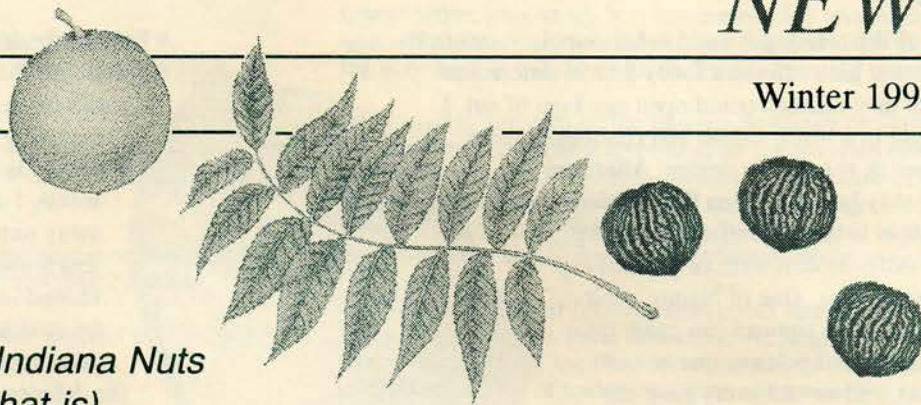


# INDIANA Native Plant and Wildflower Society

## NEWS

Volume I Number 4

Winter 1994



### Free for the Eating

#### Some Notable Indiana Nuts (Edible, that is)

by Dan Anderson

When the weather turns cold, and the evenings become longer, some of us entertain the romantic notion of sitting before a cheerful fire in the fireplace, cracking nuts, and savoring the sweet taste of the delectable morsels. Indiana has its share of nut-bearing trees, the produce of which is generally ignored by us and left for the wildlings to enjoy.

One of my favorites is the shagbark hickory (*Carya ovata*) as well as the similar shellbark hickory (*Carya laciniosa*). Nuts from this tree are often plentiful in the fall and have a four-sectioned outer hull which can be removed easily with the fingers. The shell is relatively thin, and the meats can be readily removed from the inedible material which separates the two halves. For several good recipes using hickory nuts, see Gibbons' *Stalking the Wild Asparagus*. One problem I have found with nuts from wild hickory trees is the presence of a small fly or wasp, which consumes the nut meat during the formative stage and then drills or bites a perfectly round hole in the inner hull to escape. Naturally, any nuts with holes should be discarded, but I have found that as many as 80% of nuts which are apparently O.K. will hatch out one of the critters within two weeks.

The beech (*Fagus grandifolia*) is a common tree in Indiana whose main purpose in life is to crowd out all the other trees it can, then become rotten in its old age so that it can become a wildlife condominium. About the only time I've found beechnuts is when a large beech or branch of same has fallen, bearing the nuts with it. The edible portions are tasty enough, but so small that they are best left to any animals patient enough to cope with them.

Acorns were one of the staples of the American Indians, particularly those from trees of the white oak group (*Quercus alba, et al.*). The successful use of this product depended on extracting the bitter tannin present by means of leaches with hot water after pounding the nuts into a powder or paste. Our one attempt at using acorns was not successful - the meal had the slight bitter tang of tannin without any other taste that we could determine. I would be most grateful if one of you readers could tell me how to make acorns more palatable!

My personal favorite is the black walnut (*Juglans nigra*). Almost every sizable walnut tree in the fall has an accumulation of yellow-to-brown nuts lying underneath, which no one

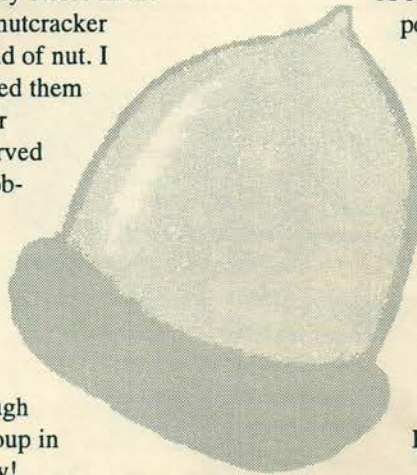
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bothers to pick up. These delicious nuts have two major drawbacks - an outer fruity hull which stains everything it touches a dark brownish black, and an industrial-strength shell which yields the sweet nutmeats only after a significant amount of persuasion.

One of the cutesy gift and kitchen supply stores in the Castleton Mall offered a fancy \$29.95 nutcracker which they claimed could open any kind of nut. I brought in a black walnut and challenged them to open it, using their device. After four tries, they gave up. Even those little carved Russians in soldier uniforms would probably suffer broken teeth or jaws trying to do the same. One of Nature's miracles is how a squirrel can gnaw two closely spaced holes in one end of the nut, and extract everything edible that lies within. Sometimes I think the squirrel injects digestive juice through its incisor fangs, then laps up the nut soup in the same way a spider feeds on her prey!



water out and replace with fresh. After the water has been changed about three times, the nuts can be handled without staining the skin. The nuts should be spread out to dry for about a week (where the squirrels can't get to them), then stored until needed.

A brutal assault with a hammer will result in all, or a portion of, the nut skittering underneath a bench or into a crack. I have found that putting them in a bench vise and screwing the clamp until the shell cracks is the safest way. To remove the nutmeats, I use a pair of diagonal pliers and snip away until the meats can be removed. For the less ambitious, black walnut meats can be purchased in the supermarket, but I have found that the healthful exercise involved in shelling the nuts compensates for the high caloric content of the delicious cakes and breads which can be made from them.

Have a good winter!

My favorite way of processing black walnuts requires a bucket, kitchen tongs, and a rawhide or rubber mallet. Pile the walnuts on the garage floor, patio, or driveway (not the living room carpet!) and smash the outer hull with the rubber or rawhide mallet. Pick out the inner shell with the tongs and drop it in the bucket, which has been filled with water. The nuts which float will have no meats and should be discarded. After the bucket is half filled with nuts, dump the colored

*Dan Anderson and his wife Sophia are charter members of INPAWS who have enjoyed a wide range of edible wild greens, mushrooms, nuts, fruits and an occasional snapping turtle or muskrat over the past thirty years.*

**Indiana Native Plant and Wildflower Society Newsletter**

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Published periodically 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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Membership	Carolyn Harstad	(317) 257-9452
Plant Rescue	Kevin Tungesvik	(317) 354-2775
	Sue Nord	(317) 782-0763

**Newsletter Committee**

Editor	Chris Carlson	(317) 257-5413
Co-Editor	Dan Anderson	(317) 849-3105
Science Editor	Kay Yatskievych	(314) 776-8501
Design & Layout Editor	Anne Wilson	(812) 342-6838
Mailing	Ruth Ann Ingraham	(317) 253-3863
Contributing Editors	Jeff Maddox	(317) 241-5953
	Bill Brink	(317) 255-0166
	Sue Nord	(317) 782-0763
	Barb Kaczorowski	(317) 877-0850
	Betty Trusty	(317) 831-6404

**Submission of articles**

Information for the newsletter is supplied by Society members and others interested in sharing information about Indiana native plants. Articles or drawings should be sent to the Editor, Chris Carlson, 6330 N. Park Avenue, Indianapolis IN 46220.

