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MINNESOTA TROUT LILY: MAPPING, CENSUSING AND MONITORING

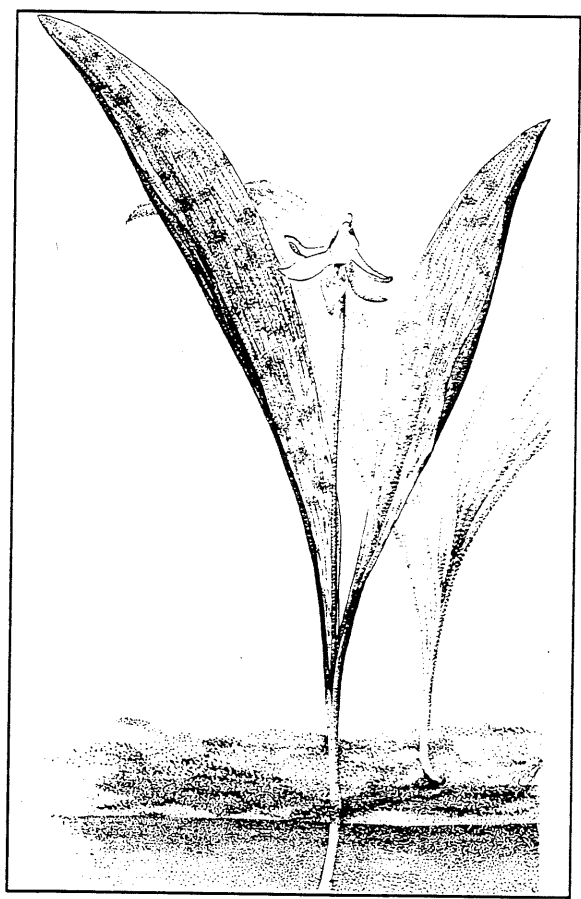
Report compiled under contract
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USFW Service Endangered Species Office

910542

by
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Minnesota Department of Natural Resources
Section of Wildlife - Natural Heritage Program

March, 1991

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INTRODUCTION

Biology

The Minnesota dwarf trout lily (Erythronium propullans) is a member of the lily family endemic to Minnesota. Its presently known range is restricted to the valleys of the Cannon and Zumbro Rivers and their tributaries in Rice and Goodhue Counties. The species has a unique life cycle in which only a small proportion of individuals in a colony flower in any given year. Flowers rarely, if ever, set seed (Banks, 1980). Instead the species is proliferated by formation of a single offshoot bulb, formed only on flowering individuals (Morley, 1978). As a result of this vegetative mode of reproduction Erythronium propullans is usually found in circular colonies or clones, which may vary in size from a few square centimeters to tens of meters and in numbers of plants from a few individuals to hundreds of plants. The major means of dispersal is believed to be transport by flood waters. Plants in sterile condition are indistinguishable from the common sympatric white trout lily (Erythronium albidum), with which the species is often found.

Background of cooperative projects

As of 1990, 11 of the 34 known Dwarf trout lily populations were protected within preserves, parks, and nature centers. In addition to this protection, the Minnesota Chapter of The Nature Conservancy has enrolled an additional 11 private landowners in their voluntary Registry Program (Table 1). From 1986 to 1990 the Minnesota Natural Heritage Program and the Minnesota Chapter of The Nature Conservancy jointly planned and implemented inventory and monitoring programs for the Dwarf trout lily.

In 1988 representatives of the Minnesota Department of Agriculture, the U.S. Fish and Wildlife Service, the Minnesota Chapter of The Nature Conservancy, and the Minnesota Natural Heritage Program met to develop a plan for state implementation of EPA pesticide control regulations for federally endangered species (FIFRA, 7 U.S.C.). As a result of this meeting the Minnesota Department of Agriculture and the U.S. Fish and Wildlife Service have initiated a voluntary pesticide agreement program. Private owners of federal endangered species are invited to enter into voluntary pesticide protection agreements and to adhere to the requirements of mutually acceptable pesticide practice plans prepared by the Minnesota Department of Agriculture. The Minnesota Natural Heritage Program's role in this project is to consult with Agriculture personnel and landowners regarding the specific location of plants and any biological issues that may arise with respect to the agreements.

Monitoring approaches

Three approaches to monitoring have been tested by the Minnesota Natural Heritage Program over the last five years in an effort to determine the degree of monitoring necessary to serve as an "early warning" system and to develop practical techniques of mapping and censusing. Efforts have been made to track the status of Minnesota dwarf trout lily populations at the population level, the colony level and the level of the individual plant. Each of these methods has its shortcomings but it appears that monitoring at the level of the colony is both the most feasible and the most useful (Smith, 1988).

INVENTORY

Complete knowledge of known sites is the essential basis for all other recovery efforts. The serendipitous discovery of 2 new populations in 1989 led the Minnesota Natural Heritage Program to reconsider our belief that most extant populations were known and to expand systematic search efforts in 1990. These efforts were coordinated with the newly initiated Rice and Goodhue County Biological Surveys and with the Minnesota Chapter of The Nature Conservancy.

Methods

Potential sites were identified on topographic maps by staff botanists and confirmed by County Biological Survey Ecologists from aerial photography. In preparation for the joint effort, one hundred and fifty one landowners were contacted by staff of the Minnesota Chapter of The Nature Conservancy for permission to search their lands. During the 3 1/2 week field season, 15 sites were searched by crews consisting of one or more natural resource professionals (DNR botanists, Biological Survey ecologists, or TNC staff) and up to 10 lay volunteers. Table 2 is a list of all sites visited during the 1990 season. Sites where Erythronium propullans was found are noted with an asterisk. Emphasis was placed on searching sites adjacent to known populations in order to provide the Minnesota Department of Agriculture the most complete possible information on privately-owned populations within the core of the species' range. For this reason, several high potential areas farther afield were deferred to the 1991 season. At each site where Dwarf trout lilies were found, the external boundaries of colonies were flagged and their location mapped on topographic maps. In each case, landowners were advised of the presence of plants by means of followup letters from The Nature Conservancy, accompanied by a nine page color booklet (Sather, 1990).

Results

As a result of these efforts the known distribution of Erythronium propullans was more accurately mapped at Rice County Wilderness Park and 12 new element occurrences were found. The most important of these occurrences is a new disjunct location on the North Fork of the Zumbro River, approximately 8 miles downstream from the occurrence at Grace Nature Preserve, and 7 miles upstream of the (believed extirpated) historical occurrence at Zumbrota. A population of over 3000 plants in 3 large aggregates of discontinuous colonies, was found growing with the state special concern species Snow Trillium (Trillium nivale) on floodplains and slopes south of the Zumbro River. Napaea dioica or glade mallow, a federal candidate species, and ginseng (Panax quinquefolium) are also present within the Biological Survey's site boundaries. Because of the importance of these four species and the high quality of its forest communities this site has been nominated and approved for acquisition as a State Scientific and Natural Area. Appendix 1 is the County Biological Survey's Project Evaluation package for this site.

Appendix 2 is a printout of Erythronium propullans element occurrence records in the Minnesota Natural Heritage Program database as of the end of the 1990 field season.

Monitoring at the population level simply means revisiting known sites from year to year to confirm that populations remain undisturbed. All sites owned by The Nature Conservancy have been monitored at this level by their rare plant intern for the past several years. However, on private lands where colonies could be destroyed, this level of monitoring can only provide a post mortem. In an area such as Rice and Goodhue Counties, where levels of residential development are rapidly increasing, any benefits that could ensue from this level of monitoring could better be obtained through active ongoing landowner contact, to assure advance knowledge of proposed changes in land use.

Monitoring of individual plants of any species requires a complete census of individuals to establish the baseline distribution of the population, followed by random selection of plots for permanent sampling. Repeated sampling of individual Erythronium propullans plants is constrained by the fact that the same plants can re-emerge in consecutive years at distances as far as 13.5 cm. from their previous point of emergence (Morley, 1982). Efforts to "match" individual plants from two consecutive years' sampling have generated a success rate of only about 3% (Smith, 1988).

Counts of flowering individuals at Nerstrand Woods State Park from 1986 to 1990 have shown that the number of flowering plants can vary enormously from year to year and does not appear to exhibit a pattern of short-term periodicity (Smith, 1989, 1990). Despite the variation in numbers of plants, the general location and extent of observed colonies remained dependable from year to year.

In an effort more accurately to document colony locations, the Minnesota Natural Heritage Program began in 1987 to survey and map colonies within 10 or 20 meter grids. Grids were completed at Grace Nature Preserve in 1987 and 1988 and at Riverbend Nature Center in 1988, 1989 and 1990. The use of systematic grids has greatly facilitated accurate location of colonies, which may be especially useful at sites where trail development or other avoidable impacts could destroy colonies. This method of surveying and mapping lends itself well to the use of lay volunteers for searching. Crews of several volunteers walking at 2 meter intervals search each 20x20 meter block, leaving flags to delimit the external boundaries of colonies. Staff botanists follow the search crews accurately mapping the colonies on a base map. The shortcoming of this method is the effort required to survey the grids. Grid preparation requires a commitment of long-term cooperation from the landowner, who must be willing to allow brush removal for transit lines and placement of permanent markers; the participation of a trained surveyor; and the commitment of approximately 2 field weeks of a 3 person survey crew each year before the flowering season.

STUDY OBJECTIVES

The objectives of Minnesota's 1990 recovery efforts for the Minnesota dwarf trout lily were fourfold: 1) To provide the colony count data necessary to measure progress toward the Recovery Plan (USFWS, 1987) objective of protecting 500 colonies in at least 15 sites throughout the species' range; to provide the service of a botanist to assist 2) landowners and 3) the Minnesota Department of Agriculture in developing site specific landowner pesticide protection agreements, and 4) to produce a brochure that describes the significance, life history, habitat, and protection needs of Erythronium propullans.

CENSUS AT NERSTRAND WOODS STATE PARK

1990 was the fifth year of a meter-by-meter census of flowering plants at Nerstrand Woods State Park. The project was established in 1986 to determine the range of variability in numbers of flowering plants and reliability of colony locations from year to year, the recovery of plants impacted by trail development and the effectiveness of rip-rapping installed to halt erosional loss of plants into Prairie Creek.

Methods

In 1986 the major population within the park was surveyed and a map generated with a one foot contour interval. A permanent grid of 60 contiguous 100 square meter blocks was established in the population. Within this area a team of 1 or more DNR botanists and up to ten lay volunteers have annually searched each block, counting the number of flowering plants in each square meter and mapping the boundaries of colonies.

Results

Figure 4 summarizes annual fluctuations in the number of flowering plants within the 29 one hundred square meter plots that have been consistently monitored each year. Figure 2 shows the 1990 distribution and density of flowering plants within the Nerstrand Woods State Park population.

SURVEYING AND COLONY MAPPING

Surveying and mapping of the Riverbend Nature Center was begun in 1988, with the anticipation that information on colony location will serve as the basis for planning future trail improvements and physical alterations at this important site.

