

MINNESOTA COUNTY BIOLOGICAL SURVEY

DAKOTA COUNTY: SUMMARY OF THE 1993 FIELD SEASON

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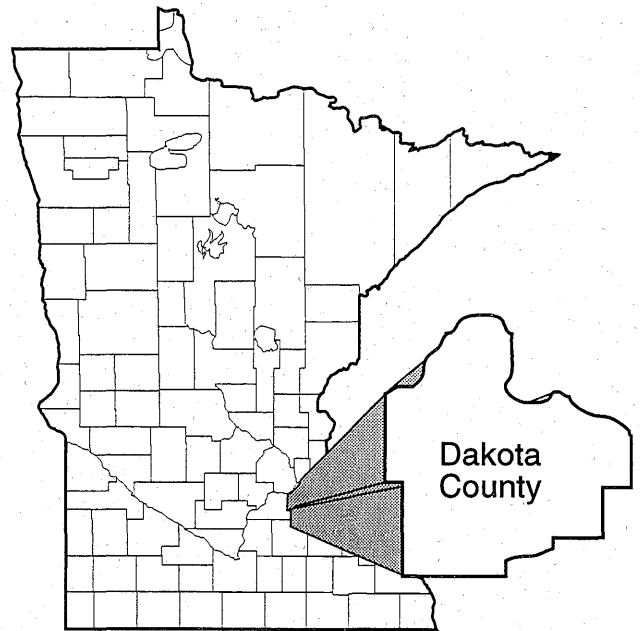
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- Dakota County : summary of the 1993



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In 1993, the Minnesota County Biological Survey (MCBS) completed its second field season in Dakota 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 logging, and are referred to in this report as "MCBS sites."
- Assessment of the quality and 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.
- Entry of data collected into the Natural Heritage Information System, where it is available for distribution in the form of lists and brief reports.
- 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 incorporates 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 Dakota County MCBS personnel:

- **Conducted ground surveys of 56 potential natural areas. Twenty-five of these areas contained intact natural communities, including the following types:**

Oak forest	Mesic prairie
Maple-basswood forest	Tamarack swamp
Oak woodland-brushland	Wet meadow
Dry oak savanna	Calcareous seepage fen
Dry prairie	

- **Found 67 new locations of 14 rare plant species,* including the following:**

Species

A species of tick-trefoil (*Desmodium cuspidatum* var. *longifolium*)
 Ginseng (*Panax quinquefolium*)
 Hill's thistle (*Cirsium hillii*)
 Illinois tick-trefoil (*Desmodium illinoense*)
 James' polanisia (*Polanisia jamesii*)
 Kitten-tails (*Besseyia bullii*)
 Rattlesnake-master (*Eryngium yuccifolium*)
 Rock sandwort (*Arenaria dawsonensis*)
 Small white lady's-slipper (*Cypripedium candidum*)
 Sterile sedge (*Carex sterilis*)
 Tall nut-rush (*Scleria triglomerata*)
 Tubercled rein-orchid (*Platanthera flava* var. *herbiola*)
 Valerian (*Valeriana edulis* ssp. *ciliata*)
 Wild indigo (*Baptisia bracteata* var. *glabrescens*)

Minnesota Legal Status

proposed special concern
 special concern
 special concern
 threatened
 endangered
 endangered
 special concern
 special concern
 special concern
 threatened
 endangered
 endangered
 threatened
 special concern

- **Found 243 plant species not previously recorded in Dakota County (new county records).**

- **Found 10 new locations of 4 rare animal species,* including the following:**

Species

Fox snake (*Elaphe vulpina*)
 Loggerhead shrike (*Lanius ludovicianus*)
 Paddlefish (*Polyodon spathula*)
 Red-shouldered hawk (*Buteo lineatus*)

Minnesota Legal Status

special concern
 threatened
 special concern
 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.

Highlights

The following areas surveyed during the 1993 field season are especially significant because of their size, the quality of their natural communities, and the presence of rare species.