## Letters to the Editor

October 14, 1994

To the INPAWS Newsletter Editor:

Part of the mission of the Indiana Native Plant and Wildflower Society is to promote the preservation of flora native to Indiana.

Therefore, we believe it is important that members of INPAWS and the broader readership of this newsletter know about:

- the rapid deterioration of the plant communities in several of Indiana's state parks due to over browsing by white-tailed deer,
- the urgent need to follow the recommendations of the Deer Advisory Committee.

Following is a partial quote from a letter written by members of the Brown County State Park Deer Study Committee:

"A study committee was appointed by the Director of Natural Resources in March, 1992, to study the deer problem in Brown County State Park. This committee of 14 specialists issued a report to the Natural Resources Commission in February, 1993, after evaluating several alternatives and listening to Indiana citizens at two public hearings.

"The committee recommended an immediate reduction in the deer population through the most economical, efficient, and proven method, using citizens of Indiana who had experience in hunting deer. Six days of kill in each of three years were recommended to bring the deer herd within the carrying capacity of the Park's habitat.

"A park-wide vegetation study was completed in June of 1993, and it supported the committee's recommendation. The study found a significant negative impact was occurring throughout the Park. Plant species numbers at all sites examined were about one-half of the number of species found on similar sites outside the Park. Because of years of over-browsing, the woody sub-canopy of the Park, within reach of deer, has been reduced to a fraction of what it should be.

"The Natural Resources Commission, after reviewing the study committee's report, the vegetation study, and after holding two additional public hearings, recommended that the study committee's recommendations be implemented. However, because of political concerns, the Department of Natural Resources was only allowed to plan a one day/one year reduction program.

"After two court suits (one by an animal rights group and the other by a small group of Nashville business owners) were dismissed, a reduction of the deer population was held on December 4, 1993. Three hundred and ninety two deer were removed by 466 citizens of Indiana. This reduction program was completed with no accidents and with minor protest from an animal rights group. Over 3000 pounds of venison from

these deer were distributed to food kitchens. It is disturbing to note that the majority of the deer taken showed signs of severe malnourishment, another indication of gross over-population.

"While removal of 392 deer is a good start, it is not sufficient to solve this very serious ecological problem. The remaining deer in the Park will easily replace that number through reproduction [this year]. It is imperative that additional reductions take place [this year] and in subsequent years to keep the deer herd in balance with the Park's carrying capacity."

At the spring meeting of the Indiana Academy of Science, IAS members adopted a resolution on white-tailed deer in Indiana state parks. The IAS requests the governor of the State of Indiana to implement the recommendations of the Brown County State Park Deer Study Committee in state parks showing significant impact of excessive deer browsing.

We have ten acres of forested land about three miles north of Brown County State Park. We can provide anecdotal evidence in support of the deer committee from our observation of the destruction of undergrowth on our property to a fraction of what it was only two to three years ago.

Our state parks deserve to be protected from destruction by an overpopulation of deer. These parks were established so that all people could enjoy Indiana's beautiful second growth forests with the great variety of trees, shrubs, flowers and animals that live there. Unfortunately, since all the large predatory carnivores have been eliminated, the natural balance has been destroyed. Man must now play the role of hunter/predator if a natural balance is to be restored.

The white-tailed deer is not an endangered species. Indiana does not need deer parks. What we do need is a public forest teeming with an exciting diversity of native flora and fauna. To achieve this end the deer population must be controlled. According to a survey done by the Department of Natural Resources, 82 per cent of those surveyed in our state favor a continued culling until a balance can be achieved.

If you support the call for help from our competent, devoted, state park forest managers, write to:

**Governor Evan Bayh**      **Michael Kiley, Chairman**  
**State of Indiana**      **Natural Resources Commission**  
**206 State House**      **402 W. Washington Street**  
**Indianapolis IN 46204**      **Indianapolis IN 46204**

**Patrick R. Ralston, Director**  
**Executive Office**  
**Department of Natural Resources**  
**402 W. Washington Street**  
**Indianapolis IN 46204**

We are convinced that if we want to allow the recovery of the natural flora and fauna of the Park before the destruction becomes irreversible, we must greatly reduce the population of deer as soon as possible.

*Joseph and Ruth Ann Ingraham*  
*INPAWS Charter Members*

# Far-Flung Plants

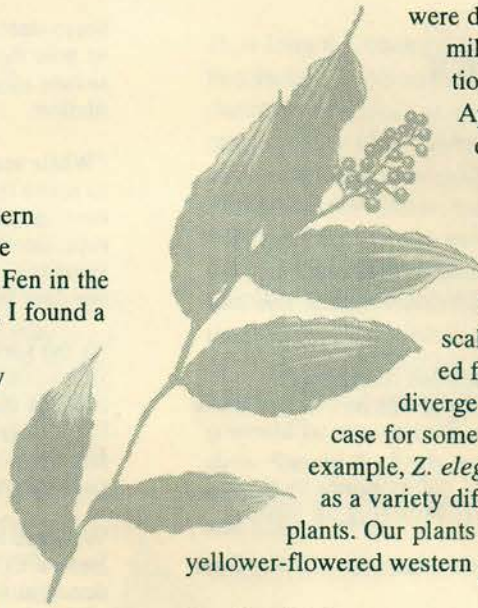
by David J. Hicks

In late July, I did some wetland botanizing in northern Indiana. Among the places I visited were the Nature Conservancy's Swamp Angel Preserve, and Nasby Fen in the Pigeon River Fish and Wildlife Area. At both sites, I found a plant that I hadn't seen previously, White Camas (*Zigadenus elegans*, in the family *Liliaceae*). A few weeks later, I was in the Colorado Rockies participating in a workshop at the Rocky Mountain Biological Laboratory. Although most species and many genera of the high-elevation flora were new to me, I was surprised to find my new acquaintance, White Camas, among them. It was even more surprising to contrast the habitat of this species in Indiana with that in the Rockies. In the Midwest, this is a plant of wet, calcareous sites such as the Nasby and Swamp Angel fens. In the Rockies, it grows on open, dry alpine slopes and sub-alpine meadows.

Further observation in the Rockies revealed several other plants familiar from the Midwest. One of the associates of the camas in both areas is Shrubby Cinquefoil (*Potentilla fruticosa*, *Rosaceae*). Like the camas, it grows in fens in Indiana, but is found on dry soils in the Rockies. More old friends turned up in sub-alpine forests in the Rockies; examples included False Solomon's Seal (*Smilacina racemosa*, *Liliaceae*), Starry Solomon's Seal (*S. stellata*), Red Baneberry (*Actaea rubra*, *Ranunculaceae*) and Cow-Parsnip (*Heracleum lanatum*, *Umbelliferae*).

I was initially surprised to see familiar plants in unfamiliar environments. How can the occurrence of the same species in distant locales be explained? The distribution pattern of a species is determined by many factors. Primary among them are the environmental tolerances of the plant, which include the range of light, temperature, soil moisture, and soil nutrients over which it can grow. One thing that the presence of these plants in areas as far-flung as northern Indiana and Colorado tells us is that the environments of both regions lie within the tolerance range of the plants. Although it is a bit surprising to find species that we consider wetland plants in dry sites in the Rockies, the plants may be responding to light levels and soil factors rather than to moisture *per se*.

