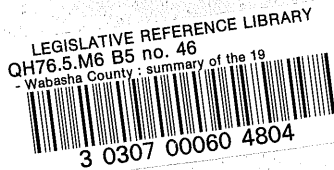
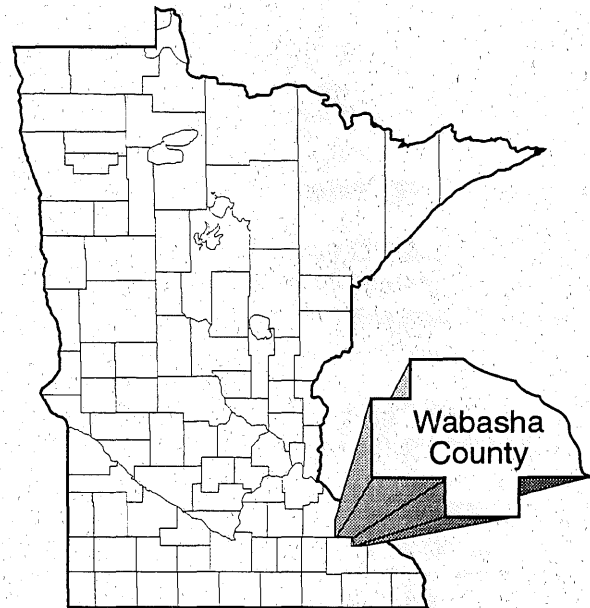


# MINNESOTA COUNTY BIOLOGICAL SURVEY

## WABASHA COUNTY: SUMMARY OF THE 1993 FIELD SEASON



**I**n 1993, the Minnesota County Biological Survey (MCBS) completed its first field season in Wabasha County. The MCBS is a statewide, systematic inventory of rare biological features. The goal of MCBS is to identify significant natural areas and to collect and interpret data on the distribution and ecology of rare plants, rare animals, and natural communities. The information gathered by MCBS serves as a foundation for the conservation of critical components of Minnesota's biological diversity.



## MCBS Procedures

In surveying a county, MCBS follows a multi-level process consisting of:

- Identification of potential natural areas using aerial photos. Potential natural areas are places where the land and native vegetation have not been altered significantly by activities such as cultivation, grazing, or recent logging. They are referred to as "MCBS sites."
- Assessment of the condition of MCBS sites using ground surveys. In general, this involves evaluating the quality of the natural communities present at a site.
- Surveys of selected rare species or groups of species.
- Entry of data collected into the Natural Heritage Information System, where it is available for distribution in the form of lists and brief reports.
- Processing of plant and animal specimens for herbaria and museum collections.

Production of interpretive and educational material, including county maps, county summary reports, and evaluation reports of ecologically significant sites.

When identifying and assessing natural areas and their component natural communities, MCBS ecologists rely on *Minnesota's Native Vegetation: A Key to Natural Communities*, produced by the Natural Heritage Program of the DNR. MCBS staff also obtain information from local naturalists and resource managers, and incorporate data from previous surveys, such as forest inventories, geologic surveys, wildlife habitat inventories, soil surveys, and the collection locations of specimens in herbaria and museums.

## Results

During the 1993 field season in Wabasha County MCBS personnel:

- **Identified 127 potential natural areas using aerial photographs. Most of these areas are concentrated along the bluffs and floodplains of the Zumbro and Mississippi rivers. Other important sites occur along the Whitewater River, West Indian Creek, and several other small streams.**
- **Assisted with a DNR old-growth forest research project being conducted by the Natural Resources Research Institute of the University of Minnesota, Duluth.**
- **Conducted field evaluations of 34 natural communities, including the following types:**

Dry cliff	Mesic prairie
Dry oak savanna	Moist cliff
Dry prairie	Oak woodland-brushland
Floodplain forest	Oak forest
Maple-basswood forest	

- **Found 42 new locations of rare plants, including the following species:\***

Species	Minnesota Legal Status
Canadian black snakeroot ( <i>Sanicula canadensis</i> )	special concern
Cliff goldenrod ( <i>Solidago sciaphila</i> )	special concern
Ginseng ( <i>Panax quinquefolium</i> )	special concern
Goat's-rue ( <i>Tephrosia virginiana</i> )	special concern
Hill's thistle ( <i>Cirsium hillii</i> )	special concern
Illinois tick-trefoil ( <i>Desmodium illinoense</i> )	threatened
Jewelled shooting star ( <i>Dodecatheon amethystinum</i> )	proposed special concern
Moschatel ( <i>Adoxa moschatellina</i> )	special concern
Ohio spiderwort ( <i>Tradescantia ohioensis</i> )	special concern
Squirrel-corn ( <i>Dicentra canadensis</i> )	special concern
Stemless tick-trefoil ( <i>Desmodium nudiflorum</i> )	proposed special concern
Twinleaf ( <i>Jeffersonia diphylla</i> )	threatened

- **Found 2 new locations of rare animals:\***

Species	Minnesota Legal Status
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	threatened
Red-shouldered hawk ( <i>Buteo lineatus</i> )	special concern

\*Minnesota's rare plant and rare animal species are listed and described in *Minnesota's Endangered Flora and Fauna*, edited by Barbara Coffin and Lee Pfannmuller and available in area bookstores.