Methods

Standard survey methods were used to survey a baseline and grid of 30x30 meter blocks to be used as a reference for mapping the location of all colonies. The study area lies within the loop of a large interpretative trail system which transects potential habitat at several places. A baseline and 28 30 x 30 meter blocks were established in 1988. By the end of the 1989 field season 123 colonies had been mapped within a 54,000 square meter area consisting of sixty 900 square meter blocks. During the 1990 season, 12 new 30x30 meter blocks were surveyed to extend the grid system across these trails to the Straight River. These new blocks and all remaining previously surveyed blocks were searched and mapped in 1990.

Results

Three new colonies were located as shown on Map 3, which supplements Appendix 2 of the 1989 report (Smith, 1989).

LANDOWNER CONTACT
CONSULTATION WITH MINNESOTA DEPARTMENT OF AGRICULTURE
AND OTHER COOPERATIVE PROJECTS

Because the Department of Agriculture did not have an employee actively working on endangered species landowner pesticide agreements during the Erythronium blooming period, little time was spent in consultation during the field season. However, outgoing Agriculture Department personnel met with Natural Heritage Program and The Nature Conservancy staff to establish priority search areas for the 1990 season. The needs of the MDA program were foremost in the decision to focus searches within the area of concentration of presently-known populations. Continuity of contact between cooperating agencies and institutions was enhanced by the fact that that The Nature Conservancy's Registry Intern, who was responsible the landowner contact and followup for the 1990 searches, joined the staff of the Department of Agriculture in June, 1990. The Department of Agriculture has been the main user of the full-color 9 page educational booklet on the Minnesota dwarf trout lily prepared by Natural Heritage Program staff (Sather,1990).

The 1990 field season was inaugurated with an informational event, the Spring Fling, conducted to increase public awareness of the initiation of County Biological Inventory surveys in Rice and Goodhue Counties and the release of a 9 page, full color booklet on the Dwarf trout lily (Sather, 1990). Over 100 people attended this day-long series of brief presentations, field trips and organized trout-lily searches at Rice County Wilderness Park. This park was chosen for the event because its system of trails allowed for interpretative hikes for participants not able to join in the search effort and its large area of potential habitat was known to include a small population of Erythronium propullans, discovered at the end of the 1989 season.

REFERENCES

- Banks, J. 1980. The reproductive biology of Erythronium propullans Gray and sympatric populations of E. albidum Nutt. (Liliaceae). Bulletin of the Torrey Botanical Club 107 (2): 181-188.
- Morley, T. 1978. distribution and rarity of Erythronium propullans in Minnesota, with comments on certain distinguishing features. Phytologia 40(5): 381-389.
- Morley, T. 1982. Flowering frequency and vegetative reproduction in Erythronium albidum and E. propullans, and related observations. Bulletin of the Torrey Botanical Club 109 (2): 169-176.
- Sather, N. 1990. Minnesota dwarf trout lily. Minnesota Natural Heritage Program, Biological Report #18. Full color booklet 9 p.
- Smith, W.R. 1988. Minnesota trout lily population monitoring. Paper presented at 1988 meeting of the Natural Areas Association, Syracuse, NY. Minnesota Natural Heritage Program. 10 p. plus 9 maps.
- Smith, W.R. 1989. Minnesota trout lily (Erythronium propullans): inventory, mapping, census, and monitoring. Minnesota Natural Heritage Program, Biological Report # 13.
- Smith, W.R. 1990. Minnesota trout lily (Erythronium propullans): inventory, mapping, census, and monitoring. Minnesota Natural Heritage Program, Biological Report #23. 8p, plus 2 maps.
- U.S. Fish and Wildlife Service. 1987. Erythronium propullans Recovery Plan. U.S. Fish and Wildlife Service, Twin Cities, Minnesota. 31 pp.

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- Appendix 1. Project evaluation for North Fork Zumbro Woods proposed Scientific and Natural Area
- Appendix 2. 1990 status of Erythronium propullans populations as documented by element occurrence records in the Minnesota Natural Heritage Program database.

TABLE 1. ERYTHRONIUM PROPULLANS ELEMENT OCCURRENCE RECORDS
ENROLLED IN THE NATURE CONSERVANCY'S REGISTRY PROGRAM

Element occurrence	Owner
1	Busch
6	Haaland
12	Crane Creek Aggregates
13	Robinson
14	Martineau
15	Schroeder, Tostrude
16	Hollerud
25	Robinson
27	Bachrach
28	Holmblad
33	Osmundson

TABLE 2. AREAS SEARCHED FOR ERYTHRONIUM PROPULLANS IN 1990**

County	CBS site #	Legal description	Survey date
*Rice	32	N1/2 Sec.34, T111N, R20W	4/28/90, 4/30/90
*Rice	45	W1/2 Sec.33, T110N, R20W	4/27/90
Rice	45	SWSE Sec.33, T110N, R20W	4/27/90
*Rice	45	S1/2SW Sec.33, T110N, R20W & NW Sec.4, T109N, R20W	5/4/90
*Rice	44	E1/2 Sec.17 & NWSW Sec.16 & SWNW Sec.16, T110N, R20W	4/23/90, 4/25/90
*Rice	44	E1/2 Sec.8, T110N, R20W	4/25/90
*Rice	32	NENE Sec.4 & NWNW Sec.3, T110N, R20W & SWSW Sec.34, T111N, R20W	4/27/90, 4/28/90
*Rice	42	SESE Sec.8 & NENE Sec.17, T110N, R19W	4/26/90, 4/30/90
*Rice	42	W1/2W1/2NW Sec.10 & S1/2SW Sec.3, T110N, R19W	4/30/90, 5/3/90
Rice	no #	SWSW Sec.34, T111N, R19W	5/3/90
Rice	43	N1/2NW & SWNE & ESE Sec.1 & N1/2NE & SENW Sec.12, T110N, R19W	4/26/90
Rice	39	W1/2 & NE1/4 Sec. 26, T111N, R19W	5/4/90
Goodhue	227	S1/2SW & SWSE, Sec.7, T109N, R18W & SE Sec.12, T109N, R19W	5/2/90
*Goodhue	177	N1/2NW & NWNWNE Sec.33 & SWSE Sec.28, T110N, R17W	5/1/90
*Goodhue	210	S1/2NW Sec.6, T111N, R17W	5/4/90

**Search areas were defined as areas of contiguous potential habitat, regardless of owner. More than one new population was found within some of these areas. If there was more than one landowner, each ownership was logged in the Heritage database as a separate element occurrence.

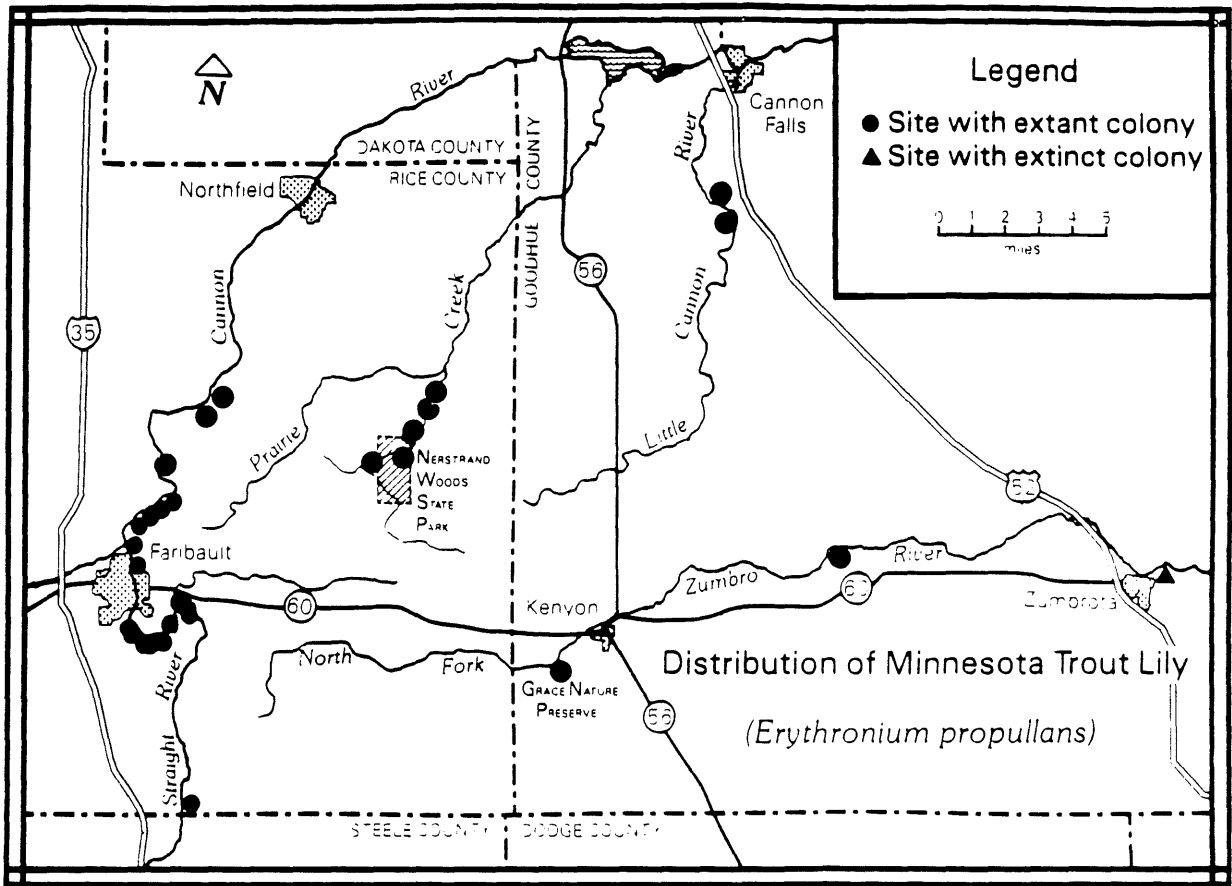


Figure 1. The distribution of the Minnesota trout lily (*Erythronium propullans*).