History is a further factor involved in plant distribution patterns. All of the species mentioned have broad distributions in the northern part of North America, and most are circum-boreal, i.e. they are also found in the corresponding geographic regions of Eurasia. The ranges of northern species



were displaced by many hundreds of miles during the Pleistocene glaciation. Populations in the Appalachians, Midwest, and western mountains thus represent relict populations that have hung on in areas of relatively cool, moist climate.

Consideration of a longer time scale suggests that populations isolated for thousands of years might diverge evolutionarily. This is indeed the case for some of the plants mentioned. For example, *Z. elegans* of the Rockies is recognized as a variety different from that of the Indiana plants. Our plants belong to var. *glaucus*, while the yellower-flowered western plants are put into var. *elegans*.

*David J. Hicks is an associate professor of biology at Manchester College. He does research and teaches courses on the ecology and evolution of vascular plants.*

## Guidelines

### for Letters to the Editor

Recognizing that a statewide organization embodies diversity of opinion, and recognizing that INPAWS members may provide perspective on issues by sharing that diversity with others, INPAWS Newsletter welcomes well-written letters to the Editor which meet the following criteria:

- on issues and concerns relating to native plants of Indiana
- may be of interest to the membership
- consistent with the mission of INPAWS

It would be helpful if letters were provided on computer disk:

- In Microsoft Word 5.1 or 5.0 or 4
- On Macintosh compatible 3.5" diskette or
- On IBM 3.5 High Density (1.4 MB), saved as ASCII

If the above is not possible, articles should be typed, double spaced. Please be as concise as possible in stating your views and kindly include a brief statement identifying yourself (2-3 sentences).

Send your letter to INPAWS Editor, 6330 N. Park Avenue, Indianapolis IN 46220.

Letters will be printed in as timely a fashion as possible. Do keep in mind that this is a quarterly publication; the publication deadlines are listed elsewhere in this issue. There may be circumstances where the Newsletter committee declines to publish your letter, and we reserve that right.

# Growing Prairie Plants From Seed

by Sue Nord

Many prairie species native to Indiana are useful in the home landscape and can be easily grown from seed. Included in this list are Purple Coneflower (*Echinacea purpurea*), Big Bluestem Grass (*Andropogon gerardii*) and many asters. Each of these may have seed available for collection into the month of November. It is not too late to collect from some of your favorites.

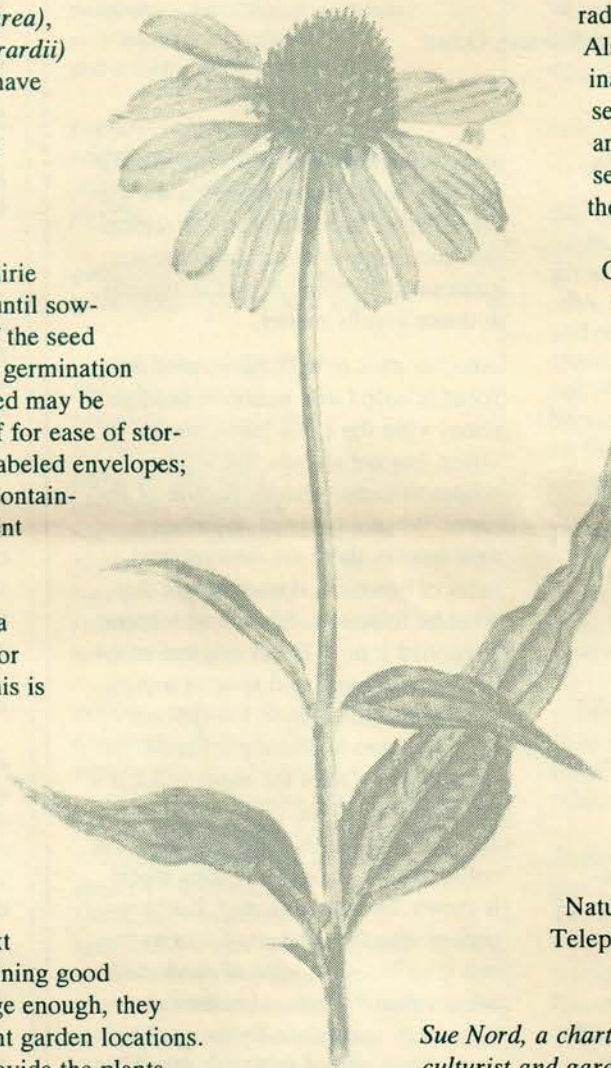
A general rule for seed storage of prairie plants is keep the seed cool and dry until sowing. This will prolong the viability of the seed embryo as well as prevent premature germination and mold growth. Once collected, seed may be "cleaned" or separated from the chaff for ease of storage or sowing. Place seeds in small labeled envelopes; then put the envelopes in a sealable container like a jar. The jar is most convenient for refrigerator storage and will keep the seeds dry in case of a spill. Most prairie seeds will require a cold treatment, called stratification, for consistent germination. In the wild this is accomplished by going through the winter. However, this is easily simulated by refrigerator storage. The length of time which seeds can be stored varies by species, but most prairie seeds will easily last a year. The seeds may be sown the next spring into flats or flower pots containing good potting mix. When the plants are large enough, they can be transplanted to their permanent garden locations. If grown in this manner, you may provide the plants ideal conditions and the outcome may be larger, more vigorous plants. However, this method is labor-intensive.

If you would like to duplicate nature, sow the seed into ground beds in the fall. Ground beds are spaces set aside in the garden or nursery where the seeds are sown directly into the soil. This allows the seed to receive the same kind of

treatment that it would in nature. However, there are drawbacks to this method. With reliance on weather, the germination may be sporadic, sometimes taking two years. Also, the amount of moisture may be inadequate or excessive. Animals seem to flock to freshly tilled earth and may disturb your carefully-sown seed. It may be necessary to block their access to the ground beds.

Of course not all prairie species are easy to grow. Even with more reliable species, there will be variability in germination rates from year to year. It is important to begin with the easier types and, as experience is acquired, expand into the plants which may require extra treatments, such as alternate heat and cold cycles, fire, or scarification of the seed coat by mechanical or chemical methods. For more extensive information on various propagation techniques for specific plants, please refer to *Prairie Propagation Handbook* by Harold W. Rock of the Wehr Nature Center in Franklin, WI. Telephone: (414) 425-8550.

*Sue Nord, a charter member of INPAWS, is a horticulturist and gardener at the Indianapolis Museum of Art. Her fledgling home garden is a disaster because she spends all her time at the IMA. She received BS and MS degrees from Delaware Valley College and Ohio State University, respectively.*



# Plant Nomenclature

## LATIN NAMES AND PRONUNCIATION

by Dr. Rebecca Dolan

Multi-syllabic Latin names intimidate a lot of students of botany. The names often seem imposing, but keeping a few pronunciation keys in mind can make dealing with them a lot simpler. Formal scientific names of plants and other organisms are given in Latin so that the language is international and unchanging. I can look at a paper or book in Japanese or Russian and still distinguish scientific names. My sister lives in Holland and while visiting her I bought a wildflower identification book written in Dutch but illustrated with very nice photographs and Latin scientific names. I could therefore learn the plants and see their relationships with our North American flora.

