); *General Laws of Minnesota for 1858*, 104 (St. Paul, 1858).
137. *Minneapolis Journal*, December 15, 1893; March 10, 1894; April 8, 1897.
138. Charles J. Kappler, *Indian Affairs: Laws and Treaties*, 2:648, 685, 1031 (Washington, 1904).
139. Robert H. Connery, *Governmental Problems in Wild Life Conservation*, 48, 153 (New York, 1935); "In re Wolf," in *The Federal Reporter*, 27:606-615 (St. Paul, 1886); "Selkirk vs. Stephens," in *Minnesota Reports*, 72:335-339 (St. Paul), 1899).
140. "State vs. Campbell," in *Minnesota Reports*, 53:354-360 (St. Paul, 1894); "Selkirk vs. Stephens."
141. "Selkirk vs. Stephens;" Ward vs. Race Horse" in *United States Reports*, 163:504-520 (New York, 1896).
142. *Minneapolis Journal*, July 27, 1891; Sweeney, *Annual Report for 1891*, 21, 22; Sweeney, *Annual Report for 1892*, 17, 19.
143. *Forest and Stream*, 41:318 (October 14, 1893); *Minneapolis Journal*, October 21, 1893. It should be noted that in Charles S. Sargent, *Report on the Forests of North America*, 491 (Washington, 1884), Indians ranked lowest in causes of forest fires in Minnesota. Forty were started as fires to clear land, fourteen by hunters, thirteen by locomotives, nine through malice, and eight by Indians. C.C. Andrews in his report in 1895 on page 99 stated that Indians took more care than white men to avoid starting fires. The customs in early days have been mentioned on page 82 in this chapter.
144. *Minneapolis Journal*, November 24, December 14, 1893; W.P. Andrus, *Annual Report of Game and Fish Commission for 1893*, 8 (Minneapolis, 1894).
145. *Forest and Stream*, 41:274 (September 30, 1893).
146. *Minneapolis Journal*, January 3, 1894; January 1, October 21, November 16, 1895; December 8, 1896; August 14, September 8, 1897.
147. *Minneapolis Journal*, January 31, 1899; February 5, 1901.
148. *Sports and Amusements*, 2:4 (January 8, 1892); Andrus, *Annual Report of Game and Fish Commission for 1893*, 8; *Minneapolis Journal*, January 28, February 1, April 3, 15, 1897; *Roseau County Times*, July 9, 1897.
149. *Beltrami Eagle* (Bemidji), April 16, October 1, 1897; *Minneapolis Journal*, September 23, 1897; *Roseau County Times*, October 1, 1897.
150. *Beltrami Eagle*, October 29, 1897; *Pioneer*, October 31, November 3, 11, 1897; *Hubbard County Enterprise* (Park Rapids), November 12, 1897; *Roseau Plaindealer*, November 18, 1897; March 10, 1898.
151. *Hubbard County Enterprise*, October 7, 1898; Samuel F. Fullerton to W.F. Street, October 24, 1898, letter press copy in manuscript division; W.W. Folwell, *A History of Minnesota*, 4:312-323 (St. Paul, 1930); Louis H. Roddis, "The Last Indian Uprising in the United States," in *Minnesota History Bulletin*, 3:273-290 (February, 1920).
152. Samuel F. Fullerton to W.S. Timberlake, December 6, 1898; Fullerton to W.A. Jones, December 7, 1898, letter press copies in manuscript division.
153. *Hubbard County Enterprise*, December 30, 1898; Fullerton to Louisa Lynch, December 27, 1898; to John H. Sutherland, December 15, 1898; to William Bird, December 23, 1898.
154. J.A. Wheelock, First Annual Report of the Commissioner of Statistics for Minnesota, 151 (Hartford, 1860).
155. Sargent, *Report on the Forests*, 558; Coues, ed., *Expeditions of Zebulon Montgomery Pike*, 1:138.
156. Andrews, *First Annual Report*, 134, 135.
157. *Minneapolis Journal*, November 26, 1897; December 6, 1898.
158. *Chatfield Democrat*, April 25, June 6, 1863; *Rochester Post*, July 18, 1868; *Faribault Republican*, December 20, 1876.
159. *Forest and Stream*, 5:26 (August 19, 1875); *Alexandria Post*, August 20, 1875; *Red River Star* (Moorhead), August 21, 1875; Thomas S. Roberts, *Birds of Minnesota*, 1:396 (Minneapolis, 1932).
160. *Pioneer*, August 6, 1876; *Alexandria Post*, April 27, 1877; *Clay County Advocate*, November 23, 1876; *Forest and Stream*, 6:3 (February 10, 1876), 8:31 (February 22, 1877), 9:401 (December 27, 1877); *Farm, Stock and Home*, 3:26 (December 1, 1886); David Day, *First Annual Report of the State Fish Commissioners of Minnesota*, 22 (St. Paul, 1875).
161. *Farm, Stock and Home*, 2:376 (November 1, 1888); *Minneapolis Journal*, December 7, 1898; *Congressional Records Containing the Proceedings and Debates of the Fifty-Sixth Congress, First Session* 55:4871 (Washington, 1900).

162. *Hastings Independent*, August 27, 1857; May 12, 1859; *Mankato Independent*, June 10, 1861; *Rochester Republican*, May 31, 1862; *Chatfield Democrat*, April 25, 1863; April 18, 1864.
163. *Hastings Independent*, May 25, 1865; *Hastings Gazette*, May 5, 1877; *Pioneer*, June 7, 1860; May 4, 9, 1867; *Rochester Post*, April 24, 1869; June 19, 1871; *Freeborn County Standard*, May 6, 1869; *Wabasha Herald*, May 11, June 8, 1871.
164. *Chatfield Democrat*, May 15, 1875; Margaret Mitchell, *The Passenger Pigeon in Ontario*, 95 (Toronto, 1935).
165. *Minneapolis Journal*, January 27, 1887; November 16, 1893; September 18, 1897; *Roseau Plaindealer*, March 17, 1898.
166. Hennepin, *Description de la Louisiana*, 273, 282; John Gilmary Shea, ed., *A Description of Louisiana by Father Louis Hennepin*, 367 (New York, 1880); A.J. Hill, tr., "Relation of M. Penicault," in *Minnesota Historical Society Collections*, 3:7 (St. Paul, 1880); Lawrence J. Burpee, ed., *Journals and letters of Pierre Gaultier de Varennes de la Verendrye and his Sons*, 251 (Toronto, 1927); Jonathan Carver, *Three Years Travels throughout the Interior Parts of North America*, 60 (Boston, 1797); Charles M. Gates, ed., *Five Fur Traders of the Northwest*, 57 (Minneapolis, 1933).
167. Tyrrell, ed., *David Thompson's Narrative*, 219, 246; James, ed., *Narrative of the Captivity*, 80; Coues, ed., *New Light*, 84, 90, 169, 170.
168. Coues, ed., *New Light*, 174, 177, 198, 210, 221, 245, 259, 281, 422, 440.
169. Coues, ed., *Expeditions of Zebulon Montgomery Pike*, 1:111, 117; Stephen H. Long, "Voyage of a Six-Oared Skiff to the Falls of St. Anthony in 1817," in *Minnesota Historical Society Collections*, 2:22 (St. Paul, 1889, reprint edition); Keating, *Narrative of an Expedition*, 1:292; William T. Hornaday, *The Extirmination of the American Bison*, 548 (Annual Report of the National Museum, 1887); A.S. Schorger, "The Range of the Bison in Wisconsin," in *Transactions of the Wisconsin Academy of Sciences, Arts, and Letters*, 30:117 (Madison, 1930).
170. Schoolcraft, *Narrative Journal of Travels from Detroit*, 256, 275, 282; Schoolcraft, *Narrative of an Expedition through the Upper Mississippi to Itasca Lake*, 124 (New York, 1834); Colhoun, *Diary*, July 16, 21, 26, 27.
171. Keating, *Narrative of an Expedition*, 2:9, 10, 14; Beltrami, *Pilgrimage*, 2:341; Grace Lee Nute, "Peter Rindisbacher, Artist," in *Minnesota History*, 14:286 (September, 1933).
172. Schoolcraft, *History, Conditions, and Prospects of the Indian Tribes of the United States*, 4:94 (Philadelphia, 1854); Featherstonhaugh, *A Canoe Voyage*, 1:335, 356; Featherstonhaugh, *Report of a Geological Reconnaissance made in 1835*, 150, 154, (Washington, 1838); Albert Lea, *A Book that Gave to Iowa its Name*, Reprint, *Notes on Wisconsin Territory*, 13 (Iowa City, 1935); George Catlin, *Letters and Notes on the Manners, Customs, and Conditions of the North American Indians*, 2:177 (London, 1842).
173. H.H. Sibley, "Reminiscences of the Early Days of Minnesota," in *Minnesota Historical Society Collections*, 3:265 (St. Paul, 1880); Theodore C. Blegen, ed., *The Unfinished Autobiography of Henry Hastings Sibley*, 60 (Minneapolis, 1932); Joseph R. Brown to Sibley, September 28, 1835; Ramsey Crooke to Sibley, September 14, 1836; Ramsey Crooke to Sibley, February 17, 1840; Joseph Renville to Sibley, August 10, 1840; Inventory List from J. St. Faribault, July 20, 1836, Sibley Papers.
174. Blegen, ed., *Unfinished Autobiography*, 26; *Spirit of the Times*, 16:73, 18:66 (April, 1848).
175. Alexander Ross, *The Red River Settlement*, 57, 99 (London, 1858); Samuel Woods, *Report of Major Woods, Relative to his Expedition to Pembina Settlement*, 4, 23, 24 (31 Congress, 1 Session, *House Executive Documents*, No. 51 – serial 577); John Pope, *Report of an Exploration of the Territory of Minnesota*, 27, 31 (31 Congress, 1 Session *Senate Executive Documents*, No. 42 – serial 558); *Pioneer*, March 13, 1850; David Dale Owen, *Report of a Geological Survey of Wisconsin, Iowa and Minnesota*, xxviii (Philadelphia, 1852); Bertha L. Heilbron, ed., *With Pen and Pencil on the Frontier in 1851*, 199 (St. Paul, 1932); *Spirit of the Times*, 20, 546 (January 4, 1851).
176. *Pioneer*, February 9, 1856; September 17, 1858; Isaac Stevens *Reports of Explorations and Surveys ... from the Mississippi River to the Pacific Ocean*, 12, Part 1:59 (36 Congress, 1 Session, *House Executive Documents*, No. 56 – serial 1054); D.S.B. Johnston, "Townsite Speculation in the Fifties," January 25, 29, April 19, 1857, film slides in manuscript division. The original account is in the possession of C.L. Johnston, St. Paul.
177. Mary J. Colburn, "Essay," in *Minnesota as a Home for Immigrants*, 17 (St. Paul, 1866); *Mankato Record*, June 25, 1862; *Pioneer*, November 29, 1862; *St. Peter Tribune*, July 22, August 5, 1883; *Mankato Weekly Union*, August 14, 1863; September 20, 1867; *St. Cloud Democrat*, August 31, 1865; August 23, 1866; *Glenwood Herald*, August 17, 1939.
178. Thomas S. Roberts, "The Vanished Mammals of Minnesota," in Thaddeus Surber, *The Mammals of Minnesota*, 7, 8 (St. Paul, 1932).
179. Surber, *Mammals of Minnesota*, 9, 76.