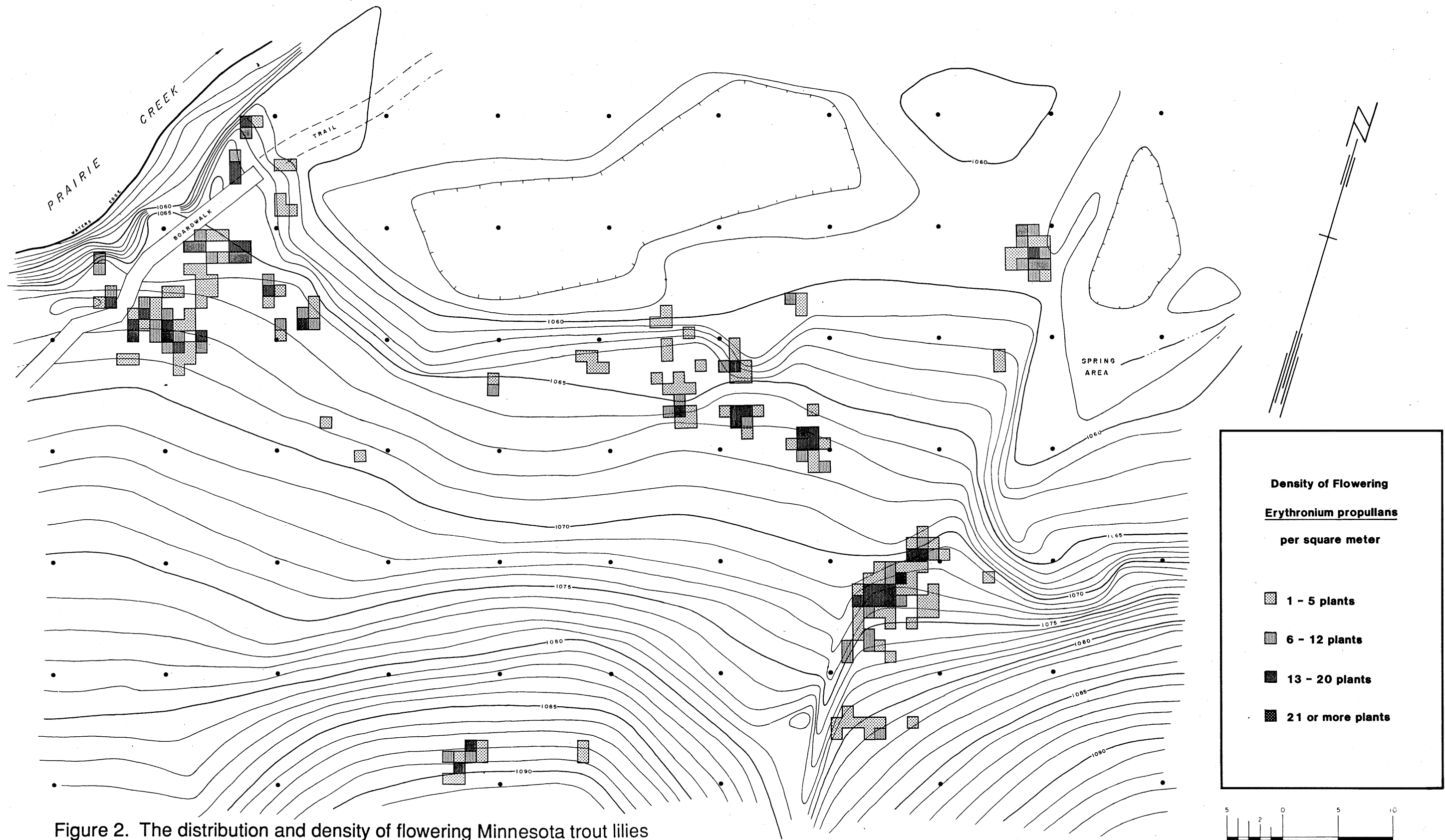


Figure 2. The distribution and density of flowering Minnesota trout lilies at Nerstrand Woods State Park in 1990.

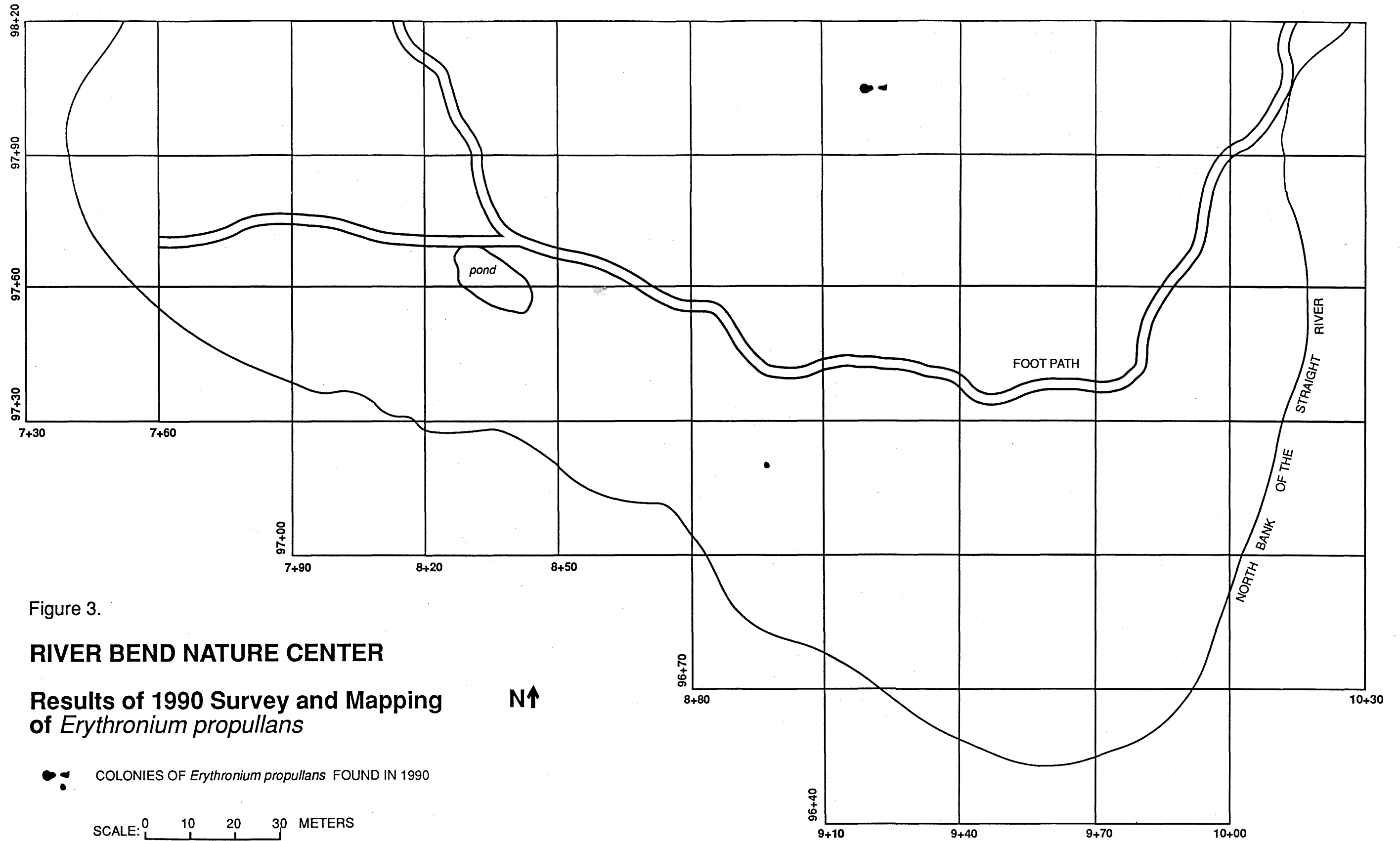


Figure 3.

RIVER BEND NATURE CENTER

**Results of 1990 Survey and Mapping
of *Erythronium propullans***

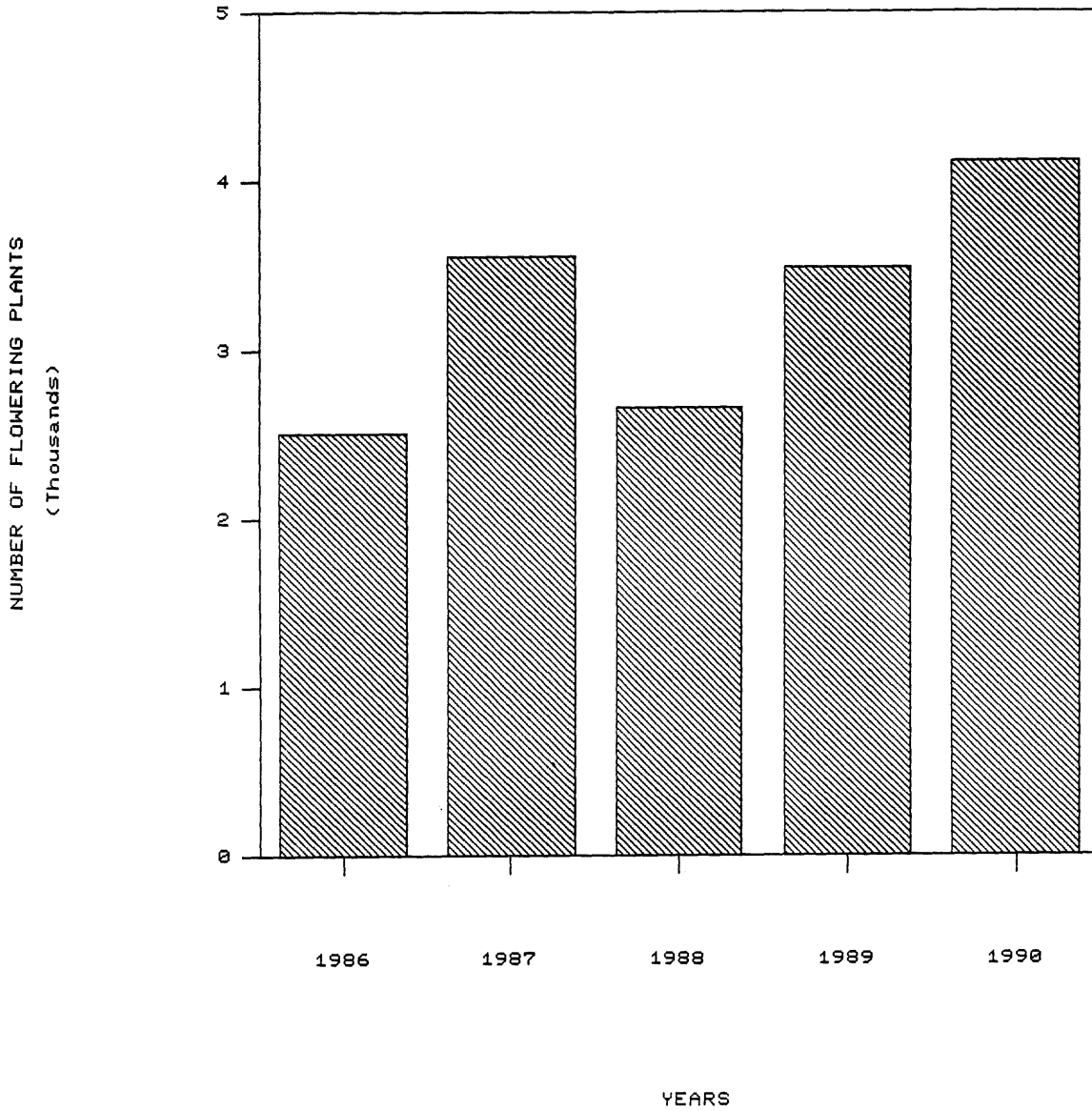


●◄ COLONIES OF *Erythronium propullans* FOUND IN 1990

SCALE: 0 10 20 30 METERS

Figure 4.

