Endangered and Threatened Species of Illinois: Status and Distribution

Volume 1 - Plants

Illinois Endangered Species Protection Board

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ENDANGERED AND THREATENED SPECIES OF ILLINOIS: STATUS AND DISTRIBUTION

VOLUME 1: PLANTS

James R. Herkert and John E. Ebinger, Editors

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PREFACE

In 1981, *Endangered and Threatened Species of Illinois: Status and Distribution* was published as the culmination of a major effort entitled The Endangered Species Project. While a number of attempts had previously been made to develop a list of species endangered in Illinois, the Endangered Species Project was a comprehensive effort to determine the status of our native species through literature reviews, museum searches, personal contacts, and workshops. The status information compiled during the Endangered Species Project served as the basis for the first official state lists of threatened and endangered species, adopted by the Illinois Endangered Species Protection Board and protected by state law.

Since 1981, the official state lists of endangered and threatened species have been completely revised three times. A major revision of the 1981 *Status and Distribution* book was produced in two volumes in 1991 and 1992 (Volume 1 - Plants; Volume 2 - Animals), with a 3rd volume published in 1994, reflecting the most recent revisions to the official state lists at that time. This publication is a revision of the plant portion of those previous works, and hence owes its origin to those earlier documents and to those individuals and institutions who worked so tirelessly to produce them.

Since the days of that first Endangered Species Project, the process of determining species to be either endangered or threatened in Illinois has become increasingly more complex. The Illinois Endangered Species Protection Board is now required to revise the official state lists at least every five years, and to base those listing decisions on scientific evidence. While the process has changed over the years, the interest of the people of Illinois in endangered species has not diminished. These volumes continue to be among the most popular among people seeking information on the status of Illinois' native species.

We could not have produced this work without the great effort given by those who produced the original book and the subsequent revisions. We owe a debt of thanks to all those involved in those publications.

Susan E. Lauzon
Executive Director
Illinois Endangered Species Protection Board

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INTRODUCTION

In the course of settling Illinois, as with the rest of the continent, tremendous alterations were made to the landscape by the pioneers. That alteration proceeded apace and continues to this day. We watch as the last remnants of native plant and animal communities are threatened on all sides with the ever-increasing demands of human society for more space.

Following society's initial exuberance at "taming" the landscape, it gradually became apparent that the once diverse and abundant life around us was diminishing. Initially, concern was focused on the decline of those species for which we had some obvious use, whose value could be measured in terms of human need. Eventually, more and more people realized that we must concern ourselves with the whole of the natural world, not merely those selected components for which we could readily identify an economic value.

Sadly, before humans understood that the degradation (or destruction) of natural communities affected us all, many of our native species had been brought to the brink of extinction. Species have been and are still being lost, certainly from localized areas, and likely on a much broader scale. We now find that we risk losing many of our native species from the wild in Illinois.

In 1972, the Illinois Endangered Species Protection Act was passed, in an effort to halt the loss of species from Illinois. Unfortunately, the original version of that Act protected only animal species. In 1977, plants were added to the Act, but were merely listed as endangered or threatened and were not provided any of the protections given to animal species. It wasn't until 1985 that the Act was amended to provide specific prohibitions and protections regarding listed plant species. Consequently, in spite of 30 years of endangered species legislation, Illinois has only truly been dealing with protection of plant species for about half that time. We still have a long way to go in our ability to protect plant species which are in danger of disappearing from the wild in our state.

The first lists of endangered and threatened plants in Illinois were developed during 1976 - 1979 and officially adopted under the Endangered Species Protection Act in 1980. No revision of those lists had yet taken place, when 1985 amendments to the Act stated that all listing decisions must be based on scientific evidence, requiring more than the consensus of experts which was utilized in developing the original lists. The Board is now required by law to review and revise the entire state list of endangered and threatened plant and animal species at least every five years. During our five year review, we evaluate species already on the list, and also those which are not listed but for which monitoring data indicate some reason for concern.

Listing decisions are made only following review and analysis of established, scientific databases and published professional and scientific articles, though anecdotal reports and sighting records are also investigated. These data are reviewed not only by the Board and its professional staff, but also by six different technical advisory committees made up of scientists from throughout the state with expertise in the various species groups. Information considered for each species includes its range in the state (including changes in its occupied range), abundance in Illinois (total numbers), number of known populations or locations where it occurs, number of these locations which are known to be protected from disturbance, population trends (changes in total numbers or numbers of populations over time), the types of threats the species faces, and how fragile or sensitive it is (species biology). It is important to note that decisions to list or delist a species are not strictly based on a numerical formula, but rather take into account the individual requirements of different species. In some circumstances, species which are low in number but have always been rare or uncommon in the state may in fact not qualify as endangered or threatened, if their numbers are stable or are under no specific threat.

The Board, its staff and our technical advisors reviewed the status of hundreds of plant and animal species during its latest list revision. We ultimately approved changes (including species added to the list, removed from the list, upgraded from endangered to threatened, or downgraded from threatened to endangered) involving more than one hundred species of plants and animals.

The Endangered Species Protection Board is fortunate to have numerous partners with the common goal of protection and recovery of our native plants. Many individuals and organizations are studying endangered and threatened plant species throughout Illinois. Conservation biologists at the Morton Arboretum and the Chicago Botanic Garden are working hard to prevent the extinction of endangered plant species, such as the Eastern prairie fringed orchid, Mead's milkweed, Lakeside daisy and Pitcher's thistle. The Arboretum and Botanic Garden are developing special strategies to propagate and restore these endangered species. The Chicago Botanic Garden has also developed a rare plant monitoring program designed to learn population trends related to management practices. This long term project is part of the Chicago Wilderness Biodiversity Recovery Plan's Conservation Design Process and utilizes trained volunteers working together with land managers and scientists.

The Illinois Department of Transportation has sponsored a biological assessment program at the Illinois Natural History Survey for about 20 years. Major goals of this program are to conduct surveys for listed species at locations where roadway projects are proposed. A result of this program has been that extensive botanical surveys have been conducted statewide in a wide range of habitats, yielding discovery of numerous new populations of listed species. These results have contributed towards refining the listing status for many species, and the discovery of new taxa for the state. These extensive surveys also contribute to improving our knowledge of the habitat requirements of many species. A central benefit of this program is that discovery of these populations typically contributes to their protection from the proposed roadway projects.

Many biologists at the Illinois Department of Natural Resources are involved with the Endangered Species Program which is responsible for planning and implementing the management and recovery of endangered and threatened species. Program staff work with the Department's and the Illinois Nature Preserves Commission's field biologists, federal, state, and local agencies, and landowners to protect the remaining populations of listed species and to increase populations where possible. The goal of these activities is to bring all listed species back to the point that they no longer need the special protection of the Endangered Species Protection Act. Permits for taking and possession of listed species are also handled by the program. Endangered species consultation between the Department and other government units is administered by the Division of Resource Review and Coordination.

Some students and staff at many Illinois universities are studying listed species. At Southern Illinois University, they are determining the biological and ecological attributes of endangered vascular plants of southern Illinois. They hope to determine whether or not threatened and endangered taxa possess any unique or characteristic features that might be important in predicting their ecology or in managing their populations. Also in southern Illinois, biologists with the U.S. Forest Service are monitoring the endangered and threatened species of the Shawnee National Forest. This ongoing program has resulted in the discovery of some new plant species for the state, and new distribution records for many species.

This is just a sampling of the important work going on throughout Illinois which enhances the Endangered Species Protection Board's ability to make informed decisions on the status of native plant species in our state. Without these and many other dedicated partners, our job would be vastly more difficult.

The plants discussed in this book reflect the official State Lists of endangered and threatened species as of the last revision in April 1999. Today there are 331 species of plants listed as endangered (265 species) or threatened (66 species) under the Illinois Endangered Species Protection Act. For many of those species, we still lack the information needed to determine how to save them. For others, we simply lack the ability to halt the continued destruction of the native communities of which they are a part. Whatever the circumstance, our goal for each is the same: to one day be able to remove them from the lists as endangered or threatened, because their populations are recovered and once again secure.

Susan E. Lauzon, Executive Director
Dr. John E. Ebinger, Vice Chairman
Illinois Endangered Species Protection Board

ACKNOWLEDGMENTS

The Endangered Species Protection Board and the editors are greatly indebted to those who assisted in the preparation of this volume. In particular we would like to acknowledge the work done by all of those involved in the original Endangered Species Project, and the preparation of the first book, *Endangered and Threatened Species of Illinois: Status and Distribution* published over two decades ago in 1981. For the original volume, Marlin Bowles served as the coordinating editor of the entire volume, Charles Sheviak wrote most of the original plant text (some of which remains in tact in this volume), and John Ebinger edited the vascular plant section. The next addition of this work was revised by James Herkert, and published in 1991. The bulk of the text of that book was revised by Marlin L. Bowles of The Morton Arboretum, under contract with the Board. His work, in collaboration with the Illinois Natural History Survey, was pivotal in the Board's review and revision of the Illinois list of endangered and threatened plants. Glen Kruse, formerly of the Board's staff, assisted in editing the early draft of that work, while tremendous assistance was provided by Jean Karnes of the Illinois Department of Conservation's Natural Heritage Database in reviewing and verifying the plant records which served as that basis for that work.

The listing of species for the present volume of the endangered and threatened plant species of Illinois was originally started by the Board in 1998. Numerous individuals were involved in this procedure, and the editors of this volume would like to acknowledge their valuable help. In particular we would like to thank the members of the Endangered Species Technical Advisory Committee (ESTAC), who served as advisors on a variety of Botanical matters, and whose particularly difficult task involved the review of plant records from the last decade in order to formulate recommendations to the Board regarding the revision of the Illinois list of endangered and threatened plants. To ESTAC members John Ebinger, Al Koelling, Randy Nyboer, Ken Robertson, John Schwegman, Larry Stritch. we appreciate your thoroughness and dedication. We also appreciate the help from the staff of the Natural Heritage Database, Randall Collins, Tara Kieninger, and in particular, Bob Gottfried, for wading though the great volume of plant records which served as the basis of the list revision. Also deserving thanks are Marlin Bowles for his help and encouragement, Bob Gillespie for help with *Phaeophyscia leana*, William McClain, for his excellent advice on many endangered species, Dr. Marian Smith for her help with *Boltonia decurrens*, and to Janet Boyer for her help, advice, and encouragement in the preparation and typing of this volume. We would also like to thank the many individuals at the Illinois Natural History Survey who are involved with locating endangered and threatened plant species. Extensive reviews by William Handel, with the help of Jason Koontz, Adrienne Edwards, and Katie Hunter have been very useful in the preparation of the present volume.

Special thanks are due Dr. Robert Mohlenbrock for his gracious permission to use artwork from his *Illustrated Flora of Illinois* series, printed by the Southern Illinois University Press. Artists whose work appears throughout the text of this volume include:

Fredda Burton
Miriam Wysong Meyer
Mark Mohlenbrock
Paul Nelson
Kenneth Lewis Weik

For an excellent review and an index to these many volumes, consult Turner and Yatskievych (1998). The cover art was drawn for us by Robert F. Eschenfeldt of Springfield, Illinois.

Finally, this volume could never have been prepared without the ongoing data collection of the many dedicated botanists in Illinois. Their work has enabled us to evaluate the status of our native plant populations, and determine which of these species are endangered or threatened in Illinois. Their continued work may help us to one day de-list some of these species because they are no longer endangered.

HOW TO USE THIS BOOK

The purpose of this volume is to provide general information on plant species which are listed as endangered or threatened in Illinois and where they occur in the state. It is not intended to serve as a field guide for species identification, and for that reason no attempt has been made to illustrate each species. It should not be used for precise locational information on where a particular species occurs, as this information is constantly being revised as data are collected, and may be out-of-date for some species at the time of publication. Anyone desiring precise information on endangered or threatened plant species occurrences in Illinois should contact the Illinois Department of Natural Resources' Natural Heritage Database in Springfield.

KEY

The narrative for each species is accompanied by a map of Illinois with county outlines shown. Counties from which the species in known to occur are shown as a solid circle; county records which may no longer be extant are shown as an open circle. An example of a species treatment is as follows:

Genus species Author

COMMON NAME **FAMILY NAME**

Status: Endangered or Threatened in Illinois; Federal Status, if any, is also noted.
Synonym: Any other scientific name by which the species has been known are noted here. The Latin name under which the species is officially listed under the Illinois Endangered Species Protection Act is the primary name used in this volume.
Habit: A brief description of the plants growth form and size is given, to get a "thumb-nail sketch" of each species.
Range: General range in North America.

More specific information is then given on the species in Illinois, such as habitat type in which it is found, dates and counties of collection or observation, whether known populations are protected, and likelihood of the presence of additional populations elsewhere in the state. Specific information on the exact location of populations is not given in order to protect these sensitive remnants. Locations are usually identified only to the county level.
References: Specific references pertaining to each species are given at the end of the species narrative.

Additional general information on listed species and their range, status and distribution was obtained from regional floras not specifically cited in the text. These include: Deam (1940), Fernald (1950), Gleason (1952), Gleason and Cronquist (1991), Iverson *et. al* (1997), Jones (1963), Jones and Fuller (1955), Kartez (1994), Kibbe (1952), Mohlenbrock (1967b, 1970b, 1970c, 1972, 1973, 1976, 1978, 1980, 1981, 1982, 1986, 1990, 1999), Mohlenbrock and Ladd (1978), Mohlenbrock and Thomson (1987), Mohlenbrock and Voigt (1959), Myers (1972), Steyermark (1963), Turner and Yatskievych (1998), Voigt and Mohlenbrock (1964), Winterringer and Evers (1960). For a description of Illinois nature preserves, use McFall and Karnes (1995a, 1995b).

ORGANIZATION OF TEXT

Species have been arranged in the text alphabetically by scientific name. Species classified as endangered or threatened are intermixed, rather than broken into two groupings; the status of each species is noted in the narrative for that species. Because not all readers will know the scientific name of a species, and since species may be known by several Latin names (synonyms), readers can use the **Index** to look up species discussed in this volume. The Index gives both Latin and common names, as well as synonyms, allowing a species to be located in several ways.

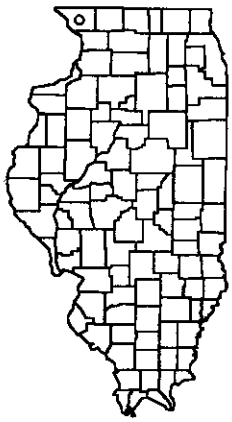
Since an alphabetic listing does not place related species next to each other in the text, a **Taxonomic Listing of Endangered and Threatened Plants** (Appendix III) is provided, grouping all listed species taxonomically by family. This will be helpful for those readers wishing to know at a glance whether related species are also listed as endangered or threatened in Illinois.

The **Cross Reference of Species to County** (Appendix IV and V) can be used to find what counties a particular species occurs in. Conversely, a county can be checked for which species occur there. **CAUTION:** Please remember that new data are being collected all the time. The information in the species/county cross references could be out-of-date for some species by the time this volume is printed. This index, as is true of the entire book should only be used to get a general picture of endangered and threatened plant status in Illinois. It should never be used as a sole source of locational information for any report, project, regional/local planning, or environmental impact assessment. For work of that nature, you **must** contact the Illinois Department of Natural Resources, Division of Resource Review and Coordination, One Natural Resources Way, Springfield, IL 62702-1271.

Adoxa moschatellina L.

MOSCHATEL **ADOXACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, stems 5-20 cm tall.
Range: Circumboreal, south into northern United States.

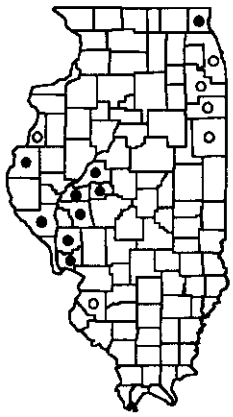


In Illinois, *Adoxa moschatellina* is known from three historic collections in the Wisconsin Driftless Natural Division. All were made in 1937, apparently from a moist, wooded, calcareous slope in a river canyon. In 1983, a small colony of this species was discovered in a forested mesic stream terrace in the same locality as the historic collections. It was last seen there in 1986. Due to the diminutive nature of this plant and the availability of seemingly suitable habitat, it likely persists at this site and may occur undetected elsewhere in this area.
References: Cochrane and Salamun (1974), Bowles *et al.* (1991).

Agalinis skinneriana (Wood) Britton

PALE FALSE FOXGLOVE **SCROPHULARIACEAE**

Status: Threatened in Illinois.
Habit: Annual, hemi-parasitic herb, stems 10-40 cm tall.
Range: South-central Canada and adjacent United States.



In Illinois, *Agalinis skinneriana* occurs mostly on moist to wet sandy prairies and on loess hill prairies. It is known from seventeen recent locations in the state, including six locations in state nature preserves. Populations of this taxon have declined in Illinois, with extant populations presently known from half the counties with historic records. Populations of this species in sand prairies have shown substantial declines possibly the result of fire suppression.
References: Ostlie (1990), Gleason and Cronquist (1991), Robertson and Phillippe (1993).

Alnus rugosa (DuRoi) Spreng.

SPECKLED ALDER **BETULACEAE**

Status: Endangered in Illinois.
Habit: Colonial shrub or small tree, to 5 m tall.
Range: Eastern and central Canada, south into northeastern United States.

Alnus rugosa occurs in the Northeastern Morainal Natural Division of Illinois, where it forms thickets on the banks of streams or occurs in swamps and bogs. Two populations are presently known in the state, one in a state nature preserve and a second in a county forest preserve. A population in a Cook County forest preserve is thought to be introduced.
Note: The variety *americana* (Regel) Fern. of this taxon occurs in Illinois. The scientific name of this species is presently considered to be *Alnus incana* (L.) Moench. spp. *rugosa* (DuRoi) Clausen.
References: Tehon (1942), Mohlenbrock and Thomson (1987), Gleason and Cronquist (1991), Furlow (1997).

Amelanchier interior Nielsen

SHADBUSH **ROSACEAE**

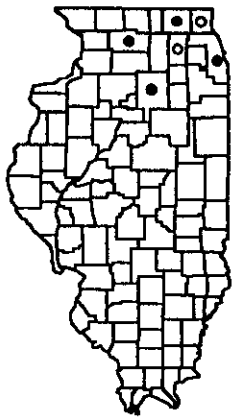
Status: Endangered in Illinois.
Habit: Shrub or small tree, to 3 m tall.
Range: Wisconsin, Minnesota, Illinois, Iowa, and South Dakota.

Amelanchier interior reaches its southern range limit in extreme northern Illinois, where it occupies sand or dolomite stream bluffs and bogs. It is presently known from nine locations. These sites include mesic sand forests in Winnebago County, a mesic dolomite bluff in Jo Daviess County, and a stream bluff in DuPage County. All of these sites are protected.
Note: According to Gleason and Cronquist (1991), plants called *A. interior* may be a hybrid swarm or a set of segregating polyploids derived from *A. laevis* and *A. sanguinea*.
References: Jones (1946), Robinson and Partanen (1980), Robinson (1982), Schwegman (1982a).

Amelanchier sanguinea (Pursh) DC.

SHADBUSH **ROSACEAE**

Status: Endangered in Illinois.
Habit: Erect or straggling shrub, to 3 m tall.
Range: Northeastern United States and adjacent Canada, and south in the Appalachians.



In Illinois, *Amelanchier sanguinea* is known from the Northeastern Morainal, Rock River Hill County, and Grand Prairie Natural Divisions, where it occurs on wooded lake and river bluffs. It was first collected in Illinois in Lake County in 1976 and populations are now known to occur in Cook, LaSalle, McHenry and Ogle counties. Two sites are protected as Illinois nature preserves. This shadbush is known to occur throughout the driftless areas of Iowa, Minnesota, and Wisconsin, and should be searched for in the Wisconsin Driftless Natural Division of Illinois.
References: Jones (1946), Hartley (1966).

Ammophila breviligulata Fern.

MARRAM GRASS, BEACH GRASS **POACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous grass, culms 0.5-1 m tall.
Range: Atlantic Coast, from Newfoundland to North Carolina, and the shores of the Great Lakes.

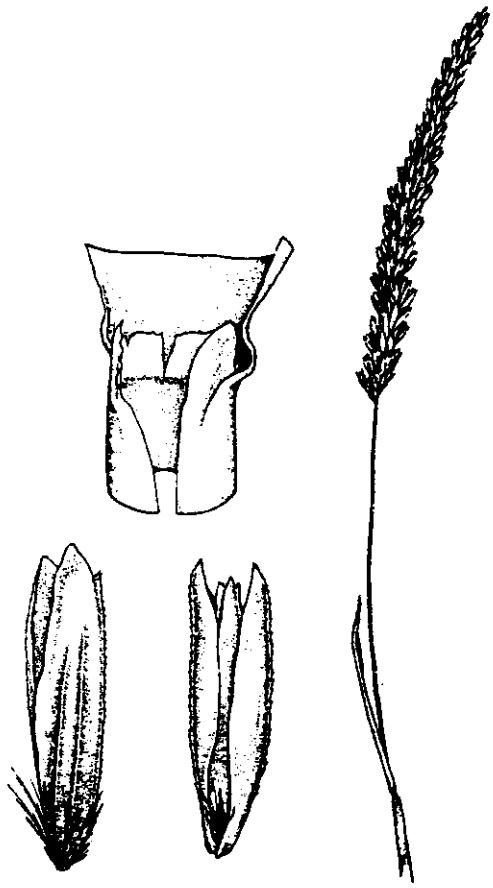
Ammophila breviligulata is a coastal species of open dunes. It is limited in Illinois to the beaches of Lake Michigan, where most of its habitat has been destroyed by urban growth. The species is now restricted to Lake and Cook counties, where it occurs in two state nature preserves, state and city parks and on private land. Some populations are threatened by accelerated shoreline erosion.
References: Guire and Voss (1963), Mohlenbrock (1972), Greenberg and Milde (1994).

Amorpha nitens Boynton

SMOOTH FALSE INDIGO **FABACEAE**

Status: Endangered in Illinois.
Habit: Shrub, to 3 m tall.
Range: Georgia to Arkansas, north to Illinois.

Amorpha nitens reaches its northern range limit in thickets and stream banks in southern Illinois. It is known from two historic Illinois collections, but has not been relocated in recent searches of these sites. A Pope County population, discovered in 1988, still persists.
References: Palmer (1931), Bowles *et al.* (1991).

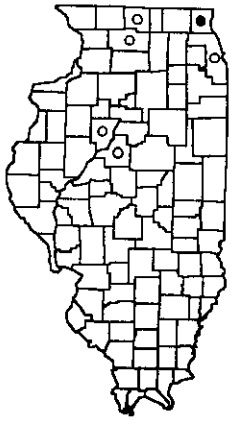


Ammophila breviligulata

Arctostaphylos uva-ursi (L.) Spreng.

BEARBERRY **ERICACEAE**

Status: Endangered in Illinois.
Habit: Prostrate, evergreen shrub, forming mats to 1 m wide.
Range: Circumpolar, northern United States, south into the Appalachians.

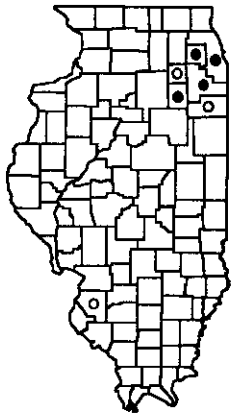


Arctostaphylos uva-ursi occurs on sand deposits and sandstone outcrops in Illinois. It is most abundant in sand prairies and dunes along Lake Michigan, where a large population occurs in a state nature preserve and state park complex. This species has also been collected in the 1980s from Winnebago and Ogle counties and could persist. Most stations for this species in Illinois have been destroyed by urban growth or by shore erosion along Lake Michigan.
Note: The variety *coactilis* Fern. & Macbr. of this taxon occurs in Illinois.
References: Gates (1912), Tehon (1942), Fell (1957), Evers and Page (1977), Mohlenbrock (1978).

Arenaria patula Michx.

SLENDER SANDWORT **CARYOPHYLLACEAE**

Status: Threatened in Illinois.
Habit: Annual much-branched herb, stems 10-20 cm tall.
Range: Southeastern United States.

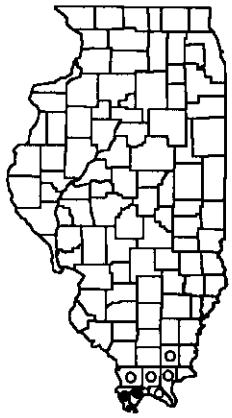


Arenaria patula reaches its northern range limit in Illinois, where it occurs on rock ledges and dolomite prairies along the Des Plaines, Fox, and Illinois rivers. It is presently known from eight localities in the state. One population is in a state nature preserve, two are in a state conservation areas, and two additional population occurs in county forest preserves.
Note: The scientific name of this species is presently considered to be *Minuartia patula* (Michx.) Mattf.
References: Steyermark (1941), Maguire (1951).

Aristolochia serpentaria L. var. *hastata* (Nutt.) Duchartre

VIRGINIA SNAKEROOT **ARISTOLOCHIACEAE**

Status: Threatened in Illinois.
Habit: Perennial rhizomatous herb, stems to 60 cm tall.
Range: Southeastern United States.

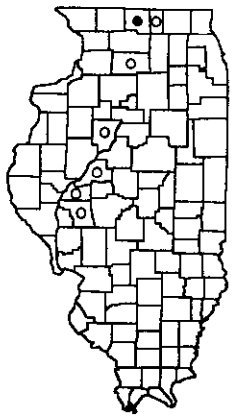


Aristolochia serpentaria var. *hastata* reaches its northwestern range limit in the floodplain forests and swamps of extreme southern Illinois. Two populations are presently known to occur in Illinois, one in a state nature preserve and another in a national wildlife refuge.
Note: Many botanists no longer recognizes this variety as distinct.
References: Pfeifer (1966), Mohlenbrock (1981, 1987), Barringer (1997).

Artemisia dracunculus L.

DRAGON WORMWOOD **ASTERACEAE**

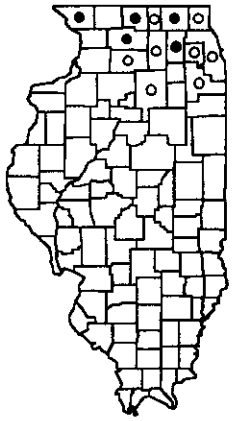
Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems 0.5-1.5 m tall.
Range: Northern Mexico, central United States, and adjacent Canada.



Artemisia dracunculus reaches its eastern range limit in Illinois, where it is currently known from a single location; a dry sand and gravel prairie in the Northeastern Morainal Natural Division. It is possible that some populations also may persist on loess bluffs along the Illinois and Sangamon rivers. There are unverified reports of this species from Cook, Henderson, and Menard counties.
References: Fell (1962), Mickelson and Iltis (1966).

Asclepias lanuginosa Nutt.

WOOLLY MILKWEED **ASCLEPIADACEAE**



Status: Endangered in Illinois.
Habit: Perennial herb, with decumbent stems 15-30 cm long.
Range: North-central United States.

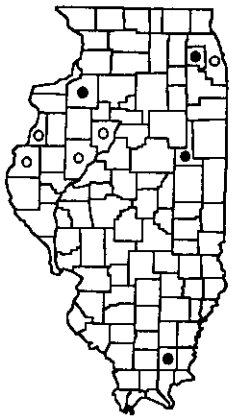
Asclepias lanuginosa reaches its eastern range limit in dry gravel prairies in northern Illinois, where its populations and habitat have been severely reduced by overgrazing and gravel mining. Seven recent populations are known in the state, including four in state nature preserves. This species is particularly vulnerable to local extinction since populations usually consist of only a few plants that rarely produce seeds.

Note: Mohlenbrock (1986) uses the name *Asclepias otarioides* Fourn. for this taxon.

References: Woodson (1954), Fell and Fell (1956), Sorensen (1984), Hess and Stoynoff (1989), Betz and Lamp (1992), Betz *et al.* (1994, 1999).

Asclepias meadii Torr.

MEAD'S MILKWEED **ASCLEPIADACEAE**



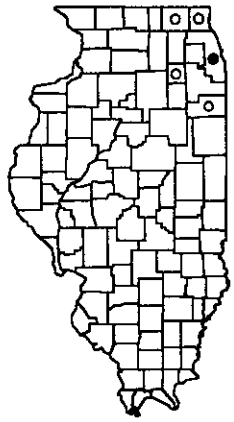
Status: Endangered in Illinois, Federally Threatened.
Habit: Perennial herb, stems 30-60 cm tall.
Range: North-central United States.

Asclepias meadii is one of the rarest plants of the eastern mesic prairies. Apparently it was originally uncommon, and now its habitat has been largely destroyed. Four populations are known in Illinois from barrens remnants in the Shawnee National Forest. Populations have recently been reported from a forest preserve in DuPage County, a state nature preserve in Henry County, and a railroad prairie in Ford County. These populations consist of only a few plants that very rarely produce flowers. This species has recently (1995-1996) been reintroduced into two areas where it still persists.

References: Jones (1952), Woodson (1954), Myers and Henry (1976), Betz (1989), Schwegman (1990), Betz and Lamp (1992), Betz *et al.* (1994, 1999), Bowles *et al.* (1993, 1998, 1999a, 2001), Tecic *et al.* (1998), Bowles and Bell (1999a), Phillippe *et al.* (2000).

Asclepias ovalifolia Decne.

OVAL MILKWEED **ASCLEPIADACEAE**



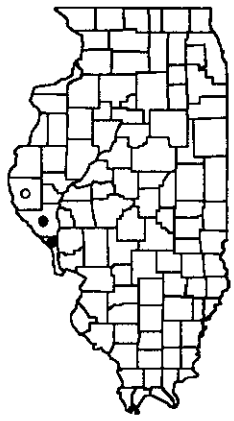
Status: Endangered in Illinois.
Habit: Perennial herb, stems 20-50 cm tall.
Range: North-central United States and adjacent Canada.

Asclepias ovalifolia occurs in northern prairies and savannas and reaches its southeastern range limit in Illinois. Historically, it was found at seven localities in the state, with the most recent collections in 1927 and 1935. A Cook County population consisting of a few plants was discovered in a protected mesic prairie in 1987 and the species still persists at this site. The Lake County area from which the 1927 collection was made contains extensive sand prairie and sand savanna and may still support this species.

References: Woodson (1954), Bowles *et al.* (1991), Betz and Lamp (1992).

Asclepias stenophylla Gray

NARROW-LEAVED GREEN MILKWEED **ASCLEPIADACEAE**



Status: Endangered in Illinois.
Habit: Perennial herb, stems to 1 m tall.
Range: Great Plains and central United States, north to Minnesota.

Asclepias stenophylla reaches its northeastern range limit on loess hill prairies and limestone glades along the Mississippi River bluffs of western Illinois. Its limited distribution and the general successional trend of its habitat toward forest pose a serious threat to the survival of this species in Illinois. Seven recent populations of this species are known from two Illinois counties including one in a state nature preserve.

Reference: Evers (1955), Betz and Lamp (1992).

Asplenium bradleyi D.C. Eat.

BRADLEY'S SPLEENWORT **ASPLENIACEAE**

Status: Endangered in Illinois.
Habit: Perennial evergreen fern from slender rhizomes, fronds to 30 cm long.
Range: Eastern United States.

Asplenium bradleyi reaches its northern range limit in southern Illinois, where it is restricted to the Shawnee Hills and Ozark Natural Divisions. It occurs primarily in crevices of sandstone cliffs and chert outcrops. Most known populations occur in the Shawnee National Forest; however, one is in a state nature preserve and another is in private ownership. The primary threats to this species seem to be drought and botanical collecting.
References: Mohlenbrock (1954, 1967b, 1985a), Mohlenbrock and Engh (1964), Weber (1970), Wagner *et al.* (1993).

Asplenium bradleyi

Asplenium resiliens Kunze

BLACK SPLEENWORT **ASPLENIACEAE**

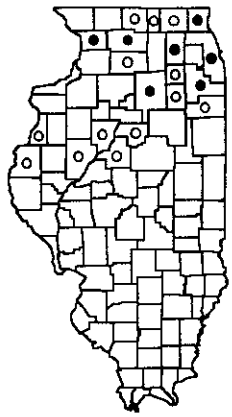
Status: Endangered in Illinois.
Habit: Perennial evergreen fern from black scaly rhizomes, fronds to 30 cm long.
Range: South-central and eastern United States, Mexico.

Asplenium resiliens reaches the northwestern margin of its range in Illinois, where it is limited to limestone ledges in the Ozark Natural Division. All known historic populations are within the Shawnee National Forest. Over-collection has eliminated one population and is the principal threat to this species in Illinois.
References: Mohlenbrock and Engh (1964), Mohlenbrock and Voigt (1965), Mohlenbrock (1967b, 1985a), Ozment (1967), Wagner *et al.* (1993).

Aster furcatus Burgess

FORKED ASTER **ASTERACEAE**

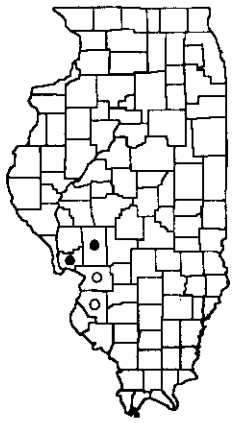
Status: Threatened in Illinois.
Habit: Perennial rhizomatous herb, stems to 1 m tall.
Range: East-central United States.



Aster furcatus is essentially restricted to Illinois and adjoining states, where it usually occurs in seepage zones along north-facing wooded bluffs and stream banks. This species has undergone a fifty percent decline in extant county records in Illinois and now is restricted to seventeen populations in seven northern counties. Since this species is habitat-restricted to seepages, it is vulnerable to drainage or development projects.
References: Shinners (1941), Johnson and Iltis (1963), Jones (1989), Schwegman (1990), Les *et al.* (1991).

Astragalus crassicarpus Nutt. var. *trichocalyx* (Nutt.) Barneby

LARGE GROUND PLUM **FABACEAE**

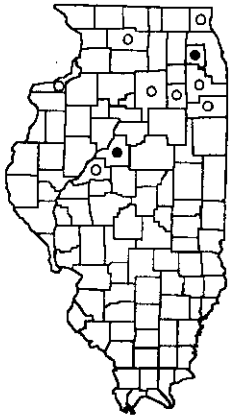


Status: Endangered in Illinois.
Synonym: *Astragalus trichocalyx* Nutt.; *Astragalus mexicanus* A. DC. var. *trichocalyx* (Nutt.) Fern.
Habit: Perennial herb, stems to 60 cm tall.
Range: West-central United States, extending east to Illinois.

Astragalus crassicarpus occurs in dry rocky prairies, glades, glacial till prairies, open woods, and blufftops. This species was thought to have been extirpated from Illinois until it was discovered in 1987 along a limestone bluff edge in Jersey County. This species was also recently rediscovered in Macoupin County, one population in a state nature preserve, and another in a state park.
Reference: McClain *et al.* (2002).

Astragalus tennesseensis Gray

TENNESSEE MILK VETCH **FABACEAE**

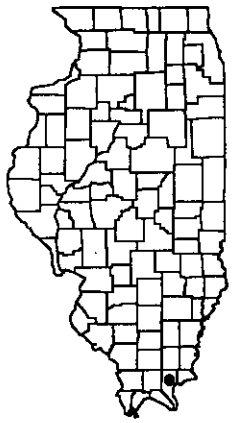


Status: Endangered in Illinois.
Habit: Perennial herb, stems to 50 cm tall.
Range: Tennessee, Alabama, and Illinois.

Astragalus tennesseensis originally occurred in dolomite and dry gravel prairies along the principal rivers in northern and central Illinois. It has been almost eliminated from Illinois by overgrazing and gravel mining. Presently this taxon occurs in a forest preserve in DuPage County and a state nature preserve in Tazewell County. These populations vary greatly in size from year to year but seem secure.
References: Baskin *et al.* (1972), Baskin and Baskin (1989), Schwegman (1990, 1998), Wiltshire (1994).

Bartonia paniculata (Michx.) Muhl.

SCREWSTEM **GENTIANACEAE**

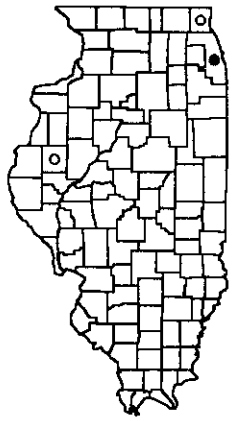


Status: Endangered in Illinois.
Habit: Annual or biennial herb, stems 20-40 cm tall.
Range: Southeastern United States, north along the Atlantic Coast.

A plant of wet peat and sand, *Bartonia paniculata* reaches its northern interior range limit in extreme southern Illinois. Presently it is known in the state from three seep springs in the Shawnee National Forest, one in a state nature preserve.
References: Schwegman (1968a), Bowles *et al.* (1991).

Beckmannia syzigachne (Steud.) Fern.

AMERICAN SLOUGH GRASS **POACEAE**



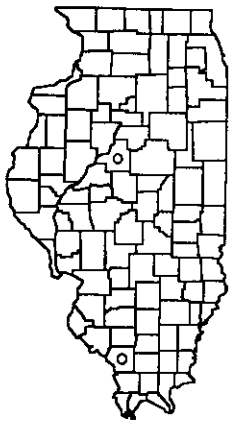
Status: Endangered in Illinois.
Habit: Solitary or tufted annual grass, culms 0.5 - 1 m tall.
Range: Boreal Alaska and Canada, south into western and north-central United States.

Beckmannia syzigachne reaches its southeastern range limit in Illinois, where it occurs in wet prairies. In northeastern Illinois this species is known to occur in two county forest preserves and a tract in private ownership. A collection was also made from a railroad prairie in McDonough County in 1974.
References: Mohlenbrock (1972), Henry (1986).

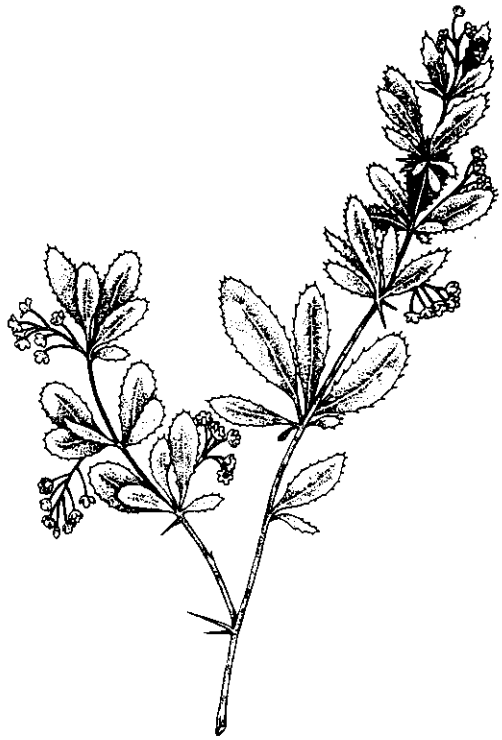
Berberis canadensis P. Mill.

ALLEGHENY BARBERRY **BERBERIDACEAE**

Status: Endangered in Illinois.
Habit: Shrub 1-2 m tall, with trifid spines.
Range: Southeastern United States, northwest to Illinois and Missouri.



Berberis canadensis is extremely rare in the western part of its range with scattered, disjunct populations. As late as 1987 this taxon was in the Shawnee National Forest on a sandstone bluff of the Mississippi River. It probably still persists at that site.
References: Mohlenbrock (1981), Mohlenbrock and Wilson (1985), Whittemore (1997a).

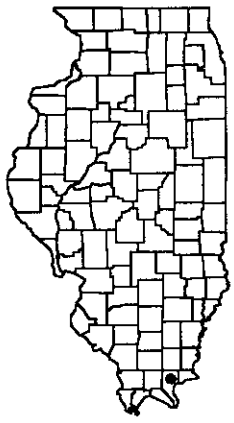


Berberis canadensis

Berchemia scandens (Hill) K. Koch

SUPPLE-JACK **RHAMNACEAE**

Status: Endangered in Illinois.
Habit: High-climbing woody vine.
Range: Southeastern United States.

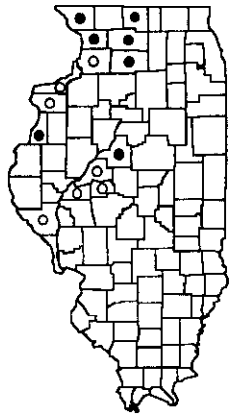


Berchemia scandens reaches its northern range limit in the Shawnee Hills Natural Division of Illinois. A single state population, last seen in 1992, occurs in an upland forest and adjacent pine plantation along a fire lane in the Shawnee National Forest.
References: Schwegman (1970), Mohlenbrock (1982).

Besseya bullii (Eat.) Rydb.

KITTEN TAILS **SCROPHULARIACEAE**

Status: Threatened in Illinois.
Habit: Perennial herb, stems to 40 cm tall.
Range: Southern Michigan to Minnesota, south to Ohio, Indiana, Illinois, and Iowa.

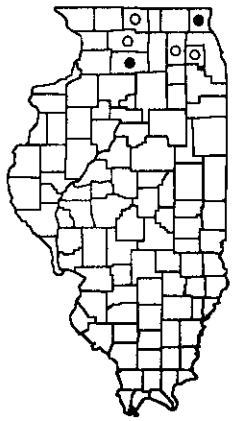


Besseya bullii occurs in sand savannas and gravel prairies along the Mississippi, Illinois, and Rock rivers in the northwestern part of the state. Formerly known from fourteen Illinois counties, this species is presently known from twenty three populations in seven counties. Three populations occur in state nature preserves, one in a state park, and another in a state forest.
References: Pennell (1933, 1935), Schwegman (1990).

Betula alleghaniensis Britt.

YELLOW BIRCH **BETULACEAE**

Status: Endangered in Illinois.
Synonym: *Betula lutea* Michx. f.
Habit: Tree, to 30 m tall.
Range: Eastern Canada, south into northeastern United States and the Appalachians.

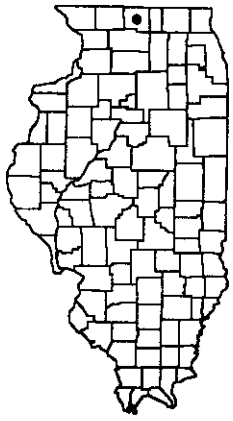


Betula alleghaniensis occurs in Illinois along the southwestern margin of its range, where it is found on St. Peter's Sandstone outcrops and in sphagnum bogs. Presently it is known from four locations in Illinois, including two in state nature preserves.
References: Waterman (1923), Sheviak and Haney (1973), Moran (1978), Mohlenbrock and Thomson (1987), Furlow (1997).

Betula populifolia Marsh.

GRAY BIRCH **BETULACEAE**

Status: Endangered in Illinois.
Habit: Tree, to 10 m tall.
Range: Northeastern United States and adjacent Canada.

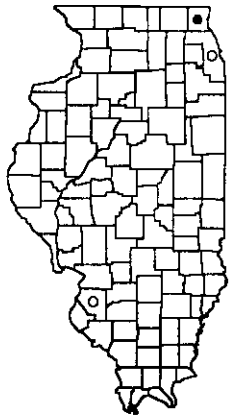


Betula populifolia occurs at a few widely scattered, disjunct stations in the western Great Lakes region. One population is apparently indigenous to northern Illinois. This population persists in a shrubby sand prairie that has been largely developed as a suburban housing tract. A few collections that probably represent introductions have been made elsewhere in the state.
References: Mohlenbrock and Thomson (1987), Catling and Spicer (1988), Furlow (1997).

Bidens beckii Torr.

WATER MARIGOLD **ASTERACEAE**

Status: Endangered in Illinois.
Synonym: *Megalodonta beckii* (Torr.) Greene.
Habit: Perennial aquatic herb.
Range: Northeastern United States, adjacent Canada, and the Pacific Northwest.

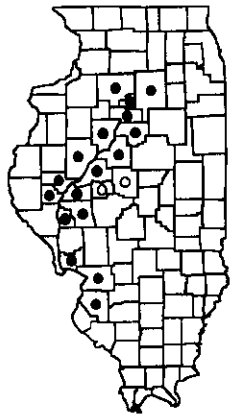


An aquatic species of glacial ponds, lakes, and sluggish streams, *Bidens beckii* has been collected in Illinois at only four localities, and only twice in the last century. Although disturbed by fill, a 1969 collection site may still support a population of this species. It was discovered in 1998 in a state nature preserve, and it also may occur in other glacial lakes in northeastern Illinois. Populations of this species may be highly vulnerable to various types of weed management and recreational use of lake habitat.
References: Fassett (1960), Dolbeare (1967), Curtis (1990), Bowles *et al.* (1991).

Boltonia decurrens (Torr. & Gray) Wood

DECURRENT FALSE ASTER **ASTERACEAE**

Status: Threatened in Illinois, Federally Threatened.
Synonym: *Boltonia asteroides* (L.) L'Her. var. *decurrens* (Torr. & Gray.) Engelm.
Habit: Perennial herb, stems to 2.5 m tall.
Range: Floodplains of the Illinois and Mississippi rivers in Illinois and Missouri.



Boltonia decurrens was originally widespread in alluvial prairie and marshland of the Illinois River Section of the Upper Mississippi River and Illinois River Bottomlands Natural Division. Presently this species is known from seventeen counties, mostly in the Illinois River Valley. It commonly invades fallow fields where large populations will exist for a few years. Eleven known sites exist on protected public lands.
References: Schwegman and Nyboer (1985), Schwegman (1990), Smith *et al.* (1993, 1995, 1998), Stoecker *et al.* (1995), Smith and Keevin (1998), Smith and Moss (1998), Phillippe *et al.* (2000), Mettler *et al.* (2001).

Botrychium biternatum (Sav.) Underw.

SOUTHERN GRAPE FERN **OPHIOGLOSSACEAE**

Status: Threatened in Illinois.
Habit: Perennial evergreen fern with fleshy to nearly fibrous roots, to 35 cm tall.
Range: Southeastern United States.

Botrychium biternatum reaches its northern range limit in southern Illinois. Presently it is known from only three localities in the state. One population occurs near the base of an open hillside in Jackson County, another at the edge of old fields in Pope County, and one in an ecological area in Pope County.
References: Mohlenbrock (1966a, 1967b, 1985a), Wagner and Wagner (1993).

Botrychium multifidum (Gmel.) Rupr.

NORTHERN GRAPE FERN **OPHIOGLOSSACEAE**

Status: Endangered in Illinois.
Habit: Perennial evergreen fern, to 40 cm tall.
Range: Circumboreal, south into northeastern United States, and the Rocky Mountains.

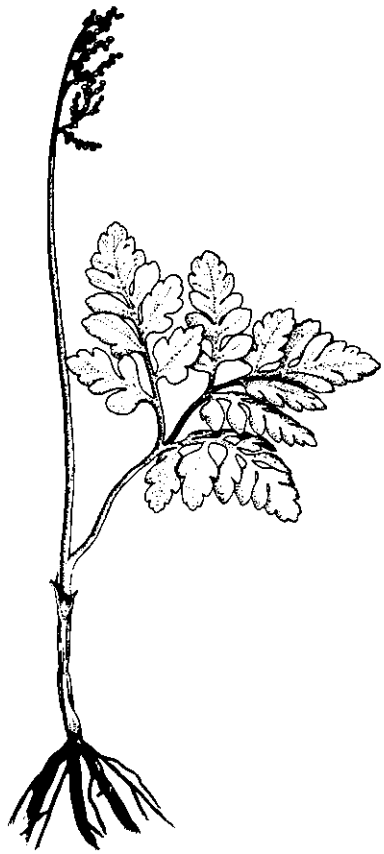
Botrychium multifidum occurs in mesic forests, sand savannas, and successional habitats in extreme northern Illinois. In Cook County, a population occurs in a state nature preserve. Collections made in Stephenson, Carroll, and Jo Daviess counties in 1978 probably represent extant populations, as does a population observed in Winnebago County in 1987.
Note: This taxon is represented in Illinois by the subspecies *silaifolium* (Presl) Clausen.
References: Mohlenbrock (1967b, 1970a), Peck (1982), Wagner and Wagner (1993).

Botrychium matricariaefolium A. Braun

DAISYLEAF GRAPE FERN **OPHIOGLOSSACEAE**

Status: Endangered in Illinois.
Habit: Perennial fern from fleshy roots, to 30 cm tall.
Range: Northeastern United States and adjacent Canada.

Botrychium matricariaefolium is a colonizing species of successional sand forests and dry to moist old fields. It was first discovered in Illinois in 1970. This station, in a state park, no longer supports a population. However, a second Winnebago County population found in a successional sand forest remains extant. It was recently discovered in a state conservation area in Lee County.
References: Tryon *et al.* (1940), Mohlenbrock (1967b, 1983), McFall and Jones (1972), Wagner and Wagner (1993).



Botrychium multifidum

Botrychium simplex E. Hitchc.

DWARF GRAPE FERN **OPHIOGLOSSACEAE**

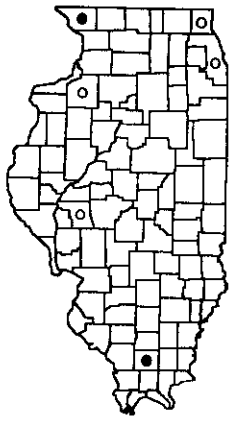
Status: Endangered in Illinois.
Synonym: *Botrychium multifidum* (Gmel.) Rupr. f. *dentatum* Tryon.
Habit: Perennial fern from fleshy roots, to 15 cm tall.
Range: Circumboreal, south into the Rocky Mountains and northern United States.

Botrychium simplex has been found rarely in disturbed sand prairies and successional sand forests in northern Illinois. It was observed on private land in Winnebago County in 1993. Although rarely seen, the colonizing potential of this species suggests that it may reappear in suitable habitats in Illinois.
References: Tryon *et al.* (1940), McFall and Jones (1972), Mohlenbrock (1983a), Bowles *et al.* (1991), Wagner and Wagner (1993).

Bouteloua gracilis (HBK) Lagasca

BLUE GRAMA **POACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose grass, culms to 50 cm tall.
Range: Central United States, and adjacent Canada.



Bouteloua gracilis occurs in dry prairies, becoming common in the prairies and plains to the west of Illinois. It was historically known from five counties in Illinois, but no extant populations were known until one was recently discovered at a large sand prairie in Jo Daviess County. The Williamson County site is on a strip-mine, and probably represents an adventive population.
References: Gleason and Cronquist (1991), Mohlenbrock (1973).

Bumelia lanuginosa (Michx.) Pers.

WOOLY BUCKTHORN **SAPOTACEAE**

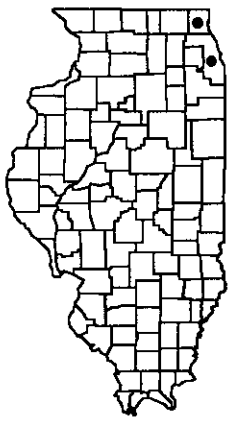
Status: Endangered in Illinois.
Habit: Shrub or small tree, to 10 m tall.
Range: South-central United States and northern Mexico.

Bumelia lanuginosa reaches its northeastern range limit in southern Illinois, where it occurs on dry open rocky bluffs of the Mississippi River. It is presently known from a series of hill prairies, limestone ledges, and rocky wooded bluffs along a few miles of the Mississippi River. One population is in a state nature preserve, the rest are on private land.
Note: In Illinois, this taxon is represented by variety *oblongifolia* (Nutt.) R. B. Clark. The scientific name of this species is considered to be *Sideroxylon lanuginosum* Michx. by some authors.
References: Clark (1942), Winterringer (1951), Ozment (1967), Mohlenbrock (1978).

Cakile edentula (Bigelow) Hook.

SEA ROCKET **BRASSICACEAE**

Status: Threatened in Illinois.
Habit: Fleshy annual herb, stems 10-50 cm tall.
Range: Atlantic Coast; Great Lakes shores.



Cakile edentula is limited in Illinois to the open beaches and sand dunes of Lake Michigan. This plant is frequent to abundant along a few miles of the Lake Michigan shore in Lake County, including a state park and adjacent state nature preserve. Population densities are usually reduced to low levels by recreational use and shoreline erosion.
Note: This taxon is represented in Illinois by subspecies *lacustris* (Fern.) Hulten.
References: Gates (1912), Patman and Iltis (1961), Guire and Voss (1963), Mohlenbrock (1980), Keddy (1981, 1982), Payne and Maun (1984), Tyndall *et al.* (1986), Greenberg and Milde (1994).

Calamagrostis insperata Swallen

BLUEJOINT GRASS **POACEAE**

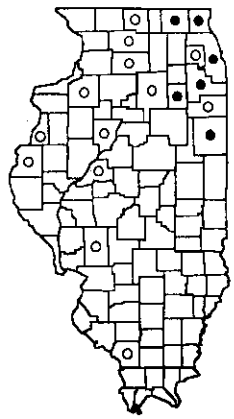
Status: Endangered in Illinois.
Habit: Perennial, rhizomatous grass, culms to 1 m tall.
Range: Locally in southern Ohio, Illinois, and Missouri.

Calamagrostis insperata is a very rare species of dry rocky woods, wooded ravines, and north and northwest facing slopes. Only recently found in southern Illinois, it is presently known from a state nature preserve, and an ecological area, both in Pope County.
References: Gleason and Cronquist (1991), Bittner and Gibson (1993, 1998), Bittner (1995).

Calopogon tuberosus (L.) BSP.

GRASS PINK ORCHID **ORCHIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial bulbous herb, stems to 75 cm tall.
Range: Eastern United States and adjacent Canada.

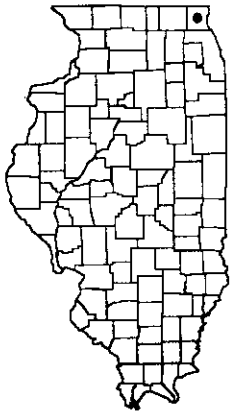


Calopogon tuberosus formerly occurred fairly commonly in prairies, bogs, and fens in Illinois. Its range and abundance have been severely reduced by agriculture and urban development, and it is now restricted in Illinois to the northeastern counties. Presently, fourteen populations are known including twelve in state nature preserves. Only one population is large, and some are continually plundered by orchidists and other gardeners.
References: Gates (1912), Pepoon (1916), Mohlenbrock (1970c), Sheviak (1974a), Myers and Henry (1976), Hess and Stoynoff (1989).

Calla palustris L.

WATER ARUM, WILD CALLA **ARACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, scapes 10-30 cm tall.
Range: Circumboreal, south into northeastern United States.



