



INDIANA

Native Plant and Wildflower Society

NEWS

Volume V Number 4

Winter 1998

Ferns as Garden Plants

by Dan Anderson

Almost every yard has a corner where grass seems reluctant to grow, due to shade from nearby trees and bushes. Ground covers, such as ivies, Ajuga and Myrtle are often recommended, as are many hostas, to cover the more-or-less bare areas with a pleasing green carpet. Unfortunately, these are not native plants, but there is a group of natives which may serve equally well—the ferns.

I have led groups into many woods on field trips and visited others with INPAWS.

Some seem to be almost devoid of ferns, while others, such as our Owen County hideaway, can boast of ten or more species of ferns and fern allies, some growing in large patches. My experience has been mainly with the species I find in our woods, and I am sure there will be others which will perform as well.

The northwest corner of our yard was a problem spot—the grass

refused to grow, and was replaced by clumps of violets. I have nothing against violets (they're edible) but I didn't want them taking over the yard. My first attempt at revegetation was with Ground Cedar

(*Lycopodium flabelliforme*).

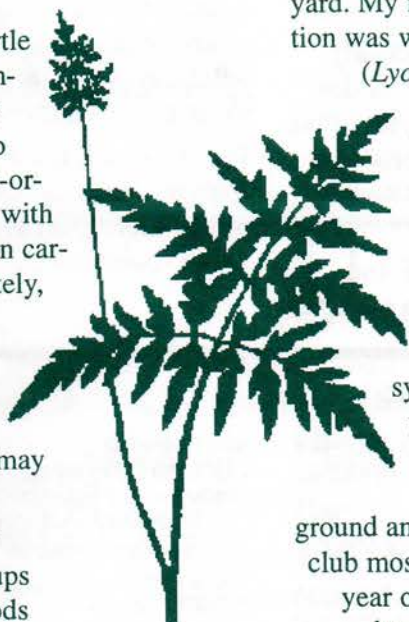
This interesting club moss covers the sides of several hills on our property, and looked like a good candidate. I carefully dug up about 10-15 feet of the runners, noting that the root system (if it can be called that) consisted of one thread-like rootlet every foot or so. I dug up the ground and carefully planted the club moss. It lingered for about a year or so, then died off. A similar experiment the next year was unsuccessful. Possibly the inadequacy of the root system is a problem—I would appreciate comments on that.

Then I turned to ferns. One of our favorites is Christmas Fern (*Polystichum acrostichoides*). It may be the commonest fern in our woods, growing in conditions from half-day sun to mostly shade. About 25 years ago we transplanted several clumps to a shady area in front of our house, along with English Ivy

ground cover. After all that time, the ferns still force their way through the ground cover every spring. We've never lost one, so I used Christmas Fern for the bulk of the planting in our shady spot. The plants form symmetrical clumps of many fronds, and stay green until late in the winter.

We're not fans of large masses of the same kind of plant, so I added other ferns to the area. One, Ebony Spleenwort (*Asplenium platyneuron*) resembles a miniature Christmas fern, but with 1 to 3 fronds compared to the 5 to 15 of the latter. It, too, has long-lasting foliage, and can tolerate considerable sun. Its size (about 6-10 inch-

Ferns as . . . continued on page 2



Cut-leaved Grape Fern
Botrychium dissectum

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es) makes it a good candidate for planting along with low-growing flowers, to provide contrast in beds receiving less than full sunlight. It could make an attractive border plant as well.

Another fern in the same size range, but lacier, is Fragile Fern (*Cystopteris fragilis*). This seems to tolerate



Interrupted Fern
(*Osmunda claytoniana*)

transplanting well and contrasts with the plainer ferns above. It must be handled carefully because the stem breaks easily (hence the name).

Sensitive Fern (*Onoclea sensibilis*) and New York Fern (*Thelypteris noveboracensis*) are two medium-sized ferns which we have transplanted successfully. The former is rather straggly and is not attractive as an individual plant—it looks better in a bed. Both ferns have the disad-

vantage of being susceptible to cold weather and become dormant early in fall.

The grape ferns, *Botrychium* spp. make interesting specimen plants, but often don't appear until late in the summer, ruling them out for some applications. Another interesting fern is the Adder's-Tongue Fern

(*Ophioglossum engelmanni*). This un-fernlike plant, with a single ovate leaf, is often overlooked among the maze of

other leaves on the woods floor. It's easy to dig, but seems to last only a year or two after transplanting.