Common names are important and often carry historical information such as medicinal uses of plants, but use of common names has some limitations. For example, very rare plants may not have common names, some plants share common names, some plants have different common names in different parts of the country. Use of scientific Latin names overcomes these problems.

Pronunciation of Latin is much easier than English. All letters are pronounced; there are no silent vowels or other letters. The main trick is knowing where to place the emphasis. Most words have the emphasis on the

next to the last or penult syllable; others may have the emphasis on the syllable before that. It is good to remember that many professional botanists pronounce the same names differently. It doesn't really matter.

Another trick to becoming more comfortable with Latin names is to think about what the Latin terms mean. Often, but not always, the term relates to some obvious feature of the plant. When a botanist describes a new species there are international rules of botanical nomenclature that must be followed. When a new name is applied it must be an original combination of genus and species names, but the specific epithet (or species name) chosen is entirely up to the investigator. Often the name reflects a physical trait of the plant but may also indicate where the plant was first collected, the geographic area where it grows. Or the name may honor the person who first collected it or someone who has done a lot of work with related plants. Personal names are 'latinized' and generally the genus and species names end with matching masculine (-us) or feminine (-ia) endings. Some terms are borrowed from Greek and 'latinized.'

The following list is culled from several references to indicate meanings of Latin terms that appear commonly in Indiana native plant names.

*acaulis* - stemless  
*acerifolius* - maple-leaved  
(maple = *Acer*)  
*alatus* - winged  
*albus* - white  
*alternifolius* - alternate-leaved  
*americanus* - of America  
*amplexicaulis* - clasping the stem  
*angustifolius* - narrow-leaved  
*annuus* - annual  
*apetalus* - without petals  
*aquaticus* - aquatic  
*arborescens* - tree-like  
*arvensis* - of cultivated fields  
*aureus* - golden

*bicolor* - two-colored  
*biennis* - biennial  
*borealis* - northern  
*brevis* - short

*caespitosus* - tufted  
*calcareus* - chalky, limy  
*campanulatus* - bell-shaped  
*canadensis* - of Canada  
*canescens* - grayish, becoming gray  
*cardinalis* - cardinal-red  
*ciliatus* - ciliated, like an eyelash  
*clavatus* - club-shaped  
*coccineus* - scarlet  
*communis* - growing in common  
*concolor* - uniform in color  
*contortus* - twisted  
*convolulus* - climbing  
*cordatus* - heart-shaped  
*crispus* - curled  
*cuneifolius* - wedge-shaped leaves

*debilis* - weak, disabled  
*decumbens* - reclining  
*decurrens* - extending downwards  
*deltoides* - triangular  
*depauperatus* - stunted  
*diffusus* - loosely branching  
*digitatus* - finger-shaped  
*distichus* - two-ranked  
*divaricatus* - spreading

*echinatus* - spiny  
*edulis* - edible  
*effusus* - loose-spreading  
*elegans* - elegant  
*ellipticus* - elliptical  
*erectus* - upright  
*ericoides* - heath-like

*filiformis* - thread-like  
*fistulosus* - hollow, cylindrical  
*flabelliformis* - fan-shaped

*flavens* - yellowish  
*flexuosus* - flexible  
*foetidus* - having a bad odor  
*foliosus* - leafy  
*fragilis* - fragile  
*fragrans* - fragrant  
*fruticosus* - shrubby  
  
*giganteus* - very large  
*glabratus* - smooth  
*glanulosus* - glandular  
*glomeratus* - dense clusters  
*glutinosus* - gluey or sticky  
*gramineous* - grassy  
*graminifolius* - with grass-like leaves  
*grandiflorus* - with large flowers  
*grandifolius* - with large leaves  
  
*herbaceous* - not woody  
*heterophyllus* - with two or more shapes of leaves  
  
*hirsutus* - hairy  
*hispidus* - bristly  
*humilis* - dwarf  
*hyemalis* - of winter  
  
*laciniatus* - cut, torn  
*lactatus* - milky  
*laevigatus* - smooth  
*lanceolatus* - lance-shaped  
*lanceifolius* - lance-shaped leaves  
*latiflorus* - broad-flowered  
*laxiflorus* - loose-flowered  
*leucanthus* - white-flowered  
*linearifolius* - with long, slender leaves  
*luteus* - yellow  
*lyratus* - lyre-shaped  
  
*macrophyllus* - large-leaved  
*maculatus* - spotted  
*major* - larger  
*marginalis* - marginal  
*marilandicus* - of Maryland  
*maritimus* - growing near the sea  
*microcarpus* - small-fruited  
*microphyllus* - small-leaved  
*mirabilis* - wonderful  
*mollis* - soft  
*montanus* - of the mountains  
*multiflorus* - many-flowered  
  
*nervosus* - nerved  
*niger* - black  
*nitens* - shining  
*nobilis* - noble, or well known  
*noctiflorus* - night-flowering  
*novae-angliae* - of New England  
*noveboracensis* - of New York  
*nudicaulis* - naked-stemmed

*nutans* - nodding  
  
*occidentalis* - western  
*odoratus* - with an odor  
*officinalis* - a formally recognized medicinal  
*orientalis* - eastern  
*palmatus* - palmate  
*parviflorus* - small-flowered  
*parvifolius* - small-leaved  
*patens* - spreading  
*perennis* - perennial  
*pratensis* - growing in meadows  
*procumbens* - prostrate  
*pubescens* - with soft hairs, becoming downy  
*pumilus* - dwarf, small  
*punctatus* - marked with dots  
*purpureus* - purple  
*pusillus* - insignificant or very small  
  
*quadrangularis* - four-angled  
*quadrifolius* - with four leaves  
  
*racemosus* - in racemes  
*radicans* - rooting  
*recurvus* - curved back  
*repens* - creeping  
*reptans* - crawling  
*resinosus* - resinous  
*reticularis* - net-like  
*rigidus* - stiff  
*roseus* - rose-colored  
*rotundifolius* - round-leaves  
*rubrum* - red  
  
*sativus* - cultivated  
*scoparius* - broom-like  
*sempervirens* - evergreen  
*sessiliflorus* - flowers without stems  
*sessilis* - apparently stemless  
*silvaticus* - pertaining to woods  
*simplex* - unbranched  
*speciosus* - beautiful  
*spectabilis* - spectacular, visible  
*spinus* - with spines  
*stamineus* - with prominent stamens  
*stoloniferus* - with stolons  
*stramineus* - straw-colored  
*strictus* - stiff, upright, drawn together  
*stigosus* - with stiff bristles  
*suffruticosus* - shrubby  
*sylvestris* - growing in the woods  
  
*tenuiflorus* - slender-flowered  
*tenuifolius* - slender-leaved  
*tenuis* - slender, thin  
*ternatus* - arranged in threes  
*tinctorius* - used for dyeing

*tomentosus* - felty  
*tortuosus* - twisted, winding  
*trifolius* - three-leaved  
*tuberosus* - with tubers

*umbellatus* - with umbels  
*uniflorus* - one-flowered

*velutinus* - velvety  
*venosus* - with veins  
*vernalis* - spring flowering  
*villosus* - with soft hairs  
*virgatus* - twiggy  
*virginianus* - of Virginia  
*vulgaris* - common

*zebrinus* - zebra-striped

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We can use these terms to examine names for some oaks. All oaks are in the genus *Quercus*. White oak is *Quercus alba*, scarlet oak is *Quercus coccinea*, and red oak is *Quercus rubra*. However, *Quercus nigra* is water oak and black oak is *Quercus velutina*, apparently because of velvety hairs on the under surfaces of the leaves.