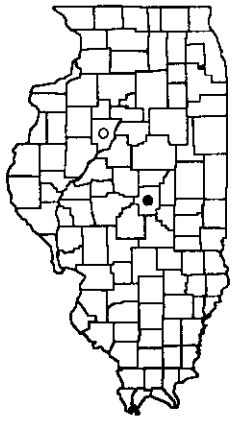
A species of swamps and shallow water, *Calla palustris* occurs at its southern range limit in Illinois. A single small Illinois population was discovered in 1975 in a sphagnum bog in a state nature preserve in Lake County. It was observed at this site in 1995.
References: Mohlenbrock (1970b), Thompson (2000).

Calopogon tuberosus

Camassia angusta (Engelm. & Gray) Blankinship

WILD HYACINTH **LILIACEAE**

Status: Endangered in Illinois.
Habit: Perennial bulbous herb, scapes to 60 cm tall.
Range: South-central United States, northeast to Illinois.



A species of rich mesic prairies, *Camassia angusta* occurs at the northeastern limit of its range in Illinois. It has been found at two localities in the state; however, only one population persists. This station occurs in a railroad prairie where fire suppression has been the greatest threat.
References: Steyermark (1961), Mohlenbrock (1970c).

Carex alata Torr. & Gray

WINGED SEDGE **CYPERACEAE**

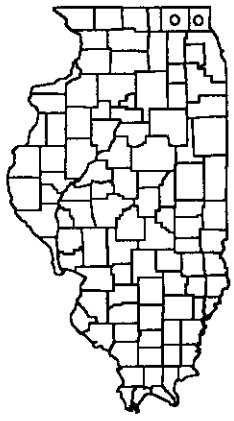
Status: Endangered in Illinois.
Habit: Perennial tufted sedge, culms to 1.2 m tall.
Range: Eastern United States.

Carex alata is rare and local in swamps and floodplain forests in southeastern Illinois. It was last observed in a flatwoods at a state fish and wildlife area in Pope County in 1987 and still persists at that site.
References: Schwegman (1972, 1982a), Mohlenbrock (1999).

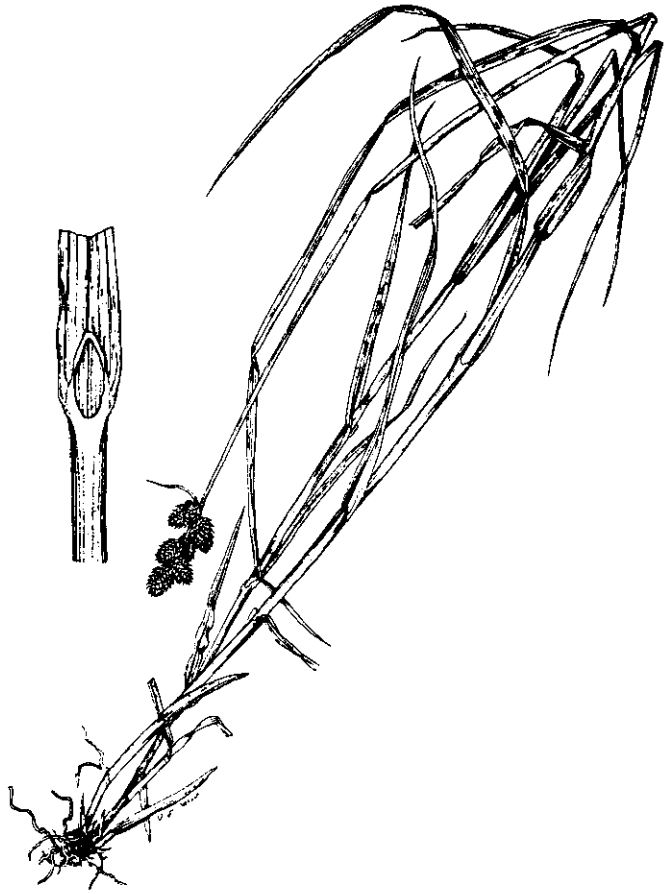
Cardamine pratensis L. var. *palustris* Wimm. & Grab.

CUCKOO FLOWER **BRASSICACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, stems 20-50 cm tall.
Range: Canada, south into northeastern United States.



Cardamine pratensis var. *palustris* occurs in calcareous floating mats and marshes in the extreme northeastern counties. Four populations were known in Illinois, three in state nature preserves, but none have been observed since 1988.
Reference: Mohlenbrock (1980).

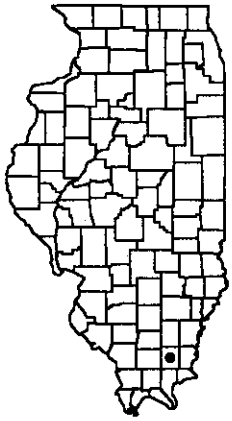


Carex alata

Carex arkansana Bailey

ARKANSAS SEDGE **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose sedge, culms to 60 cm tall.
Range: Central United States, north to Illinois.



Carex arkansana has only recently been found to occur in Illinois. It was collected in 1992 from a high quality, southern flatwoods in Saline County. Illinois is at the northeastern edge of this species' range, and it is known from only one locality in the state.
Reference: Mohlenbrock (1999).

Carex brunnescens (Pers.) Poir.

BROWNISH SEDGE **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose sedge, culms to 50 cm tall.
Range: Circumboreal, northeastern United States and south in the Appalachians.

This northern sedge often occurs in forested sphagnum bogs. It occurs at its southern range limit in the Northeastern Morainal Natural Division of Illinois, where it was discovered in 1985. *Carex brunnescens* occurs at two Lake County stations. Although both sites are protected, they are threatened by lowered water tables and invasion from glossy buckthorn, an exotic shrub.
References: Taft and Solecki (1987, 1990), Mohlenbrock (1999).

Carex aurea Nutt.

GOLDEN SEDGE **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous to loosely cespitose sedge, culms to 55 cm tall.
Range: Canada, south into northern United States.

In Illinois, *Carex aurea* occurs primarily in interdunal swales and wet meadows bordering Lake Michigan, where it apparently intergrades with *Carex garberi*. This sedge had not been collected in the state since the 1940s until it was rediscovered in a state nature preserve in a Lake County in 1987. Recent collections have also been made in state nature preserves in Kane and McHenry counties and a state conservation area in Cook County.
References: Bowles *et al.* (1991), Mohlenbrock (1999).

Carex canescens L. var. *disjuncta* Fern.

SILVERY SEDGE **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose sedge, culms to 70 cm tall.
Range: Newfoundland to Minnesota south to Virginia, Ohio, Indiana, and Illinois.

This northern sedge was not known to occur in Illinois until it was discovered in a Lake County sphagnum bog in 1988. This site is protected as a state nature preserve, but is threatened by invasion from glossy buckthorn.
References: Taft and Solecki (1990), Bowles *et al.* (1991), Mohlenbrock (1999).

Carex chordorrhiza L. f.

CORDROOT SEDGE **CYPERACEAE**

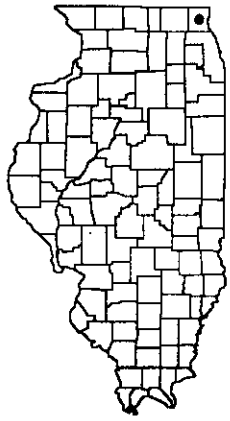
Status: Endangered in Illinois.
Habit: Perennial stoloniferous sedge, culms to 30 cm tall.
Range: Northeastern United States and adjacent Canada.

Carex chordorrhiza was historically known in Illinois from collections made in McHenry County in 1862 and Lake County in 1905. This species was thought to be extirpated from the state until 1988, when it was found in a Lake County sphagnum bog. This site is protected as a state nature preserve, and is threatened by invasion from glossy buckthorn.
References: Bowles *et al.* (1991), Mohlenbrock (1999).

Carex crawfordii Fern.

CRAWFORD'S SEDGE **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial tufted sedge, culms 10-60 cm tall.
Range: Canada and adjacent northern United States.

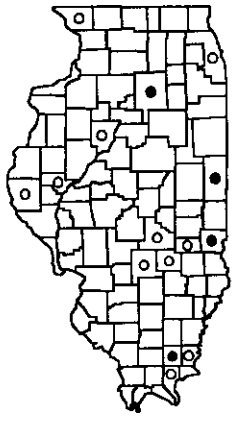


Carex crawfordii has only recently been found to occur in Illinois. It was first collected in 1991 from a degraded marsh in Lake County. This population appears to be a relict population of this mostly boreal species. A proposed highway project threatens this only known population in the state.
References: Gleason and Cronquist (1991), Mohlenbrock (1999).

Carex communis Bailey

FIBROUS-ROOTED SEDGE **CYPERACEAE**

Status: Threatened in Illinois.
Habit: Perennial tufted sedge, culms 10-60 cm tall.
Range: Northeastern United States and adjacent Canada.



Carex communis has been found at only a few scattered localities in Illinois, primarily in open rocky woods. Presently it is known to persist at eight locations in the state, including three in state nature preserves, two in state parks, and one in the Shawnee National Forest.
References: Schwegman (1982a), Thomas (1982), Mohlenbrock (1999).

Carex cryptolepis Mack.

YELLOW SEDGE **CYPERACEAE**

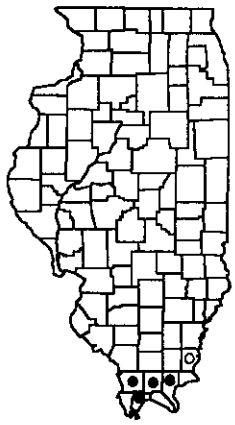
Status: Endangered in Illinois.
Habit: Perennial cespitose sedge with short rhizomes, culms to 50 cm tall.
Range: Northeastern United States and adjacent Canada.

In Illinois, *Carex cryptolesis* is restricted to the extreme northeastern counties of the Northeastern Morainal Natural Division. It is presently known from fen communities on forest preserves in DuPage and Lake counties, and was recently found on private land in McHenry County.
References: Gleason and Cronquist (1991), Mohlenbrock (1999).

Carex decomposita Muhl.

CYPRESS-KNEE SEDGE **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose sedge, culms 0.5-1.5 m tall.
Range: Southeastern United States, extending north to southern Illinois.



Carex decomposita reaches its northwestern range limit in the swamp forests of extreme southern Illinois, where it occurs on floating logs and at the bases of trees. This species is presently known from four Illinois localities, two in state nature preserves in the Shawnee National Forest. A former Gallatin County population was recently destroyed by logging.
References: Swayne and Bailey (1953), Mohlenbrock (1959a, 1985a, 1999), Mohlenbrock *et al.* (1961), Mohlenbrock and Voigt (1965), Bowles *et al.* (1991).

Carex echinata Murr.

SEDGE **CYPERACEAE**

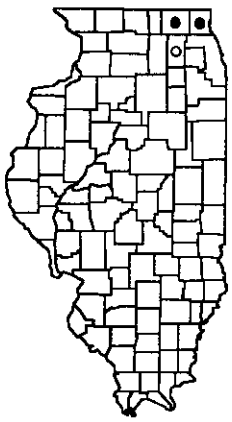
Status: Endangered in Illinois.
Habit: Perennial cespitose sedge, culms to 90 cm tall.
Range: Canada, northern United States and south into the Appalachians.

Carex echinata was not verified from Illinois until 1988, when it was collected from a privately owned sedge meadow and nearby state nature preserve in Winnebago County. This species was recently observed from wet meadows in a forest preserve in Lake County and a state forest in Ogle County.
References: Reznicek and Ball (1980), Bowles *et al.* (1991), Mohlenbrock (1999).

Carex disperma Dewey

SHORTLEAF SEDGE **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial loosely tufted to slightly stoloniferous sedge, culms to 60 cm tall.
Range: Canada, Alaska, south into northern United States.



Carex disperma was originally known in Illinois from two Lake County bogs and a Kane County site in the Northeastern Morainal Natural Division. This species had not been collected in Illinois for more than 20 years before it was discovered at a third Lake County site in 1986. It was also rediscovered at one of the original Lake County collection sites in 1988. Both Lake County stations are forested bogs in state nature preserves, and it seems likely that this species persists at the other Lake County site.
References: Bowles *et al.* (1991), Mohlenbrock (1999).

Carex garberi Fern.

ELK SEDGE **CYPERACEAE**

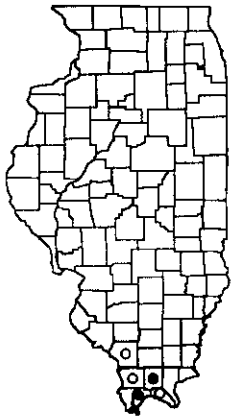
Status: Endangered in Illinois.
Habit: Perennial loosely cespitose sedge, culms 5-40 cm tall.
Range: Eastern Canada and adjacent northeastern United States.

Carex garberi is restricted in Illinois to calcareous beach ridges and swales near Lake Michigan. It has been found only four times in the state, with recent collections from Cook County in 2000 and Lake County in 1987. The Lake County station is within a state nature preserve.
Note: Similar to *Carex aurea* Nutt. and sometimes considered a synonym of that species (Gleason and Cronquist 1991).
References: Mohlenbrock (1968a, 1999), Sorensen (1984), Bowles *et al.* (1991).

Carex gigantea Rudge

LARGE SEDGE **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial loosely tufted sedge, culms 0.4-1.2 m tall.
Range: Southeastern United States, north to southern Illinois.

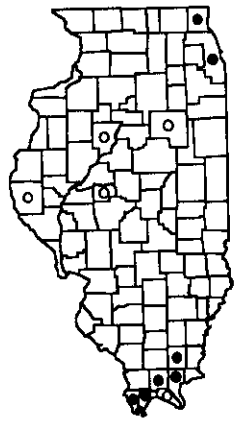


Carex gigantea reaches its northern range limit in floodplain forests and swamps in southern Illinois. It is presently known from two Illinois localities, an ecological area in Johnson County, and a privately-owned area in Pulaski County.
References: Mohlenbrock (1985a, 1999), Menapace *et al.* (1986).

Carex intumescens Rudge

SWOLLEN SEDGE **CYPERACEAE**

Status: Threatened in Illinois.
Habit: Perennial cespitose sedge, culms to 80 cm tall.
Range: Eastern United States and adjacent Canada.



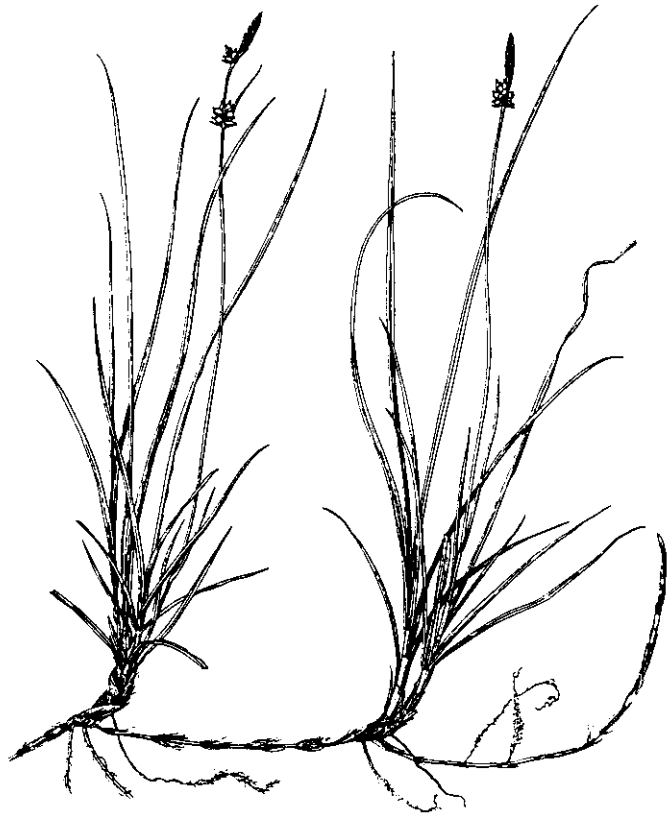
Carex intumescens occurs in forested wetlands and is rarely encountered in Illinois. It has recently been observed in state nature preserves in Cook and Johnson counties, a forest preserve in Lake County, and a few areas in the Shawnee National Forest.
References: Fernald (1942a), Menapace *et al.* (1986), Bowles *et al.* (1991), Mohlenbrock (1999).

Carex heliophila Mack.

PLAINS SEDGE **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial densely cespitose sedge, culms to 40 cm tall.
Range: Northern United States and adjacent Canada.

Carex heliophila is a common sedge in the prairies and plains to the west of Illinois. It was only recently found to occur in Illinois when it was collected from a sand hill prairie in Jo Daviess County in 1985.
Note: Some botanists refer this taxon to *Carex pensylvanica* Lam. var. *digyna* Boeckeler.
References: Gleason and Cronquist (1991), Schwegman (1991), Mohlenbrock (1999).



Carex heliophila

Carex lucorum Willd.

SEDGE **CYPERACEAE**

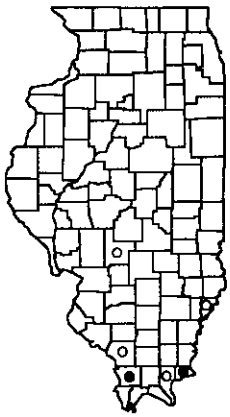
Status: Endangered in Illinois.
Habit: Perennial densely cespitose sedge, culms to 30 cm tall.
Range: Canada, adjacent northeastern United States and south in the Appalachians.

Carex lucorum is known from one site in Illinois where it was collected in a wooded ravine in Pope County in 1981. It has not been relocated at this site.
Note: A Lake County collection originally considered to be of this taxon is better referred to *Carex pensylvanica* Lam.
References: Gleason and Cronquist (1991), Mohlenbrock (1999).

Carex lucorum

Carex nigromarginata Schwein.

BLACK-EDGED SEDGE **CYPERACEAE**



Status: Endangered in Illinois.
Habit: Perennial cespitose sedge, culms to 30 cm tall.
Range: Southeastern United States, north to southern Illinois.

Carex nigromarginata occurs at its northern range limit in southern Illinois. A species of dry to mesic wood, it has been observed recently in a research natural area in Union County and in a sandstone canyon in the Shawnee National Forest.
References: Mohlenbrock *et al.* (1962), Ashby and Ozment (1967), Mohlenbrock and Wilson (1985), Bowles *et al.* (1991), Mohlenbrock (1999).

Carex oligosperma Michx.

FEW-SEEDED SEDGE **CYPERACEAE**

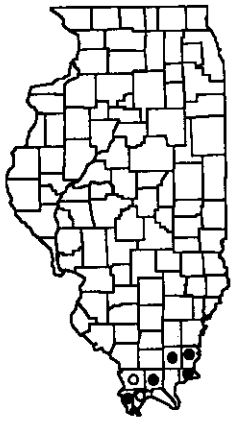
Status: Endangered in Illinois.
Habit: Perennial rhizomatous sedge, culms to 1 m tall.
Range: Subarctic and boreal Canada, south into northeastern United States.

Carex oligosperma reaches its southern range limit in sphagnum bogs of northeastern Illinois, where it has been collected at five sites in three counties. Most sites are protected, including two in state nature preserves. It was recently observed at a state nature preserve in McHenry County.
References: Schwegman (1991), Mohlenbrock (1999).

Carex oxylepis Torr. & Hook.

SHARP-SCALED SEDGE **CYPERACEAE**

Status: Threatened in Illinois.
Habit: Perennial cespitose sedge, culms to 1 m tall.
Range: Southeastern United States, north to southern Illinois.

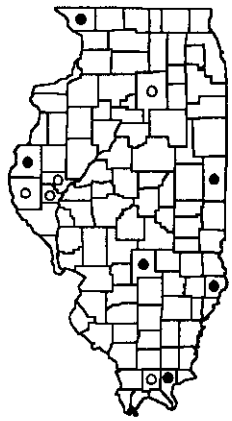


Carex oxylepis reaches its northwestern range limit in extreme southern Illinois, where it occurs in swamp forests. Presently, populations are known from a state nature preserve and from the Shawnee National Forest, including one on a federal ecological area. Some populations are also known from private land.
References: Mohlenbrock and Schwegman (1969a), Bowles *et al.* (1991), Mohlenbrock (1999).

Carex prasina Wahlenb.

DROOPING SEDGE **CYPERACEAE**

Status: Threatened in Illinois.
Habit: Perennial cespitose sedge, culms to 80 cm tall.
Range: Northeastern United States and adjacent Canada.



Carex prasina occupies rich lowland forests in most of its range and is restricted to forested seeps and sandstone undercuts in Illinois. Seven Illinois populations are presently known, two in state nature preserves, one in a state park, two in state natural areas, and one in the Shawnee National Forest.
References: Schwegman (1972, 1991), Mohlenbrock (1999).

Carex physorhyncha Liebm.

BELLOW'S BEAK SEDGE **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial loosely tufted sedge, culms to 40 cm tall.
Range: Southern United States and adjacent Mexico.

Carex physorhyncha reaches its northern range limits on sand or chert outcrops in forests in the Ozark Natural Division of southwestern Illinois. It is presently known from a state nature preserve in Randolph County, and probably persists at sites in the Shawnee National Forest in Jackson and Union counties.
Note: Some botanists consider the scientific name of this taxon to be *Carex albicans* Willd. var. *australis* (Bailey) J. Rettig.
References: Mohlenbrock and Voigt (1965), Gleason and Cronquist (1991), Mohlenbrock (1999).

Carex reniformis (Bailey) Small

RENIFORM SEDGE **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose sedge, culms to 1 m tall.
Range: Southeastern United States, north to southern Illinois.

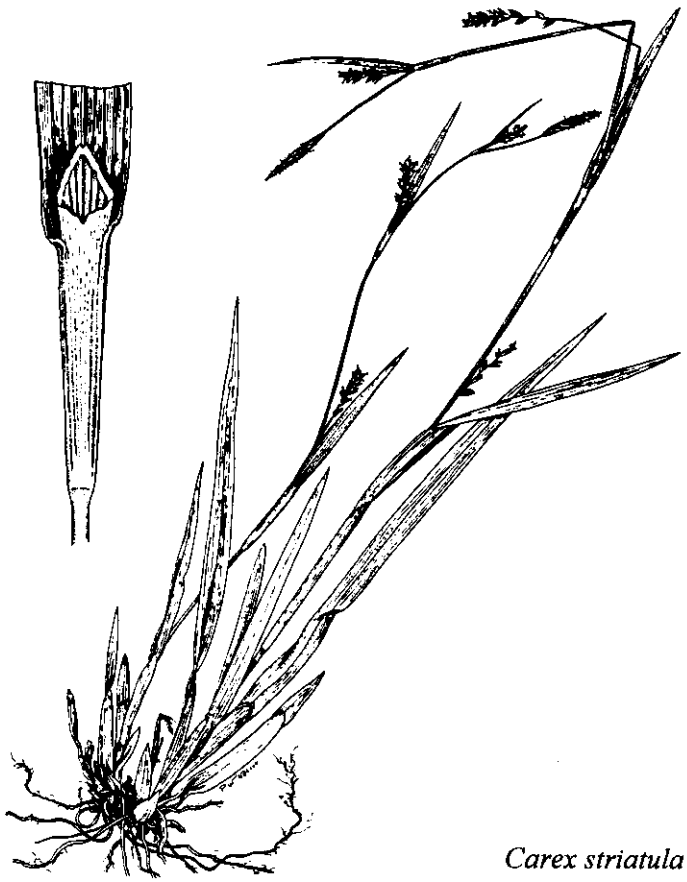
Carex reniformis occurs in southern swamp forests in most of its range. Two stations are known from flatwoods habitats in extreme southern Illinois. These localities include a state conservation area and private land.
References: Mohlenbrock and Schwegman (1969a), Mohlenbrock (1999).

Carex striatula Michx.

LINED SEDGE **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial tufted sedge, culms 20-60 cm tall.
Range: Eastern and southeastern United States, northwest to southern Illinois.

Carex striatula reaches its northwestern range limit in mesic upland forests in extreme southern Illinois. It has been reported from five Illinois stations, all located in the Shawnee National Forest. Recent attempts at relocating this species have been unsuccessful.
References: Mohlenbrock (1967a, 1999), Bowles *et al.* (1991).



Carex striatula

Carex trisperma Dewey

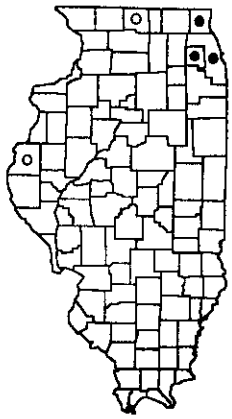
THREE-SEEDED SEDGE **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial loosely cespitose sedge, culms 20-70 cm tall.
Range: Eastern and central Canada, and northeastern United States.

Carex trisperma occurs in acidic bogs and has been collected at only four localities in Illinois, all in the Northeastern Morainal Natural Division of Illinois. Two of these sites have been destroyed, but the species persists in sphagnum bogs in two state nature preserves.
References: Mohlenbrock (1966b, 1999), Sheviak and Haney (1973), Taft and Solecki (1990).

Carex tuckermanii Boott

TUCKERMAN'S SEDGE **CYPERACEAE**



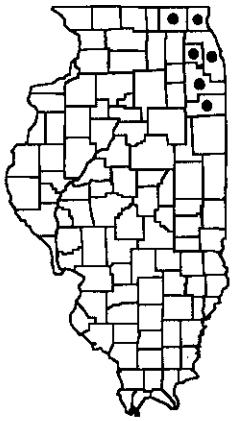
Status: Endangered in Illinois.
Habit: Perennial loosely cespitose sedge, culms to 1 m tall.
Range: Northeastern United States, and adjacent Canada.

Carex tuckermanii is restricted to the Northeastern Morainal Natural Division in Illinois, where it occupies flatwoods and wet-mesic forest habitats. Until recently only historic Cook, Lake, and Winnebago county records were known for this sedge, and it was presumed extirpated. In 1983 it was discovered in two DuPage County forest preserves and in a state nature preserve in Cook County and still persists at these locations. This species was relocated in a state nature preserve in Lake County in 1988 and persists at that site.
References: Gleason and Cronquist (1991), Mohlenbrock (1999).

Carex viridula Michx.

LITTLE GREEN SEDGE **CYPERACEAE**

Status: Threatened in Illinois.
Habit: Perennial cespitose sedge, culms to 45 cm tall.
Range: Circumboreal south into northeastern United States, and in the Rocky Mountains.

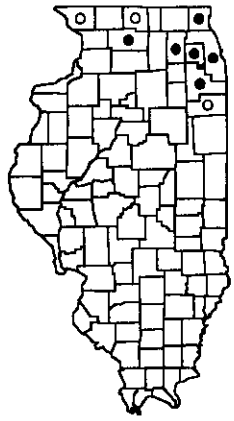


Carex viridula is restricted to the Northeastern Morainal Natural Division in Illinois. It occurs in dune swales near Lake Michigan and spring runs, marl flats, and disturbed calcareous sites in the far northeastern counties. It has been almost exterminated in northeastern Illinois by urban growth, and many of its wetland habitats are threatened with drainage. This species is presently known from fifteen localities, including two state nature preserves, a state conservation area, and a few forest preserves.
References: Mohlenbrock (1966b, 1968a, 1999), Moran (1981).

Carex woodii Dewey

PRETTY SEDGE **CYPERACEAE**

Status: Threatened in Illinois.
Habit: Perennial rhizomatous sedge, culms to 50 cm tall.
Range: Northeastern United States and adjacent Canada.

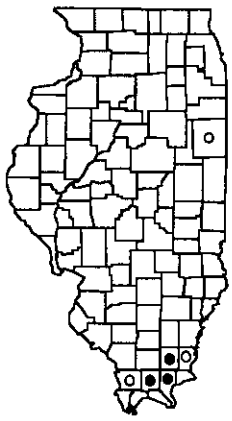


Carex woodii reaches the southern edge of its range in mesic calcareous forests in northern Illinois. It has been observed recently in two state nature preserves, eight forest preserves, and a few sites under private ownership. Populations of this species may be threatened by overgrazing from deer.
References: Evert (1988), Bowles (1991b), Mohlenbrock (1999).

Carex willdenowii Schkuhr

WILLDENOW'S SEDGE **CYPERACEAE**

Status: Threatened in Illinois.
Habit: Perennial, mat-forming sedge, culms to 30 cm tall.
Range: Eastern United States and adjacent Canada.



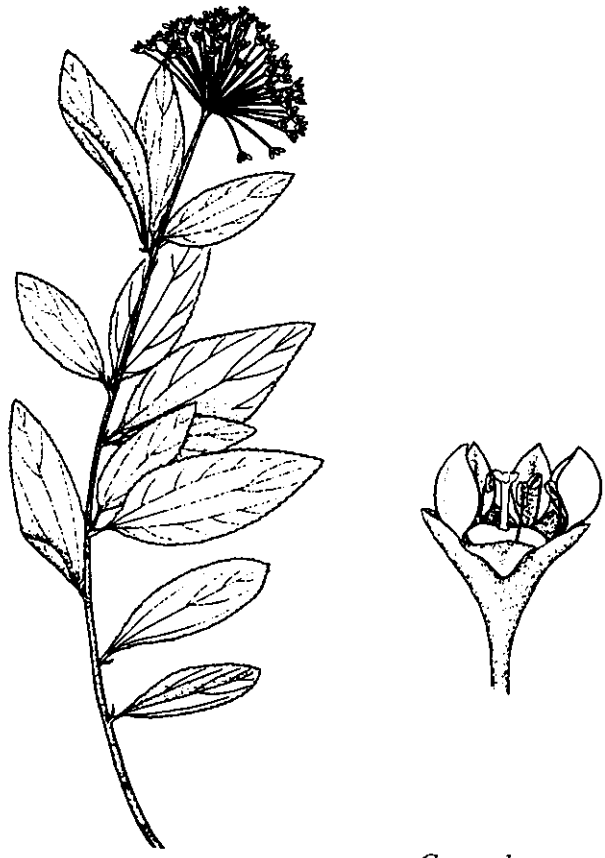
Carex willdenowii is restricted in Illinois to the Shawnee Hills Natural Division, where it occurs in dry to mesic upland forest habitats. It was first found in Illinois in 1984 during a floristic survey of a Gallatin County sandstone canyon. It is presently known from a state nature preserve, ecological areas, research natural areas, and national natural landmarks in the Shawnee National Forest. This nondescript sedge can be easily overlooked due to its similarity to other sedges and may be more frequent in southern Illinois than records now suggest.
References: Parker (1985), Bittner (1995), Mohlenbrock (1999).

Carya pallida (Ashe) Engl. & Graebn.

PALE HICKORY **JUGLANDACEAE**

Status: Endangered in Illinois.
Habit: Tree, to 15 m tall.
Range: Southeastern United States.

Carya pallida reaches its northwestern range limit on dry wooded slopes in extreme southern Illinois. It was originally known in the state from adjacent parts of two counties on state and national forest property and probably persists at this site.
References: Mohlenbrock and Evans (1974), Stone (1997).



Ceanothus ovatus

Ceanothus ovatus Desf.

REDROOT **RHAMNACEAE**

Status: Endangered in Illinois.
Habit: Shrub, to 1 m tall.
Range: East-central and eastern United States and adjacent Canada.

Ceanothus ovatus occurs in sand prairies and sand savannas in northern Illinois. It is presently known from six stations. One population is in a state nature preserve and adjacent state park, two others on protected lands, and the remaining stations are on private property.
Note: The scientific name of this species is presently considered to be *Ceanothus herbaceus* Raf.
References: Gleason (1909, 1910), Tehon (1942), Mohlenbrock (1982).

Castilleja sessiliflora Pursh

DOWNY YELLOW-PAINTED CUP
SCROPHULARIACEAE

Status: Endangered in Illinois.
Habit: Perennial herb, stems 10-40 cm tall.
Range: Central United States and adjacent Canada.

Castilleja sessiliflora reaches its eastern range limit in northern Illinois, where it occurs in dry-mesic gravel and sand prairies primarily along Lake Michigan. This species was formerly distributed across northern Illinois, but agriculture and urban development have severely reduced its populations. Presently seven stations are known in the state, three occur in state nature preserves, one in a county forest preserve, and others on private land.
References: Gates (1912), Pepoon (1916), Pennell (1935), Fell and Fell (1956).

Chamaedaphne calyculata (L.) Moench

LEATHERLEAF **ERICACEAE**

Status: Threatened in Illinois.
Habit: Shrub, to 1.5 m tall.
Range: Circumboreal, south into eastern United States.

Chamaedaphne calyculata occurs in northeastern Illinois in sphagnum bogs and rarely in peaty sand deposits. Presently it is known from three Illinois bogs and probably persists at three other. Presently two populations occur in state nature preserves.
Note: This taxon is represented by variety *angustifolia* (Ait.) Rehder in Illinois.
References: Waterman (1923), Tehon (1942), Sheviak and Haney (1973), Evers and Page (1977), Mohlenbrock (1978), Evert (1988), Taft and Solecki (1990).

Chamaesyce polygonifolia (L.) Small

SEASIDE SPURGE **EUPHORBIACEAE**

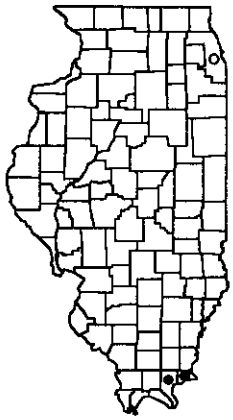
Status: Endangered in Illinois.
Synonym: *Euphorbia polygonifolia* L.
Habit: Annual prostrate herb, branching and forming small mats.
Range: Atlantic Coast and shores of the Great Lakes.

Chamaesyce polygonifolia is restricted in Illinois to the beach and foredunes of Lake Michigan. Most of the habitat for this species has been destroyed by urban growth, and the plant is presently known from Lake and Cook counties, where it occurs in two state nature preserves, a state park and a municipal park. Beach use and lakeshore erosion continue to affect this species in Illinois. The Peoria County record for this species may represent an error in recording collection information. There are also unverified reports of this species from Fulton County.
References: Gates (1912), Wheeler (1941), Guire and Voss (1963), Mohlenbrock (1982), Richardson *et al.* (1987), Greenberg and Milde (1994).

Chimaphila maculata (L.) Pursh

SPOTTED WINTERGREEN **PYROLACEAE**

Status: Endangered in Illinois.
Habit: Perennial trailing herb, stems to 25 cm tall.
Range: Eastern United States and adjacent Canada.



Chimaphila maculata is known from dry-mesic upland sand forests at two Illinois localities, both in the Shawnee National Forest in southern Illinois. Both populations consist of only a few plants and are threatened with extirpation by collectors. Recent attempts to relocate the Cook County station have been unsuccessful, but plants may persist at this site.
References: Jones and Fralish (1974), Mohlenbrock (1978), Bowles *et al.* (1991).

Chimaphila umbellata (L.) Bart.

PIPSISSEWA **PYROLACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, stems to 25 cm tall.
Range: Eastern Canada, south into northeastern United States and the Appalachians.

Chimaphila umbellata is restricted in Illinois to dry-mesic upland sand forests in the northernmost counties. Until recently, the only modern Illinois collections of this species were made at two localities in Winnebago County during the 1940s. These populations were rediscovered in 1987; both occur on protected sites and probably persist. This species was found on private land in Winnebago County in 1993.
Note: This taxon is represented in Illinois by the subspecies *cisatlantica* (Blake) Hulten, also known as variety *cisatlantica* Blake.
References: Pepoon (1909), Fell and Fell (1957), Mohlenbrock (1978), Bowles *et al.* (1991).

Cimicifuga americana Michx.

AMERICAN BUGBANE **RANUNCULACEAE**

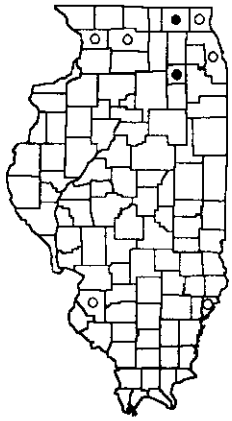
Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems to 2 m tall.
Range: Middle elevations of the Appalachians in eastern United States, disjunct in Illinois.

Cimicifuga americana occurs in Illinois five hundred miles west of its normal range, and at a much lower than normal elevation. This species was first collected in Illinois in a Carroll County state park in 1980. The single known population occupies a rich mesic forest at the base of a north-facing, limestone talus slope in the Wisconsin Driftless Natural Division of Illinois. The site is protected and managed as a state natural area. Although the native status of this species in Illinois has been questioned, no evidence has been found to suggest it is not native.
References: Mohlenbrock (1981), Ramsey (1987, 1997).

Cimicifuga racemosa (L.) Nutt.

FALSE BUGBANE **RANUNCULACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems to 2.5 m tall.
Range: East-central and northeastern United States and adjacent Canada, south into the Appalachians.



Cimicifuga racemosa has been collected from scattered localities throughout Illinois. A native population is currently known from a forested seep in Kendall County. Collections from Carroll, Lake, McHenry, and Ogle counties may represent escapes from cultivation. This species is extensively collected by herb gatherers, and in some areas this exploitation has seriously depleted the local populations.
References: Mohlenbrock (1981), Ramsey (1987, 1997).

Circaea alpina L.

SMALL ENCHANTER'S NIGHTSHADE
ONAGRACEAE

Status: Endangered in Illinois.
Habit: Perennial weak-stemmed herb from tuberous-thickened rhizomes, stems 4-30 cm tall.
Range: Circumboreal, south into northern United States and the Appalachians.

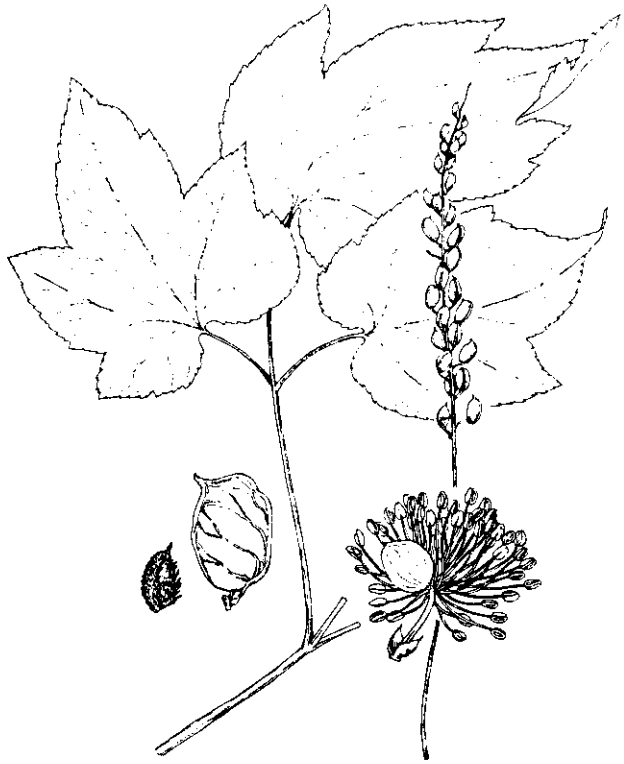
Circaea alpina has been collected only three times in Illinois during the last century. Populations in the Lake Michigan region have been destroyed by urban growth, and the species was last collected there in 1908. Two populations were observed in Jo Daviess County during the 1980s, and probably persist. One station is in a cold-air drainage of a dolomite ravine, and the other on a dolomite bluff. Although these populations are both in private ownership, additional plants may occur in extensive habitat in an adjacent state park.
References: Boufford (1982), Moran (1978).

Cimicifuga rubifolia Kearney

APPALACHIAN BUGBANE, BLACK COHOSH
RANUNCULACEAE

Status: Threatened in Illinois.
Habit: Perennial rhizomatous herb, stems to 1.5 m tall.
Range: Appalachians, disjunct in western Kentucky and southern Illinois.

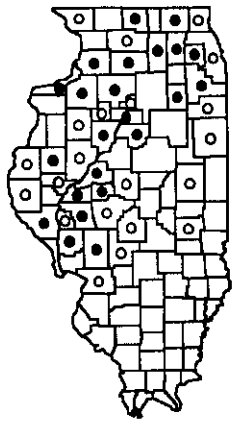
Cimicifuga rubifolia, a species of cool mesic woods, is restricted to the extreme southern part of Illinois. It is presently known from twelve sites in the state, mostly in the Shawnee National Forest. Populations of this species may be threatened by herb collectors.
References: Mohlenbrock (1981), Gleason and Cronquist (1991), Ramsey (1997).



Cimicifuga rubifolia

Cirsium hillii (Canby) Fern.

HILL'S THISTLE **ASTERACEAE**



Status: Threatened in Illinois.
Synonym: *Cirsium pumilum* (Nutt.) Spreng.
Habit: Perennial herb with elongated tap root, stems to 80 cm tall.
Range: North-central United States and adjacent Canada.

Cirsium hillii was formerly widespread in dry prairies in the northern two-thirds of Illinois. Presently it is known from about forty locations in twenty-three counties, thirteen of these locations in state nature preserves. This species has shown a substantial decline in Illinois, and is now known to occur in about half of all counties with historic records.
References: Gleason and Cronquist (1991).

Cirsium pitcheri (Torr.) Torr. & Gray

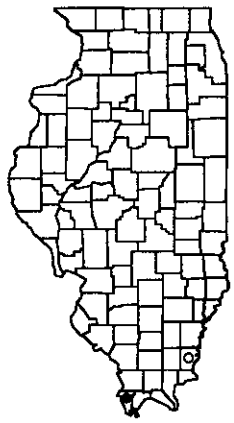
PITCHER'S (DUNE) THISTLE **ASTERACEAE**

Status: Threatened in Illinois, Federally Threatened.
Habit: Biennial to short-lived perennial herb with a long taproot, stems to 1 m tall.
Range: Endemic to foredunes and beaches of the western Great Lakes in eastern North America.

Cirsium pitcheri was formerly restricted in Illinois to the dune systems and beaches bordering Lake Michigan and one inland station at Thornton, Cook County. Less than fifteen records are known from Illinois, with the most recent collection made in 1915. This thistle probably declined in Illinois due to combinations of lakeshore erosion, development, and recreational use of its habitat. Although probably extirpated from Illinois, it is maintained as state threatened due to its federally threatened status. It has been reestablished at a state nature preserve in Lake County.
References: Gates (1912), Guire and Voss (1963), Johnson and Iltis (1963), Keddy and Keddy (1984), Loveless and Hamrick (1988), Bowles (1991a), McEachern (1992), Bowles *et al.* (1993, 1999a), McEachern *et al.* (1994), Bowles and McBride (1996), D'Ulisse and Maun (1996), Maun *et al.* (1996), Phillips and Mann (1996), Stanford *et al.* (1997), Bowles and Bell (1999d).

Cladrastis lutea (Michx. f.) K. Koch.

YELLOWWOOD **FABACEAE**

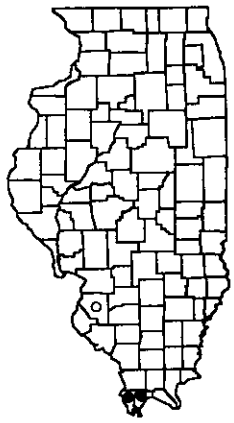


Status: Endangered in Illinois.
Habit: Tree, to 15 m tall.
Range: Southeastern United States and the Ozarks.

A plant of rich woods and calcareous bluffs, *Cladrastis lutea* reaches its northern range limit in southern Illinois. It is presently known from several localities in the Shawnee National Forest, where it occupies mesic wooded slopes and ravines. It was reported from Gallatin County about 30 years ago, but the population has not been relocated.
Note: The scientific name of this species is presently considered to be *Cladrastis kentuckea* (Dum.-Cours.) Rudd.
Reference: Robertson (1977).

Clematis crispa L.

BLUE JASMINE **RANUNCULACEAE**



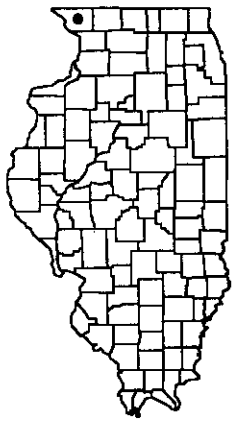
Status: Endangered in Illinois.
Habit: Perennial climbing herb.
Range: Southeastern United States.

Clematis crispa reaches its northern range limit in swamps and floodplain forests of southern Illinois. Presently three populations of this species are known, two in the Shawnee National Forest, one of the populations is in a right-of-way ditch between a road and a railroad in a state conservation area.
References: Palmer (1921), Mohlenbrock *et al.* (1961), Mohlenbrock (1981), Pringle (1997).

Clematis occidentalis (Hornem.) DC.

MOUNTAIN CLEMATIS **RANUNCULACEAE**

Status: Endangered in Illinois.
Habit: Somewhat woody climbing vine.
Range: Northern United States and adjacent Canada, south in the Appalachians.

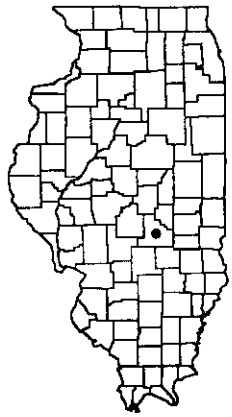


This northern species ranges south into the United States at high altitudes, and also occurs southward in the central United States on wooded talus slopes in the driftless area. It was first collected in Illinois in 1981 from the Wisconsin Driftless Natural Division in Jo Daviess County. This population occurs in algific slope habitat on north-facing, forested, limestone talus. The plants are abundant in their limited habitat, and the site is protected as an Illinois natural heritage landmark.
References: Hartley (1966), Pringle (1971, 1997), Schwegman (1982a).

Collinsia violacea Nutt.

VIOLET COLLINSIA **SCROPHULARIACEAE**

Status: Endangered in Illinois.
Habit: Annual herb, stems to 40 cm tall.
Range: South-central United States, east to Illinois.

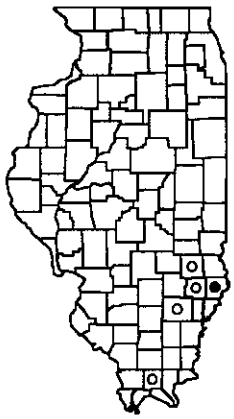


Collinsia violacea occurs near its northeastern range limit in central Illinois, where a single population is known from Shelby County. The site is in the Effingham Plain Section of the Southern Till Plain Natural Division, along the Kaskaskia River near the Shelbyville Moraine. This species was originally considered introduced, but historic records suggest that it is native. The population occurs in a dry-mesic upland forest.
References: Fuller (1948), Winterringer (1956).

Clematis viorna L.

LEATHERFLOWER **RANUNCULACEAE**

Status: Endangered in Illinois.
Habit: Perennial climbing herb.
Range: Southeastern United States.

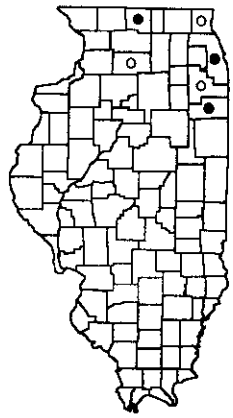


A plant of wet-mesic forests and thickets, *Clematis viorna* occurs primarily in floodplain forest communities in southern Illinois. The only known population in the state occurs in a floodplain forest in Lawrence County on privately owned land. An earlier collection from a state nature preserve in Johnston County may persist.
References: Mohlenbrock (1981), Pringle (1997).

Comptonia peregrina (L.) Coult.

SWEETFERN **MYRICACEAE**

Status: Endangered in Illinois.
Habit: Shrub, to 1.5 m tall.
Range: Central and eastern Canada, south into northeastern United States and the Appalachians.



Comptonia peregrina is restricted in Illinois to acidic sand prairies and savannas in the northern counties. This plant was originally somewhat common in the Chicago region, but most of its populations have been destroyed by urban growth. Presently, populations occur in two state nature preserves in Cook County, and a natural heritage landmark in Kankakee County. Remnants of a population also persist in Winnebago County.
References: Tehon (1942), Bornstein (1997).

Conioselinum chinense (L.) BSP.

HEMLOCK PARSLEY **APIACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, stems 0.4-1.5 m tall.
Range: Boreal eastern Canada, south into northeastern United States and the Appalachians.

Conioselinum chinense reaches its southwestern range limit in northern Illinois, where it has been collected at six localities and now is extremely rare. A population was discovered on privately owned land in Jo Daviess County in 1996. Another population, of a single plant, occurring in the spring run of a forested fen in a state nature preserve in Kane County may persist.
Reference: Bowles *et al.* (1991).

Cornus canadensis L.

BUNCHBERRY **CORNACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb from woody rhizome, stems to 20 cm tall.
Range: Circumboreal, south into northeastern United States, the Appalachians and Rocky Mountains.

In Illinois, *Cornus canadensis* is known from forested bogs and sandstone canyons in the northern part of the state and from other sites near Lake Michigan. Presently two state populations are known, one in a state nature preserve, and the other on private land. Historic stations in LaSalle and McHenry counties may still support this species, but attempts to relocate them have not been successful.
Reference: Fuller (1944).

Corallorhiza maculata Raf.

SPOTTED CORAL-ROOT ORCHID **ORCHIDACEAE**

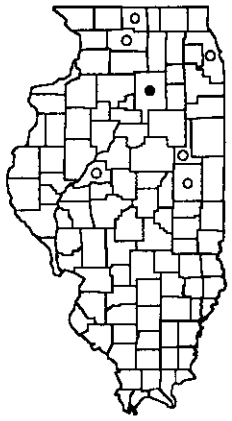
Status: Threatened in Illinois.
Habit: Saprophytic rhizomatous herb, stems to 60 cm tall.
Range: Southern Canada, south into northeastern United States and the Appalachians.

Corallorhiza maculata is restricted in Illinois to mesic forests in the northern part of the state. Presently it is known from four sites, one in a county forest preserve, the rest on private land. It also may persist at state nature preserves in McHenry and Will counties where it was observed in the 1980s.
References: Pepoon (1916), Fell and Fell (1957), Mohlenbrock (1970c), Sheviak (1974a).

Corydalis aurea Willd.

GOLDEN CORYDALIS **PAPAVERACEAE**

Status: Endangered in Illinois.
Habit: Biennial herb, stems to 60 cm tall.
Range: Boreal Canada and Alaska, south into northeastern United States and the Rocky Mountains.



A species of sandy shores, gravelly slopes, and sandstone outcrops, *Corydalis aurea* is rare in northern Illinois. Due to its biennial growth habit, this species may not always be apparent. It was rediscovered in La Salle County in 1998, at a locality where it was last collected in 1946. Historic collections from two northern counties suggest that it may persist elsewhere in Illinois.
Note: Both subspecies *aurea* and subspecies *occidentalis* (Engelm.) G.B. Ownbey occur in Illinois.
References: Ownbey (1947), Mohlenbrock (1981), Bowles (1991b), Stern (1997).

Corydalis halei (Small) Fern. & Schub.

HALE'S CORYDALIS **PAPAVERACEAE**

Status: Endangered in Illinois
Habit: Winter-annual herb, stems to 40 cm. tall.
Range: Southeastern United States.

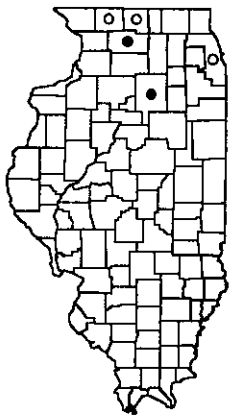
A plant of sandy soils, *Corydalis halei* reaches its northern range limit in southern Illinois. It has been collected from two state localities. The first state collection was made in 1965 from the edge of a fallow field at the base of a limestone bluff along the Mississippi River near a state nature preserve. The second locality was found in 1986 on a sandstone ledge in a barrens remnant in the Shawnee Hills of Pope County. Attempts to locate these populations have not been successful.

Note: The scientific name of this species is presently considered to be *Corydalis micrantha* (Engelm.) Gray subsp. *australis* (Chapm.) G.B. Ownbey.

References: Ownbey (1947), Mohlenbrock and Ozment (1967), Mohlenbrock (1981), Schwegman (1982a), Stern (1997).

Corydalis sempervirens (L.) Pers.

PINK CORYDALIS **PAPAVERACEAE**



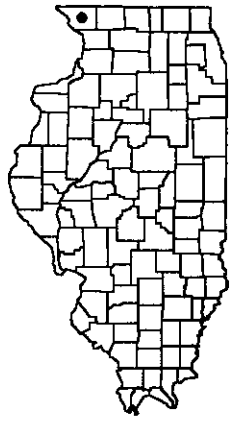
Status: Endangered in Illinois.
Habit: Biennial herb, stems to 1 m tall.
Range: Boreal Canada and Alaska, south into northern United States and the Appalachians.

Corydalis sempervirens occurs locally in open sandstone outcrops, raw soils, and other disturbed sites in northern Illinois. This species often appears erratically, possibly in response to fires and other disturbances. As a result, its population status is difficult to assess. Plants were most recently verified in Illinois in 1993, in an area of forested sandstone outcrops in Ogle County. This station occurs in a natural heritage landmark, but plants also may occur in a nearby state nature preserve where they were collected in the 1940s. This species also persists in LaSalle County where it was found in a state park in 1998.

References: Mohlenbrock (1981), Bowles *et al.* (1991), Stern (1997).

Corylus cornuta Marsh.

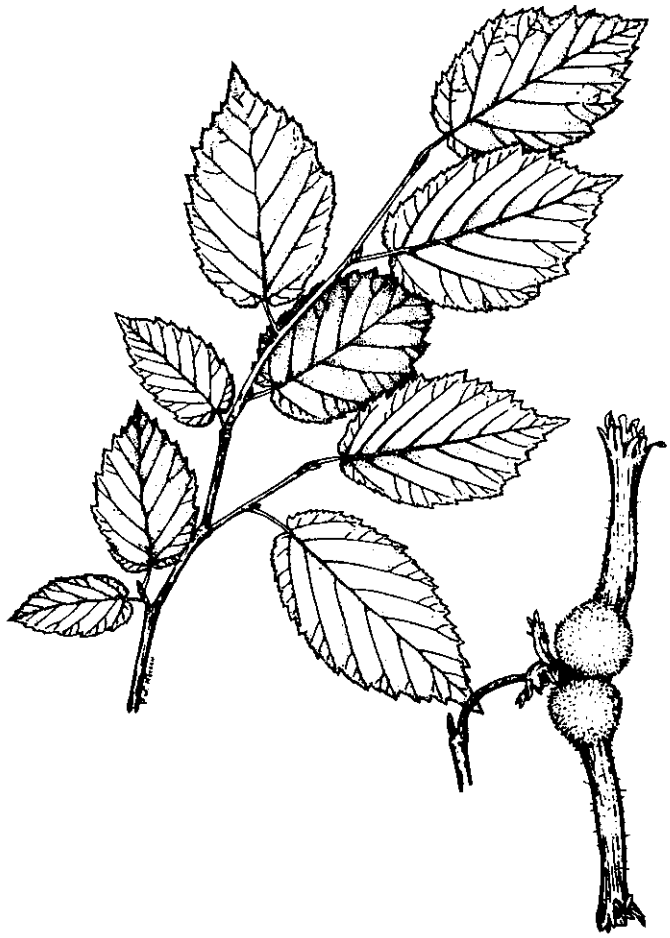
BEAKED HAZELNUT **CORYLACEAE**



Status: Endangered in Illinois.
Synonym: *Corylus rostrata* Ait.
Habit: Shrub, to 4 m tall.
Range: Canada, northeastern United States, and south in the Appalachians.