Maidenhair (*Adiantum pedatum*) and Ostrich (*Matteucia struthiopteris*) Ferns, particularly the latter, are often used in garden plantings. The 3-4-foot fronds of the latter are an attractive complement to taller flowers and foundation plantings.

Fern clumps can be dug up and divided when they become large.

Reproduction from spores can be tedious: a fellow Optimist friend collected spores late this summer and has germinated a large number of pinhead-sized prothallia (the intermediate stage of development). He bought a number of plastic salad containers like those used by fast-food restaurants and is using them as miniature greenhouses. According to him, the prothallia have to be kept moist for six months before the final fern plants will develop!

Consider using ferns more in your garden! They can be obtained from nurseries, INPAWS plant sales, plant rescues, or from a friend who is lucky enough to have some in her or his woods. They may not be wildflowers, but they certainly qualify as native plants!

Dan Anderson is a former editor of *INPAWS News* and sends us his observations from Marion and Owen Counties.

Indiana Native Plant and Wildflower Society Newsletter
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Published quarterly by the Indiana Native Plant and Wildflower Society for members.

The Mission of the Indiana Native Plant and Wildflower Society is to promote the appreciation, preservation, conservation, utilization and scientific study of the flora native to Indiana and to educate the public about the values, beauty, diversity and environmental importance of indigenous vegetation.

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President's Message

by Ruth Ann Ingraham

Who among you reading this newsletter hasn't mused about our Midwestern climate this fall as we experience one record-breaking warm day, one record-breaking warm week after another.

Beneath my beech trees small, bright-green carpets of waterleaf have emerged.

Leaf buds on the red chokeberry shrubs in my front garden are swelling and ready to unfurl. Sightings of forsythia in full bloom have been reported.

The sap is rising.

So what about sap. For a moment forget about the unseasonable rising of such. My dictionary tells me that it is characteristic of a healthy, fresh or vigorous condition. The essential element.

I conclude that INPAWS has an abundance of that sap.

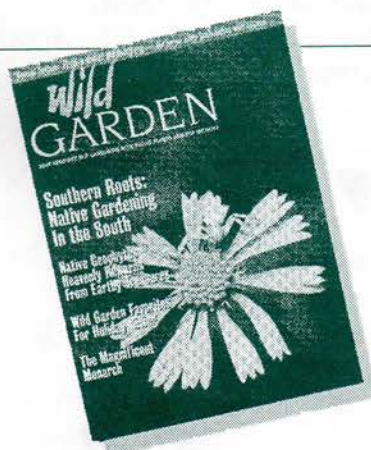
If you attended our Fifth Annual Meeting, you know we have sap.

If you were there and heard twenty Board members relate what they've been doing, with the help of dozens of others, for our organization and the plant world during the past year, you know we have sap.

And if you heard some of the goals for the coming year and years expressed, you hope we have sap.

And therein lies the challenge—to metaphorically keep the sap flowing upward, defying gravity, and thus transforming dormant brown branches into abundant, showy clusters of leafy, flowery growth.

May you all have a sappy year—Indiana's native sugar maple kind of sap, of course.



Wild Garden is the first national gardening magazine to demystify the process of using native plants to create beautiful landscapes that provide bird and wildlife habitat and support the ecosystem. *Wild Garden* is about feeding the soul while giving something back to the earth!

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Beautifying Indiana with Native Plants and Wildflowers

Report of Fifth Annual Meeting

by Margo Jaqua, Chairman, Annual Meeting Committee

"Beautifying Indiana with Native Plants and Wildflowers" was the chosen theme for our Fifth Annual Meeting—a theme that we hope will lead to action. Our desire is that INPAWS will take ownership and provide ideas and expertise for native plantings along our Indiana highways.

We met on a sunny day on Saturday, November 14, 1998, at Dow AgroSciences' wonderful facility on the northwest side of Indianapolis.

Everyone was extremely pleased to welcome Dr. Robert Glass Breunig, whose timely topic "Knowing Your Home Place" served as a perfect keynote address. Imagine our delight when we discovered that Dr. Breunig, Director of the Lady Bird Johnson Wildflower Center in Austin, Texas, was a Hoosier and had grown up right here in Indianapolis.