ERYTHRONIUM PROPULLANS NERSTRAND WOODS STATE PARK



NATURAL HERITAGE PROGRAM
PROJECT EVALUATION

NAME OF PROJECT: North Fork Zumbro Woods COUNTY: Goodhue
 LANDSCAPE REGION: Southern Oak Barrens DNR QUAD CODE: U134
 LEGAL DESCRIPTION: T110N, R17W, S27, E28, NW33
 CURRENT PROTECTION STATUS: Unprotected
 RECOMMENDED PROTECTION STATUS: Scientific and Natural Area
 APPROXIMATE ACREAGE: 450 acres OWNERSHIP: Private
 ADMINISTRATIVE ACTION: _____

ECOLOGICAL SIGNIFICANCE OF PROJECT AREA

The following elements occur at the site: 3 natural communities - Maple-Basswood Forest (Driftless Section), Floodplain Forest, and Lowland Hardwood Forest; 4 rare plants: *Erythronium propullans* (Minnesota dwarf trout lily), *Napaea dioica* (glade mallow), *Trillium nivale* (snow trillium), and *Panax quinquefolium* (ginseng); and a nesting colony of great blue herons (present level of activity undetermined).

The site is in the Harmony-Plainview Uplands Geomorphic Region, which consists of a gently rolling loess-mantled plateau dissected by several rivers. It occupies silt loams on gentle to steep north to northwest facing slopes above the North Fork of the Zumbro River and a small area of the river's floodplain.

The *Erythronium propullans* population, discovered in 1990, is only the second known population in the Zumbro River watershed (the first is in the Grace Nature Conservancy Preserve). It is a large population consisting of 3 large aggregates of many smaller colonies, with a total of over 3,000 plants. The colonies occur in Lowland Hardwood Forest close to the river, and on steep, northwest slopes in Maple Basswood Forest.

Napaea dioica occurs in the Floodplain Forest on both banks of the Zumbro River. Known from only 13 other locations in Minnesota, this is a significant occurrence. Thirty-five plants were found during a brief search; it is likely there are others.

Trillium nivale occurs in Lowland Hardwood Forest with one of the *E. propullans* aggregates. Two small populations were found. This is one of the 3 known Goodhue county occurrences for this species; all 3 are on the banks of the Zumbro River.

One plant of *Panax quinquefolium* was seen in an upland forest location; it is likely that more occur in the site. Twelve other occurrences are known in Goodhue county, all small populations of one to 16 plants.

The colonial waterbird nesting site was last documented to be active in 1988, and according to local residents, was active in 1988 as well. There were an estimated 10 great blue heron nests in the Maple-Basswood Forest in 1988; the colony was not located in a brief 1990 search, but may still be active. There is one other colonial waterbird nesting site in Goodhue county, in the Cannon River Bottoms.

The Maple-Basswood Forest is significant due to a) its size (approximately 380 acres), b) its diverse spring ephemeral herb layer, and c) the quality of a portion of the site that contains old second-growth B-rank forest showing few signs of disturbance. Some portions of the forest have been selectively cut 5 or more years ago; quality of these tracts varies.

The Floodplain Forest is a small tract, but exhibits little unnatural disturbance and a relatively diverse herb layer. It grades into the slightly drier Lowland Hardwood Forest, dominated by bur oak, basswood, black ash, and box elder. Both these communities are relatively rare in the county as well as in the state as a whole.

The protection of this site may be difficult due to its ownership by at least 25 different landowners. Though some of the upland forest has been recently selectively cut, those tracts should be included in the preserve design as buffer areas that can be expected to eventually recover to a native maple-basswood community.

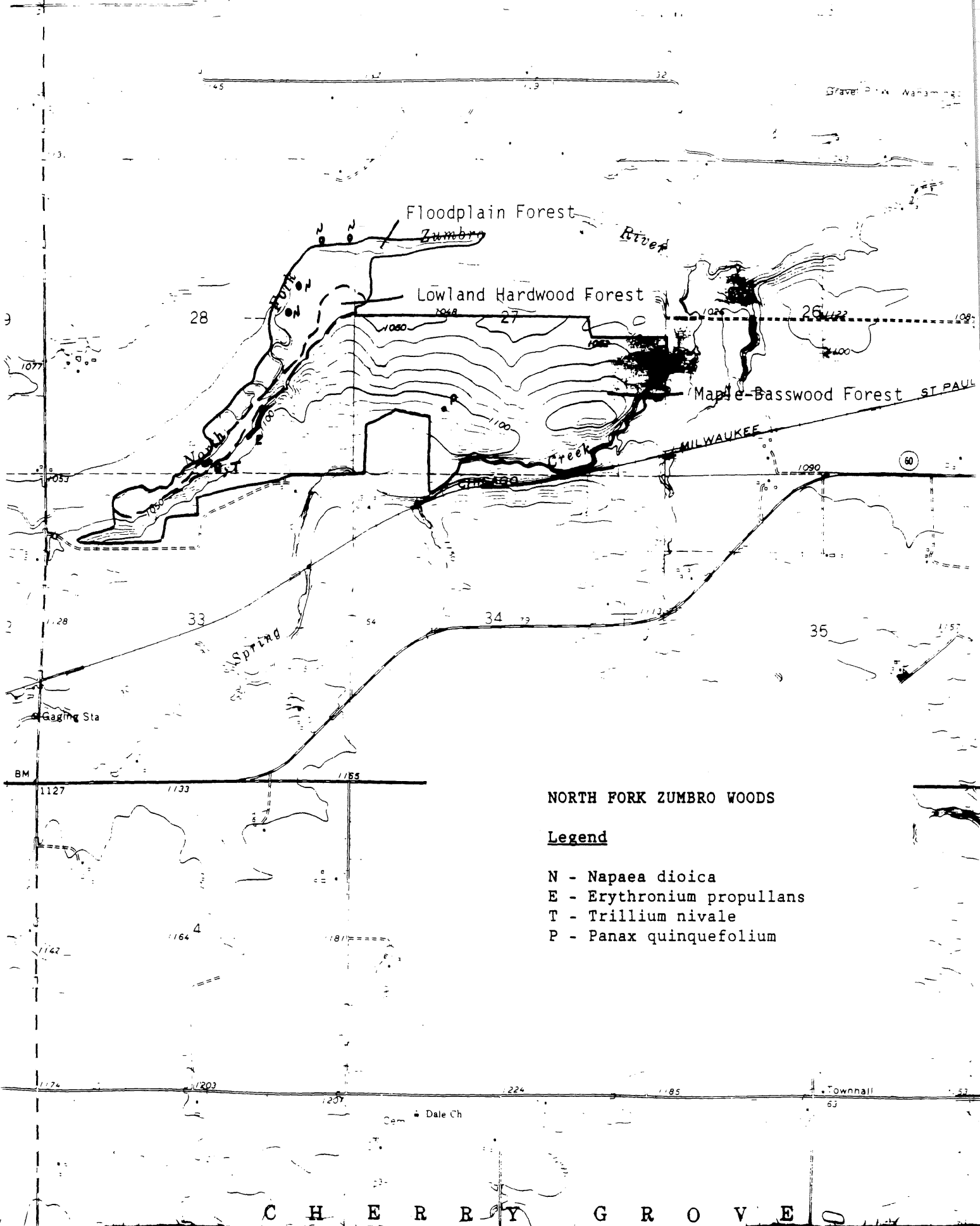
The Natural Heritage Program recommends that this site be protected as a Scientific and Natural Area. Heavy logging pressure in the area may be an immediate threat to the integrity of the site; thus quick conservation action would preclude its destruction.

INFORMATION SOURCES

Hannah Dunevitz, MCBS
 Nancy Sather, Natural Heritage Program
 Barbara Delaney, MCBS
 Mary Miller, Nongame Wildlife Program

ELEMENT SUMMARY

<u>Name</u>	<u>Rank</u>	<u>Occurrence Rank</u>	<u>Number of statewide element occurrences</u>	<u>Number of eo's in Southern Oak Barrens landscape Region</u>
Erythronium propullans	S1	AB	34	28
Napaea dioica	S1	BC	14	14
Trillium nivale	S3	C	20	8
Panax quinquefolium	S3	CD	64	17
Maple Basswood Forest (Driftless Section)	S3	BC	33	24
Floodplain Forest	S3S4	BC	42	16
Lowland Hardwood Forest		C	3	1
Colonial Waterbird Nesting Site			717	25



Grave P.W. Waham... 22

Floodplain Forest

Zumbro River

Lowland Hardwood Forest

Maple-Basswood Forest

ST PAUL

MILWAUKEE

NORTH FORK ZUMBRO WOODS

Legend

- N - *Napaea dioica*
- E - *Erythronium propullans*
- T - *Trillium nivale*
- P - *Panax quinquefolium*

C H E R R Y G R O V E

Appendix 2.

Minn. Dept. of Nat. Resources/Wildlife Section
ERYTHRONIUM PROPULLANS IN MINNESOTA

COUNTYNAME	TWP	RNG	SECTION	SITENAME	OWNER	YEAR	OCCURNO
GOODHUE	T109N	R15W	NWNW31			1892	20
GOODHUE	T109N	R18W	SWSW07	KENYON 7	TNC	1978	7
GOODHUE	T110N	R17W	SWSE28	NORTH FORK ZUMBRO WOODS	JOHN WESWIG,BOYUM FARMS	1990	26
GOODHUE	T111N	R17W	NWNW06	ROBINSON WOODS	ROBINSON,R.	1978	13
GOODHUE	T111N	R17W	SENW06	ROBINSON WOODS	ROBINSON,G.	1990	25
RICE	T109N	R20W	NESE06	STRAIGHT RIVER WILDFLOWER PRESERVE	BUSCH	1990	1
RICE	T109N	R20W	SWSW05	STRAIGHT RIVER WILDFLOWER PRESERVE	TNC	1978	2
RICE	T109N	R20W	SESE05	STRAIGHT RIVER WILDFLOWER PRESERVE	TNC	1983	11
RICE	T109N	R20W	SESW33	WALCOTT 33	MARTINEAU,P.	1964	14
RICE	T109N	R20W	NWSWSW	STRAIGHT RIVER WILDFLOWER PRESERVE	SCHROEDER; TOSTRUDE	1990	15
RICE	T109N	R20W	SWSE05	STRAIGHT RIVER WILDFLOWER PRESERVE	STATE OF MINNESOTA	1983	16
RICE	T109N	R20W	NWSW04	STRAIGHT RIVER WILDFLOWER PRESERVE	STATE OF MINNESOTA	1978	17
RICE	T109N	R20W	NENW08	STRAIGHT RIVER WILDFLOWER PRESERVE	STATE OF MINNESOTA	1978	18
RICE	T109N	R20W	SENW04	STRAIGHT RIVER WILDFLOWER PRESERVE	HOLMBLAD	1990	28
RICE	T110N	R19W	NESE09	NERSTRAND WOODS	DNR PARKS	1978	8
RICE	T110N	R19W	SESESE04	NERSTRAND WOODS	HOLLERUD, OVE N.	1986	19
RICE	T110N	R19W	NWNW10	NERSTRAND WOODS	OSMUNDSON,M.,BONDE,E.	1990	31
RICE	T110N	R19W	SESWW03	NERSTRAND WOODS		1990	32
RICE	T110N	R19W	SWNW10	NERSTRAND WOODS	OSMUNDSON,MILDRED	1990	33
RICE	T110N	R19W	NESESE08	NERSTRAND WOODS	NEWPORT,T;SCHWARTZ;FJELSTAD	1990	34
RICE	T110N	R20W	NENE31	TROUT LILY PRESERVE	ST MARY'S-SHATTUCK SCHOOL	1978	3
RICE	T110N	R20W	SWNW29	TROUT LILY PRESERVE	ST MARY'S-SHATTUCK SCHOOL	1978	4
RICE	T110N	R20W	NESE19	TROUT LILY PRESERVE	TNC	1978	5
RICE	T110N	R20W	SWNW20	TROUT LILY PRESERVE	HAALAND,P.	1961	6
RICE	T110N	R20W	SWSW16	TROUT LILY PRESERVE	BORGSTAHL,D.	1978	9
RICE	T110N	R20W	SESE17	TROUT LILY PRESERVE	BORGSTAHL,D.	1978	10
RICE	T110N	R20W	SESW33	STRAIGHT RIVER WILDFLOWER PRESERVE	HAMMEL,D; CRANE CREEK ASPHLT	1990	12
RICE	T110N	R20W	SESE08	TROUT LILY PRESERVE	DNR SNA	1989	24
RICE	T110N	R20W	NWSESW16	TROUT LILY PRESERVE	DNR SNA	1989	23
RICE	T110N	R20W	NWSW16	TROUT LILY PRESERVE	DNR SNA	1990	22
RICE	T110N	R20W	SWSW33	STRAIGHT RIVER WILDFLOWER PRESERVE	JAMES BACHRACH	1990	27
RICE	T110N	R20W	NENE17	TROUT LILY PRESERVE	TERSTEG,DANIEL	1990	29
RICE	T111N	R20W	NESESENW34	CANNON RIVER WILDERNESS AREA	RICE COUNTY PARKS; L. HOBAN	1989	21
RICE	T111N	R20W	OWSW34	CANNON RIVER WILDERNESS AREA	RICE COUNTY,W.PLESCHOURT	1990	30