180. Samuel W. Pond, "The Dakotas or Sioux in Minnesota as they were in 1834," in *Minnesota Historical Society Collections*, 12:345 (St. Paul, 1908); Sibley, "Reminiscences," 265; Sibley to Solomon Sibley, November 5, 1839, Sibley Papers; *Spirit of the Times*, 16:73, 18:66, 19:37 (April 14, 1849), 20:548 (January 4, 1851); *Pioneer*, March 6, 1850.
181. *Pioneer*, November 11, 1854, October 19, 1866; August 30, 1870; January 14, 1875; January 4, 1881; *St. Peter Courier*, September 17, 1856; July 10, 1857; *Glencoe Register*, August 15, 1857; January 11, 1872; *St. Cloud Democrat*, December 21, 1865; *Alexandria Post*, December 10, 1870; *Freeborn County Standard*, October 26, 1871; June 11, 1874; *Red Silver Star*, May 8, 1873; *Lac qui Parle County Press* (Madison), April 23, 1874; *Clay County Advocate*, October 25, November 6, 1879; Hallock, *Sportsmen's Gazetteer*, Part 2, 85; Johnston, "Townsite Speculation," January 12, 1857; *Forest and Stream*, 2:162 (April 23, 1874); 9:468 (January 24, 1878); 11:182 (October 3, 1878); *Farm, Stock, and Home*, 3:25 (December 1, 1886); 3:59 (December 15, 1886).
182. Sweeney, *Annual Report for 1891*, 18; Sweeney, *Annual Report for 1892*, 20; *Grand Rapids Magnet*, March 29, 1892; *Minneapolis Journal*, August 12, October 21, November 24, 1893; September 22, 1894; November 21, 1896; *Roseau County Times*, November 15, 1896; *Pioneer*, January 4, 1881.
183. Carver, *Three Years Travels*, 43; Tyrrell, ed., *David Thompson's Narrative*, 246; Ely, *Diary*, September 17, 1833; William A. Aitkin to Sibley, February, 1837; Graham, *Notes of a Sporting Expedition*, June 3, 1847; Surber, *Mammals of Minnesota*, 16, 78.
184. Hallock, *Sportsmen's Gazetteer*, 65; *Pioneer*, January 4, 1881; *Minneapolis Journal*, August 12, October 21, November 11, 1893; March 10, September 15, 1894; November 11, 1896; *Grand Rapids Magnet*, March 29, 1892; *Cook County Herald* (Grand Marais), April 6, 1895; Winchell, "Report," 138; Andrews, *First Annual Report*, 101.
185. Surber, *Mammals of Minnesota*, 10, 77.
186. *Forest and Stream*, 5:299 (December 16, 1875); *Pioneer*, January 4, 1881; *Minneapolis Journal*, November 21, 1896; *Farm, Stock, and Home*, 3:25 (December 1, 1886).
187. Burpee, ed., *Journals and Letters of La Verendrye*, 342; Keating, *Narrative of an Expedition*, 2:63; Featherstonhaugh, *A Canoe Voyage*, 1:397; Surber, *Mammals of Minnesota*, 11, 79.
188. Hennepin, *Description de la Louisiane*, 279; Carver, *Three Years Travel*, 271; Coues, ed., *Expeditions of Zebulon Montgomery Pike*, 1:206, 212; Long, "Voyage," 44; Colhoun, *Diary*, July 2, 1825; Schoolcraft, *Narrative Journal of Travels from Detroit*, 216, 283, 356; Schoolcraft, *Narrative of an Expedition Through the Upper Mississippi*, 54; Featherstonhaugh, *A Canoe Voyage*, 1:241; Catlin, *Letters and Notes*, 2:177; Charles Lanman, *A Summer in the Wilderness*, 73, 109, 118 (New York, 1847).
189. Burpee, ed., *Journals and Letters of La Verendrye*, 251; Coues, ed., *New Light*, 1:243; John J. Bigsby, *The Shoe and Canoe*, 2:271 (London, 1850); Keating, *Narrative of an Expedition*, 2:53, 63; *Pioneer*, March 6, 1850; Louis Agassiz, *Lake Superior*, 83, 124.
190. *Pioneer*, July 18, 31, 1854; April 9, May 24, 1855; September 1, 1856; September 5, 1859; April 13, May 4, 9, 1867; April 10, 1869; May 17, 1874; *St. Paul Daily Press*, June 2, 1864; Coues, *Birds of the Northwest*, 388; Franklin Benjamin Sanborn, ed., *The First and Last Journeys of Thoreau*, 2:29, 47, 96, 101 (Boston, 1905); John Roberts, *Diary*, July 24, August 8, 1874; Roberts, *Birds of Minnesota*, 1:584; Thoreau, *Journal*, June 6, 1861. The original manuscript of the Thoreau Journal is in the possession of the Huntington Library, San Marino, California. A photostat used in this study is in the Museum of Natural History of the University of Minnesota, where the manuscript diaries of John Roberts, T.S. Roberts, and Franklin Benner are also. This is the only citation of the diary of John Roberts. Other references are from the diaries of T.S. Roberts.
191. *Hastings Independent*, August 27, 1857; May 12, August 18, 1859; May 17, 1860; June 6, 13, 1861; June 19, 1862; April 9, 1863; June 2, 1864; May 25, 1865.
192. *Rochester Democrat*, May 20, 1858; *Rochester Free Press*, March 24, 1859; *Rochester Republican*, May 31, 1862; *Rochester Post*, April 24, June 12, 1869; April 30, 1870; June 10, 19, 1871; April 13, September 7, 1872; May 17, 1873; *Mantorville Express*, May 21, 1869; *Wabasha Herald*, June 5, 1871; Roberts, *Birds of Minnesota*, 1:583.
193. *Chatfield Democrat*, April 25, May 2, June 6, 1863; April 9, 16, 23, May 7, 21, 28, 1864; May 13, 20, June 3, 1865.
194. *Chatfield Democrat*, April 3, 21, May 1, 1869; April 9, 1870; June 3, 1871; April 13, 1872; April 5, May 10, 1873; May 15, 1875; April 26, 1877; April 26, 1879; March 10, 1893.
195. *Alexandria Post*, April 26, 1869; September 2, 1871; September 7, 1872; April 12, 1873; June 13, August 21, 1874; April 23, 1876; September 1, 1875; August 20, 1878.
196. *Northampton Courier*, July 12, 1853, see Endnote 61; *St. Peter Courier*, September 17, 1858; July 10, 1857; *Glencoe Register*, September 11, 1858; *Belle Plaine Enquirer*, May 5, 1860; *Mankato Record*, May 22, 1860; June 25, 1862; *Mankato Independent*, June 10, 1881; *Freeborn County Standard*, August 27, 1868; May 6, 1869; *Martin County Atlas* May 13, 1869; *Faribault Democrat*, April 11, 1873; *Faribault Republican*, May 30, 1877; Roberts, *Birds of Minnesota*, 1:583.