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- Botanical Latin* by W.T. Stearn. David and Charles, Newton Abbot, England. 1973.
- Dictionary of Plant Names* by A.J. Coombes. Timber Press, Beaverton, OR. 1985.
- Dr. Dolan does research in plant ecology at Butler University in Indianapolis and is currently working on a population biology of rare indigenous plants. She is Director of the University's Friesner Herbarium, oversees Butler's 5.5-acre prairie and has put together a census of campus flora.*

## Report on Tefft Savanna Trip

by Rolland Kontak

About 20 nature-loving INPAWS members, led by DNR Regional Ecologist Tom Post, explored a variety of habitats at Jasper-Pulaski State Fish and Wildlife Area on Saturday, September 3rd.

The northern location encouraged some of our upstate members to participate. Their input during the day confirmed that interest in nature and conservation in northern Indiana is alive and well.

Tom began our hike in the savanna area of the Tefft Nature Preserve. Pausing every few feet, he would identify and elaborate on another native plant. A species list of almost 300 different native plants of the area was provided, and it would appear that a half dozen trips throughout the year would be necessary to see most of them. Fortunate indeed are those who live close enough to do just that.



Photograph by Bill Brink

A brown-bag lunch preceded an afternoon trip to the sloughs and marsh areas.

Being a creationist, I marvel at the plan that is evident in all of nature, and I feel that the Creator had to be pleased when He "saw that it was good"! This "plan" was further revealed as we reviewed the structural and floral changes of plants which grew in the damp and marshy areas. Binoculars were useful for viewing plants which could not be approached on foot and also for watching the bird life visible from the tower platform.

Thanks to Bill Brink, our program chairman, we located blooming Standing Cypress (*Ipomopsis rubra*) along the

roadside. Some believed it to be a native plant, but research has indicated that it is a non-native species introduced to Indiana. Celandine (*Chelidonium majus*) was also thought to be native, but it, too, has been shown to be non-native to Indiana. However, the beauty of these flowers should outweigh any prejudices of heritage.

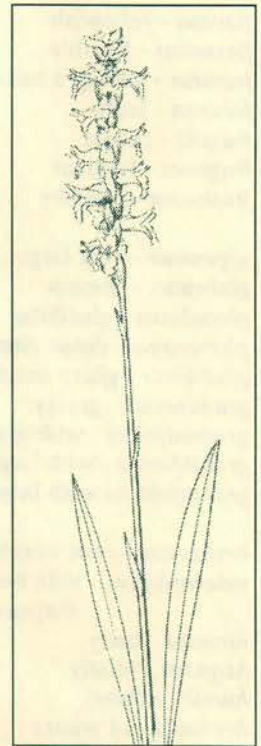
Tom wove the role of game hunter into the narrative at several points. He especially bemoaned the damage to native plants by browsing deer in many of our nature preserves. Personally, I favor animal control and management, but I leave it to those wiser than I to determine if hunting, relocation, or biological controls are the best means of accomplishing the goal of population control. Given the strictures of tight budgets I believe I favor hunting. As a group we should, and maybe must, encourage management and control of browsing predators in some fashion.

On the return trip to Indianapolis, Bill Brink introduced us to Spinn Nature Preserve, which is maintained by The Nature Conservancy. The stellar find was a blooming Ladies' Tresses orchid, (*Spiranthes* sp.), which Chris Carlson found surrounded by 18-inch-high grass.

To reach Spinn Nature Preserve, go two miles north of Reynolds, Indiana on US 421, turn east on County Road 200N, and south when you reach Base Line Road. The preserve is on the west side of the road. Many seed stalks of Blazing Stars (*Liatris* spp.) were seen, suggesting that a visit in early August would be delightful.

The enjoyment and knowledge I gained from our leaders and my fellow hikers can hardly be duplicated by any other activity. I eagerly await our next gathering!

*Rolland Kontak, charter member of INPAWS, was auctioneer at our first two plant sales and auctions. He is past president of the IMA Horticultural Society, and is actively experimenting with propagating a wide variety of our native plants at his south-side Indianapolis home.*





# Input • Ideas • Images

## Articles and Artwork Encouraged

The Indiana Native Plant and Wildflower Society newsletter committee invites submission of articles, drawings and photographs for the quarterly publication.

### Articles

#### • *Subject matter*

Should be pertinent to Indiana native plants (trees, shrubs, mosses, algae, wildflowers, weeds, fungi, etc.); in keeping with the mission of the Indiana Native Plant and Wildflower Society; of interest to INPAWS members.

#### • *Length*

No longer than 500 to 600 words; shorter articles welcome.

#### • *Format*

Wherever possible articles should be submitted in the following format:

- On Macintosh compatible 3.5" diskette in Microsoft Word 5.1 or 5.0 or 4; or,
- On IBM 3.5" High Density diskette (1.4 MB) in Wordperfect, Word 5 or Word 4

If this is not possible, articles should be neatly typed, double spaced.

#### • *Editing*

All articles are subject to editing by members of the committee, including review by our technical editor.

### Line Art & Photographs

#### • *Subject matter*

Should be pertinent to Indiana native plants; in keeping with the mission of the Indiana Native Plant and Wildflower Society; of interest to INPAWS members.

#### • *Format*

Black & white photographs preferred. Color images should have good contrast for best reproduction. Line art should be clean, crisp and free of dirt and smudges.

### General

#### • *Inclusion*

The final decision to include or not include your submission rests with the newsletter committee. In some cases, timeliness of subject matter or available space may dictate using the material in a later issue.

#### • *Credit*

Authors and artists should include a brief (two to three-sentence) biographical statement for inclusion with the article or image.

### General (continued)

#### • *Send to*

Chris Carlson, INPAWS Editor  
6330 N. Park Ave.  
Indianapolis IN 46220

#### • *Deadlines*

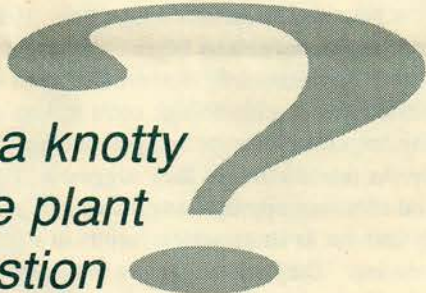
- April 15 for the Summer issue
- July 15 for the Autumn issue
- October 15 for the Winter issue
- January 15 for the Spring issue

#### • *Return of materials*

Diskettes and artwork will be returned if a self-addressed, appropriate mailing package or container with sufficient postage is provided.