MINNESOTA NATURAL HERITAGE PROGRAM
ELEMENT OCCURRENCE RECORDS

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ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #1

Federal Status: ENDANGERED
Landscape Region: BIG WOODS

State Status: ENDANGERED

SITE : STRAIGHT RIVER WILDFLOWER PRESERVE

CBS Site #: 45

OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 1 sight rec.

EO Size: 0

Date of Information: 27 April 1990

Record Updated: 12/26/1990

of Archived Records: 2

Map Margin #: 22 EO Rank:

Voucher:

Collection #:

Source: ANDERSON, C. (SIGHT RECORD)

REMARKS: APPROXIMATELY 73 COLONIES ON PORTIONS OF BUSCH AND TOSTRUDE REGISTRY TRACTS. SEARCH COVERED NORTH-FACING SLOPE ALONG BUSCH TRACT'S SOUTH BOUNDARY BEGINNING BELOW BUSCH HOUSE AND CONTINUING EAST TO BOUNDARY WITH TOSTRUDE. PREVIOUS RECORD : MORLEY, T. (1978) 2 COLONIES AT FOOT OF A STEEP NORTH-FACING SLOPE, PRESENTLY PART OF A SUBDIVISION NESE6 T109N R20W NO SPECIMEN.

LOCATION: RICE County, MN

Legal : T109N R20W NESE06 Region: 5

Quad Map: FARIBAULT (U16D)

Latitude: 44 16' 26" Long: 93 15' 53"

Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO

Global Rank: G1 State Rank: S1

Current Status: 2 Intended Status: 8

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #2

Federal Status: ENDANGERED
Landscape Region: BIG WOODS

State Status: ENDANGERED

SITE : STRAIGHT RIVER WILDFLOWER PRESERVE

CBS Site #: 45

OWNERSHIP : The Nature Conservancy

MANAGED AREA(s): RIVER BEND NATURE CENTER

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 2 verified

EO Size: 0

Date of Information: May 1978

Record Updated: 12/26/1990

of Archived Records: 1

Map Margin #: 0 EO Rank: B

Voucher:

Collection #:

Source: MORLEY, T.

REMARKS: 3 COLONIES AT FOOT OF STEEP N-FACING SLOPE. OWNED BY TNC (WEAVER TRACT) AND LEASED TO THE CITY OF FARIBAULT. COLONIES NOT RELOCATED IN 1984 AND 1985. ALONG WITH COLONIES IN NESE SECTION 6, (OCCURRENCE #1), A TOTAL OF 18 COLONIES HAVE BEEN REPORTED FOR THIS CONTINUOUS SLOPE. SWSW 05 T109N R20W.

LOCATION: RICE County, MN

Legal : T109N R20W SWSW05 Region: 5

Quad Map: FARIBAULT (U16D)

Latitude: 44 16' 23" Long: 93 15' 42"

Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO

Global Rank: G1 State Rank: S1

Current Status: 8 Intended Status: 9

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #3

Federal Status: ENDANGERED
Landscape Region: BIG WOODS

State Status: ENDANGERED

SITE : TROUT LILY PRESERVE

CBS Site #: 44

OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 3 verified

EO Size: 0

Date of Information: May 1978

Record Updated: 12/26/1990

of Archived Records: 1

Map Margin #: 0 EO Rank:

Voucher:

Collection #:

Source: MORLEY, T.

REMARKS: 2 COLONIES HERE. TYPE LOCALITY, PREV COLL: ROSENDAHL, MOYLE, DOBIE(7962), 1953. ORWIG, 1944. BEANE (NO DATE, PRE-1900). T110N R20W, NENENE SEC 31.

LOCATION: RICE County, MN

Legal : T110N R20W NENE31 Region: 5

Quad Map: FARIBAULT (U16D)

Latitude: 44 17' 48" Long: 93 15' 46"

Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO

Global Rank: G1 State Rank: S1

Current Status: 1 Intended Status: 7

MINNESOTA NATURAL HERITAGE PROGRAM
ELEMENT OCCURRENCE RECORDS

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ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #4

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : TROUT LILY PRESERVE CBS Site #: 44
OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 4 verified EO Size: 0
Date of Information: May 1978 Record Updated: 12/26/1990 # of Archived Records: 1
Map Margin #: 0 EO Rank: Voucher: Collection #:

Source: MORLEY, T.

REMARKS: 15 COLONIES HERE. NO SPECIMEN. T110N R20W, SWNW SEC 29.

LOCATION: RICE County, MN
Legal : T110N R20W SWNW29 Region: 5
Quad Map: FARIBAULT (U16D)
Latitude: 44 18' 25" Long: 93 15' 34"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO
Global Rank: G1 State Rank: S1
Current Status: 1 Intended Status: 7

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #5

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : TROUT LILY PRESERVE CBS Site #: 44
OWNERSHIP : The Nature Conservancy

MANAGED AREA(s): TROUT LILY PRESERVE

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 5 verified EO Size: 0
Date of Information: May 1978 Record Updated: 12/26/1990 # of Archived Records: 1
Map Margin #: 0 EO Rank: A Voucher: Collection #:

Source: MORLEY, T.

REMARKS: 110 COLONIES HERE. T110N R20W, NESE SEC 19. NO SPECIMEN.

LOCATION: RICE County, MN
Legal : T110N R20W NESE19 Region: 5
Quad Map: FARIBAULT (U16D)
Latitude: 44 19' 2" Long: 93 15' 50"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO
Global Rank: G1 State Rank: S1
Current Status: 9? Intended Status: 9

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #6

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : TROUT LILY PRESERVE CBS Site #: 44
OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 6 verified EO Size: 0
Date of Information: 14 May 1961 Record Updated: 12/26/1990 # of Archived Records: 1
Map Margin #: 0 EO Rank: Voucher: 570350 MIN Collection #: 960

Source: MORLEY, T. (1960)

REMARKS: 3 COLONIES ON GENTLE N-FACING SLOPE IN FOREST WITH E. ALBIDUM; T110N R20W, SWNW
SEC 20. 3 COLONIES IN NENE SEC 20. CONFIRMED BY MORLEY 5-79.

LOCATION: RICE County, MN
Legal : T110N R20W SWNW20 Region: 5
Quad Map: FARIBAULT (U16D)
Latitude: 44 19' 17" Long: 93 15' 39"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO
Global Rank: G1 State Rank: S1
Current Status: 2 Intended Status: 89

MINNESOTA NATURAL HERITAGE PROGRAM
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ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #7

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: SOUTHERN OAK BARRENS

SITE : KENYON 7 CBS Site #: 227

OWNERSHIP : The Nature Conservancy

MANAGED AREA(s): GRACE NATURE PRESERVE

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 7 verified EO Size: 0

Date of Information: May 1978 Record Updated: 02/22/1991 # of Archived Records: 2

Map Margin #: 4 EO Rank: B Voucher: Collection #:

Source: MORLEY, T.

REMARKS: 54 COLONIES IN ALLUVIAL FOREST ALONG NORTH BRANCH ZUMBRO RIVER. PREV COLL:
BORCHARD, 1941, "KENYON"; ROSENDAHL(7722), 1945, "IN PASTURE AND WOODED FLOODPLAIN
1.5 MI W OF KENYON, SE SEC 7, KENYON TWP."; MOORE & HUFF(18443), 1946. 2
COLONIES CONFIRMED BY M. LOESCHKE MAY 14, 1984. COLONIES RELOCATED AND DETER-
MINED TO BE DOING WELL BY C. ANDERSON MAY 3, 1990.

LOCATION: GOODHUE County, MN
Legal : T109N R18W SWSW07 Region: 5
Quad Map: NERSTRAND (U17D)
Latitude: 44 15' 28" Long: 93 1' 5"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO
Global Rank: G1 State Rank: S1
Current Status: 8 Intended Status: 9

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #8

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: SOUTHERN OAK BARRENS

SITE : NERSTRAND WOODS CBS Site #: 42

OWNERSHIP : MN DNR Parks and Recreation

MANAGED AREA(s): NERSTRAND WOODS STATE PARK

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 8 verified EO Size: 0

Date of Information: May 1978 Record Updated: 12/26/1990 # of Archived Records: 1

Map Margin #: 0 EO Rank: Voucher: NONE Collection #:

Source: SMITH, W.R.

REMARKS: SEVERAL COLONIES COMPRISING 1684 PLANTS IN ALLUVIAL FOREST ON S BANK OF PRAIRIE
CREEK. NESE09 T110N R19W (SIGHT RECORD, POPULATION MONITORED BY MDNR)

LOCATION: RICE County, MN
Legal : T110N R19W NESE09 Region: 5
Quad Map: NERSTRAND (U17D)
Latitude: 44 20' 45" Long: 93 6' 19"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO
Global Rank: G1 State Rank: S1
Current Status: 1 Intended Status: 69

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #9

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : TROUT LILY PRESERVE CBS Site #: 44

OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 9 verified EO Size: 0

Date of Information: May 1978 Record Updated: 12/26/1990 # of Archived Records: 1

Map Margin #: 0 EO Rank: Voucher: Collection #:

Source: MORLEY, T.