197. *Wabasha Herald*, April 6, May 11, 1871; August 1, 1872; *Pioneer*, April 24, 1875; *Chatfield Democrat*, June 19, 1875; Mershon, *The Passenger Pigeon*, 111; A.W. Schorger, "The Great Wisconsin Passenger Pigeon Nesting of 1871," in *Proceedings of the Linnean Society of New York*, 49:2 (October, 1937). The Minnesota Historical Society does not have a file of the *Caledonia Journal* for 1875 so the original statement could not be verified.
198. *Sauk Rapids Frontiersman*, June 17, 1858; *St. Cloud Democrat*, June 21, 1860; June 25, 1863; April 27, 1865; August 9, September 6, 1868; *Sauk Rapids Sentinel*, April 23, 1869; *Litchfield Republican*, April 18, May 17, 1871; *Forest and Stream*, 16: (June 21, 1881), 18:490 (July 20, 1882); *Willmar Daily Tribune*, October 5, 1939.
199. *The Weekly Record* (Detroit Lakes), June 8, September 7, 1872; August 8, 1874; *Red River Star*, June 7, 21, 1873; June 10, 1876; *Forest and Stream*, 38:563 (June 16, 1892).
200. Scudder, *The Winnipeg Country*, 93; Coues, *Birds of the Northwest*, 388; Mitchell, *The Passenger Pigeon in Ontario*, 37, 54; *Forest and Stream*, 13:985 (January 15, 1880).
201. *Superior Gazette*, July 18, 1868; *Duluth Minnesotan*, September 11, 1869; Mershon, *The Passenger Pigeon*, 134, 135; George Shiras III, "The Wild Life of Lake Superior, Past and Present," in *The National Geographic Magazine*, 40:147 (August, 1921); Roberts, *Diary of North Shore Trip*, August 4, 5, 13, 19, 1879.
202. *Chatfield Democrat*, May 2, 9, 1863; May 13, 1865; May 13, 1882; *Rochester Post*, June 12, 1869; *Wabasha Herald*, May 31, 16, 1871; *Glencoe Register*, May 25, 1871; Roberts, *Birds of Minnesota*, 1:583; Schorger, "Great Wisconsin Passenger Pigeon Nesting," 1, 8, 11. If the *Wabasha Herald* had reported the length of the colony correctly, it would have stretched from that town through Lake City almost to Red Wing. There was no mention of pigeons at all during that season in the *Goodhue County Republican* published at Red Wing. At Lake City, the *Wabasha County Sentinel* on June 14 urged people to cease killing pigeons in town and ridling houses with shot, but it made no comment on the nesting colony.
203. *Chatfield Democrat*, May 2, June 2, 1863.
204. *Chatfield Democrat*, April 23, May 21, 28, 1864.
205. *Chatfield Democrat*, May 27, June 3, 10, 1865; May 15, September 25, 1875.
206. Schorger, "Great Wisconsin Passenger Pigeon Nesting," 19.
207. *Chatfield Democrat*, April 9, 1870; April 13, 1872; *Rochester Post*, April 30, 1870; April 13, 1872; *Wabasha Herald*, August 1, 1872; *Detroit Weekly Record*, August 15, 1874; *Alexandria Post*, June 13, August 21, 1874. *Hastings Gazette*, May 20, 1876; *Red River Star*, June 10, 1876; *Forest and Stream*, 2:410 (August 6, 1874); Roberts, *Birds of Minnesota*, 1:584.
208. *Wabasha Herald*, April 6, 1871; *Pioneer*, May 16, 1871; *Chatfield Democrat*, June 8, 1871; Schorger, "Great Wisconsin Passenger Pigeon Nesting," 13.
209. *Forest and Stream*, 16: (June 21, 1881), 18:490 (July 20, 1882); Roberts, *Birds of Minnesota*, 1:585, 587.
210. *Hastings Independent*, June 19, 1862; *Pioneer*, May 16, 1871; *Special Laws of Minnesota for 1877*, 278 (St. Paul, 1877); *General Laws of Minnesota for 1891*, 79, (St. Paul, 1891).
211. Coues, ed., *New Light*, 1:84; Colhoun, *Diary*, July 19, 1823; Keating, *Narrative of an Expedition*, 1:347; *Northampton Courier*, October 5, 1852; Stevens, *Reports of Explorations*, 12, Part 1:52, Part 2:227; Scudder, *The Winnipeg Country*, 140.
212. Roberts, *Birds of Minnesota*, 1:434; *Martin County Review* (Fairmont), September 24, 1870; *Mantorville Express*, October 7, 1870; *Rochester Post*, April 13, 1872; *Faribault Democrat*, October 4, 1872; *Freeborn County Standard*, October 16, 1873; *Forest and Stream*, 3:267 (December 3, 1874); Coues, *Birds of the Northwest*, 583.
213. *Forest and Stream*, 5:113 (September 30, 1875), 6:1 (February 10, 1876), 9:457 (January 17, 1878), 37:44 (August 6, 1891); Hallock, *Sportsman's Gazetteer*, Part 2, 86, 87; *Martin County Sentinel*, March 8, October 4, 1878; *The Guardian*, October 1, 1880; Roberts, *Diary*, June 29, 1880; *Sports and Amusements*, 3:3 (May 20, 1892). This periodical, a "Weekly Journal devoted to the General Sporting Interests of the Twin Cities and the Northwest," was published from 1890 to 1892. It was edited by Arthur James Pegler, an active protagonist in the cause of Minnesota wildlife conservation in the 1890s.
214. Roberts, *Diary*, June 13, 1879; April 19, 1880; May 9, 1881; Franklin Benner, *Diary*, June 9, 1879; *Sauk Rapids Sentinel*, September 25, 1868; *Litchfield Republican*, May 21, 1872; *Litchfield Ledger*, September 5, 1872; *Alexandria Post*, April 18, 1874; *Fergus Falls Journal*, June 30, 1876; September 27, October 4, 1878; October 24, 1879.
215. *Forest and Stream*, 13:733 (October 16, 1879), 23:47 (August 14, 1884), 23:186 (October 2, 1884); *Fergus Falls Journal*, October 5, 1877; September 27, 1878; October 24, 1879; *Scribner's Monthly*, 18:828 (October, 1879); Hallock, *Sportsman's Gazetteer*, Part 2, 87; *Alexandria Post*, April 28, 1880; Sweeney, *Annual Report for 1892*, 20.

