

Illinoensis is issued semi-annually or more frequently by the Botany Program, Illinois Department of Conservation and is free of charge. It includes news of interest to the Illinois plant conservation community. Suggestions of news items for future issues are welcomed. Address correspondence and requests to be put on the mailing list to Botany Program, Illinois Department of Conservation, Division of Forest Resources and Natural Heritage, 524 South 2nd Street, Springfield, Illinois 62706. (Phone 217/782-2361)

EXPANDED BOTANY PROGRAM AT DOC

Effective January 15, 1985 the Department of Conservation has a full time botanist working on plant conservation for Illinois. As of that date John Schwegman was relieved of his half time responsibilities for the natural areas program and became the full time botanist. John intends to expand public awareness and information programs, and recovery efforts for endangered species in addition to continuing concern for native plants exploited for profit such as ginseng. The need for protective plant legislation will be reviewed. A technical publication series to report findings of the botanical program is being considered. This newsletter is also an initiative of the new program.

This program is being housed in the Heritage Section of the Division of Forest Resources and Natural Heritage with existing avian, mammal, endangered species and natural area programs.

SPECIES NEWS

Iliamna remota the Kankakee

Mallow is being managed by the DOC under the first recovery plan for plants approved by the Illinois Endangered Species Protection Board. The wild population declined from 180 mature plants in 1983 to 93 in 1984. Half of the island habitat of this endangered species was burned in March which apparently stimulated germination of long "banked" seed, producing many seedlings in an area that must have formerly supported the species. Herbicide treatment was continued for Amur honeysuckle (Lonicera mackii) which is a principal exotic competitor of the mallow. Control of deer browsing was obtained by hanging bars of soap among the plants. This allowed moderate seed production this year following the near complete failure of the seed crop in 1983 due to deer browsing. This species is now in cultivation at the Mason State Tree Nursery where plants grown from seed planted in the fall of 1983 flowered in their first summer.

Boltonia decurrens the decurrent false aster was searched for by DOC staff along its Illinois River lowland habitat using an aerial survey in early September 1984. The open habitat and relatively large size of this herb facilitated our botanizing from a fixed wing aircraft traveling at 130 MPH 500 feet up. The 200 miles from Hennepin to Grafton were covered in a single day. In spite of problems separating Eupatorium serotinum from Boltonia from the air, five populations not known in 1983 were found along with several populations of Boltonia asterioides. Boltonia decurrens is now known from 13 stands along the Illinois River between Kampsville and Hennepin and is only known from Illinois. Two DOC staffers, John Schwegman and Randy Nyboer, have authored a

paper which points out new morphological reasons for recognizing B. decurrens at the species level. It will be published in *Castanea* during 1985.

Asclepias meadii, Mead's milkweed, was searched for in 1984 by John Schwegman who also attempted hand pollination of the known population. A new stand of 3 culms was discovered in Saline County bringing the known Illinois population to three stands in Saline County and one in Ford County. Three flowering culms appeared in one Saline County population and a single flowering culm was found in Ford County. The other populations were sterile. Hand pollination of all plants found failed to produce any pods. The removal of a fence adjacent to the Ford County site threatened this population and Don McFall of the Nature Preserves Commission staff conducted a landowner contact. He obtained the landowner's cooperation in protecting the plant.

Isotria medeoloides, Illinois' only federally endangered plant, produced a single stem in Illinois in 1984. It flowered but failed to produce any seed.

Hymersoxys acaulis, lakeside daisy, is extinct in Illinois in the wild. A few specimens of the Illinois ecotype survive in cultivation but produce no viable seed. Marlin Bowles of the Natural Land Institute tried crossing these Illinois plants with specimens from Ohio in 1984 but failed to get any viable seed.

Randy Nyboer and John Schwegman of the DOC heritage staff botanized within the closed area of the Savanna Ordinance Depot in JoDaviess County during June, 1984. They were specifically looking for Opuntia fragilis and other sand area plants noted by Henry A. Gleason on a visit

to the area in 1909. The area has been pretty much off limits to botanists since the Depot was established shortly after Gleason's visit and the Opuntia had not been seen since then. They found a large healthy population of the cactus as well as populations of Ceanothus ovatus, Cristatella jamesii and Hudsonia tomentosa. Specimens are deposited at the Illinois State Museum.

Poa wolfii, which had apparently not been found in Illinois since 1888, was discovered by Paul Shildneck and John Schwegman in Siloam Springs State Park, Brown County on June 1. This weak nodding grass had died back so completely by mid-June that it could hardly be found. A specimen is deposited at the Illinois State Museum.