Corylus cornuta occurs in northwestern Illinois, where it is restricted to algific slope habitat in the Wisconsin Driftless Natural Division. A single Illinois population of two individuals is known. It was discovered in 1981 on a northwest-facing limestone talus slope along the Mississippi River bluff-line in Jo Daviess County. This habitat now is protected as an Illinois natural heritage landmark.

References: Hartley (1966), Schwegman (1982a, 1986), Mohlenbrock and Thomson (1987), Furlow (1997).



Corylus cornuta

Cynosciadium digitatum DC.

FINGER DOG-SHADE, CYNOSCIADIUM APIACEAE

Status: Endangered in Illinois.
Synonym: *Limnosciadium digitatum* (DC.) Math. & Const.
Habit: Perennial herb, stems 20-80 cm. tall.
Range: Mississippi to Texas, north to southern Illinois and Oklahoma.

Cynosciadium digitatum occurs in swamps, floodplain forests, and flatwoods and reaches its northern range limit in southern Illinois. It is known from a single state locality, where it occurs in a pin oak flatwoods and adjacent disturbed sites in the Shawnee National Forest in Jackson County. Originally collected in 1969, the population was recently relocated.
References: Mohlenbrock and Evans (1972), Bowles *et al.* (1991).

Cyperus lancastriensis Porter

GALINGALE CYPERACEAE

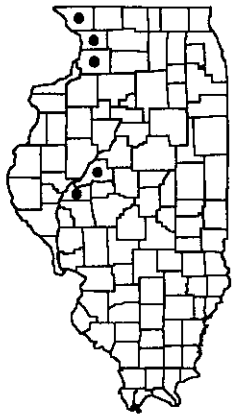
Status: Endangered in Illinois.
Habit: Perennial rhizomatous sedge, culms to 60 cm tall.
Range: Southeastern United States.

Cyperus lancastriensis reaches its northwestern range limit in southern Illinois, where it occurs in moist and usually sandy wood. First found in Illinois in 1949, it was last observed in a state nature preserve in Massac County in 1985. It may persist a this site, or another site in the Shawnee National Forest.
References: Mohlenbrock (1954, 1960, 1976), Mohlenbrock and Schwegman (1969a), Mohlenbrock and Evans (1972).

Cyperus grayioides Mohlenbr.

UMBRELLA SEDGE, GRAY'S SEDGE CYPERACEAE

Status: Threatened in Illinois.
Habit: Perennial sedge, culms to 60 cm tall.
Range: Northwestern and central Illinois; disjunct in Louisiana and Texas.

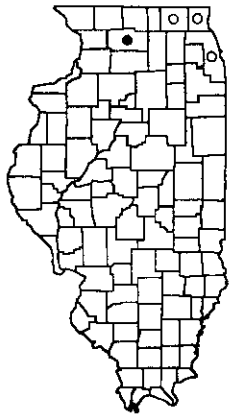


Cyperus grayioides is restricted to blowout disturbances in dry sand prairies of the Illinois River and Mississippi River Sand Areas Natural Divisions. Thirteen stations occur in Jo Daviess, Whiteside, Carroll, Mason, and Cass counties. Eight of these sites are on public land, while another site is on federal property. Some sites are threatened by use from off-road vehicles. Population sizes vary greatly between different sites in relation to the extent of suitable blowout habitat.
References: Mohlenbrock (1959b, 1976), Schwegman (1990), Bowles *et al.* (1995).

Cypripedium acaule Ait.

MOCCASIN FLOWER ORCHIDACEAE

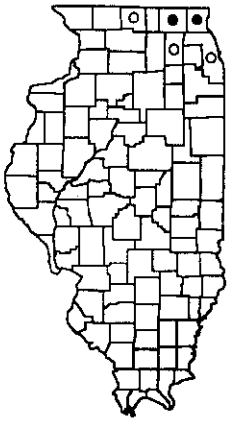
Status: Endangered in Illinois.
Habit: Perennial rhizomatous orchid, scapes to 50 cm tall.
Range: Boreal Canada, south into eastern United States.



Cypripedium acaule originally was rare and local in wet-mesic forests, forested fens, and bogs in northern Illinois. It has been collected at less than a dozen sites in the state, and most of these have been destroyed by urban growth. Presently a few plants are known from a state forest in Ogle County. It is possible that this species may still persist in a state nature preserve in McHenry County. Plants that may have persisted in a Cook County forest preserve since 1942 probably now have been destroyed by deer overgrazing.
References: Mohlenbrock (1970c), Sheviak (1974a, 1974b), Davis (1986), Bowles *et al.* (1991), Cribb (1997).

Cypripedium calceolus L. var. *parviflorum* (Salisb.) Fern.

SMALL YELLOW LADY'S SLIPPER ORCHIDACEAE

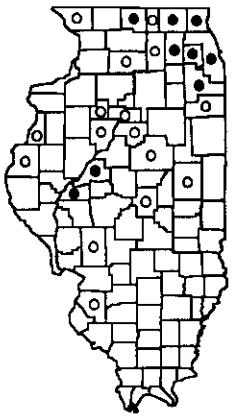


Status: Endangered in Illinois.
Synonym: *Cypripedium parviflorum* Salisb.
Habit: Perennial orchid, to 50 cm tall.
Range: Boreal Canada, south into northeastern United States and the Appalachians.

Cypripedium calceolus var. *parviflorum* originally occurred in forested and graminoid fens and mesic sand or silt loam prairies in extreme northern Illinois. It was formerly somewhat common in appropriate habitat, but populations have been greatly reduced by agriculture, drainage, and urban growth. Three populations are presently known from forested fens in state nature preserves, and one population occurs in a silt loam prairie within a state nature preserve. Even in protected sites these attractive plants are threatened by collection.
References: Mohlenbrock (1970c), Sheviak (1974a), Taft and Solecki (1990), Cribb (1997).

Cypripedium candidum Willd.

WHITE LADY'S SLIPPER ORCHIDACEAE

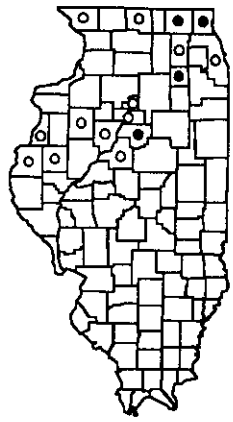


Status: Threatened in Illinois.
Habit: Perennial orchid, to 40 cm tall.
Range: North-central and northeastern United States.

Cypripedium candidum formerly was abundant across much of northern Illinois, primarily in wet-mesic prairies and fens. Agriculture and urban growth have greatly reduced its frequency and have restricted it primarily to northeastern Illinois. It is known from several state nature preserves, county forest preserves, and private tracts, but many populations are small and their habitat is usually threatened with woody invasion due to fire protection, drainage, and other ecological changes. This attractive plant is also threatened by collecting, even in protected sites.
References: Mohlenbrock (1970c), Sheviak (1974a), Myers and Henry (1976), Bowles (1983), Carroll *et al.* (1984), Hess and Stoynoff (1989), Taft and Solecki (1990), Cribb (1997).

Cypripedium reginae Walt.

SHOWY LADY'S SLIPPER ORCHIDACEAE



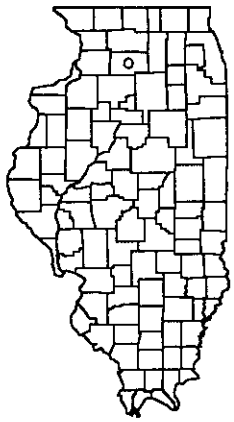
Status: Endangered in Illinois.
Habit: Perennial orchid, to 90 cm tall.
Range: Eastern Canada, south into northeastern United States and the Appalachians.

Cypripedium reginae was formerly found across the northern half of Illinois in a variety of habitats, including prairies, forests, barrens, bogs, and fens. This species has been almost exterminated in Illinois by agriculture, urban development, and the removal of plants by commercial florists, orchidists, and gardeners. Extant populations are threatened by the exotic purple loosestrife and by deer browsing. Presently, populations are known in Illinois from four state nature preserves.
References: Gates (1912), Pepoon (1916), Mohlenbrock (1970c), Sheviak (1974a), Myers and Henry (1976), Evers and Page (1977), Moran (1978), Cribb (1997).

Cypripedium reginae

Cystopteris laurentiana (Weath.) Blasd.

LAURENTIAN FRAGILE FERN **DRYOPTERIDACEAE**

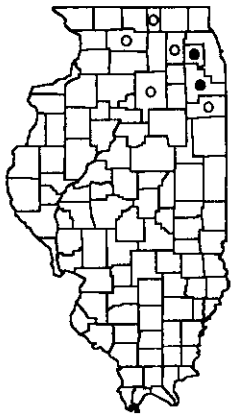


Status: Endangered in Illinois.
Synonym: *Cystopteris fragilis* (L.) Bernh. var. *laurentiana* Weath.
Habit: Perennial rhizomatous fern, fronds delicate, to 50 cm long.
Range: Northeastern United States and adjacent Canada.

Cystopteris laurentiana is a northern fern of calcareous rocky habitat. In Illinois, it is known from a limestone cliff habitat at a single Lee County station. This taxon was first collected in Illinois in 1969 but was misidentified. It was rediscovered, and its identity determined, in 1981. Although the Illinois station is protected in a state park and state nature preserve, the population size was only ten plants in 1981. It probably persists at the Lee County site.
Note: This taxon is a fertile derivative of hybridization between *Cystopteris bulbifera* and *Cystopteris fragilis*.
References: Mohlenbrock (1967b), Peck (1982), Haufler *et al.* (1993).

Dalea foliosa (Gray) Barneby

LEAFY PRAIRIE CLOVER **FABACEAE**



Status: Endangered in Illinois, Federally Endangered.
Synonym: *Petalostemum foliosum* Gray.
Habit: Perennial herb, stems to 80 cm tall.
Range: Tennessee to Alabama; disjunct in Illinois.

Dalea foliosa was originally widespread in northern Illinois, but highly localized in mesic dolomite prairie habitat. Until rediscovered in 1974, it was thought to have been extirpated from the state early in the last century. Presently it is known from two state nature preserves, a forest preserve, and a national heritage corridor.
References: Hill (1879), Jones (1952), Baskin and Baskin (1973, 1989, 1998), Barneby (1977), Schwegman (1990), U.S. Fish and Wildlife Service (1991), Bowles *et al.* (1999a, 1999b), Phillippe *et al.* (2000).

Dennstaedtia punctilobula (Michx.) Moore

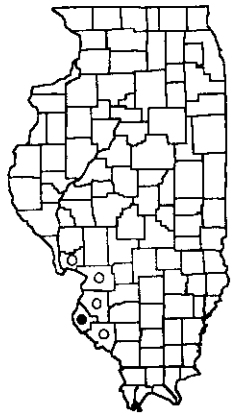
HAY-SCENTED FERN **DENNSTAEDTIACEAE**

Status: Endangered in Illinois.
Habit: Perennial from a slender branching rhizome, fronds to 70 cm long.
Range: Eastern United States and adjacent Canada.

Dennstaedtia punctilobula typically occurs on moist, north-facing, shaded sandstone cliffs in extreme southern Illinois. One known population occurs in an ecological area in Pope County. Five earlier collections are known from the Shawnee National Forest and some of these probably persist.
References: Skorepa and Snider (1967), Schwegman and Mohlenbrock (1966, 1968), Schwegman (1972), Nauman and Evans (1993).

Draba cuneifolia Nutt.

WHITLOW GRASS **BRASSICACEAE**



Status: Endangered in Illinois.
Habit: Annual or winter annual herb, stems 10-25 cm tall.
Range: Southern United States and adjacent Mexico.

Draba cuneifolia reaches its northern range limit in Illinois on rock ledges of the bluffs along the Mississippi River. This species is presently known from a single Illinois station, where it occurs in a state nature preserve.
Note: This taxon is represented in Illinois by variety *cuneifolia* and variety *foliosa* Mohlenbrock.
References: Fernald (1934), Mohlenbrock (1980).

Draba cuneifolia

Drosera rotundifolia L.

ROUND-LEAVED SUNDEW **DROSERACEAE**

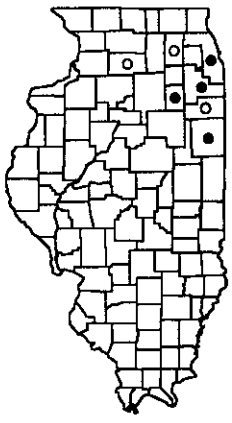
Status: Endangered in Illinois.
Habit: Perennial insectivorous herb, scapes to 35 cm tall.
Range: Circumboreal, eastern and western United States.

In Illinois, *Drosera rotundifolia* has been collected in sphagnum bogs and occasionally in wet peaty sand in the northern part of the state. Populations are presently known from one state nature preserve, and from one locality on private land.
References: Gates (1911), Emerson (1921), Sheviak and Haney (1973).

Drosera intermedia Hayne

NARROW-LEAVED SUNDEW **DROSERACEAE**

Status: Threatened in Illinois.
Habit: Perennial insectivorous herb, scapes 1-8 cm tall.
Range: Circumboreal, eastern United States.

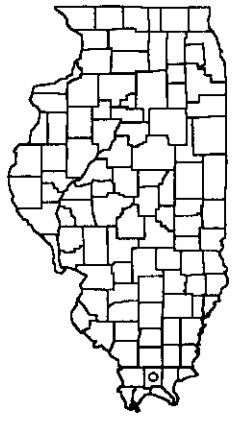


Drosera intermedia occupies peat bogs and wet sand prairies in Illinois. Presently three populations are known from state nature preserves and a fourth from a state conservation area. A few stations also occur on private land.
Reference: Gleason and Cronquist (1991).

Dryopteris celsa (Wm. Palmer) Knowlton

LOG FERN **DRYOPTERIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial fern from a nearly surficial rhizome, fronds to 120 cm long.
Range: Eastern Coastal Plain, north to southern Illinois and Arkansas.

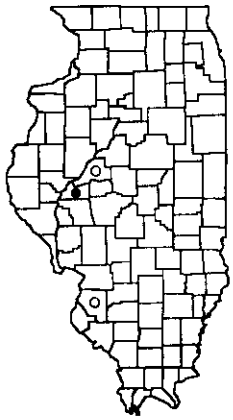


A species of southern swamps, and other wetlands, *Dryopteris celsa* occurs only locally as far north as Illinois, where it is restricted to the Bottomlands Section of the Coastal Plain Natural Division. In the past, this species has been observed at two stations within a state nature preserve, and probably still persists there.
Note: *Dryopteris celsa* is a fertile allotetraploid derived from hybridization between *D. goldiana* and *D. ludoviciana*.
References: Mohlenbrock (1983), Montgomery and Wagner (1993).

Echinodorus tenellus (Mart.) Buchenau

SMALL BURHEAD **ALISMATACEAE**

Status: Endangered in Illinois.
Synonym: *Echinodorus parvulus* Engelm.
Habit: Perennial stoloniferous herb, scapes to 10 cm tall.
Range: Eastern United States, disjunct westward.

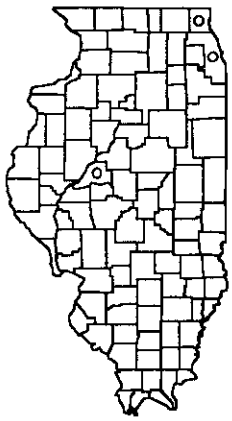


A species of sandy margins of shallow ponds, *Echinodorus tenellus* reaches its northern range limit in western Illinois. It has been collected in the floodplains of the Illinois and Mississippi rivers. Presently it is known from one station in the state occurring on private land in Cass County. The station in a state nature preserve in Mason County probably persists.
Note: The variety *parvulus* (Engelm.) Fassett of this taxon occurs in Illinois.
References: Jones (1947), Fassett (1955), Winterringer (1958), Mohlenbrock (1970b), Haynes and Hellquist (2000a).

Eleocharis olivacea Torr.

CAPITATE SPIKE RUSH **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial stoloniferous spike rush, culms 4-15 cm tall.
Range: Eastern United States and adjacent Canada.



Eleocharis olivacea was last observed in 1988 from a dune swale in a state park next to Lake Michigan. It probably persists at this site. The Cook County collection was made prior to 1900, from an area that may now occur within a state conservation area. However, the species has not been relocated there.
Note: This taxon is usually considered a variety of *Eleocharis flavescens* (Poir.) Urban.
References: Svenson (1929), Mohlenbrock and Drapalik (1962), Mohlenbrock *et al.* (1962), Mohlenbrock (1976), Bowles *et al.* (1991).

Eleocharis pauciflora (Lightf.) Link

FEW FLOWERED SPIKE RUSH **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous spike rush, culms to 30 cm tall.
Range: Circumboreal, northeastern United States, south in the Rocky Mountains.

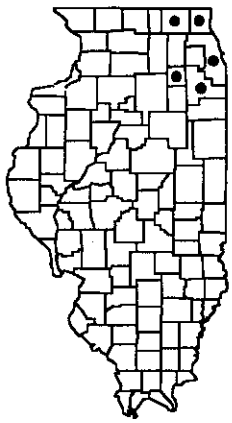
In Illinois, *Eleocharis pauciflora* is restricted to the northeastern counties, where it is extremely rare in fens and calcareous dune swales. In the 1980s this species was observed at state nature preserves in Lake and McHenry counties, and probably still persists at these sites.
References: Svenson (1929), Mohlenbrock and Drapalik (1962), Mohlenbrock *et al.* (1962), Mohlenbrock (1976), Swink and Wilhelm (1994).

Eleocharis pauciflora

Eleocharis rostellata (Torr.) Torr.

BEAKED SPIKE RUSH **CYPERACEAE**

Status: Threatened in Illinois.
Habit: Perennial cespitose spike rush, culms to 1.7 m long.
Range: Atlantic Coast and locally inland.



Eleocharis rostellata is restricted in Illinois to the northeastern part of the state, where it occurs in calcareous seeps of graminoid fens. This species is known from twelve localities in five counties, including a state park, six state nature preserves and private holdings. Its habitat is dependent upon strong groundwater conditions, and it could be vulnerable to water table manipulations.
References: Svenson (1929), Mohlenbrock and Drapalik (1962), Moran (1981), Mohlenbrock (1976), Seischab *et al.* (1985), Stoynoff and Hess (1986), Hess and Stoynoff (1989), Bowles (1991b).

Elymus trachycaulus (Link) Gould

BEARDED WHEAT GRASS **POACEAE**

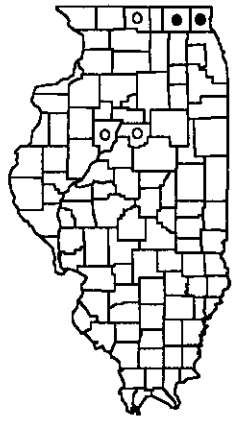
Status: Endangered in Illinois.
Synonym: *Agropyron subsecundum* (Link) A.S. Hitchc.; *Agropyron trachycaulum* (Link) Malte.
Habit: Perennial cespitose grass, culms 0.4-1 m tall.
Range: Southern Canada and adjacent northern United States.

Elymus trachycaulus ranges south into northern Illinois, where it occurs in mesic prairies and on wet dolomite outcrops. Most populations apparently are small, with few flowering culms. Eight populations are known in Illinois; two occur in state nature preserves, two in county forest preserves, one in a state park, one on a military installation and some on private property.
References: Mohlenbrock (1972), Taft and Solecki (1990).

Epilobium strictum Muhl.

DOWNY WILLOW HERB **ONAGRACEAE**

Status: Threatened in Illinois.
Habit: Perennial rhizomatous herb, stems 30-60 cm tall.
Range: Northeastern United States and adjacent Canada.



Epilobium strictum is rare and local in Illinois, occurring in open calcareous bogs, fens, and seeps. Three Illinois stations are presently known, two in state nature preserves, and one in a county forest preserve.
References: Gleason and Cronquist (1991).

Equisetum pratense Ehrh.

MEADOW HORSETAIL **EQUISETACEAE**

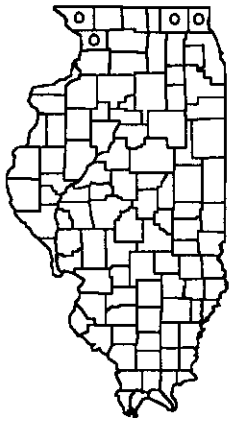
Status: Threatened in Illinois.
Habit: Perennial rhizomatous horsetail, annual stems 15-50 cm tall.
Range: Circumboreal, south into northerneastern United States.

Equisetum pratense occurs in Illinois on north-facing slopes of dry-mesic sand forests in the Rock River Hill Country and Wisconsin Driftless Natural Divisions. Nine populations are known to persist in Illinois, one in a state nature preserve, one in a state park, one in a state forest, and the others on private land.
References: Tryon *et al.* (1940), Hauke (1965, 1993), Mohlenbrock (1970a), Peck (1982).

Equisetum scirpoides Michx.

DWARF SCOURING RUSH **EQUISETACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous horsetail, evergreen stems to 25 cm tall.
Range: Circumboreal, south into northern United States.



Equisetum scirpoides occurs at its southern range limit in Illinois, where it is known from moist cliffs in northwestern Illinois and from bluffs or ravine slopes bordering Lake Michigan. It was thought to be extirpated from Illinois until discovered along limestone ravine bluffs in Carroll and Jo Daviess counties in 1978. The Jo Daviess County station may be within a state park, while the Carroll County locality was within a private camp. The status of these populations is unknown, and the plants may be threatened by erosion from nearby trail use.
References: Hill (1905), Tryon *et al.* (1940), Hartley (1966), Mohlenbrock (1967b), Moran (1978), Peck (1982), Hauke (1993).

Equisetum sylvaticum L.

WOODLAND HORSETAIL **EQUISETACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous horsetail, annual stem 30-70 cm tall.
Range: Circumboreal, south into northern United States.

In Illinois, *Equisetum sylvaticum* is known from Lee and Ogle counties. The Lee County site is on private land. At the Ogle County site, a single population was discovered in a state nature preserve in 1988. At this site, plants occur along the bottom and slopes of a small canyon.
References: Tryon *et al.* (1940), Peck (1982), Bowles *et al.* (1991), Hauke (1993).

Eriophorum virginicum L.

RUSTY COTTON GRASS **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial, cespitose herb, culms to 1 m tall.
Range: Eastern Canada and eastern United States.

Eriophorum virginicum is restricted to acidic bogs in the Northeastern Morainal Natural Division in Illinois. It is presently known from three localities and may persist at a fourth. These sites are within three state nature preserves and a county forest preserve.
References: Mohlenbrock (1966b, 1976), Taft and Solecki (1990).

Eryngium prostratum Nutt.

ERYNGO **APIACEAE**

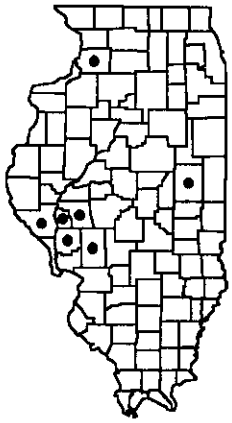
Status: Endangered in Illinois.
Habit: Perennial prostrate herb, stems to 50 cm long.
Range: Southeastern United States.

Eryngium prostratum reaches its northern range limit on muddy and sandy shores in the southern tip of Illinois. Presently it is known from six state localities, three at the edges of artificial impoundments in the Shawnee National Forest and a national wildlife refuge, the fourth in a state conservation area, and others on private land.
References: Schwegman (1972), Hayden (1985).

Erythronium mesochoreum Knerr

PRAIRIE TROUT-LILY **LILIACEAE**

Status: Threatened in Illinois.
Synonym: *Erythronium albidum* Nutt. var. *mesochoreum* (Knerr) Rickett.
Habit: Perennial herb from a deep corm, pedicels to 20 cm tall.
Range: West-central United States, south to Texas.

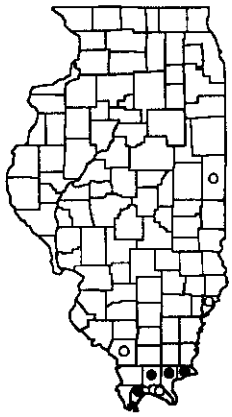


Erythronium mesochoreum reaches its eastern range limit in western Illinois, where it occurs in mesic prairies in the Western Forest-Prairie Natural Division. This species was first discovered in Illinois in 1980. Populations are now known from many stations in Macoupin and Morgan counties, and scattered populations in five other counties. One Macoupin County station occurs in a state nature preserve. The remaining sites are in unprotected railroad rights-of-way, prairie remnants, cemeteries, and pastures.
References: Rickett (1937), Robertson (1966). Robertson *et al.* (1983), McClain *et al.* (1999).

Euonymus americanus L.

AMERICAN STRAWBERRY BUSH CELASTRACEAE

Status: Endangered in Illinois.
Habit: Shrub to 2.5 m tall.
Range: Eastern United States.



Euonymus americanus reaches its northern range limit in floodplain forests of southern Illinois. Presently six populations are known from Hardin, Johnson, Pope and Pulaski counties, where they occur in two state nature preserves, two state natural areas, and two other protected sites.
References: Schwegman (1968a), Mohlenbrock (1990).

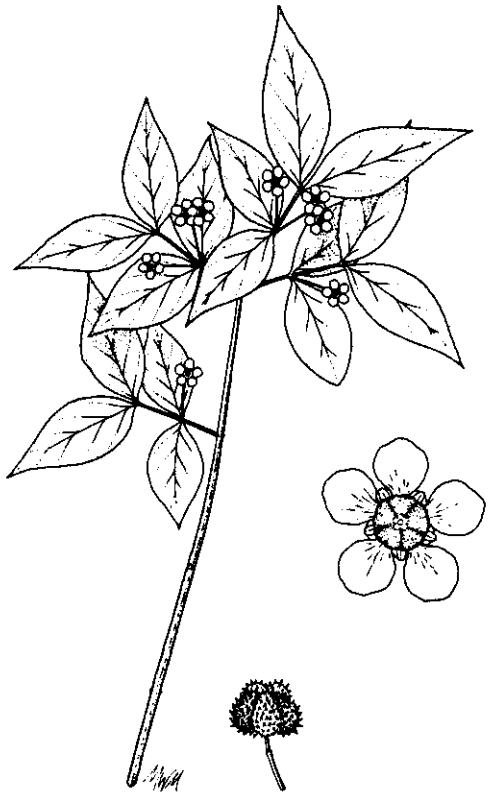
Eupatorium hyssopifolium L.

HYSSOP-LEAVED THOROUGHWORT

ASTERACEAE

Status: Endangered in Illinois.
Habit: Perennial herb, stem 30-100 cm tall.
Range: Eastern United States.

Hyssop-leaved thoroughwort occurs in fields and other open places, especially in areas of dry, sandy soil. It was not known from Illinois until it was discovered in the Shawnee National Forest in a Pope County barren in 1993. A second, recently discovered, large population in Johnson County may be adventive. This species is very common in western Kentucky, occurring in roadsides, succession fields, and barrens.
Reference: Bassinger (1995).



Euonymus americanus

Eupatorium incarnatum Walt.

PINK THOROUGHWORT **ASTERACEAE**

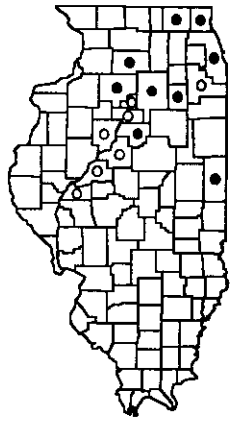
Status: Threatened in Illinois.
Habit: Perennial weak-stemmed herb, stems to 1.2 m tall.
Range: Southern United States and Mexico.

Eupatorium incarnatum occurs in mesic forests and swamps and reaches its northern range limit in extreme southern Illinois. It is presently known from eleven state populations, including two on state nature preserves, one from a federal ecological area, and the fourth in the Shawnee National Forest.
Reference: Jones (1947).

Filipendula rubra (Hill) Robins.

QUEEN-OF-THE-PRAIRIE **ROSACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, stems 1-2 m tall.
Range: Eastern United States.

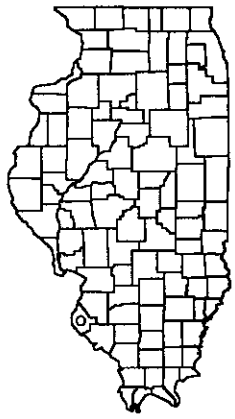


Filipendula rubra is found occasionally in fens, mesic sand prairies, and seeps in northern and central Illinois. Presently thirteen Illinois populations are known to persist. These occur in six state nature preserves, a natural heritage landmark, a county forest preserve, and on private land. A few other populations likely persist, but two in the Peoria area are known to have been destroyed.
References: Steyermark and Swink (1955), Monoson and Schertz (1985), Evert (1988).

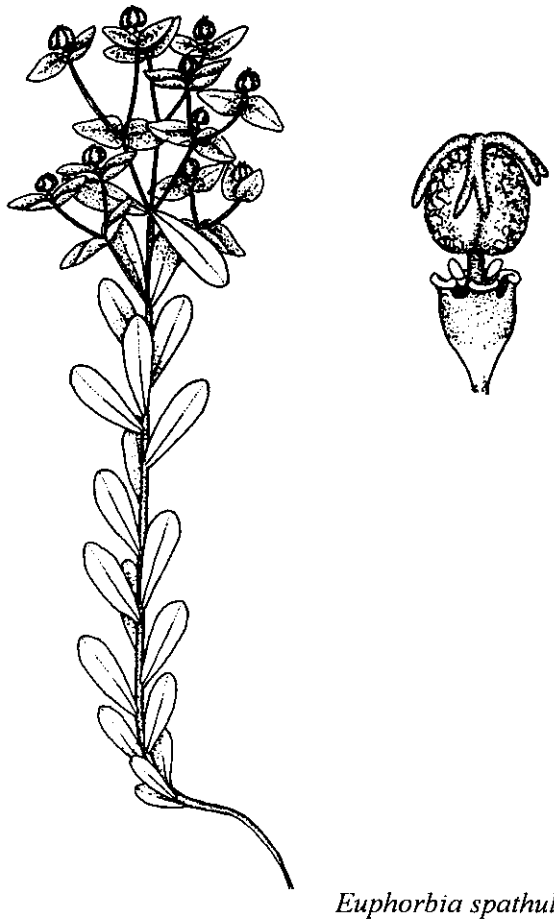
Euphorbia spathulata Lam.

PRAIRIE SPURGE **EUPHORBIACEAE**

Status: Endangered in Illinois.
Habit: Annual herb, stems to 40 cm tall.
Range: Western and central United States and adjacent Mexico.



A plant of dry open ground, *Euphorbia spathulata* reaches its eastern range limit in southwestern Illinois. This species is known from a single locality in the state, where it was collected in 1965 from a dry limestone ledge on a Mississippi River bluff. A single specimen of this species was seen at this station in 1987, and it may persist at this site.
References: Mohlenbrock (1982), Bowles *et al.* (1991).



Euphorbia spathulata

Fimbristylis vahlii (Lam.) Link

VAHL'S FIMBRISTYLIS **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Annual tufted herb, stems to 15 cm tall.
Range: Southeastern United States and tropical America, disjunct to central Illinois.

In Illinois, *Fimbristylis vahlii* reaches its northern range limit in a small part of the Illinois River Sand Areas Section. Presently two populations are known from Illinois, both occurring in wet sandy depressions on private land in Cass County.
References: Mohlenbrock (1963a, 1976), Kral (1971).

Galium labradoricum (Wieg.) Wieg.

BOG BEDSTRAW **RUBIACEAE**

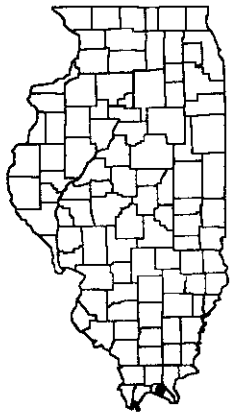
Status: Threatened in Illinois.
Habit: Perennial herb, stems 10-40 cm tall.
Range: Eastern Canada and northeastern United States.

In Illinois, *Galium labradoricum* is restricted to bogs, fens, and sedge meadows in the extreme northeastern counties. It presently occurs in at least thirteen populations in three counties, where it is found in several state nature preserves, state parks, and on private land. A Boone County station was recently destroyed by drainage and subsequent plant succession. Habitat invasion by purple loosestrife threatens most sedge meadow populations of this species.
References: Iltis (1957), Puff (1977), Bowles (1991b).

Galactia mohlenbrockii Maxwell

BOYKIN'S DIOCLEA **FABACEAE**

Status: Endangered in Illinois.
Habit: Perennial twinning herbaceous vine.
Range: Eastern United States.



Galactia mohlenbrockii reaches its northern limit in the southern tip of Illinois, where it is found on the lower slopes of shallow forested ravines. It occurs in two state nature preserves and a state park in Massac County.
Note: The scientific name of this species is presently considered to be *Dioclea multiflora* (Torr. & Gray) Mohr.
Reference: Schwegman (1968a).

Galium lanceolatum Torr.

WILD LICORICE **RUBIACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, stems to 70 cm tall.
Range: Eastern United States, adjacent Canada.

A species of dry woods and thickets, *Galium lanceolatum* is extremely rare in Illinois, being restricted to a few northern counties. Historically this species has been collected in both Cook and Kane counties. Neither of these historic localities are thought to have extant populations. The only extant population occurs in a state nature preserve in McHenry County.
References: Gleason and Cronquist (1991), Swink and Wilhelm (1994).

Galium virgatum Nutt.

DWARF BEDSTRAW **RUBIACEAE**

Status: Endangered in Illinois.
Habit: Annual herb, stems 10-40 cm tall.
Range: South-central United States.

Galium virgatum occurs in dry barrens, glades, and rocky woods and reaches its northeastern range limit in southwestern Illinois. It is known from a state nature preserve in Monroe County, where it occurs in thin soil on limestone ledges above cliffs at the base of a Mississippi River bluff hill prairie.
Reference: Ozment (1967).

Geranium bicknellii Britton

NORTHERN CRANESBILL **GERANIACEAE**

Status: Endangered in Illinois.
Habit: Annual or biennial herb, stems to 50 cm tall.
Range: Central and eastern Canada, and adjacent northern United States.

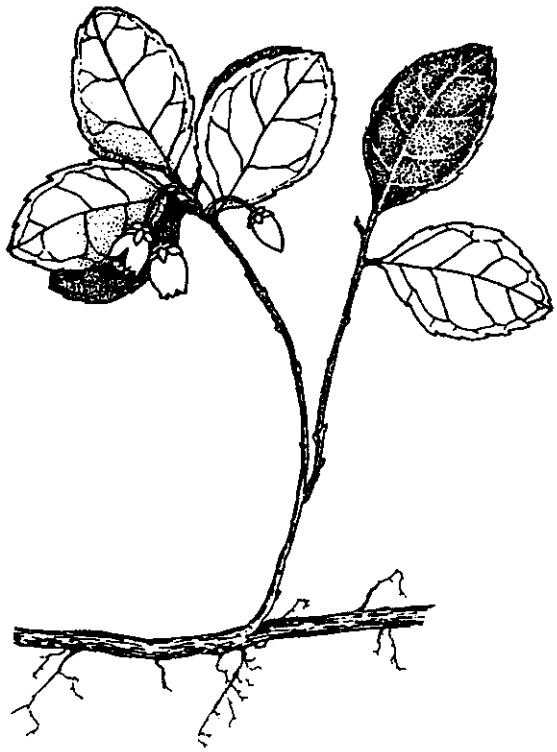
A plant of dry woodland openings, rock outcrops, and disturbed sites, *Geranium bicknellii* frequently appears in abundance following fires. It reaches the southern margin of its range in the Northeastern Morainal Natural Division of Illinois. This species was never common in Illinois, and much of its habitat has been destroyed by urban growth. Presently two stations are known from Lake County, a state nature preserve and on private land. It was also found in 1995 in a Cook County forest preserve. This species often reappears after disturbance by fire and may remain extant in other northern Illinois locations.
References: Abrams and Dickman (1984), Bowles *et al.* (1991), Greenberg and Milde (1994).

Gaultheria procumbens L.

WINTERGREEN, CHECKERBERRY **ERICACEAE**

Status: Endangered in Illinois.
Habit: Low perennial subshrub with leafy stem from a horizontal rhizome, aerial stems to 20 cm tall.
Range: Eastern Canada, south into northeastern United States and the Appalachians.

Gaultheria procumbens occurs in acidic soils of northern forests and bogs. One population was discovered in 1983 in a state nature preserve in southern Cook County. A station represented by a 1943 collection from a Cook County forest preserve may have been destroyed by deer overgrazing. There are unverified reports of this species from LaSalle County. Presently no extant Illinois populations are known.
References: Tehon (1942), Fuller (1944), Mohlenbrock (1978), Evert (1988).

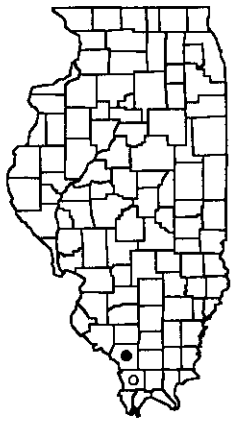


Gaultheria procumbens

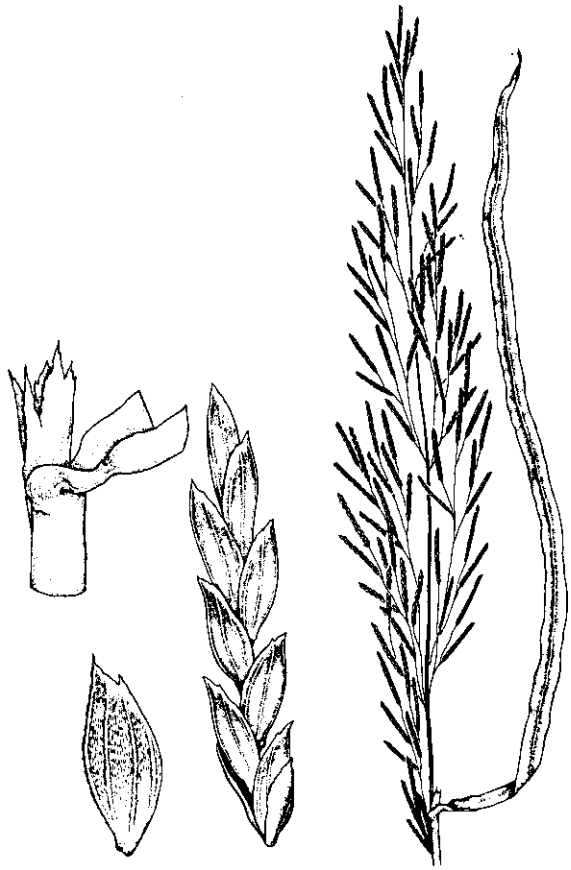
Glyceria arkansana Fern.

ARKANSAS MANNA-GRASS **POACEAE**

Status: Endangered in Illinois.
Habit: Perennial grass, rooting at the lower nodes, culms to 2 m tall.
Range: Eastern United States.



A species of wet floodplains and swamps, *Glyceria arkansana* reaches its northwestern range limit in southern Illinois. Presently it is known from one site in Illinois, where it occurs in the shallow waters of a Big Muddy River floodplain swamp in the Shawnee National Forest.
References: Church (1949), Mohlenbrock (1959a, 1972, 1985a), Mohlenbrock *et al.* (1961), Mohlenbrock and Voigt (1965), Bowles *et al.* (1991).

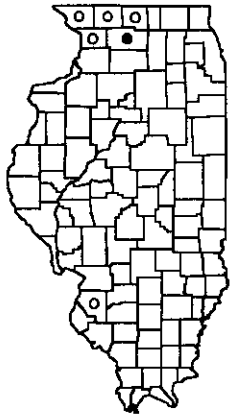


Glyceria arkansana

Gymnocarpium dryopteris (L.) Newm.

OAK FERN **DRYOPTERIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial fern from a slender rhizome, fronds 5-50 cm long.
Range: Circumboreal, northeastern United States.



Gymnocarpium dryopteris is restricted to sandstone or dolomite cliffs and ledges and sand forests in extreme northwestern Illinois. Presently it is known from one small population in the state where it occurs in a state nature preserve. A small Winnebago County population in a sand forest was destroyed by a burrowing animal.
Note: A 1850 specimen from St. Clair County (Jones and Fuller 1955) may represent either a disjunct population or erroneous collection data.
References: Tryon *et al.* (1940), Mohlenbrock (1967b), Peck (1982), Pryer (1993).

Gymnocarpium robertianum (Hoffm.) Newm.

SCENTED OAK FERN **DRYOPTERIDACEAE**

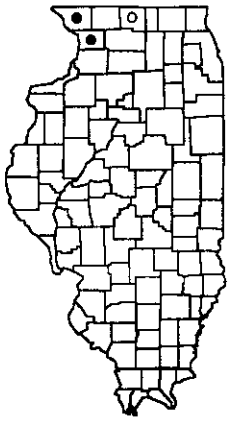
Status: Endangered in Illinois.
Habit: Perennial rhizomatous fern, fronds to 50 cm long.
Range: Circumboreal, south to northern United States.

Gymnocarpium robertianum is a boreal fern species of primarily calcareous rocky habitats. It occurs near its southern range limit in northwestern Illinois, where it was discovered in Carroll County in 1980. The Carroll County station is a north-facing limestone bluff located in the Freeport Section of the Rock River Hill Country Natural Division. This station is within a private camp and probably persists.
References: Tryon *et al.* (1940), Peck (1982), Mohlenbrock (1983), Pryer (1993).

Hackelia americana (Gray) Fern.

STICKSEED **BORAGINACEAE**

Status: Endangered in Illinois.
Habit: Biennial herb, stems to 1 m tall.
Range: Southern Canada and adjacent northern United States.



Hackelia americana is found in extreme northern Illinois, where it occurs on dolomite bluffs. Presently it is known from a Carroll County state park and a blufftop in Jo Daviess County. A 1946 collection of this species from Winnebago County may represent an extant population.
Note: The scientific name of this species is presently considered to be *Hackelia deflexa* (Wahlenb.) Opiz var. *americana* (Gray) Fern. & I. M. Johnston.
References: Kruschke (1944), Hartley (1966), Wunderlin (1966), Bowles *et al.* (1991).

Halesia carolina L.

SILVERBELL TREE **STYRACACEAE**

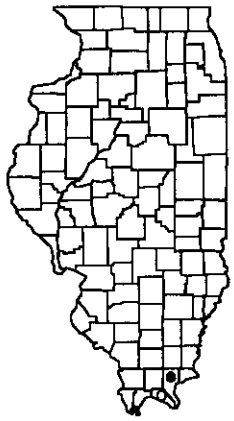
Status: Endangered in Illinois.
Habit: Tree, to 10 m tall.
Range: Southeastern United States.

Halesia carolina reaches its northern range limit in southern Illinois, where it occurs in rich mesic ravine forests and bluffs of the Ohio River. The two known Illinois populations occupy adjacent ravine systems in Massac and Pulaski counties. Although both populations are primarily in state nature preserves, part of the Massac County colony on private land was destroyed.
References: Tehon (1942), Schwegman and Mohlenbrock (1968), Mohlenbrock and Schwegman (1969b), Schwegman (1970), Mohlenbrock (1978).

Helianthus angustifolius L.

NARROW-LEAVED SUNFLOWER **ASTERACEAE**

Status: Threatened in Illinois.
Habit: Perennial herb, stems 0.5-2 m tall.
Range: Eastern United States.

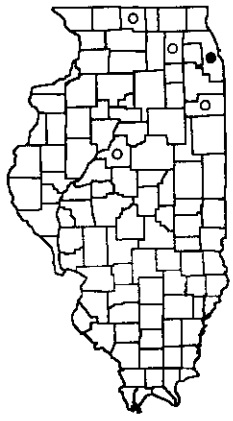


Helianthus angustifolius reaches its northwestern range limit in Illinois, where it occurs in a variety of habitats, including flatwoods, old fields, seeps, and roadsides. Presently two state populations are known. These occur in a state nature preserve and the Shawnee National Forest.
References: Evers (1958), Schwegman and Mohlenbrock (1966).

Helianthus giganteus L.

TALL SUNFLOWER **ASTERACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems 1-3 m tall.
Range: Central and eastern Canada, and adjacent northeastern United States.



In Illinois, *Helianthus giganteus* is known from fens and sedge meadows in the northern part of the state. Until 1987, this species was known only from historic collections made prior to 1952. In 1987, populations were found in two sedge meadows in Winnebago County, one in a state nature preserve and may persist at these sites. The plant has been collected recently from a graminoid fen in a state nature preserve in Cook County. It is possible that this sunflower also occurs in fens in Lake and McHenry counties.
References: Long (1961), Bowles *et al.* (1991).

Heliotropium tenellum (Nutt.) Torr.

SLENDER HELIOTROPE **BORAGINACEAE**

Status: Endangered in Illinois.
Habit: Annual herb, stems 10-40 cm tall.
Range: South-central United States.

Heliotropium tenellum reaches its northern range limit in southwestern Illinois, where it is restricted to limestone glades and hill prairies along the Mississippi River. It has been collected at three localities in the state, at least two of which presently support a population. One population is located in a state nature preserve.
References: Evers (1951), Ozment (1967).

Hexalectris spicata (Walt.) Barnh.

CRESTED CORALROOT ORCHID **ORCHIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous, saprophytic orchid, stems to 80 cm tall.
Range: Southern United States and northern Mexico.

Hexalectris spicata occurs in southern Illinois in dry calcareous woods and dry prairie openings primarily along the Mississippi River bluffs and locally eastward in limestone glades. Presently it is known from three localities in the state, two in the Shawnee National Forest, one in a research natural area, and one population on private land. It has been observed recently in a state nature preserve in Monroe County.
References: Winterringer (1950, 1951), Bailey and Swayne (1951), Mohlenbrock (1955, 1970c), Sheviak (1974a), Mohlenbrock and Wilson (1985).

Heteranthera reniformis R. & P.

MUD PLANTAIN **PONTEDERIACEAE**

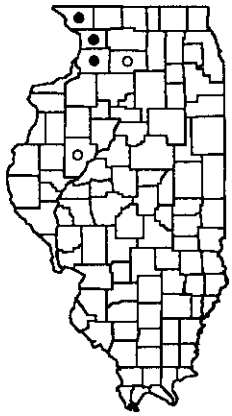
Status: Endangered in Illinois.
Habit: Perennial shoreline to aquatic herb from a creeping rhizome.
Range: South-central and eastern United States.

Heteranthera reniformis reaches its northern range limit in southern Illinois, where it occurs in wetlands and floodplains of major rivers. Presently two populations are known in the state. Plants also may still occur in Lawrence County and in a federal ecological area in Union County.
References: Mohlenbrock and Voigt (1965), Mohlenbrock (1970b, 1985a), Bowles *et al.* (1991).

Hudsonia tomentosa Nutt.

FALSE HEATHER, BEACH HEATHER **CISTACEAE**

Status: Endangered in Illinois.
Habit: Low, mat-forming woody perennial, to 20 cm tall.
Range: Central and eastern Canada, adjacent northeastern United States, and south along the Atlantic Coast.



A plant of open sands, beaches, and blowouts, *Hudsonia tomentosa* occurs in sand deposits along the Mississippi and Green rivers in northwestern Illinois. Presently it is known from three localities in the state, including a state nature preserve, federal property, and a natural heritage landmark.
Note: This taxon is represented in Illinois by both variety *tomentosa* and variety *intermedia* Peck.
References: Gleason (1910), Tehon (1942), Mohlenbrock (1978).

Hudsonia tomentosa

Hydrolea uniflora Raf.

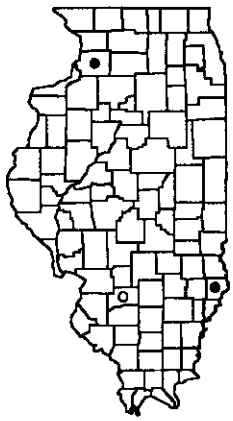
ONE-FLOWERED HYDROLEA **HYDROPHYLLACEAE**

Status: Endangered in Illinois.
Habit: Perennial decumbent to creeping herb, stems 30-80 cm long.
Range: Southeastern United States.

Hydrolea uniflora reaches its northern range limit in swamps and on wet shores in southern Illinois. Presently, this species is known from swamps in the Shawnee National Forest in Johnson and Jackson counties.
References: Winterringer (1951), Jones (1952), Mohlenbrock (1959a), Mohlenbrock and Voigt (1965), Schwegman and Mohlenbrock (1968).

Hydrocotyle ranunculoides L. f.

WATER-PENNYWORT **APIACEAE**



Status: Endangered in Illinois.
Habit: Aquatic herb with creeping or floating stems.
Range: Southern United States, north along the Pacific Coast.

A species of swamps, marshes, and shores, *Hydrocotyle ranunculoides* reaches its northern range limit in Illinois. It was collected in 1925 from an artificial lake in a privately owned marsh in Clinton County and recently from a Whiteside County state park. The Whiteside County population is expanding and may be adventive. This species was found recently in a private pond in Lawrence County.
Reference: Nyboer *et al.* (1976).

Hymenoxys acaulis (Pursh) Parker

LAKESIDE DAISY **ASTERACEAE**

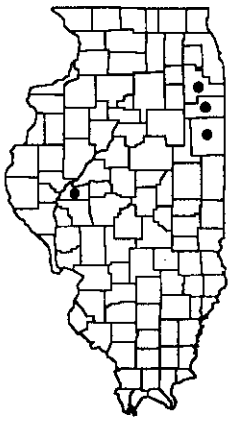
Status: Endangered in Illinois, Federally Threatened.
Synonym: *Actinea herbacea* (Greene) Robins, *Hymenoxys acaulis* (Pursh) Parker var. *glabra* (Gray) Parker, *Tetraneuris herbacea* Greene.
Habit: Perennial cespitose herb, scapes to 25 cm tall.
Range: DuPage, Tazewell and Will counties, Illinois; Ottawa County, Ohio, Manitoulin Island and Bruce Peninsula, Ontario.

Hymenoxys acaulis was historically known from a few dolomite prairies in Will County and a gravel bluff of the Illinois River in Tazewell County. The last known extant population in Illinois was destroyed in Will County in 1981. This species has been recently reintroduced into Tazewell and DuPage counties.
References: Pepoon (1927), Voss (1935), Wunderlin (1971), Cusick (1991), DeMauro (1993, 1994), Bowles *et al.* (1999a), Phillippe *et al.* (2000).

Hypericum adpressum Bart.

SHORE ST. JOHN'S WORT **CLUSIACEAE**

Status: Endangered in Illinois.
Habit: Perennial stoloniferous herb, stems 30-80 cm tall.
Range: Eastern United States.

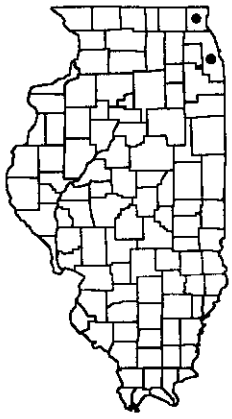


A plant of damp, often peaty soil, *Hypericum adpressum* reaches its northwestern range limit in the Kankakee Sand Area Section of Illinois. It is presently known from a state conservation area in Iroquois County, state nature preserves in Cass and Will counties, and on private land in Kankakee County.
References: Mohlenbrock (1978), Schwegman (1991).

Hypericum kalmianum L.

KALM'S ST. JOHN'S WORT **CLUSIACEAE**

Status: Endangered in Illinois.
Habit: Shrub, to 1 m tall.
Range: Great Lakes region.

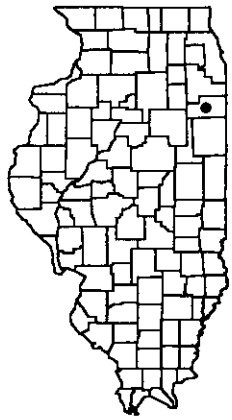


Hypericum kalmianum is restricted in Illinois to mesic sand prairies and interdunal swales near Lake Michigan. This habitat has been greatly reduced by urban growth, and presently five populations are known in the state. Two of these are extensive and occur throughout a state nature preserve and state park in Lake County. Populations also occur on two Cook County state nature preserves.
References: Hill (1899), Gates (1912), Tehon (1942), Guire and Voss (1963), Mohlenbrock (1978).

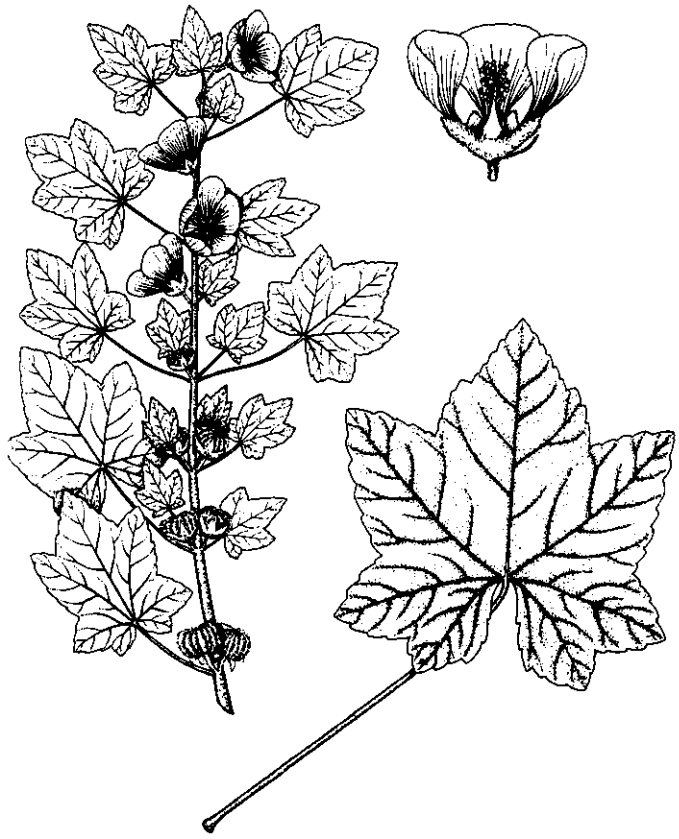
Iliamna remota Greene

KANKAKEE MALLOW **MALVACEAE**

Status: Endangered in Illinois.
Synonym: *Iliamna rivularis* (Dougl.) Greene.
Habit: Perennial rhizomatous herb, stems to 2.5 m tall.
Range: Kankakee River, Illinois; and also adventive in Indiana, and West Virginia.