Dr. Breunig told us that early in his career Hopi and Navajo Indian people helped to change some of his Midwestern perceptions. As he worked on developing an exhibit about the Indians of the Southwest and their environment around Phoenix, he asked a Native American, "How do your people survive in the desert?" The Native American answered, "We don't survive. We live here." This simple

interchange demonstrated the necessity for native plant appreciation. Dr. Breunig told us that because of the strong influence of these Native Americans, he began to realize that he needed to work to "connect our population to its natural heritage and to develop throughout the land a sense of ecological citizenship—a sense that every place has its own inherent beauty and merits preservation."

The topics of our six workshops were chosen to strengthen our mission. *Along the Byways* led by Dr. Breunig pointed out both problems and possibilities of using native plants along our roads and highways; *All of the Woodies* was designed to acquaint us with native trees, shrubs and vines; *More than Springtime* demonstrated the use of native plants in all seasons of the year; *Restoring the Limberlost* instructed in methods of restoring plant communities and habitats; *A Plant in the Wrong Place* addressed the problems exotics can cause; *Wild Seeds—Cleaning, Saving, Growing* was included to teach us how to clean, save and grow seeds.

A delightful lunchtime performance by *The Weeds* further educated or reinforced knowledge of problem plants and the interdependence of plants and insects.

INPAWS President Ruth Ann Ingraham conducted an informative annual meeting. She introduced the board members who reported on the respective committees.

Following the day's activities, we all enjoyed the closing social as we browsed the many nature displays, the artwork and the books, and listened to the entertaining music of *Blackberry Jam*.

I thank all who participated in and/or helped with the Fifth Annual Meeting.



CONSERVATION COMMITTEE REPORT FOR 1998

by Ted Harris, Chairman

INPAWS' Conservation Committee was formed in 1996 for the purpose of helping to protect Indiana's remaining unprotected natural areas. In addition the committee becomes involved with issues outside Indiana when the affected areas are of great size or when Indiana's elected representatives have a vote.

The Conservation Committee operates in two ways. The first way is to encourage direct protection by working with land owners, land trusts and governmental agencies. During the past year we:

- helped the Central Indiana Land Trust to acquire Burnett Woods;
- made INPAWS a member of the federal Native Plant Conservation Initiative;
- supplied input for the Forest Service's new strategic plan;
- supported the Grand Kankakee Marsh National Wildlife Refuge, as well as wilderness proposals in several areas of the country.

At the same time we have opposed road building in natural areas, commercial timber cutting on the national forests, public lands cattle grazing, and the numerous anti-environmental riders that were attached to the federal appropriation bills.

The Conservation Committee's other way of operating is to raise awareness, through newsletter articles, of things INPAWS members can do to improve the long-term survival of Indiana's native flora

and fauna. In the Summer 1998 issue of *INPAWS News* we suggested these eight things:

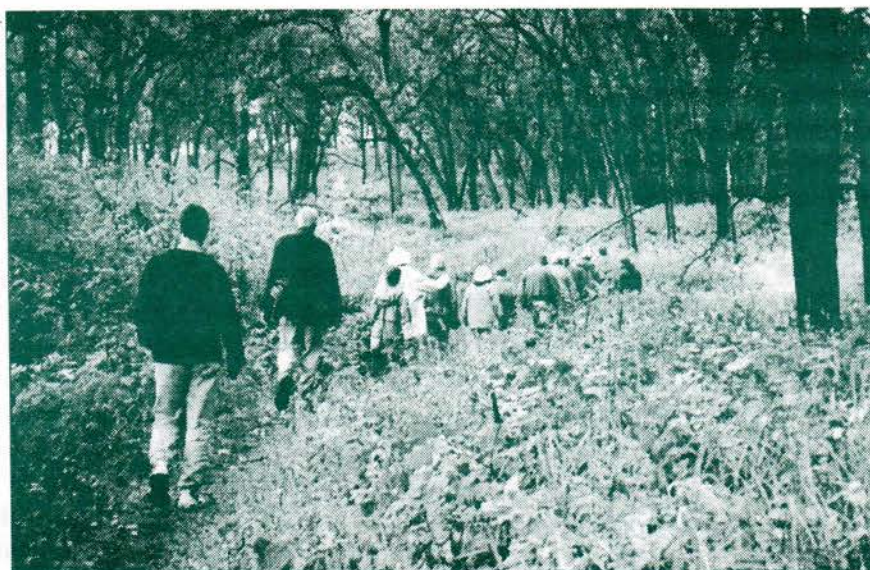
- acquiring an environmental license plate;
- joining The Nature Conservancy;
- joining one or more of Indiana's regional land trusts;
- voting for politicians who support conservation;
- helping to control invasive exotics;
- writing letters opposing destruction of natural areas;
- staying informed about conservation issues; and last but not least,
- personally helping with restoration, for instance by volunteering at The Nature Conservancy's Kankakee Sands project.