REMARKS: 28 COLONIES IN SWSW SEC 16, T110N R20W, ALONG WOODED NORTH-FACING DRAWS. HABITAT
DISCONTINUOUS FROM OCCURRENCES FARTHER WEST IN SECTION 17. UNDER NEGOTIATION
BY TNC FOR ACQUISITION FOR LEASE TO SNA, SPRING 1986.

LOCATION: RICE County, MN
Legal : T110N R20W SWSW16 Region: 5
Quad Map: CANNON CITY (U17C)
Latitude: 44 19' 42" Long: 93 14' 32"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO
Global Rank: G1 State Rank: S1
Current Status: 1 Intended Status: 9

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ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #10

Federal Status: ENDANGERED
Landscape Region: BIG WOODS

State Status: ENDANGERED

SITE : TROUT LILY PRESERVE
OWNERSHIP : Private Ownership

CBS Site #: 44

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 10 verified

EO Size: 0

Date of Information: May 1978 Record Updated: 12/26/1990

of Archived Records: 1

Map Margin #: 0 EO Rank:

Voucher:

Collection #:

Source: MORLEY, T.

LOCATION: RICE County, MN

Legal : T110N R20W SESE17 Region: 5

Quad Map: CANNON CITY (U17C)

Latitude: 44 19' 42" Long: 93 14' 32"

Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOU0D0

Global Rank: G1 State Rank: S1

Current Status: 1 Intended Status: 9

REMARKS: 79 COLONIES IN SESE SEC 17, STEEP NORTHWEST-FACING SLOPE AND ON THE
MOST SLOPE OF THE PROMONTORY FACING THE CANNON RIVER IN THE SE 1/4 OF THIS
QUARTER SECTION. UNDER NEGOTIATION FOR ACQUISITION BY TNC SPRING 1986 WITH
POTENTIAL DESIGNATION AS AN SNA.

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #11

Federal Status: ENDANGERED
Landscape Region: BIG WOODS

State Status: ENDANGERED

SITE : STRAIGHT RIVER WILDFLOWER PRESERVE
OWNERSHIP : The Nature Conservancy

CBS Site #: 45

MANAGED AREA(s): RIVER BEND NATURE CENTER

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 11 verified

EO Size: 0

Date of Information: May 1983

Record Updated: 12/26/1990

of Archived Records: 1

Map Margin #: 0 EO Rank: B

Voucher:

Collection #:

Source: SMITH, W.R.

LOCATION: RICE County, MN

Legal : T109N R20W SESE05 Region: 5

Quad Map: CANNON CITY (U17C)

Latitude: 44 16' 16" Long: 93 14' 43"

Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOU0D0

Global Rank: G1 State Rank: S1

Current Status: 8 Intended Status: 89

REMARKS: 116 COLONIES SCATTERED ALONG BASE OF N-FACING BLUFF IN SSE SEC 5, T109N R20W.
(COUNT WAS MADE BY T.MORLEY IN 1979, AND MAY ALSO INCLUDE PLANTS IN TRACT OWNED
BY STATE OF MINNESOTA.) THIS LOCATION IS KNOWN AS THE VAN ESCH TRACT AND IS
LEASED BY THE NATURE CONSERVANCY TO RIVER BEND NATURE CENTER.

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #12

Federal Status: ENDANGERED
Landscape Region: BIG WOODS

State Status: ENDANGERED

SITE : STRAIGHT RIVER WILDFLOWER PRESERVE
OWNERSHIP : Private Ownership

CBS Site #: 45

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 12 sight rec.

EO Size: 0

Date of Information: 4 May 1990

Record Updated: 08/13/1990

of Archived Records: 1

Map Margin #: 12 EO Rank:

Voucher:

Collection #:

Source: SMITH, W.R. AND ANDERSON, C. (SIGHT RECORD)

LOCATION: RICE County, MN

Legal : T110N R20W SESW33 Region: 5

Quad Map: CANNON CITY (U17C)

Latitude: 44 17' 2" Long: 93 13' 55"

Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOU0D0

Global Rank: G1 State Rank: S1

Current Status: 2 Intended Status:

REMARKS: 1990 FIELD CHECK BY SMITH AND ANDERSON LOCATED 20 COLONIES BETWEEN QUARRY AND
SO. BOUNDARY OF CRANE CREEK ASPHALT CO. PREVIOUS COLLECTION: MORLEY, T. (1978), 3
COLONIES SEEN ON THE FLOODPLAIN IN SHADE OF TREES AND SHRUBS. A COLONY JUST EAST
OF THIS SITE WAS DESTROYED BY ROAD CONSTRUCTION. T110 R20W SESW33. NO SPECIMEN.
THIS LOCATION IS KNOWN AS THE "ROAD CONSTRUCTION SITE". T110 R20W SESW33.

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ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #13

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: SOUTHERN OAK BARRENS

SITE : ROBINSON WOODS CBS Site #: 210

OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 13 verified EO Size: 0

Date of Information: May 1978 Record Updated: 02/22/1991 # of Archived Records: 1

Map Margin #: 0 EO Rank: C Voucher: Collection #:

Source: MORLEY, T.

REMARKS: 4 COLONIES IN FLOODPLAIN OF LITTLE CANNON RIVER. (PREV COLL: AITON 1895, "CANNON FALLS-LITTLE CANNON VALLEY-ALLUVIAL". BUTTERS & ROSENDAHL #3451, 1918, "RICH SOIL WOODED BOTTOMLAND". ROSENDAHL ET AL (2954) 1935, "SEC 6, 5 MI S OF CANNON FALLS")

LOCATION: GOODHUE County, MN

Legal : T111N R17W NWNW06 Region: 5

Quad Map: SOGN (U18B)

Latitude: 44 27' 9" Long: 92 55' 0"

Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOU0D0

Global Rank: G1 State Rank: S1

Current Status: 2 Intended Status: 79

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #14

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : WALCOTT 33 CBS Site #: 85

OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 14 verified EO Size: 0

Date of Information: May 1964 Record Updated: 12/26/1990 # of Archived Records: 1

Map Margin #: 0 EO Rank: C Voucher: 588239 MIN Collection #: 1041

Source: MORLEY, T. (1041)

REMARKS: SMALL COLONY (2 COLONIES), MOSTLY ON N-FACING SIDE OF SHALLOW GULLY WHERE IT ENTERS THE FLOOD PLAIN ON THE E SIDE OF THE STRAIGHT RIVER, 100 YARDS N OF THE STEELE CO. LINE. T109N R20W, SESW SEC 33. (SITE CONFIRMED BY T.M. 5-78.)

LOCATION: RICE County, MN

Legal : T109N R20W SESW33 Region: 5

Quad Map: MEDFORD EAST (V17B)

Latitude: 44 11' 50" Long: 93 14' 1"

Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOU0D0

Global Rank: G1 State Rank: S1

Current Status: 2 Intended Status: 29

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #15

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : STRAIGHT RIVER WILDFLOWER PRESERVE CBS Site #: 45

OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 15 sight rec. EO Size: 0

Date of Information: 5 May 1990 Record Updated: 12/26/1990 # of Archived Records: 2

Map Margin #: 24 EO Rank: B Voucher: Collection #:

Source: ANDERSON, C. (SIGHT RECORD)

REMARKS: SEVERAL COLONIES LOCATED ON THE SLOPE AND INTO THE FLOODPLAIN ABOUT 40 METERS AT THE SOUTH END OF THE TOSTRUDE TRACT. PREVIOUS RECORD: LOESCHKE, M. (1984) SEVERAL COLONIES ON HILLSIDE JUST BELOW GARAGE OF SCHROEDER RESIDENCE, SW LOTS 6 AND 7, COUNTRYSIDE THIRD ADDITION, CITY OF FARIBAULT.

LOCATION: RICE County, MN

Legal : T109N R20W NWSWSW Region: 5

Quad Map: FARIBAULT (U16D)

Latitude: 44 16' 19" Long: 93 15' 42"

Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOU0D0

Global Rank: G1 State Rank: S1

Current Status: 2 Intended Status: 8

MINNESOTA NATURAL HERITAGE PROGRAM
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ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #16

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : STRAIGHT RIVER WILDFLOWER PRESERVE CBS Site #: 45
OWNERSHIP : MN Department of Welfare

MANAGED AREA(s): RIVER BEND NATURE CENTER

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 16 verified EO Size: 0

Date of Information: May 1983 Record Updated: 12/26/1990 # of Archived Records: 1

Map Margin #: 0 EO Rank: B Voucher: SIGHT Collection #:

Source: SMITH, W.R.

REMARKS: HABITAT CONTINUOUS WITH THAT IN SESE SECTION 5, BUT THIS TRACT OWNED BY STATE OF MINNESOTA; LEASED TO RIVERBEND NATURE CENTER, CITY OF FARIBAULT. PLANTS AT THIS SITE HAVE BEEN MONITORED BY TNC ALONG WITH PLANTS IN VAN ESCH TRACT.

LOCATION: RICE County, MN
Legal : T109N R20W SWSE05 Region: 5
Quad Map: CANNON CITY (U17C)
Latitude: 44 16' 17" Long: 93 14' 57"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLLLOU0D0
Global Rank: G1 State Rank: S1
Current Status: 1 Intended Status: 89

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #17

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : STRAIGHT RIVER WILDFLOWER PRESERVE CBS Site #: 45
OWNERSHIP : MN Department of Welfare

MANAGED AREA(s): RIVER BEND NATURE CENTER

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 17 verified EO Size: 0

Date of Information: May 1978 Record Updated: 12/26/1990 # of Archived Records: 1

Map Margin #: 0 EO Rank: B Voucher: SIGHT Collection #:

Source: MORLEY, T.

REMARKS: SEVERAL COLONIES ON FLOODPLAIN ON NORTH SIDE OF STRAIGHT RIVER AT BEND 6 CLONES OCCUR JUST OFF OWL AND TROUT LILY TRAILS OF RIVERBEND NATURE CENTER AND HAVE BEEN MONITORED BY O. RUSTAD FOR THE NATURE CENTER. AREA OWNED BY STATE DEPARTMENT OF HUMAN RESOURCES AND LEASED TO RIVERBEND NATURE CENTER. 95 COLONIES LOCATED BY MDNR IN 1988.

LOCATION: RICE County, MN
Legal : T109N R20W NWSW04 Region: 5
Quad Map: CANNON CITY (U17C)
Latitude: 44 16' 27" Long: 93 14' 24"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLLLOU0D0
Global Rank: G1 State Rank: S1
Current Status: 1 Intended Status: 89

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #18

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : STRAIGHT RIVER WILDFLOWER PRESERVE CBS Site #: 45
OWNERSHIP : MN Department of Welfare

MANAGED AREA(s): RIVER BEND NATURE CENTER

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 18 verified EO Size: 0

Date of Information: May 1978 Record Updated: 12/26/1990 # of Archived Records: 1

Map Margin #: 0 EO Rank: B Voucher: SIGHT Collection #:

Source: MORLEY, T.