Iliamna remota is endemic to Illinois were it is found on a small dolomite bedrock island in the Kankakee River. The site is protected as a state nature preserve, and the species is abundant there, growing most vigorously in openings on the upper part of the island.
References: Clute (1920), Strausbaugh and Core (1932), Wadmond (1932), Sherff (1946, 1949), Fernald (1950), Jones (1952), Mohlenbrock (1982), Schwegman (1988, 1990).

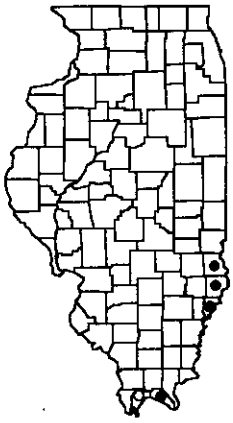


Iliamna remota

Iresine rhizomatosa Standl.

BLOODLEAF **AMARANTHACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems 0.3-1.5 m tall.
Range: Southeastern United States.

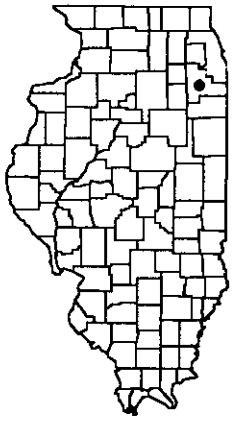


Iresine rhizomatosa reaches its northern range limit in floodplain forests of the Ohio and Wabash rivers in southeastern Illinois. This species is known from a state nature preserve in Wabash County.
References: Evers (1962), Ashby and Ozment (1967), Evers and Page (1977).

Isoetes butleri Engelm.

BUTLER'S QUILLWORT **ISOETACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose herb with linear grasslike basal leaves, to 30 cm long.
Range: Central United States.



Isoetes butleri is known from only five populations in Illinois, all in Will County. Two populations are from a state conservation area, another from the Midewin National Tallgrass Prairie. At these sites it grows in seasonably wet areas in thin soil over dolomite bedrock. An earlier report of this species in southern Illinois was based on a misidentified specimen.
References: Mohlenbrock (1967b), Taylor *et al.* (1975, 1993), Taylor and Schwegman (1992).

Isotria medeoloides (Pursh) Raf.

SMALL WHORLED POGONIA **ORCHIDACEAE**

Status: Endangered in Illinois, Federally Threatened.
Habit: Perennial orchid, stems 9-25 cm tall.
Range: Appalachian region and locally westward.

A species of dry to mesic forests, *Isotria medeoloides* is noted for its rarity and irregular appearance of flowering plants. In Illinois it is known from a single small population that occurs in a protected area on a wooded slope above a sandstone cliff in Randolph County. This population has decreased in size since its discovery and was last observed in 1991. This species is probably extirpated from Illinois.
References: Mohlenbrock (1970c), Case and Schwab (1971), Sheviak (1974a), Merhoff (1989a, 1989b), Vitt (1997), Phillippe *et al.* (2000).

Isotria verticillata (Willd.) Raf.

WHORLED POGONIA **ORCHIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous orchid, stems to 35 cm tall.
Range: Eastern United States, and adjacent Canada.

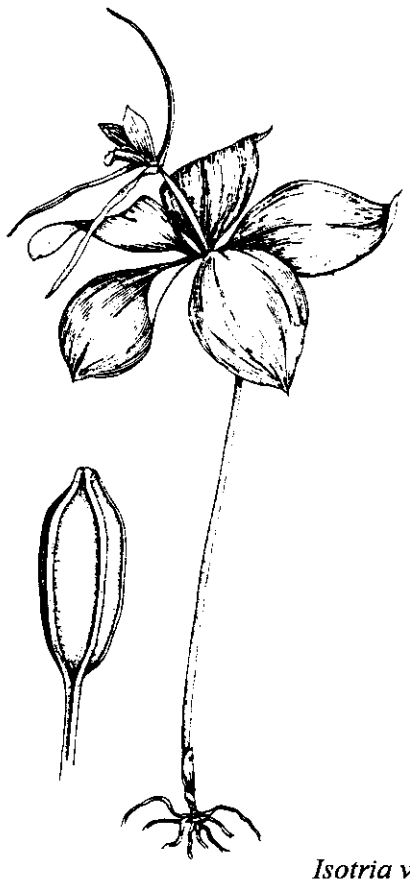
Isotria verticillata is known from two colonies in the extreme southern part of Illinois. At these sites the species occurs next to seep springs near the bottom of forested ravine slopes. These stations are in the Shawnee National Forest in Pope County. The species could be threatened by collectors if these localities were to become widely known.
References: Schwegman (1968a), Mohlenbrock (1970c), Sheviak (1974a).

Juncus alpinus Vill.

RICHARDSON'S RUSH **JUNCACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous rush, stems to 30 cm tall.
Range: Circumboreal, south into northern United States.

Juncus alpinus reaches its southern range limit in northeastern Illinois, where it occurs rarely in fens, wet sand prairies and interdunal swales near Lake Michigan. It persists in a county conservation area in McHenry County, and in a forest preserve in DuPage County.
Note: In Illinois this taxon is represented by variety *rariflorus* Hartm. and variety *fuscescens* Fern. The scientific name of this species is presently considered to be *Juncus alpinoarticulatus* Chaix.
References: Gates (1912), DeFilipps (1964, 1966), Mohlenbrock (1970b).



Isotria verticillata

Juncus vaseyi Engelm.

VASEY'S RUSH **JUNCACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose rush, stems 30-80 cm tall.
Range: Southern Canada, south into adjacent northern United States.

A northern species of wet prairies, sedge meadows, and stream banks, *Juncus vaseyi* has been found at a few scattered localities in extreme northern Illinois. It has been collected only once in Illinois since the early part of the last century, when it was found in a Winnebago County sedge meadow in 1947. This area is now a state nature preserve, and the population was rediscovered in 1994.
References: Jones (1952), Fell (1957), DeFilipps (1964, 1966), Mohlenbrock (1970b), Bowles *et al.* (1991).

Juniperus communis L.

GROUND JUNIPER **CUPRESSACEAE**

Status: Threatened in Illinois.
Habit: Evergreen shrub, to 1.5 m tall.
Range: Circumboreal, south into northern United States.

Juniperus communis occurs in northern Illinois along the southern margin of its range. Its primary habitat is the Lake Michigan dunes, but it also occurs on glacial till bluffs and ravines adjacent to the lakeshore. Some inland populations are in successional communities and do not represent natural occurrences of this species. Most of the Cook County stations have been destroyed by urban growth, and those in Lake County have been greatly reduced. The most extensive populations are in a state nature preserve and a state park, where their habitat is affected by recreational use and accelerated shoreline erosion.
Note: In Illinois this species is represented by variety *communis* and variety *depressa* Pursh.
References: Gates (1910, 1912), Tehon (1942), Moran (1978), Adams (1993).

Juniperus horizontalis Moench

TRAILING JUNIPER **CUPRESSACEAE**

Status: Endangered in Illinois.
Habit: Prostrate evergreen shrub, to 2 m long.
Range: Subarctic and boreal Canada, south into northern United States.

The natural distribution of *Juniperus horizontalis* in Illinois is limited to the Lake Michigan sand dunes. This narrow band of habitat has been particularly vulnerable to development, and the species has not been collected in Cook County during the last century. Presently this species is confined to the northern shoreline of Lake County, where it occurs in a state and a municipal park. Cultivars of this species are planted widely in Illinois.
References: Gates (1910, 1912), Tehon (1942), Evers and Page (1977), Adams (1993).

Justicia ovata (Walt.) Lindau

WATER WILLOW **ACANTHACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems 15-50 cm tall.
Range: Southeastern United States.

Justicia ovata reaches its northern range limit in swamps and floodplain forests of extreme southern Illinois. Until recently, only three historic collections of this species were known in the state, the two most recent in 1949 and 1951. This species now occurs on private land in an extensive swamp in Pulaski County, and in a national wildlife refuge in Alexander County.
References: Winterringer (1947, 1951), Bowles *et al.* (1991).

Lactuca hirsuta Muhl.

WILD LETTUCE, HAIRY LETTUCE **ASTERACEAE**

Status: Threatened in Illinois.
Habit: Annual or usually biennial herb, stems to 1.5 m tall.
Range: Eastern United States and adjacent Canada.

A species of dry-mesic forest openings, *Lactuca hirsuta* was relatively rare in Illinois. It is presently known from more than twenty populations in five counties. Most of the populations are in the Shawnee National Forest.
Note: This taxon is represented in Illinois by variety *sanguinea* (Bigel.) Fern.
Reference: Schwegman (1972).

Larix laricina (DuRoi) K. Koch

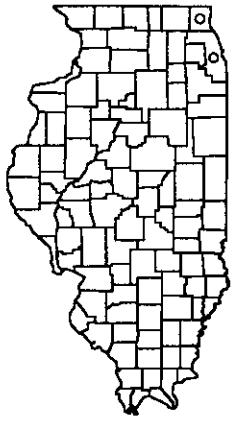
TAMARACK **PINACEAE**

Status: Threatened in Illinois.
Habit: Deciduous coniferous tree, to 20 m tall.
Range: Subarctic and boreal Canada, south into northeastern United States.

Larix laricina is usually limited to peat soils of bogs and forested fens in the Northeastern Morainal Natural Division of Illinois. It has been severely reduced in frequency and abundance in the state, but large populations persist in Lake and McHenry counties. Four of these are protected in state nature preserves. This species continues to be threatened in Illinois by drainage, water table depression, flooding, and competition from the introduced shrub glossy buckthorn. Additionally, some populations have suffered heavy losses during bark beetle outbreaks, and one small stand was destroyed by fire.
References: Emerson (1921), Sheviak and Haney (1973), Taft and Solecki (1990), Parker (1993).

Lathyrus maritimus (L.) Bigel.

BEACH PEA **FABACEAE**

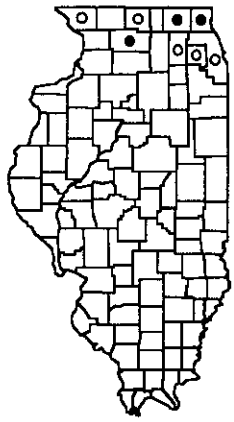


Status: Endangered in Illinois.
Synonym: *Lathyrus japonicus* Willd. var. *glaber* (Ser.) Fern.
Habit: Perennial rhizomatous decumbent herb, stems to 1 m long.
Range: Circumboreal, south into northern United States.

A species of sandy and gravelly coasts and shores, *Lathyrus maritimus* is restricted in Illinois to the Lake Michigan shoreline. This species was formerly well distributed along Lake Michigan, but has been almost exterminated by beach erosion and urban growth. The most recent observation of this species was in a Lake County state park and state nature preserve in 1977, and it is possible that it persists at this site. It is probably extirpated from Cook County, where it was last collected in 1951.
References: Gates (1912), Fassett (1961), Guire and Voss (1963), Bowles *et al.* (1991).

Lathyrus ochroleucus Hook.

PALE VETCHLING **FABACEAE**

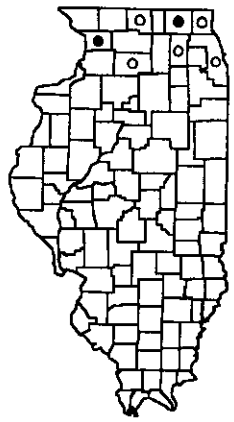


Status: Threatened in Illinois.
Habit: Perennial rhizomatous herb, with sprawling stems to 80 cm long.
Range: Boreal Canada, south into northern United States.

Lathyrus ochroleucus occurs in northern Illinois along the southern margin of its range, where it is known from ten localities. Four populations are protected, two in state nature preserves, one in a state park, and one in a forest preserve.
Reference: Fassett (1961).

Lechea intermedia Leggett

PINWEED **CISTACEAE**



Status: Threatened in Illinois.
Habit: Perennial herb, stems 20-60 cm tall.
Range: Northeastern United States and adjacent Canada, south in the Appalachians.

Lechea intermedia occurs in northern Illinois along the southern part of its range, where it occupies dry, sterile, usually sandy soils. It has been found in Illinois at only nine sites. It is presently known from three state localities, two in state nature preserves, the other from a wildlife and fish refuge.
References: Hodgdon (1938), Mohlenbrock (1978), Bowles *et al.* (1995).

Lespedeza leptostachya Engelm.

PRAIRIE BUSH CLOVER **FABACEAE**

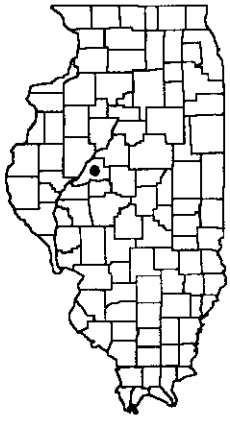
Status: Endangered in Illinois, Federally Threatened.
Habit: Perennial herb, stems to 1 m tall.
Range: Illinois, Wisconsin, Iowa, and Minnesota.

Lespedeza leptostachya occurs on dry gravel and sand prairies and is rare throughout its range. Presently fourteen populations occur in Illinois. Five populations are protected on public land. This species also has been introduced into a state nature preserve in Winnebago County.
References: Steyermark and Swink (1955), Fassett (1961), Clewell (1966a, 1966b), Eisman and Motivans (1986), Smith (1987), Schwegman (1990, 1991), Cole and Biesboer (1992), Bowles and Bell (1999c), Phillippe *et al.* (2000).

Lesquerella ludoviciana (Nutt.) S. Wats.

SILVERY BLADDERPOD **BRASSICACEAE**

Status: Endangered in Illinois.
Habit: Taprooted perennial herb, the decumbent stems 10-30 cm long.
Range: Central United States and adjacent Canada; disjunct in Minnesota and Illinois.



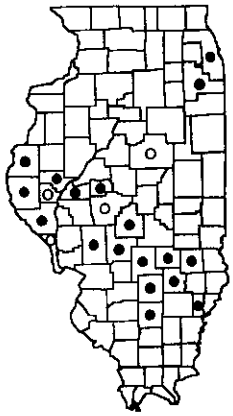
Lesquerella ludoviciana

Lesquerella ludoviciana is known in Illinois from a single station in the Illinois River Sand Area Section. This population is disjunct hundreds of miles east of the species' normal range. The plants occur in dry sand prairie associated with blowouts on a large dune in a state nature preserve.
References: Gleason (1910), Payson (1921), Evers and Page (1977), Mohlenbrock (1980), Schwegman (1990).

Liatris scariosa (L.) Willd. var. *nieuwlandii* Lunell

BLAZING STAR **ASTERACEAE**

Status: Threatened in Illinois.
Synonym: *Liatris* x *nieuwlandii* (Lunell) Gaiser.
Habit: Perennial herb from a corm, stem to 1.5 m tall.
Range: Northeastern and north-central United States.



Formerly misidentified or treated as a hybrid in Illinois, this blazing star is now recognized at the varietal level. It is restricted to areas of silt-loam savanna, primarily on Illinoisan aged glacial till or loess soils in the Southern Till Plain and Western Forest-Prairie Natural Divisions. Presently more than thirty populations are known from eighteen counties. Four populations are in state nature preserves, three in state parks, and two in forest preserves.
References: Wunderlin (1966), Schwegman (1972), Bowles (1988).

Lonicera dioica L. var. *glaucescens* (Rydb.) Butters

RED HONEYSUCKLE **CAPRIFOLIACEAE**

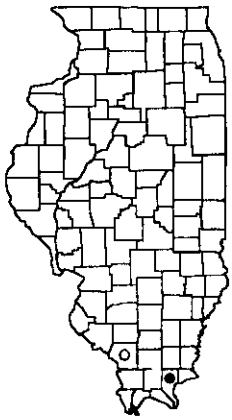
Status: Endangered in Illinois.
Habit: Twining woody vine.
Range: Canada and adjacent northeastern United States; disjunct southward.

Lonicera dioica var. *glaucescens* is disjunct in southern Illinois. The two Illinois populations occur on north-facing sandstone ledges of a massive sandstone bluff-line in the Shawnee Hills Natural Division in Jackson County. These plants are located on U.S. Forest Service property.
Note: The more common variety *dioica* is also found in Illinois.
References: Schwegman (1970), Mohlenbrock and Wilson (1985).

Lonicera flava Sims

YELLOW HONEYSUCKLE **CAPRIFOLIACEAE**

Status: Endangered in Illinois.
Habit: Twining woody vine.
Range: Southeastern United States.



Lonicera flava reaches its northern range limit on forested sandstone bluffs in the Shawnee Hills and Ozark Natural Divisions in southern Illinois. It is presently known from two sites both in the Shawnee National Forest, one site in a state nature preserve. Though not observed since 1989, it probably still persists at two Jackson County sites.
Reference: Mohlenbrock (1968b).

Lycopodium clavatum L.

RUNNING PINE **LYCOPODIACEAE**

Status: Endangered in Illinois.
Habit: Perennial evergreen clubmoss from a creeping stem, erect stems 7-25 cm tall.
Range: Circumboreal, south into northern United States.

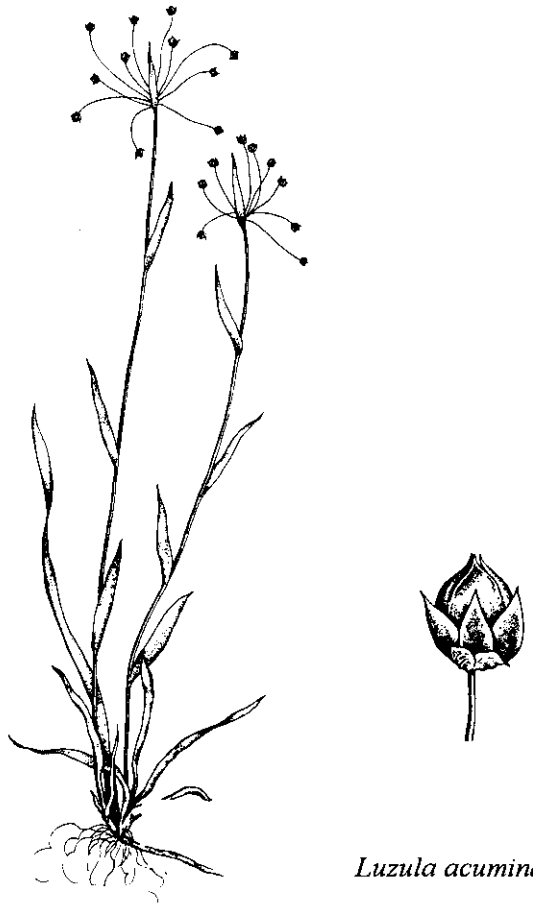
Lycopodium clavatum was first discovered in Illinois in the 1970s but now is known from four stations in four counties. Populations of this species have been found on a north-facing slope, talus and ledges of St. Peter's Sandstone, and in seeps. This species has been found recently in two state parks, a state nature preserve, and a county forest preserve.
Note: Variety *megastachyon* Fern. & Bissell appears restricted to a mesic sand prairie in Will County while variety *clavatum* is more widespread.
References: Tryon *et al.* (1940), Peck (1982), Mohlenbrock (1983), Wagner and Beitel (1993).

Luzula acuminata Raf.

HAIRY WOODRUSH **JUNCACEAE**

Status: Endangered in Illinois.
Synonym: *Luzula saltuensis* Fern.
Habit: Perennial cespitose herb, stems 10-40 cm tall.
Range: Central and eastern Canada, north-central and eastern United States.

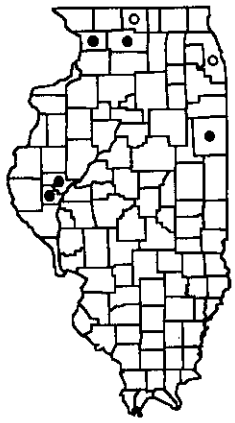
In Illinois, *Luzula acuminata* occurs on forested St. Peter's Sandstone outcrops primarily in the Rock River Hill County Natural Division. This species has recently been observed at two state parks in LaSalle County, a state nature preserve in Ogle County, and on private land in Jo Daviess County.
References: Jones (1944), Mohlenbrock (1970b).



Luzula acuminata

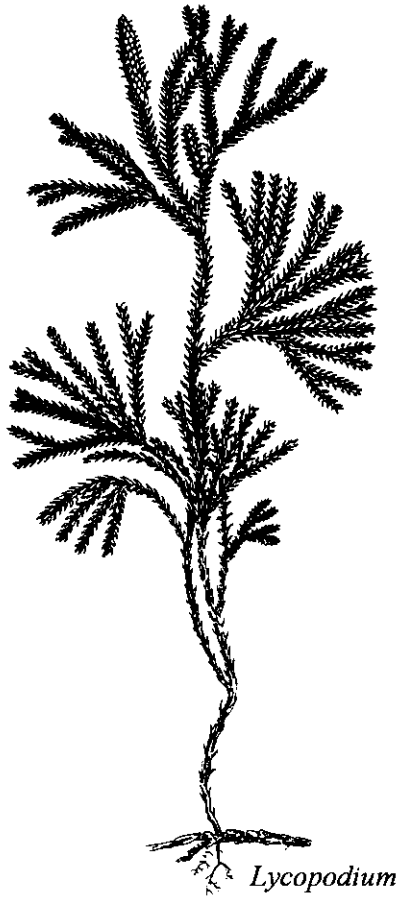
Lycopodium dendroideum Michx.

GROUND PINE **LYCOPODIACEAE**



Status: Endangered in Illinois.
Synonym: *Lycopodium obscurum* L. var. *dendroideum* (Michx.) DC. Eaton.
Habit: Perennial evergreen clubmoss from a creeping stem, erect stems 10-30 cm tall.
Range: Boreal Canada and Alaska, south into northern United States, and the Appalachians.

Lycopodium dendroideum has been found in mesic sand forest, sand prairie, and forested ravines in five Illinois counties in the northern half of the state. The population in Cook County was destroyed by urban growth during the nineteenth century. Two populations are known from a state nature preserve in Ogle County. A population in Iroquois County is in a state conservation area, while three populations are on private land.
References: Tryon *et al.* (1940), Mohlenbrock (1967b, 1983), Peck (1982), Schwegman (1982a), Wagner and Beitel (1993).



Lycopodium dendroideum

Lycopodium inundatum L.

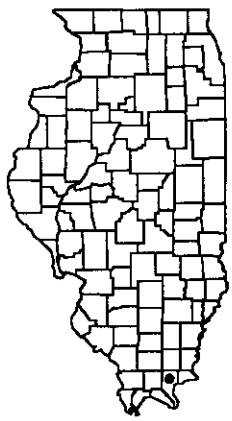
BOG CLUBMOSS **LYCOPODIACEAE**

Status: Endangered in Illinois.
Habit: Perennial evergreen clubmoss from a branching creeping stem, erect stems to 10 cm tall.
Range: Northeastern United States and adjacent Canada.

A colonizing species of wet sand prairie and disturbed sites, *Lycopodium inundatum* has been reported from four localities in three Illinois counties. One station in Cook County was destroyed in 1890; another population in that county and one in Ogle County disappeared in the late 1960s. The Ogle County population may have been destroyed by pond construction and grazing. The species was rediscovered in the state in Lee County in a privately owned sand seep in 1987, and still persists at that site.
Note: The scientific name of this species is presently considered to be *Lycopodiella inundata* (L.) Holub.
References: Tryon *et al.* (1940), Steyermark and Swink (1952), Mohlenbrock (1967b), Peck (1982), Bowles *et al.* (1991), Wagner and Beitel (1993).

Lysimachia fraseri Duby

FRASER'S LOOSESTRIFE **PRIMULACEAE**



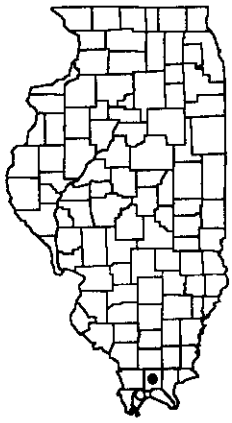
Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems to 1.5 m tall.
Range: Southeastern United States.

A plant of stream banks and associated wetlands, *Lysimachia fraseri* reaches its northwestern range limit in extreme southern Illinois. It is known from a single locality in the state, where it occurs along a stream in a forested sandstone canyon in the Shawnee National Forest.
Reference: Ray (1956).

Lysimachia radicans Hook.

CREEPING LOOSESTRIFE **PRIMULACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, the reclining stems to 1 m long.
Range: Southeastern United States.



Lysimachia radicans occurs in swamps and wet floodplain forests and reaches its northern range limit in southern Illinois. Presently one population is known in the state from a state nature preserve in Johnson County. There are unverified reports of this species from St. Clair County.
References: Ray (1956), Mohlenbrock (1978).

Lysimachia radicans

Malus angustifolia (Ait.) Michx.

NARROW-LEAVED CRABAPPLE **ROSACEAE**

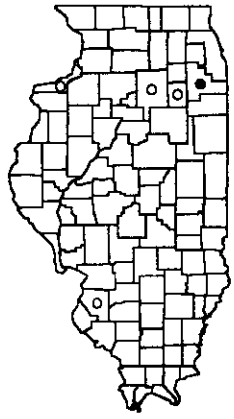
Status: Endangered in Illinois.
Synonym: *Pyrus angustifolia* Ait.
Habit: Tall shrub or small tree, to 10 m tall.
Range: Southeastern United States.

A species of floodplain forests and flatwoods, *Malus angustifolia* reaches its northern range limit in southern Illinois. It has not been found recently in the state, but probably persists at two previously found sites in the Shawnee National Forest in Jackson and Pope counties.
Reference: Palmer (1921).

Malvastrum hispidum (Pursh) Hoehr.

GLOBE MALLOW, FALSE MALLOW **MALVACEAE**

Status: Endangered in Illinois.
Synonym: *Sphaeralcea angusta* (Gray) Fern., *Sidopsis hispida* (Pursh) Rydb.
Habit: Annual herb, stems 20 to 50 cm tall.
Range: Central United States.

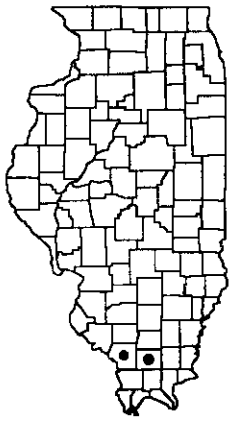


Malvastrum hispidum occurs in dry, usually rocky prairies and barrens and reaches its northeastern range limit in Illinois. Presently it is known from a few populations in Will County, including Midewin National Tallgrass Prairie. In St. Clair County this species was collected from two sites in 1947 and 1950. It is not known whether these collections represent indigenous or adventive populations, or if they remain extant.
References: Boltwood (1881), Bowles *et al.* (1991).

Matelea decipiens (Alex.) Woodson

CLIMBING MILKWEED **ASCLEPIADACEAE**

Status: Endangered in Illinois.
Synonym: *Gonolobus decipiens* (Alex.) Perry.
Habit: Perennial twining herb.
Range: Southeastern United States.



Matelea decipiens reaches its northwestern range limit in southern Illinois, where it was first discovered in 1972 in an unprotected floodplain forest. More recently it was found in a City park in Jackson County, and a national wildlife refuge in Williamson County.
Reference: Mohlenbrock and Evans (1974).

Matelea obliqua (Jacq.) Woodson

CLIMBING MILKWEED **ASCLEPIADACEAE**

Status: Threatened in Illinois.
Synonym: *Gonolobus obliquus* (Jacq.) Schult.
Habit: Perennial twining herb.
Range: Southeastern United States.

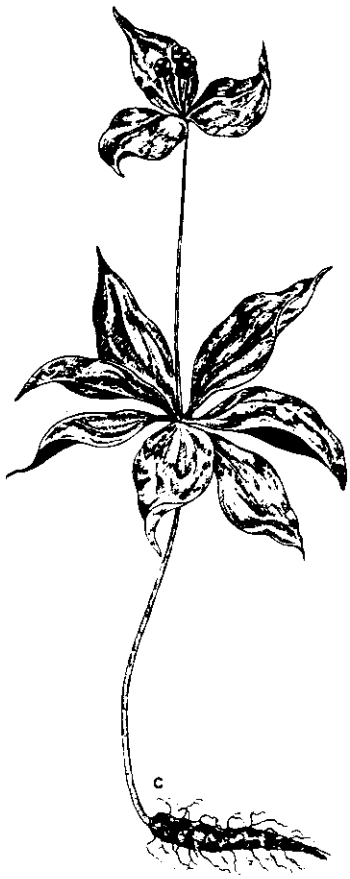
Matelea obliqua occurs in rocky forests and limestone glades and reaches its northwestern range limit in extreme southern Illinois. It is presently known from several collections, all in the Shawnee National Forest. One population occurs in a state nature preserve and two in research natural areas.
Reference: Mohlenbrock and Evans (1974).

Medeola virginiana L.

INDIAN CUCUMBER ROOT **LILIACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems 30-80 cm tall.
Range: Eastern United States and adjacent Canada.

Medeola virginiana occurs in mesic sand forests and is extremely rare in Illinois. Most collections of this species were from the Chicago area prior to 1900, and almost all have been destroyed by urban growth. A population persists in Cook County in a state nature preserve and possibly on private land. This species was also collected in 1939 in a La Salle County state park and may still occur in remaining suitable habitat.
References: Mohlenbrock (1970c), Myers and Henry (1976), Bowles *et al.* (1991).



Medeola virginiana

Melanthera nivea (L.) Small

WHITE MELANTHERA **ASTERACEAE**

Status: Endangered in Illinois.
Synonym: *Melanthera hastata* Michx.
Habit: Perennial herb, stems 1-2 m tall.
Range: Southeastern United States.

Melanthera nivea reaches its northern range limit in extreme southern Illinois, where it occurs on floodplains and in mesic ravine forests near the Ohio River. One population is presently known in a state nature preserve in Pulaski County, another on private land in Massac County.
References: Mohlenbrock *et al.* (1961), Schwegman (1968a), Schwegman and Mohlenbrock (1968).

Melica mutica Walt.

TWO-FLOWERED MELIC GRASS **POACEAE**

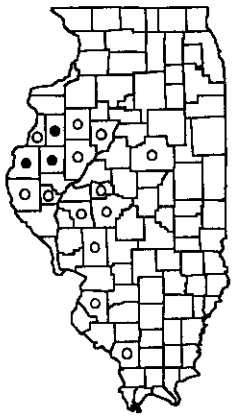
Status: Endangered in Illinois.
Habit: Perennial cespitose grass, culms 50-100 cm tall.
Range: Southeastern United States.

Melica mutica was formerly considered to be fairly widespread in Illinois, but recent analysis of herbaria specimens have shown that most of these specimens where misidentified. This species is presently known to occur at only two locations, a state park and a state nature preserve, both in Massac County.
References: Mohlenbrock (1972), Gleason and Cronquist (1991).

Melanthium virginicum L.

BUNCHFLOWER **LILIACEAE**

Status: Threatened in Illinois.
Habit: Perennial herb, stems to 1.5 m tall.
Range: Eastern United States.

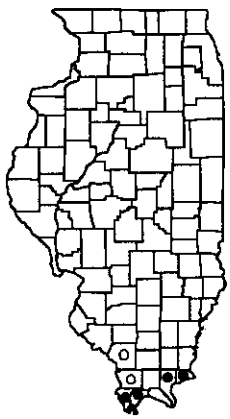


Melanthium virginicum was originally common in western Illinois where it occurred in wet prairies. Historically it was known from sixteen counties. Presently thirteen populations are known from three counties, two in a state nature preserve. This dramatic decline is the result of habitat loss and degradation. Several Illinois populations have been destroyed by plowing of prairie remnants and construction projects.
References: Mohlenbrock (1970c), Gleason and Cronquist (1991).

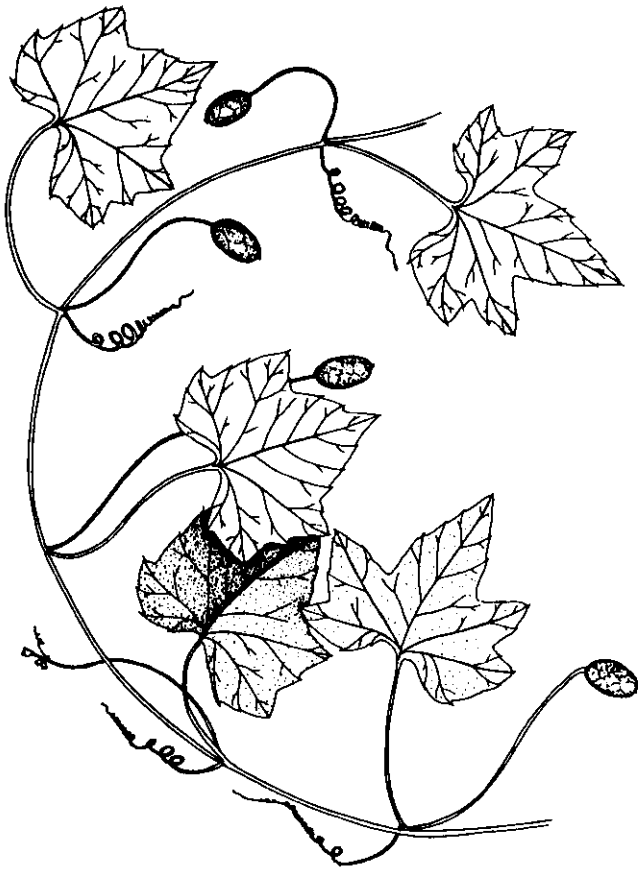
Melothria pendula L.

SQUIRTING CUCUMBER **CUCURBITACEAE**

Status: Threatened in Illinois.
Habit: Climbing herbaceous vine with tendrils.
Range: Southern United States and adjacent Mexico.



A species of damp thickets and gravelly stream beds, *Melothria pendula* reaches its northern range limit in southern Illinois. It has been found at only nine Illinois localities and is presently known from five sites; three are in the Shawnee National Forest, one in a state conservation area.
References: Mohlenbrock (1968b, 1978).

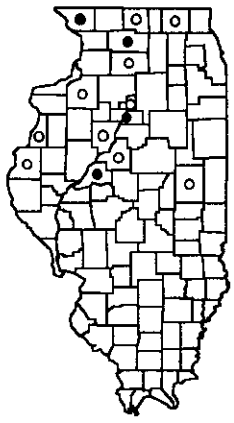


Melothria pendula

Microseris cuspidata (Pursh) Schultz-Dip

PRAIRIE DANDELION **ASTERACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, scapes 5-35 cm tall.
Range: North-central United States.



Microseris cuspidata reaches its eastern range limit in dry-mesic prairies in Illinois. It was originally scattered locally throughout the northern half of the state, but has been largely extirpated by overgrazing, gravel mining, and urban growth. Presently only five Illinois populations are known, four in state nature preserves.
Note: The scientific name of this species is presently considered to be *Nothocalais cuspidata* (Pursh) Greene.
References: Evers (1955), Fell and Fell (1956), Johnson and Iltis (1963).

Milium effusum L.

MILLET GRASS **POACEAE**

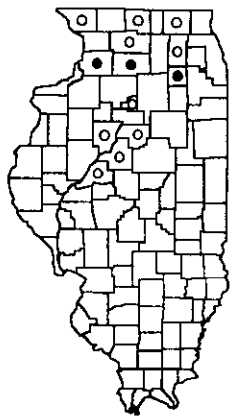
Status: Endangered in Illinois.
Habit: Perennial cespitose grass, culms 0.6-1.5 m tall.
Range: Eastern Canada and northeastern United States.

Milium effusum, a species of openings in northern hardwood forests, occurs at the southwestern periphery of its range in Illinois. It is known from nineteenth century Kane and Tazewell county records and was first reported from Cook County in 1940. This grass was presumed extirpated from Illinois but was rediscovered at the original station in a Cook County forest preserve in 1981. The Cook County population has greatly declined since 1940, with about thirty individuals reported in 1985. It may now be extirpated from the state.
References: Evert (1988), Mohlenbrock (1972).

Mimulus glabratus HBK.

YELLOW MONKEY FLOWER
SCROPHULARIACEAE

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems prostrate.
Range: Mexico, central United States, and adjacent Canada.



Mimulus glabratus is restricted in Illinois to a few northern and central counties, where it occurs in calcareous seeps. It has become rare in Illinois due to habitat destruction and is presently known from three sites, all in private ownership, one a private preserve.
Note: In Illinois this taxon is represented by variety *fremontii* (Benth.) Grant.
References: Gates (1911), Pennell (1935), Tai and Vickery (1972).

Mirabilis hirsuta (Pursh) MacM.

HAIRY UMBRELLA-WORT **NYCTAGINACEAE**

Status: Endangered in Illinois.
Synonym: *Oxybaphus hirsutus* (Pursh) Sweet.
Habit: Perennial herb, stems to 1 m tall.
Range: West-central United States and adjacent Canada.

Mirabilis hirsuta formerly was considered to occur in Illinois only as an adventive species, east of its normal range. It is native in upland prairies of the driftless area in Wisconsin, however, and was discovered in hill and sand prairie habitats in the Wisconsin Driftless Natural Division of Illinois in the 1980s. The species occurs on federal property in Jo Daviess County. It has been reported as adventive in Cook, DuPage and St. Clair counties.
References: Hartley (1966), Schwegman (1991).

Opuntia fragilis (Nutt.) Haw.

FRAGILE PRICKLY PEAR **CACTACEAE**

Status: Endangered in Illinois.
Habit: Prostrate mat-forming cactus.
Range: West-central United States and adjacent Canada.

Opuntia fragilis is restricted to very dry habitats. Stations in the eastern part of its range, along Lake Superior and sand terraces of the Mississippi River in Illinois and Wisconsin, are disjunct from the principal range to the west. This cactus was originally known in Illinois from Jo Daviess County, where it had not been relocated since its discovery in 1910. In 1986 it was rediscovered in a dry sand prairie at the original collection locality on protected federal property.
References: Gleason (1910), Hartley (1966), Wunderlin (1967a), Sheviak (1979), Schwegman (1991), McClain and Koelling (1992).

Oenothera perennis L.

SMALL SUNDROPS **ONAGRACEAE**

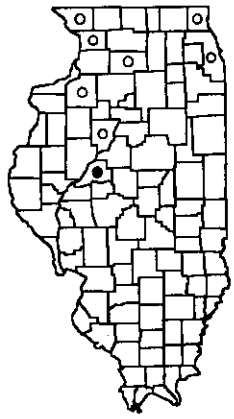
Status: Threatened in Illinois.
Habit: Perennial herb, stems 20-60 cm tall.
Range: Eastern United States and adjacent Canada.

Oenothera perennis occurs in sand and gravel prairies and on dry rocky prairie slopes and knobs in northern Illinois. Eleven populations are presently known from Cook, Lake, and Winnebago counties. Two populations occur in a state nature preserve, and five occur in county forest preserves. This species has been successfully introduced into several prairie restorations in Cook County.
References: Straley (1977), Taft and Solecki (1990).

Orobanche fasciculata Nutt.

CLUSTERED BROOMRAPE **OROBANCHACEAE**

Status: Endangered in Illinois.
Habit: Root-parasitic herb, stems 5-15 cm tall.
Range: Western boreal Canada, south into western and central United States and northern Mexico.

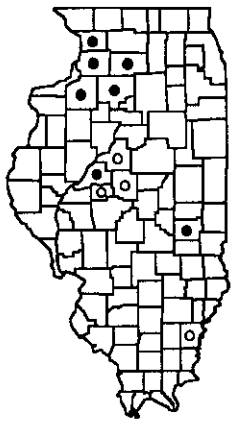


A parasite on the roots of various members of the Asteraceae, *Orobanche fasciculata* occurs in dry sand prairies in the northern half of Illinois. Presently it is known from only one locality in the state, a state nature preserve in Mason County.
References: Gleason (1910), Guire and Voss (1963).

Orobanche ludoviciana Nutt.

BROOMRAPE **OROBANCHACEAE**

Status: Threatened in Illinois.
Habit: Root-parasitic herb, stems 10-30 cm tall.
Range: Central Canada and central United States.



Orobanche ludoviciana reaches its eastern range limit in Illinois, where it occupies blowouts in dry sand prairies and on alluvial floodplains along rivers. This species is parasitic on the roots of various members of the Asteraceae. Presently ten populations are known from seven counties. Six stations are protected, two of which are in state nature preserves.
References: Gleason and Cronquist (1991).

Oxalis illinoensis Schwegman

ILLINOIS WOOD SORREL **OXALIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb from a fusiform tuber, stems to 20 cm tall.
Range: Interior lowland plateau province of southeastern United States.

Oxalis illinoensis was described as a new species in 1982. Formerly, its populations were treated as state endangered under the name *Oxalis grandis*, which now is known not to occur in Illinois. *Oxalis illinoensis* occupies mesic forests over limestone or other calcareous substrates in the Shawnee Hills Natural Division of Illinois. Populations are known from two Hardin County stations, both in the Shawnee National Forest. Though not found recently, some populations probably persist in Pope County.
Reference: Schwegman (1982b).

Panicum boreale Nash

NORTHERN PANIC GRASS **POACEAE**

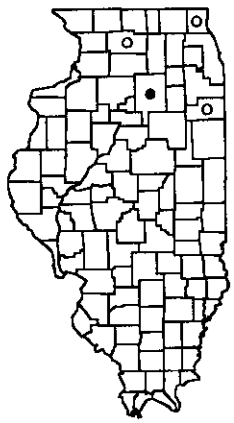
Status: Endangered in Illinois.
Synonym: *Dichanthelium boreale* (Nash) Freckm.
Habit: Perennial cespitose grass, culms to 50 cm tall.
Range: Eastern Canada and adjacent northeastern United States.

Panicum boreale occurs in sand prairie and savanna habitats and reaches its southern range limit in northeastern Illinois and adjacent Indiana. A 1944 Lake County collection site is apparently within a large state park and nature preserve, and the population probably persists. It has recently been observed in two state nature preserves in Cook County, and a state forest in Ogle County.
References: Shinners (1944), Bowles *et al.* (1991), Mohlenbrock (1973).

Panicum columbianum Scribn.

HEMLOCK PANIC GRASS **POACEAE**

Status: Endangered in Illinois.
Synonym: *Dichanthelium columbianum* (Scribn.) Freckm.
Habit: Perennial cespitose grass, culms to 60 cm tall.
Range: Eastern United States and adjacent Canada.



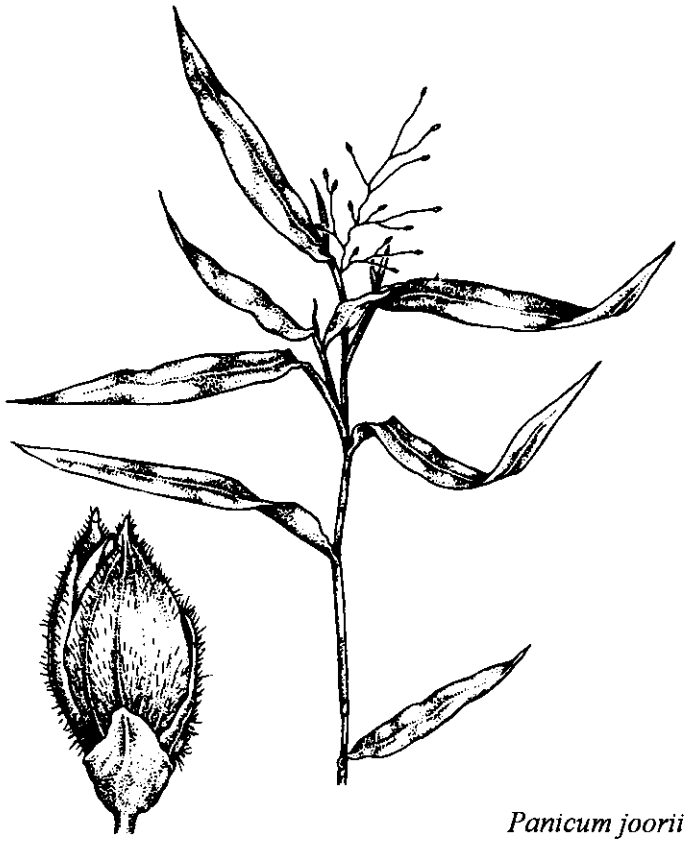
In Illinois *Panicum columbianum* occurs on sandstone outcrops and in sand deposits in the northern part of the state. Most of the Illinois collections of this species were made near the turn of the last century. The Kankakee County collection was made in 1945, and the species may persist at this site. This grass was rediscovered at the LaSalle County station in 1987, where it occurs on dry sandstone ledges in a state park. It still persists at that site.
References: Mohlenbrock (1973), Bowles *et al.* (1991).

Panicum joorii Vasey

PANIC GRASS **POACEAE**

Status: Endangered in Illinois.
Synonym: *Dichanthelium joori* (Vasey) Mohlenbr.
Habit: Perennial cespitose grass, culms decumbent, to 50 cm long.
Range: Southeastern United States, disjunct northwest to southern Illinois.

A species of low swamps, *Panicum joorii* is disjunct in extreme southern Illinois more than 300 miles north of its normal range. It is known presently from one locality, a swamp in an ecological area in Johnson County. It probably still persists in a state nature preserve in Johnson County and a swamp in Union County where it was found in 1985.
References: Mohlenbrock (1973, 1985b).



Panicum joorii

Panicum ravenelii Scribn. & Merr.

RAVENEL'S PANIC GRASS **POACEAE**

Status: Endangered in Illinois.
Synonym: *Dichanthelium ravenelii* (Scribn. & Merr.) Gould.
Habit: Perennial cespitose grass, culms 20-75 cm tall.
Range: Southeastern United States.

A species of dry open forests on rocky ridges, *Panicum ravenelii* occurs in extreme southern Illinois along the northwestern margin of its range. Two Illinois populations are known; both were recorded from the Shawnee National Forest in Hardin County.
References: Schwegman (1970), Mohlenbrock (1973), Bowles *et al.* (1991).

Panicum yadkinense Ashe

PANIC GRASS **POACEAE**

Status: Endangered in Illinois.
Synonym: *Dichanthelium yadkinense* (Ashe) Mohlenbr.
Habit: Perennial cespitose grass, culms to 1 m tall.
Range: Southeastern United States.

A species of mesic forests, wet soil and gravelly stream beds, *Panicum yadkinense* extends north to extreme southern Illinois. It has been recorded in the state only four times, with two recent collections in the Shawnee National Forest in Pope County, one in an ecological area.
Reference: Mohlenbrock (1973).

Paspalum dissectum (L.) L.

BEAD GRASS **POACEAE**

Status: Endangered in Illinois.
Habit: Perennial subaquatic grass, culms creeping, 20-60 cm long.
Range: Southeastern United States.

A species of disturbed sites and shallow water, *Paspalum dissectum* occurs in Illinois along the northern margin of its range. It was originally known from three early collections in the state, none more recent than 1893. An adventive population was discovered in Williamson County in 1987; however, this could be derived from a local native population.
References: Verts and Mohlenbrock (1966), Mohlenbrock (1972), Bowles *et al.* (1991).

Penstemon brevisepalus Pennell

SHORT-SEPALED BEARD TONGUE
SCROPHULARIACEAE

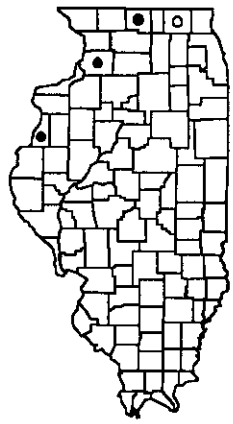
Status: Endangered in Illinois.
Habit: Perennial herb, stems 40-80 cm tall.
Range: East-central United States.

Penstemon brevisepalus occurs in areas of sandstone outcrops in dry-mesic upland forest in the Shawnee Hills Natural Division of Illinois. This species was discovered new to Illinois in 1981 when two stations were found. One population occurs on U.S. Forest Service property in Pope County and the second is on private land in Union County. It possibly persists at both sites.
Reference: Mohlenbrock and Stritch (1985).

Penstemon grandiflorus Nutt.

LARGE-FLOWERED BEARD TONGUE
SCROPHULARIACEAE

Status: Endangered in Illinois.
Habit: Perennial herb, stems to 1 m tall.
Range: Central United States.



Penstemon grandiflorus reaches its eastern range limit in northwestern Illinois. It is known from dry sand prairies along the Mississippi River and a gravel prairie in Winnebago County. This species is extant in three stations, state nature preserves in Whiteside and Winnebago counties, and a state forest in Henderson County. All populations of this extremely showy plant are threatened by collectors. The McHenry County population is adventive.
References: Gleason (1910), Pennell (1935), Mohlenbrock and Stritch (1985) Davis *et al.* (1991a, 1991b), Phillippe *et al.* (2000).

Phacelia gilioides Brand

OZARK PHACELIA **HYDROPHYLLACEAE**

Status: Endangered in Illinois.
Habit: Annual herb, stems 10-40 cm long.
Range: Ozark region, northeast to Illinois.

A species of calcareous glades, barrens, and dry prairies, *Phacelia gilioides* reaches its northeastern range limit in Illinois, occurring at its only known station east of the Mississippi River. This station was discovered in 1968 on private land in Calhoun County and was recently relocated..
Reference: Bowles *et al.* (1991).

Phaeophyscia leana (Tuck.) Essl.

LEA'S BOG LICHEN **PHYSCIACEAE**

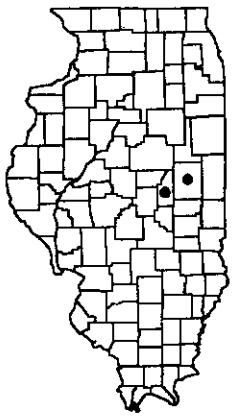
Status: Endangered in Illinois.
Habit: Foliose lichen, thallus with a smooth surface and forked branching.
Range: Southern Illinois, western Kentucky and west-central Tennessee.

Lea's bog lichen has been found in five counties in Illinois, all in the floodplains of the Ohio and Wabash rivers. Here it occurs only on that part of the bark of trees that is seasonally flooded. One population occurs in a state park, another in the Shawnee National Forest, the rest on private land. This species was first discovered in Cincinnati, Ohio in 1839 and was considered to be extinct until rediscovered in Hardin County, Illinois. Although exceedingly rare, it is most common in Gallatin County near oxbow lakes.
References: Taylor (1967), Esslinger (1978), Skorepa (1984), Wilhelm and Masters (1994), Wilhelm *et al.* (2000).

Phlox pilosa L. subsp. *sangamonensis* Levin & Smith

SANGAMON PHLOX **POLEMONIACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, stems 20-75 cm tall.
Range: Sangamon River valley of central Illinois.

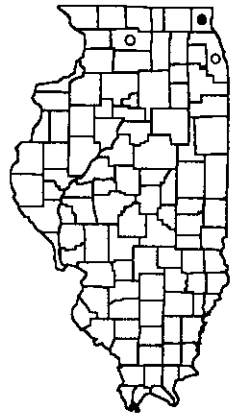


Phlox pilosa subsp. *sangamonensis* is endemic to central Illinois. It has been collected many times from forest openings, blufftops, and prairies along a few miles of the Sangamon River, primarily in Champaign County. This area is undergoing rapid urban and recreational development, but eleven populations are still known to be extant. A population was also recently discovered in Piatt County.
Note: Both subspecies *pilosa* and subspecies *fulgida* (Wherry) Wherry also occur in Illinois.
References: Levin and Smith (1965), Mohlenbrock (1990), Bowles *et al.* (1991), Solecki (2000).

Pinus banksiana Lamb.

JACK PINE **PINACEAE**

Status: Endangered in Illinois.
Habit: Evergreen tree, to 20 m tall.
Range: Boreal Canada, south into the Great Lakes region.



In Illinois, *Pinus banksiana* was originally found only on sand ridges bordering Lake Michigan and on inland sandstone outcrops. Presently its populations have been reduced by land use and lakeshore erosion to a few trees along the Lake Michigan shore. The Lake County station is now part of a state park, but careful management will be required to prevent damage from beach use and erosion and to provide an opportunity for the population to reproduce. This species is commonly planted, and reports from counties other than those shown on the accompanying map probably represent planted trees or escapes from cultivation.
References: Hill (1890), Abrams and Dickman (1982), Kral (1993).

Pinus echinata Mill.

SHORTLEAF PINE, YELLOW PINE **PINACEAE**

Status: Endangered in Illinois.
Habit: Evergreen tree, to 35 m tall.
Range: Eastern United States.

Pinus echinata is restricted to dry sandstone and chert slopes in extreme southern Illinois. Presently two native populations are known in the state, one occurring in a state nature preserve and a second extensive population occurring in the Shawnee National Forest. The decline of this species may be a response to increased seedling competition from hardwoods due to fire suppression and adverse climatic factors, since it occurs at the northwestern margin of its range in Illinois. This species is commonly planted in Illinois.
References: Gleason (1903, 1904), Miller (1923), Telford (1926), Mohlenbrock and Voigt (1965), Ozment (1967), Estes (1970), Weber (1970), Evers and Page (1977), Heineke (1978), Kral (1993), Miller *et al.* (2000).

Pinus resinosa Ait.

RED PINE **PINACEAE**

Status: Endangered in Illinois.
Habit: Evergreen tree, to 40 m tall.
Range: Northeastern United States and adjacent Canada.

A species of northern dry-mesic sand forests, *Pinus resinosa* reaches its southwestern range limit in northern Illinois. A single native population of four or five trees is known to occur on an unprotected sandstone river bluff in La Salle County. As recently as 1955 this species was collected from bluffs near Lake Michigan, where it may persist. This species is commonly planted in Illinois.
References: Brenneman (1956), Moran (1978), Kral (1993).

Planera aquatica (Walt.) J. F. Gmel.

WATER ELM **ULMACEAE**

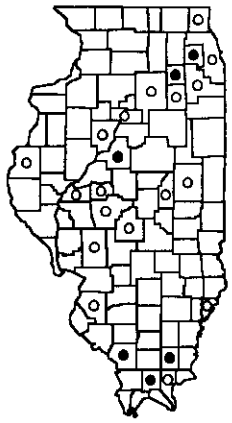
Status: Threatened in Illinois.
Habit: Tall shrub or small tree, to 10 m tall.
Range: Southeastern Coastal Plain, north in the Mississippi Embayment to southern Illinois.

Planera aquatica reaches its northern range limit in swamps and floodplain forests in the southern tip of Illinois. It is presently known from six stations in the state, primarily along a single drainage system. Two populations occur in state nature preserves, one in a national wildlife refuge, and another in a state natural area. The remaining populations are in private ownership and are vulnerable to regional manipulation of water levels and to land clearing.
References: Evers and Page (1977), Mohlenbrock (1982), Barker (1997).

