On The Fringe

Journal of the Native Plant Society of Northeastern Ohio

Consider Getting Your Copy of Our Journal *On the Fringe* Electronically in 2011.

We are now publishing the Journal of the Native Plant Society of Northeastern Ohio electronically. The notice was mailed in your January membership renewal letter. Thank you to those individuals who have already signed up to receive the Journal electronically. The biggest advantage you will notice is that it is in color! Think about it again; it is not too late to enjoy the color version and in the process save us a bit of money on printing and mailing. You can still request to receive it electronically, rather than a hard copy, by contacting me at dbpolice@roadrunner.com. Thanks.

Program Schedule – Spring 2011

Friday, March 25 - Ohio Botanical Symposium - Columbus. The Native Plant Society of Northeastern Ohio is a sponsor of the Ohio Botanical Symposium, which brings botanists, naturalists, and other nature enthusiasts together to network, provide professional enrichment, and view posters and displays on Ohio's native flora, natural areas, and rare plants. Villa Milano, 1630 Schrock Road, Columbus, Ohio 43229. For registration information go to *http://www.dnr.state.oh.us/tabid/20259/Default.aspx.*

Sunday, March 27, 2:00-4:00 p.m. - Spring Wildflower Preview - Cuyahoga County. Cuyahoga County Public Library, Solon Branch. Refresh your memory about native spring wildflowers that will soon begin to bloom. Photographer Tracey Knierim takes you on a virtual walk through spring as she shares her native Ohio wildflower photos from February through May, where to look for them, and the folklore behind them. Directions: Take Rt. 422 east to Rt. 91 in Solon. Head south 1.1 miles to Portz Parkway. Turn left 0.2 miles to library (0.5 miles from Rt. 43 / Aurora Rd.) 34125 Portz Parkway, Solon, Ohio 44139. No registration required.

Saturday, April 23, 9:00 a.m. - Stebbins Gulch - Geauga County. Jim Bissell, Curator of Botany at Cleveland Museum of Natural History, leads a joint trip with NEON to this Holden Arboretum natural area. Follow the stream bed as it cuts through millions of years of geologic history, while searching for Canada fly honeysuckle, long-stalked sedge, and an old record of walking fern. NOTE: This will be a very rugged hike with some climbing. Wear boots appropriate for stream crossings. Directions: 9500 Sperry Road, Kirtland, Ohio 44094. Pass the Holden Visitor Center and turn right on Mitchell's Mill Rd. Meet at the Horticulture Science Building. The Horticulture Science Building is the second drive on right. Call Diane to register at 440-666-4870.

*** * * ☞ NEW PROGRAM ☜ * * ***

Weekly Wildflower Walks - Tuesdays in April and May, 6pm. Spring is gone before you know it. Experience its fast changing color palettes on these weekly walks with Tracey Knierim in different locations throughout northeastern Ohio. For questions call Tracey at 216-514-7000 x 305 (W) or 440-543-6399(H). No registration required.

***April 5 - Hach-Otis**, Willoughby Hills, Lake County. One of the first areas for spring wildflowers including trailing arbutus. Joint program with the Audubon Society of Greater Cleveland. Co-leader: John Lillich. Directions: From Rt. 90 take Rt. 91 south to Chardon Road (Rt. 6). Go east 1.2 miles and turn left on to River road. Skyline Drive is 0.1 mile on right. Parking at end of street.

Don't forget to visit our website at www. nativeplantsocietyneohio.org

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Program Schedule – Spring 2011, con't.

***April 12 - Sulphur Springs,** Cleveland Metroparks South Chagrin Reservation. Bentleyville/Solon, Cuyahoga County. Enjoy colonies of hepatica, bloodroot, and more. Joint program with Cleveland MetroParks. Co-leader: Naturalist Barb Holtz. Directions: Take Rt. 91south to Miles road and go east 1.3 miles. Just past Look-about-Lodge, turn right on Chagrin River Road. Immediately turn right on Sulphur Springs Drive. The entrance for Sulphur Springs parking lot 0.2 miles on right. Follow drive to the picnic area.