216. Roberts, *Birds of Minnesota*, 1:430; Coues, *Birds of the Northwest*, 531; Coues, ed., *New Light*, 1:84, 444; *Fergus Falls Journal*, November 3, 1876; October 10, 1879; April 26, 1883; *Forest and Stream*, 13:985 (January 15, 1880), 37:44 (August 6, 1891); *Minneapolis Journal*, October 10, 1896; Sweeney, *Annual Report for 1892*, 20.
217. Keating, *Narrative of an Expedition*, 1:342; Beltrami, *Pilgrimage*, 2:315; Featherstonhaugh, *A Canoe Voyage*, 2:19; Stevens, *Reports of Explorations*, 12, Part 2:249; *Pioneer*, March 6, 1850; April 1, 1858; *Faribault Republican*, March 13, 1878; Coues, *Birds of the Northwest*, 544; Hallock, *Sportsman's Gazetteer*, Part 2, 185; Roberts, *Birds of Minnesota*, 1:206.
218. James, ed., *Narrative of the Captivity*, 300; Keating, *Narrative of an Expedition*, 2:49, 114; Pope, *Report of an Exploration*, 27; Coues ed., *New Light*, 1:198, 221, 245, 259, 281, 423, 440; Nicollet, *Report*, 63; Henry Lewis, *Das Illustrierte Rississippithal*, 138 (Leipzig, 1923); Schoolcraft, *Narrative Journal of Travels from Detroit*, 266; Ely, *Diary*, March 25, 1837.
219. *Forest and Stream*, 4:113 (April 1, 1875); Hallock, *Sportsman's Gazetteer*, Part 2, 84; *Grand Rapids Magnet*, March 13, 1894; Ullmann Company Record Books; Surber, *Mammals of Minnesota*, 50.
220. Coues, ed., *New Light*, 1:198, 221, 245, 259, 281, 422, 440; Tyrrell, *David Thompson's Narrative*, 282; Coues, ed., *Expeditions of Zebulon Montgomery Pike*, 1:284, 285; Keating, *Narrative of an Expedition*, 2:49 114; Pope, *Report of an Exploration*, 27; Sibley to Ramsay Crooks, December 31, 1834; February 28, 1835; A.M. Anderson to Sibley, October 18, 1837; Louis Provencalle to Sibley, January 25, 1830; Crooks to Sibley, April 23, 1841; F. Culbertson to W.H. Forbes, January 27, 1841, Sibley Papers.
220. Ullmann Company Records.
221. Burpee, ed., *Journals and Letters of La Verandrye*, 69, 179; Gates, ed., *Five Fur Traders*, 229, 230; Coues, ed., *New Light*, 1:155, 198, 221, 245, 259, 281, 422, 440; Coues, ed., *Expeditions of Zebulon Montgomery Pike*, 1:284, 283; Ullmann Company Records.
222. Lanman, *A Summer in the Wilderness*, 79, 130; Stevens, *Reports of Explorations*, 12, Part 2:126.
223. Surber, *Mammals of Minnesota*, 55; *Chatfield Democrat*, October 28, 1865; December 8, 1877; *Mankato Union*, April 10, 1868; *Fergus Falls Advocate*, February 12, 1873; *Pioneer*, February 8, November 7, 1875; *Waseca Leader*, January 26, 1878; *Faribault Republican*, November 6, 1876; *Hastings Gazette*, March 24, 1883; *Forest and Stream*, 10:320 (May 30, 1878), 22:128 (March 13, 1884).
224. Coues, ed., *New Light*, 1:121, 198, 221, 245, 259, 281, 422, 440; Coues, ed., *Expeditions of Zebulon Montgomery Pike*, 1:284-285; Andrews, *First Annual Report*, 101; *Minnesota Statesman*, December 10, 1858; Surber, *Mammals of Minnesota*, 12, 19, 47.
225. Coues, ed., *New Light*, 1:221, 245, 259, 281, 422, 440; Coues, ed., *Expeditions of Zebulon Montgomery Pike*, 1:284, 285; Beltrami, *Pilgrimage*, 2:481.
226. Surber, *Mammals of Minnesota*, 15, 78; *Pioneer*, December 25, 1861; August 24, 1870; *Superior Times*, April 5, 1873; *Fergus Falls Journal*, November 26, 1880; *Park Rapids Enterprise*, February 15, 1885; *Hubbard County Enterprise*, November 23, 1884; April 22, September 30, 1887; *Forest and Stream*, 2:162 (April 23, 1874), 4:113 (April 1, 1875); *Farm, Stock, and Home*, 3:25 (December 1, 1886).
227. *Minneapolis Journal*, July 27, November 2, 1891; August 12, October 21, November 24, 1893; March 10, September 15, 25, 1894; June 10, November 16, 1895; June 17, 1896; September 8, November 11, 1897; October 26, 1898; September 27, 1899; November 5, 1900; January 31, 1901; Andrews, *First Annual Report*, 100; Sweeney, *Annual Report for 1891*, 18, 21; Sweeney, 1892, 17, 20, 23; Andrus, *Annual Report for 1894*, 16; Beltrami *Eagle*, June 25, 1897; *Forest and Stream*, 38:251 (March 17, 1892); Madison Grant, "The Vanishing Moose," in *The Century Magazine*, 47:346 (January, 1894); *General Laws of Minnesota for 1891*, 75; *General Laws of Minnesota for 1893*, 239 (St. Paul, 1893).
228. Roberts, *Birds of Minnesota*, 1:476; *Forest and Stream*, 10:447 (July 11, 1878); A.K. Fisher, *United States Department of Agriculture, Yearbook*, 1901, 447-458.
229. *Pioneer*, September 2, 5, 1859; August 9, 1873; July 7, 1874; *Hastings Gazette*, July 8, 1876; *Forest and Stream*, 2:374 (July 23, 1874), 10:447, 13:587 (August 28, 1879).
230. *American Turf Register*, 2:180 (September 3, 1830); *Forest and Stream* 18:5 (February 2, 1882); Coues, *Birds of the Northwest*, 473; *Pioneer*, August 12, 1882; *Hastings Gazette*, September 15, 1883.
231. *Minneapolis Journal*, July 9, 1895; July 15, August 22, 1896; July 17, September 23, 1897; July 13, 1899.
232. *Pioneer*, September 2, 1869; *Minneapolis Journal*, October 8, 1896; September 23, 1897; October 7, 1899.
233. *Minneapolis Journal*, September 19, 1809.
234. Roberts, *Birds of Minnesota*, 1:467, 487; *Spirit of the Times*, 16:73.

235. Carver, *Three Years Travel*, 270; Coues, ed., *Expeditions of Zebulon Montgomery Pike*, 1:87ff; Keating, *Narrative of an Expedition*, 2:148; Graham, *Notes of a Sporting Expedition*, June 4, 1847; *Spirit of the Times*, 18:67; Aldo Leopold, *Report on a Game Survey of the North Central States*, 151 (Madison, 1931).
236. Coues, ed., *Expeditions of Zebulon Montgomery Pike*, 1:175; Graham, *Notes of a Sporting Expedition*, June 2, 4, 1847; Agassiz, *Lake Superior* 67, 107; *Pioneer*, August 24, 1870; Coues, *Birds of the Northwest*, 395; Roberts, *Birds of Minnesota*, 1:367.
237. Carver, *Three Years Travel*, 270; Coues, ed., *Expeditions of Zebulon Montgomery Pike*, 1:98ff, Colhoun, *Diary*, July 19, 1823; Beltrami, *Pilgrimage*, 2:371; Featherstonhaugh, *A Canoe Voyage*, 1:286; 293, 295; Catlin, *Letters and Notes*, 2:177; Lanman, *A Summer in the Wilderness*, 63; Graham, *Notes of a Sporting Expedition*, October, 1847; *Spirit of the Times*, 18:73; Stevens, *Reports of Explorations*, 12, Part 1:46; Scudder, *The Winnipeg Country*, 140; *Forest and Stream*, 39:443 (November 24, 1892); Roberts, *Birds of Minnesota*, 1:396.
238. *American Turf Register*, 3:588 (March 1832), 4:604 (August, 1833), 6:617 (August, 1835), 8:505 (September, 1837); *Pioneer*, January 1, 1852; Leopold, *Report on a Game Survey*, 162; Roberts, *Birds of Minnesota*, 1:387.
239. Coues, *Birds of the Northwest*, 410; Hallock, *Sportsman's Gazetteer*, 119; *Forest and Stream*, 4:146 (April 15, 1875), 9:466 (January 24, 1878), 12:247 (May 1, 1879), 1:663 (September 25, 1879); Franklin Benner, *Diary of Grant County Trip*, June, 1879, Roberts, *Diary*, June 10, 1879.
240. *Forest and Stream*, 13:085 (January 15, 1880), 21:247 (October 25, 1883), 37:3 (July 23, 1891); *Pioneer*, January 30, April 20, 1881; September 29, 1884; Ernest E.T. Seton, "The Prairie Chicken," in *Transactions of the Manitoba Historical and Scientific Society*, 14:13 (May 22, 1884), 51:12 (April 14, 1898).
241. Hallock, *Sportsman's Gazetteer*, 119; Roberts, *Birds of Minnesota*, 1:388.
242. John H. Stevens, *Personal Recollections of Minnesota and its People*, 49 (Minneapolis, 1890); *Alexandria Post*, March 17, 1869.
243. *Northampton Courier*, October 5, 1852; *Pioneer*, July 18, 1854; September 5, 1859; *Belle Plaine Enquirer*, May 28, 1859.
244. *Belle Plaine Enquirer*, May 18, 1861; *Chatfield Democrat*, October 10, 1863; January 2, 1864; March 1, 1873; August 24, 1878; *Pioneer*, September 13, 1864; *Wabasha Herald*, January 5, 1871; *Forest and Stream*, 2:410 (August 6, 1874), 10:383 (June 20, 1878); Coues, *Birds of the Northwest*, 431; Hallock, *Sportsman's Gazetteer*, Part 2, 88; Roberts, *Birds of Minnesota*, 1:411; John W. Murray, *Diary*, September 11, 1865, in manuscript division.
245. *The Chicago Field*, January 31, 1880; *Chatfield Democrat*, November 26, 1861, January 27, 1883; *Hastings Gazette*, November 11, 1882; *Forest and Stream*, 20:226 (April 19, 1883); Roberts, *Diary*, October 7, 1881; Roberts, *Birds of Minnesota*, 1:411.
246. *Minneapolis Journal*, September 21, 1895; July 15, August 17, 22, October 2, 1896; October 18, 1897; July 18, October 7, December 5, 1899; October 2, 1900.
247. *Pioneer*, July 18, 1854; October 6, 1863; February 20, 1874; November 18, 1882; January 18, March 29, 1884; November 13, 1885; *Wabasha Herald*, January 5, 1871.
248. *Pioneer*, February 6, 1856; February 6, 1873; *Chatfield Democrat*, January 2, 1864; March 1, 1873; January 27, 1883; Murray, *Diary*, September 26, 1886; James M. Quinn, "Some Early Minnesota," 12, 15, typewritten reminiscences in manuscript division.
249. *Chatfield Democrat*, October 10, 1863; *Alexandria Post*, March 17, 1869; *Freeborn County Standard*, February 22, 1872; *Minneapolis Journal*, December 29, 1898; *General Laws of Minnesota for 1861*, 180 (St. Paul, 1861); *General Laws of Minnesota for 1871*, 83 (St. Paul, 1871); *Congressional Record*, 33:4871.
250. Pond, "The Dakotas or Sioux in Minnesota," 315; Sibley, "Reminiscences," 265; Ramsay Crooks to Sibley, July 13, 1841.
251. Coues, ed., *Expeditions of Zebulon Montgomery Pike*, 1:90 ff., 178, 284, 285; Schoolcraft, *Narrative of an Expedition Through the Upper Mississippi*, 49, 54, 57; Nicollet, *Report*, 56; Lanman, *A Summer in the Wilderness*, 100, 109; Lewis, *Das Illustrierts Mississippithal*, 138.
252. Tyrrell, ed., *David Thompson's Narrative*, 181, 249, 281, 266, 298; Coues, ed., *Expeditions of Zebulon Montgomery Pike*, 1:285; Ely, *Diary*, June 27, 1834; April 19, 1839; Coues, ed., *New Light*, 1:127, 274; Colhoun, *Diary*, July 26, 1823.
253. Agassiz, *Lake Superior*, 68; *St. Anthony Express*, February 14, 1852; *St. Peter Courier*, December 18, 1855; *Pioneer*, October 28, 1864; November 12, 1868; *Stillwater Messenger*, July 21, 1871; *Pine County News* (Pine City), December 19, 1874; Lucy L.W. Morris, *Old Rail Fence Corners*, 101 (Austin, Minnesota, 1914).