The native plant communities we value have been under intense, human-caused pressure for two hundred years.

Protecting what we have left requires more than sympathetic thoughts. It needs your commitment and action in tangible ways. Thank you.

Ted would welcome hearing from INPAWS members who have concerns relating to conservation issues or suggestions for topics we should address.

*Write to him at
1120 Ridgeway Drive
Crawfordsville, IN 47933-1063
or call him at 765-362-1509.*



INPAWS field trip to the Indiana Dunes

M U L T I F L O R A E

INPAWS Alien Invasive Plants Committee Has First Meeting

A group of INPAWS members interested in the problem of alien invasive plants in Indiana met on October 18 at Carolyn Bryson's home. In addition to Carolyn, attending were Ellen Jacquart, Jim and Chris Brewster, Jean Vietor, Marilyn and Charles Spurgeon, Bill Brink, Kevin Tunesvick, and Tina Meeks.

The committee had a good discussion of the serious alien invasive problems around the state, and talked about what might be done to bring attention to this issue. There was a general agreement that the public is, for the most part, unaware of the problem and what they might be able to do to help. It was decided that the committee's efforts would best be focused on public education.

The committee is now looking for volunteers who would be interested in helping develop the educational materials that would be aimed at different groups (e.g. school children; landscape architects, nurserymen and other professionals; Master Gardener programs). The committee will also work closely with other groups and agencies in the state that are interested in the alien invasive problem. Ellen Jacquart has agreed to chair this committee, and anyone interested in helping should contact her at
ejacquart@aol.com
317-923-7547 (days)
812-876-9645 (evenings).

Wrap-up of the Annual Meeting: *Where We Left Off*

At the November annual meeting, I enjoyed hearing Dr. Breunig's vision for the Lady Bird Johnson Wildflower Center and his ideas for reestablishing native flora at the Center. He challenged us to remember that as Hoosiers we have our own native flora unique to Indiana. A lot of interesting ideas were discussed during the wrap-up session as we explored the best method for getting the word out to our state and local communities. And what is the best way to do that? Is it through our speakers bureau? education through our schools? developing native flora planting standards (what plant when and where)? Should we help with research and development needed to start utilizing Indiana's native flora? Perhaps we need to find a champion—someone whose voice can be heard by many. Or maybe it's time to find a home for INPAWS in order to promote the use of our native plants, just as Dr. Breunig is doing at the Lady Bird Johnson Wildflower Center.

I would like to explore Dr. Breunig's theme *Knowing our Home Place* and his vision of the Lady Bird Center, as we try to identify ways that we, as Hoosiers, can promote and publicize the use of our native plants. If anyone is interested in discussing these questions in a smaller group, please email me at rmrian@iei.net or call me at my office (317) 585-6100 or home (317) 823-4881.

Mike Rian



NATURE WALKS AT BUTLER UNIVERSITY

Join Dr. Rebecca Dolan for nature walks on the second Tuesday of each month at noon:

January 12

Canal critters—Look at plankton from the canal under microscopes

February 9

Identify birds on the Butler Campus

March 9

Check out early spring wildflowers

Meet behind Gallahue Hall on the Butler University campus near the greenhouse. Walks will last about 45 minutes. There is no charge and all are welcome.

If you would like to receive a monthly reminder of the walk, or wish to be dropped from the reminder list, please call Dr. Dolan at 317-940-9413, or email rdolan@butler.edu.