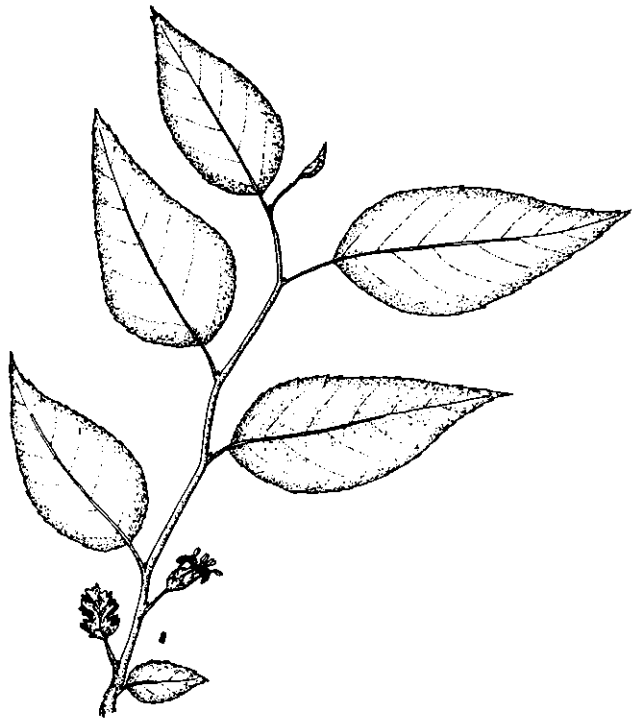
Plantago cordata Lam.

HEART-LEAVED PLANTAIN **PLANTAGINACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, scape 10-30 cm tall.
Range: Eastern United States and Ontario, Canada.



Plantago cordata usually occurs in sand or gravel bars of shallow, clear-water streams under a forest canopy. Presently, nine stations are known in Illinois, including four in the Shawnee National Forest, one in a county forest preserve, another in a state park, and two in state nature preserves. This species has declined throughout its range due to alteration of stream habitat by erosion and siltation caused by poor watershed management.
References: Cowles (1901), Clute (1942), Mohlenbrock *et al.* (1961), Tessene (1969), Moran (1978), Ketzner (1988), Bowles and Apfelbaum (1989), Stromberg and Stearns (1989), Schwegman (1990).



Planera aquatica

Platanthera ciliaris (L.) Lindl.

ORANGE FRINGED ORCHID **ORCHIDACEAE**

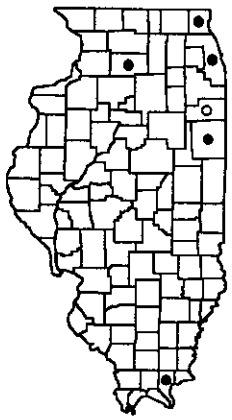
Status: Endangered in Illinois.
Synonym: *Habenaria ciliaris* (L.) R. Br.
Habit: Perennial tuberous orchid, stems to 90 cm tall.
Range: Eastern United States and southern Ontario, Canada.

Platanthera ciliaris is restricted in Illinois to mesic sand prairies and adjacent thickets in the southern Lake Michigan area. Presently it is known from a single population in the state, where it occurs in a Cook County forest preserve and state nature preserve. At this site, population size has fluctuated in response to prairie management and rainfall. These attractive plants are threatened by collectors, and their habitat is affected by observers. The Union County station is a historic record cited by Sheviak (1974a).
Reference: Mohlenbrock (1970c), Sheviak (1974a).

Platanthera clavellata (Michx.) Luer

WOOD ORCHID **ORCHIDACEAE**

Status: Endangered in Illinois.
Synonym: *Habenaria clavellata* (Michx.) Spreng.
Habit: Perennial tuberous orchid, stems to 45 cm tall.
Range: Eastern United States and adjacent Canada.



Platanthera clavellata occurs in mesic sand prairies and thickets in northern Illinois and in acidic forested seeps in southern Illinois. Six populations of this species are presently known in the state, two in state nature preserves, one in the Shawnee National Forest, and another in a state conservation area. There are unverified reports of this species from Cass and Will counties.
References: Gates (1912), Schwegman and Mohlenbrock (1966), Mohlenbrock (1970c), Sheviak (1974a).

Platanthera flava (L.) Lindl. var. *flava*

TUBERCLED ORCHID **ORCHIDACEAE**

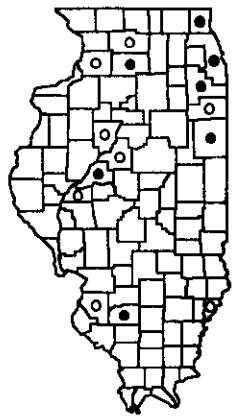
Status: Endangered in Illinois.
Synonym: *Habenaria flava* (L.) R. Br. var. *flava*.
Habit: Perennial tuberous orchid, stems to 60 cm tall.
Range: Southeastern United States.

A species of floodplain forests and swamps, *Platanthera flava* var. *flava* reaches its northwestern range limit in southern Illinois. It is rare in the state and has been collected only six times. One population is currently known from an ecological area in the Shawnee National Forest.
References: Jones (1952), Schwegman and Mohlenbrock (1968), Mohlenbrock (1970c), Sheviak (1974a).

Platanthera flava (L.) Lindl. var. *herbiola* (R. Br.) Luer

TUBERCLED ORCHID **ORCHIDACEAE**

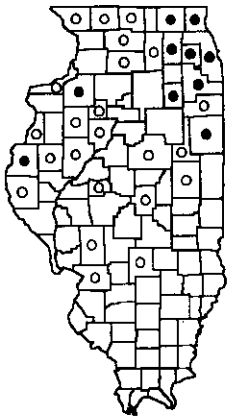
Status: Endangered in Illinois.
Synonym: *Habenaria flava* (L.) R. Br. var. *herbiola* (R. Br.) Ames & Correll.
Habit: Perennial tuberous orchid, stems to 60 cm tall.
Range: Northeastern United States and adjacent Canada.



Platanthera flava var. *herbiola* occurs primarily in wet-mesic sand prairies and associated thickets in Illinois. It is most prevalent in the northeastern part of the state but occurs elsewhere where conditions permit. Presently, thirteen populations from seven Illinois counties are known, seven in state nature preserves.
References: Mohlenbrock (1970c), Sheviak (1974a, 1974b).

Platanthera leucophaea (Nutt.) Lindl.

EASTERN PRAIRIE FRINGED ORCHID **ORCHIDACEAE**



Status: Endangered in Illinois, Federally Threatened.
Synonym: *Habenaria leucophaea* (Nutt.) Gray.
Habit: Perennial tuberous orchid, stems to 1 m tall.
Range: East-central and eastern United States, also Ontario, Canada.

Platanthera leucophaea

Formerly a characteristic plant of mesic to wet prairies throughout much of Illinois, *Platanthera leucophaea* has been nearly exterminated from all but northeastern Illinois. This species is now rare and local with thirty known Illinois populations. It is presently known in Illinois from several state nature preserves, county forest preserves, a state park, and other populations given various degrees of protection. Degradation of prairie habitat threatens most populations unless given active management.
References: Gates (1912), Pepoon (1916), Sheviak (1974a), Myers and Henry (1976), Bowles (1983), Sheviak and Bowles (1986), Bowles *et al.* (1992, 1999a), Bowles and Bell (1999b), Phillippe *et al.* (2000), Lynn (2001), Zettler *et al.* (2001).

Platanthera psycodes (L.) Lindl.

PURPLE-FRINGED ORCHID **ORCHIDACEAE**

Status: Endangered in Illinois.
Synonym: *Habenaria psycodes* (L.) Spreng.
Habit: Perennial tuberous orchid, stems to 75 cm tall.
Range: Boreal eastern Canada, south into northeastern United States and the Appalachians.

Platanthera psycodes occurs in flatwood openings, mesic sand prairies, and, rarely, in disturbed sites in the Lake Michigan region of Illinois. Presently it is known from five populations in the state, four within state nature preserves or adjacent county forest preserves. These populations fluctuate considerably in the number of flowering plants from year to year, possibly in relation to rainfall. In recent years, populations have been greatly reduced by deer overgrazing.
References: Gates (1912), Mohlenbrock (1970c), Sheviak (1974a).

Poa alsodes Gray

GROVE BLUEGRASS **POACEAE**

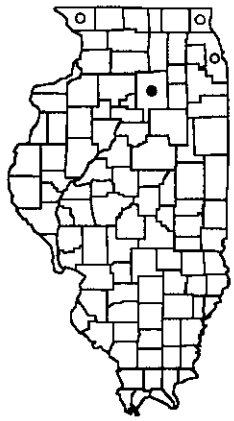
Status: Endangered in Illinois.
Habit: Perennial loosely tufted grass, culms to 80 cm tall.
Range: Eastern Canada, south into northeastern United States and the Appalachians.

A species of mesic forests, *Poa alsodes* occurs in Illinois on wooded bluffs, in ravines bordering Lake Michigan, and in rugged, wooded areas in the southern part of the state. It is presently known from a natural heritage landmark in Calhoun County and a state conservation area in Lake County. It probably still persists at some of the historic sites in the Shawnee National Forest.
Reference: Moran (1978).

Poa languida A.S. Hitchc.

WEAK BLUEGRASS **POACEAE**

Status: Endangered in Illinois.
Synonym: *Poa saltuensis* Fern. & Wieg.
Habit: Perennial cespitose grass, culms to 1 m tall.
Range: Northeastern United States and adjacent Canada.

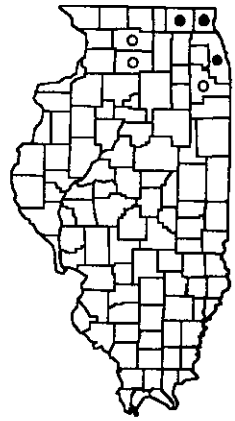


A species of mesic upland forests, *Poa languida* ranges into northern Illinois along the southern margin of its range. Presently a single population is known in the state, where it occurs in a state park in LaSalle County.
References: Gleason (1952), Gleason and Cronquist (1991).

Pogonia ophioglossoides (L.) Ker

SNAKE-MOUTH **ORCHIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous orchid, stems to 65 cm tall.
Range: Boreal eastern Canada, south into eastern United States.

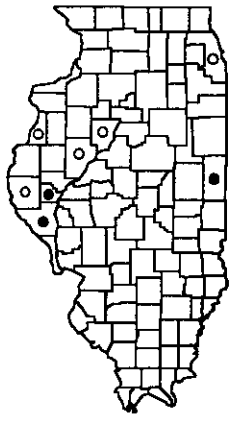


Pogonia ophioglossoides has been collected from wet sand prairies, sphagnum bogs, and graminoid fens in the northern part of the state. Most of the collections are old, and the species has been largely exterminated in the state by agriculture and urban development. Presently five populations are known in Illinois, four from state nature preserves.
References: Emerson (1921), Sheviak and Haney (1973), Sheviak (1974a), Moran (1981), Hess and Stoynoff (1989), Schwegman (1995).

Poa wolfii Scribn.

WOLF'S BLUEGRASS **POACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose grass, culms to 80 cm tall.
Range: Ohio to Minnesota, south to Missouri and Virginia.

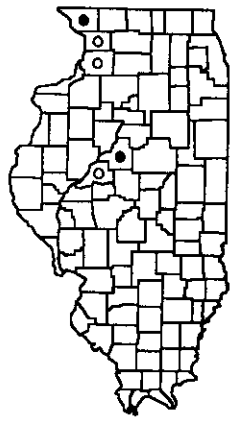


Poa wolfii is a rare and local woodland species in Illinois. Originally known from three Illinois collections made before 1900, it was discovered in a state park in Adams and Brown counties in 1985 and 1984, respectively. Presently this species is known from a state nature preserve in Vermilion County and from private land in both Brown and Pike counties.
References: Jones (1952), Bowles *et al.* (1991), Schwegman (1991).

Polanisia jamesii (Torr. & Gray) Iltis

JAMES' CLAMMYWEED **CAPPARIDACEAE**

Status: Endangered in Illinois.
Habit: Annual herb, stems 10-40 cm tall.
Range: Central United States.

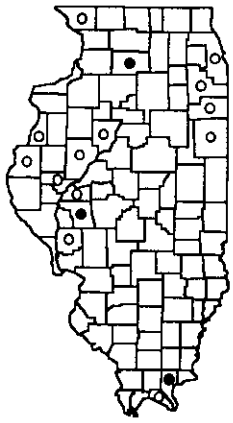


Polanisia jamesii is a colonizing species of open sand prairies. In Illinois it is limited to a few major sand deposits with extensive areas of dry open sand. It is known from the sand area along the Illinois River in Tazewell County, and occurs in a large federally owned sand prairie in Jo Daviess County.
References: Evers and Page (1977), Schwegman (1991).

Polygala incarnata L.

PINK MILKWORT **POLYGALACEAE**

Status: Endangered in Illinois.
Habit: Annual herb, stems 15-60 cm tall.
Range: Central and eastern United States; southern Ontario.



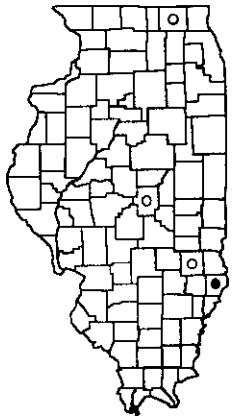
Polygala incarnata is known from sand prairies, hill prairies, and barrens in scattered localities throughout Illinois. It has become exceedingly rare due to overgrazing, developmental projects, fire suppression and mining activities. This species is presently known from four state populations, one in a state nature preserve, two in the Shawnee National Forest, and another on private land. Populations of this species are often small and may not always be apparent.
References: Evers (1955), Schwegman and Mohlenbrock (1966), Schwegman (1968a), Myers and Henry (1976), Taft (1991).

Polygonum arifolium L.

HALBRED-LEAVED TEARTHUMB

POLYGONACEAE

Status: Endangered in Illinois.
Habit: Perennial vine-like herb, stem decumbent to 2 m long.
Range: Eastern United States and adjacent Canada.



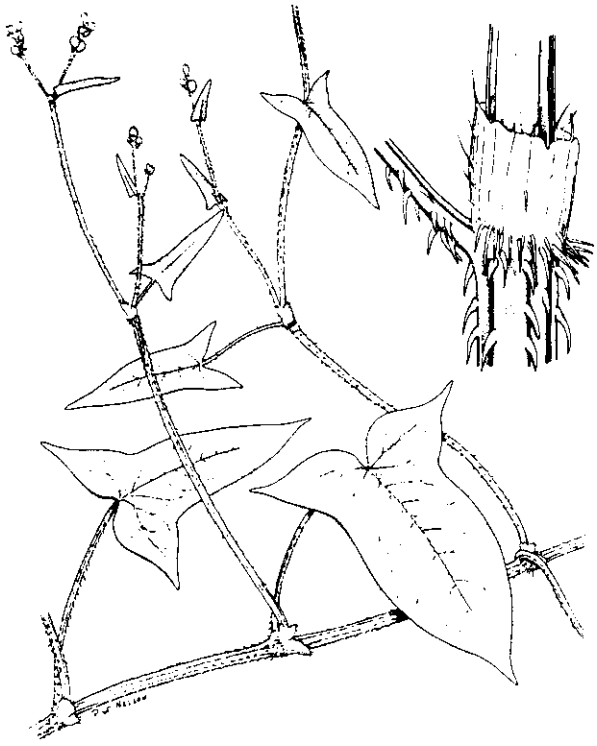
A species of wet sites, *Polygonum arifolium* is known in Illinois from only a few scattered, widely disjunct populations. Presently this species is known from two sites in Lawrence County, one site is privately owned, the other is in a forested seep springs in a state park.
Note: This taxon is represented in Illinois by variety *pubescens* (Keller) Fern.
References: Mohlenbrock and Thompson (1987), Schwegman (1991).

Polygonatum pubescens (Willd.) Pursh

DOWNY SOLOMON'S SEAL **LILIACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems 50-90 cm tall.
Range: Northeastern United States and adjacent Canada, south in the Appalachian Mountains.

Polygonatum pubescens reaches its southwestern range limit in rich mesic forests of northern Illinois. It has been collected primarily in the Chicago area, and many of these stations have been destroyed by urban growth. Presently it is known from Lake Michigan bluff ravines and mesic forests in Lake County, and a state nature preserve, and four forest preserves in Cook County.
References: Moran (1978), Evert (1988).

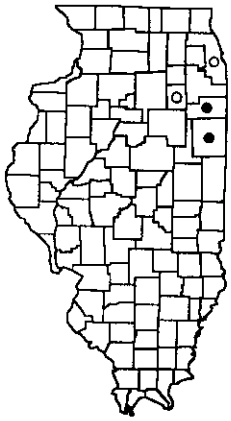


Polygonum arifolium

Polygonum careyi Olney

CAREY'S HEARTSEASE **POLYGONACEAE**

Status: Endangered in Illinois.
Habit: Annual herb, stems to 1.5 m tall.
Range: Northeastern United States and adjacent Canada.



Polygonum careyi is restricted in Illinois to sand prairies in the northeastern counties. Presently this species is known from three sites in Illinois, a state conservation area in Iroquois County, and from two locations on privately owned land in Kankakee County. It was found in a state nature preserve in Cook County in 1980 and may persist at that site. This annual species often appears after fires and may recur at other localities in northern Illinois.
Reference: Mohlenbrock and Thompson (1987).

Populus balsamifera L.

BALSAM POPLAR **SALICACEAE**

Status: Endangered in Illinois.
Habit: Tree, to 30 m tall.
Range: Boreal and subarctic Canada and Alaska, south into northernmost United States.

Populus balsamifera was formerly a characteristic tree of the Lake Michigan bluffs and adjacent sand dunes, occurring locally inland along streams, bog margins, and mesic prairies. However, agriculture and urban development have nearly extirpated this species from Illinois. Now populations are occasionally found colonizing disturbed sites, and four stations for this tree are known, two in state nature preserves.
Note: This species reportedly hybridizes with *Populus deltoides* Marsh., and at least one extant population shows some sign of hybridization. The balsam poplar extensively planted by the Cook County Forest Preserve District is the sterile hybrid *Populus* x *gileadensis* Rouleau.
References: Steyermark and Swink (1952), Moran (1978).

Potamogeton gramineus L.

GRASS-LEAVED PONDWEED

POTAMOGETONACEAE

Status: Threatened in Illinois.
Habit: Perennial aquatic pondweed with floating leaves.
Range: Circumboreal south into northern United States.

Potamogeton gramineus is extremely rare in Illinois. Until recently, nearly all Illinois collections of this species were made during the nineteenth century, and many sites have been destroyed by urban growth. Modern collections of this species are from at least ten stations in Lake, McHenry and Cook counties. One of these sites is within a state conservation area, another in a county forest preserve, while others are unprotected.
References: Ogden (1943), Fassett (1960), Curtis (1990), Bowles *et al.* (1991), Haynes and Hellquist (2000b).

Populus balsamifera

Potamogeton praelongus Wulfen

WHITE-STEMMED PONDWEED **POTAMOGETONACEAE**

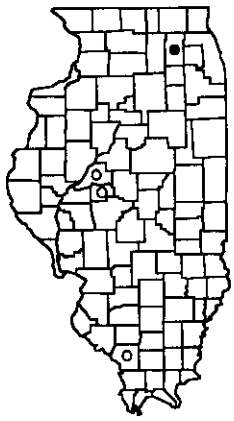
Status: Endangered in Illinois.
Habit: Perennial submersed aquatic pondweed.
Range: Circumboreal, south into northern United States.

An inhabitant of cold-water lakes, *Potamogeton praelongus* is restricted in Illinois to glacial lakes in the Northeastern Moraine Natural Division. This species has been found in seven Lake County ponds in the last ten years, one in a state nature preserve, another in a county forest preserve. It is possible that this species may persist in other glacial lakes in northeastern Illinois.
References: Ogden (1943), Fassett (1960), Curtis (1990), Bowles *et al.* (1991), Haynes and Hellquist (2000b).

Potamogeton pulcher Tuckerm.

SPOTTED PONDWEED **POTAMOGETONACEAE**

Status: Endangered in Illinois.
Habit: Perennial aquatic pondweed with floating leaves.
Range: Eastern United States and adjacent Canada.

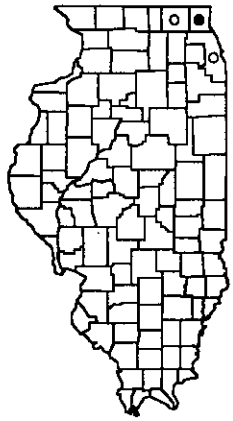


A species of shallow, usually acidic waters, *Potamogeton pulcher* has been collected only a few times in Illinois. A 1956 collection of this species from a pond in Jackson County may represent an extant population. In 1980, this species was discovered in a privately owned Kane County pond that remains intact and likely still contains this species.
References: Ogden (1943), Mohlenbrock (1959c), Fassett 1960), Bowles *et al.* (1991), Haynes and Hellquist (2000b).

Potamogeton robbinsii Oakes

FERN PONDWEED **POTAMOGETONACEAE**

Status: Endangered in Illinois.
Habit: Perennial submersed aquatic pondweed.
Range: Boreal Canada and adjacent northern United States.



In Illinois, *Potamogeton robbinsii* is restricted to glacial lakes in the Northeastern Morainal Natural Division. Most of the Illinois collections are old, but the species was recollected in Cook County in 1987 and discovered in McHenry County in the same year and may persist at these sites. It has been recently discovered at five Lake County locations, two in county forest preserves.
References: Ogden (1943), Fassett (1960), Curtis (1990), Bowles *et al.* (1991), Haynes and Hellquist (2000b).

Potamogeton strictifolius Benn.

STIFF PONDWEED **POTAMOGETONACEAE**

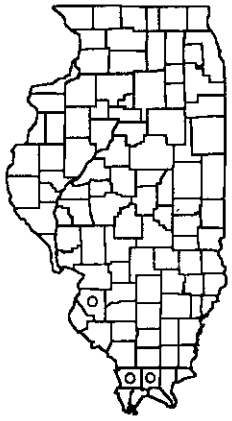
Status: Endangered in Illinois.
Habit: Perennial submersed aquatic pondweed.
Range: Boreal Canada, south into northern United States.

An aquatic species of calcareous lakes and ponds, *Potamogeton strictifolius* was originally described from a lake in Cook County, where it was collected in 1900. It has not been rediscovered at that station, but was collected in Lake County in 1966 and in 1967 from Will County. It is likely the species remains extant at those sites; however, they are not protected. This species was found in a privately-owned Lake County pond in 1991, and probably persists at that site.
References: Ogden (1943), Fassett (1960), Dolbeare and Ebinger (1974), Bowles *et al.* (1991), Haynes and Hellquist (2000b).

Potentilla millegrana Engelm.

CINQUEFOIL **ROSACEAE**

Status: Endangered in Illinois.
Habit: Annual or biennial herb, stems to 80 cm tall.
Range: Western and central United States and adjacent Canada.

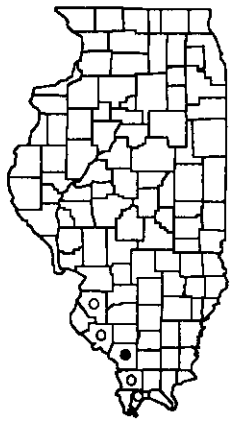


A species of mesic prairies and open soil, *Potentilla millegrana* reaches its eastern range limit in southwestern Illinois. Most collections of this species were made during the last century. The most recent collection was made in 1971 in Union County from a site that is now flooded. The species may persist in suitable habitat remaining in the vicinity of historic St. Clair County collections.
Note: The scientific name of the taxon is presently considered to be *Potentilla rivalis* Nutt. var. *millegrana* (Engelm.) S. Wats.
Reference: Bowles *et al.* (1991).

Ptilimnium nuttallii (DC.) Britt.

MOCK BISHOP'S WEED **APIACEAE**

Status: Endangered in Illinois.
Habit: Annual herb, stems 30-70 cm tall.
Range: South-central United States.

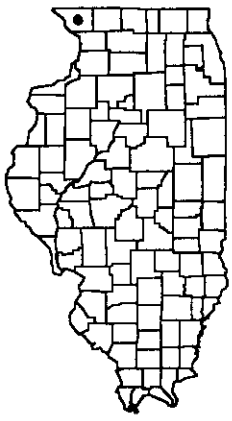


Ptilimnium nuttallii reaches its northern range limit in southern Illinois, where historic collections have been made from the floodplains of the Mississippi and Ohio rivers. This plant was rediscovered in 1987 in a public utility right-of-way in Randolph County, where it was originally collected in 1954. It was recently found on privately-owned land in Jackson County.
References: Mohlenbrock (1955, 1985c), Mohlenbrock *et al.* (1961), Bowles *et al.* (1991).

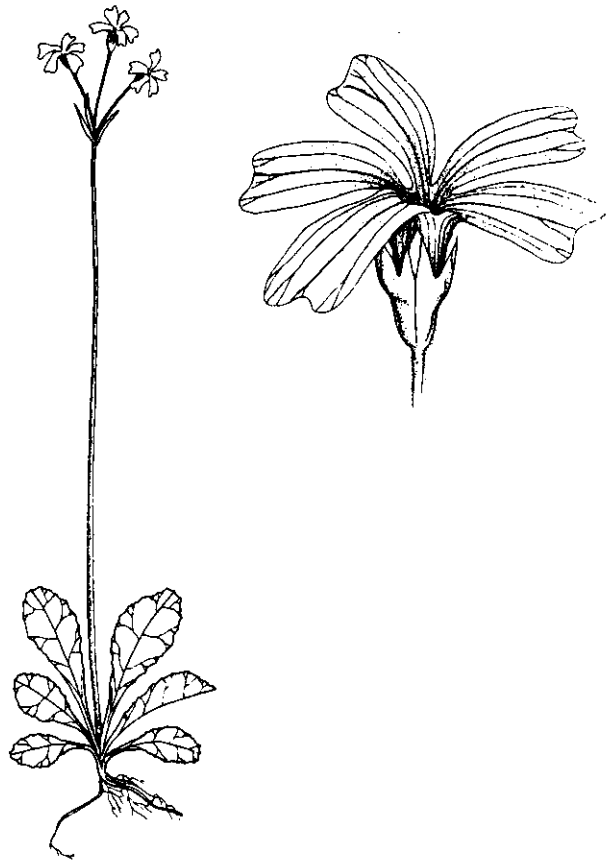
Primula mistassinica Michx.

BIRD'S-EYE PRIMROSE **PRIMULACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, scapes to 20 cm tall.
Range: Boreal Canada and Alaska, south into northeastern United States.



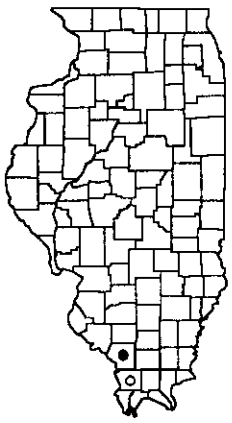
A northern plant of wet calcareous rocks, shores, and meadows. *Primula mistassinica* reaches its southern range limit in the Wisconsin Driftless Natural Division of Illinois. Presently it is known from a state park and adjacent private land, where small colonies occur in seepages on dolomite cliffs along a few miles of a river canyon.
References: Pepoon (1909, 1916, 1917), Iltis and Shaughnessy (1960), Guire and Voss (1963), Evers and Page (1977).



Primula mistassinica

Puccinellia pallida (Torr.) Clausen

POLE MANNA-GRASS **POACEAE**

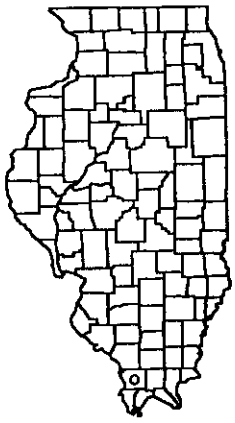


Status: Endangered in Illinois.
Synonym: *Torreyochloa pallida* (Torr.) Church; *Glyceria pallida* (Torr.) Trin.
Habit: Perennial semi-aquatic grass, culms to 1 m tall.
Range: Northeastern United States and adjacent Canada.

Puccinellia pallida occurs in shallow, standing water in swamps and marshes and is extremely rare in Illinois. It is presently known from a single Illinois locality, where it occurs in the Shawnee National Forest in Jackson County. In the 1980s this taxon was found in a federal ecological area in Union County and probably persists there.
References: Mohlenbrock and Voigt (1965), Bowles *et al.* (1991).

Pycnanthemum albescens Torr. & Gray

WHITE MOUNTAIN MINT **LAMIACEAE**



Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems to 1.3 m tall.
Range: Southeastern United States.

A plant of dry, open, upland forests, *Pycnanthemum albescens* is restricted in Illinois to the Southern Section of the Ozark Natural Division. A single Illinois station is known from a federal ecological area, although recent searches have not relocated this species.
Reference: Bowles *et al.* (1991).

Pycnanthemum torrei Benth.

MOUNTAIN MINT **LAMIACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems to 1.5 m tall.
Range: Eastern United States.

Pycnanthemum torrei, a species of dry upland forests and thickets, is rarely encountered in the southern tip of Illinois. Historical populations are known from a dry-mesic barrens in the Shawnee National Forest in Pope County and the edge of a sandstone glade in Jackson County. The species has not recently been found at these sites. There are unconfirmed reports of this species from Alexander County.
References: Gleason (1952), Gleason and Cronquist (1991).

Quercus montana Willd.

ROCK CHESTNUT OAK **FAGACEAE**

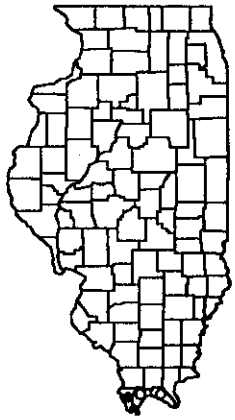
Status: Threatened in Illinois.
Habit: Tree, to 30 m tall.
Range: Eastern United States and adjacent Canada.

A species of dry, often rocky forests and ridgetops, *Quercus montana* occurs in Illinois along the western margin of its range. Seven populations are presently known in the state, all from the Shawnee National Forest. Although some cutting of these populations has occurred, reproduction at these sites seems adequate for reestablishment of the species.
Note: Mohlenbrock (1986) and Gleason and Cronquist (1991) use the name *Quercus prinus* L. for this species.
References: Evers (1950), Bailey and Swayne (1951), Schwegman (1972), Weaver and Robertson (1981), Nixon and Muller (1997).

Quercus nuttallii Palmer

NUTTALL'S OAK **FAGACEAE**

Status: Endangered in Illinois.
Habit: Tree, to 25 m tall.
Range: South-central and southeastern United States.



Quercus nuttallii reaches its northern range limit in the floodplain forests of extreme southern Illinois. Presently, a few trees are known from a state nature preserve and conservation area in Alexander County. Though not recently observed, it probably still persists in a state nature preserve in Pulaski County.

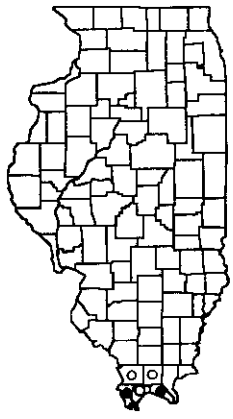
Note: The scientific name of this species is presently considered to be *Quercus texana* Buckl.

References: Francis (1983), Mohlenbrock and Thompson (1987), Jensen (1997).

Quercus phellos L.

WILLOW OAK **FAGACEAE**

Status: Threatened in Illinois.
Habit: Tree, to 25 m tall.
Range: South-central and southeastern United States.



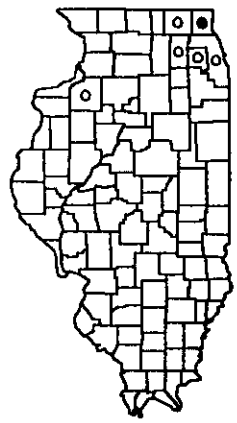
Quercus phellos reaches its northern range limit in floodplain forests in extreme southern Illinois. It is presently known from a state nature preserve, a state conservation area, and a few localities on private land. There are historical records of this species in state nature preserves in Johnson and Union counties, and it probably still persists at these sites.

References: Palmer (1921), Mohlenbrock *et al.* (1961), Schwegman and Mohlenbrock (1966), Jensen (1997).

Ranunculus cymbalaria Pursh

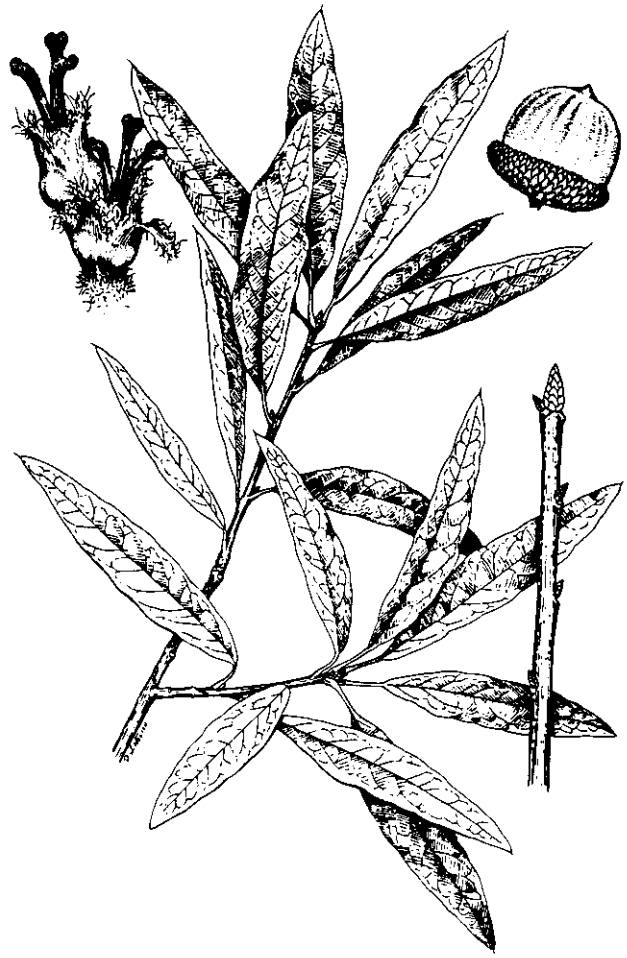
SEASIDE CROWFOOT **RANUNCULACEAE**

Status: Endangered in Illinois.
Habit: Perennial stoloniferous herb, scapes to 25 cm tall.
Range: Circumboreal, south into northeastern and central United States to Mexico.



A plant of saline and brackish shores, and occasionally freshwater, *Ranunculus cymbalaria* is rarely encountered in northern Illinois. Most of the Illinois collections of this species were made in the Chicago region during the nineteenth century, where most of its habitats have been destroyed by urban growth. The only known extant populations occur on an interstate right-of-way in Lake County.

References: Fassett (1946), Benson (1948), DeSteven and Franke (1990), Bowles *et al.* (1991), Whittemore (1997b).



Quercus phellos

Ranunculus rhomboideus Goldie

PRAIRIE BUTTERCUP **RANUNCULACEAE**

Status: Threatened in Illinois.
Habit: Perennial herb, stems 10-25 cm tall.
Range: North-central and western United States and adjacent Canada.

Ranunculus rhomboideus occurs in both disturbed and undisturbed dry gravel and dolomite prairies across northern Illinois. Presently it is known from five localities in the state, including four state nature preserves.
References: Fassett (1946), Benson (1948), Fell and Fell (1956), Whittemore (1997b).

Rhynchospora alba (L.) Vahl

BEAKED RUSH **CYPERACEAE**

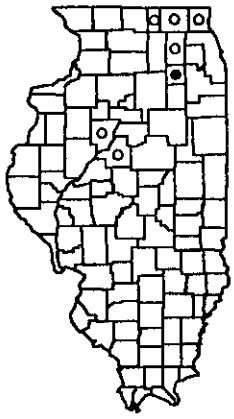
Status: Threatened in Illinois.
Habit: Perennial cespitose beaked rush, culms to 70 cm tall.
Range: Circumboreal, south into northeastern United States.

Rhynchospora alba occurs locally in northeastern Illinois in fens, bogs, and interdunal swales along Lake Michigan. Within Illinois it is presently known from two state nature preserves and probably persists at others. Another population is known from private land.
References: Gale (1944), Bowles (1991b).

Rhamnus alnifolia L'Her.

ALDER BUCKTHORN **RHAMNACEAE**

Status: Endangered in Illinois.
Habit: Shrub, to 1 m tall.
Range: Southern Canada, south into northeastern United States and the Rocky Mountains.

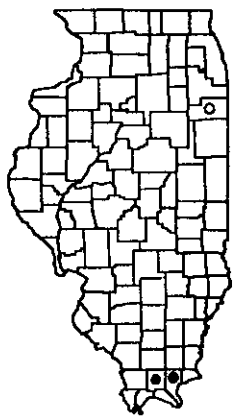


Rhamnus alnifolia occurred in calcareous bogs, sand prairies, and fens primarily in northeastern Illinois. Presently, a single extant population is known in the state, occurring in a state nature preserve in Kendall County. This shrub is also represented by modern collections from two Lake County bogs, where it probably still occurs, and it may persist in Kane and Tazewell counties where it was collected in the 1940s.
References: Tehon (1942), Bowles *et al.* (1991).

Rhynchospora glomerata (L.) Vahl

CLUSTERED BEAKED RUSH **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose beaked rush, stem to 1.5 m tall.
Range: Southeastern United States.

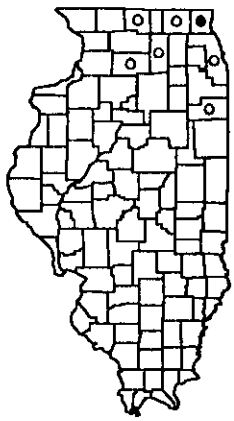


A species of wet sandy soils, *Rhynchospora glomerata* reaches its northern range limit in Illinois. It is presently known from three localities in southern Illinois in the Shawnee National Forest. This species was also collected from northern Illinois more than 50 years ago, but is probably now extirpated from that part of the state.
References: Gale (1944), Swayne and Bailey (1953), Mohlenbrock (1966b, 1968b).

Ribes hirtellum Michx.

NORTHERN GOOSEBERRY **GROSSULARIACEAE**

Status: Endangered in Illinois.
Habit: Shrub, to 3.5 m tall with weak spines.
Range: Canada and adjacent northern United States.

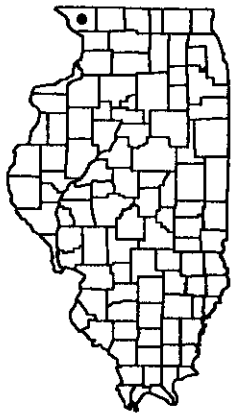


Ribes hirtellum occurs in northern bogs and swamp forests. This species reaches its southwestern range limit in Illinois, where it is exceedingly rare. It has not been relocated at historic collection sites in two Lake County bogs, where only single plants were reported. A Lee County collection, made from a sandstone cliff in 1981, also has not been relocated. This shrub was recently discovered in a third Lake County bog, which is protected as a state nature preserve. There are unverified reports of this species from LaSalle and Menard counties.
References: Fassett (1932), Tehon (1942), Taft and Solecki (1990).

Rosa acicularis Lindl.

BRISTLY ROSE **ROSACEAE**

Status: Endangered in Illinois.
Habit: Prickly shrub, to 1 m tall.
Range: Circumboreal, south to northern United States.

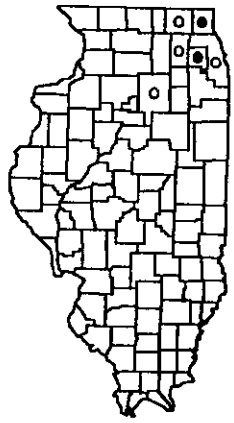


Rosa acicularis is known in Illinois from two Jo Daviess County stations, both in the Wisconsin Driftless Natural Division. It was originally recorded in 1981 from algific slope habitat on a north-facing wooded limestone talus slope, where it is common in a limited area. This site is protected as an Illinois natural heritage landmark. The second site is on privately-owned land.
References: Hartley (1966), Schwegman (1982a, 1986).

Rubus odoratus L.

PURPLE-FLOWERING RASPBERRY **ROSACEAE**

Status: Endangered in Illinois.
Habit: Shrub, to 1.5 m tall.
Range: Eastern Canada, south into northeastern United States and the Appalachians.

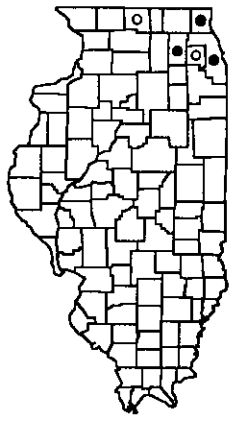


Rubus odoratus occurs in forest clearings, roadsides, fencerows, and other disturbed sites and reaches its western range limit in northern Illinois. The species is a common ornamental, and many Illinois collections probably represent planted or escaped specimens. The species is known from seemingly indigenous populations in northeastern Illinois. These include a state nature preserve, a county forest preserve, and private land. There are unverified reports of this species from DeKalb and Ogle counties.
References: Tehon (1942), Wunderlin (1966).

Rubus pubescens Raf.

DWARF RASPBERRY **ROSACEAE**

Status: Threatened in Illinois.
Habit: Shrub with trailing herbaceous stems, upright stems 20-60 cm tall.
Range: Boreal Canada, south into northern United States.

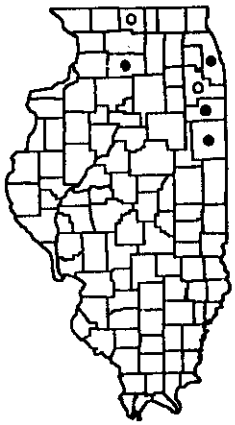


In Illinois, *Rubus pubescens* occurs in mesic ravine forests, bogs, fens, and flatwoods in the northern part of the state. Until recently a single population was known from a state nature preserve in Lake County. Since 1990, populations have been found at seven localities in three northeastern counties. Currently four sites are in state nature preserves and others are in county forest preserves.
Reference: Evert (1988).

Rubus setosus Bigelow

BRISTLY BLACKBERRY **ROSACEAE**

Status: Endangered in Illinois.
Synonym: *Rubus schneideri* Bailey.
Habit: Armed shrub with arching stems, to 1 m long.
Range: Northeastern United States and adjacent Canada.

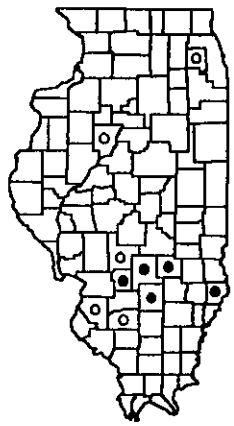


Rubus setosus is relatively common in wet-mesic sand prairies in the Kankakee Sand Area Section of the Grand Prairie Natural Division of Illinois. Presently five Illinois populations are known from wet sand prairies in Cook, Iroquois, Kankakee and Lee counties, one in a state nature preserve and another in a state conservation area.
References: Bailey (1941), Jones (1952), Hodgdon and Steele (1966).

Sabatia campestris Nutt.

PRAIRIE ROSE GENTIAN **GENTIANACEAE**

Status: Endangered in Illinois.
Habit: Annual herb, stems 20-40 cm tall.
Range: South-central United States.



A plant of mesic prairies, *Sabatia campestris* reaches its eastern and northern range limit in Illinois. This species was formerly more common in Illinois, but has been almost eliminated by the destruction of its habitat. Until recently, a Bond County station contained the only known extant Illinois population of this species. This annual species is erratic in appearance. It is presently known from eight populations from Bond, Effingham, Fayette, Lawrence, and Marion counties.
References: Jones (1947), Wilbur (1955).

Rudbeckia missouriensis Engelm.

MISSOURI ORANGE CONEFLOWER **ASTERACEAE**

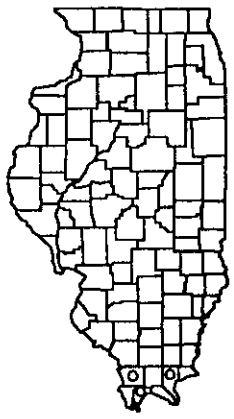
Status: Endangered in Illinois.
Habit: Perennial herb, stems to 1 m tall.
Range: South-central United States.

Rudbeckia missouriensis reaches its northeastern range limit in Illinois. A few populations presently occur on limestone glades and loess hill prairies along a limited stretch of the Mississippi River in the Ozark Natural Division. One of these is in a state nature preserve and the others are in private ownership. There is an unverified report of this species from Hardin County.
References: Evers (1951, 1955), Schwegman and Mohlenbrock (1966), Ozment (1967).

Sagittaria longirostra (Micheli) J. G. Sm.

ARROWHEAD **ALISMATACEAE**

Status: Endangered in Illinois.
Habit: Perennial stoloniferous herb, scapes 30-90 cm tall.
Range: Eastern United States.



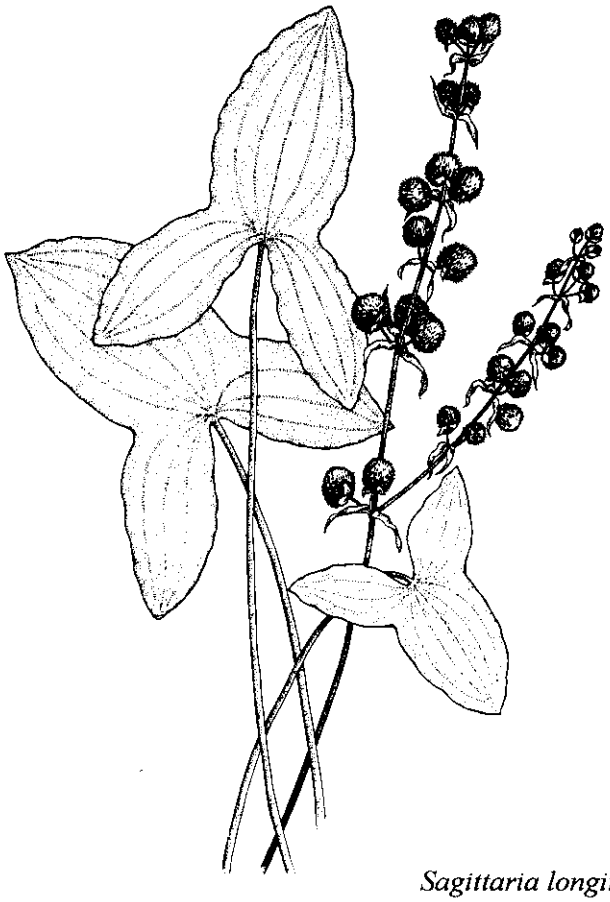
Sagittaria longirostra reaches its northwestern range limit in wooded seeps in extreme southern Illinois. It was first discovered in the state in 1967. It has been found at two sites in the Cretaceous Hills Section of the Coastal Plain Natural Division. Both sites are in the Shawnee National Forest, and neither has been located recently. It may still persist at these sites.
Note: The scientific name of this taxon is presently considered to be *Sagittaris australis* (J. G. Sm.) Small.
References: Bogin (1955), Haynes and Hellquist (2000a).

Salix serissima (Bailey) Fern.

AUTUMN WILLOW **SALICACEAE**

Status: Endangered in Illinois.
Habit: Shrub, 1-4 m tall.
Range: Central and eastern Canada and adjacent United States.

A northern species of bogs, marshes, and other peaty areas, *Salix serissima* reaches its southern range limit in extreme northern Illinois. It has been collected rarely in the state, most recently from a state nature preserve in McHenry County. It was found in two nature preserves in Lake County in the 1970s and probably remains extant at these sites.
References: Tehon (1942), Argus and Goff (1964), Bowles *et al.* (1991).



Sagittaria longirostra

Salix syrticola Fern.

DUNE WILLOW **SALICACEAE**

Status: Endangered in Illinois.
Habit: Shrub, 2-3 m tall.
Range: Lakeshore dunes of the western Great Lakes.

Salix syrticola is endemic to sand dunes immediately adjacent to Lake Michigan and Lake Huron and has a highly restricted distribution in Illinois. It has been nearly exterminated in the state by urban growth. It was collected in the 1980s from two state nature preserves in Lake County, and probably persists at both sites. Both sites are threatened by accelerated beach erosion.
Note: Many botanists consider this taxon to be a part of *Salix cordata* Michx. (Mohlenbrock 1980).
References: Gates (1912), Tehon (1942), Jones (1952), Guire and Voss (1963), Argus and Goff (1964), Bowles *et al.* (1991).

Salvia azurea Michx. & Lam. subsp. *pitcheri* (Torr.) Epling

BLUE SAGE **LAMIACEAE**

Status: Threatened in Illinois.
Synonym: *Salvia pitcheri* Torr.; *Salvia azurea* Michx. & Lam. var. *grandiflora* Benth.
Habit: Perennial herb, stems to 1 m tall.
Range: Central United States.

Salvia azurea subsp. *pitcheri* has been collected from a few scattered sites throughout Illinois. Most of these stations probably represent garden escapes and railroad waifs. Indigenous populations are primarily limited to limestone glades and hill prairies in the southern tip of Illinois. Presently three indigenous populations are known in the state. One population is in a state nature preserve, another in a natural heritage landmark, and one on federal land.
Note: Only the counties where this species is considered indigenous are mapped.
References: Ozment (1967), Schwegman and Mohlenbrock (1968), Schwegman (1991), Kindscher and Tieszen (1998).

Sambucus pubens Michx.

RED-BERRIED ELDER **CAPRIFOLIACEAE**

Status: Endangered in Illinois.
Synonym: *Sambucus racemosa* L. spp. *pubens* (Michx.) House.
Habit: Shrub, to 3 m tall.
Range: Circumboreal, northern United States, and south in the Appalachians.

Sambucus pubens ranges south into northern Illinois in rocky forest slopes and occasionally bogs. Presently it is known from five localities in Illinois, including two state nature preserves, a state park, and a national heritage corridor.
Reference: Tehon (1942).

Sarracenia purpurea L.

PITCHER PLANT **SARRACENIACEAE**

Status: Endangered in Illinois.
Habit: Perennial insectivouous herb, scapes 30-50 cm tall.
Range: Boreal Canada, south into northeastern United States and the Coastal Plain.

Sarracenia purpurea occurs in bogs, fens, and calcareous floating mats and is restricted in Illinois to the extreme northeastern counties. Habitat destruction has eliminated some stations, and most surviving populations are threatened by collecting. Presently, populations are known from four state nature preserves, a state park, and private land. This species probably persists at two other state nature preserves.
References: Emerson (1921), Sheviak and Haney (1973), Evers and Page (1977), Moran (1981).

Sanguisorba canadensis L.

AMERICAN BURNET **ROSACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems to 1.5 m tall.
Range: Boreal eastern Canada, south into northeastern United States and the Appalachians.

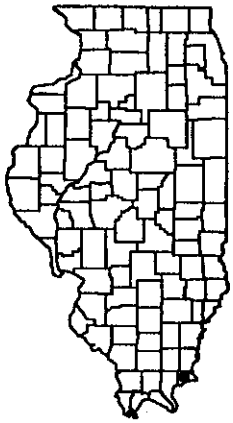
Sanguisorba canadensis reaches its southwestern range limit in Illinois in wet-mesic calcareous prairies along the Illinois and Des Plaines rivers. Three populations are presently known in the state, two in a national heritage corridor.
Reference: Winterringer (1963).

Sarracenia purpurea

Saxifraga virginiensis Michx.

EARLY SAXIFRAGE **SAXIFRAGACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, scapes 10-40 cm tall.
Range: Eastern Canada, south into eastern United States.

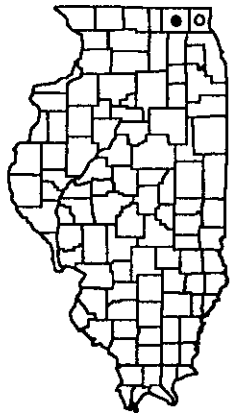


Saxifraga virginiensis is restricted to sandstone canyons and mesic ravine forests in extreme southern Illinois. The only known populations occur in the Shawnee National Forest in Hardin County, one in a research natural area.
References: Soltis (1983), Sundell (1986).

Scirpus cespitosus L.

TUFTED BULRUSH **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose bulrush, culms 5-75 cm tall.
Range: Circumboreal, south into northeastern United States.



In Illinois, *Scirpus cespitosus* occurs in graminoid fens in the Northeastern Morainal Natural Division. It is presently known from a state nature preserve and probably persists at two others in Lake and McHenry counties.
Note: This taxon is represented in Illinois by variety *callosus* Bigel.
References: Mohlenbrock (1963b), Wunderlin (1967b), Moran (1981).

Schizachne purpurascens (Torr.) Swallen

FALSE MELIC GRASS **POACEAE**

Status: Endangered in Illinois.
Habit: Perennial loosely tufted grass, culms to 1 m tall.
Range: Circumboreal, south into northeastern United States and the Rocky Mountains.

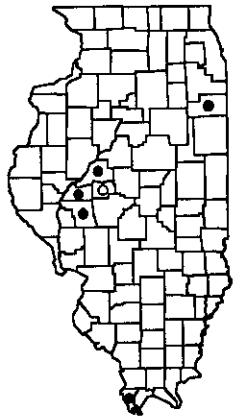
Schizachne purpurascens occurs in northwestern Illinois along the southern margin of its range. It was historically known from a 1937 Jo Daviess County collection, and this rare grass was rediscovered at the original collection site in 1987. At this site it grows on steep, thin-soiled slopes over dolomite outcrops. This species has not been observed recently at this site, but probably persists.
Reference: Bowles *et al.* (1991).

Schizachne purpurascens

Scirpus hallii Gray

HALL'S BULRUSH **CYPERACEAE**

Status: Threatened in Illinois.
Habit: Annual cespitose bulrush, culms 10-40 cm tall.
Range: Widely disjunct localities in eastern United States and the Midwest, including central Illinois.

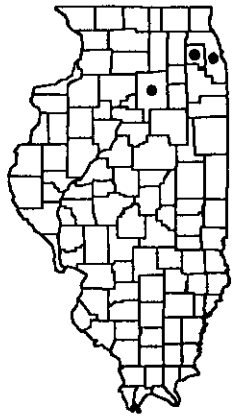


Scirpus hallii is presently known from eight states, six with only one population. During wet years this species can become a common component of sand pond vegetation. During dry years this species will remain in the seed bank, the seeds remaining viable for many years. It was recently found in a state nature preserve.
Note: The scientific name of this species is presently considered to be *Schoenoplectus hallii* (Gray) S. G. Smith.
References: Jones (1947, 1952), Winterringer (1959), Mohlenbrock (1963b), Schuyler (1969), Robertson *et al.* (1993), McClain *et al.* (1997), McKenzie (1998).

Scirpus paludosus A. Nels.

ALKALI BULRUSH **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous bulrush, culms to 1.5 m tall.
Range: Western and central United States and adjacent Canada and Mexico.