#### • *For more information*

Chris Carlson	317-257-5413	Editor
Dan Anderson	317-849-3105	Co-Editor
Anne Wilson	812-342-6838	Layout Editor



## Got a knotty native plant question

If something about native plants has been puzzling you, send your question to the editor of the INPAWS Newsletter. We will make every attempt to have your puzzlement addressed by someone who has some expertise in that area, although we cannot guarantee a reply. We will print appropriate questions and responses of general interest to INPAWS membership in a *Question and Answer* column. The deadlines listed elsewhere in this issue may not apply since time must be allotted for obtaining a response. Send your question to:

INPAWS Editor  
6330 N. Park Avenue  
Indianapolis IN 46220.

## Multiflorae

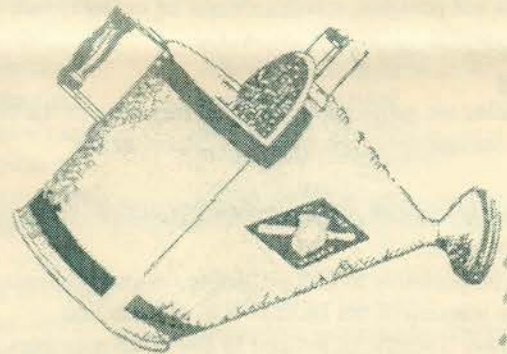
According to Julie Akard of Bloomington, you can order Charles Deam's *Trees of Indiana* by sending a check for \$19.00 (\$16.00 for the book and \$3.00 for shipping) along with your name and address to: Historic Hoosier Hills, P. O. Box 407, Versailles IN 47042. For more information, call Julie at 812-334-3110.

According to the October 19, 1994 *Northside Topics* (A Greater Indianapolis north side weekly), a woman from Marion County won a pick-up truck worth \$20,000 for the following suggestion: So, you want a perfect green lawn, but your blue grass is turning brown, and your water bill makes you see red? Now is the time to begin replanting your yard with wildflowers, grasses and ground covers that grow naturally in your part of the country. (Maybe the lady would share her truck with the rest of us who have been doing that for years!?)

Well.....others have thought of it too! A book entitled *Redesigning the American Lawn: A Search for Environmental Harmony* (Yale, 1994) traces the history of the lawn from its beginnings to the contemporary ideal which the authors, F. Herbert Bormann *et al.*, call the "Industrial Lawn," with its high costs in loss of biological diversity, expended energy, escaped chemicals, and aesthetic poverty. As one alternative they suggest a "Freedom Lawn," based on choosing appropriate grasses and mowing less frequently and not as short, which results in substantial maintenance savings. They are even more enthusiastic, though, about the "New American Lawn," an option that is not a traditional lawn at all but regional native vegetation, imaginatively used and allowed to display its distinctive appeal, with the additional charm of plentiful birds and other wildlife. (*Eastern Native Plant Alliance Network News*, July, 1994)

The thesis that biologically diverse ecosystems are more stable is supported by a study reported in *Nature Conservancy* (July/August). Halfway through an 11-year vegetation study of an oak savanna in Minnesota, the area was hit by record drought. Of 207 study plots, those with high numbers of plant species suffered the smallest losses in mass during the drought and showed the fastest recovery afterward. Of the four main study areas, the most natural, the never-farmed, never-logged virgin savanna, showed the greatest diversity and resilience. (*ENPA Network News*, July, 1994)

An interagency Federal Native Plant Conservation Committee is the goal of a Memorandum of Understanding signed earlier this year by seven Federal agencies and five non-governmental cooperators. This action commits them, and others that may sign later, to working toward a coordinated, national native plant conservation program of public education, research, conservation action, information collection and exchange and international programs. The Federal agencies that signed, which together manage more than 600 million acres of public land, are the US. Forest Service, Soil Conservation Service, Agricultural Research Service, Bureau of Land Management, Fish and Wildlife Service, National Park Service, and National Biological Survey. Those outside the government are The Nature Conservancy, Center for Plant Conservation, National Association of Conservation Districts, Soil and Water Conservation Society and Society for Ecological Restoration. (*ENPA Network News*, July, 1994)



### Now Forming: Plant Rescue Committee

#### Help is needed in:

- Setting policy
- Locating plants in peril
- Digging plants
- Finding new homes for the rescued plants
- Keeping records

#### Please contact:

Kevin Tungesvick (317) 354-2775 Anderson  
Sue Nord (317) 782-0763 Indianapolis

# Beauty is in the Eye of the Beholder

by Bob Frantz

Beauty is in the eye of the beholder—indeed it is. As I look out of the windows of our den, I observe a scene which I am sure would not rate as beautiful to most. But to some of us who are addicted to woodlands just the way they have evolved, beauty is certainly there.

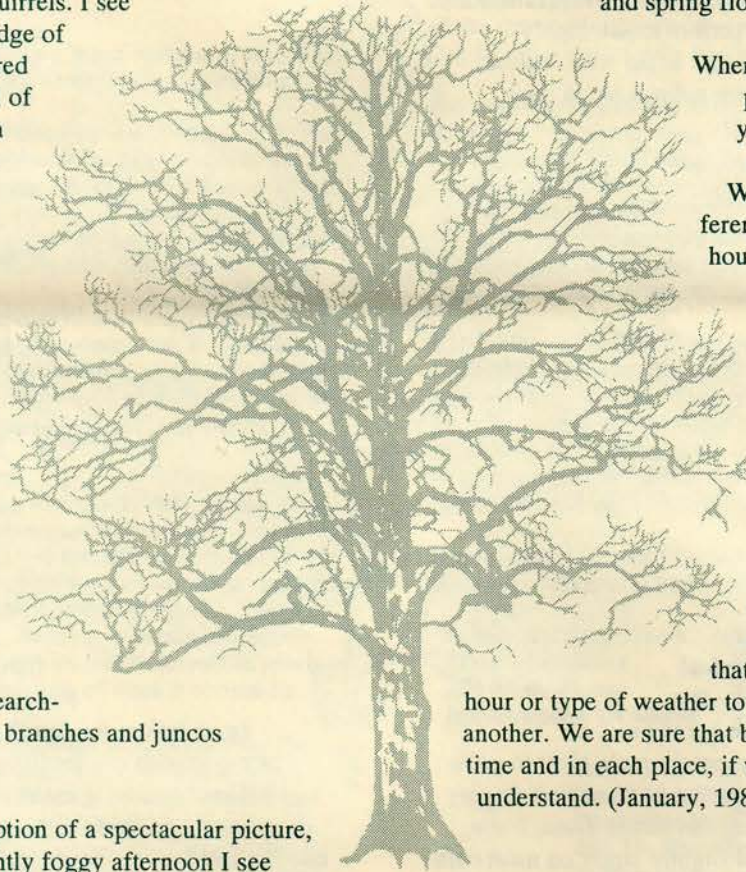
It is a chilly, cloudy day in January. The ground is white with snow and the trees are bare, with the exception of some small beeches and oaks which retain some leaves all winter. I see a large, sturdy beech which has sheltered generations of raccoons and squirrels. I see our three favorite trees at the edge of our small yard: a white oak, a red maple and a pignut hickory, all of which rise into the sky nearly a hundred feet. I see many small trees and shrubs which are struggling for existence among the larger ones. I see a tangle of wild grape vines, some of which swing free from branches high up in the larger trees and I'm still uncertain as to how they reached those lofty branches. I see lots of dead wood on the ground, some from fallen dead limbs and even an occasional tree which has given up on life before its normal life span is over. I see downy and hairy woodpeckers and nuthatches searching for food on tree trunks and branches and juncos doing the same on the ground.