<http://www.inpaws.org>

Visit our website for news and information about INPAWS and native plant issues, as well as links to a wealth of like-minded organizations.

We would like to update our site with **your** news, information, comments, ideas, opinions, suggestions. In short, anything of interest to all concerned with preserving native plants and their habitats.

Please email Anne Wilson • wilson@hsonline.net.

Hepatica Hills

Juanita Graham has asked that the Indiana Native Plant and Wildflower Society let it be known that the land which she has nurtured, and the home where she has lived for over forty years, will be for sale.

Juanita is known by many in INPAWS. A Charter Member, she has donated hundreds of native plants for our sales and auctions, has joined many of our field trips and has attended most of our programs.

She calls her place *Hepatica Hills*. She wishes to sell *Hepatica Hills*, someday, to a buyer who would conserve the land and protect it from exploitation.

Hepatica Hills includes five acres of rich woods (with no grass to mow) and is home to hawks and owls and dozens of species of native plants. A deep ravine bisects the land. Sheets Creek runs through the bottomland. Situated on a bluff to take advantage of the best view is the 1950's contemporary home designed by Edward Pierre for the Grahams. It is a one-story house with two bedrooms and two baths. The location is in northern Marion County, south of Zionsville, with easy access to I-465 and I-65.

If, from this sketchy description, you are interested in exploring further the possibility of someday owning *Hepatica Hills*, write to

Juanita Graham
c/o Ted Harris
1120 Ridgeway Drive
Crawfordsville, IN 47933.



You may call Ted at
765-362-1509
for more details.

Three National Native Plant Magazines

A condensed version of Don Miller's recent INPAWS News article, *Going Native on the Monon*, has been selected to appear in the premiere issue of the new magazine, *Native Plants*, to be published by the **Lady Bird Johnson Wildflower Center** in Austin, Texas. Managing Editor Karen Bassett explains, "The publication is an expansion of our national newsletter, and our first step toward a magazine. It would be great to include the Monon story in our inaugural issue in the native plant society news column. May we?" Of course! What an honor. Watch for it!

Joanne Wolfe, editor of *Wild Gardens*, has generously offered INPAWS members the reduced subscription rate of \$12.50 per year (see their ad on page 3). This offer is valid for new or renewal orders. In an upcoming issue, INPAWS will be included in a special section list-

ing native plant societies across the nation. Andy Wasowski, featured speaker at our 1997 Annual Meeting, is a frequent contributor to this beautiful new magazine.

Wildflower, North America's Magazine of Wild Flora, published in Canada, is another excellent publication. Editor Jim Hodgins writes, "Our mandate is the study, conservation, restoration and cultivation of our North American native flora. Please join us."

Each of these full color magazines is published quarterly and is packed with excellent articles and handsome illustrations.



THE 1999 JOINT FIELD MEETING OF THE NORTHEASTERN SECTION OF THE BOTANICAL SOCIETY OF AMERICA AND THE TORREY BOTANICAL SOCIETY

will be held in northern Indiana from June 20th to 24th. This area has an interesting mix of vegetation and flora, combining species typical of the prairie border and boreal regions with the deciduous forests of the Midwest.

The meeting will include three days of field trips to savannah and prairie sites in northwestern Indiana, and to fens and mature forests in the northeastern part of the state. Sites to be visited will include the Jasper-Pulaski and Pigeon River areas, and the field trip leaders will include some well-known Indiana botanists. Evening programs will introduce

regional plant ecology and floristics. The estimated meeting price of \$225 will include air-conditioned housing (Sunday through Wednesday nights) and meals (Sunday evening through Thursday breakfast) on the campus of Manchester College, and transportation to field sites.

For more information contact:

Dr. David J. Hicks
Biology Department
Manchester College
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A Low-Tech Method of Starting Wildflower Seeds

by Betsy Wilson

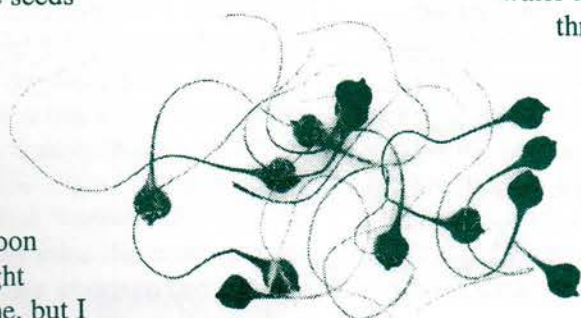
I dreamed of a natural landscape in my back yard as I purchased a large selection of seeds at INPAWS meetings. But how would I get these seeds to germinate? I had been advised to plant them as soon as I brought them home, but I wondered—how would I recognize the newly sprouted seedlings? And how would I keep our resident sparrow population from eating the seeds I planted?

