

ON THE FRINGE

NATIVE PLANT SOCIETY OF NORTHEASTERN OHIO

Founding Chapter Of

THE OHIO NATIVE PLANT SOCIETY

Thomas A. Sampliner, Local President and Editor

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Volume 9

March/April 1991

No. 2

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This issue consists of original articles written by a local member and myself. Drew Rolik's article required some research, while mine is a casual observation of gardening experiences with a particular native species. Neither Drew nor I have botanical degrees. The editorial board feels many of you also have worthwhile experiences and contributions you could make via this journal. For example, book reviews, gardening experiences, conservation topics all are welcome. Since many cannot attend every class, field trip or lecture, a summary or review would be appreciated. I encourage letters to the editor. We'll also try to field questions of a technical nature. Please feel that this is your journal that will reflect your interest and concerns. We will strive, as we do in programs to go in any direction influenced by you the subscribers.

## DUES

From this moment and hereafter, please send dues directly to our local treasurer, John Augustine at 17670 Farmington Road, W. Farmington, Ohio 44491.

In the past, phone calls were made to those who failed to renew memberships within a few months of each new year. The current editorial board consists primarily of working people who are also involved in many extra activities. Phone calls will no longer be possible. Regretfully if renewal dues are not received by March 31st of each year, the March/April journal will be that subscriber's last issue until renewal is made.

### OHIO'S LADY'S-SLIPPER ORCHIDS by Drew Rolik

Few native plants have the allure of our Lady's-slipper Orchids (Cypridium). Their beauty and relative rarity make them a sought-after genus of plants by nearly all who are interested in native flora. For the most part, some effort must be put forth to locate these beautiful plants in the wild in Ohio.

Ohio is home to five kinds of Lady's-slippers. The five are: The Pink Mocassin Flower; Cypridium acaule, the Larger Yellow Lady's-slipper; Cypridium calceolus var. pubescens, the Small Yellow Lady's-slipper; Cypridium calceolus var. parviflorum, the Showy Lady's-slipper; Cypridium reginae, and the

Small White Lady's-slipper; *Cypripedium candidum*. The most common is *acaule* and the rarest being *parviflorum* and *candidum*.

There is a difference of opinion as to the classification of the yellow lady's-slipper orchids. Kartesz and Kartesz (1980) consider yellow lady's-slipper orchids to be two separate species: *C. parviflorum* and *C. pubescens*. More frequently, however, the two are considered varieties of a single species. Both Case (1964) and Braun (1967) caution that intergrades are frequent, the latter remarking that in Ohio the two varieties "are not always distinct." Correll (1950), in his comprehensive treatment of North American orchids, only recognizes one variety (*pubescens*) in North America.

The confusion over the treatment of these species has obscured the range and abundance of the two types of yellow lady's-slippers. Braun maps yellow lady's-slippers from 33 Ohio counties; 29 of the 33 are credited to var. *pubescens*; 1 is credited to var. *parviflorum*; and 3 were not able to be determined. McCance & Burns (1984), however, map var. *parviflorum* from nine counties, mostly in the northeastern and west-central parts of the state. Since 1960 it had been collected in only three counties: Portage, Erie,

and Champaign. Further field work by amateur botanists in the state could give us a clearer picture of the status of these two forms.

Habitat loss and collecting have continued to reduce the populations of all five lady's-slippers. *C. reginae*, for example, was once widely distributed in mid-central and northern Ohio; today it is known only from Geauga, Portage, Champaign, and Pickaway counties. *C. candidum*, though never widely

distributed, was local in northern and western parts of the state. Most recently it has been recorded from only two counties: Portage and Erie.

The exact location of colonies of *Cyrtopodium* especially those listed by the Ohio Department of Natural Resources on the "Rare Native Ohio Plants" list published biannually should be a closely-guarded secret to keep them from disappearing due



Showy  
Lady's Slipper

to collecting. Though it is likely that many populations of lady's-slippers in the state have already been located, it is also likely that here and there a "new" population can be discovered. Colonies may have been overlooked, or changing habitat may allow a species to re-establish years after it was last evident. As many of our lady's-slippers were originally more widely distributed in the state. It is always worth keeping a watch out for these distinctive plants to add to our knowledge of their range and abundance.