Hampton Woods

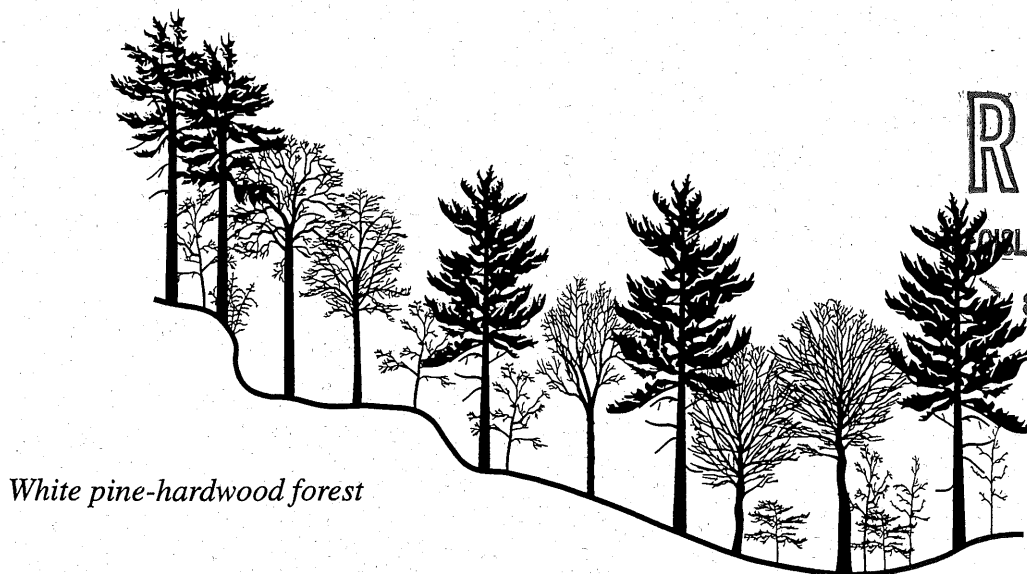
This 420-acre site on a prominent plateau northwest of Hampton has one of the largest remaining mesic oak forests in the seven-county Twin Cities metro area, along with occurrences of rare plants. Intact mesic oak forests are uncommon in the county, largely because of logging, conversion to cropland or pastureland, and spreading urban development.

Pine Bend Bluffs

This site occupies a two-and-one-half mile stretch of bluffs along the Mississippi River near Pine Bend. It has substantial acreage of good-quality mesic oak forest, along with patches of dry bedrock bluff prairie on steep, south-facing slopes and one of two occurrences in Dakota County of intact white pine-hardwood forest. The prairies support several large populations of James' polania and a population of kitten-tails. Other rare, but non-listed plants present at the site are dissected grape-fern (*Botrychium dissectum*), autumn coral-root (*Corallorhiza odontorhiza*), and purple twayblade (*Liparis liliaefolia*).

Miesville Ravine

Miesville Ravine, a deep 3-mile long ravine along Trout Brook in southeastern Dakota County, has patches of bedrock bluff prairie on steep south- to west-facing slopes, a good-quality stand of white pine-hardwood forest, and nice stands of maple-basswood and mesic oak forest. The site is notable for its relatively large areas of intact natural communities, and for the number of rare plant species it contains, including Illinois tick-trefoil and several populations of kitten-tails. The state-threatened Blanding's turtle has also been observed in the ravine. Portions of this site are within the Miesville Ravine Park Reserve.



White pine-hardwood forest

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1994 Field Surveys

Natural area assessment and natural community surveys will be completed in 1994.

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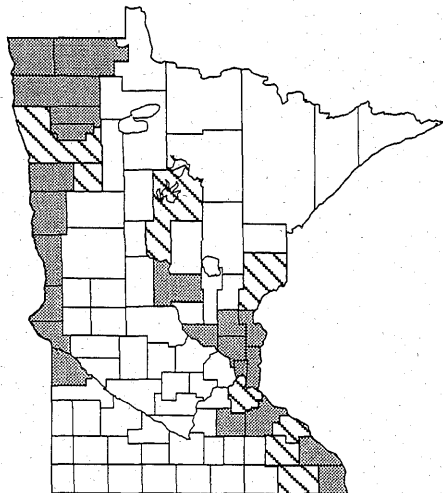
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MCBS Statewide Status



■ COUNTY SURVEY COMPLETED 1987-1993

▨ SURVEY IN PROGRESS 1994

For more information contact:

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