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## Highlights

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Some of the most significant finds of the 1993 field season were:

- A 60-acre dry oak savanna (barrens subtype) north of the Weaver Dunes area that contains three rare plant species
- Two old-growth stands of maple-basswood forest on steep bluffs above the Mississippi River
- A large tract of good-quality floodplain forest along the Zumbro River
- Four high-quality stands of mesic oak forest
- One tract of good-quality oak woodland-brushland
- Six new occurrences of the state-threatened plant Illinois tick-trefoil

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## Conservation

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From the field survey work done to date, it is clear that the Weaver Dunes-McCarthy Lake-Zumbro Bottoms area is extremely significant on both a county- and state-wide basis for natural communities and rare species. Some of the best tracts of dry prairie, wet meadow, emergent marsh, and floodplain forest in southeastern Minnesota occur in this area, as well as locations of several rare plants, including rhombic-petaled evening primrose (*Oenothera rhombipetala*), Davis' sedge (*Carex davisii*), and buttonbush (*Cephalanthus occidentalis*). The grasslands of the area provide important habitat for gopher snakes (*Pituophis melanoleucus*), a species of special concern in Minnesota, and nesting habitat for one of the largest known populations of Blanding's turtles (*Emydoidea blandingi*) in the world. The Blanding's turtle is classified as threatened in Minnesota. Dry prairies in the area also support what appears to be the largest population in Minnesota of the ottoe skipper (*Hesperia ottoe*), a state-threatened butterfly. All ecologically significant sites identified in Wabasha County by MCBS will be prioritized for conservation action, following completion of natural community, plant, and animal field surveys.

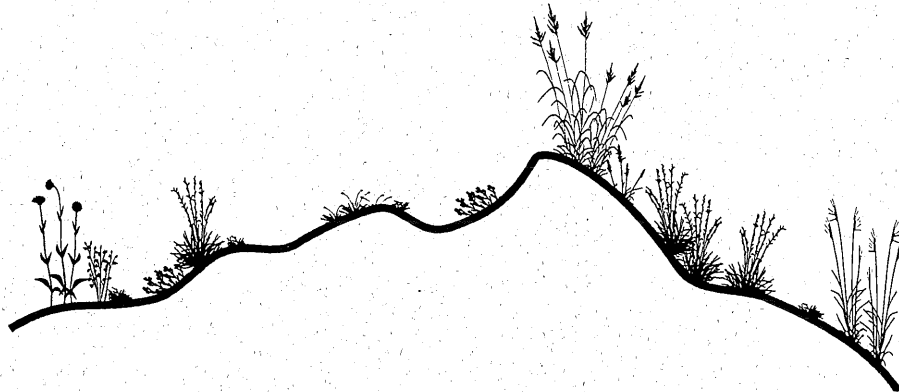
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## 1994-1996 Field Surveys

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- Natural area assessment and natural community surveys will continue in 1994, and are scheduled for completion in 1995.
- Amphibian and reptile surveys will begin in 1995.
- Mammal and bird surveys will begin in 1996.

Dry prairie

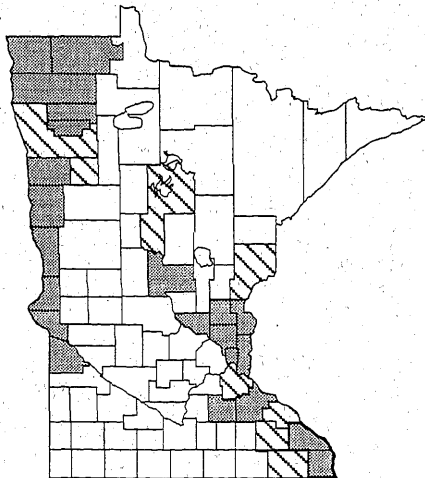


**Minnesota County Biological Survey**  
**Department of Natural Resources, Section of Wildlife**  
**MCBS Supervisor: Carmen Converse**

**Wabasha County Field Staff**  
 Hannah Dunevitz, Plant Ecologist  
 Temporary Botanist: Renee Nation

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**MCBS Statewide Status**



- COUNTY SURVEY COMPLETED 1987-1993  
 ▨ SURVEY IN PROGRESS 1994

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