IN MEMORIAM

As far as is known, the narrow-leaved hyacinth (Camassia augusta) became extinct in Illinois in 1984. The only known wild population of this species in the state was in a railroad prairie south of Decatur. Paul Shildneck of Decatur has been watching it and noticed that it was declining and showed signs of damage due to herbicide drift from an adjacent crop field. He collected seeds from the few remaining plants in 1983 and could find no surviving plants in 1984. The seed were fall planted at the Mason State Nursery in the fall of 1983. They germinated well but may have perished in the last summer's drought. This spring will tell us if the Illinois ecotype of this interesting wildflower survives.

PRAIRIE FORBS TO D.O.T.

The DOC produces prairie forb seedlings for use in prairie restoration projects on its properties. This year a surplus of 13,500 seedlings of seven species

was made available to the Department of Transportation for planting along highways. They will be planted in the Dixon, Peoria, Springfield and Effingham districts. Species include pale purple coneflower, prairie dock, compass plant, rattlesnake master, New England aster and smooth aster.

A STATEWIDE NATIVE PLANT SOCIETY?

The annual dinner meeting of the Southern Illinois Native Plant Society was held in Carbondale, February 16. Over 50 native plant enthusiasts heard guest speaker Steve Orzell's illustrated lecture on endangered plants in Arkansas. What a shame that botanists in other parts of Illinois do not have similar organizations to bring them together in the interest of our native flora. Bob Mohlenbrock said he sees no reason why the Southern Illinois Native Plant Society can not be expanded to a statewide organization. It would appear that sufficient interest exists to get chapters going in northern and central Illinois. Anyone out there interested? Drop a line to the DOC Botany Program if you would be interested in working toward organizing native plant folks throughout the state.

NEW BOTANIST AT USFWS

The Endangered Species Program of the Midwest Region of the U.S. Fish and Wildlife Service has employed Bill Harrison as Botanist. Bill's background is in plant ecology. Possibly because of its low number of endangered plants, the midwest region is one of the last to get a botanist. Bill says he will be concentrating on reviews and listing of midwest plants.

ENDANGERED SPECIES TECHNICAL ADVISORY COMMITTEE ON PLANTS MEETS

The Endangered Species Protection Board appoints technical

advisory committees for various groups of organisms. The Plant Committee consists of Dr. Johanna Clausen, Dr. John Ebinger, Dr. Alfred Koelling (Chairman), Dr. Robert Mohlenbrock, Dr. Kenneth Robertson and Mr. John Schwegman. The Committee met June 28, 1984 with Drs. Clausen and Mohlenbrock absent. The Committee recommended addition of the following plants to the State Endangered and Threatened Species List.

Clematis verticillaris
Collinsia violacea
Corydalis curvisiliqua
grandibracteata
Corylus cornuta
Erythronium mesochoreum
Opuntia fragilis
Oxalis illinoensis (taxonomic change)
Rosa acicularis

Recommended for deletion from the endangered and threatened species list were:

Dodecatheon amethystinum
Oxalis grandis (taxonomic change)

Dr. Ebinger recommended that vascular plant taxonomists be solicited to provide recommendations and rationale for further additions and deletions to this list.

The Committee also recommended that a possible list of endangered and threatened bryophytes, prepared by Mr. William McKnight of the Illinois Natural History Survey be circulated to knowledgeable individuals to review their potential for listing. This list includes 55 taxa or about 12% of the approximately 450 bryophytes known from the state.

The Committee also recommended priorities for funding of various endangered plant research projects.

GINSENG PUBLICATION

The DOC published a 32-page booklet entitled "Biology of Ginseng in Illinois" by Roger Anderson, James Fralish, Joe Armstrong and Pam Benjamin during 1984. It reports the results of research conducted by Illinois State University for the DOC and includes data on morphology, anatomy, distribution, ecology, phenology and reproduction. Single copies are available free from the Botany Program at DOC.

EXOTICS THREATEN OUR NATIVE PLANTS

Most native plant enthusiasts are aware of the threat posed to natural communities and their species by aggressive exotic plants. Dense ground covers created by Japanese honeysuckle and crown vetch choke out virtually all other plant life. Other species such as purple loosestrife displace native species by their rapid reproduction and high density. The end result is destruction of our native flora.

Your editor noticed the destruction of considerable high quality mesic prairie by crown vetch in a railroad prairie paralleling I 57 north of Otto Road in south Kankakee County during 1984. The crown vetch was planted along the highway shoulder but has spread into the prairie and smothered portions of it. It is fast earning the title "Kudzu of the north". Another new problem weed of natural communities that was noted by me for the first time last summer was Setaria faberi in the sandstone glades of the Shawnee Hills.