This certainly is not the description of a spectacular picture, and yet on this dreary and slightly foggy afternoon I see mystery. I see nature evolving. I see beauty. I am fully aware that others find little beauty here, but do find it in modern art, in rock music, in elusive poetry and in many other things that I am unable to comprehend.

A few years ago we took a visiting relative on a very brief auto trip here at Wildwood. There are not many places where we can drive, but there is a path to a field which we call Lost

Acres which can accommodate a car. As we passed through thick woods, his comment was, "This would be a pretty nice woods if it was cleaned up." I don't quarrel with those who see more beauty in a city park with trimmed trees, mowed lawns and flower beds than in a primitive woods. I like parks too, but I don't want all woodlands made into city parks. I believe more of our woodlands should remain un-logged, un-farmed and un-cleaned. I want them to remain a hospitable and safe home for squirrels, birds, deer, butterflies, raccoons, possums, groundhogs, chipmunks, mice, turtles, frogs and spring flowers.

When we walk our trails, as happens most days of the entire year, we see unlimited variety, even on the same trail. We know that each day is different from the last, even each hour. We don't always see the difference, but it is there for the careful observer to see. Morning hours are different from noon or evening. Moonlight nights are different from black ones. Cloudy, rainy days are not the same as those that are bright and sunny. Cold days and nights are quite different from warm ones. We are not at all sure that we believe one season, day, hour or type of weather to be better or worse than another. We are sure that beauty is to be found at each time and in each place, if we look for it and seek to understand. (January, 1989)



*Bob Frantz and his wife Alice are dedicated to preserving a 90-acre "wasteland" as much as possible in its natural state. Named Wildwood, it is a portion of a former family farm near Silver Lake, Indiana, and is comprised mostly of woodlands and swamps. This essay comes from Bob's collection of writings entitled If You Stand Very Still...Thoughts and Experiences from the Woods.*

# Landscaping with Natives

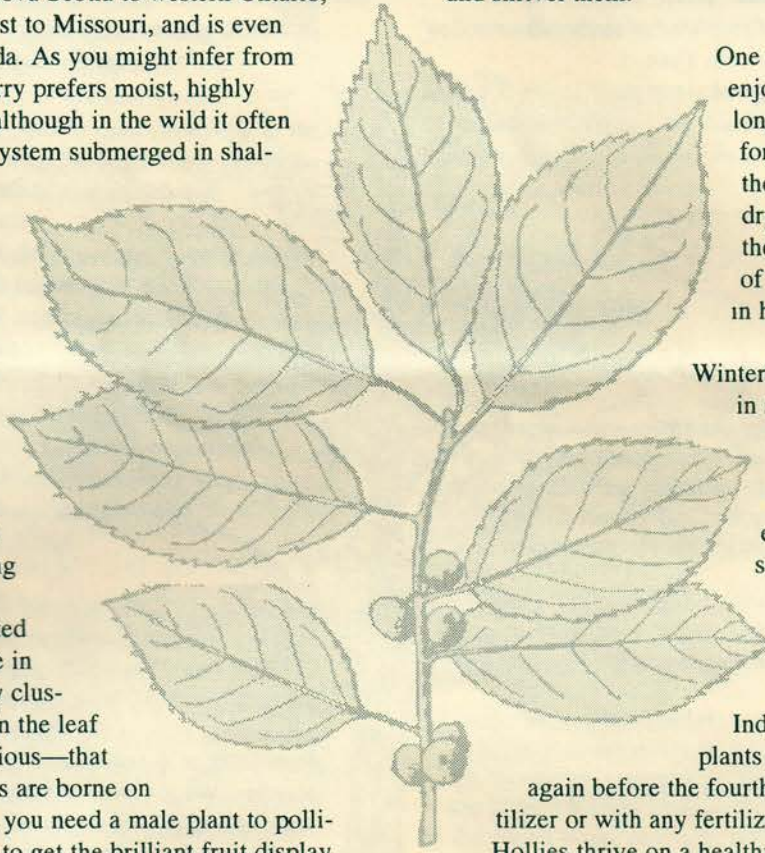
## Winterberry Holly

by Barbara Kaczorowski

Imagine black twigs covered with brilliant scarlet berries against a sparkling white, snowy background. That's the picture painted by the aptly named winterberry holly (*Ilex verticillata*) on a crisp winter day. No other plant can match the sparkle of this lovely native shrub in the short, cold days of winter.

Hardy from Zones 3 through 9, winterberry holly is a denizen of swamps from Nova Scotia to western Ontario, south to Wisconsin and west to Missouri, and is even found as far south as Florida. As you might infer from its native habitat, winterberry prefers moist, highly organic, acidic soils. And although in the wild it often grows with its entire root system submerged in shallow ponds, in your garden it will do fine with average moisture. It will grow in full sun to partial shade, with fruiting being heaviest in sun.

Although slow growing, winterberry holly is ultimately a vase-shaped shrub, six to ten feet high with an equal spread and slowly suckering from the base. The dark green, elliptic, finely serrated leaves unfurl relatively late in spring, followed closely by clusters of tiny white flowers in the leaf axils. Winterberry is dioecious—that is, male and female flowers are borne on separate plants. Therefore, you need a male plant to pollinate your females in order to get the brilliant fruit display which is the reason for growing this shrub. These fruits, about 1/4 inch in diameter and slightly larger on most cultivars, ripen to the purest scarlet in September. Then, for a brief time, you have a handsome green, leafy shrub adorned with bright red berries. But in October the leaves of most winterberry hollies turn yellow, changing the tableau to one of flaming colors. By November, all the leaves have fallen from this deciduous holly, fully revealing the brilliant berry display that gives this shrub its common name. Many cultivars fruit so heavily that the branch tips bend outwards with the weight of the berries.



How long this cheerful display persists depends entirely on two factors: birds and temperature. On our property an abundance of wild areas as well as a great diversity of cultivated plants (not to mention feeders) provide winter-resident birds with a veritable smorgasbord. The winterberries persist throughout the winter, being taken only as a last resort in very early spring. On many suburban properties, the berries don't even make it till Christmas without being gobbled. In fact, my mother reported that this year the berries no sooner ripened than the robins arrived to strip them from the branches so vigorously that the entire shrub swayed with their efforts. It's sort of a mixed bag: we all like feeding birds, but it would be nice to look at those fruits on dreary January days. Should the birds spare your berries, they will persist until spring. Below-zero temperatures, however, will blacken and shrivel them.