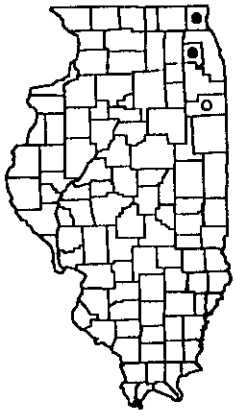


A species of saline marshes, *Scirpus paludosus* is known from several adventive colonies in Cook County, from two forest preserves in DuPage County and a marsh in LaSalle County. The LaSalle County site is in a national heritage corridor. Drainage and fire protection threaten these site.
Note: The scientific name of this taxon is presently considered to be *Scirpus maritimus* L. var. *paludosus* (A. Nels.) Kuk.
References: Steyermark and Swink (1952), Mohlenbrock (1963b).

Scirpus hattorianus Makino

BULRUSH **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose bulrush, culms to 1.5 m tall.
Range: Northeastern United States and adjacent Canada.

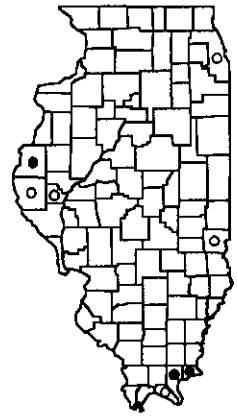


Scirpus hattorianus occurs in open wetlands and until recently was known in Illinois from a single collection made in a Kankakee County state park in 1973. It has recently been reported from a forest preserve in DuPage County, and from a state natural area and a state conservation area in Lake County.
References: Mohlenbrock (1963b), Bowles *et al.* (1991).

Scirpus polyphyllus Vahl

BULRUSH **CYPERACEAE**

Status: Threatened in Illinois.
Habit: Perennial rhizomatous bulrush, culms 0.5-1.5 m tall.
Range: Eastern United States.

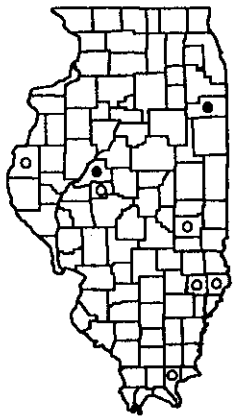


A species of open forested seeps, *Scirpus polyphyllus* reaches its western range limit in Illinois. It is presently known from several populations, many restricted to a contiguous part of Pope and Massac counties. This species is presently found in two state nature preserves. Most populations occur in the Shawnee National Forest.
References: Mohlenbrock (1963b), Myers and Henry (1976).

Scirpus purshianus Fern.

WEAK BULRUSH **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Annual cespitose bulrush, culms to 60 cm tall.
Range: Eastern United States.

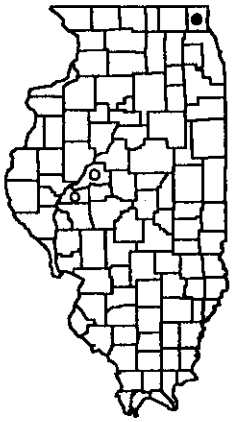


Scirpus purshianus is extremely rare and locally distributed in southeastern and central Illinois, occurring in sand pond margins in Mason and Kankakee counties. Presently all known populations are on private land, and occur in habitats that are farmed in dry years. The species usually reappears in existing sand pond habitats under appropriate conditions.
Note: The scientific name of this species is presently considered to be *Schoenoplectus purshianus* (Fern.) M. T. Strong.
References: Fernald (1942b), Koyama (1962), Mohlenbrock (1963b), Myers and Henry (1976), Bowles *et al.* (1991).

Scirpus smithii Gray

SMITH'S BULRUSH **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Annual cespitose bulrush, culms to 35 cm tall.
Range: Eastern United States and adjacent Canada.



A species of muddy and sandy pond margins, *Scirpus smithii* reaches its southwestern range limit in Illinois. This species has recently been reported from a state nature preserve in Lake County. Although none of the collection localities in Cass and Mason counties have been relocated, it is possible that this species could reappear under appropriate conditions in existing habitats.
References: Fernald (1942b), Koyama (1962), Mohlenbrock (1963b), Bowles *et al.* (1991).

Scirpus verecundus Fern.

BASHFUL BULRUSH **CYPERACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose bulrush, culms to 30 cm tall.
Range: Eastern United States.

A species of dry woods and upland openings, *Scirpus verecundus* is limited in Illinois to the Ozark Natural Division. It was originally collected from two localities, both in the Shawnee National Forest, and may persist at these sites.
References: Mohlenbrock (1963b), Bowles *et al.* (1991).

Shepherdia canadensis (L.) Nutt.

BUFFALOBERRY **ELAEAGNACEAE**

Status: Endangered in Illinois.
Habit: Shrub, 1-3 m tall.
Range: Boreal Canada and Alaska, and adjacent northern United States.

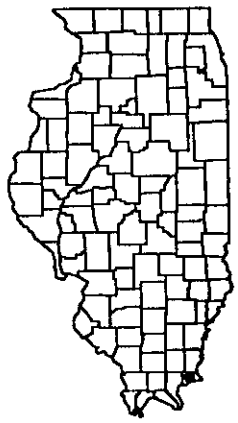
A species of calcareous bluffs, beach ridges and shores, *Shepherdia canadensis* is restricted in Illinois primarily to the Lake Michigan bluffs. Most of its habitat has been altered by urban growth or destroyed by lakeshore erosion, but populations are known to persist on federal land, a state nature preserve, and on several private holdings. An inland population reported from a county forest preserve in the sand region of southern Cook County has not been relocated. Continued lakeshore erosion may eventually extirpate this species from Illinois.
References: Cowles (1901), Tehon (1942), Moran (1978), Bowles *et al.* (1991).

Shepherdia canadensis

Silene ovata Pursh

OVATE CATCHFLY **CARYOPHYLLACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, stems 30-150 cm tall.
Range: Southeastern United States.

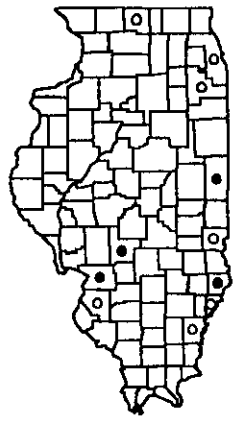


Silene ovata is considered to be a species of concern in most of the states in which it is known to occur. This woodland species reaches its north range limits in extreme southern Illinois. Presently it is known from five small populations in Hardin County, three within the Shawnee National Forest and two on private land.
Reference: Gleason and Cronquist (1991).

Silene regia Sims

ROYAL CATCHFLY **CARYOPHYLLACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, stems 0.5-1.6 m tall.
Range: Southeastern United States.



Silene regia occurs in dry-mesic barrens and prairies. In Illinois it is known from both the Wabash and lower Mississippi river drainages. Presently, eight Illinois stations are known, some of these representing re-established populations. One population was found in 1985 in a Madison County railroad prairie and still persists. At least two populations occur in Lawrence County, one in a state nature preserve. In 1957 it was collected from a loess hill prairie in St. Clair County and may persist in that area.
References: Buhl (1934), King (1981), Dolan (1995).

Silphium trifoliatum L.

ROSINWEED **ASTERACEAE**

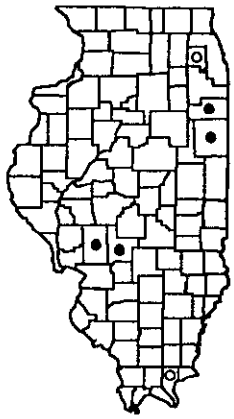
Status: Endangered in Illinois.
Habit: Perennial herb from a thick caudex, stems 1-2 m tall.
Range: Southeastern United States.

A species of southeastern prairies, glades, barrens and savannas, *Silphium trifoliatum* reaches its northwestern range limit in the Shawnee Hills Natural Division of Illinois. It was first discovered in Illinois in a Hardin County limestone glade in 1986 and probably still persists at that site. The single known population is very small but is located on Forest Service property managed as a research natural area. This plant could occur in similar habitat elsewhere in Hardin County.
Reference: Olson (1989).

Sisyrinchium atlanticum Bickn.

EASTERN BLUE-EYED GRASS **IRIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, stems 20-70 cm tall.
Range: Eastern United States, northeast to Illinois.

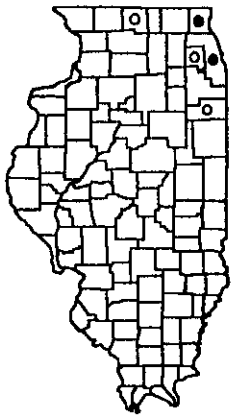


Sisyrinchium atlanticum reaches its northwestern range limit in mesic prairie habitat in Illinois. Until the 1970s this species was known only from a 1940 Kankakee County collection and a 1952 Pope County collection. It was found in a Macoupin County railroad prairie in 1971, is known to occur in a state conservation area and state nature preserve in Iroquois County, and on private land in Kankakee and Macoupin counties.
Reference: Schwegman (1972).

Sisyrinchium montanum Greene

MOUNTAIN BLUE-EYED GRASS **IRIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial cespitose herb, stems 10-60 cm tall.
Range: Boreal Canada, adjacent northern United States and south into the Appalachians.

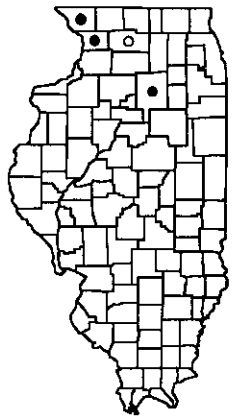


A species of mesic prairies, *Sisyrinchium montanum* enters northern Illinois along the southern margin of its range. Most collections were made prior to 1936 in Cook, DuPage and Lake counties, with unverified reports from Winnebago and Kankakee counties. Most of the Illinois stations were thought to have been destroyed. However, this species was recently collected at two Cook County forest preserves and has been reported from five other Cook County stations. It is also known from a state nature preserve in Lake County.
Note: This taxon is represented in Illinois by both variety *montanum* and variety *crebrum* Fern.
References: Fernald (1946), Bowles *et al.* (1991).

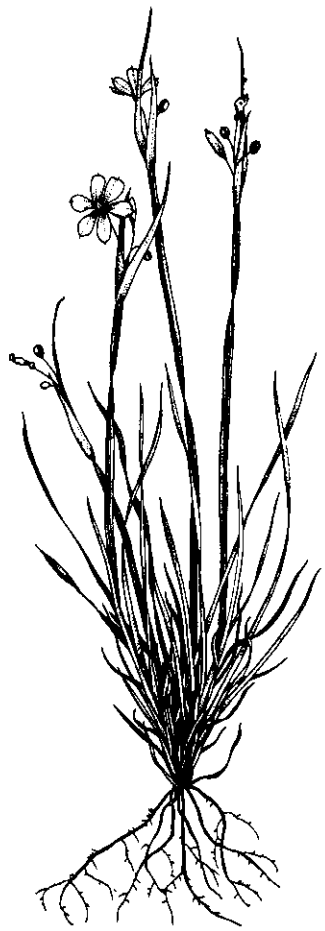
Solidago sciaphila Steele

CLIFF GOLDENROD **ASTERACEAE**

Status: Threatened in Illinois.
Habit: Perennial herb, stems 0.4-1.1 m tall.
Range: Michigan to Minnesota, south to northern Illinois and northeastern Iowa.



Solidago sciaphila occurs on shaded or exposed dolomite and sandstone cliffs and in associated sand forests in northwestern Illinois. Presently it is known from nine state localities. Two very extensive populations are found in state parks, while other populations occur in state nature preserves.
References: Salamun (1963), Wunderlin (1966), Schwegman (1986).



Sisyrinchium montanum

Sorbus americana Marsh.

AMERICAN MOUNTAIN ASH **ROSACEAE**

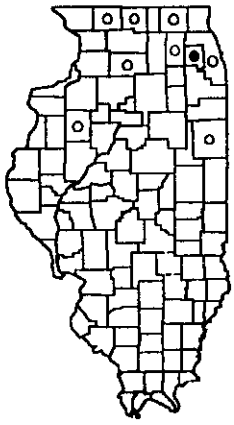
Status: Endangered in Illinois.
Habit: Shrub or tree, to 10 m tall.
Range: Eastern Canada, south into northeastern United States and the Appalachians.

A species of rocky woods and bogs, *Sorbus americana* has been collected at three localities in northern Illinois. Presently this species is known from a state nature preserve in Ogle County. Also, several individual trees are known to occur on a privately-owned wooded sandstone cliff in Ogle County.
References: Waterman (1923), Jones (1939, 1952, 1953), Tehon (1942), Fuller (1944), Mason and Iltis (1959), Moran (1978), Bowles *et al.* (1991).

Sparganium americanum Nutt.

AMERICAN BURREED **SPARGANIACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous aquatic herb, stems to 1 m tall.
Range: Eastern United States and adjacent Canada.

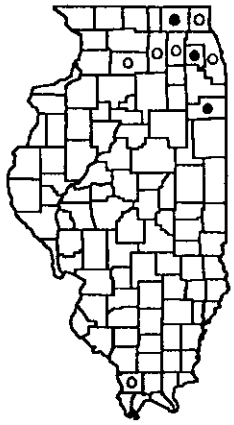


Sparganium americanum is restricted in Illinois to muddy and peaty shores and shallow water in the northern counties. Collection sites found as recently as 1965 in Knox County and during 1949-1959 in Lee and Winnebago counties have not been relocated. This species was collected from a glacial pond in Stephenson County in 1980, but the site has been destroyed by road construction. Presently it is known from a state park in DuPage County, and may persist in a state nature preserve in Iroquois County where it was found in 1987.
References: Fassett (1960), Mohlenbrock and Voigt (1965), Bowles *et al.* (1991), Kaul (2000).

Sparganium chlorocarpum Rydb.

GREEN-FRUITED BURREED **SPARGANIACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous aquatic herb, stems to 2 m tall.
Range: Eastern Canada and northeastern United States.



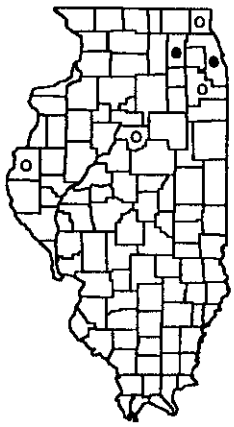
A species of muddy and peaty shores and shallow water, *Sparganium chlorocarpum* reaches its southern range limit in Illinois. It is presently known from a forest preserve in DuPage County, a state park in Kankakee County, and from a state nature preserve and private land in McHenry County.
Note: Kaul (2000) considers this taxon to be a part of the widespread *Sparganium emersum* Rehmann.
References: Fassett (1960), Mohlenbrock *et al.* (1961), Mohlenbrock and Voigt (1965).

Sparganium chlorocarpum

Spiranthes lucida (H. H. Eat.) Ames

YELLOW-LIPPED LADIES' TRESSES **ORCHIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial tuberous orchid, stems to 25 cm tall.
Range: Northeastern United States and adjacent Canada.



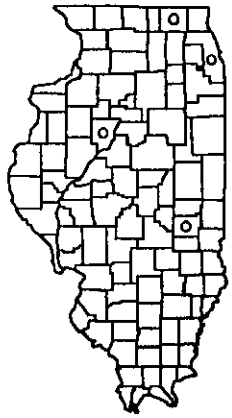
A rare, apparently short-lived species of calcareous habitats, *Spiranthes lucida* is known in Illinois from three historic and two modern collections. In 1968 it was found in Woodford County, but the following year the colony was destroyed by flooding; however, it may persist in the area. It has recently been observed in a state nature preserve in Cook County and on private land in Kane County.
References: Jones (1947), Sheviak (1974a, 1974b), Myers and Henry (1976), Bowles *et al.* (1991).

Spiranthes vernalis

Spiranthes romanzoffiana Cham.

HOODED LADIES' TRESSES **ORCHIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial tuberous orchid, stems 10-40 cm tall.
Range: Boreal Canada and Alaska, south into northern United States.

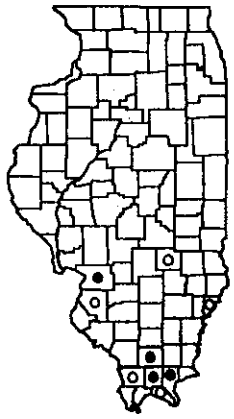


Spiranthes romanzoffiana is a rare, local species in Illinois, where it has been collected only four times. Two of these collections are very old. The Coles County collection was made in 1947 from a state park. It was last observed in 1977 on an open, floating sedge mat in a state nature preserve in McHenry County. This species may be extirpated from the state.
References: Sheviak (1974a, 1974b), Carroll *et al.* (1984), Bowles *et al.* (1991).

Spiranthes vernalis Engelm. & Gray

SPRING LADIES' TRESSES **ORCHIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial tuberous orchid, stems to 60 cm tall.
Range: Southeastern and south-central United States, north into southern New England.

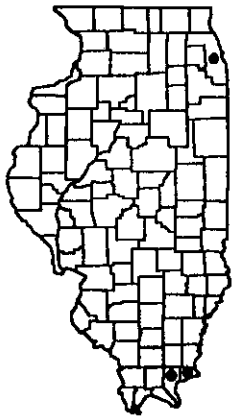


Spiranthes vernalis occurs in acidic soils in prairies and old fields in the southern third of Illinois. Presently it is known from a Pope County state nature preserve, a railroad prairie in Madison County, a national wildlife refuge in Williamson County, and private land in Johnson County. This species has been collected as recently as 1968 in Wabash County and may persist there. A collection site from Effingham County in 1951 has not been relocated.
References: Schwegman and Mohlenbrock (1966), Sheviak (1974a, 1974b), Evans and Wadham (1978), Lynn (2001).

Stellaria pubera Michx.

GREAT CHICKWEED **CARYOPHYLLACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, stems 15-40 cm tall.
Range: Southeastern United States.

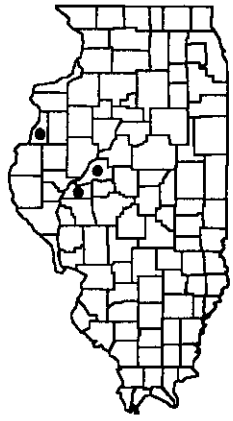


Stellaria pubera reaches its northern range limit in Illinois, where it occurs on bluffs and in rocky woods. It is presently known from four state localities. Two native populations are known from the Shawnee National Forest in Pope County, another from private land in Hardin County. Plants that could be the result of an introduction occur on a wooded dolomite slope in a state nature preserve in Cook County.
Reference: Schwegman (1972).

Stylisma pickeringii (Torr.) Gray

PATTERSON BINDWEED **CONVOLVULACEAE**

Status: Endangered in Illinois.
Synonym: *Breweria pickeringii* (Torr.) Gray var. *pattersoni* Fern. & Schub.
Habit: Perennial, prostrate, trailing herb, stems 1-2 m long.
Range: South-central United States.

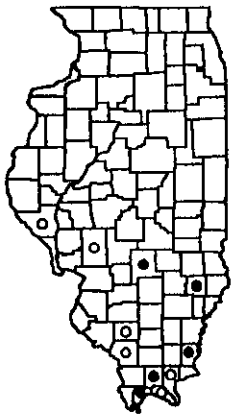


A species of dry sand prairies, *Stylisma pickeringii* reaches its northwestern range limit in central Illinois. Presently five populations are known in the state, one from a state forest and four from private land. Recent collections from localities in Cass and Mason counties suggest that other populations may persist in the sand areas of the Illinois River.
Note: This taxon is represented in Illinois by var. *pattersoni* (Fern. & Schub.) Myint.
References: Gleason (1910), Fernald and Schubert (1949), Jones (1952), Winterringer (1954).

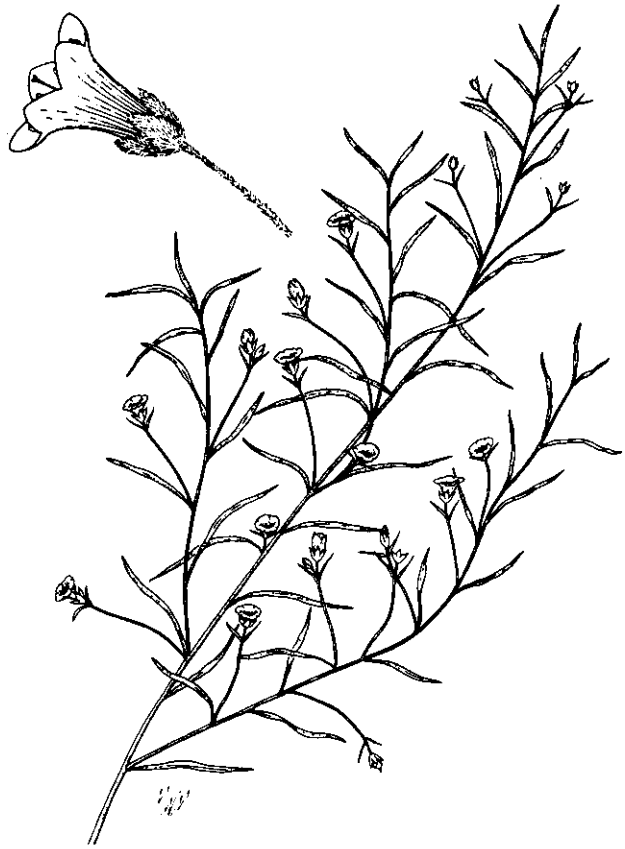
Stenanthium gramineum (Ker) Morong

GRASS-LEAVED LILY **LILIACEAE**

Status: Endangered in Illinois.
Habit: Perennial bulbous herb, stems to 1.7 m tall.
Range: Eastern United States.



A plant of rich mesic floodplains and forests, *Stenanthium gramineum* is scattered in southern Illinois along the northwestern margin of its range. Populations are known from three counties principally within the Shawnee National Forest, with one probably extending into a state park. A few populations also occur in central Illinois, one in a state nature preserve in Richland County, another on private land in Fayette County. There are unverified reports of this species from Wayne and Union counties.
References: Mohlenbrock (1970c), Schwegman (1982a).

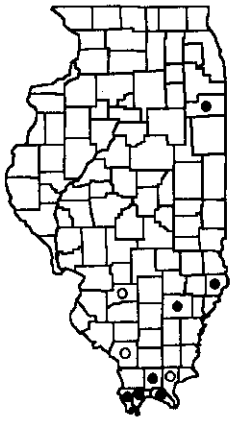


Stylisma pickeringii

Styrax americana Lam.

STORAX, AMERICAN SNOWBELL **STYRACACEAE**

Status: Threatened in Illinois.
Habit: Shrub, to 3 m tall.
Range: Southeastern United States.

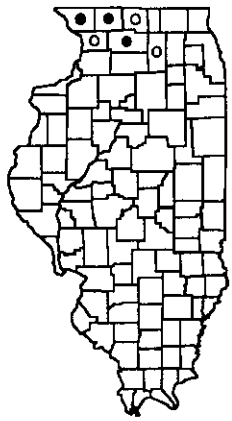


In Illinois *Styrax americana* occurs primarily in southern floodplain forests and swamps, although one northern population occurs in a floodplain forest in Kankakee County. Presently, populations are known in the state from three state nature preserves, a state ecological area, a state conservation area, and from private land.
References: Palmer (1921), Tehon (1942), Mohlenbrock *et al.* (1961), Schwegman and Mohlenbrock (1966), Evers and Page (1977).

Sullivantia renifolia Rosendahl

SULLIVANTIA **SAXIFRAGACEAE**

Status: Threatened in Illinois.
Habit: Perennial herb, stems 10-40 cm tall.
Range: North-central United States.



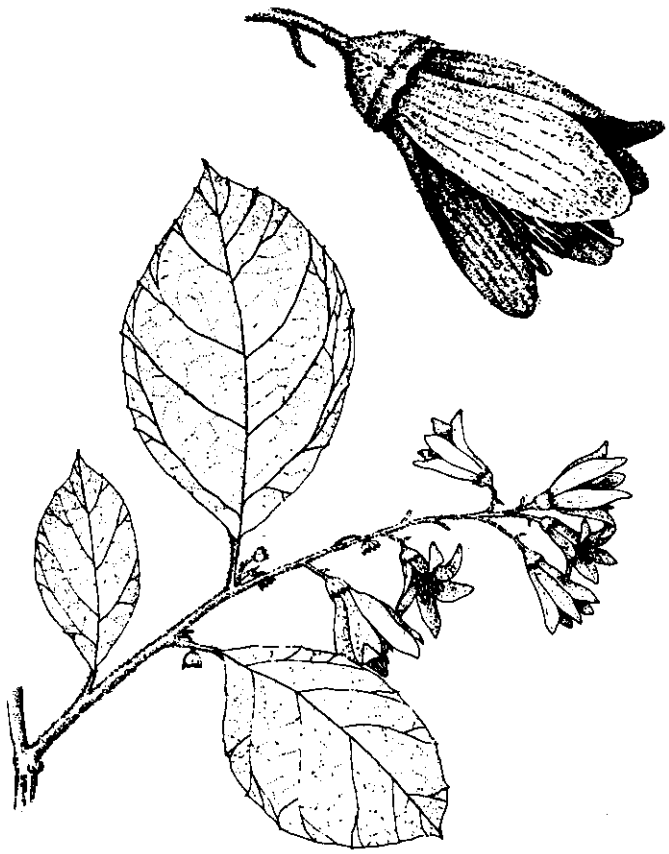
Sullivantia renifolia is restricted in Illinois to moist, shaded, dolomite cliffs in the northwestern counties. It is now known from four populations, two in state parks and adjacent private land, a third in a scout camp, and one on private land.
Note: The scientific name of this species is presently considered to be *Sullivantia sullivantii* (Torr. & Gray) Britton.
References: Pepoon (1909), Soltis (1982).

Styrax grandifolius Ait.

BIGLEAF SNOWBELL BUSH **STYRACACEAE**

Status: Endangered in Illinois.
Habit: Shrub, to 3 m tall.
Range: Southeastern United States.

A mesic forest species, *Styrax grandifolius* reaches its northern range limit in extreme southern Illinois, with a single disjunct station. This population occurs on the banks of an intermittent stream in a rich, mesic, rocky forest in Alexander County. The site is in a Forest Service botanical area.
References: Tehon (1942), Schwegman (1968b).



Styrax grandifolius

Symphoricarpos albus (L.) Blake var. *albus*

SNOWBERRY **CAPRIFOLIACEARE**

Status: Endangered in Illinois.
Habit: Shrub, to 1 m tall.
Range: Canada and Alaska, northern United States, and south into the Appalachians.

Symphoricarpos albus var. *albus* is known from only three locations in Illinois, a state nature preserve in Jo Daviess County, a ravine on private land in Kane County, and on private land along the Fox River in LaSalle County. This northern relict species occurs on steep, north-facing sandstone slopes.
Note: The commonly cultivated *Symphoricarpos albus* (L.) Blake var. *laevigatus* (Fern.) Blake is occasionally found escaped in Illinois.
References: Gleason and Cronquist (1991), Young (1991).

Synandra hispidula (Michx.) Britton

HAIRY SYNANDRA **LAMIACEAE**

Status: Endangered in Illinois.
Habit: Perennial herb, stems 20-60 cm tall.
Range: Southeastern United States.

A species of rich mesic forests, *Synandra hispidula* reaches its northwestern range limit in the Shawnee Hills Natural Division in southern Illinois. Presently three populations are known in the state, one in a state nature preserve, and all in the Shawnee National Forest.
References: Vasey (1870), Mohlenbrock (1959c).

Talinum calycinum Engelm.

FAMEFLOWER **PORTULACACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems 10-30 cm tall.
Range: South-central United States.

A species of cliffs and dry barrens, *Talinum calycinum* reaches its northeastern range limit in the Ozark Natural Division of southern Illinois. It is known from two Illinois populations, both on private land. These populations occur on outcrops of sandstone bluffs in Monroe and Randolph counties.
References: Mohlenbrock (1955, 1961a).

Thalia dealbata Roscoe

POWDERY THALIA **MARANTACEAE**

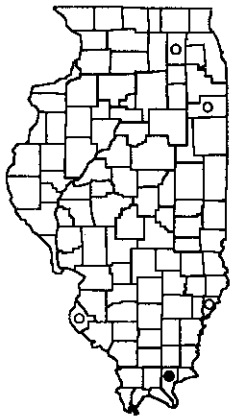
Status: Endangered in Illinois.
Habit: Perennial aquatic herb, scapes 1-2 m tall.
Range: Southeastern United States.

A species of swamps, marshes, and other wet areas, *Thalia dealbata* reaches its northern range limit in extreme southern Illinois. This species was first discovered in the state in Alexander County, where it occurs in a marshy roadside ditch. This population has not been observed during the past few years, but it is possible that other populations occur in the area.
Reference: Kennedy (2000).

Thelypteris noveboracensis (L.) Nieuwl.

NEW YORK FERN **THELYPTERIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous fern, fronds to 50 cm long.
Range: Eastern United States and adjacent Canada.

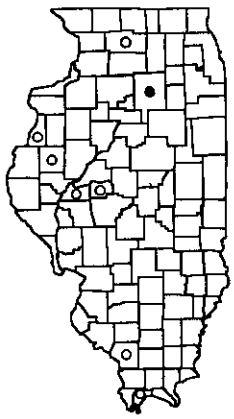


A species of seeps, mesic forests and sandstone cliffs, *Thelypteris noveboracensis* has been collected from widely scattered localities in southern and northeastern Illinois. There is, however, only one modern collection, a 1982 record from next to a forest seep in Pope County. The site is in a Forest Service botanical area, and the species still persists there.
References: Schwegman (1968a), Smith (1993).

Thelypteris phegopteris (L.) Slosson

LONG BEECH FERN **THELYPTERIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous fern, frond to 45 cm long.
Range: Circumboreal, south into the northeastern United States and the Appalachians.

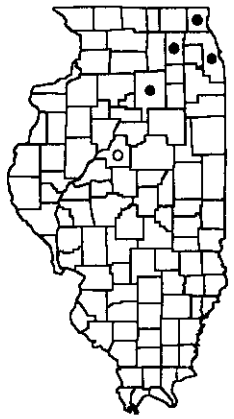


Thelypteris phegopteris has been collected from widely scattered localities throughout Illinois. However, only one population is presently known to be extant. This population is associated with a north-facing sandstone ledge in a state park in LaSalle County. This species is fairly well protected in Illinois, but plants are occasionally subjected to botanical collecting.
Note: The scientific name of this species is presently considered to be *Phegopteris connectilis* (Michx.) Watt.
References: Tryon *et al.* (1940), Fell and Fell (1949), Peck (1982), Smith (1993).

Thuja occidentalis L.

ARBOR VITAE, WHITE CEDAR **CUPRESSACEAE**

Status: Threatened in Illinois.
Habit: Evergreen tree, to 20 m tall.
Range: Eastern Canada, adjacent northeastern United States, and into the Appalachians.



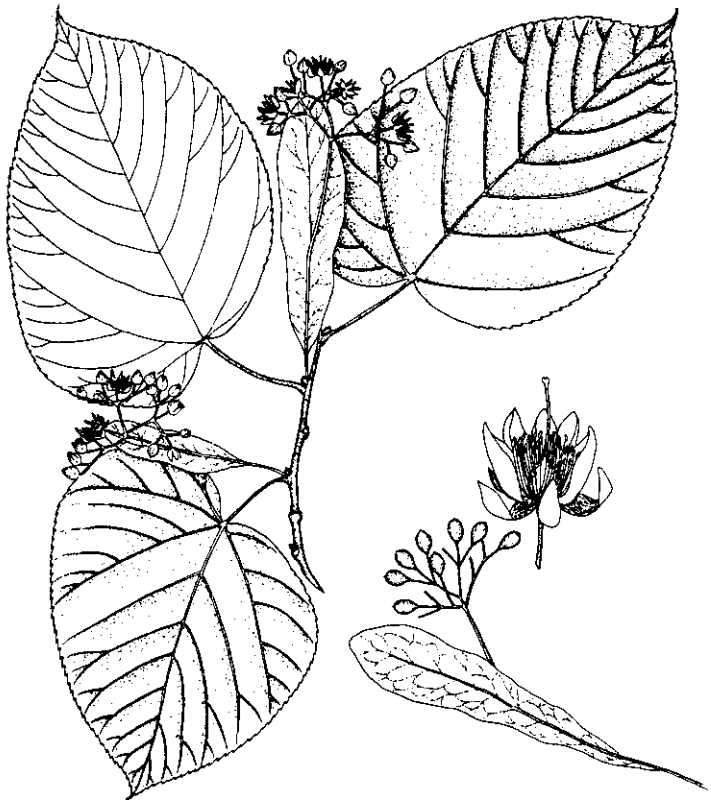
In Illinois, *Thuja occidentalis* occurs on Lake Michigan glacial till bluffs and in adjacent side ravines, on sandstone and limestone cliffs, and in a forested fen. Presently five populations are known in state nature preserves, with one being so extensive that it ranges through two adjacent state parks. Some populations are threatened by development and, on the Lake Michigan bluffs, by shoreline erosion. The fen population has been seriously damaged by erosion and highway construction.
References: Brendel (1887), Cowles (1901), Fuller (1944), Evers and Page (1977), Moran (1978), Kangas (1989).

Tilia heterophylla Vent.

WHITE BASSWOOD **TILIACEAE**

Status: Endangered in Illinois.
Habit: Tree, to 30 m tall.
Range: Eastern United States.

A species of rich mesic forests, *Tilia heterophylla* is known in Illinois from scattered stations in ravines along the Ohio River bluffs and in the Shawnee Hills Natural Division. Presently it is known from two state populations in the Shawnee National Forest. It probably persists in state nature preserves in Massac and Pulaski counties.
Note: Many botanists consider this taxon to be *Tilia americana* L. var. *heterophylla* (Vent.) Loud.
References: Palmer (1921), Mohlenbrock and Schwegman (1969a).

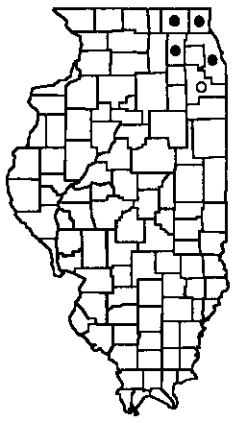


Tilia heterophylla

Tofieldia glutinosa (Michx.) Pers.

FALSE ASPHODEL **LILIACEAE**

Status: Threatened in Illinois.
Habit: Perennial rhizomatous herb, scapes 5-50 cm tall.
Range: Canada, south into northern United States, and into the Appalachians.

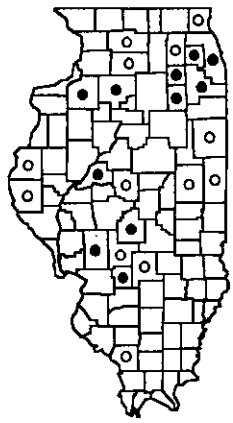


Tofieldia glutinosa is restricted in Illinois to the extreme northeastern counties, where it occurs in wetlands, fens, and interdunal swales along Lake Michigan. Although this species has been severely depleted by urban growth, it is still represented by seven state populations. Four populations are found in state nature preserves, and probably in two others. This species was reported from Will County in 1968 and may persist there.
References: Gates (1912), Hitchcock (1944), Moran (1981), Hess and Stoynoff (1989), Bowles (1991b).

Tomanthera auriculata (Michx.) Raf.

EAR-LEAFED FOXGLOVE **SCROPHULARIACEAE**

Status: Threatened in Illinois.
Synonym: *Gerardia auriculata* Michx.
Habit: Annual herb, stems to 80 cm tall.
Range: Ohio to Minnesota, south to Kansas and Missouri.

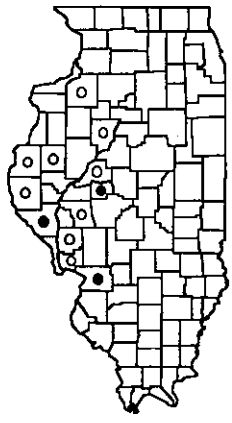


Tomanthera auriculata occurs in disturbed prairies and savannas. In Illinois, populations of this species have greatly declined due to habitat loss. Presently more than twenty populations in eleven counties are known in the state, three in state nature preserves and two in state parks. This annual species is known to be semi-parasitic and is possibly disturbance-adapted. Populations often fluctuate widely over time, occasionally becoming locally extirpated.
Note: The scientific name of this species is presently considered to be *Agalinus auriculata* (Michx.) Blake.
References: Pennell (1935), Orzell and Summers (1983), Cunningham and Parr (1990).

Tradescantia bracteata Small

PRAIRIE SPIDERWORT **COMMELINACEAE**

Status: Threatened in Illinois.
Habit: Perennial herb, stems 5-45 cm tall.
Range: North-central United States.



Tradescantia bracteata occurs in dry-mesic silt and sand prairies in western Illinois, often in disturbed habitats. Presently it is known from four localities in Illinois. None of the populations are protected, and several are along railroad and highway rights-of-way. The report of this species from Winnebago County is based on a cultivated plant.
References: Winterringer (1958), Henry (1986, 1992), Bowles (1991b), Bowles *et al.* (1991), Faden (2000).

Triadenum virginicum (L.) Raf.

MARSH ST. JOHN'S WORT **CLUSIACEAE**

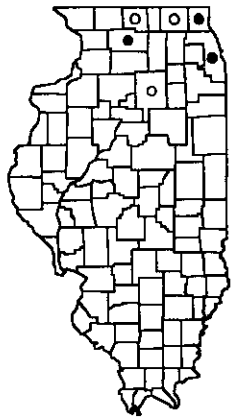
Status: Endangered in Illinois.
Habit: Perennial herb, stems 30-60 cm tall.
Range: Eastern United States and adjacent Canada.

In Illinois, *Triadenum virginicum* is known only from peaty sand prairies bordering Lake Michigan, where it was collected in 1972 from a Lake County state park. Although it has not been relocated at this site, extensive habitat remains, and it is likely the species remains extant in Illinois.
References: Mohlenbrock and Evans (1974), Bowles *et al.* (1991).

Trientalis borealis Raf.

STAR-FLOWER **PRIMULACEAE**

Status: Threatened in Illinois.
Habit: Perennial rhizomatous herb, stems 10-20 cm tall.
Range: Boreal Canada, south into eastern United States.



Trientalis borealis reaches the southern margin of its range in northern Illinois, where it occurs in bogs, mesic sand forests, and along Lake Michigan ravine bluffs. Presently five Illinois populations are known to be extant, including three in state nature preserves.
References: Waterman (1923), Fell and Fell (1957), Iltis and Shaughnessy (1960), Sheviak and Haney (1973), Anderson and Loucks (1973), Moran (1978), Anderson and Beare (1983), Taft and Solecki (1990).

Trichomanes boschianum Sturm.

FILMY FERN **HYMENOPHYLLACEAE**

Status: Endangered in Illinois.
Habit: Perennial fern with long rhizomes, fronds to 20 cm long.
Range: Southeastern United States.

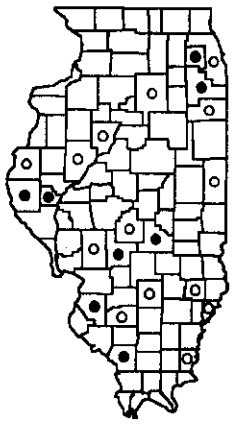
In Illinois, the filmy fern is restricted to the extreme southern part of the state where it is usually found beneath moist, overhanging sandstone cliffs, or occasionally on sandstone at the entrance to caves. Presently sixteen populations have been reported as extant, most in the Shawnee National Forest. Other populations have been found in the past, and many are probably extant. Populations of this species in Illinois are showing signs of decline.
References: Mohlenbrock and Voigt (1959), Schwegman (1982a, 1999), Mohlenbrock (1986), Gleason and Cronquist (1991), Farrar (1993).

Trichomanes boschianum

Trifolium reflexum L.

BUFFALO CLOVER **FABACEAE**

Status: Endangered in Illinois.
Habit: Annual or biennial herb, stems 20-50 cm tall.
Range: Eastern and central United States and adjacent Canada.

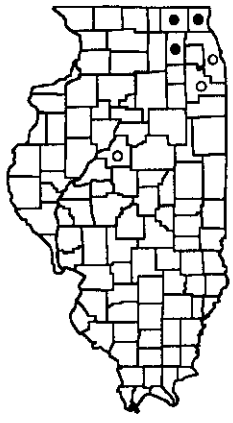


A plant of dry-mesic savannas, flatwoods, and prairies, *Trifolium reflexum* has been nearly extirpated from Illinois. This species appears to be disturbance-adapted and has been found to occur in sites that are burned or regularly affected by minor disturbances such as mowing, flooding, or erosion. It is presently known from more than ten sites in Illinois, one from a state natural area, one from a state park, two from state conservation areas, and three from county forest preserves. This species has had a precipitous decline, now occurring in less than half of the counties from which there are historical records.
References: Vasey (1870), Jones (1952), Campbell *et al.* (1988), Schwegman (1990).

Triglochin maritima L.

COMMON BOG ARROWGRASS **JUNCAGINACEAE**

Status: Threatened in Illinois.
Habit: Perennial herb, scapes to 80 cm tall.
Range: Circumboreal, south into the northern United States and the Rocky Mountains.

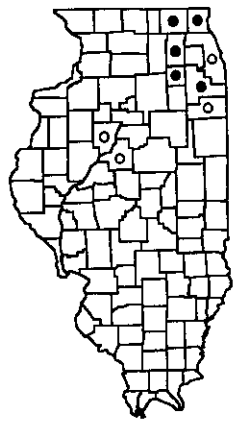


Triglochin maritima reaches the southern margin of its eastern range in Illinois where it occupies fens and interdunal swales near Lake Michigan. Presently it is known from at least ten locations in the state, including six state nature preserves, two adjacent state parks, and other tracts on private land.
References: Gates (1912), Love and Love (1958), Moran (1981), Haynes and Hellquist (2000c).

Triglochin palustris L.

SLENDER BOG ARROWGRASS **JUNCAGINACEAE**

Status: Threatened in Illinois.
Habit: Perennial herb, scapes to 40 cm tall.
Range: Circumpolar, south into the northern United States and the Rocky Mountains.



Triglochin palustris reaches its southeastern range limit in Illinois where it is restricted to spring runs in fens and interdunal swales next to Lake Michigan. It is presently known from eleven localities, including six state nature preserves. Due to its narrow habitat restrictions, populations of this species are small and highly sensitive to habitat manipulations.
References: Gates (1912), Evers and Page (1977), Moran (1981), Hess and Stoynoff (1989), Bowles and Apfelbaum (1989), Bowles (1991b), Haynes and Hellquist (2000c).

Trillium cernuum L.

NODDING TRILLIUM **LILIACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems 20-40 cm tall.
Range: Boreal Canada, south into northeastern United States.

A species of successional and mature mesic forests, *Trillium cernuum* enters northeastern Illinois along the southern margin of its range. This species has been collected only a few times in the state, and most of its stations have been destroyed by urban growth. The nodding trillium has recently been observed in two state nature preserves in McHenry County. A Cook County forest preserve where it was reported remains intact, and the species may persist there.
Note: This taxon is represented in Illinois by variety *macranthum* Eames & Wieg.
References: Steyermark and Swink (1955), Bowles *et al.* (1991), Case and Case (1997).

Trillium erectum L.

ILL-SCENTED TRILLIUM **LILIACEAE**

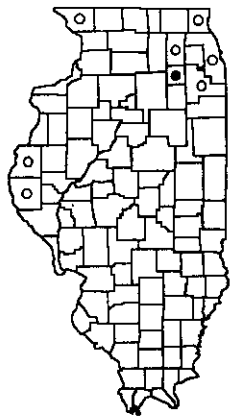
Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems 15-60 cm tall.
Range: Eastern Canada, south into northeastern United States and the Appalachians.

A species of mesic eastern forests, *Trillium erectum* reaches the western margin of its range in northern Illinois. A McHenry County population is protected in a state nature preserve, while a second population occurs in a nature preserve in a state park in Carroll County. A few plants were observed in a Lake Michigan bluff ravine in Lake County during the late 1970s, but it is unknown if they persist.
References: Steyermark and Swink (1955), Seorta and Smith (1967), Seorta (1969), Case and Case (1997).

Ulmus thomasii Sarg.

ROCK ELM, CORK ELM **ULMACEAE**

Status: Endangered in Illinois.
Habit: Tree, to 30 m tall.
Range: Quebec, north-central and northeastern United States.

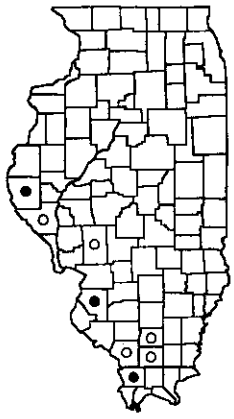


Ulmus thomasii is a mesic forest species of calcareous slopes and floodplain terraces. It has become very rare in Illinois because of habitat destruction and losses due to Dutch elm disease. Only two Illinois populations are known to be extant, both in Kendall County. The species probably occurs at a few other sites where it was collected during the 1980s. The lack of collections may reflect the invasion of Dutch elm disease, but the species could persist, especially as young trees.
References: Evers and Page (1977), Sherman-Broyles (1997).

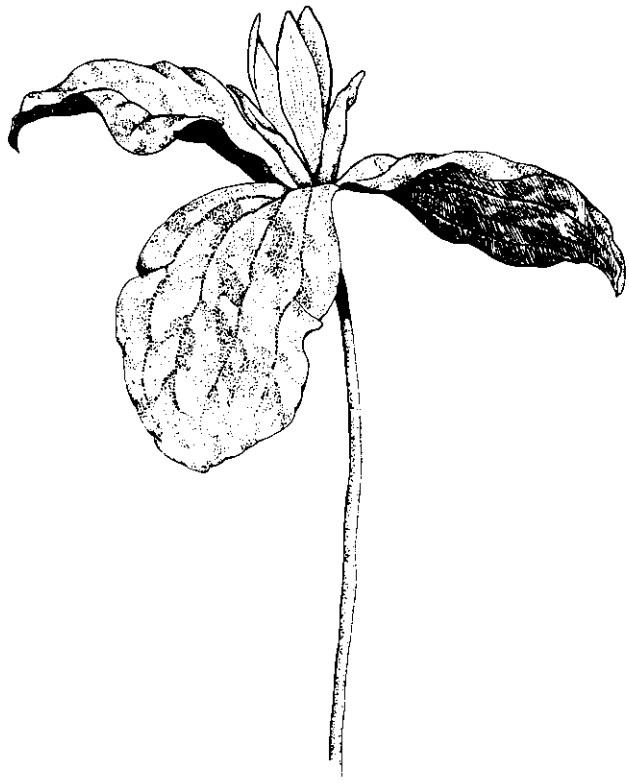
Trillium viride Beck

GREEN TRILLIUM **LILIACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems to 45 cm tall.
Range: Southwestern Illinois and east-central Missouri.



Trillium viride is restricted in Illinois to the extreme western and southern counties, where it occurs in a wide range of habitats. It has been collected in Illinois from forested bottomlands, talus slopes, blufftops, and prairies. Presently, populations are known from a state park, and a few sites on private land.
References: Mohlenbrock (1961b), Mohlenbrock and Voigt (1965), Freeman (1975), Thompson and Heineke (1977), Case and Case (1997).



Trillium viride

Urtica chamaedryoides Pursh

NETTLE **URTICACEAE**

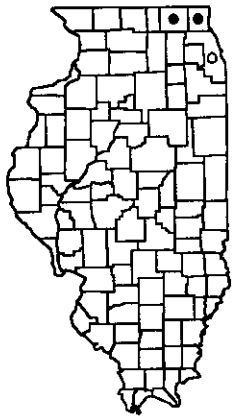
Status: Threatened in Illinois.
Habit: Annual herb, stems 20-80 cm tall.
Range: Southeastern United States and Mexico.

Urtica chamaedryoides reaches its northern range limit in floodplain forests in extreme southern Illinois. The few Illinois collections are from the floodplains of the Mississippi and Ohio rivers, made primarily during the late 1940s to the 1970s. The species has not been reported recently from Illinois, but considering its annual habit and the extensive habitat available, it undoubtably still persists.
References: Bailey and Swayne (1951), Mohlenbrock *et al.* (1961), Boufford (1997).

Utricularia cornuta Michx.

HORNED BLADDERWORT **LENTIBULARIACEAE**

Status: Endangered in Illinois.
Habit: Aquatic insectivorous herb, scapes to 25 cm long.
Range: Eastern Canada, adjacent eastern United States.

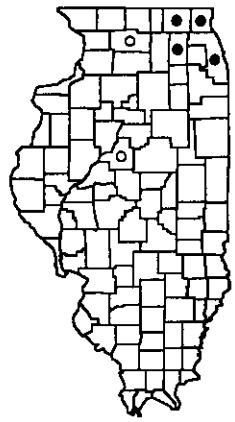


Utricularia cornuta is limited in Illinois to bogs, wet peaty sands, and fens in the Northeastern Morainal Natural Division. Presently two populations are known in the state; both occur in state nature preserves. The species also might persist in Cook County, where it was collected in 1942 from a site that is now in or near a state nature preserve.
Reference: Tans (1987).

Utricularia intermedia Hayne

FLAT-LEAVED BLADDERWORT
LENTIBULARIACEAE

Status: Endangered in Illinois.
Habit: Submersed insectivorous aquatic herb, scapes 6-20 cm long.
Range: Circumboreal, south into northern United States.

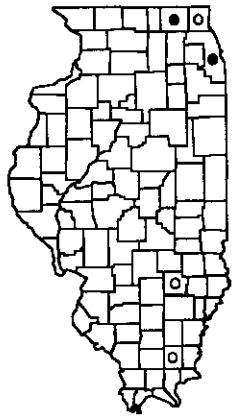


Utricularia intermedia is scattered and rare in northern Illinois, where it occurs in shallow water of bogs, fens, and interdunal swales. Presently seven populations are known in the state, five in state nature preserves.
References: Rossbach (1939), Tans (1987), Hess and Stoynoff (1989).

Utricularia minor L.

SMALL BLADDERWORT **LENTIBULARIACEAE**

Status: Endangered in Illinois.
Habit: Submersed insectivorous aquatic herb, scapes 4-15 cm long.
Range: Circumboreal, south into northern United States.



Utricularia minor occurs in shallow water of bogs, calcareous floating mats, fens, and interdunal swales. Until the 1960s, this species was known in the state from less than six localities, all in the extreme northeastern counties. In 1964 and 1965 it was collected from two ponds in Saline and Clay counties. Whether these stations represent established populations or waifs is unknown. Presently the species occurs in two state nature preserves in Cook and McHenry counties.
References: Rossbach (1939), Dolbeare and Ebinger (1974), Tans (1987).

Vaccinium corymbosum L.

HIGHBUSH BLUEBERRY **ERICACEAE**

Status: Endangered in Illinois.
Habit: Shrub, to 4 m tall.
Range: Eastern United States and adjacent Canada.

Vaccinium corymbosum occurs in wet acidic sand prairies and acidic bogs in northern Illinois. Populations of this species are presently known from two bogs, both in state nature preserves. It is probably still extant in two other state nature preserves where it was observed in the late 1980s. There are unverified reports of this species from LaSalle County.
References: Fuller (1944), Camp (1945), Sheviak and Haney (1973), Taft and Solecki (1990).

Vaccinium oxycoccos L.

SMALL CRANBERRY **ERICACEAE**

Status: Endangered in Illinois.
Habit: Perennial with creeping semi-woody stem.
Range: Circumboreal, south to northeastern United States.

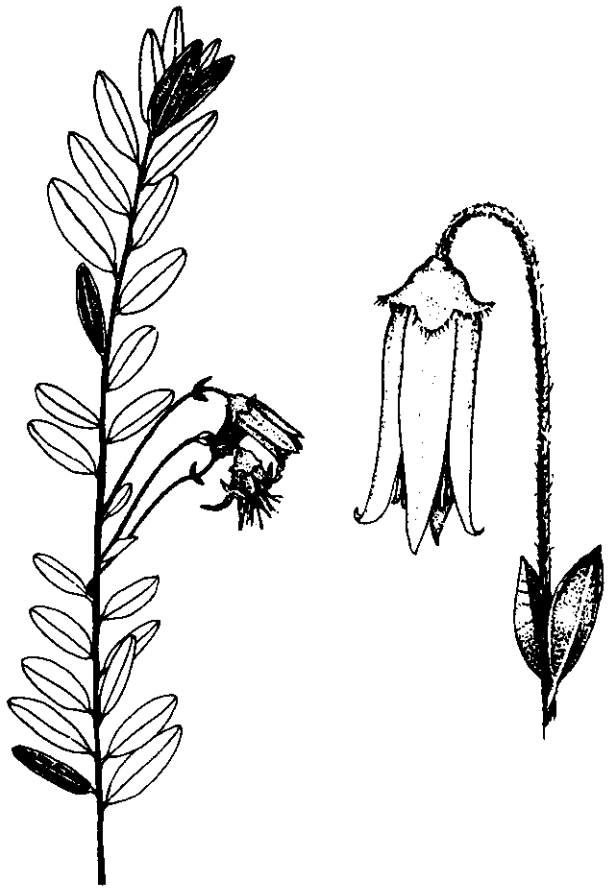
This boreal cranberry ranges southward through the Great Lakes region in sphagnum bog habitats. It was not known to occur in the state until its discovery in a Lake County forested bog in 1987. Although this site is protected as an Illinois nature preserve, bog succession, lowering of water tables, drought, and invasion by glossy buckthorn threaten the habitat required by this cranberry. It was recently found in a state nature preserve bog in Cook County.
References: Tehon (1942), Taft and Solecki (1990).

Vaccinium macrocarpon Ait.

LARGE CRANBERRY **ERICACEAE**

Status: Endangered in Illinois.
Habit: Evergreen, trailing shrub.
Range: Northeastern United States and adjacent Canada.

Vaccinium macrocarpon reaches its southern range limit in acidic bogs of the Northeastern Morainal Natural Division of Illinois. Presently this species is known from three state sites, two in state nature preserves. It probably still persists at five other state nature preserves where it was observed in the 1970s and 1980s.
References: Emerson (1921), Tehon (1942), Sheviak and Haney (1973), Evert (1988), Taft and Solecki (1990).



Vaccinium macrocarpon

Valeriana uliginosa (Torr. & Gray) Rydb.

MARSH VALERIAN **VALERIANACEAE**

Status: Endangered in Illinois.
Synonym: *Valeriana sitchensis* Bong. subsp. *uliginosa* (Torr. & Gray) F.G. Mey.
Habit: Perennial rhizomatous herb, stems 0.5-1 m tall.
Range: Eastern Canada and adjacent northeastern United States.

Valeriana uliginosa reaches its southwestern range limit in calcareous fens in extreme northeastern Illinois. It is known from one state locality where it occupies graminoid fen habitat next to spring runs. This area is protected as a state nature preserve. It probably persists at a second state nature preserve where it was found in 1989.
References: Meyer (1951), Moran (1981).