REMARKS: 3 COLONIES ON STEEP NORTH-FACING BANK OF OLD RAILROAD GRADE, JUST WEST OF WHERE GRADE CROSSES FROM SECTION 8 TO SECTION 5. ONE COLONY HAS BEEN DESTROYED BY MOTORBIKES. THIS LOCATION ISOLATED FROM OTHER COLONIES IN AREA MANAGED BY RIVERBEND NATURE CENTER.

LOCATION: RICE County, MN
Legal : T109N R20W NENW08 Region: 5
Quad Map: FARIBAULT (U16D)
Latitude: 44 16' 7" Long: 93 15' 16"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLLLOU0D0
Global Rank: G1 State Rank: S1
Current Status: 1 Intended Status: 89

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ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #19

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: SOUTHERN OAK BARRENS

SITE : NERSTRAND WOODS CBS Site #: 42
OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 19 verified EO Size: 0

Date of Information: 29 May 1986 Record Updated: 12/26/1990 # of Archived Records: 1

Map Margin #: 0 EO Rank: Voucher: SIGHT Collection #:

Source: SMITH,W.R.,SATHER,N.AND DUNEVITZ,V.

REMARKS: AT LEAST 14 COLONIES IN FLOODPLAIN OF EAST-FLOWING TRIBUTARY TO PRAIRIE CREEK,
NORTH OF BOUNDARY OF NERSTRAND WOODS STATE PARK.

LOCATION: RICE County, MN
Legal : T110N R19W SESESE04 Region: 5
Quad Map: NERSTRAND (U17D)
Latitude: 44 21' 26" Long: 93 6' 7"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO
Global Rank: G1 State Rank: S1
Current Status: 2 Intended Status: 89

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #20

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: SOUTHERN OAK BARRENS

SITE : site not named or no record CBS Site #: 0
OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 20 unverified EO Size: 0

Date of Information: May 1892 Record Updated: 12/10/1986 # of Archived Records: 0

Map Margin #: 0 EO Rank: Voucher: 88494 MIN Collection #:

Source: BALLARD,A.L.

REMARKS: ZUMBROTA, MINN. (HABITATS AROUND ZUMBROTA HAVE BEEN SEARCHED UNSUCCESSFULLY BY
T.MORLEY WHO BELIEVES POPULATION IS EXTIRPATED)

LOCATION: GOODHUE County, MN
Legal : T109N R15W Region: 5
Quad Map: ZUMBROTA (U19C)
Latitude: 44 17' 37" Long: 92 40' 12"
Precision: within quadrangle map

TNC RECORD: Code: PMLILOUODO
Global Rank: G1 State Rank: S1
Current Status: 0 Intended Status: 0

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #21

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: SOUTHERN OAK BARRENS

SITE : CANNON RIVER WILDERNESS AREA CBS Site #: 32
OWNERSHIP : County Park

MANAGED AREA(s): RICE COUNTY WILDERNESS AREA

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 21 verified EO Size: 0

Date of Information: 12 May 1989 Record Updated: 12/26/1990 # of Archived Records: 2

Map Margin #: 22 EO Rank: Voucher: MIN Collection #:

Source: BAILEY,JEFF

REMARKS: 23 COLONIES AT TOE OF NORTH-FACING SLOPE JUST WEST OF INTERMITTENT STREAM WITH
SCOURED ROCK BED. RED OAK, WHITE OAK, BASSWOOD, SUGAR MAPLE WOODS WITH SPARSE
SHRUB LAYER AND UNDERSTORY ON SLOPES, MORE LUSH ON FLOODPLAIN. DIVERSE FOREST
FLOOR WITH HYDROPHYLLUM, ISOPYRUM, DENTARIA, ERYTHRONIUM ALBIDUM, ADIANTUM, SOL-
IDAGO FLEXICAULIS CYSTOPTERIS, VIOLA SORORIA. SEVERAL COLONIES E. PROPULLANS ARE
ALONG FENCELINE. ON BOTH COUNTY AND PRIVATE LAND. REVISIT BY B. DELANEY 4-30-90.

LOCATION: RICE County, MN
Legal : T111N R20W NESEENW34 Region: 5
Quad Map: NORTHFIELD (U17B)
Latitude: 44 22' 45" Long: 93 7' 44"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO
Global Rank: G1 State Rank: S1
Current Status: 0 Intended Status: 6

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ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #22

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : TROUT LILY PRESERVE CBS Site #: 44
OWNERSHIP : MN DNR Wildlife (Scientific and Natural Areas)

MANAGED AREA(s): CANNON RIVER TROUT LILY SNA

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 22 sight rec. EO Size: 0
Date of Information: 25 April 1990 Record Updated: 12/14/1990 # of Archived Records: 1
Map Margin #: 30 EO Rank: Voucher: Collection #:

Source: DUNEVITZ, H. (SIGHT RECORD)

REMARKS: 2 COLONIES WEST OF RIVER, TOTAL OVER 800 PLANTS ABOUT 3M ABOVE RIVER. PATCHY
CANOPY 2ND GROWTH CELTIS AND OSTRYA. SHRUBS PATCHY WITH DENSE AREAS RIBES
MISSOURIENSIS, ZANTHOXYLUM. ERYTHRONIUM PROPULLANS UNDER RIBES. WITH ERYTHRONIUM
ALBIDUM, ISOPYRUM, CAREX PENNSYLVANICA, HYDROPHYLLUM VIRGINIANUM. 1988: POPULA-
TION OBSERVED BY W. SMITH AND B. DJUPSTROM.

LOCATION: RICE County, MN
Legal : T110N R20W NWSW16 Region: 5
Quad Map: CANNON CITY (U17C)
Latitude: 44 20' 1" Long: 93 14' 22"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUOD0
Global Rank: G1 State Rank: S1
Current Status: 9 Intended Status: 9

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #23

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : TROUT LILY PRESERVE CBS Site #: 44
OWNERSHIP : MN DNR Wildlife (Scientific and Natural Areas)

MANAGED AREA(s): CANNON RIVER TROUT LILY SNA

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 23 sight rec. EO Size: 0
Date of Information: May 1989 Record Updated: 12/26/1990 # of Archived Records: 1
Map Margin #: 0 EO Rank: Voucher: Collection #:

Source: SMITH, W.R. (SIGHT RECORD)

REMARKS: ONE COLONY IN MATURE OLD GROWTH MAPLE BASSWOOD FOREST (NOTE FROM SNA FILES)

LOCATION: RICE County, MN
Legal : T110N R20W NWSESW16 Region: 5
Quad Map: CANNON CITY (U17C)
Latitude: 44 20' 46" Long: 93 14' 17"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUOD0
Global Rank: G1 State Rank: S1
Current Status: 9 Intended Status: 9

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #24

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : TROUT LILY PRESERVE CBS Site #: 44
OWNERSHIP : MN DNR Wildlife (Scientific and Natural Areas)

MANAGED AREA(s): CANNON RIVER TROUT LILY SNA

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 24 sight rec. EO Size: 0
Date of Information: May 1989 Record Updated: 12/26/1990 # of Archived Records: 1
Map Margin #: 0 EO Rank: Voucher: Collection #:

Source: SMITH, W.R. (SIGHT RECORD)

REMARKS:

LOCATION: RICE County, MN
Legal : T110N R20W SESE08 Region: 5
Quad Map: CANNON CITY (U17C)
Latitude: 44 20' 34" Long: 93 14' 43"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUOD0
Global Rank: G1 State Rank: S1
Current Status: 9 Intended Status: 9

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ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #25

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: SOUTHERN OAK BARRENS

SITE : ROBINSON WOODS (90 acres approx.) CBS Site #: 210
OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 25 verified EO Size: 1
Date of Information: 4 May 1990 Record Updated: 08/13/1990 # of Archived Records: 0
Map Margin #: 17 EO Rank: C Voucher: MIN Collection #: 90-1

Source: SATHER, N.

REMARKS: 7 COLONIES TOTALLING 517 PLANTS ON RISE IN FLOODPLAIN JUST N. AND W. OF CONFLUENCE OF LITTLE CANNON RIVER AND BUTLER CREEK. UNDER PRICKLY ASH IN HIGHLY DISTURBED PASTURED FLOODPLAIN FOREST, NO CANOPY IN AREA WITH LILLIES. OTHER FOREST FLOOR SPP INCLUDE CAREX SP., ERYTHRONIUM ALBIDUM, ISOPYRUM BITERNATUM, HYDROPHYLLUM VIRGINIANUM, GLECHOMA HEDERACEA. NO DWARF TROUT LILLIES W. OF HERE IN LOWER AREA DOMINATED BY BOXELDER SHRUB LAYER AND FLOOR DOMINATED BY GALIUM APARINE.

LOCATION: GOODHUE County, MN
Legal : T111N R17W SENW06 Region: 5
Quad Map: SOGN (U18B)
Latitude: 44 27' 3" Long: 92 54' 35"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOU0D0
Global Rank: G1 State Rank: S1
Current Status: 2 Intended Status:

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #26

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: SOUTHERN OAK BARRENS

SITE : NORTH FORK ZUMBRO WOODS CBS Site #: 177
OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 26 verified EO Size: 60
Date of Information: 1 May 1990 Record Updated: 02/22/1991 # of Archived Records: 1
Map Margin #: 2 EO Rank: A Voucher: MIN Collection #: 303

Source: DUNEVITZ, H.

REMARKS: 3 LARGE AGGREGATES OF MANY SMALLER COLONIES. WESTERN SUPERCOLONY 70M X 15M WITH EST. UP TO 40 PLANTS/M2 IN SOME AREAS, 2ND SUPERCOLONY NEARLY CONTINUOUS WITH 3RD, ON BOTH SIDES OF RAVINE, 25 SUBCOLONIES TOTAL OVER 1900 PLANTS. ON SLOPE IN RED OAK, BASSWOOD STAND W/BLACK ASH, YELLOWBUD HICKORY, SPARSE SHRUBS, DIVERSE GROUND LAYER DOM. E. ALBIDUM, ISOPYRUM, HYDROPHYLLUM WITH ASARUM, DICENTRA CUC., ANEMONE QUIN, ALLIUM TRIC., UVULARIA, DENTARIA, MAIANTHEMUM, TRILLIUM NIVALE.

LOCATION: GOODHUE County, MN
Legal : T110N R17W SWSE28 Region: 5
Quad Map: WANAMINGO (U18D)
Latitude: 44 17' 53" Long: 92 51' 37"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLLLOU0D0
Global Rank: G1 State Rank: S1
Current Status: 0 Intended Status: 29

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #27

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : STRAIGHT RIVER WILDFLOWER PRESERVE CBS Site #: 45
OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 27 sight rec. EO Size: 10
Date of Information: 27 April 1990 Record Updated: 08/13/1990 # of Archived Records: 0
Map Margin #: 35 EO Rank: B Voucher: Collection #:

Source: DELANEY, B.