254. *Freeborn County Standard*, December 24, 1868; December 16, 1869; *Pioneer*, December 3, 1889; April 2, 1870; *Waseca News*, December 8, 1869; *Wabasha Herald*, December 29, 1870; *Rochester Post*, July 1, 1871; *Chatfield Democrat*, December 2, 1871; November 30, 1872; October 23, 1873; December 5, 1874; October 12, 1878; November 22, 1879; November 12, 26, 1881; December 15, 1883; January 5, 1884; *Martin County Review*, March 1, 1872; *Hastings Gazette*, October 12, November 24, 1877; November 8, 1879; *Faribault Republican*, December 8, 1876; *Martin County Sentinel*, November 29, 1878; *The Guardian*, December 1, 1886; *Forest and Stream*, 5:187 (October 28, 1875); Hallock, *Sportsman's Gazetteer*, Part 2, 87, 89.
255. *Chatfield Democrat*, February 15, 1873; September 8, December 15, 1877; *Pioneer*, March 19, 1875; *General Laws of Minnesota for 1875*, 159 (St. Paul 1875); *Special Laws of Minnesota for 1877*, 279.
256. *Superior Gazette*, October 10, 1889; *Pioneer*, August 24, 1870; July 17, 1887; *Superior Times*, December 17, 1870; Andrews, *First Report of Chief Fire Warden*, 100; Shiras, "Wild Life of Lake Superior," 130.
257. *Forest and Stream*, 35:371 (November 27, 1890); *Beltrami Eagle*, August 13, September 3, 1897; *Minneapolis Journal*, October 16, 1897, November 23, 1900.
258. James, ed., *Narrative of the Captivity*, 104.
259. *Spirit of the Times*, 19:90 (April 14, 1849), 22:282 (July 31, 1852), 29:267 (July 16, 1859); *Pioneer*, August 7, 1860, August 6, 1868, August 6, 1859; *Hastings Gazette*, August 3, 1867, January 25, 1868, August 6, 1868; *Milton Weekly News*, August 16, 1867; *St. Cloud Journal*, August 22, 1867; *Freeborn County Standard*, August 12, 1869; *Rochester Post*, August 14, 1869; *Glencoe Weekly Register*, August 19, 1869; *Mankato Union*, August 20, 1869; *Alexandria Post*, August 28, 1869; *Sauk Rapids Sentinel*, September 3, 1869.
260. *Chatfield Democrat*, July 30, 1870; *Pioneer*, July 30, 1870; August 9, 13, September 7, 1873; August 18, September 4, 29, 1874; *Alexandria Post*, July 29, 1871; *Faribault Democrat*, November 17, 1871; *Litchfield Ledger*, August 14, 1873; *Hastings Gazette*, August 23, 1873; August 7, 21, 1875; August 19, 1876; *Detroit Weekly Record*, September 12, 1874; *Glencoe Weekly Register*, August 5, 1875; *Red River Star*, August 28, 1875; *Forest and Stream*, 7:70 (September 7, 1876).
261. *Martin County Sentinel*, August 16, 1878; *Fergus Falls Journal*, July 23, 1879; *Hastings Gazette*, August 7, 21, 1880; *Pioneer*, August 12, 1882; September 15, 29, 1884; *Forest and Stream*, 18:514 (July 28, 1891), 17:69 (August 25, 1881), 18:447 (July 6, 1882).
262. *Minneapolis Journal*, August 5, 1893; August 16, 1894; September 22, 1895; September 24, October 2, 1896; August 7, August 19, 1897; July 15, 1899; Sweeney, *Annual Report for 1891*, 17, 21, Sweeney, *Annual Report for 1892*, 20.
263. Leopold, *Report on a Game Survey*, 135, 168.
264. *Alexandria Post*, November 4, 1871; *Forest and Stream*, 18:490 (July 20, 1882); 21:410 (December 20, 1883); *Minneapolis Journal*, October 26, 1895; October 17, 26, 1898; September 12, October 11, 1899; March 2, October 26, 1900; Leopold, *Report on a Game Survey*, 135.
265. *St. Cloud Democrat*, November 26, 1863; December 8, 1864; *Minneapolis Journal*, February 25, 1897; Leopold, *Report on a Game Survey*, 135.
266. Featherstonhaugh, *A Canoe Voyage*, 1:329; *Freeborn County Standard*, April 23, 1874; *Scribner's Monthly*, 18:837 (October, 1879); *Forest and Stream*, 23:47 (August 14, 1884).
267. Coues, ed., *New Light*, 1:102; Bigsby, *The Shoe and Canoe*, 2:232; Pond, *The Dakota or Sioux in Minnesota*, 545; *Pioneer*, December 30, 1866; February 10, 1867; *Spirit of the Times*, 18:87.
268. *Hastings Gazette*, August 3, 1887; *Milton Weekly News*, August 13, 1867; *Rochester Post*, August 6, 1870; *Alexandria Post*, July 29, 1871; *Pioneer*, August 9, 1873; *Detroit Weekly Record*, September 12, 1874; *Minneapolis Journal*, August 18, 1894; August 7, 1897; October 26, 1896; July 15, 20, 1899.
269. *Faribault Democrat*, November 17, 1871; *Glencoe Weekly Register* August 5, 1873; *Forest and Stream*, 17:30 (August 11, 1881).
270. *Chatfield Democrat*, August 12, 1865; *Forest and Stream*, 16:514 (July 28, 1881); *Minneapolis Journal*, September 24, 1893; March 27, August 7, 1897; October 17, 1898; Leopold, *Report on a Game Survey*, 173, 174.
271. *Pioneer*, August 18, 1874; September 15, 1884; *Hastings Gazette*, August 21, 1875; *Rochester Post*, August 14, 1869; *Forest and Stream*, 18:447 (July 6, 1882); *Minneapolis Journal*, August 5, 1893; October 25, 1893; September 12, 1899; March 2, 1900; Sweeney, *Annual Report for 1892*, 20, 21.
272. *Pioneer*, August 6, 1868; *Hastings Gazette*, August 15, 1868.
273. Aldo Leopold, *Game Management*, 4 (New York, 1837).
274. Day, *Annual Report of the Fish Commission for 1874*, 22.