*Pink  
Lady's Slipper*

Understanding the preferred habitat, along with the expected geographic range, is key to locating these plants. Acres of woodlands still exist in Ohio, and thus it is not surprising that the two most frequent kinds prefer this habitat. *C. c.* var. *pubescens* is commonly found in rich woods, while *C. acaule* prefer oak or pine-oak with dry, sandy,

acid soils. Both, however, may be found in wetter habitats such as bogs.

Wetlands continue to disappear at an alarming rate, and it is no coincidence that the listed lady's-slippers are limited to wetter habitats. *C. reginae* and *C. candidum* inhabit wet, sunny sites: wet meadows and open bogs. Both are sun-lovers, though *C. reginae* may take some shade. *C. c.* var. *parviflorum* inhabits similar situations and extends into the shady spots in boggy woods. Within the preferred habitat, any significant population of any of these orchids is likely well off the beaten path; raids by plant collectors and would-be gardeners have otherwise eliminated them.

As any field guide will show, identification of the lady's-slipper orchids in bloom--outside of separating the two yellows--is easy. *C. acaule* can be quickly told by the deeply fissured pouch, usually pink or rarely white; the sepals and petals are dark. *C. candidum* is distinctive with its white pouch and dark petals and sepals. The petals and sepals of *C. reginae* are white, the pouch white marked with various amounts of rose-pink. The bloom season is slightly different: *C. acaule* encompasses May and June, *C. candidum* is limited to late May and early June, and *C. reginae* is later--June to early July.

The two yellow lady's-slippers, distinctive with their yellow pouches, can be separated only with some difficulty. Case, cautioning to look at population averages and not simply individuals, offers this key:

"Plant small, delicate; sepals nearly solid mahogany-maroon; pouch small, mostly less than 4 cm. long; plant of cool, wet soils...var. *parviflorum*.

Plant large or small, but if small then pouch disproportionately large,

usually more than 4 cm.

long; sepals and petals

greenish-brown, spotted or

streaked with madder-

purple; plant of various

habitats, often dry or rich

wooded uplands...var.

*pubescens* (p. 39)."

Fernald (1950),

however, gives different

and overlapping dimensions

for the size of the pouch,

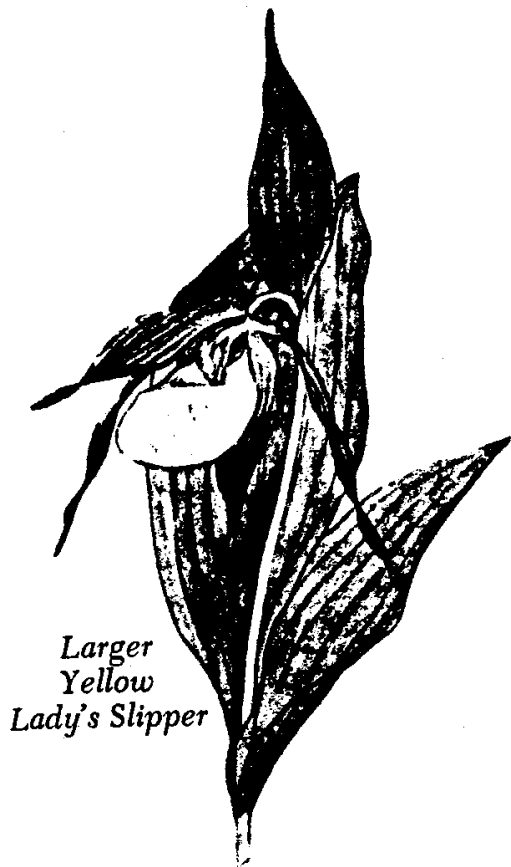
and instead offers

dimensions for the petals:

less than 5 cm. for

*parviflorum*, more than 5

cm. for *parviflorum*, more



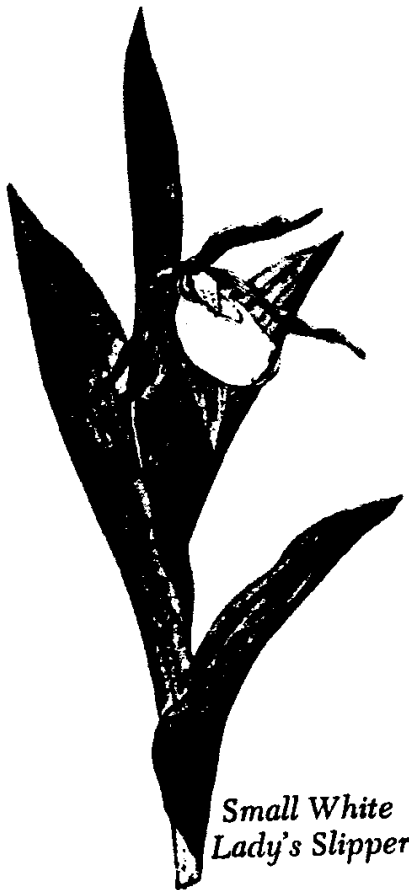
Larger  
Yellow  
Lady's Slipper

than 5 cm. for pubescens. Both Fernald and Case offer other characteristics that may or may not be of use in the critical determination of specimens.

Even out of flower, these large-leaved plants are quite distinctive; few other monocots have similar broad leaves except for other orchids. Braun's key to some non-flowering monocots (p. 14) is worthy of study. *Allium tricoccum* and *Clintonia* may resemble *Cypripedium acaule*, while *Smilacina* might be mistaken

for the other lady's-slippers. All the *Cypripediums* may be mistaken for other orchids, but a careful study of the leaf shape and position using a good reference book (such as Braun or Correll) can provide important clues.

The different kinds of lady's-slippers can tentatively be identified when not in bloom. *C. acaule* has but a single pair of basal leaves while the other types have stem



*Small White  
Lady's Slipper*



leaves too. *C. candidum* is distinctive in that it has somewhat ascending leaves that almost appear to be folding along the stem. Of the remaining kinds, *C. reginae* is by far the most robust and is said to be covered with pale hairs (which, by the way, cause a contact dermatitis similar to Ivy; this is also true of all the *Cypripediums*). The two yellow lady's-slippers have brown hairs and might be tentatively separated by size and habitat. Again, a good reference book will be most helpful.



No discussion of lady's-slippers would be complete without mentioning the cultivation of these flowers, as the allure of cultivating orchids extend to gardeners as well. Digging of these plants by gardeners and nursery dealers is the biggest threat to these plants today--outside of habitat destruction. This is hardly a new problem, as M. I. Fernald, some 40 years ago, commented that *C. reginae* was "liable to

extinction through raids by nurserymen and would-be cultivators."

Because most orchids offered for sale have been collected and depleted wild populations, and because the lady's-slippers are not especially easy to grow, their cultivation can not be recommended. Anyone attempting to grow these orchids should be careful of two items. First, one would need to know and accommodate each species' habitat requirement carefully. Secondly, and perhaps more important, is to be certain that the stock they purchase or acquire did not deplete wild colonies. An exception to this rule is if the plants were collected from the wild before being obliterated by development. However, even an orchid rescue requires permission.

None of the lady's-slippers are commonly seen in cultivation, even though many older gardening books--and some recent ones--list lady's-slipper orchids as good candidates for the wildflower or shade garden. By far the best candidate for the garden is *C. c.* var. *pubescens*, which Wherry (in Correll) terms "the easiest of our eastern native orchids to cultivate." He recommends a soil rich in humus, shade at least part of the day, and a moderate moisture supply.

*C. candidum* is less often mentioned as a garden plant. Case seems to indicate that it would be

fairly easy in moist, limy soil in full sun. Wherry seems unsure, other than that it is somewhat more difficult than the yellow lady's-slipper. Oddly enough Morse (1982) lists it as "recommended" for the shade garden, which may be an error, as it is a sun-loving plant.

Mixed opinions are given on *C. reginae*. Many gardening books list it as relatively easy. Seymour (1970) says it can be easily naturalized in a lightly-shaded bog garden, "where it gets constant moisture and perfect drainage." Wherry is of the opinion that it is difficult, thriving only for a few years before disappearing.

Little information is available on *C. c.* var. *parviflorum*, and what there is conflicts. Case considers it almost as easy as *pubescens*, needing only a moist, lightly shaded spot with a bit of lime. Wherry considers it difficult, but in this case Case may be correct for he seems to have first-hand data.

Oddly enough, the most difficult lady's-slipper to cultivate, *C. acaule*, is the one easiest to find offered for sale--probably as it is one of the easiest to collect. A number of catalogs list it, and at least one local nursery sells a few roots packed with peat moss in a plastic bag. Under such

conditions, its survival rate is at best slim; most garden and orchid writers remark it is a difficult species and caution against attempting it in the garden. Case has had some success by moving seedlings with large clumps of soil to a similar habitat.

