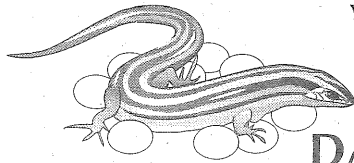


Although the most common request is for the locational information contained in the Rare Features Database, there is a growing demand for other types of information about rare species and natural communities, such as detailed plant lists, site evaluations, and site-base conservation priorities.

OUTPUT FROM OTHER DATABASES

Applicants with specific interests should inquire if their needs can be met by other databases in the Natural Heritage Information System.

Information from the Rare Features Database can be provided for review of land-use plans, impacts of specific development projects, research projects, and for other legitimate uses. The publication of exact locational information, however, may threaten the continued existence of some rare species. For example, some endangered wildflowers, such as orchids, have very attractive blooms that can lead to exploitation by collectors. Some rare animal species, such as the bald eagle, are sensitive to disturbance by humans, and may desert a breeding area that is approached too closely during certain portions of the breeding season. For this reason, program staff must carefully screen all requests, and may ask that the level of detail in publication of locational information be modified, or that interpretation of data be reviewed by program staff.



DATA SECURITY

that is approached too closely during certain portions of the breeding season. For this reason, program staff must carefully screen all requests, and may ask that the level of detail in publication of locational information be modified, or that interpretation of data be reviewed by program staff.

Data can be supplied to users in several formats:

DATA REQUESTS



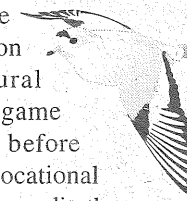
1. Printed
Custom computer printouts are available that display data selected and sorted to meet the user's needs. Some examples include sorting by:
 - Geographic area, e.g., county, township, 7.5 minute topographic map (scale 1:24,000).
 - Species or major taxonomic groups such as birds.
 - Status, e.g., all endangered species, all Federally listed species.
 - Date of information, i.e., date occurrence was last field checked.
 - Land ownership, e.g., public or private.
2. Electronic
The information described above can also be provided in electronic form on floppy disks or tapes.
3. Maps
Certain mapping capabilities also exist, and these are currently being expanded. Data are managed with an ARC/INFO Geographic Information System; data conversion to other GIS formats is possible. Interested users should inquire about the type of mapping available at the time they place their request.

Data Request Forms are available from:

Endangered Resource/Environmental Review Specialist
Minnesota Natural Heritage
and Nongame Wildlife Programs
Department of Natural Resources
500 Lafayette Road
St. Paul, Minnesota 55155-4007
Phone: 612/296-3344

By completing data request forms, applicants supply detailed information about the nature of the data required and the intended use of the data. Staff review the data request and determine the level of detail necessary to adequately meet the data applicant's needs. Information is retrieved using the most cost-efficient methods and provided to the applicant in the most effective format. The applicant must agree to secure permission from the Natural Heritage and Nongame Wildlife Programs before publishing precise locational information, and to credit the Natural Heritage Information System as the source of the information. Typical response time is two weeks following the receipt of the data request form.

APPLICATION PROCEDURE



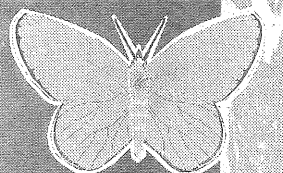
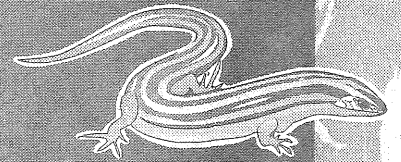
Equal opportunity to participate in and benefit from programs of the Minnesota Department of Natural Resources is available to all individuals regardless of race, color, national origin, sex, age or disability. Discrimination inquiries should be sent to MN/DNR, 500 Lafayette Pl., St. Paul, MN 55155-4049 or the Equal Opportunity Office, Department of the Interior, Washington, D.C. 20240.



A User's Guide to the...

A User's Guide To The Minnesota Natural Heritage Information System:

The Challenge of the Minnesota Natural Heritage Information System is to effectively provide information on Minnesota's rare plants, animals, natural communities, and geologic features. This information assists Minnesotans in planning for the protection and management of the State's biological diversity.

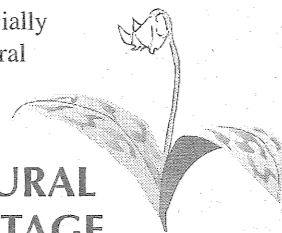


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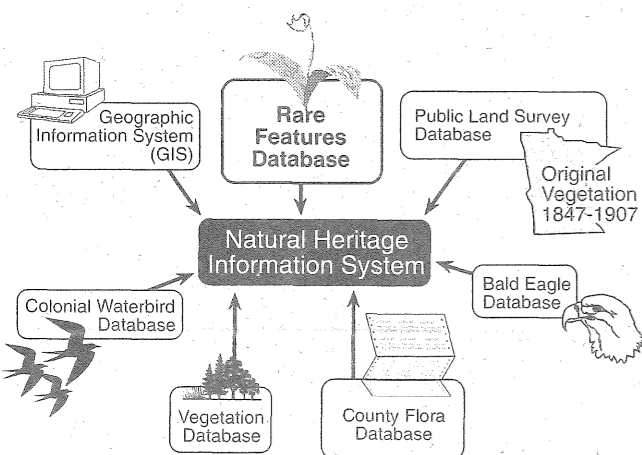
The Minnesota Natural Heritage Information System is maintained by the Natural Heritage Program and the Nongame Wildlife Program, units within the Minnesota Department of Natural Resources Division of Fish and Wildlife. The mission of these two programs is to inventory, research, and protect features of the State's biological diversity.