275. *General Laws of Minnesota*. The volumes consulted between 1858 and 1901 are so completely indexed that it has not seemed necessary to cite page references in this section.
276. *Stillwater Messenger*, July 17, 1860; August 2, 1864; *Pioneer*, August 25, 1862; *Goodhue County Republican* (Lake City), May 18, 1871.
277. *Glencoe Register*, August 10, 1871; *Pioneer*, August 2, 1872; August 2, 1873; January 9, 1875; *Blue Earth City Post*, July 18, August 8, 1874; July 31, August 7, 1875; August 12, 1876; *Martin County Sentinel*, August 11, 1876; August 10, 24, 1877; *Hastings Gazette*, September 2, 1882; *Hubbard County Enterprise*, November 4, 1887.
278. *Faribault Democrat*, April 1, 1873; *Pioneer*, December 10, 1875.
279. *Alexandria Post*, February 10, March 3, 1869; *Pioneer*, February 15, 1871.
280. *Pioneer*, January 15, 1882; January 3, 1883; *Minneapolis Journal*, August 2, 1889.
281. *Glencoe Register*, April 14, 1860; *Alexandria Post*, August 23, 1873; *Freeborn County Standard*, September 4, 1873; *Fergus Falls Journal*, August 4, 1881; *Fergus Falls Independent*, August 16, 1882; *Pioneer*, February 27, April 10, 17, 1882; *Forest and Stream*, 16:229 (April 21, 1881), 17:30 (August 11, 1861), 18:306 (July 27, 1882), 20:387 (June 14, 1863); *Farm, Stock, and Home*, 2:1 (May 15, 1886).
282. *St. Paul Press*, February 13, 1863; *Chatfield Democrat*, July 23, 1863; January 20, 1866; March 18, 1871; December 5, 1874; December 4, 1875; December 9, 1876; August 10, 1878; August 6, 1881.
283. *Pioneer*, July 29, 1863; July 26, August 2, 1885; December 9, 1874; December 27, 1876; *Glencoe Weekly Register*, March 12, 1868; *Alexandria Post*, January 14, 1871; *Freeborn County Standard*, February 22, 1872; *Martin County Sentinel*, April 23, 1875; May 10, 1878; *Litchfield News Ledger*, May 8, 1875; *Hastings Gazette*, August 19, 1882; June 23, July 28, 1863; *Fergus Falls Journal*, August 2, 9, 1883.
284. Metcalf, *Statistics of Minnesota for 1877*, 255; *Pioneer*, January 23, 1882.
285. *Pioneer*, July 26, 1862; March 15, 1871; December 15, 1872; November 11, 1881; *Wadena Tribune*, April 14, 1877; *Forest and Stream*, 5:577 (January 20, 1876), 18:489 (July 20, 1882).
286. *Pioneer*, January 29, 1883.
287. *Pioneer*, November 30, 1881; February 5, March 12; August 20, 1865; *Fergus Falls Journal*, August 9, 1883; *Forest and Stream*, 20:61 (February 22, 1883), 20:162 (March 29, 1883), 21:41 (August 16, 1883).
288. *Farm, Stock and Home*, 3:49 (January 1, 1897); *Minneapolis Journal*, August 2, 1889.
289. *Minneapolis Journal*, October 7, 1891. The report of the warden at Hallock regarding this incident noted the arrest of James M. Hill, L.W. Hill, and S.N. Morrison, and collection of a fine of \$90.00 and costs. See Sweeney, *Annual Report for 1891*, 18.
290. *Minneapolis Journal*, December 12, 1894; August 23, 1897; Fullerton to George W. Millhouse, December 2, 1898.
291. *Minneapolis Journal*, August 25, 1894; December 28, 1898.
292. *Minneapolis Journal*, August 22, 1894; Fullerton to P.O. Stephens, April 23, 1895; Fullerton to Archie Philips, July 5, 1898; Fullerton to E. Hough, September 30, 1898.
293. *Kitson County Enterprise* (Hallock), December 10, 1897; Fullerton to J.E. Boyette, March 28, 1899.
294. Fullerton to " ", Mendenhall, April 16, 1895; Fullerton to W.H. Dash, June 5, 13, 1895; Fullerton to G.V. Peek, June 13, 1895.
295. Fullerton to J.H. Reiner, April 23, 1895; Fullerton to James Graham, September 26, 1898; John Beutner to D.E. Lockwood, March 22, 1899; *Minneapolis Journal*, September 25, 1901. There may have been a reason for the absence of such a list. When one was compiled, most of the individuals whose names appeared on it received a form letter of dismissal!
296. Sweeney, *Annual Report for 1891*, 22; *Minneapolis Journal*, March 8, July 20, 1897.
297. *Pine Knot* (Cloquet), March 7, 1891; *Minneapolis Journal*, November 24, 1893; *Forest and Stream*, 36:171 (March 19, 1891), 41:230 (September 16, 1893); *Sports and Amusements*, 2:4 (February 19, 1892); Sweeney, *Annual Report for 1892*, 14; Andrus, *Annual Report for 1893*, 8.
298. *Minneapolis Journal*, December 29, 1893; November 26, December 5, 13, 1894; November 1, 1895; *Legislative Manual of the State of Minnesota*, 1895, 301 (St. Paul, 1895).
299. *Minneapolis Journal*, November 15, December 24, 1895; December 5, 1896; *The American Naturalist*, 31:42 (January, 1897).
300. *Minneapolis Journal*, July 17, October 28, 1897; October 17, 1899; *Pioneer*, October 30, November 13, 1897; *Roseau County Times*, December 3, 1897; *Roseau Plaindealer*, December 16, 1897; Fullerton to T.H. Loveday, September 13, 1898.

301. Fullerton to H.B. Starkey, June 16, 1895; Fullerton to George A. Terrill, October 29, 1898; Fullerton to Louis R. Helbing, November 1, December 23, 1898; Fullerton to Joseph Underleak, November 2, 1898; Fullerton to Fred Parrington, December 15, 24, 1898; Fullerton to Henry L. Mahon, February 28, 1899; *Minneapolis Journal*, November 23, 1899.
302. Fullerton to S.A. Smart, December 1, 1898.
303. Fullerton to the Editor of the *American Field*, November 23, 1898.
304. *Minneapolis Journal*, December 6, 1893; August 23, November 2, 1894; August 7, 1897; October 19, 1898; March 20, 1899; *Roseau County Times*, March 10, 1899.
305. *Minneapolis Journal*, January 23, 1893; October 23, 1896; Andrus, *Annual Report for 1893*, 4.
306. *Minneapolis Journal*, December 28, 1896; March 13, 1897; November 19, 1896; Fullerton to F.I. Whitney, September 19, 1898.
307. Fullerton to Uri Lamprey, June 4, 1898; Fullerton to M.B. Graves, September 19, 1898; Fullerton to W.B. Cox, September 19, 1898; Fullerton to E. Hough, September 30, 1898; Fullerton to Thomas Miller, December 23, 1898; Fullerton to John W. Hutchinson, December 28, 1898; Fullerton to Barnett H. Davis, January 13, 1899; Fullerton to A.W. MacFarlane, January 27, 1899; *Minneapolis Journal*, March 21, 23, 1900.
308. Connery, *Governmental Problems*, 59; *Minnesota Reports*, 58:393, 403 (St. Paul, 1895), 59:467 (St. Paul, 1896), 64:130 (St. Paul, 1897), 72:335 (St. Paul, 1899), 77:518 (St. Paul, 1900), 93:148 (St. Paul, 1905); Anon., "Penalties Insufficient," in *Fin, Feathers, and Furs*, 1:12 (March, 1915).
309. *Minneapolis Journal*, December 14, 15, 1892; April 18, 1893; October 14, 1898; March 20, April 6, 1899; Sweeney, *Annual Report for 1898*, 5; *Roseau County Times*, January 6, 1899; Fullerton to George C. Heberling, October 8, 1898; Fullerton to Charles S. Osborn, October 26, 1898; Fullerton to J.H. Green, October 28, 1898.
310. Sweeney, *Annual Report for 1891*, 12; *Minneapolis Journal*, May 22, 1890; *Forest and Stream*, 40:399 (May 11, 1893).
311. *Pioneer*, January 29, 1893; *Minneapolis Journal*, December 3, 1897; *General Laws of Minnesota for 1897*, 413 (St. Paul, 1897); Fullerton to J.E. McWilliams, September 26, 1898; Fullerton to J.W. Denver, October 10, 1898. The first foreign species introduced into Minnesota was the English Sparrow. On August 20, 1874, the *Pioneer* inquired: "Where are those sparrows that were to be received here from New York, for Rice Park?"
312. Samuel F. Fullerton, *Annual Report for 1896*, 6 (St. Paul, 1897); Fullerton to S.C. Bagley, January 7, 1899; Fullerton to R. Bortree, January 10, 1899; *Minneapolis Journal*, March 10, 1900.
313. *Minneapolis Journal*, December 13, 15, 1893; January 3, September 22, 1894; June 10, 1895; Fullerton to J.H. Warner, June 8, 1895.
314. *Minneapolis Journal*, August 27, 1895; Fullerton to William Bird, October 5, 1898; Fullerton to Bronson Strain, October 24, 1898.
315. Fullerton to Charles Larson, January 20, 1899; Fullerton to H.M. Dimean, February 4, 1899.
316. *Roseau County Times*, February 7, 1896; January 7, February 25, March 4, 11, 18, May 20, 27, September 16, 1898; *Roseau Plaindealer*, March 17, 1898; *Kiltson County Enterprise*, March 18, 1898.
317. *Minneapolis Journal*, March 27, 1897.
318. Fullerton to Neil McInnis, September 13, 1898; Fullerton to W.S. Timberlake, October 17, 1898; Fullerton to Clint D. Witt, October 24, 1898; Fullerton to William Bird, October 24, 1898.
319. Fullerton to P.O. Stephens, to J.H. Jones, November 12, 1898; Fullerton to W.M. Fuller, November 26, 1898.
320. John Beutner to John H. Grass, March 22, 1899; Beutner to A.G. Kingston, March 29, 1899; *Minneapolis Journal*, February 28, 1899.
321. Featherstonhaugh, *A Canoe Voyage*, 1:286; Graham, *A Sporting Expedition*, August 28, September 13, October 6, 1847.
322. Wilfred J. Whitefield, *Diary*, November 30, 1859, in Whitefield Papers manuscript division; *Pioneer*, April 25, 1858; August 10, 1864; November 9, 1869; *St. Cloud Visitor*, May 20, 1858; *Minneapolis Journal*, October 14, 1893.
323. *Hastings Independent*, September 8, 1859; *Pioneer*, May 6, August 4, 1860; *Chatfield Democrat*, August 23, 1863; *Martin County Sentinel*, August 30, 1878; *Forest and Stream*, 37:221 (October 1, 1891); *Minneapolis Journal*, July 1, 1899; Mary Wheelhouse Berthel, "Hunting in Minnesota in the Seventies," in *Minnesota History*, 18:269 (September, 1933).

