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THE 1979 INVENTORY
OF
WACOUTA SCIENTIFIC AND NATURAL AREA
GOODHUE COUNTY, MINNESOTA

Portions of:

T.112N, R.13W, S.6
T.113N, R.13W, S.31, 32

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(4) 4p.

INTRODUCTION

Scope and Organization

The primary purpose of this document is to provide data necessary for the Minnesota Natural Heritage Program to evaluate the significance of Wacouta Scientific and Natural Area (SNA). This evaluation will be used to determine if the tract qualifies as a Scientific and Natural Area. In addition, the inventory provides information on the site's viability, notes man-made disturbances, identifies fragile, sensitive resources, and provides a temporal baseline from which changes in the area can be identified. This information is useful to the Natural Heritage Program evaluators, to scientists who may study the area, and to SNA managers should the site be designated a SNA.

The Wacouta SNA inventory is divided into nine sections covering climate, the unit's physical resources (geology, soils, water resources), plant communities and the various biological subdivisions (flora, reptiles, birds, and mammals)¹. In addition to identifying and cataloging the tract's natural features, each section describes the reasons for conducting the inventory, describes the inventory methods used, highlights elements which researchers have labeled "significant", and points out additional inventory data which could be collected on the site.

The final two sections of the inventory are concerned with human activities on and adjacent to the site. The land use history section describes how the tract has been changed through human activities, where known, and identifies adjacent land uses. The natural area visitor section points out regional population centers, educational and research centers and groups which may be a source of users.

¹ No information was collected by the 1977 inventory team on the site's butterflies. Thus, no information is presented in this document on these animals.

The inventory of Wacouta Scientific and Natural Area was completed and written in the fall of 1979 by Nancy Lizette Berlin. Mike Pappas and Bruce Breke conducted and wrote up the amphibian and reptile census. Other individuals who assisted in the inventory are mentioned in appropriate sections. Their help is gratefully acknowledged.

Unit Overview

Wacouta Scientific and Natural Area is a geologically significant example of a glacially formed perched river valley in Minnesota. The 102 acre tract is located in Goodhue County, four miles southeast of Red Wing in southeastern Minnesota. The perched valley itself runs from Red Wing to Lake City for a distance of 12 miles. The surrounding topography consists of stream dissected limestone bluffs. Wacouta Pond is .5 miles south of the Mississippi. Maximum relief of the natural area is 975 feet above sea level, at the face of Rattlesnake Bluff. There are two ponds on the SNA: Wacouta Pond and a small pond formed by seepage into an old gravel pit. An inlet originates from the spring fed groth pond in section 6, the outlet Bullard Creek flows from the west end of Wacouta Pond to the Mississippi River. During high water stages water may flow into Wacouta Pond from the Mississippi via Bullard Creek.

Six distinct vegetation communities can be discerned on the tract. Communities present include River Bottom Forest, Pine Plantation, Grassy Area, Old Field, Oak-Elm-Hickory and Maple-Basswood. Aquatic communities are also present. 174 vascular plant species were identified in these communities in 1979. 32 of these species are not native to Minnesota. 5 reptile, 2 amphibian, 103 bird (plus 46 additional species from secondary sources), and 16 mammal species were also observed in the area.

The Wacouta SNA's biotic communities have been extensively affected by past human activities. The units woods and grassland areas have been selectively

cut and grazed. There has been planting of red pine and fruit trees on the SNA. Herbicides, mowing and tilling of the soil have been practiced on certain areas of the unit. Culverts, fences and powerline right-of-ways have been constructed on the SNA. One section of the river bottom forest served as a barnyard until about 1935.

The most significant element on the unit and the primary reason for its nomination as a scientific and natural area is its position in the perched river valley.

The SNA's location along the Mississippi flyway contributes to its avian species diversity. The White-eyed Vireo, (Vireo griseus), a hypothetical species in Minnesota and the Bewicks Wren (Troglodytes bewickii) a species of uncertain status have been observed within or near the Wacouta Pond SNA.

One plant species Panax quinquefolium is on the Minnesota Natural Heritage Programs element list and on the Smithsonian's list of endangered species. Helianthemum canadense was also recorded on the Wacouta SNA and is listed as a potential plant element by the Minnesota Natural Heritage Program.