I decided to try a variation on the method I use to start my vegetable seeds. I filled old, but clean, four or six-pack plastic flowerpots (that annuals come in) with a soilless potting medium. My homemade variety consists of one-third peat moss, one-third vermiculite, and one-third composted manure. I put the seeds on top of the medium and covered all but the Cardinal Flower seeds with a very thin layer of this mix. The Cardinal flower seeds were left uncovered.

I put the pots on shallow-rimmed trays. These collect rainwater which wicks up into the pots, keeping the seeds moist between showers. I put the trays on our deck in the late fall or early winter, covering them with a row cover, available at garden centers or from seed catalogs, called Reemay. This covering, anchored on all sides by boards so it would

not blow off, kept the seeds from blowing away, being washed out of the pots, or being eaten by local birds and animals. It allowed water and light to pass through it, kept weed seeds from blowing into the pots, and protected the young seedlings as they emerged in the spring.

I moved the pots, still on their trays, into the sun as the weather warmed up.

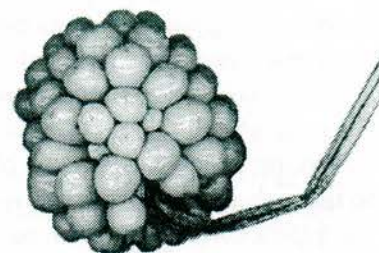


Leather Flower seeds
Clematis viorna

My seeded trays included:

- Big Bluestem (*Andropogon gerardii*)
- Little Bluestem (*Andropogon scoparius*)
- Dense Blazing Star (*Liatris spicata*)
- Compass Plant (*Silphium laciniatum*)
- Cup Plant (*Silphium perfoliatum*)
- White Snakeroot (*Eupatorium rugosum*)
- Shooting Star (*Dodecatheon meadia*)
- Cardinal Flower (*Lobelia cardinalis*)
- White Wild Indigo (*Baptisia leucantha*)
- Swamp Milkweed (*Asclepias incarnata*).

Some varieties of seeds were slow to germinate in the spring but eventually emerged. I thinned the seedlings to one per pot after their true leaves appeared. Once the seedlings were up and the weather was warm, I removed the row cover. When the tiny seedlings were about two inches high, I transplanted them to their permanent homes in the garden. The Shooting Star seedlings need to be left in pots until fall because they form a rosette and then become dormant, so I placed these in the garden when we left for vacation and I hope they will emerge in the spring.



Green Dragon seeds
Arisaema dracontium

This fall I have planted Gentian, Jacob's Ladder, trilliums, Solomon's Seal, Green Dragon, and Jack-in-the-Pulpit and once again native plant seeds wait for spring in their pots on my deck. And perhaps in a few years some of these tiny seedlings will be large enough to take to the annual INPAWS spring plant auction!

Betsy Wilson is a charter member of INPAWS and enjoys gardening at her home on the northeast side of Indianapolis.

Funds Available Through INPAWS Small Grants Program

INPAWS is initiating a small grants program to support projects that are in line with the mission of the society. Toward that end, the Board voted last year to allocate \$10,000 from the general fund to an endowment account. Interest from this account will be available for grants. The Awards Committee anticipates funding two grants of up to \$500 each during 1999.

We hope that these small grants will be used in conjunction with other sources of funding for project enhancement such as signage and brochures, special plantings or purchase of native seed stock.

The mission of INPAWS is to promote the appreciation, preservation, conservation, utilization and scientific study of the flora native to

Indiana and to educate the public about the values, beauty, diversity and environmental importance of indigenous vegetation.

Applications are requested from groups or individuals and must be post-marked by March 1, 1999. They will be reviewed by the committee.

Application Procedures for the INPAWS Small Grants Program:

1. Cover sheet including

- Name of project
- Amount requested
- Location
- Applicant/contact person name, address, telephone
- New or existing project
- Category that best describes the project: research, training, education, conservation and habitat, demonstration garden, etc.