Valerianella chenopodifolia (Pursh) DC.

CORN SALAD **VALERIANACEAE**

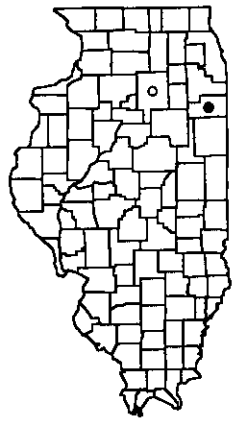
Status: Endangered in Illinois.
Habit: Annual or biennial herb, stems to 1 m tall.
Range: Northeastern and north-central United States and adjacent Canada.

Valerianella chenopodifolia occurs in Illinois near its southwestern range limit, where a single station is known from Will County. This population was discovered in 1982 on south-facing low limestone bluffs of the Des Plaines River. The plants were reported as locally abundant at the time of collection and when revisited in 1987. However, the present status of this population is unknown.
Reference: Schwegman (1984).

Valerianella umbilicata (Sullivant) Wood

CORN SALAD **VALERIANACEAE**

Status: Endangered in Illinois.
Habit: Annual herb, stems to 1 m tall.
Range: Northeastern United States and adjacent Canada.

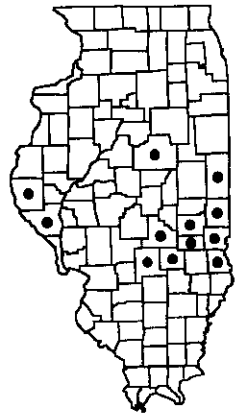


Valerianella umbilicata reaches its western range limit in Illinois in areas of bedrock outcrops in the upper Illinois River drainage. The species has been found in a variety of habitats, including mesic to dry dolomite and sandstone bluffs and banks, low ground, and on sandy slopes. Despite its wide habitat range, the species is known to be extant from only one site. This population was rediscovered in a Kankakee County state nature preserve after initiation of a prescribed burning program.
References: Dyal (1938), Ware (1983), Schwegman (1988), Bowles *et al.* (1991).

Veratrum woodii Robbins

FALSE HELLEBORE **LILIACEAE**

Status: Threatened in Illinois.
Synonym: *Melanthium woodii* (Robbins) Bodkin.
Habit: Perennial herb, stem 0.7-1.4 cm tall.
Range: Central Midwest.

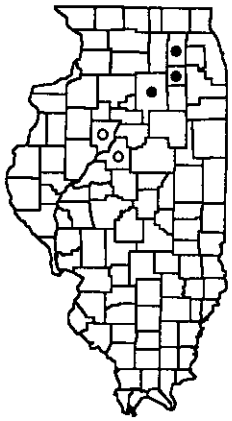


Veratrum woodii occurs in mesic upland and ravine forests in central Illinois. Populations are usually small and generally rare throughout its range. Individual plants seldom bloom, remaining sterile for long periods. Presently thirty populations are known from twelve counties. These sites include several state parks, a university research area, a state nature preserve, a state forest, and private land.
References: McDonald (1892), Hellinga and Ebinger (1970), Henry (1978), Ebinger (1993, 1996).

Veronica americana (Raf.) Schwein.

AMERICAN BROOKLIME **SCROPHULARIACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, prostrate stems to 1 m long.
Range: Boreal Canada and Alaska, south through northern United States.

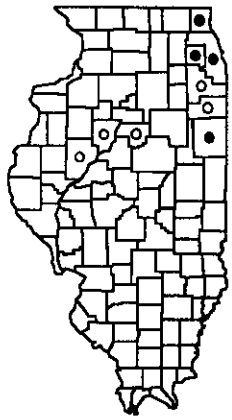


A plant of wet ground around springs, seeps, streams, marshes, and fens, *Veronica americana* is rare and locally distributed in Illinois. It is presently known to occur in a state park in LaSalle County, and from private land in Kane and Kendall counties. The state population is threatened by trampling from excessive trail use next to their habitat. There are unverified reports of this species from DuPage, and Vermilion counties.
References: Pennell (1935), Bowles *et al.* (1991).

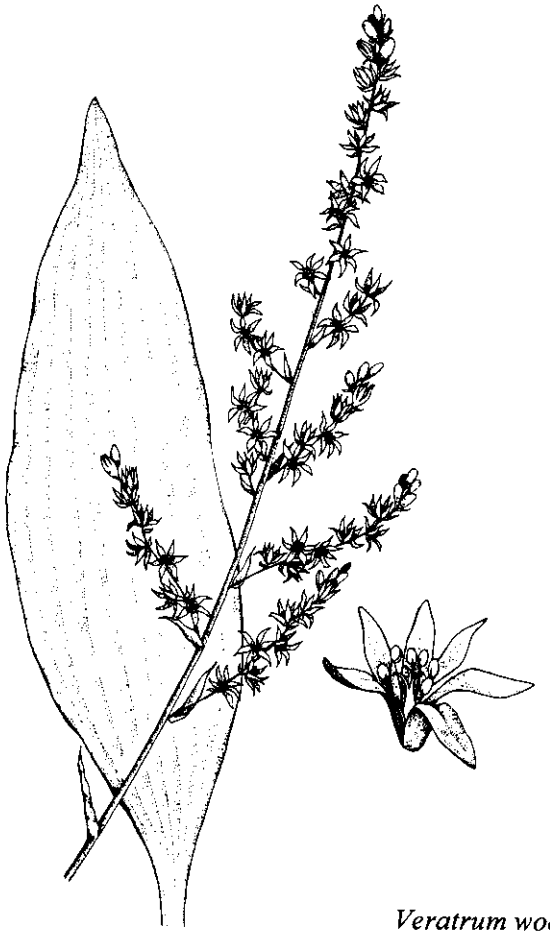
Veronica scutellata L.

MARSH SPEEDWELL **SCROPHULARIACEAE**

Status: Threatened in Illinois.
Habit: Perennial rhizomatous herb, stems 10-60 cm tall.
Range: Circumboreal, south into northeastern United States and the Rocky Mountains.



Veronica scutellata has been found in marshes, graminoid fens, and other wetlands in northeastern Illinois and in the Illinois River valley. It is presently known from fourteen stations, including two state nature preserves, eight county forest preserves, a state conservation area, and private land.
References: Salamun (1951), Taft and Solecki (1990).

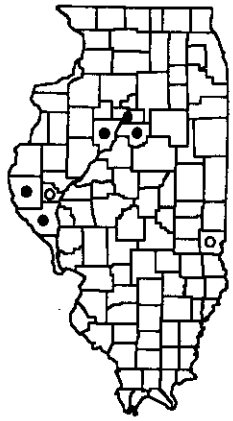


Veratrum woodii

Viburnum molle Michx.

ARROWWOOD **CAPRIFOLIACEAE**

Status: Threatened in Illinois.
Habit: Shrub, to 4 m tall.
Range: Pennsylvania to Iowa, south to Kentucky and Arkansas.



In Illinois, *Viburnum molle* is limited primarily to forested slopes and limestone bluffs in the western part of the state. It has been collected at eleven localities in the state and is known to persist at eight of these. Six populations are on private land, one is in a state nature preserve, and another protected in a private preserve.
Reference: Tehon (1942).

Viola canadensis L.

CANADA VIOLET **VIOLACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, stems to 60 cm tall.
Range: Northern United States and adjacent Canada, south into the Appalachians and the Rocky Mountains.

Although *Viola canadensis* has been collected at a few sites across northern Illinois, most records from northeastern Illinois are considered escapes from cultivation. It appears likely that indigenous populations of this species are limited to the Wisconsin Driftless Natural Division in northwestern Illinois. Presently native populations are known on the bluffs of the Mississippi River in a state park in Carroll County and a natural heritage landmark in Jo Daviess County.
Note: This taxon is represented in Illinois by variety *rugulosa* (Greene) C. L. Hitchcock.
References: Russell (1955, 1956, 1965).

Viola conspersa Reichenb.

DOG VIOLET **VIOLACEAE**

Status: Threatened in Illinois.
Habit: Perennial rhizomatous herb, stems to 20 cm tall.
Range: Eastern Canada, south into northeastern United States, and the Appalachians.

Viola conspersa reaches its southwestern range limit in rich mesic forests and flatwoods in northeastern Illinois. It was formerly frequent in the Chicago region, but has declined significantly and continues to be threatened by urban growth. Fourteen stations are presently known in the state. These sites are in state nature preserves, county forest preserves, federal and municipal property, and private land.
References: Russell (1965), Moran (1978), Evert (1988), Ballard (1990).

Viola incognita Brainerd

HAIRY WHITE VIOLET **VIOLACEAE**

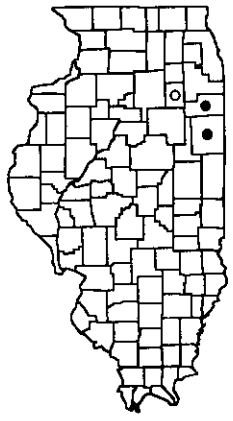
Status: Endangered in Illinois.
Habit: Perennial rhizomatous acaulescent herb, to 25 cm tall.
Range: Boreal eastern Canada and adjacent northeastern United States.

Viola incognita reaches its southern range limit in northern Illinois, where it occurs in flatwoods, forested fens and mesic forests along river bluffs. Only a few collections of this species have been made in the state, and there are two known extant populations, one in a state nature preserve in Lake County, and another on private land in Kane County.
Note: According to Kartez (1994) and Gleason and Cronquist (1991), this taxon may be a part of *Viola blanda* Willd.
References: Russell (1955, 1956, 1965), Waller (1981), Evert (1988).

Viola primulifolia L.

PRIMROSE VIOLET **VIOLACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous acaulescent herb, to 15 cm tall.
Range: Eastern United States and adjacent Canada.

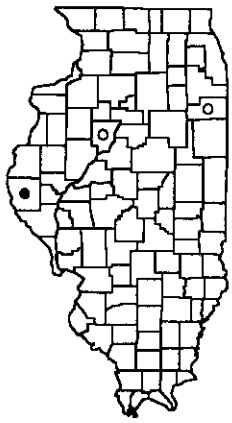


Viola primulifolia is restricted in Illinois to wet-mesic sand prairies in the Kankakee Sand Area Section of the Grand Prairie Natural Division. Presently it is known from three stations in two Illinois counties, including a state nature preserve and a state conservation area.
References: Russell (1955, 1956, 1965).

Viola viarum Pollard

PLAINS VIOLET **VIOLACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous acaulescent herb, to 20 cm tall.
Range: Iowa, Missouri, Kansas, Oklahoma, and Illinois.



A plant of gravel stream banks and stream terraces, *Viola viarum* reaches its eastern range limit in Illinois. In 1951 a single large clump was found on a gravel river bluff prairie in Peoria County; however, this specimen may be of hybrid origin. Apparently the only valid record for this species in Illinois is from a gravel terrace of the Mississippi River in Adams County. This site contains a former building foundation, and it is not known if the plants are native. Other collections attributed to this species appear to be hybrids.
Note: According to Gleason and Cronquist (1991), this taxon may be a part of *Viola palmata* L.
References: Mohlenbrock (1961a), Bowles *et al.* (1991), Henry (1992).

Viola viarum

Waldsteinia fragarioides (Michx.) Tratt.

BARREN STRAWBERRY **ROSACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous herb, scapes 10-20 cm tall.
Range: Eastern Canada, south into northeastern United States, the Appalachians, and disjunct in the Ozarks.

Waldsteinia fragarioides is a northern species that is disjunct in the extreme southern tip of Illinois. It was known from a single station in the Shawnee Hills Natural Division of Illinois, where it occurred on north-facing sandstone ledges above a creek in the Shawnee National Forest. It has not been relocated at that site and is probably extirpated from the state.
References: Mason and Iltis (1959), Schwegman and Mohlenbrock (1968).

Woodsia ilvensis (L.) R. Br.

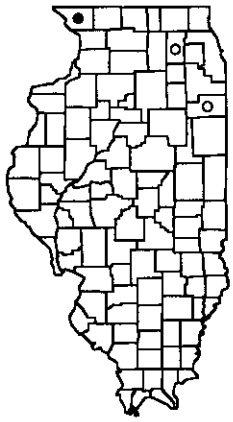
RUSTY WOODSIA **DRYOPTERIDACEAE**

Status: Endangered in Illinois.
Habit: Perennial rhizomatous fern, fronds to 20 cm long.
Range: Circumboreal, south into northeastern United States and the Appalachians.

Woodsia ilvensis is limited in Illinois to dry sandstone cliffs and ledges, primarily in the Rock River Hill Country Natural Division. Presently one population is known in the state, occurring on private land in Lee County.
References: Tryon *et al.* (1940), Fell and Fell (1949), McFall and Jones (1972), Windham (1993).

Zigadenus glaucus Nutt.

WHITE CAMASS **LILIACEAE**



Status: Endangered in Illinois.
Synonym: *Zigadenus venenosus* S. Wats. var. *gramineus* (Rydb.) Walsh.
Habit: Perennial bulbous herb, stems to 75 cm tall.
Range: Southeastern Canada, and adjacent northeastern United States, south into the Appalachians.

In Illinois, *Zigadenus glaucus* occurs on dolomite cliffs in the driftless area of Jo Daviess County. Populations also have been reported from fen and gravel prairie habitat in the Northeastern Morainal Natural Division. Currently the only known extant populations are in a Jo Daviess state park and adjacent private land. A fen population in Kane County was seen as recently as 1969 and may persist, although attempts to relocate it have been unsuccessful.
Note: The scientific name of this taxon is presently considered to be *Zigadenus elegans* Pursh subsp. *glaucus* (Nutt.) Hulten.
Reference: Pepoon (1909).

Zigadenus glaucus

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Golden ... 17
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Large ... 20
Lined ... 23
Little Green ... 24
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Pretty ... 24
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Swollen ... 20
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emersum ... 84
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Sullivantia ... 87
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noveboracensis ... 89
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Pitcher's ... 28
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Pink ... 40

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americana var. *heterophylla* 89
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Tofieldia glutinosa 90
Tomanthera auriculata 90
Torreyochloa pallida 72
Tradescantia bracteata 90
Triadenum virginicum 90
Trichomanes boschianum 91
Trientalis borealis 91
Trifolium reflexum 92
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maritima 92
palustris 92
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cernuum 92
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uliginosa 96
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palmuta 99
primulifolia 98
viarum 99
Violet
Canada 98
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Primrose 98
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Wild Calla 15
Wild Licorice 41
Willow
Autumn 77
Dune 77
Water 50
Willow Herb, Downy 37
Wintergreen 42
Wintergreen, Spotted 26
Wood Sorrel, Illinois 60
Woodrush, Hairy 53
Woodsia ilvensis 99
Wormwood, Dragon 7
Yellowwood 28
Zigadenus
elegans subsp. *glaucus* 100
glaucus 100
venenosus var. *gramineus* 100

APPENDIX I

WISCONSIN
DUBUQUE
GRANT
LAFAYETTE
GREEN
ROCK
WALWORTH
KENOSHA
JO DAVIESS
STEPHENSON
WINNEBAGO
BOONE
Mc HENRY
LAKE
JACKSON
CARROLL
OGLE
DE KALB
KANE
COOK
CLINTON
WHITESIDE
LEE
DU PAGE
SCOTT
KENDALL
WILL
LAKE
HENRY
BUREAU
LA SALLE
MUSCATINE
ROCK ISLAND
GRUNDY
LOUISA
MERCER
IOWA
STARK
PUTNAM
KANKAKEE
KNOX
MARSHALL
NEWTON
DES MOINES
WARREN
LIVINGSTON
PEORIA
IROQUOIS
HENDERSON
WOODFORD
LEE
FULTON
TAZEWELL
McLEAN
BENTON
HANCOCK
McDONOUGH
FORD
CLARK
MASON
VERMILION
WARREN
CHAMPAIGN
LEWIS
SCHUYLER
LOGAN
DE WITT
PIATT
INDIANA
ADAMS
BROWN
CASS
MENARD
VERMILLION
MACON
MARION
MORGAN
SANGAMON
DOUGLAS
EDGAR
PIKE
SCOTT
MOULTRIE
CHRISTIAN
CALLS
SHELBY
COLES
VIGO
PIKE
MISSOURI
GREENE
MACOUPIN
CLARK
CALHOUN
MONTGOMERY
CUMBERLAND
LINCOLN
JERSEY
FAYETTE
EFFINGHAM
JASPER
CRAWFORD
SULLIVAN
MADISON
BOND
SAINT CHARLES
CLAY
KNOX
SAINT LOUIS
RICHLAND
LAWRENCE
MARION
SAINT LOUIS CITY
CLINTON
SAINT CLAIR
WAYNE
EDWARDS
WABASH
JEFFERSON
MONROE
WASHINGTON
JEFFERSON
GIBSON
HAMILTON
WHITE
RANDOLPH
PERRY
POSEY
FRANKLIN
SAINTE GENEVIEVE
JACKSON
SALINE
GALLATIN
PERRY
WILLIAMSON
UNION
CAPE GIRARDEAU
UNION
JOHNSON
POPE
HARDIN
CRITTENDEN
ALEXANDER
MASSAC
LIVINGSTON
PULASKI
SCOTT
KENTUCKY
BALLARD
McCRACKEN

APPENDIX II THE NATURAL DIVISIONS OF ILLINOIS

1 Wisconsin Driftless Division

2 Rock River Hill Country Division
- a Freeport Section
- b Oregon Section

3 Northeastern Morainal Division
- a Morainal Section
- b Lake Michigan Dunes Section
- c Chicago Lake Plain Section
- d Winnebago Drift Section

4 Grand Prairie Division
- a Grand Prairie Section
- b Springfield Section
- c Western Section
- d Green River Lowland Section
- e Kankakee Sand Area Section

5 Upper Mississippi River and Illinois River Bottomlands Division
- a Illinois River Section
- b Mississippi River Section

6 Illinois River and Mississippi River Sand Areas Division
- a Illinois River Section
- b Mississippi River Section

7 Western Forest-Prairie Division
- a Galesburg Section
- b Carlinville Section

8 Middle Mississippi Border Division
- a Glaciated Section
- b Driftless Section

9 Southern Till Plain Division
- a Effingham Plain Section
- b Mt Vernon Hill Country Section

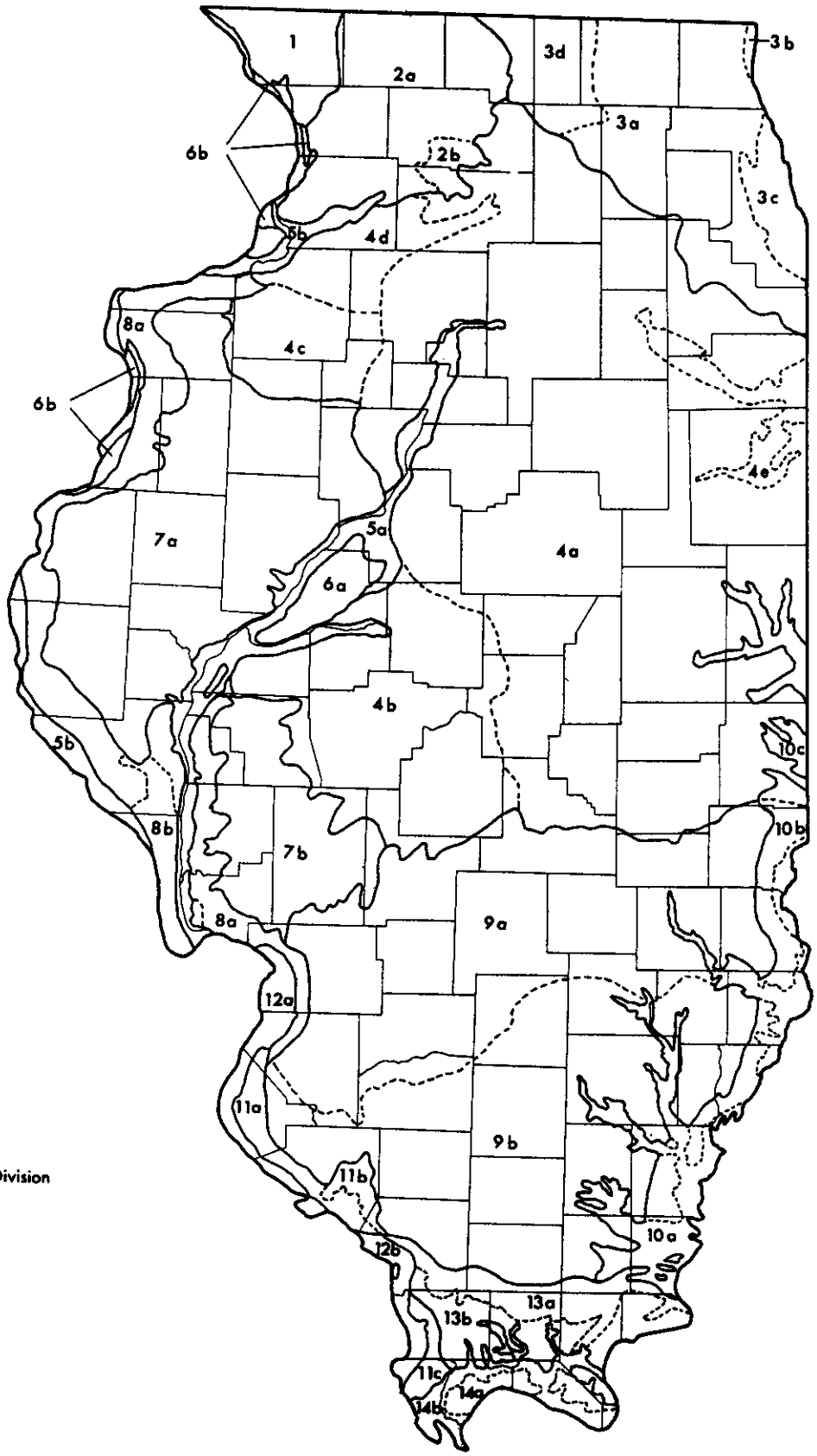
10 Wabash Border Division
- a Bottomlands Section
- b Southern Uplands Section
- c Vermilion River Section

11 Ozark Division
- a Northern Section
- b Central Section
- c Southern Section

12 Lower Mississippi River Bottomlands Division
- a Northern Section
- b Southern Section

13 Shawnee Hills Division
- a Greater Shawnee Hills Section
- b Lesser Shawnee Hills Section

14 Coastal Plain Division
- a Cretaceous Hills Section
- b Bottomlands Section



Schwegman, John E. principal author. 1973. Comprehensive Plan for the Illinois Nature Preserves System, Part 2. The Natural Divisions of Illinois. Illinois Nature Preserves Commission, Rockford. 32pp.

APPENDIX III - Listing of Endangered and Threatened Plant Species by Family

*Threatened species

Acanthaceae
Justicia ovata

Adoxaceae
Adoxa moschatellina

Alismataceae
Echinodorus tenellus
Sagittaria longirostra

Amaranthaceae
Iresine rhizomatosa

Apiaceae
Conioselinum chinense
Cynosciadium digitatum
Eryngium prostratum
Hydrocotyle ranunculoides
Ptilimnium nuttallii

Araceae
Calla palustris

Aristolochiaceae
Aristolochia serpentaria var. *hastata**

Asclepiadaceae
Asclepias lanuginosa
Asclepias meadii
Asclepias ovalifolia
Asclepias stenophylla
Matelea decipiens
*Matelea obliqua**

Aspleniaceae
Asplenium bradleyi
Asplenium resiliens

Asteraceae
Artemisia dracunculus
*Aster furcatus**
Bidens beckii
*Boltonia decurrens**
*Cirsium hillii**
*Cirsium pitcheri**
Eupatorium hyssopifolium
*Eupatorium incarnatum**
*Helianthus angustifolius**
Helianthus giganteus
Hymenoxys acaulis
*Lactuca hirsuta**
Liatris scariosa var. *nieuwlandii**
Melanthera nivea
Microseris cuspidata
Rudbeckia missouriensis
Silphium trifoliatum
*Solidago sciaphila**

Berberidaceae
Berberis canadensis

Betulaceae
Alnus rugosa
Betula alleghaniensis
Betula populifolia

Boraginaceae
Hackelia americana
Heliotropium tenellum

Brassicaceae
*Cakile edentula**
Cardamine pratensis var. *palustris*
Draba cuneifolia
Lesquerella ludoviciana

Cactaceae
Opuntia fragilis

Capparidaceae
Polanisia jamesii

Caprifoliaceae
Lonicera dioica var. *glaucescens*
Lonicera flava
Sambucus pubens
Symphoricarpos albus var. *albus*
*Viburnum molle**

Caryophyllaceae
*Arenaria patula**
Silene ovata
Silene regia
Stellaria pubera

Celastraceae
Euonymus americanus

Cistaceae
Hudsonia tomentosa
*Lechea intermedia**

Clusiaceae
Hypericum adpressum
Hypericum kalmianum
Triadenum virginicum

Commelinaceae
*Tradescantia bracteata**

Convolvulaceae
Stylisma pickeringii

Cornaceae
Cornus canadensis

Corylaceae
Corylus cornuta

Cucurbitaceae
*Melothria pendula**

Cupressaceae
*Juniperus communis**
Juniperus horizontalis
*Thuja occidentalis**

Cyperaceae
Carex alata
Carex arkansana
Carex aurea

Carex brunnescens
Carex canescens var. *disjuncta*
Carex chordorrhiza
*Carex communis**
Carex crawfordii
Carex cryptolepis
Carex decomposita
Carex disperma
Carex echinata
Carex garberi
Carex gigantea
Carex heliophila
*Carex intumescens**
Carex lucorum
Carex nigromarginata
Carex oligosperma
*Carex oxylepis**
Carex physorhyncha
*Carex prasina**
Carex reniformis
Carex striatula
Carex trisperma
Carex tuckermanii
*Carex viridula**
*Carex willdenowii**
*Carex woodii**
*Cyperus grayioides**
Cyperus lancastriensis
Eleocharis olivacea
Eleocharis pauciflora
*Eleocharis rostellata**
Eriophorum virginicum
Fimbristylis vahlii
*Rhynchospora alba**
Rhynchospora glomerata
Scirpus cespitosus
*Scirpus hallii**
Scirpus hattorianus
Scirpus paludosus
*Scirpus polyphyllus**
Scirpus purshianus
Scirpus smithii
Scirpus verecundus

Dennstaedtiaceae
Dennstaedtia punctilobula

Droseraceae
*Drosera intermedia**
Drosera rotundifolia

Dryopteridaceae
Cystopteris laurentiana
Dryopteris celsa
Gymnocarpium dryopteris
Gymnocarpium robertianum
Woodsia ilvensis

Elaeagnaceae
Shepherdia canadensis

Equisetaceae
*Equisetum pratense**
Equisetum scirpoides
Equisetum sylvaticum

Ericaceae
Arctostaphylos uva-ursi
*Chamaedaphne calyculata**
Gaultheria procumbens
Vaccinium corymbosum
Vaccinium macrocarpon
Vaccinium oxycoccos

Euphorbiaceae
Chamaesyce polygonifolia
Euphorbia spathulata

Fabaceae
Amorpha nitens
Astragalus crassicarpus var. *trichocalyx*
Astragalus tennesseensis
Cladrastis lutea
Dalea foliosa
Galactia mohlenbrockii
Lathyrus maritimus
*Lathyrus ochroleucus**
Lespedeza leptostachya
Trifolium reflexum

Fagaceae
*Quercus montana**
Quercus nuttallii
*Quercus phellos**

Gentianaceae
Bartonia paniculata
Sabatia campestris

Geraniaceae
Geranium bicknellii

Grossulariaceae
Ribes hirtellum

Hydrophyllaceae
Hydrolea uniflora
Phacelia gilioides

Hymenophyllaceae
Trichomanes boschianum

Iridaceae
Sisyrinchium atlanticum
Sisyrinchium montanum

Isoetaceae
Isoetes butleri

Juglandaceae
Carya pallida

Juncaceae
Juncus alpinus
Juncus vaseyi
Luzula acuminata

Juncaginaceae
*Triglochin maritima**
*Triglochin palustris**

Lamiaceae
Pycnanthemum albescens
Pycnanthemum torrei
Salvia azurea subsp. *pitcheri**
Synandra hispidula

Lentibulariaceae
Utricularia cornuta
Utricularia intermedia
Utricularia minor

Liliaceae
Camassia angusta
*Erythronium mesochoreum**
Medeola virginiana
*Melanthium virginicum**
Polygonatum pubescens
Stenanthium gramineum
*Tofieldia glutinosa**
Trillium cernuum
Trillium erectum
Trillium viride
*Veratrum woodii**
Zigadenus glaucus

Lycopodiaceae
Lycopodium clavatum
Lycopodium dendroideum
Lycopodium inundatum

Malvaceae
Iliamna remota
Malvastrum hispidum

Marantaceae
Thalia dealbata

Myricaceae
Comptonia peregrina

Nyctaginaceae
Mirabilis hirsuta

Onagraceae
Circaea alpina
*Epilobium strictum**
*Oenothera perennis**

Ophioglossaceae
*Botrychium biternatum**
Botrychium matricariaefolium
Botrychium multifidum
Botrychium simplex

Orchidaceae
Calopogon tuberosus
*Corallorhiza maculata**
Cypripedium acaule
Cypripedium calceolus var. *parviflorum*
*Cypripedium candidum**
Cypripedium reginae
Hexalectris spicata
Isotria medeoloides
Isotria verticillata
Platanthera ciliaris
Platanthera clavellata
Platanthera flava var. *flava*
Platanthera flava var. *herbiola*
Platanthera leucophaea
Platanthera psycodes
Pogonia ophioglossoides
Spiranthes lucida
Spiranthes romanzoffiana
Spiranthes vernalis

Orobanchaceae
Orobanche fasciculata
*Orobanche ludoviciana**

Oxalidaceae
Oxalis illinoensis

Papaveraceae
Corydalis aurea
Corydalis halei
Corydalis sempervirens

Physciaceae
Phaeophyscia leana

Pinaceae
*Larix laricina**
Pinus banksiana
Pinus echinata
Pinus resinosa

Plantaginaceae
Plantago cordata

Poaceae
Ammophila breviligulata
Beckmannia syzigachne
Bouteloua gracilis
Calamagrostis insperata
Elymus trachycaulus
Glyceria arkansana
Melica mutica
Milium effusum
Panicum boreale
Panicum columbianum
Panicum joorii
Panicum ravenelii
Panicum yadkinense
Paspalum dissectum
Poa alsodes
Poa languida
Poa wolfii
Puccinellia pallida
Schizachne purpurascens

Polemoniaceae
Phlox pilosa subsp. *sangamonensis*

Polygalaceae
Polygala incarnata

Polygonaceae
Polygonum arifolium
Polygonum careyi

Pontederiaceae
Heteranthera reniformis

Portulacaceae
Talinum calycinum

Potamogetonaceae
*Potamogeton gramineus**
Potamogeton praelongus
Potamogeton pulcher
Potamogeton robbinsii
Potamogeton strictifolius

Primulaceae
Lysimachia fraseri
Lysimachia radicans
Primula mistassinica
*Trientalis borealis**

Pyrolaceae
Chimaphila maculata
Chimaphila umbellata

Ranunculaceae
Cimicifuga americana
Cimicifuga racemosa
*Cimicifuga rubifolia**

Clematis crispa
Clematis occidentalis
Clematis viorna
Ranunculus cymbalaria
*Ranunculus rhomboideus**

Rhamnaceae
Berchemia scandens
Ceanothus ovatus
Rhamnus alnifolia

Rosaceae
Amelanchier interior
Amelanchier sanguinea
Filipendula rubra
Malus angustifolia
Potentilla millegrana
Rosa acicularis
Rubus odoratus
*Rubus pubescens**
Rubus setosus
Sanguisorba canadensis
Sorbus americana
Waldsteinia fragarioides

Rubiaceae
*Galium labradoricum**
Galium lanceolatum
Galium virgatum

Salicaceae
Populus balsamifera
Salix serissima
Salix syrticola

Sapotaceae
Bumelia lanuginosa

Sarraceniaceae
Sarracenia purpurea

Saxifragaceae
Saxifraga virginiensis
*Sullivantia renifolia**

Scrophulariaceae
*Agalinis skinneriana**
*Besseya bullii**
Castilleja sessiliflora
Collinsia violacea
Mimulus glabratus
Penstemon brevisepalus
Penstemon grandiflorus
*Tomanthera auriculata**
Veronica americana
*Veronica scutellata**

Sparganiaceae
Sparganium americanum
Sparganium chlorocarpum

Styracaceae
Halesia carolina
*Styrax americana**
Styrax grandifolius

Thelypteridaceae
Thelypteris noveboracensis
Thelypteris phegopteris

Tiliaceae
Tilia heterophylla

Ulmaceae
*Planera aquatica**
Ulmus thomasii

Urticaceae
*Urtica chamaedryoides**

Valerianaceae
Valeriana uliginosa
Valerianella chenopodifolia
Valerianella umbilicata

Violaceae
Viola canadensis
*Viola conspersa**
Viola incognita
Viola primulifolia
Viola viarum

APPENDIX IV - Cross Reference of Species to County -- Species Listing

Counties with an asterisk (*) after them are recent (since 1990) records. Counties without an asterisk are historic (before 1990) records.

Adoxa moschatellina
- Jo Daviess

Agalinis skinneriana
- Cass*
- Cook
- Greene*
- Hancock*
- Henderson
- Iroquois
- Jersey*
- Kankakee
- Lake*
- Mason*
- Menard*
- Morgan*
- Pike*
- St. Clair
- Will

Alnus rugosa
- Boone
- Cook
- Kane
- Lake
- McHenry*
- Winnebago*

Amelanchier interior
- Cook*
- DuPage*
- Jo Daviess*
- Lake*
- Winnebago*

Amelanchier sanguinea
- Cook*
- Kane
- Lake
- LaSalle*
- McHenry*
- Ogle*

Ammophila breviligulata
- Cook*
- Lake*

Amorpha nitens
- Pope*

Arctostaphylos uva-ursi
- Cook
- Lake*
- Ogle
- Peoria
- Tazewell
- Winnebago

Arenaria patula
- Cook*
- DuPage*
- Grundy*
- Kankakee
- Kendall
- St. Clair
- Will*

Aristolochia serpentaria* var. *hastata
- Alexander*
- Johnson
- Massac
- Pope
- Pulaski*
- Saline
- Union

Artemisia dracunculus
- Boone
- Cass
- Lee
- Mason
- Morgan
- Peoria
- Winnebago*

Asclepias lanuginosa
- Boone
- Cook
- DeKalb
- DuPage
- Jo Daviess*
- Kane*
- Lake
- LaSalle
- Lee
- McHenry*
- Ogle*
- Will
- Winnebago*

Asclepias meadii
- Cook
- DuPage*
- Ford*
- Fulton
- Hancock
- Henderson
- Henry*
- Peoria
- Saline*

Asclepias ovalifolia
- Cook*
- Kankakee
- Kendall
- Lake
- McHenry

Asclepias stenophylla
- Adams
- Calhoun*
- Pike*

Asplenium bradleyi
- Jackson*
- Randolph*
- Saline*
- Union*

Asplenium resiliens
Alexander
Jackson
Union

Aster furcatus
Boone
Carroll*
Cook*
Fulton
Grundy
Hancock
Henderson
Kane*
Kankakee
Kendall
Lake*
LaSalle*
Lee
McHenry
Ogle*
Peoria
Tazewell
Will*
Winnebago
Woodford

Astragalus crassicarpus* var. *trichocalyx
Jersey*
Macoupin*
Madison
St. Clair

Astragalus tennesseensis
DuPage*
Grundy
Kankakee
Lake
LaSalle
Mason
Ogle
Rock Island
Tazewell*
Will

Bartonia paniculata
Pope*

Beckmannia syzigachne
Cook*
Lake
McDonough

Berberis canadensis
Jackson
Tazewell

Berchemia scandens
Pope*

Besseya bullii
Carroll*
Cass
Henderson*
Jo Daviess*
Lee*
Mason
Menard
Mercer
Ogle*
Pike
Rock Island
Tazewell*
Whiteside
Winnebago*

Betula alleghaniensis
DuPage
Kane
Lake*
Lee*
Ogle
Winnebago

Betula populifolia
Winnebago*

Bidens beckii
Cook
Lake*
St. Clair

Boltonia decurrens
Brown*
Bureau*
Cass*
Fulton*
Jersey*
LaSalle*
Logan
Madison*
Marshall*
Mason*
Menard
Morgan*
Peoria*
Putnam*
St. Clair*
Schuyler*
Scott*
Tazewell*
Woodford*

Botrychium biternatum
Jackson*
Johnson
Pope*
Saline
Union

Botrychium matricariaefolium
Lee*
Winnebago*

Botrychium multifidum
Boone
Carroll
Cook*
Jo Daviess
Lee
McHenry
Ogle
Stephenson
Will
Winnebago

Botrychium simplex
Cook
Lee
Winnebago*

Bouteloua gracilis
Cook
Henry
Jo Daviess*
Lake

Morgan
Williamson*

Bumelia lanuginosa
Monroe*

Cakile edentula
Cook*
Lake*

Calamagrostis insperata
Pope*

Calla palustris
Lake*

Calopogon tuberosus
Cook*
DuPage
Grundy*
Hancock
Henderson
Henry
Iroquois*
Jackson
Kankakee
Lake*
LaSalle
Lee
Macoupin
Mason
McHenry*
Ogle
Peoria
Will*
Winnebago

Camassia angusta
Macon*
Peoria

Cardamine pratensis* var. *palustris
Lake
McHenry

Carex alata
Jackson
Massac
Pope*
Wabash

Carex arkansana
Saline*

Carex aurea
Cook*
Kane*
Lake*
McHenry*
Menard

Carex brunnescens
Lake*

Carex canescens* var. *disjuncta
Lake*

Carex chordorrhiza
Lake*
McHenry

Carex communis
Adams
Clark*
Cook
Cumberland
Effingham
Fayette
Gallatin
Jo Daviess
LaSalle*
Peoria
Pope
Saline*
Schuyler
Shelby
Vermilion*

Carex crawfordii
Lake*

Carex cryptolepis
Cook
DuPage*
Lake*
McHenry*

Carex decomposita
Gallatin
Johnson*
Pope*
Pulaski*
Union*

Carex disperma
Kane
Lake*
McHenry*

Carex echinata
Cook
DuPage
Lake*
Ogle*
Winnebago

Carex garberi
Cook*
Lake

Carex gigantea
Jackson
Johnson*
Massac
Pulaski*
Union

Carex heliophila
Jo Daviess

Carex intumescens
Adams
Alexander*
Cook*
Johnson*
Lake*
Livingston
Massac
Menard
Peoria
Pope*
Pulaski*
Saline*

Carex lucorum
Pope

Carex nigromarginata
Hardin*
Jackson
Montgomery
Pope
Union*
Wabash

Carex oligosperma
Kane
Lake
McHenry*

Carex oxylepis
Alexander*
Gallatin*
Hardin*
Johnson*
Pulaski
Saline*
Union

Carex physorhyncha
Effingham
Jackson
Randolph*
Union
Williamson

Carex prasina
Adams
Brown
Fayette*
Hancock*
Jo Daviess*
Johnson
LaSalle
Lawrence*
Pope*
Schuyler
Vermilion*

Carex reniformis
Massac*

Carex striatula
Gallatin
Hardin
Jackson
Pope
Union

Carex trisperma
Lake*

Carex tuckermanii
Cook*
DuPage*
Hancock
Lake*
Winnebago

Carex viridula
Cook*
DuPage*
Kankakee*
Lake*
McHenry*
Will*

Carex willdenowii
Gallatin
Iroquois
Johnson*
Pope*
Saline*
Union

Carex woodii
Cook*
DuPage*
Jo Daviess
Kane*
Kankakee
Lake*
Ogle*
Will*
Winnebago

Carya pallida
Alexander
Union

Castilleja sessiliflora
DuPage
Lake*
Lee*
McHenry
Rock Island*
Stephenson*
Winnebago*

Ceanothus ovatus
Carroll*
Cook
Jo Daviess*
Lake*
Ogle*
Whiteside
Winnebago*

Chamaedaphne calyculata
Cook
Kane*
Lake*
McHenry*
Winnebago

Chamaesyce polygonifolia
Cook*
Lake*
Peoria

Chimaphila maculata
Cook
Hardin*
Pope*

Chimaphila umbellata
Lake
McHenry
Winnebago*

Cimicifuga americana
Carroll*

Cimicifuga racemosa
Carroll
Cook
Kendall*
Lake
McHenry*
Ogle

Cimicifuga rubifolia
Gallatin*
Hardin*
Jackson
Johnson*

Massac
Pope*

Circaea alpina
Cook
Jo Daviess
Kane
Lake

Cirsium hillii
Adams
Bureau*
Cass*
Champaign
Christian
Coles
Cook
DeKalb*
DuPage*
Fulton
Greene*
Grundy*
Hancock
Henry*
Iroquois
Jo Daviess
Kane*
Kankakee
Knox
Lake
Lee*
Logan
Macoupin*
Madison
Marshall*
Mason*
McDonough*
McHenry*
Menard*
Montgomery
Morgan*
Ogle
Peoria*
Pike*
Putnam
Rock Island*
Sangamon
Schuyler
Scott
Stark
Whiteside*
Will*
Winnebago*
Woodford*

Cirsium pitcheri
Cook
Lake*

Cladrastis lutea
Alexander*
Gallatin

Clematis crispa
Alexander*
Pulaski*
St. Clair

Clematis occidentalis
Jo Daviess*

Clematis viorna
Jasper
Johnson
Lawrence*
Richland
Wayne

Collinsia violacea
Shelby*

Comptonia peregrina
Cook*
Kankakee*
Lake
Lee
Will
Winnebago*

Conioselinum chinense
Cook
Jo Daviess*
Kane

Corallorhiza maculata
Cook*
DuPage
Jo Daviess
Kane*
LaSalle
McHenry
Ogle
Rock Island*
Will
Winnebago*

Cornus canadensis
Cook
Lake
LaSalle
McHenry
Ogle*

Corydalis aurea
Champaign
Cook
Ford
LaSalle*
Mason
Ogle
Winnebago

Corydalis halei
Monroe
Pope

Corydalis sempervirens
Cook
LaSalle*
Ogle*
Stephenson
Winnebago

Corylus cornuta
Jo Daviess*

Cynosciadium digitatum
Jackson*

Cyperus grayioides
Carroll*
Cass*
Jo Daviess*
Mason*
Whiteside*

Cyperus lancastriensis
Massac
Pope
Pulaski

Cypripedium acaule
Cook
Lake
McHenry
Ogle*

Cypripedium calceolus **var.** *parviflorum*
Cook
Kane
Lake*
McHenry*
Winnebago

Cypripedium candidum
Boone
Cass*
Champaign
Cook*
DeKalb
DuPage*
Hancock
Henderson
Jo Daviess
Kane*
Kankakee
Lake*
Lee
Macon
Macoupin
Marshall
Mason*
McHenry*
McLean
Peoria
St. Clair
Stark
Will*
Winnebago*
Woodford

Cypripedium reginae
Cook
Hancock
Henderson
Jo Daviess
Kane
Kendall*
Knox
Lake*
Marshall
McDonough
McHenry*
Peoria
Putnam
Tazewell
Winnebago
Woodford*

Cystopteris laurentiana
Lee

Dalea foliosa
Boone
DuPage*
Kane
Kankakee
LaSalle
Ogle
Will*

Dennstaedtia punctilobula
Johnson
Pope*

Draba cuneifolia
Jersey
Madison
Monroe*
Randolph
St. Clair

Drosera intermedia
Cook*
Grundy*
Iroquois*
Kane
Kankakee
Lee
Will*

Drosera rotundifolia
Cook
Kane
Lake*
McHenry
Ogle

Dryopteris celsa
Johnson

Echinodorus tenellus
Cass*
Mason
St. Clair

Eleocharis olivacea
Cook
Lake
Mason

Eleocharis pauciflora
Cook
Lake
McHenry

Eleocharis rostellata
Cook*
Kendall*
Lake*
McHenry*
Will*

Elymus trachycaulus
Boone
Cook*
DuPage*
Jo Daviess*
Kane*
Lake*
McHenry
Will
Winnebago

Epilobium strictum
Lake*
McHenry*
Peoria
Winnebago
Woodford

Equisetum pratense
Carroll*
Jo Daviess*
Ogle*

Equisetum scirpoides
Carroll
Jo Daviess
Lake
McHenry

Equisetum sylvaticum
Lee*
Ogle*

Eriophorum virginicum
Lake*
McHenry*

Eryngium prostratum
Alexander*
Massac*
Pope*
Saline*
Williamson*

Erythronium mesochoreum
Champaign*
Greene*
Macoupin*
Morgan*
Pike*
Scott*
Whiteside*

Euonymus americanus
Hardin*
Jackson
Johnson*
Massac
Pope*
Pulaski*
Vermilion
Wabash

Eupatorium hyssopifolium
Johson*
Pope*

Eupatorium incarnatum
Alexander*
Gallatin*
Johnson*
Massac
Pope*
Pulaski*
Union*

Euphorbia spathulata
Monroe

Filipendula rubra
Bureau*
Cass
Cook*
Grundy*
Lake*
LaSalle*
Lee*
Marshall
Mason
McHenry*
Peoria
Putnam
Tazewell
Vermilion*
Will
Woodford*

Fimbristylis vahlii
Cass*

Galactia mohlenbrockii
Massac*

Galium labradoricum
Boone
Kane*
Lake*
McHenry*

Galium lanceolatum
Cook
Kane
McHenry*

Galium virgatum
Monroe*

Gaultheria procumbens
Cook
Lake
Ogle

Geranium bicknellii
Cook*
DuPage
Lake*

Glyceria arkansana
Jackson*
Union

Gymnocarpium dryopteris
Carroll
Jo Daviess
Ogle*
St. Clair
Stephenson
Winnebago

Gymnocarpium robertianum
Carroll

Hackelia americana
Carroll*
Jo Daviess*
Winnebago

Halesia carolina
Massac*
Pulaski*

Helianthus angustifolius
Massac
Pope*

Helianthus giganteus
Cook*
Kane
Kankakee
Tazewell
Winnebago

Heliotropium tenellum
Monroe*
Randolph

Heteranthera reniformis
Alexander*
Lawrence
Pope*
St. Clair
Union
Wabash

Hexalectris spicata
Hardin*
Jackson

Monroe*
Pope
Randolph

Hudsonia tomentosa
Carroll*
Fulton
Jo Daviess*
Lee
Whiteside*

Hydrocotyle ranunculoides
Clinton
Lawrence*
Whiteside*

Hydrolea uniflora
Alexander
Jackson*
Johnson*
Massac
Pulaski
Union

Hymenoxys acaulis
DuPage*
Tazewell*
Will

Hypericum adpressum
Cass*
Iroquois*
Kankakee*
Will*

Hypericum kalmianum
Cook*
Lake*

Iliamna remota
Kankakee*

Iresine rhizomatosa
Crawford*
Lawrence*
Massac*
Pulaski
Wabash*

Isoetes butleri
Will*

Isotria medeoloides
Randolph*

Isotria verticillata
Pope*

Juncus alpinus
Cook
DuPage*
Kane
Lake
McHenry*

Juncus vaseyi
Cook
McHenry
Winnebago*

Juniperus communis
Cook*
Jo Daviess*
Lake*
Ogle
Winnebago*

Juniperus horizontalis
Cook
Lake*

Justicia ovata
Alexander*
Pulaski*

Lactuca hirsuta
Gallatin*
Hardin*
Jackson*
Johnson*
Pope*

Larix laricina
Cook
Lake*
McHenry*

Lathyrus maritimus
Cook
Lake

Lathyrus ochroleucus
Cook
DuPage
Jo Daviess
Kane
Lake*
McHenry*
Ogle*
Winnebago

Lechea intermedia
Carroll*
Cook
Kane
Lake
Lee
McHenry*
Winnebago

Lespedeza leptostachya
Cook*
DuPage*
Lee*
McHenry*
Ogle*
Winnebago*

Lesquerella ludoviciana
Mason*

Liatris scariosa* var. *nieuwlandii
Adams*
Brown
Calhoun
Cass*
Christian*
Clay*
Cook*
Edwards*
Effingham*
Fayette*
Hancock*
Jasper*
Jefferson*
Macoupin*

Marion*
McLean
Menard*
Montgomery*
Pike*
Sangamon
Schuyler*
Will*

Lonicera dioica* var. *glaucescens
Jackson*

Lonicera flava
Jackson
Pope*

Luzula acuminata
Jo Daviess*
LaSalle*
Ogle*

Lycopodium clavatum
Carroll
DuPage*
Lawrence*
Ogle
Rock Island*
Will*

Lycopodium dendroideum
Brown*
Carroll*
Cook
Iroquois*
Ogle*
Schuyler*
Winnebago

Lycopodium inundatum
Cook
Lee*
Ogle

Lysimachia fraseri
Pope*

Lysimachia radicans
Johnson*
Pulaski

Malus angustifolia
Hardin
Jackson
Pope

Malvastrum hispidum
Grundy
LaSalle
Rock Island
St. Clair
Will*

Matelea decipiens
Jackson*
Williamson*

Matelea obliqua
Hardin*
Johnson*
Pope*
Saline*

Medeola virginiana
Cook*
LaSalle

Melanthera nivea
Massac*
Pulaski*

Melanthium virginicum
Adams
Brown
Fulton
Hancock*
Henderson
Jackson
Knox
Macoupin
McDonough*
McLean
Menard
Morgan
Peoria
St. Clair
Sangamon
Warren*

Melica mutica
Massac*

Melothria pendula
Alexander*
Hardin*
Jackson
Pope*
Pulaski*
Union

Microseris cuspidata
Champaign
Hancock
Henderson
Henry
Jo Daviess*
Lee
Marshall*
Mason*
McHenry
Ogle*
Peoria
Putnam
Tazewell
Winnebago

Milium effusum
Cook
Kane
Tazewell

Mimulus glabratus
Jo Daviess
Kane
Kendall*
Lee*
Mason
McHenry
Ogle
Peoria
Putnam
Tazewell
Whiteside*
Winnebago
Woodford

Mirabilis hirsuta
Jo Daviess*

Oenothera perennis
Cook*
Lake*

Will
Winnebago*

Opuntia fragilis
Jo Daviess*

Orobanche fasciculata
Carroll
Cook
Henry
Jo Daviess
Lake
Lee
Mason*
Peoria

Orobanche ludoviciana
Bureau*
Carroll*
Coles*
Henry*
Lee*
Logan
Mason*
Menard
Tazewell
White
Whiteside*

Oxalis illinoensis
Hardin*
Pope

Panicum boreale
Cook*
Lake
Ogle*

Panicum columbianum
Kankakee
Lake
LaSalle*
Ogle

Panicum joorii
Johnson*
Union

Panicum ravenelii
Hardin*
Union

Panicum yadkinense
Johnson
Pope*

Paspalum dissectum
Perry
Pulaski
St. Clair
Williamson

Penstemon brevisepalus
Pope
Union

Penstemon grandiflorus
Henderson*
McHenry
Whiteside*
Winnebago*

Phacelia gilioides
Calhoun*

Phaeophyscia leana
Gallatin*
Hardin*
Massac*
Pope*
White*

Phlox pilosa* subsp. *sangamonensis
Champaign*
Piatt*

Pinus banksiana
Cook
Lake*
Ogle

Pinus echinata
Randolph*
Union*

Pinus resinosa
Lake
LaSalle*

Planera aquatica
Alexander*
Johnson*
Massac
Pope
Pulaski*

Plantago cordata
Cass
Champaign
Christian
Cook
DuPage*
Grundy
Hancock
Jackson*
Johnson*
Kendall*
Lake
LaSalle
Macoupin
Marshall
Menard
Peoria
Piatt
Pope
St. Clair
Saline*
Sangamon
Tazewell*
Wabash
Will

Platanthera ciliaris
Cook*
Union

Platanthera clavellata
Cook*
Iroquois*
Kankakee
Lake*
Lee*
Pope*

Platanthera flava* var. *flava
Johnson*
Massac
Wabash

Platanthera flava* var. *herbiola
Cass
Cook*
Iroquois*
Kankakee
Lake*
Lee*
Mason*
Ogle
Peoria
St. Clair
Tazewell
Wabash
Washington*
Whiteside
Will*

Platanthera leucophaea
Adams
Champaign
Cook*
DeKalb
DuPage*
Fayette
Ford
Fulton
Grundy*
Hancock*
Henderson
Henry*
Iroquois*
Jo Daviess
Kane*
Kankakee
Knox
Lake*
Lee
Macon
Macoupin
Madison
McDonough
McHenry*
McLean
Menard
Ogle
Peoria
Rock Island
Stark
Stephenson
Will*
Winnebago

Platanthera psycodes
Cook*
Lake*
LaSalle
Winnebago

Poa alsodes
Calhoun*
Jackson
Lake*
Pope
St. Clair

Poa languida
Cook
Jo Daviess
Lake
LaSalle*

Poa wolfii
Adams
Brown*
Cook
Fulton
Henderson
Peoria
Pike*
Vermilion*

Pogonia ophioglossoides
Cook*
Lake*
Lee
McHenry*
Ogle
Will

Polanisia jamesii
Carroll
Jo Daviess*
Mason
Tazewell*
Whiteside

Polygala incarnata
Cass
Cook
Fulton
Greene
Hancock
Henderson
Iroquois
Jo Daviess
Kankakee
Lee*
Massac
Morgan*
Peoria
Pope*
Schuyler
Will

Polygonatum pubescens
Cook*
DuPage
Kankakee
Lake*
Lee
McHenry
Will
Winnebago

Polygonum arifolium
Jasper
Lawrence*
Macon
McHenry

Polygonum careyi
Cook
Grundy
Iroquois*
Kankakee*

Populus balsamifera
Cook*
Lake*
McHenry*

Potamogeton gramineus
Cook*
Lake*
McHenry*

Potamogeton praelongus
Cook
Lake*
McHenry

Potamogeton pulcher
Jackson
Kane*
Mason
Menard

Potamogeton robbinsii
Cook
Lake*
McHenry

Potamogeton strictifolius
Cook
Lake*
Will

Potentilla millegrana
Johnson
St. Clair
Union

Primula mistassinica
Jo Daviess*

Ptilimnium nuttallii
Jackson*
Pulaski
Randolph
St. Clair
Union

Puccinellia pallida
Jackson*
Union

Pycnanthemum albescens
Union

Pycnanthemum torrei
Jackson
Pope

Quercus montana
Alexander*
Gallatin*
Hardin*
Saline*
Union

Quercus nuttallii
Alexander*
Massac
Pulaski

Quercus phellos
Alexander*
Johnson
Massac*
Pulaski
Union

Ranunculus cymbalaria
Cook
DuPage
Henry
Kane
Lake*
McHenry

Ranunculus rhomboideus
Boone
Cook
DeKalb
Jo Daviess
McHenry*
Ogle
Stephenson
Winnebago*