Two of the most rapidly spreading and aggressive exotics in Illinois at this time are purple loosestrife (Lythrum salicaria) and teasel (Dipsacus laciniatus). The former is invading northern Illinois wetlands at an alarming rate while the latter is invading open

disturbed sites and prairies. Purple loosestrife is getting the most attention now because it destroys wetland game habitat along with natural areas. The hunters have traditionally had more clout than us botanists and it's good to have them interested in this problem. At this writing, legislation has passed the Ohio House banning the sale or planting of purple loosestrife in that state. In Wisconsin a workshop on the species is scheduled for May 4 by the University of Wisconsin, Milwaukee Field Station, 3095 Blue Goose Road, Saukville, Wisconsin 63080.

While tens of thousands of dollars are spent in Illinois annually to study individual wildlife species, no conservation research funds have been spent to develop biological controls or to implement integrated pest management of exotic plants which are destroying natural communities and seriously degrading wildlife habitat. The present "solutions" to exotics are chemical (herbicide) ones. Of course these are no solution at all to the total problem since most wildland is not under any form of management. The botanical community is a logical one to provide strong early support for exotic control since it is the first to experience the loss of species and communities.

GINSENG

The first full season of the new Illinois ginseng conservation act is now history. At this writing, with the harvest estimate 90% complete, some 4,478 pounds of wild ginseng has been reported as harvested in Illinois. With an average of 160 eight to ten year old plants needed to weigh a pound, the harvest represents over 700,000 wild plants dug from the forests of Illinois by 1,819 licensed ginseng harvesters.

THE WILD HERB TRADE

What impact does the wild herb trade have on conservation of our native plants in Illinois? Most of us probably never give it much thought, but if you ask Gary Colin of Hillsboro he will relate his experience in trying to protect a nearby railroad prairie. Herb diggers "robbed" the prairie of its culvers root and false dragons head (*Physostegia*) while he stood by helpless to stop them. Missouri conservationists report most of the Kansas snakeroot (*Echinacea pallida*) dug from along U.S. Route 50 road banks across the state. This represents quite a scenic loss to the motorist. When a ginseng hauler casually mentioned unloading 28,000 pounds of black cohosh and mayapple roots from the midwest on the docks at Jersey City I decided to look closer at the herb trade.

One major herb buyer in the midwest advertises to buy 77 species of herbs. Fifty seven of them are native species of natural areas. Of these, nine are important forbs of prairie remnants, four are state endangered species and two are threatened species. Among the wildflowers with commercial root value are bood root, Culver's root, wild geranium, purple coneflower, lady slipper orchid, solomon's seal, wild ginger, and wild sarsaparilla. Some surprising species are wild hydrangea root, maidenhair fern and butterfly milkweed root. The commercial exploitation of our native flora definitely has the potential for impacting conservation of wild plants and natural areas. The only species being regulated at present is ginseng which benefits from a restricted harvest season.

BOTANICAL FORAY

The Botany Program of the DOC is sponsoring a field trip to acquaint interested persons with the flora of the Illinois River sand areas on

Saturday June 8. Meet at the north end of Sand Prairie-Scrub Oak Nature Preserve at 1 P.M. The meeting site is located on the Bath blacktop road about 3 miles east of Bath which is about 7 miles south of Havana. We will see dry prairie, dunes, sand forest and wet and mesic sand prairie. The newly acquired Matazas Prairie West is on the agenda. Please call or drop a note to the Botany Program by May 31 if you plan to attend so we will know how many to plan for.

NORTHERN ILLINOIS PRAIRIE WORKSHOP

The seventh Northern Illinois Prairie Workshop is scheduled for June 1 & 2 at the College of DuPage in Glen Ellyn. For more information call Wayne Lampa at 312/790-4900.

STATE HERITAGE INITIATIVE

Governor Thompson has proposed a significant new budget initiative for natural heritage programs. His proposed fiscal year 1986 budget includes 4 million dollars for natural area acquisition, funds to hire 6 new heritage biologists and 6 technicians to implement heritage programs including the botany program, addition of 2 Field Representatives to the Nature Preserves Commission, addition of a biologist for the Endangered Species Protection Board, and establishment of a 5 million dollar endowment fund to support heritage programs in perpetuity. Enactment of this initiative would be the biggest boost to Illinois natural heritage programs ever.

NONGAME WILDLIFE CHECKOFF

Be sure to consider checking line 11b on your 1984 IL-1040 state income tax form if you intend to contribute to support of natural heritage programs. Your contribution to the nongame wildlife conservation fund will help plant life as well. Please support it.