The Natural Heritage Information System now includes more than 20 component databases. The oldest feature of this system is the Rare Features Database. This database includes locations of species officially listed under the provisions of the Federal Endangered Species Act of 1973, Public Law 93-205 and/or Minnesota Statute 84.0895. The federal law prohibits the "taking" of endangered animals wherever they occur and protects plants wherever there is federal involvement in the form of funding or permits. The state law imposes the same restrictions on taking, import, transport or sale to both endangered and threatened animal and plant species.

NATURAL HERITAGE INFORMATION SYSTEM



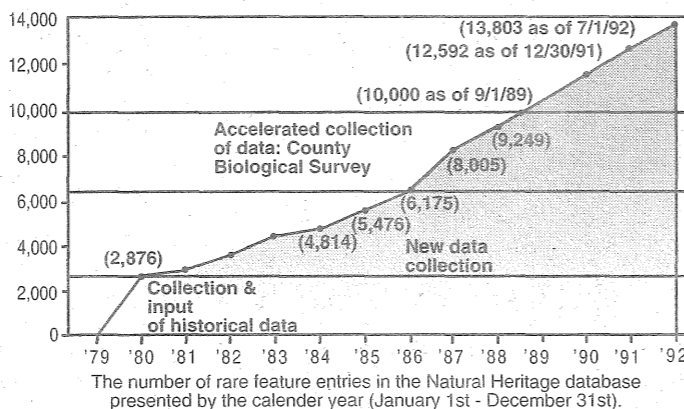
Other databases in the System contain a variety of complementary information such as nest histories of bald eagles and colonial waterbirds, plant lists for counties and selected sites, original public land survey records (1847-1907), and detailed site descriptions in selected counties.



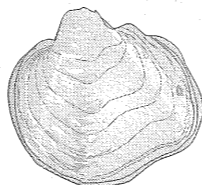
The purpose of this brochure is to explain the nature of the data maintained, provide examples of potential uses of the information, illustrate possible formats in which data can be supplied, and to explain the procedure for requesting data.

The Rare Features Database

The Rare Features Database is the most complete single source of locational information about Minnesota's rare or otherwise significant plant and animal species, natural communities, and natural features. The Database began as a compilation of historical records from museum collections and published information. This has been supplemented with data from years of field work on Minnesota's rare features. Most recently, our knowledge of Minnesota's rare features has increased substantially with the progress of the Minnesota County Biological Survey, a county-by-county inventory of rare natural features.



The Rare Features Database comprises locational records of rare and endangered natural features. The data are maintained in several formats. All locations are plotted on USGS 7.5 minute topographic maps. Each record is also tracked in a computerized database, with supporting information kept in manual files. Each record is composed of a number of fields containing information such as location, date, State and Federal legal status, land ownership, numbers of individuals observed, and associated species.



NATURE OF THE DATA

Rare Plants

The following rare plants are tracked: all species that are listed as Federally endangered, threatened, or as candidates for Federal listing; all species that are State listed as endangered, threatened or special concern. Several rare species are also tracked which currently have no legal status but need further monitoring to determine their status.

Rare Animals

All animal species that are listed as Federally endangered or threatened (except the gray wolf) are tracked, as well as all birds, small mammals, reptiles, amphibians, mussels, and butterflies that are listed as State endangered, threatened or special concern. Fish data are currently maintained in manual files only.

Natural Communities

Natural communities are functional units of the landscape that are characterized and defined by their most prominent habitat features – a combination of vegetation, hydrology, landform, soil, and natural disturbance cycles. Although natural communities have no legal protection in Minnesota, the Natural Heritage Program has evaluated and ranked community types according to their relative rarity and endangerment throughout their range. Locations of high quality examples are tracked by the Rare Features Database.

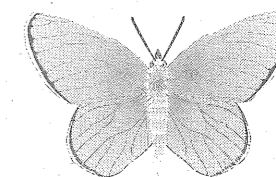
Geologic Features

Noteworthy examples of geologic features throughout Minnesota are tracked if they are unique or rare, extraordinarily well-preserved, widely documented, highly representative of a certain period of geologic history, or very useful in regional geologic correlation.

Animal Aggregations

Certain types of animal aggregations, such as nesting colonies of waterbirds (herons, egrets, grebes, gulls and terns), bat hibernacula, prairie chicken booming grounds, and winter bald eagle roosts are tracked regardless of the legal status of the species that comprise them. The tendency to aggregate makes these species vulnerable because a single catastrophic event could result in the loss of many individuals.

As the only repository for statewide locational information on rare natural features, the Rare Features Database can be useful to many agencies and individuals.



USE OF THE DATA

The data are used for:

- *Land Conservation Programs:* to identify those areas most deserving protection by DNR programs such as the Scientific and Natural Areas, Reinvest in Minnesota, and Native Prairie Bank Programs, as well as private conservation organizations such as The Nature Conservancy.
- *Environmental Review:* for review of specific project-related impacts through the state environmental review process. Examples include commercial and residential developments, transportation projects, utility construction, landfills, mining, and flood control projects.
- *Planning:* to notify private and public planners and developers of locations of rare species or biologically sensitive areas early in the planning process.
- *Management:* to provide data to government agencies and other land management organizations so that management decisions can be made with consideration for rare features.
- *Research:* to provide baseline information on rare features to support population monitoring and other ecological research.
- *Education:* to promote public awareness and appreciation of Minnesota's rare resources.