324. *Pioneer*, December 17, 1858; Frances Densmore, "The Garrard Family in Frontenac," in *Minnesota History*, 14:34:49 (March, 1933).
325. *Forest and Stream*, 13:583, 590 (August 23, 1879).
326. *Martin County Sentinel*, November 17, 1876; June 22, August 10, 1877; Arthur R. Moro, "The English Colony at Fairmont in the Seventies," in *Minnesota History*, 8:145 (June, 1927).
327. *Martin County Sentinel*, June 7, December 20, 1878; *Forest and Stream*, 10:258 (May 9, 1878).
328. *Minneapolis Journal*, August 18, 1894.
329. *Pioneer*, October 24, 1856; September 23, November 21, December 12, 1862; September 22, 27, 1883; April 6, October 13, 1871; *Martin County Sentinel*, August 30, 1878; *Forest and Stream*, 13:365 (August 21, 1879).
330. *Forest and Stream*, 16:365 (June 9, 1881), 16:479 (July 14, 1881), 41:433 (November 25, 1893); *Sports and Amusements*, 3:3 (May 20, 1892); *Pioneer*, October 2, 1882; *Minneapolis Journal*, October 28, 1895; September 28, 1898; September 29, 1899.
331. *Minneapolis Journal*, September 3, 1897, August 30, 1899.
332. *Hastings Independent*, August 6, 1863; *Glencoe Weekly Register*, September 2, 1875; *Martin County Sentinel*, August 23, 1878; *The Chicago Field*, September 6, 1879.
333. *Pioneer*, February 2, 1869; July 7, 1874; April 10, 1882.
334. *Pioneer*, October 2, 1882; September 18, 1887.
335. *Minneapolis Journal*, August 11, 20, 1892; October 7, 1893.
336. *Minneapolis Journal*, July 22, 1893; August 26, September 3, 1897.
337. *Minneapolis Journal*, October 5, 1895; October 14, 24, 1898.
338. *Pioneer*, August 1, 1866; January 23, 1882; *Fergus Falls Weekly Journal*, August 16, 1883; *Minneapolis Journal*, August 19, 1889; Andrus, *Annual Report for 1894*, 13.
339. *Pioneer*, October 24, 1856; August 3, 1864; August 6, 1869; August 20, 1871; *Central Republican* (Faribault), September 7, 1859; *Freeborn County Standard*, August 27, 1868; August 12, 1869; August 11, 1870; *Glencoe Weekly Register*, August 19, 1869; *Red River Star*, August 22, 1874; *Faribault Republican*, August 21, 1878; *Minneapolis Journal*, September 8, 1899; *Forest and Stream*, 3:187 (October 29, 1874), 9:195 (October 11, 1877), 16:26 (February 10, 1881), 39:295 (October 6, 1892); *Glencoe Herald*, January 12, 1939.
340. *Minneapolis Journal*, August 18, 1894, February 8, July 15, 1899.
341. *Martin County Atlas*, August 15, 1868; *Pioneer*, April 16, 1870; April 10, 1882; *Litchfield Ledger*, October 23, 1873; *Western Minnesota Press* (Willmar), October 26, 1881; *Alexandria Post*, October 23, 1885; *Minneapolis Journal*, October 29, 1895; October 24, 1898; *Forest and Stream*, 11:330 (November 21, 1878).
342. *Pioneer*, April 3, 1866; April 16, 1870; April 10, 1882; *Minneapolis Journal*, August 23, 1892; April 2, 1895; October 24, 1898; *Forest and Stream*, 4:387 (July 29, 1875).
343. *Freeborn County Standard*, October 2, 1872; *Pioneer*, November 11, 1874; *The Guardian*, October 1, 1880; *Hastings Gazette*, October 6, 1883; *Alexandria Post*, December 27, 1878; October 18, 1885; *Cass County Pioneer* (Walker), November 18, 1897; *Scribner's Monthly*, 18:839 (October 1879); *The Chicago Field*, March 8, 1886.
344. *Forest and Stream*, 11:1 (August 2, 1873), 37:146 (September 10, 1891) *Minneapolis Journal*, September 15, 1894.
345. *Pioneer*, January 21, 1881; *Mankato Independent*, February 25, 1861; *Chalfield Democrat*, June 8, 1881.
346. *Pioneer*, April 11, September 13, 1861; February 1, July 26, 27, 29, 1862; January 18, 1863.
347. *Pioneer*, July 18, 19, August 16, 1864; July 14, 17, 31, August 6, 1870.
348. *Pioneer*, January 15, February 12, 15, March 15, April 2, July 20, 1871; July 25, August 14, December 5, 1872.
349. *Pioneer*, August 16, 1873; August 13, 1875; February 5, March 12, 1883; January 7, 1881; August 3, 1885; *Forest and Stream*, 5:377 (January 20, 1876); *Chalfield Democrat*, March 17, 1877; *St. Paul City Directory*, 1880-1891, 54 (St. Paul, 1881). This directory states that the club was organized in 1859.
350. *Hastings Independent*, July 30, 1863; *Hastings Gazette*, July 27, 1872; August 5, 1876; *Chalfield Democrat*, April 16, 1871; April 29, 1874; May 8, 1875; June 24, 1882; *Wabashaw County Sentinel* (Lake City), July 19, 1871; *Freeborn County Standard*, September 5, 1872; May 21, August 6, 13, 1874; July 29, 1880; *Alexandria Post*, December 21, 1872; August 7, 1885; *Forest and Stream*, 17:30 (August 11, 1881).
351. *Faribault Republican*, May 31, 1878; *Waseca Leader*, July 28, August 4, 1877; *Chalfield Democrat*, April 30, August 13, 1881; *The Guardian*, August 11, 1881; *Fergus Falls Journal*, March 22, April 5, 1883; *Minneapolis Journal*, August 2, 1889; April 26, 1890; July 22, October 21, 1893; July 30, August 20, 1896; July 20, 1897; *Forest and*