REMARKS: 12 TO 20 COLONIES WITH OVER 1800 BLOOMING PLANTS ON NE FACING SLOPE IN SUGAR MAPLE FOREST WITH RED OAK AND ASPEN. FEW SHRUBS, SOME ASPEN, MAPLE REPRODUCTION WITH OCCASIONAL IRONWOOD. POOR DIVERSITY IN GROUND LAYER DOMINATED BY ERYTHRONIUM ALBIDUM. MANY TOTALLY ISOLATED COLONIES E. PROPULLANS. NORTHERNMOST E. PROPULLANS JUST S. OF OLD BRIDGE FOUNDATION. ALSO EAST OF FALLS CREEK ON COLLIN GLARNER PROPERTY NEAR HOUSE. PLANTS W OF FALLS CK. BOTH N & S OF THE OLD BRIDGE.

LOCATION: RICE County, MN
Legal : T110N R20W SWSW33 Region: 5
Quad Map: CANNON CITY (U17C)
Latitude: 44 17' 10" Long: 93 11' 55"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLLLOU0D0
Global Rank: G1 State Rank: S1
Current Status: 2 Intended Status: 8

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ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #28

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : STRAIGHT RIVER WILDFLOWER PRESERVE CBS Site #: 45
OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 28 sight rec. EO Size: 0
Date of Information: 4 May 1990 Record Updated: 08/13/1990 # of Archived Records: 0
Map Margin #: 36 EO Rank: B Voucher: Collection #:

Source: ANDERSON, C. AND SMITH, W.R. (SIGHT RECORD)

REMARKS: 4 COLONIES ON LOWER SLOPE AND POOR QUALITY FLOODPLAIN FOREST. FLOODPLAIN WAS
SEARCHED ONLY BRIEFLY, COULD BE SEARCHED BETTER. NO INFO ON ASSOCIATED SPP.
BETWEEN 200 AND 400 PLANTS TOTAL.

LOCATION: RICE County, MN
Legal : T109N R20W SENW04 Region: 5
Quad Map: CANNON CITY (U17C)
Latitude: 44 21' 38" Long: 93 9' 10"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLLLOU0D0
Global Rank: G1 State Rank: S1
Current Status: 2 Intended Status:

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #29

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : TROUT LILY PRESERVE CBS Site #: 44
OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 29 sight rec. EO Size: 0
Date of Information: 23 May 1990 Record Updated: 12/26/1990 # of Archived Records: 1
Map Margin #: 37 EO Rank: C Voucher: Collection #:

Source: DUNEVITZ, H. AND DELANEY, B. (SIGHT RECORD)

REMARKS: 3 COLONIES FOUND IN CLOSE PROXIMITY TO EACH OTHER, TOTAL AROUND 175 PLANTS.
ON UPPER N-FACING SLOPE OF FLOODPLAIN. DOMINATED BY BOXELDER, GREEN ASH, HACK-
BERRY, BASSWOOD, SILVER MAPLE; SHRUBLAYER DOMINATED BY RIBES MISSOURIENSIS, SOME
VIBURNUM LENTAGO. GROUND LAYER ERYTHRONIUM ALBIDUM, LYSIMACHIA NUMMULARIA,
ANEMONE QUINQUEFOLIA, HYDROPHYLLUM VIRGINIANUM, CAREX SPP., VIOLA SORORIA.
COMMUNITY IS D RANK.

LOCATION: RICE County, MN
Legal : T110N R20W NENE17 Region: 5
Quad Map: CANNON CITY (U17C)
Latitude: 44 20' 24" Long: 93 14' 38"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLLLOU0D0
Global Rank: G1 State Rank: S1
Current Status: 0 Intended Status: 29

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #30

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: BIG WOODS

SITE : CANNON RIVER WILDERNESS AREA CBS Site #: 32
OWNERSHIP : County Park

MANAGED AREA(s): RICE COUNTY WILDERNESS AREA

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 30 verified EO Size: 14
Date of Information: 28 April 1990 Record Updated: 12/26/1990 # of Archived Records: 2
Map Margin #: 23 EO Rank: B Voucher: Collection #: 302

Source: DUNEVITZ, H.

REMARKS: AROUND 100 COLONIES EXTENDING PARTWAY UP HILLS FROM FOOTTRAIL AREA ON BOTH SIDES
OF POWERLINE IN W1/2 SW1/4 SEC. 34. SOME PLANTS IN FOOTTRAIL. RED OAK, BASSWOOD,
SUGAR MAPLE, GREEN ASH, W/FAIRLY OPEN SHRUBLAYER OF CHOKECHERRY, ELDERBERRY AND
GOOSEBERRY. GROUND LAYER INCL. MITELLA DIPHYLLA, UVULARIA GRANDIFLORA, HEPATICA
ACUTILOBA, ALLIUM TRICOCCUM, PHLOX DIVARICATA, VIOLA SORORIA, TRILLIUM GRANDIFL-
ORA, DICENTRA CUCULLARIA, HYDROPHYLLUM, SANGUINARIA, ASARUM, ERYTHRONIUM ALBIDUM

LOCATION: RICE County, MN
Legal : T111N R20W OWSW34 Region: 5
Quad Map: CANNON CITY (U17C)
Latitude: 44 22' 20" Long: 93 13' 0"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLLLOU0D0
Global Rank: G1 State Rank: S1
Current Status: 0 Intended Status: 6

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ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #31

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: SOUTHERN OAK BARRENS

SITE : NERSTRAND WOODS CBS Site #: 42
OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 31 sight rec. EO Size: 2
Date of Information: 3 May 1990 Record Updated: 08/16/1990 # of Archived Records: 0
Map Margin #: 18 EO Rank: Voucher: Collection #:

Source: SMITH,W.,DUNEVITZ,H.,SATHER AND FARLEY(SIGHT RECORD)

REMARKS: 3 COLONIES ON FLOODPLAIN, LEVEL GROUND BOTH SIDES OF FENCELINE, TOTAL OF 8
PLANTS. MEDIUM AGED BASSWOOD WITH SHRUBS, HYDROPHYLLUM, ISOPYRUM, SANGUINARIA,
ASARUM, TRILLIUM CERNUUM. ONE COLONY AT BASE OF SLOPE, 1 COLONY 2 M NORTH OF
FENCE, 8 M EAST OF CREEK, ONE IS 16 M NORTH OF FENCE, 10 M EAST OF CREEK.

LOCATION: RICE County, MN
Legal : T110N R19W NWNW10 Region: 5
Quad Map: NERSTRAND (U17D)
Latitude: 44 21' 22" Long: 93 5' 55"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO
Global Rank: G1 State Rank: S1
Current Status: 2 Intended Status:

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #32

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: SOUTHERN OAK BARRENS

SITE : NERSTRAND WOODS CBS Site #: 42
OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 32 sight rec. EO Size: 1
Date of Information: 3 May 1990 Record Updated: 08/16/1990 # of Archived Records: 0
Map Margin #: 19 EO Rank: C Voucher: Collection #:

Source: SMITH,W.,DUNEVITZ,H.,SATHER AND FARLEY(SIGHT RECORD)

REMARKS: 63 FLOWERING PLANTS IN 4 COLONIES APPROXIMATELY 120 SQ M ON LOWER N-FACING SLOPE
OF MAPLE BASSWOOD FOREST. FOREST DOMINATED BY TILIA, QUERCUS RUBRA, AND ACER
SACCHARUM. PRUNUS VIRGINIANA IS COMMON NEAR THIS POPULATION. HERBACEOUS ASSOCI-
ATES: ISOPYRUM BITERNATUM, ASARUM CANADENSE, HYDROPHYLLUM VIRGINIANA, UVULARIA
GRANDIFLORA, TRILLIUM CERNUUM, T. FLEXIPES, CAULOPHYLLUM THALICTROIDES.
GRAVELLING OPERATION JUST UPSLOPE PUSHING TREES, SOIL, DEBRIS ONTO SLOPE.

LOCATION: RICE County, MN
Legal : T110N R19W SESWSW03 Region: 5
Quad Map: NERSTRAND (U17D)
Latitude: 44 21' 27" Long: 93 5' 50"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO
Global Rank: G1 State Rank: S1
Current Status: Intended Status:

ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #33

Federal Status: ENDANGERED State Status: ENDANGERED
Landscape Region: SOUTHERN OAK BARRENS

SITE : NERSTRAND WOODS CBS Site #: 42
OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 33 sight rec. EO Size: 1
Date of Information: 3 May 1990 Record Updated: 10/26/1990 # of Archived Records: 1
Map Margin #: 20 EO Rank: CD Voucher: Collection #:

Source: SMITH,W.,DUNEVITZ,H.,SATHER AND FARLEY(SIGHT RECORD)

REMARKS: 12 FLOWERING PLANTS IN ONE COLONY TOWARD TOE ON NW FACING SLOPE IN MAPLE-
BASSWOOD FOREST. PLANTS UNDER TILIA AND WITH SPARSE HERBACEOUS COVER. ASSOCIATES
ARE HYDROPHYLLUM VIRGINIANA AND THALICTRUM DIOICUM. ON LOOSE, HIGHLY ERODIBLE
SOIL. LOCATED 5 M EAST OF PRAIRIE CREEK, ABOUT 100 M NORTH OF PARK BOUNDARY SIGN
AND SURVEY MONUMENT NO. 131.

LOCATION: RICE County, MN
Legal : T110N R19W SWNW10 Region: 5
Quad Map: NERSTRAND (U17D)
Latitude: 44 20' 58" Long: 93 6' 0"
Precision: within 0.25 mile, confirmed

TNC RECORD: Code: PMLILOUODO
Global Rank: G1 State Rank: S1
Current Status: 2 Intended Status: 8

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ELEMENT: ERYTHRONIUM PROPULLANS (DWARF TROUT LILY) #34

Federal Status: ENDANGERED

State Status: ENDANGERED

Landscape Region: SOUTHERN OAK BARRENS

LOCATION: RICE County, MN

Legal : T110N R19W NESESE08 Region: 5

Quad Map: NERSTRAND (U17D)

Latitude: 44 20' 40" Long: 93 7' 22"

Precision: within 0.25 mile, confirmed

SITE : NERSTRAND WOODS

CBS Site #: 42

OWNERSHIP : Private Ownership

MANAGED AREA(s): not managed or no record

OCCURRENCE RECORD: Code: GT.BC5 Occurrence #: 34 sight rec. EO Size: 0

Date of Information: 30 April 1990 Record Updated: 12/26/1990 # of Archived Records: 1

Map Margin #: 21 EO Rank: BC Voucher: Collection #:

TNC RECORD: Code: PMLILOUDO

Global Rank: G1 State Rank: S1

Current Status: Intended Status:

Source: ANDERSON, C. (SIGHT RECORD)

REMARKS: APPROXIMATELY 100 COLONIES IN FLOODPLAIN FOREST AND ON LOWER NW FACING SLOPE IN
MAPLE BASSWOOD FOREST. DOMINATED BY ACER SACCHARUM, TILIA, AND QUERCUS RUBRA.
SOME COLONIES ASSOCIATED WITH ERYTHRONIUM ALBIDUM. SMALL PORTION OF SITE GRAZED.