2. Text of proposal (not to exceed 2 pages)

- a) A summary of the project, not to exceed fifty words
- b) A clear, concise description of the project which includes the following:
 - How does the project further the INPAWS mission?
 - Why is the project needed?
 - Specific objectives to be achieved
 - Specific information on how INPAWS grant funds would be used

- Who benefits from the project? How many? How do they benefit?
- Names of organizations involved, if any, with a brief description of each, including number of members
- Financial resources committed to the project from other sources, if any
- Anticipated starting and completion date of the project

3. Budget sheet showing:

- a) Labor, material and program costs
- b) Sources and amounts of funds already raised, if any
- c) Total cost of project

Fifty percent of funds awarded will be available at the start of the project, 50% upon receipt of a final report by the Awards Committee. In addition, successful awardees must prepare a poster or other presentation to share with the membership at the Annual Meeting subsequent to completion of the project.

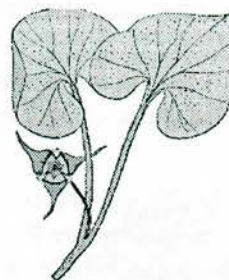
Mail four copies of the grant proposal, post-marked by **March 1, 1999**, to Dr. Rebecca Dolan.

Larger Grant Awards

At the discretion of the Board and membership, larger awards may be made from time to time from the assets of the operating budget. Requests for funds for special projects may be made at any time to the Executive Committee. All requests must be made in writing with a clear statement of how the award would further the mission of INPAWS and benefit our membership.

Dr. Rebecca Dolan
Friesner Herbarium
Butler University
4600 Sunset Avenue
Indianapolis, IN 46208

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317-940-9519 FAX
rdolan@butler.edu



Book Review

by Mike Homoya

The Ferns and Allied Plants of New England

by Alice F. Tryon and Robbin C. Moran. 1997.

Massachusetts Audubon Society.
325 pp. B. & W. photos by Robert Coffin. \$49.95.
ISBN 0-932691-23-4.



The Ferns and Allied Plants of New England is a delightful guide with text by two of the top pteridologists in the field, Alice Tryon and Robbin Moran, along with black-and-white photographs taken over fifty years ago by the late naturalist and photographer Robbin Coffin. This combination of authors and photographer has produced a work with up-to-date taxonomic treatments and nomenclature that should help the fern enthusiast accurately identify the fern at hand. Even though it is about New England ferns, almost all of Indiana's species are covered as well.

For the most part the photographs are very nice and capture the species growing in habitat. Many are clearly works of art. However,

some of the photographs provide little help in identification. For example, the plate of ostrich fern (*Matteuccia struthiopteris*) depicting newly emerging fronds is of little use for identification to one unfamiliar with the plant. Deficiencies in some of the photographs are overcome with keys that are generously illustrated with line drawings and silhouettes of dried specimens.

Also included in an appendix is a collection of scanning electron micrographs of fern spores. This is a novel inclusion for a book such as this, but it is of practically no value for identification purposes to those of us without a scanning electron microscope! It would perhaps be more useful to have photographs of those spores that can be obtained with equipment more at hand, such as a compound microscope or stereomicroscope. Except for the quillworts, one doesn't need to see spores to identify the vast majority of species. It would be nice to identify quillworts without the need of a SEM.

Range maps are provided for each species within the geographic areas of New England and the world. The global maps are at such a scale that it is sometimes difficult to determine state boundaries. They are particularly helpful though in helping us see the cosmopolitan nature of some species, such as bracken fern (*Pteridium aquilinum*). Our bracken fern occurs on all continents except Antarctica!

There is also a section on ferns for the garden, including instructions for growing ferns from spores. For mature plants, keep in mind that the

cultivation instructions are for New England, which in general is cooler and moister than Indiana, with mostly acidic soils.

As with most books, errors exist. Perhaps most notable is the inversion of Figures 2 and 6 in the key to varieties of *Lycopodium obscurum*. This is an unfortunate mix-up in an already difficult group for the beginner.

(It is interesting to see that these taxa are treated as varieties—Robbin Moran is one of the authors of *Lycopodium hickeyi*, a name given to elevate to species one of the varieties given here).