Rhamnus alnifolia
Boone
Kane
Kendall*
Lake
McHenry
Peoria
Tazewell

Rhynchospora alba
Cook
Lake*
McHenry*
Peoria

Rhynchospora glomerata
Johnson*
Kankakee
Pope*

Ribes hirtellum
Cook
DeKalb
Kankakee
Lake*
Lee
McHenry
Winnebago

Rosa acicularis
Jo Daviess*

Rubus odoratus
Cook
DuPage*
Kane
Lake*
LaSalle
McHenry

Rubus pubescens
Cook*
DuPage
Kane*
Lake*
Winnebago

Rubus setosus
Cook*
Iroquois*
Kankakee*
Lee*
Will
Winnebago

Rudbeckia missouriensis
Monroe*
Randolph

Sabatia campestris
Bond*
DuPage
Effingham*
Fayette*
Lawrence*
Marion*
Montgomery
Peoria
St. Clair
Washington

Sagittaria longirostra
Pope
Pulaski
Union

Salix serissima
Lake
McHenry*

Salix syrticola
Cook
Lake

Salvia azurea* subsp. *pitcheri
Calhoun
Jo Daviess*
Johnson*
Massac
Pope*

Sambucus pubens
Boone
Cook
DeKalb
Lake
LaSalle*
McHenry
Ogle
Will
Winnebago

Sanguisorba canadensis
Cass*
LaSalle
Will*

Sarracenia purpurea
Cook
Lake*
McHenry*

Saxifraga virginiensis
Hardin*

Schizachne purpurascens
Jo Daviess*

Scirpus cespitosus
Lake
McHenry*

Scirpus hallii
Alexander*
Cass*
Kankakee*
Mason*
Menard
Morgan*

Scirpus hattorianus
DuPage*
Kankakee
Lake*

Scirpus paludosus
Cook*
DuPage*
LaSalle*

Scirpus polyphyllus
Adams
Brown
Clark
Cook
Hancock*
Hardin*
Massac
Pope*

Scirpus purshianus
Coles
Hancock
Kankakee*
Lawrence
Mason*
Menard
Pope
Richland

Scirpus smithii
Cass
Lake*
Mason

Scirpus verecundus
Alexander
Union

Shepherdia canadensis
Cook
Lake*

Silene ovata
Hardin*

Silene regia
Clark
Cook
Lawrence*
Madison*
Montgomery*
St. Clair
Vermilion*
Wabash
White
Will
Winnebago

Silphium trifoliatum
Hardin

Sisyrinchium atlanticum
DuPage
Iroquois*
Kankakee*
Macoupin*
Montgomery*
Pope

Sisyrinchium montanum
Cook*
DuPage
Kankakee
Lake*
Winnebago

Solidago sciaphila
Carroll*
Jo Daviess*
LaSalle*
Ogle

Sorbus americana
Cook
Lake
Ogle*

Sparganium americanum
Cook
DuPage*
Iroquois
Kane
Knox
Lee
McHenry
Stephenson
Winnebago

Sparganium chlorocarpum
Cook
DeKalb
DuPage*
Kane
Kankakee*
Lake
Lee
McHenry*
Union

Spiranthes lucida
Cook*
Hancock
Kane*
Lake
Will
Woodford

Spiranthes romanzoffiana
Coles
Cook
McHenry
Peoria

Spiranthes vernalis
Effingham
Johnson*
Madison*
Massac
Pope*
St. Clair
Union
Wabash
Williamson*

Stellaria pubera
Cook*
Hardin*
Pope*

Stenanthium gramineum
Fayette*
Gallatin*
Jackson
Johnson*
Macoupin
Massac
Perry
Pike
Pope
Pulaski*
Richland*

Stylisma pickeringii
Cass*
Henderson*
Mason*

Styrax americana
Alexander*
Clinton
Jackson
Johnson*
Kankakee*
Lawrence*
Massac*
Pope
Pulaski*
Wayne*

Styrax grandifolius
Alexander*

Sullivantia renifolia
Carroll
DeKalb
Jo Daviess*
Ogle*
Stephenson*
Winnebago

Symphoricarpos albus* var. *albus
Jo Daviess*
Kane*
LaSalle*

Synandra hispidula
Jackson*
Williamson

Talinum calycinum
Monroe*
Randolph*

Thalia dealbata
Alexander*

Thelypteris noveboracensis
Kane
Kankakee
Monroe
Pope*
Wabash

Thelypteris phegopteris
Cass
Henderson
Jackson
LaSalle*
McDonough
Menard
Ogle
Pulaski

Thuja occidentalis
Cook*
Kane*
Lake*
LaSalle*
Tazewell

Tilia heterophylla
Hardin*
Massac
Pope
Pulaski

Tofieldia glutinosa
Cook*
Kane*
Lake*
McHenry*
Will

Tomanthera auriculata
Adams
Bond*
Bureau*
Champaign
Christian*
Cook*
DuPage*
Fayette
Grundy*
Hancock
Henry*
Iroquois
Jackson
Kane
Kendall*
Lake
Lee
Logan
Macoupin*
Mason*
Montgomery
Ogle
Vermilion
Will*

Tradescantia bracteata
Adams
Greene
Hancock
Henry
Jersey
Madison*
Mason
McDonough
Menard*
Morgan
Peoria
Pike*

Triadenum virginicum
Lake

Trichomanes boschianum
Hardin*
Johnson*
Pope*

Trientalis borealis
Cook*
Lake*
LaSalle
McHenry
Ogle*
Winnebago

Trifolium reflexum
Adams*
Brown*
Christian
Cook
DuPage*
Fulton
Gallatin
Hancock
Jackson*
Kankakee
LaSalle
Macoupin
Marion
Montgomery*
Peoria
Richland
St. Clair*
Shelby*
Vermilion
Wabash
Washington
Will*

Triglochin maritima
Cook
Kane*
Lake*
McHenry*
Tazewell
Will

Triglochin palustris
Cook
Kane*
Kankakee
Kendall*
Lake*
McHenry*
Peoria
Tazewell
Will*

Trillium cernuum
Cook
McHenry*

Trillium erectum
Carroll*
Lake
McHenry*

Trillium viride
Adams*
Franklin
Jackson
Macoupin
Pike
St. Clair*
Union*
Williamson

Ulmus thomasii
Adams
Cook
Hancock
Jo Daviess
Kane
Kendall*
Lake
Will

Urtica chamaedryoides
Alexander
Jackson
Union

Utricularia cornuta
Cook
Lake*
McHenry*

Utricularia intermedia
Cook*
Kane*
Lake*
McHenry*

Ogle
Tazewell

Utricularia minor
Clay
Cook*
Lake
McHenry*
Saline

Vaccinium corymbosum
Cook
Lake*
Lee
McHenry*
Winnebago

Vaccinium macrocarpon
Cook
Lake*
McHenry
Will*

Vaccinium oxycoccos
Cook*
Lake*

Valeriana uliginosa
McHenry*

Valerianella chenopodifolia
Will

Valerianella umbilicata
Kankakee*
LaSalle

Veratrum woodii
Adams*
Clark*
Coles*
Crawford*
Cumberland*
Edgar*
Effingham*
Fayette*
McLean*
Pike*
Shelby*
Vermilion*

Veronica americana
Kane*
Kendall*
LaSalle*
Peoria
Tazewell

Veronica scutellata
Cook*
DuPage*
Fulton
Iroquois*
Kankakee
Lake*
Peoria
Will
Woodford

Viburnum molle
Adams*
Brown
Clark
Marshall*
Peoria*
Pike*
Woodford*

Viola canadensis
Carroll*
Jo Daviess*
Whiteside
Will

Viola conspersa
Cook*
DeKalb
DuPage*
Lake*
McHenry

Viola incognita
Cook
Jo Daviess
Kane*
Lake*
McHenry
Ogle

Viola primulifolia
Grundy
Iroquois*
Kankakee*

Viola viarum
Adams*
Kankakee
Peoria

Waldsteinia fragarioides
Pope

Woodsia ilvensis
LaSalle
Lee*
Ogle

Zigadenus glaucus
Jo Daviess*
Kane
Kankakee

APPENDIX V - Cross Reference of Species to County -- County Listing

Species with an asterisk (*) after them are recent (since 1990) records. Species without an asterisk (*) are historic (before 1990) records.

Adams

Asclepias stenophylla
Carex communis
Carex intumescens
Carex prasina
Cirsium hillii
Liatris scariosa var. *nieuwlandii**
Melanthium virginicum
Platanthera leucophaea
Poa wolfii
Scirpus polyphyllus
Tomanthera auriculata
Tradescantia bracteata
*Trifolium reflexum**
*Trillium viride**
Ulmus thomasii
*Veratrum woodii**
*Viburnum molle**
*Viola viarum**

Alexander

Aristolochia serpentaria var. *hastata**
Asplenium resiliens
*Carex intumescens**
*Carex oxylepis**
Carya pallida
*Cladrastis lutea**
*Clematis crispa**
*Eryngium prostratum**
*Eupatorium incarnatum**
*Heteranthera reniformis**
Hydrolea uniflora
*Justicia ovata**
*Melothria pendula**
*Planera aquatica**
*Quercus montana**
*Quercus nuttallii**
*Quercus phellos**
*Scirpus hallii**
Scirpus verecundus
*Styrax americana**
*Styrax grandifolia**
*Thalia dealbata**
Urtica chamaedryoides

Bond

*Sabatia campestris**
*Tomanthera auriculata**

Boone

Alnus rugosa
Artemisia dracunculus
Asclepias lanuginosa
Aster furcatus
Botrychium multifidum
Cypripedium candidum
Dalea foliosa
Elymus trachycaulus
Galium labradoricum
Ranunculus rhomboideus
Rhamnus alnifolia
Sambucus pubens

Brown

*Boltonia decurrens**
Carex prasina
Liatris scariosa var. *nieuwlandii*
*Lycopodium dendroideum**
Melanthium virginicum
*Poa wolfii**
Scirpus polyphyllus
*Trifolium reflexum**
Viburnum molle

Bureau

*Boltonia decurrens**
*Cirsium hillii**
*Filipendula rubra**
*Orobanche ludoviciana**
*Tomanthera auriculata**

Calhoun

*Asclepias stenophylla**
Liatris scariosa var. *nieuwlandii*
*Phacelia gilioides**
*Poa alsodes**
Salvia azurea subsp. *pitcheri*

Carroll

*Aster furcatus**
*Besseya bullii**
Botrychium multifidum
*Ceanothus ovatus**
*Cimicifuga americana**
Cimicifuga racemosa
*Cyperus grayioides**
*Equisetum pratense**
Equisetum scirpoides
Gymnocarpium dryopteris
Gymnocarpium robertianum
*Hackelia americana**
*Hudsonia tomentosa**
*Lechea intermedia**
Lycopodium clavatum
*Lycopodium dendroideum**
Orobanche fasciculata
*Orobanche ludoviciana**
Polanisia jamesii
*Solidago sciaphila**
Sullivantia renifolia
*Trillium erectum**
*Viola canadensis**

Cass

*Agalinis skinneriana**
Artemisia dracunculus
Besseya bullii
*Boltonia decurrens**
*Cirsium hillii**
*Cyperus grayioides**
*Cypripedium candidum**
*Echinodorus tenellus**
Filipendula rubra
*Fimbristylis vahlii**
*Hypericum adpressum**
Liatris scariosa var. *nieuwlandii**

Plantago cordata
Platanthera flava var. *herbiola*
Polygala incarnata
*Sanguisorba canadensis**
*Scirpus hallii**
Scirpus smithii
*Stylisma pickeringii**
Thelypteris phegopteris

Champaign
Cirsium hillii
Corydalis aurea
Cypripedium candidum
*Erythronium mesochoreum**
Microseris cuspidata
Phlox pilosa subsp. *sangamonensis**
Plantago cordata
Platanthera leucophaea
Tomanthera auriculata

Christian
Cirsium hillii
Liatris scariosa var. *nieuwlandii**
Plantago cordata
*Tomanthera auriculata**
Trifolium reflexum

Clark
*Carex communis**
Scirpus polyphyllus
Silene regia
*Veratrum woodii**
Viburnum molle

Clay
Liatris scariosa var. *nieuwlandii**
Utricularia minor

Clinton
Hydrocotyle ranunculoides
Styrax americana

Coles
Cirsium hillii
*Orobanche ludoviciana**
Scirpus purshianus
Spiranthes romanzoffiana
*Veratrum woodii**

Cook
Agalinis skinneriana
Alnus rugosa
*Amelanchier interior**
*Amelanchier sanguinea**
*Ammophila breviligulata**
Arctostaphylos uva-ursi
*Arenaria patula**
Asclepias lanuginosa
Asclepias meadii
*Asclepias ovalifolia**
*Aster furcatus**
*Beckmannia syzigachne**
Bidens beckii
*Botrychium multifidum**
Botrychium simplex
Bouteloua gracilis
*Cakile edentula**
*Calopogon tuberosus**
*Carex aurea**
Carex communis
Carex cryptolepis
Carex echinata
*Carex garberi**
*Carex intumescens**
*Carex tuckermanii**
*Carex viridula**
*Carex woodii**
Ceanothus ovatus
Chamaedaphne calyculata
*Chamaesyce polygonifolia**
Chimaphila maculata
Cimicifuga racemosa
Circaea alpina
Cirsium hillii
Cirsium pitcheri
*Comptonia peregrina**
Conioselinum chinense
*Corallorhiza maculata**
Cornus canadensis
Corydalis aurea
Corydalis sempervirens
Cypripedium acaule
Cypripedium calceolus var. *parviflorum*
*Cypripedium candidum**
Cypripedium reginae
*Drosera intermedia**
Drosera rotundifolia
Eleocharis olivacea
Eleocharis pauciflora
*Eleocharis rostellata**
*Elymus trachycaulus**
*Filipendula rubra**
Galium lanceolatum
Gaultheria procumbens
*Geranium bicknellii**
*Helianthus giganteus**
*Hypericum kalmianum**
Juncus alpinus
Juncus vaseyi
*Juniperus communis**
Juniperus horizontalis
Larix laricina
Lathyrus maritimus
Lathyrus ochroleucus
Lechea intermedia
*Lespedeza leptostachya**
Liatris scariosa var. *nieuwlandii**
Lycopodium dendroideum
Lycopodium inundatum
*Medeola virginiana**
Milium effusum
*Oenothera perennis**
Orobanche fasciculata
*Panicum boreale**
Pinus banksiana
Plantago cordata
Platanthera ciliaris
*Platanthera clavellata**
Platanthera flava var. *herbiola**
*Platanthera leucophaea**
*Platanthera psycodes**
Poa languida
Poa wolfii
*Pogonia ophioglossoides**
Polygala incarnata
*Polygonatum pubescens**
Polygonum careyi
*Populus balsamifera**
*Potamogeton gramineus**

Potamogeton praelongus
Potamogeton robbinsii
Potamogeton strictifolius
Ranunculus cymbalaria
Ranunculus rhomboideus
Rhynchospora alba
Ribes hirtellum
Rubus odoratus
*Rubus pubescens**
*Rubus setosus**
Salix syrticola
Sambucus pubens
Sarracenia purpurea
*Scirpus paludosus**
Scirpus polyphyllus
Shepherdia canadensis
Silene regia
*Sisyrinchium montanum**
Sorbus americana
Sparganium americanum
Sparganium chlorocarpum
*Spiranthes lucida**
Spiranthes romanzoffiana
*Stellaria pubera**
*Thuja occidentalis**
*Tofieldia glutinosa**
*Tomanthera auriculata**
*Trientalis borealis**
Trifolium reflexum
Triglochin maritima
Triglochin palustris
Trillium cernuum
Ulmus thomasii
Utricularia cornuta
*Utricularia intermedia**
*Utricularia minor**
Vaccinium corymbosum
Vaccinium macrocarpon
*Vaccinium oxycoccus**
*Veronica scutellata**
*Viola conspersa**
Viola incognita

Crawford
*Iresine rhizomatosa**
*Veratrum woodii**

Cumberland
Carex communis
*Veratrum woodii**

DeKalb
Asclepias lanuginosa
*Cirsium hillii**
Cypripedium candidum
Platanthera leucophaea
Ranunculus rhomboideus
Ribes hirtellum
Sambucus pubens
Sparganium chlorocarpum
Sullivantia renifolia
Viola conspersa

DuPage
*Amelanchier interior**
*Arenaria patula**
Asclepias lanuginosa
*Asclepias meadii**
*Astragalas tennesseensis**
Betula alleghaniensis
Calopogon tuberosus
*Carex cryptolepis**
Carex echinata
*Carex tuckermanii**
*Carex viridula**
*Carex woodii**
Castilleja sessiliflora
*Cirsium hillii**
Corallorhiza maculata
*Cypripedium candidum**
*Dalea foliosa**
*Elymus trachycaulus**
Geranium bicknellii
*Hymenoxys acaulis**
*Juncus alpinus**
Lathyrus ochroleucus
*Lespedeza leptostachya**
*Lycopodium clavatum**
*Plantago cordata**
*Platanthera leucophaea**
Polygonatum pubescens
Ranunculus cymbalaria
*Rubus odoratus**
Rubus pubescens
Sabatia campestris
*Scirpus hattorianus**
*Scirpus paludosus**
Sisyrinchium atlanticum
Sisyrinchium montanum
*Sparganium americanum**
*Sparganium chlorocarpum**
*Tomanthera auriculata**
*Trifolium reflexum**
*Veronica scutellata**
*Viola conspersa**

Edgar
*Veratrum woodii**

Edwards
Liatris scariosa var. *nieuwlandii**

Effingham
Carex communis
Carex physorhyncha
Liatris scariosa var. *nieuwlandii**
*Sabatia campestris**
Spiranthes vernalis
*Veratrum woodii**

Fayette
Carex communis
*Carex prasina**
Liatris scariosa var. *nieuwlandii**
Platanthera leucophaea
*Sabatia campestris**
*Stenanthium gramineum**
Tomanthera auriculata
*Veratrum woodii**

Ford
*Asclepias meadii**
Corydalis aurea
Platanthera leucophaea

Franklin
Trillium viride

Fulton
Asclepias meadii
Aster furcatus
*Boltonia decurrens**
Cirsium hillii

Hudsonia tomentosa
Melanthium virginicum
Platanthera leucophaea
Poa wolfii
Polygala incarnata
Trifolium reflexum
Veronica scutellata

Gallatin
Carex communis
Carex decomposita
*Carex oxylepis**
Carex striatula
Carex willdenowii
*Cimicifuga rubifolia**
Cladrastis lutea
*Eupatorium incarnatum**
*Lactuca hirsuta**
*Phaeophyscia leana**
*Quercus montana**
*Stenanthium gramineum**
Trifolium reflexum

Greene
*Agalinis skinneriana**
*Cirsium hillii**
*Erythronium mesochoreum**
Polygala incarnata
Tradescantia bracteata

Grundy
*Arenaria patula**
Aster furcatus
Astragalus tennesseensis
*Calopogon tuberosus**
*Cirsium hillii**
*Drosera intermedia**
*Filipendula rubra**
Malvastrum hispidum
Plantago cordata
*Platanthera leucophaea**
Polygonum careyi
*Tomanthera auriculata**
Viola primulifolia

Hancock
*Agalinis skinneriana**
Asclepias meadii
Aster furcatus
Calopogon tuberosus
*Carex prasina**
Carex tuckermanii
Cirsium hillii
Cypripedium candidum
Cypripedium reginae
Liatris scariosa var. *nieuwlandii**
*Melanthium virginicum**
Microseris cuspidata
Plantago cordata
*Platanthera leucophaea**
Polygala incarnata
*Scirpus polyphyllus**
Scirpus purshianus
Spiranthes lucida
Tomanthera auriculata
Tradescantia bracteata
Trifolium reflexum
Ulmus thomasii

Hardin
*Carex nigromarginata**
*Carex oxylepis**
Carex striatula
*Chimaphila maculata**
*Cimicifuga rubifolia**
*Euonymus americanus**
*Hexalectris spicata**
*Lactuca hirsuta**
Malus angustifolia
*Matelea obliqua**
*Melothria pendula**
*Oxalis illinoensis**
*Panicum ravenelii**
*Phaeophyscia leana**
*Quercus montana**
*Saxifraga virginiensis**
*Scirpus polyphyllus**
*Silene ovata**
Silphium trifoliatum
*Stellaria pubera**
*Tilia heterophylla**
*Trichomanes boschianum**

Henderson
Agalinis skinneriana
Asclepias meadii
Aster furcatus
*Besseya bullii**
Calopogon tuberosus
Cypripedium candidum
Cypripedium reginae
Melanthium virginicum
Microseris cuspidata
*Penstemon grandiflorus**
Platanthera leucophaea
Poa wolfii
Polygala incarnata
*Stylisma pickeringii**
Thelypteris phegopteris

Henry
*Asclepias meadii**
Bouteloua gracilis
Calopogon tuberosus
*Cirsium hillii**
Microseris cuspidata
Orobanche fasciculata
*Orobanche ludoviciana**
*Platanthera leucophaea**
Ranunculus cymbalaria
*Tomanthera auriculata**
Tradescantia bracteata

Iroquois
Agalinus skinneriana
*Calopogon tuberosus**
Carex willdenowii
Cirsium hillii
*Drosera intermedia**
*Hypericum adpressum**
*Lycopodium dendroideum**
*Platanthera clavellata**
*Platanthera leucophaea**
Platanthera flava var. *flava*
Polygala incarnata
*Polygonum careyi**
*Rubus setosus**
*Sisyrinchium atlanticum**
Sparganium americanum
Tomanthera auriculata
*Veronica scutellata**
*Viola primulifolia**

Jackson
*Asplenium bradleyi**
Asplenium resiliens
Berberis canadensis

*Botrychium biternatum**
Calopogon tuberosus
Carex alata
Carex gigantea
Carex nigromarginata
Carex physorhyncha
Carex striatula
Cimicifuga rubifolia
*Cynosciadium digitatum**
Euonymus americanus
*Glyceria arkansana**
Hexalectris spicata
*Hydrolea uniflora**
*Lactuca hirsuta**
Lonicera dioica var. *glaucescens**
Lonicera flava
Malus angustifolia
*Matelea decipiens**
Melanthium virginicum
Melothria pendula
*Plantago cordata**
Poa alsodes
Potamogeton pulcher
*Ptilimnium nuttallii**
*Puccinellia pallida**
Pycnanthemum torrei
Stenanthium gramineum
Styrax americana
*Synandra hispidula**
Thelypteris phegopteris
Tomanthera auriculata
*Trifolium reflexum**
Trillium viride
Urtica chamaedryoides

Jasper

Clematis viorna
Liatris scariosa var. *nieuwlandii**
Polygonum arifolium

Jefferson

Liatris scariosa var. *nieuwlandii**

Jersey

*Agalinis skinneriana**
Astragalus crassicarpus var. *trichocalyx**
*Boltonia decurrens**
Draba cuneifolia
Tradescantia bracteata

Jo Daviess

Adoxa moschatellina
*Amelanchier interior**
*Asclepias lanuginosa**
*Besseya bullii**
Botrychium multifidum
*Bouteloua gracilis**
Carex communis
Carex heliophila
*Carex prasina**
Carex woodii
*Ceanothus ovatus**
Circaea alpina
Cirsium hillii
*Clematis occidentalis**
*Conioselinum chinense**
Corallorhiza maculata
*Corylus cornuta**
*Cyperus grayioides**
Cypripedium candidum
Cypripedium reginae
*Elymus trachycaulus**
*Equisetum pratense**
Equisetum scirpoides
Gymnocarpium dryopteris
*Hackelia americana**
*Hudsonia tomentosa**
*Juniperus communis**
Lathyrus ochroleucus
*Luzula acuminata**
*Microseris cuspidata**
Mimulus glabratus
*Mirabilis hirsuta**
*Opuntia fragilis**
Orobanche fasciculata
Platanthera leucophaea
Poa languida
*Polanisia jamesii**
Polygala incarnata
*Primula mistassinica**
Ranunculus rhomboideus
*Rosa acicularis**
Salvia azurea subsp. *pitcheri**
*Schizachne purpurascens**
*Solidago sciaphila**
*Sullivantia renifolia**
Symphoricarpos albus var. *albus**
Ulmus thomasii
*Viola canadensis**
Viola incognita
*Zigadenus glaucus**

Johnson

Aristolochia serpentaria var. *hastata*
Botrychium biternatum
*Carex decomposita**
*Carex gigantea**
*Carex intumescens**
*Carex oxylepis**
Carex prasina
*Carex willdenowii**
*Cimicifuga rubifolia**
Clematis viorna
Dennstaedtia punctilobula
Dryopteris celsa
*Euonymus americanus**
*Eupatorium hyssopifolium**
*Eupatorium incarnatum**
*Hydrolea uniflora**
*Lactuca hirsuta**
*Lysimachia radicans**
*Matelea obliqua**
*Panicum joorii**
Panicum yadkinense
*Planera aquatica**
*Plantago cordata**
Platanthera flava var. *flava**
Potentilla millegrana
Quercus phellos
*Rhyncospora glomerata**
Salvia azurea subsp. *pitcheri**
*Spiranthes vernalis**
*Stenanthium gramineum**
*Styrax americana**
*Trichomanes boschianum**

Kane

Alnus rugosa
Amelanchier sanguinea
*Asclepias lanuginosa**

*Aster furcatus**
Betula alleghaniensis
*Carex aurea**
Carex disperma
Carex oligosperma
*Carex woodii**
*Chamaedaphne calyculata**
Circaea alpina
*Cirsium hillii**
Conioselinum chinense
*Corallorhiza maculata**
Cypripedium calceolus var. *parviflorum*
*Cypripedium candidum**
Cypripedium reginae
Dalea foliosa
Drosera intermedia
Drosera rotundifolia
*Elymus trachycaulus**
*Galium labradoricum**
Galium lanceolatum
Helianthus giganteus
Juncus alpinus
Lathyrus ochroleucus
Lechea intermedia
Milium effusum
Mimulus glabratus
*Platanthera leucophaea**
*Potamogeton pulcher**
Ranunculus cymbalaria
Rhamnus alnifolia
Rubus odoratus
*Rubus pubescens**
Sparganium americanum
Sparganium chlorocarpum
*Spiranthes lucida**
Symphoricarpos albus var. *albus**
Thelypteris noveboracensis
*Thuja occidentalis**
*Tofieldia glutinosa**
Tomanthera auriculata
*Triglochin maritima**
*Triglochin palustris**
Ulmus thomasii
*Utricularia intermedia**
*Veronica americana**
*Viola incognita**
Zigadenus glaucus

Kankakee

Agalinis skinneriana
Arenaria patula
Asclepias ovalifolia
Aster furcatus
Astragalus tennesseensis
Calopogon tuberosus
*Carex viridula**
Carex woodii
Cirsium hillii
*Comptonia peregrina**
Cypripedium candidum
Dalea foliosa
Drosera intermedia
Helianthus giganteus
*Hypericum adpressum**
*Iliamna remota**
Panicum columbianum
Platanthera clavellata
Platanthera flava var. *herbiola*
Platanthera leucophaea
Polygala incarnata
Polygonatum pubescens
*Polygonum careyi**
Rhynchospora glomerata
Ribes hirtellum
*Rubus setosus**
*Scirpus hallii**
Scirpus hattorianus
*Scirpus purshianus**
*Sisyrinchium atlanticum**
Sisyrinchium montanum
*Sparganium chlorocarpum**
*Styrax americana**
Thelypteris noveboracensis
Trifolium reflexum
Triglochin palustris
*Valerianella umbilicata**
Veronica scutellata
*Viola primulifolia**
Viola viarum
Zigadenus glaucus

Kendall

Arenaria patula
Asclepias ovalifolia
Aster furcatus
*Cimicifuga racemosa**
*Cypripedium reginae**
*Eleocharis rostellata**
*Mimulus glabratus**
*Plantago cordata**
*Rhamnus alnifolia**
*Tomanthera auriculata**
*Triglochin palustris**
*Ulmus thomasii**
*Veronica americana**

Knox

Cirsium hillii
Cypripedium reginae
Melanthium virginicum
Platanthera leucophaea
Sparganium americanum

Lake

*Agalinis skinneriana**
Alnus rugosa
*Amelanchier interior**
Amelanchier sanguinea
*Ammophila breviligulata**
*Arctostaphylos uva-ursi**
Asclepias lanuginosa
Asclepias ovalifolia
*Aster furcatus**
Astragalus tennesseensis
Beckmannia syzigachne
*Betula alleghaniensis**
*Bidens beckii**
Bouteloua gracilis
*Cakile edentula**
*Calla palustris**
*Calopogon tuberosus**
Cardamine pratensis var. *palustris*
*Carex aurea**
*Carex brunnescens**
Carex canescens var. *disjuncta**
*Carex chordorrhiza**
*Carex crawfordii**
*Carex cryptolepis**
*Carex disperma**
*Carex echinata**
Carex garberi

*Carex intumescens**
Carex oligosperma
*Carex trisperma**
*Carex tuckermanii**
*Carex viridula**
*Carex woodii**
*Castilleja sessiliflora**
*Ceanothus ovatus**
*Chamaedaphne calyculata**
*Chamaesyce polygonifolia**
Chimaphila umbellata
Cimicifuga racemosa
Circaea alpina
Cirsium hillii
*Cirsium pitcheri**
Comptonia peregrina
Cornus canadensis
Cypripedium acaule
Cypripedium calceolus var. *parviflorum**
*Cypripedium candidum**
*Cypripedium reginae**
*Drosera rotundifolia**
Eleocharis olivacea
Eleocharis pauciflora
*Eleocharis rostellata**
*Elymus trachycaulus**
*Epilobium strictum**
Equisetum scirpoides
*Eriophorum virginicum**
*Filipendula rubra**
*Galium labradoricum**
Gaultheria procumbens
*Geranium bicknellii**
*Hypericum kalmianum**
Juncus alpinus
*Juniperus communis**
*Juniperus horizontalis**
*Larix laricina**
Lathyrus maritimus
*Lathyrus ochroleucus**
Lechea intermedia
*Oenothera perennis**
Orobanche fasciculata
Panicum boreale
Panicum columbianum
*Pinus banksiana**
Pinus resinosa
Plantago cordata
*Platanthera clavellata**
Platanthera flava var. *herbiola**
*Platanthera leucophaea**
*Platanthera psycodes**
*Poa alsodes**
Poa languida
*Pogonia ophioglossoides**
*Polygonatum pubescens**
*Populus balsamifera**
*Potamogeton gramineus**
*Potamogeton praelongus**
*Potamogeton robbinsii**
*Potamogeton strictifolius**
*Ranunculus cymbalaria**
Rhamnus alnifolia
*Rhynchospora alba**
*Ribes hirtellum**
*Rubus odoratus**
*Rubus pubescens**
Salix serissima
Salix syrticola
Sambucus pubens
*Sarracenia purpurea**
Scirpus cespitosus
*Scirpus hattorianus**
*Scirpus smithii**
*Shepherdia canadensis**
*Sisyrinchium montanum**
Sorbus americana
Sparganium chlorocarpum
Spiranthes lucida
*Thuja occidentalis**
*Tofieldia glutinosa**
Tomanthera auriculata
Triadenum virginicum
*Trientalis borealis**
*Triglochin maritima**
*Triglochin palustris**
Trillium erectum
Ulmus thomasii
*Utricularia cornuta**
*Utricularia intermedia**
Utricularia minor
*Vaccinium corymbosum**
*Vaccinium macrocarpon**
*Vaccinium oxycoccos**
*Veronica scutellata**
*Viola conspersa**
*Viola incognita**

LaSalle

*Amelanchier sanguinea**
Asclepias lanuginosa
*Aster furcatus**
Astragalus tennesseensis
*Boltonia decurrens**
Calopogon tuberosus
*Carex communis**
Carex prasina
Corallorhiza maculata
Cornus canadensis
*Corydalis aurea**
*Corydalis sempervirens**
Dalea foliosa
*Filipendula rubra**
*Luzula acuminata**
Malvastrum hispidum
Medeola virginiana
*Panicum columbianum**
*Pinus resinosa**
Plantago cordata
Platanthera psycodes
*Poa languida**
Rubus odoratus
*Sambucus pubens**
Sanguisorba canadensis
*Scirpus paludosus**
*Solidago sciaphila**
Symphoricarpos albus var. *albus**
*Thelypteris phegopteris**
*Thuja occidentalis**
Trientalis borealis
Trifolium reflexum
Valerianella umbilicata
*Veronica americana**
Woodsia ilvensis

Lawrence

*Carex prasina**
*Clematis viorna**
Heteranthera reniformis
*Hydrocotyle ranunculoides**
*Iresine rhizomatosa**
*Lycopodium clavatum**

*Polygonum arifolium**
*Sabatia campestris**
Scirpus purshianus
*Silene regia**
*Styrax americana**

Lee
Artemisia dracunculus
Asclepias lanuginosa
Aster furcatus
*Besseya bullii**
*Betula alleghaniensis**
*Botrychium matricariaefolium**
Botrychium multifidum
Botrychium simplex
Calopogon tuberosus
*Castilleja sessiliflora**
*Cirsium hillii**
Comptonia peregrina
Cypripedium candidum
Cystopteris laurentiana
Drosera intermedia
*Equisetum sylvaticum**
*Filipendula rubra**
Hudsonia tomentosa
Lechea intermedia
*Lespedeza leptostachya**
*Lycopodium inundatum**
Microseris cuspidata
*Mimulus glabratus**
Orobanche fasciculata
*Orobanche ludoviciana**
*Platanthera clavellata**
Platanthera flava var. *herbiola**
Platanthera leucophaea
Pogonia ophioglossoides
*Polygala incarnata**
Polygonatum pubescens
Ribes hirtellum
*Rubus setosus**
Sparganium americanum
Sparganium chlorocarpum
Tomanthera auriculata
Vaccinium corymbosum
*Woodsia ilvensis**

Livingston
Carex intumescens

Logan
Boltonia decurrens
Cirsium hillii
Orobanche ludoviciana
Tomanthera auriculata

Macon
*Camassia angusta**
Cypripedium candidum
Platanthera leucophaea
Polygonum arifolium

Macoupin
Astragalus crassicarpus var. *trichocalyx**
Calopogon tuberosus
*Cirsium hillii**
Cypripedium candidum
*Erythronium mesochoreum**
Liatris scariosa var. *nieuwlandii**
Melanthium virginicum
Plantago cordata
Platanthera leucophaea
*Sisyrinchium atlanticum**
Stenanthium gramineum
*Tomanthera auriculata**
Trifolium reflexum
Trillium viride

Madison
Astragalus crassicarpus var. *trichocalyx*
*Boltonia decurrens**
Cirsium hillii
Draba cuneifolia
Platanthera leucophaea
*Silene regia**
*Spiranthes vernalis**
*Tradescantia bracteata**

Marion
Liatris scariosa var. *nieuwlandii**
*Sabatia campestris**
Trifolium reflexum

Marshall
*Boltonia decurrens**
*Cirsium hillii**
Cypripedium candidum
Cypripedium reginae
Filipendula rubra
*Microseris cuspidata**
Plantago cordata
*Viburnum molle**

Mason
*Agalinis skinneriana**
Artemisia dracunculus
Astragalus tennesseensis
Besseya bullii
*Boltonia decurrens**
Calopogon tuberosus
*Cirsium hillii**
Corydalis aurea
*Cyperus grayioides**
*Cypripedium candidum**
Echinodorus tenellus
Eleocharis olivacea
Filipendula rubra
*Lesquerella ludoviciana**
*Microseris cuspidata**
Mimulus glabratus
*Orobanche fasciculata**
*Orobanche ludoviciana**
Platanthera flava var. *herbiola**
Polanisia jamesii
Potamogeton pulcher
*Scirpus hallii**
*Scirpus purshianus**
Scirpus smithii
*Stylisma pickeringii**
*Tomanthera auriculata**
Tradescantia bracteata

Massac
Aristolochia serpentaria var. *hastata*
Carex alata
Carex gigantea
Carex intumescens
*Carex reniformis**
Cimicifuga rubifolia
Cyperus lancastriensis
*Eryngium prostratum**

Euonymus americanus
Eupatorium incarnatum
*Galactia mohlenbrockii**
*Halesia carolina**
Helianthus angustifolius
Hydrolea uniflora
*Iresine rhizomatosa**
*Melanthera nivea**
*Melica mutica**
*Phaeophyscia leana**
Planera aquatica
Platanthera flava var. *flava*
Polygala incarnata
Quercus nuttallii
*Quercus phellos**
Salvia azurea subsp. *pitcheri*
Scirpus polyphyllus
Spiranthes vernalis
Stenanthium gramineum
*Styrax americana**
Tilia heterophylla

McDonough

Beckmannia syzigachne
*Cirsium hillii**
Cypripedium reginae
*Melanthium virginicum**
Platanthera leucophaea
Thelypteris phegopteris
Tradescantia bracteata

McHenry

*Alnus rugosa**
*Amelanchier sanguinea**
*Asclepias lanuginosa**
Asclepias ovalifolia
Aster furcatus
Botrychium multifidum
*Calopogon tuberosus**
Cardamine pratensis var. *palustris*
*Carex aurea**
Carex chordorrhiza
*Carex cryptolepis**
*Carex disperma**
*Carex oligosperma**
*Carex viridula**
Castilleja sessiliflora
*Chamaedaphne calyculata**
Chimaphila umbellata
*Cimicifuga racemosa**
*Cirsium hillii**
Corallorhiza maculata
Cornus canadensis
Cypripedium acaule
Cypripedium calceolus var. *parviflorum**
*Cypripedium candidum**
*Cypripedium reginae**
Drosera rotundifolia
Eleocharis pauciflora
*Eleocharis rostellata**
Elymus trachycaulus
*Epilobium strictum**
Equisetum scirpoides
*Eriophorum virginicum**
*Filipendula rubra**
*Galium labradoricum**
*Galium lanceolatum**
*Juncus alpinus**
Juncus vaseyi
*Larix laricina**
*Lathyrus ochroleucus**
*Lechea intermedia**
*Lespedeza leptostachya**
Microseris cuspidata
Mimulus glabratus
Penstemon grandiflorus
*Platanthera leucophaea**
*Pogonia ophioglossoides**
Polygonatum pubescens
Polygonum arifolium
*Populus balsamifera**
*Potamogeton gramineus**
Potamogeton praelongus
Potamogeton robbinsii
Ranunculus cymbalaria
*Ranunculus rhomboideus**
Rhamnus alnifolia
*Rhynchospora alba**
Ribes hirtellum
Rubus odoratus
*Salix serissima**
Sambucus pubens
*Sarracenia purpurea**
*Scirpus cespitosus**
Sparganium americanum
*Sparganium chlorocarpum**
Spiranthes romanzoffiana
*Tofieldia glutinosa**
Trientalis borealis
*Triglochin maritima**
*Triglochin palustris**
*Trillium cernuum**
*Trillium erectum**
*Utricularia cornuta**
*Utricularia intermedia**
*Utricularia minor**
*Vaccinium corymbosum**
Vaccinium macrocarpon
*Valeriana uliginosa**
Viola conspersa
Viola incognita

McLean

Cypripedium candidum
Liatris scariosa var. *nieuwlandii*
Melanthium virginicum
Platanthera leucophaea
*Veratrum woodii**

Menard

*Agalinis skinneriana**
Besseya bullii
Boltonia decurrens
Carex aurea
Carex intumescens
*Cirsium hillii**
Liatris scariosa var. *nieuwlandii**
Melanthium virginicum
Orobanche ludoviciana
Plantago cordata
Platanthera leucophaea
Potamogeton pulcher
Scirpus hallii
Scirpus purshianus
Thelypteris phegopteris
*Tradescantia bracteata**

Mercer

Besseya bullii

Monroe

*Bumelia lanuginosa**
Corydalis halei
*Draba cuneifolia**
Euphorbia spathulata
*Galium virgatum**
Heliotropium tenellum
*Hexalectris spicata**
*Rudbeckia missouriensis**
*Talinum calycinum**
Thelypteris noveboracensis

Montgomery

Carex nigromarginata
Cirsium hillii
Liatris scariosa var. *nieuwlandii**
Sabatia campestris
*Silene regia**
*Sisyrinchium atlanticum**
Tomanthera auriculata
*Trifolium reflexum**

Morgan

*Agalinis skinneriana**
Artemisia dracunculus
*Boltonia decurrens**
Bouteloua gracilis
*Cirsium hillii**
*Erythronium mesochoreum**
Melanthium virginicum
*Polygala incarnata**
*Scirpus hallii**
Tradescantia bracteata

Ogle

*Amelanchier sanguinea**
Arctostaphylos uva-ursi
*Asclepias lanuginosa**
*Aster furcatus**
Astragalus tennesseensis
*Besseya bullii**
Betula alleghaniensis
Botrychium multifidum
Calopogon tuberosus
*Carex echinata**
*Carex woodii**
*Ceanothus ovatus**
Cimicifuga racemosa
Cirsium hillii
Corallorhiza maculata
*Cornus canadensis**
Corydalis aurea
*Corydalis sempervirens**
*Cypripedium acaule**
Dalea foliosa
Drosera rotundifolia
*Equisetum pratense**
*Equisetum sylvaticum**
Gaultheria procumbens
*Gymnocarpium dryopteris**
Juniperus communis
*Lathyrus ochroleucus**
*Lespedeza leptostachya**
*Luzula acuminata**
Lycopodium clavatum
*Lycopodium dendroideum**
Lycopodium inundatum
*Microseris cuspidata**
Mimulus glabratus
*Panicum boreale**
Panicum columbianum
Pinus banksiana
Platanthera flava var. *herbiola*
Platanthera leucophaea
Pogonia ophioglossoides
Ranunculus rhomboideus
Sambucus pubens
Solidago sciaphila
*Sorbus americana**
*Sullivantia renifolia**
Thelypteris phegopteris
Tomanthera auriculata
*Trientalis borealis**
Utricularia intermedia
Viola incognita
Woodsia ilvensis

Peoria

Arctostaphylos uva-ursi
Artemisia dracunculus
Asclepias meadii
Aster furcatus
*Boltonia decurrens**
Calopogon tuberosus
Camassia angusta
Carex communis
Carex intumescens
Chamaesyce polygonifolia
*Cirsium hillii**
Cypripedium candidum
Cypripedium reginae
Epilobium strictum
Filipendula rubra
Melanthium virginicum
Microseris cuspidata
Mimulus glabratus
Orobanche fasciculata
Plantago cordata
Platanthera flava var. *herbiola*
Platanthera leucophaea
Poa wolfii
Polygala incarnata
Rhamnus alnifolia
Rhynchospora alba
Sabatia campestris
Spiranthes romanzoffiana
Tradescantia bracteata
Trifolium reflexum
Triglochin palustris
Veronica americana
Veronica scutellata
*Viburnum molle**
Viola viarum

Perry

Paspalum dissectum
Stenanthium gramineum

Piatt

Phlox pilosa subsp. *sangamonensis*
Plantago cordata

Pike

*Agalinis skinneriana**
*Asclepias stenophylla**
Besseya bullii
*Cirsium hillii**
*Erythronium mesochoreum**
Liatris scariosa var. *nieuwlandii**

*Poa wolfii**
Stenanthium gramineum
*Tradescantia bracteata**
Trillium viride
*Veratrum woodii**
*Viburnum molle**

Pope
*Amorpha nitens**
Aristolochia serpentaria var. *hastata*
*Bartonia paniculata**
*Berchemia scandens**
*Botrychium biternatum**
*Calamagrostis insperata**
*Carex alata**
Carex communis
*Carex decomposita**
*Carex intumescens**
Carex lucorum
Carex nigromarginata
*Carex prasina**
Carex striatula
*Carex willdenowii**
*Chimaphila maculata**
*Cimicifuga rubifolia**
Corydalis halei
Cyperus lancastriensis
*Dennstaedtia punctilobula**
*Eryngium prostratum**
*Euonymus americanus**
*Eupatorium hyssopifolium**
*Eupatorium incarnatum**
*Helianthus angustifolius**
*Heteranthera reniformis**
Hexalectris spicata
*Isotria verticillata**
*Lactuca hirsuta**
*Lonicera flava**
*Lysimachia fraseri**
Malus angustifolia
*Matelea obliqua**
*Melothria pendula**
Oxalis illinoensis
*Panicum yadkinense**
Penstemon brevisepalus
*Phaeophyscia leana**
Planera aquatica
Plantago cordata
*Platanthera clavellata**
Poa alsodes
*Polygala incarnata**
Pycnanthemum torrei
*Rhynchospora glomerata**
Sagittaria longirostra
Salvia azurea subsp. *pitcheri*
*Scirpus polyphyllus**
Scirpus purshianus
Sisyrinchium atlanticum
*Spiranthes vernalis**
*Stellaria pubera**
Stenanthium gramineum
Styrax americana
Thelypteris noveboracensis
Tilia heterophylla
*Trichomanes boschianum**
Waldsteinia fragarioides

Pulaski
Aristolochia serpentaria var. *hastata**
*Carex decomposita**
*Carex gigantea**
*Carex intumescens**
Carex oxylepis
*Clematis crispa**
Cyperus lancastriensis
*Euonymus americanus**
*Eupatorium incarnatum**
*Halesia carolina**
Hydrolea uniflora
Iresine rhizomatosa
*Justicia ovata**
Lysimachia radicans
*Melanthera nivea**
*Melothria pendula**
Paspalum dissectum
*Planera aquatica**
Ptilimnium nuttallii
Quercus nuttallii
Quercus phellos
Sagittaria longirostra
*Stenanthium gramineum**
*Styrax americana**
Thelypteris phlegopteris
Tilia heterophylla

Putnam
*Boltonia decurrens**
Cirsium hillii
Cypripedium reginae
Filipendula rubra
Microseris cuspidata
Mimulus glabratus

Randolph
*Asplenium bradleyi**
*Carex physorhyncha**
Draba cuneifolia
Heliotropium tenellum
Hexalectris spicata
*Isotria medeoloides**
*Pinus echinata**
Ptilimnium nuttallii
Rudbeckia missouriensis
*Talinum calycinum**

Richland
Clematis viorna
Scirpus pushianus
*Stenanthium gramineum**
Trifolium reflexum

Rock Island
Astragalus tennesseensis
Besseya bullii
*Castilleja sessiliflora**
*Cirsium hillii**
*Corallorhiza maculata**
*Lycopodium clavatum**
Malvastrum hispidum
Platanthera leucophaea

Saline
Aristolochia serpentaria var. *hastata*
*Asclepias meadii**
*Asplenium bradleyi**
Botrychium biternatum
*Carex arkansana**
*Carex communis**
*Carex intumescens**
*Carex oxylepis**
*Carex willdenowii**
*Eryngium prostratum**
*Matelea obliqua**
*Plantago cordata**

*Quercus montana**
Utricularia minor

Sangamon
Cirsium hillii
Liatris scariosa var. *nieuwlandii*
Melanthium virginicum
Plantago cordata

Schuyler
*Boltonia decurrens**
Carex communis
Carex prasina
Cirsium hillii
Liatris scariosa var. *nieuwlandii**
*Lycopodium dendroideum**
Polygala incarnata

Scott
*Boltonia decurrens**
Cirsium hillii
*Erythronium mesochoreum**

Shelby
Carex communis
*Collinsia violacea**
*Trifolium reflexum**
*Veratrum woodii**

St. Clair
Agalinis skinneriana
Arenaria patula
Astragalus crassicarpus var. *trichocalyx*
Bidens beckii
*Boltonia decurrens**
Clematis crispa
Cypripedium candidum
Draba cuneifolia
Echinodorus tenellus
Gymnocarpium dryopteris
Heteranthera reniformis
Malvastrum hispidum
Melanthium virginicum
Paspalum dissectum
Plantago cordata
Platanthera flava var. *herbiola*
Poa alsodes
Potentilla millegrana
Ptilimnium nuttallii
Sabatia campestris
Silene regia
Spiranthes vernalis
*Trifolium reflexum**
*Trillium viride**

Stark
Cirsium hillii
Cypripedium candidum
Platanthera leucophaea

Stephenson
Botrychium multifidum
*Castilleja sessiliflora**
Corydalis sempervirens
Gymnocarpium dryopteris
Platanthera leucophaea
Ranunculus rhomboideus
Sparganium americanum
*Sullivantia renifolia**

Tazewell
Arctostaphylos uva-ursi
Aster furcatus
*Astragalus tennesseensis**
Berberis canadensis
*Besseya bullii**
*Boltonia decurrens**
Cypripedium reginae
Filipendula rubra
Helianthus giganteus
*Hymenoxys acaulis**
Microseris cuspidata
Milium effusum
Mimulus glabratus
Orobanche ludoviciana
*Plantago cordata**
Platanthera flava var. *herbiola*
*Polanisia jamesii**
Rhamnus alnifolia
Thuja occidentalis
Triglochin maritima
Triglochin palustris
Utricularia intermedia
Veronica americana

Union
Aristolochia serpentaria var. *hastata*
*Asplenium bradleyi**
Asplenium resiliens
Botrychium biternatum
*Carex decomposita**
Carex gigantea
*Carex nigromarginata**
Carex oxylepis
Carex physorhyncha
Carex striatula
Carex willdenowii
Carya pallida
*Eupatorium incarnatum**
Glyceria arkansana
Heteranthera reniformis
Hydrolea uniflora
Melothria pendula
Panicum joori
Panicum ravenelli
Penstemon brevisepalus
*Pinus echinata**
Platanthera ciliaris
Potentilla millegrana
Ptilimnium nuttallii
Puccinellia pallida
Pycnanthemum albescens
Quercus montana
Quercus phellos
Sagittaria longirostra
Scirpus verecundus
Sparganium chlorocarpum
Spiranthes vernalis
*Trillium viride**
Urtica chamaedryoides

Vermilion
*Carex communis**
*Carex prasina**
Euonymus americanus
*Filipendula rubra**
*Poa wolfii**
*Silene regia**
Tomanthera auriculata

Trifolium reflexum
*Veratrum woodii**

Wabash
Carex alata
Carex nigromarginata
Euonymus americanus
Heteranthera reniformis
*Iresine rhizomatosa**
Plantago cordata
Platanthera flava var. *flava*
Platanthera flava var. *herbiola*
Silene regia
Spiranthes vernalis
Thelypteris noveboracensis
Trifolium reflexum

Warren
*Melanthium virginicum**

Washington
Platanthera flava var. *herbiola**
Sabatia campestris
Trifolium reflexum

Wayne
Clematis viorna
*Styrax americana**

White
Orobanche ludoviciana
*Phaeophyscia leana**
Silene regia

Whiteside
Besseya bullii
Ceanothus ovatus
*Cirsium hillii**
*Cyperus grayioides**
*Erythronium mesochoreum**
*Hudsonia tomentosa**
*Hydrocotyle ranunculoides**
*Mimulus glabratus**
*Orobanche ludoviciana**
*Penstemon grandiflorus**
Platanthera flava var. *herbiola*
Polanisia jamesii
Viola canadensis

Will
Agalinis skinneriana
*Arenaria patula**
Asclepias lanuginosa
Aster furcatus
Astragalus tennesseensis
Botrychium multifidum
*Calopogon tuberosus**
*Carex viridula**
*Carex woodii**
*Cirsium hillii**
Comptonia peregrina
Corallorhiza maculata
*Cypripedium candidum**
*Dalea foliosa**
*Drosera intermedia**
*Eleocharis rostellata**
Elymus trachycaulus
Filipendula rubra
Hymenoxys acaulis
*Hypericum adpressum**
*Isoetes butleri**
Liatris scariosa var. *nieuwlandii**
*Lycopodium clavatum**
*Malvastrum hispidum**
Oenothera perennis
Plantago cordata
Platanthera flava var. *herbiola**
*Platanthera leucophaea**
Pogonia ophioglossoides
Polygala incarnata
Polygonatum pubescens
Potamogeton strictifolius
Rubus setosus
Sambucus pubens
*Sanguisorba canadensis**
Silene regia
Spiranthes lucida
Tofieldia glutinosa
*Tomanthera auriculata**
*Trifolium reflexum**
Triglochin maritima
*Triglochin palustris**
Ulmus thomasii
*Vaccinium macrocarpon**
Valerianella chenopodifolia
Veronica scutellata
Viola canadensis

Williamson
*Bouteloua gracilis**
Carex physorhyncha
*Eryngium prostratum**
*Matelea decipiens**
Paspalum dissectum
*Spiranthes vernalis**
Synandra hispidula
Trillium viride

Winnebago
*Alnus rugosa**
*Amelanchier interior**
Arctostaphylos uva-ursi
*Artemisia dracunculus**
*Asclepias lanuginosa**
Aster furcatus
*Besseya bullii**
Betula alleghaniensis
*Betula populifolia**
*Botrychium matricariaefolium**
Botrychium multifidum
*Botrychium simplex**
Calopogon tuberosus
Carex echinata
Carex tuckermanii
Carex woodii
*Castilleja sessiliflora**
*Ceanothus ovatus**
Chamaedaphne calyculata
*Chimaphila umbellata**
*Cirsium hillii**
*Comptonia peregrina**
*Corallorhiza maculata**
Corydalis aurea
Corydalis sempervirens
Cypripedium calceolus var. *parviflorum*
*Cypripedium candidum**
Cypripedium reginae

Helpful Contacts Regarding Endangered and Threatened Species In Illinois

Illinois Department of Natural Resources

Division of Resource Protection and Stewardship: identification, protection, management, and recovery of nongame and endangered species, natural areas, nature preserves 217/785-8774.

Endangered and Threatened Species Conservation Program: management and recovery of endangered species 217/785-8774.

Division of Resource Review and Coordination: endangered species consultation (impact assessments) 217/785-5500.

Natural Heritage Database: computerized database of natural areas, endangered species, and other significant features in Illinois 217/785-8774.

Natural Areas Program: identification, acquisition, or management of natural areas 217/785-8774.

Illinois Endangered Species Protection Board

Status and distribution of endangered and threatened species, listing of species as endangered or threatened 217/785-8687.

Illinois Nature Preserves Commission

Protection and Dedication of state nature preserves or potential Nature Preserves 217/785-8686.

In compliance with the Illinois Human Rights Act, the Illinois Constitution, Title VI of the 1964 Civil Rights Act, Section 504 of the Rehabilitation Act of 1973, as amended, and the U.S. Constitution, the Illinois Endangered Species Protection Board does not discriminate on the basis of race, color, sex, national origin, age, or disability. If you believe you have been discriminated against in any program, activity, or facility please contact the Equal Employment Opportunity Officer, One Natural Resources Way, Springfield, IL 62702-1271, 217/782-7616 or the Office of Human Resources, U.S. Fish and Wildlife Service, Washington, D.C. 20240.

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