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The 1979 Resource Inventory
for
Pankratz Prairie South
Polk County, Minnesota

Southeast $\frac{1}{4}$, Section 17
and
Northeast $\frac{1}{4}$, Section 20
Township 149 North, Range 45 West
Harold Quadrangle

Prepared by
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INTRODUCTION

Scope and Organization

This report documents the information collected during a 1979 inventory of Pankratz Prairie South. The inventory recorded information on climate, geology, soils, hydrology, plant communities, flora, birds, mammals, amphibians, reptiles, and land use history of the natural area. Data supplied by this document will be used by the Minnesota Natural Heritage Program and other evaluators to assess the site as a potential Scientific and Natural Area (SNA). The document can also be used by scientists, educators, and others interested in the area. Should the site be designated an SNA, management plans can be written using this document as a reference.

This report is divided into five sections including: introduction, abiotic, vegetational, and zoological components, and land use history of the site. Methodologies and results are presented for each section.

The inventory of Pankratz Prairie South was part of a larger 1979 effort in which eighteen natural areas in east central, northwest, and southeast Minnesota were surveyed. Inventory team members were: John Borowske, SNA Planning Coordinator; Cherry Keller, Karen Lustig, Deb Schowalter, and Jeff Weigel, Researcher/Writers; Kathy Bolin, Community Specialist; and Nancy Berlin, Tony Busche, Barbara Eikum, Peter Farrell, Joanne Herman, Laura Hill, Susan Ottoson, Deanna Schmidt, Marianne Severson, Angela Tornes, and James Ziegler, Researchers. Gerald Jensen, Coordinator,

Scientific and Natural Areas Program, and Mark Heitlinger, Coordinator of Preserve Management, The Nature Conservancy, Minnesota Chapter served as inventory advisors. Michael Rees, project Editor, The Nature Conservancy, provided editorial assistance. Other individuals who assisted in the preparation of the inventory are mentioned in the appropriate sections. Their help is gratefully acknowledged.

Description of Study Area

Pankratz Prairie South is a 320 acre unit in western Polk County, approximately 7 miles southeast of Crookston, Minnesota. The area's climate is mid-continental, relatively cool and moist, with warm summers and cold winters. The natural area lies on the western edge of a large Glacial Lake Agassiz beach ridge. Topography of the tract is flat to gently rolling, with a gradual westward downslope. The poorly drained soils at Pankratz Prairie South formed in lacustrine and beach ridge sand and gravel and glacial till under prairie vegetation. Present vegetation is primarily sedge meadow, prairie, and willow thicket. A small portion of the tract has an undulating, hummocky appearance, and supports a wetland vegetation type.

The flora and fauna of Pankratz Prairie South are mostly typical of natural Minnesota communities. Species observed on the tract include: 159 vascular plants, 46 birds, 7 mammals, and 4 amphibians. The site lies in a small grain, potato, sugar beet, sunflower, and hay production area. A small portion of Pankratz Prairie South has been plowed, and larger areas were hayed prior to preservation. No evidence of domestic grazing was found.

Preliminary Assessment of Significance

This section lists features identified by the Minnesota Natural Heritage Program (MNHP) as potential elements¹, and identifies other aspects of the preserve believed by the authors to be important components of Minnesota's natural diversity, or which otherwise might qualify the site for SNA designation. Criteria for SNA evaluation are enumerated in "Minnesota Department of Natural Resources Policy Plan for Scientific and Natural Areas", dated July 6, 1979.

Pankratz Prairie South is notable as a tract of native prairie vegetation near the prairie-forest transition zone. It is located on the edge of a well developed Glacial Lake Agassiz beach ridge. Five species of national and/or state significance were identified on the site during the 1979 inventory. The White Lady-Slipper (Cypripedium candidum), specific to wet prairie-calcareous soil habitats (Gleason & Cronquist, 1963), has been proposed for federally threatened status by the Smithsonian Institute (Ayense & De Filippis, 1978). The Minnesota Natural Heritage Program lists the White Lady-Slipper, the Northern Gentian (Gentiana affinis), the Sedge Carex parryana subsp. hallii, the Marbled Godwit (Limosa fedoa), and the Greater Prairie Chicken (Tympanuchus cupido) as potential elements of state significance. In addition to sightings on the tract, Greater Prairie Chickens were observed booming on adjacent cultivated fields.

The natural area's location on the gently sloping edge of the Campbell beach ridge of the former Lake Agassiz accounts for moisture

¹ An element is a natural feature of particular interest because it is exemplary, unique, threatened, or endangered on a national or statewide basis.

conditions ranging from wet to dry. Several intermixed native prairie vegetation types are present, represented by various Sedges (Carex sp.) and Rushes (Juncus sp.) in the wettest areas, Switch Grass (Panicum virgatum) and Big Bluestem (Andropogon gerardi) on mesic sites, and Little Bluestem (Andropogon scoparius) in the driest areas. In addition, a wet hummocky area formed by hydrological processes supports a noteworthy vegetation type with species such as Blue-Joint Grass (Calamagrostis canadensis) Cord Grass (Spartina pectinata), and Tall Meadow Rue (Thalictrum dasycarpum).