One way to ensure that you get to enjoy the sparkling red fruits for a long time is to cut some branches for indoor arrangements. Store them without water; the fruits will dry and persist very well, holding their red color for years. Branches of winterberry holly are gorgeous in holiday decorations and wreaths.

Winterberry holly can be transplanted in spring, summer, or fall either balled-and-burlapped or from a container. Just make sure to keep new plants evenly moist, especially through their first summer. Leaf mold is a great amendment for the planting area, and the incorporation of some sulfur to lower the pH is usually necessary in the Indianapolis area. Fertilize your plants in early and late spring and again before the fourth of July with an acid-based fertilizer or with any fertilizer with a higher first number. Hollies thrive on a healthy dose of nitrogen. Organic growers can use blood and/or cottonseed meal incorporated into the soil around the plants.

Several factors are important to consider in siting your winterberry hollies. Pick a spot where you can see them frequently from a window, since they look their best in the winter. Try to situate them so that they will be framed by a snowy rather than by a dark background. If you have a moist or boggy area in your yard where grass won't grow well, consider filling it with a mass of winterberries, which will thrive on the excess water. Remember to include a male plant

(which won't bear fruit) positioned modestly behind the flashy females. And plant winterberries in a group if you can; their beauty finds strength in numbers.

Refrain from using winterberry holly as a foundation plant. This area is almost always alkaline from the concrete and mortar used in the house foundation; acidifying it long enough for your winterberry to thrive without chlorosis will prove to be a losing battle. If you long for the wintry sparkle of red fruits against your house, use possumhaw holly (*Ilex decidua*) 'Warren's Red' instead. This fine, native deciduous holly is very tolerant of alkaline conditions.

While native stands of winterberry holly are certainly to be appreciated and preserved, choose named cultivars when buying plants for your home landscape. These will provide you with a much better show of both bigger and more numerous fruits. Additionally, at three to five feet, cultivars like 'Afterglow' and 'Cacapon' are more compact than the species. Good full-sized cultivars include 'Winter Red,' (a selection made by Bob Simpson, of Vincennes, Indiana), 'Sparkleberry,' and 'Xmas Cheer.' Should you prefer yellow fruits to red, choose 'Auranticum' or 'Chrysocarpa.' Yellow-fruited forms show off to best advantage situated against a dark background of evergreens.

I can think of lots of great landscape companions for winterberry holly. In a moist but sunny area, imagine a tableau of perhaps two or three bald cypress (*Taxodium distichum*), three to five clump river birch (*Betula nigra*), and five to seven winterberries. Spring would feature the finely feathered, lime-green emergent cypress foliage and the delicate new birch leaves. Fall would find the russet tones of the deciduous cypress needles echoed by the cinnamon colors in the birch bark, and fired by the brilliance of the holly berries. Fragrant early summer flowers and beautiful red fall leaf color could be added by a grouping of swamp azalea (*Rhododendron viscosum*).

Digressing from this palette, winterberry holly looks terrific in combination with any of the maiden grasses (*Miscanthus* species and cultivars), almost all of which are very wet-tolerant. It can make a quite tolerable screen, and can enliven any mixed shrub border through the winter months. But regardless of the company it keeps, winterberry holly in your garden will take the sting out of cabin fever.

*Barbara Kaczorowski is a landscape designer and horticulturist with a longstanding interest in native plants. A writer for Rodale Press and contributor to Horticulture magazine, she is co-owner with her husband Michael of Accent Gardens, a central Indiana landscape and nursery business.*

## Make a Difference!!

by Carolyn Harstad, Membership Chair

### We've come a long way!

On a blustery winter day in March, 1993, four individuals met to sow the seeds for a new society. This tiny beginning was furthered by a group of nearly 20 who set about naming the new society, writing a mission statement, constitution and bylaws and electing temporary officers. Now, more than a year and a half later, the Indiana Native Plant and Wildflower Society boasts more than 229 members (of these, 179 are Charter Members). It is obvious that there was a real need for this statewide organization dedicated to our native plants.

Our first annual meeting was a casual affair, held in August, 1993, at Marian College *en plein air*. The 1994 annual meeting was a much more structured event, with workshops, lecturers, panel discussions, an evening buffet and a nationally acclaimed expert on prairies as our banquet keynote speaker.

We have had several fantastic field trips during 1994, and plans are being made for more field trips, special programs and sharing more information about using native plants and wildflowers in our landscapes.

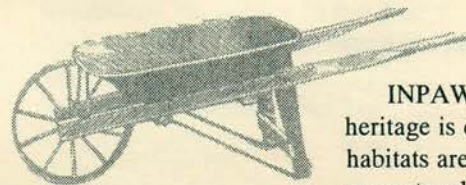
### INPAWS Newsletter is a membership benefit.

This newsletter is one the benefits of dues-paying members. In order to promote membership and reach as many as possible, we have sent the newsletter to all former and prospective members as well as to paid members.

### This could be your last newsletter!!

Check your mailing label for the date of your current dues expiration. Only those whose labels are marked **1995** will continue to receive the newsletter after January 1, 1995. If your label is dated earlier than 1995, or if you have put off joining, please send your dues today along with the membership form. Act now so you won't miss the next newsletter!

### Help us grow and make a difference.



Also, we ask your help in spreading the word about

INPAWS. Our wildflower heritage is disappearing as native habitats are destroyed. Help us promote education and information through our state organization. Our environment is fragile. Together, we can make a difference.

# INDIANA NATIVE PLANT AND WILDFLOWER SOCIETY

## MEMBERSHIP APPLICATION

Yes! I/we have been waiting for this exciting opportunity! Enclosed is a check for the following:

- |                                     |      |                                 |       |                                    |       |
|-------------------------------------|------|---------------------------------|-------|------------------------------------|-------|
| <input type="checkbox"/> Student    | \$10 | <input type="checkbox"/> Family | \$25  | <input type="checkbox"/> Sponsor   | \$250 |
| <input type="checkbox"/> Individual | \$18 | <input type="checkbox"/> Patron | \$100 | <input type="checkbox"/> Corporate | \$500 |

Additional Donation \$ \_\_\_\_\_

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### Gifts Do Help

Your gift of any amount will be most appreciated. Donations above student, individual and family membership dues are tax-deductible to the extent provided by law. Gifts will be used to help further the programs and purposes of INPAWS, such as publishing a newsletter and providing services related to monthly programs.

### Membership Categories:

- Student:** For full-time students. Benefits include meeting notices, one vote on organizational issues, INPAWS newsletter, INPAWS membership directory.
- Individual:** Benefits are the same as for student.
- Family:** Includes head(s) of household and dependents. Benefits include meeting notices, INPAWS newsletter, INPAWS membership directory, and two votes on organizational issues.
- Patron:** Benefits are the same as for family, plus donation.
- Sponsor:** Benefits are the same as for family, plus donation.
- Corporate:** Benefits include newsletter, meeting notices, directory, special recognition, plus donation.

Please complete this form and mail, along with your check made payable to:

*Indiana Native Plant and Wildflower Society*

c/o Carolyn Harstad, 5952 Lieber Road, Indianapolis, IN 46208.

*Check your mailing label - please see page 13*

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