Gardeners as well as wildflower enthusiasts have long been fascinated by the lady's-slipper orchids. Locating these orchids in the wild requires a knowledge of their habitats--and perseverance. Any new information on *Cypripediums* in Ohio could help understand and preserve these beautiful flowers.

- Braun, E.L. The Monocotyledoneae. The Ohio State University Press, 1967. Case, Frederick W. Jr. Orchids of the Western Great Lake Region. Bloomfield Hills, Mich.: Cranbrook Institute of Science, 1964.
- Correll, Donovan S. Native Orchids of North America North of Mexico. Stanford: Stanford University University Press, 1950, 1978 reprint. Cultural notes by Edgar T. Wherry.
- Fernald, Merritt L. Gray's Manual of Botany. Dioscorides Press, 1987 reprint of 1950 edition.
- Kartesz, John T. and Rosemarie. A Synonymized Checklist of the Vascular Flora of the United States, Canada, and Greenland (Vol. II). Chapel Hill: The University of North Carolina Press, 1980.
- McCance, Robert M. Jr. and Burns, James F. Ohio Endangered and Threatened Vascular Plants. Columbus: Department of Natural Resources, 1984.
- Morse, Harriet K. Gardening in the Shade. Beaverton, Oregon: Timber Press, 1982 reprint of 1939 edition.
- Seymour, E.L.D., editor. The Wise Gardening Encyclopedia. New York: Grosset & Dunlap, 1970

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## CHAPTER CONTACTS

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**HERB ROBERT - A Native Ground Cover** by Thomas Sampliner

Wouldn't it be nice to have a lacy green ground cover yielding stalked small pink flowers neatly filling in bare spaces between your shrubs? Better yet, what if this fern-like greenery persisted from Memorial Day through to after the first frost. Well, it not only exists but is native to our area. I write about *Geranium robertianum*, commonly known as Herb robert.

In late spring the plant's grey-green foliage awakens and shortly sends up flower stalks which produce pediceled five petaled small pink flowers. The plant is somewhat aggressive. By rhizomes as well as seed dispersal the plant colonizes bare spots. The deeply cut compound leaves seem to mound-up presenting an attractive lacy barrier to unwanted alien invaders (okay, weeds) but hey, who wants to weed anyway?! A day of dappled sunlight to full shade suits the species best. Though they do best when kept moist, I've noticed them to spring back quickly from drought. The base of my house seems to be some kind of limestone. The leaching of alkaline substance into the flower-beds seems to favor the plant (sort of a miniature Niagra escarpment).

Best of all, I have yet to see a successful attack by either insect or disease. In nature, rocky woods with well drained soil seem to be where it does

best. One unusually prolific site I recall is Cathedral Woods in the Bruce Peninsula. That site on the Niagra escarpment is boulder strewn with magnificent specimens of two rare ferns for our area; namely, Hart's tongue fern Phyllitis scolopendrium and Northern holly fern Polystichum lonchitis.

As I took my non-hardy plants indoor for the winter, I noticed some of the larger pots with Herb robert. Believe it or not, the plants are doing just fine down my basement under artificial lights. I confess, none have bloomed indoors yet.

\* \* \*

OHIO NATIVE PLANT SOCIETY  
Annual Weekend 1991

Friday, May 10th - Sunday, May 12th

Hosted By  
N. E. OHIO CHAPTER

at

HIGHLANDS CAMP  
St. Rt. 534 at Sweet Road  
Windsor, Ohio

1-216-693-4120

R.S.V.P by April 1, 1991

Make Checks Payable to:

Native Plant Society of  
Northeastern Ohio  
c/o 2651 Kerwick Road  
University Hts., OH 44118

maximum number to attend - 95  
minimum age allowed - 16

Native Plant Society of  
Northeastern Ohio  
c/o Thomas A. Sampliner  
2651 Kerwick Road  
University Hts., OH 44118



# SCHEDULE OF EVENTS

## Friday Evening, May 10th

Registration - 6:00pm - 8:00pm

Eight (8) slide shows by local outstanding photographers

DAN FLOCKE  
BRUCE MACK  
GARY MESZAROS  
JACK SELBY

After show: snacks & social hour

## Saturday, May 11th

6:15am - bird walks (led by local members)