- Stream*, 6:105 (March 23, 1876), 41:319 (October 14, 1893); Andrus, *Annual Report for 1894*, 19, 21, 24; *Park Rapids Enterprise*, June 22, July 13, 1929.
352. *Minneapolis Journal*, April 4, 1890; *Forest and Stream*, 21:469 (January 10, 1884).
 353. *Pioneer*, July 21, 1870; January 16, February 13, 1882.
 354. *Chatfield Democrat*, June 24, 1882; *Fergus Falls Journal*, July 26, August 2, 9, 1883; *Pioneer*, August 14, September 1, 1884; *Forest and Stream*, 18:109 (March 9, 1882), 18:463 (July 13, 1882), 20:162 (March 29, 1883).
 355. *Minneapolis Journal*, April 8, May 16, 1895; January 10, July 6, 1899; Fullerton, *Annual Report for 1895*, 6.
 356. *Hastings Independent*, July 30, 1863; *Pioneer*, August 16, 1884; *Freeborn County Standard*, September 3, 1872; August 6, 13, 1874; *Waseca Leader*, August 4, 1877.
 357. *Chatfield Democrat*, June 13, 1863; *Mankato Weekly Union*, May 20, 1864; *Pioneer*, June 1, 1875.
 358. *Hastings Independent*, August 13, 1883; *Pioneer*, August 9, 1864; October 17, 1873; *Mankato Weekly Union*, August 12, 1864; August 14, 21, 1868; *Freeborn County Standard*, August 20, September 10, 1874; *Fergus Falls Advocate*, October 14, 1874; *Forest and Stream*, 3:267 (December 3, 1874).
 359. *Pioneer*, January 6, 1875; *Faribault Republican*, February 21, March 7, 1877; *Minneapolis Journal*, February 25, 1889; January 13, 1891.
 360. *Minneapolis Journal*, December 21, 22, 23, 1893.
 361. *Minneapolis Journal*, December 3, 1894; November 28, December 5, 1895.
 362. *Beltrami Eagle*, September 17, 1897; *Kiltson County Enterprise*, February 4, 1898; *Minneapolis Journal*, March 14, 1899; February 5, 1901.
 363. *Minneapolis Journal*, May 24, 1899.
 364. *Henderson Democrat*, December 25, 1856; January 1, 1857; *Pioneer*, September 20, 22, 25, 1864; *Sauk Rapids Sentinel*, August 13, 1869.
 365. *Pioneer*, October 22, 1871; *Glencoe Weekly Register*, October 16, 1873; *Alexandria Post*, October 29, 1875; *Litchfield News Ledger*, November 4, 1875. The lack of a conservation viewpoint in an arrangement which placed a greater premium on the rarer species, like the Whooping Crane in this instance, should not be overlooked.
 366. *Hastings Independent*, July 30, 1863; *Pioneer*, June 15, 1869; July 21, 31, 1870; June 7, 24, 1871; *Wabashaw County Sentinel*, May 10, 1871.
 367. *Pioneer*, June 18, 28, 1872; May 15, June 21, 1873; April 6, 1874; Coues, *Birds of the Northwest*, 388.
 368. *Hastings Gazette*, August 1, 15, October 24, 1874; *Pioneer*, September 12, 24, 1875; *Forest and Stream*, 10:363 (June 13, 1878).
 369. *Pioneer*, February 6, 1882; *Hastings Gazette*, July 1, 1882; *Hubbard County Enterprise*, October 2, 1885.
 370. *Pioneer*, April 8, 1874; *Forest and Stream*, 6:105 (March 23, 1876), 39:153 (August 25, 1892); *Minneapolis Journal*, November 11, 1893; April 2, November 6, 1895; July 15, 1896; November 8, 1897; September 19, October 21, 1899; September 12, 1900.
 371. *Forest and Stream*, 10:54 (February 28, 1876), 18:28 (February 9, 1882), 40:317 (April 13, 1893), 40:404 (May 11, 1893), 41:23 (July 15, 1893), 41:515, 521 (December 16, 1893); *Pioneer*, January 29, 1883; *Cook County Herald*, February 2, 1895; *Minneapolis Journal*, April 3, 1895; October 2, 1900; John C. Phillips, *Wild Birds Introduced or Transplanted in North America*, 4, 42 (Washington, 1928).
 372. Marryat, *A Diary in America*, 2:102; *American Turf Register*, 2:92, 124 (October, 1830), 5:42 (September, 1831), 3:153, 158 (December, 1831).
 373. A.M. Anderson to Sibley, August 16, 1839, Sibley Papers; *Chatfield Democrat*, March 30, 1878.
 374. *Wabasha Herald*, August 24, 1871; *Alexandria Post*, April 18, 1874; *Forest and Stream*, 2:162 (April 23, 1874); E.C. Jordan, *Diary*, November 3, 1870; photostatic copy in manuscript division. The original diary is in the archives of the Northern Pacific Railroad, St. Paul.
 375. *Glencoe Weekly Register*, August 20, 1874; *Pioneer*, February 1, 1876; *Forest and Stream*, 2:162 (April 23, 1874), 9:478 (January 24, 1878), 10:340 (June 6, 1879), 11:132, 134 (September 10, 1878).
 376. *Freeborn County Standard*, August 20, 1874; *Fergus Falls Journal*, August 1, 1879; *Pioneer*, September 1, 1884; *Forest and Stream*, 18:347 (June 1, 1882), 21:3 (August 2, 1883), 35:14 (July 21, 1890); *Minneapolis Journal*, August 11, 1892, January 17, May 24, 1899.
 377. *Minneapolis Journal*, January 9, 13, 1894; October 21, 1895; December 15, 1897.

378. *Forest and Stream*, 23:47 (August 14, 1884); *The American Field*, May 13, 1886; *Minneapolis Journal*, September 19, 1899.
379. Grant, "The Vanishing Moose," 354; *Minneapolis Journal*, September 8, 1897.
380. *Litchfield Republican*, April 26, 1871; *Hastings Gazette*, August 26, 1876; *Martin County Sentinel*, August 18, 1876; *Forest and Stream*, 14:515 (July 29, 1889); *Roseau Plaindealer*, September 16, 1897; *Minneapolis Journal*, September 7, 1899.
381. *Forest and Stream*, 9:456 (January 7, 1876), 41:408 (November 11, 1893); *Minneapolis Journal*, August 25, 1894; August 22, 1896.
382. *Forest and Stream*, 14:288 (May 13, 1880).
383. *Stillwater Messenger*, March 4, 1862; *Forest and Stream*, 2:354 (July 16, 1874), 3:19 (August 20, 1874).
384. *Martin County Atlas*, September 10, 1868; *Pioneer*, March 13, 1832.
385. *Fergus Falls Journal*, December 10, 1880; *Pioneer*, November 14, 1897; *Minneapolis Journal*, November 4, 1899; November 15, 1901.
386. *Sauk Rapids Sentinel*, September 25, 1868; *Litchfield Ledger*, May 28, 1872, August 12, 1875.
387. *Chatfield Democrat*, March 20, 1858; *Hastings Independent*, April 17, 1862; *Pioneer*, March 17, 1863; April 10, 1862; *Glencoe Register*, April 1, 1869; *Fergus Falls Journal*, April 6, 1878; *Northern Tier* (Crookston), April 17, 1880; *The Guardian*, April 28, 1881; *Forest and Stream*, 22:247 (April 24, 1884); *Minneapolis Journal*, April 14, 1897.
388. *Pioneer*, April 20, 1881; *Minneapolis Journal*, March 11, 1893; March 31, July 10, 1894; April 14, 1897.
389. *Forest and Stream*, 2, unnumbered sheet at beginning of volume, 2:74 (March 12, 1874), 2:110 (April 2, 1874), 37:142 (September 10, 1891); *Minneapolis Journal*, February 22, 1897; Joseph Le Conte, "An Early Geological Excursion," 25. A typewritten copy of this paper is in the manuscript division of the Minnesota Historical Society. The original essay was presented at the meeting of the Cordilleran Section of the Geological Society of America in San Francisco, December 30, 1899.
390. Charles S. Flandrau, *Encyclopedia of Biography of Minnesota*, 1:384-386 (Chicago, 1900); *Independent Farmer and Fireside Companion*, 1:95 (April 1, 1879); *Forest and Stream*, 13:887 (October 2, 1879), 20:162 (March 29, 1883); *Scribner's Monthly*, 18:828 (October, 1879); Bertha L. Heilbran, "Seth Eastman's Water Colors," in *Minnesota History*, 19:419 (December, 1938). See Endnotes 171, 172.
391. Lanman, *A Summer in the Wilderness*, 80.
392. "Rapport sur un Memoire de M. Lamare-Picquot," in *Comptes Rendus Hebdomadaires Des Sennces De L'Academia Des Sciences*, 26:326; 27:563; 28:236, 271, 709, 722; 29:271, 339, 701 (Paris, 1848-1849); Martin McLeod to Sibley, August 11, 1848, Sibley Papers; Sibley to McLeod, August 25, 1848, McLeod Papers, manuscript division; *Le Voniteur Universal*, March 22, 1849. Through the courtesy of the Cornell University Library, a photostatic copy of the article in this newspaper describing Lamare-Picquot's second journey to Minnesota has been obtained and is now in the manuscript division of the Minnesota Historical Society. The plant which Lamare-Picquot wished to take to France was *Pacralea esculanta* known to the voyageurs as the pomme blanche or pomme de prairie. He was unable to transport any live specimens for experimental work, or get the seeds in the proper stage.
393. Lanman, *A Summer in the Wilderness*, 76; Fullerton, *Annual Report for 1896*, 10; Robert C. Auld, "The American Bison of the Future," in *The American Naturalist*, 24:792 (September, 1890); *Minneapolis Journal*, November 5, 1880, February 12, 1901.
394. *Pioneer*, April 8, 1866, July 4, 1867.
395. *Pioneer*, March 17, 31, July 23, September 11, 1889; January 4, 1870, February 22, April 19, 1871; October 19, 1873. Mendenhall was one of the Minneapolis men who contributed to the support of the museum at the University in the 1870s. Kilgore was the father of William Kilgore, Jr., of the present museum staff. Sweeney had a keen appreciation of natural history subjects, participated actively in the conservation program of the state, and painted a number of water color scenes of Minnesota (now in the manuscript division), some of which reflect his interest in game. He was accused in *Forest and Stream*, 11:259 (October 21, 1878), of engaging in a project to propagate frogs with legs of double size. The plan was to break the back of a young frog, and produce a deformity which would shorten the back and lengthen the legs. According to this article, the hope was to produce a strain of short-bodied, long-legged frogs whose value would be much enhanced in the eyes of caterers. The report was that Sweeney hoped to devote his entire attention to this enterprise. Perhaps, the whole idea was a joke.
396. Roberts, *Birds of Minnesota*, 1:3-18, Roberts, *Annals of Museum of Natural History, University of Minnesota*, 1872-1939, xi-xvi (Minneapolis 1939); Fullerton to Henry F. Nachtrieb, November 17, 1885.



Dr. Evadene Swanson, 1939.

“...aside from this scientific value of wildlife history, it has a cultural value which will one day amply repay the labor of collecting and the cost of preserving it.”

—Aldo Leopold

“Evadene’s dissertation is a stunning and comprehensive look at Minnesota’s wildlife in the pioneer settlement era. It was a time when wildlife was a focal point of daily life and survival for thousands of Minnesotans...”

—Carrol Henderson

ISBN 978-0-9754338-2-9



9 780975 433829