All in all I like this book. It's informative and fun to read. (Did you know that of all living things the lowly Indian adder's tongue fern holds the record for the highest chromosome number—1,262!) Even with its somewhat high price I would nevertheless recommend this book to anyone interested in ferns.

Mike Homoya is author of *Orchids of Indiana*, published by the Indiana Academy of Science in 1993, and is a botanist with the Indiana Department of Natural Resources.

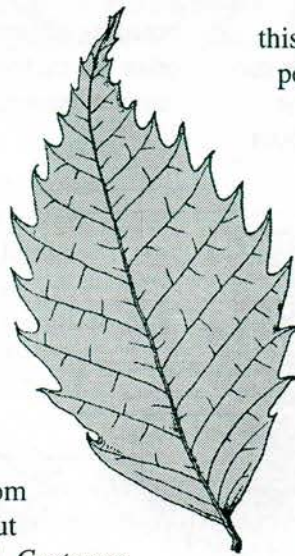
Save the Charismatic Megaflora

by Art Hopkins

Although INPAWS tends to focus on herbaceous plants, there are of course many woody plants as well that are native and that flower. One of the finest was, or maybe is, the American Chestnut tree, *Castanea dentata*. Before the introduction of the Asian Chestnut blight disease, the American Chestnut comprised as much as 25% of the eastern forest, including Indiana's. Its nuts were considered the finest-flavored of all chestnuts, and were an important cash crop for many. Bear, deer, turkey, squirrel, and passenger pigeons, as well as humans, feasted on its ample, annual bounty.

Its seven-inch-long, creamy flowers whitened the forests in summer, and it was one of our finest timber trees

as well, growing straight and tall. Chestnut wood was straight-grained, lighter than oak and more easily worked, and as rot-resistant as redwood. It was even this country's major source of tannin for tanning leather, according to information from the American Chestnut Foundation. All in all, *Castanea dentata* seems to put the lie to my Cornell professors' caution "there is no perfect tree." Or maybe not, if you count as a flaw that by 1950



this species had almost disappeared along with the passenger pigeon. Across the whole former range of this species, only a few individuals survive with greater or lesser degrees of apparent disease-resistance.

There are, fortunately, grounds for hope. The American Chestnut Foundation was created in 1983 to try to save this plant. The Foundation encourages research in biological control of the blight and is actively breeding trees for disease resistance, starting with

Save the . . . continued on back page



INDIANA NATIVE PLANT and Wildflower Society

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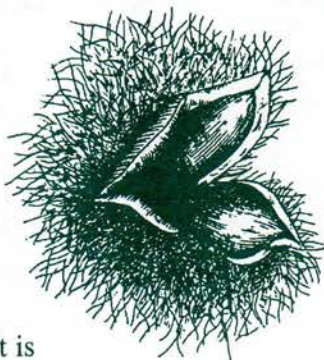
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crossing the Chinese Chestnut, which is disease-resistant, with surviving American Chestnuts. The Indiana chapter of ACF has about 300 "third backcross trees" in the ground—that is, trees whose ancestry is 15/16 American and 1/16 Chinese Chestnut. Among the ancestors of these trees are some Indiana survivors. It is hoped that, 15 years from now, the Indiana DNR's state nurseries will have disease-resistant, mostly Indiana-native American Chestnut seedlings to sell. Similar



breeding efforts are underway in other states, too, as well as at ACF's national research farm in western Virginia.

Sadly, in this age of orbiting space stations and pork barrel, the foundation receives almost no public funds at all; it relies on private donations. Persons interested in joining or supporting the American



Chestnut Foundation can write to 469 Main St, PO Box 4044, Bennington VT 05201-4044, which is the national office. Or, contact

Bruce Wakeland, chair of the Indiana Chapter of the ACF at 10560 East State Road 8, Culver, Indiana, 46511. (219) 772-6522, between 7 and 9 PM. In particular, if you know of the location of any surviving American Chestnut trees, or if you know any history of the American Chestnut in Indiana—oral history from your relatives, for example—please get in touch with Bruce Wakeland.

Art Hopkins is associate editor of this newsletter, lives in Columbus, and is a landscape architect.

Chestnut illustrations by Jan Glimn Lacy



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