7:30 - breakfast

8:30 - 12:30 - morning fieldtrip

12:30 - lunch

1:30 - 5:30pm - afternoon fieldtrip

6:00 - dinner

8:00 - evening program by Jim Bissell, Curator  
of Botany and Director of Natural Areas  
for the Cleveland Museum of Natural History  
"Rare Plants & Habitats of Ashtabula County"

## Sunday, May 12th

Ashtabula County, Sunday Trip (All attendees can  
participate, NO LIMIT)

**Kingsville Sand Barrens:** Only protected ancient dune and  
beach ridge association in northeastern Ohio: wild lupine,  
striped maple and clintonia borealis will be seen here;  
dry to soggy; easy terrain to walk.

**SATURDAY TRIPS** (Choose one for morning and one for  
afternoon; limited to 15 per trip)

1. **Grand River Terraces:** Hemlock swamp with spectacular  
diversity of wildflowers, ferns and clubmosses; the  
only location with trails; parts could be wet but  
terrain is "easy."
2. **Lake Cardinal:** Black water pools in the Grand River  
lowlands; going through here could be a little messy  
and footing can be difficult and wet.
3. **Morgan Swamp:** One of the largest inland wetlands in  
Ohio; once supported the largest hemlock (*Tsuga*) swamp  
in Ohio; the only trip where painted trillium will be  
seen; soggy to wet; terrain fairly level.
4. **Pallister State Nature Preserve:** Acidic Forest with  
occasional pools on the Grand River lowlands; dry to  
soggy; somewhat difficult to walk.
5. **Pymatuning Creek:** Glacial kame, fen seep; the only  
site where spreading globe-flower will be seen; dry to  
soggy; moderately difficult.
6. **Rattlesnake Acres:** Diverse, poorly-drained wetland;  
like Morgan Swamp but with more swamp white oak; soggy  
to wet; can be difficult walking.

than

REGISTRATION INFORMATION

other

the c

\$50.00 for meals. Three meals on Saturday, two on Sunday plus overnight lodging. (Bring sleeping bag or bedding plus towels).

broac

\$35.00 package includes meals only. (meant for motel & campground)

attendees and primitive onsite lodging (no heat or electric).

Cypr

Chardon Motel is 15 miles from camp.

Rates: \$33/night- double

\$29/night- single

Pine Lakes Trailer Park campground is seven(7) miles from camp.

Rates: \$9/daily w/o electricity

\$11/daily w/electricity

Registration Form

-----  
Name \_\_\_\_\_ how many \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_ Amount Enclosed \_\_\_\_\_

Check box applicable for your choice of lodging:

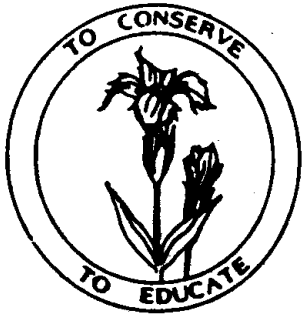
w/heat & electricity at Camp Highlands \_\_\_\_\_

At camp w/out heat & electricity \_\_\_\_\_

Motel \_\_\_\_\_

Trailer Campground (you make this reservation) \_\_\_\_\_

Special diets \_\_\_\_\_



**NATIVE PLANT SOCIETY OF NORTHEASTERN OHIO**

2651 Kerwick Road, University Hts., OH 44118

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**ADDRESS CORRECTION REQUESTED**

Memberships are **DUE FOR RENEWAL** on JANUARY 1, 1991. Please continue to support your Society and renew at the **highest** possible category. Those of you who send us Sustaining and Patron memberships are enabling us to go on with our worthwhile projects. An active membership just about pays for the newsletter costs. However, economics aside, we need **EACH** of your memberships and each year we get stronger and better. The 1991 Program and Field Trips schedule will be worthwhile.

Please enroll me as a member of the Native Plant Society of Northeastern Ohio

- ( ) ACTIVE.....\$10.00      ( ) SUSTAINING.....\$25.00
- ( ) FAMILY.....\$15.00      ( ) PATRON.....\$50.00

Membership runs from January through December and is not pro-rated.

**Make checks payable to** Native Plant Society of Northeastern Ohio, 17670 Farmington Road, W. Farmington, OH 44491

Name: \_\_\_\_\_ Phone \_\_\_\_\_

Address \_\_\_\_\_

City/State \_\_\_\_\_ Zip \_\_\_\_\_