***April 19 - Eagle Creek,** Garrettsville / Nelson Twp, Portage County. Enjoy a large concentration and variety of spring ephemerals. Co-leader Charlotte McCurdy, Preserve Manager, ODNR Division of Natural Areas & Preserves. Directions: From Garrettsville go east on State Rte 82 for two blocks to the flashing light. Turn left (north) at the light onto Center Rd. Travel Center Rd for 2.3 miles to Hopkins Rd and turn right (south). Parking ½ mile down on the left side. 11027 Hopkins Rd. Garrettsville, OH 44231

***April 26 - Bedford Reservation**, Cleveland Metroparks, Hemlock Creek Picnic Area. Bedford, Cuyahoga County. Bluebells should be covering the hillsides at this time. Directions: Take Rt. 271 to Broadway/ Forbes exit. Go west on Broadway. Veer left on Union. Turn left on to Egbert Rd (about 1 mile). Take this to the park entrance (.6 miles) and drive through the park to Dunham Rd, OR continue on Egbert to Dunham. At Dunham, turn right, cross Tinker's creek. Turn right on Button road, continue to end.

***May 3 - Dix Park,** Ravenna, Portage County. A 78-acre natural area with a ½ mile loop trail around a wooded wetland. Joint program with Portage Park District. Co-leader: Dawn Alber, Nature Education Coordinator. Directions: 7318 SR 44, Ravenna OH 44226. From the intersection with Rt. 14 go north on Rt. 44 about 3/4 of a mile to park entrance on east side.

***May 10 - Big Creek Park,** Geauga Park District, Chardon, Geauga County. This is the peak of spring wildflowers, and the park should be overflowing with color. Joint program with Geauga Park District. Co-leader Judy Barnhart, Naturalist. Directions: Take I-90 east to Rt 44. Travel south 3.2 miles to Clark Road. Turn east onto Clark Road 2 miles. Turn right onto Robinson Road. Travel 0.8 mile to park entrance. Bear left and continue to end at Deep Woods Shelter.

***May 17- Liberty Park,** Twinsburg, Summit County. Discover this new park's hidden treasures. Directions: Take I271 south to I480 east. Exit at Rt. 82. Turn left and continue east thru town following the Rt. 82 signs. Meet at the Liberty Park Conservation Area parking lot on left about 0.5 miles past Herrick road.

***May 24 - Eagle Creek,** Garrettsville, Portage County. Late spring ephemerals, see how it has changed in a month. Co-leader Charlotte McCurdy, Preserve Manager, ODNR Division of Natural Areas & Preserves. Directions: From Garrettsville go east on State Rte 82 for two blocks to the flashing light. Turn left (north) at the light onto Center Rd. Travel Center Rd for 2.3 miles to Hopkins Rd and turn right (south). Parking ½ mile down on the left side. 11027 Hopkins Rd. Garrettsville, OH 44231.

***May 31 - Kent Bog,** Kent, Portage County. See pitcher plants, sundews, and other unique bog plants. Co-leader Charlotte McCurdy – Preserve Manager, ODNR Division of Natural Areas & Preserves. If time, continue on to Triangle Lake Bog or Herrick Fen. Directions: From the intersection of Rt. 261 and Rt. 43 on the south side of Kent, take Rt. 43 south 0.3 miles. Turn right onto Meloy Rd. Kent Bog will be on the left.

Wood Poppy: Rare For a Reason

By Jane Bowles

In May 1887 poet/naturalist Robert Elliot presented a specimen of a spectacular yellow-flowered poppy to the London chapter of the Entomological Society of Ontario. He had discovered wood poppy (*Stylophorum diphyllum*) growing in a few isolated patches along the Thames River near his home in Plover Mills. A few more discoveries were made close by over the next couple of years and then there were no more reports of this plant for almost a century.

When the *Atlas of Rare Plants of Ontario* (Argus *et al*., 1982-1987) was published, *Stylophorum diphyllum* was listed as "probably extirpated" in Ontario. However, that same year a population of about 700 plants was found in a woodland just outside London. This appeared to be the only stand in the country, and the wood poppy was listed as endangered in Canada in 1993 by the Committee on the Status of Endangered Wildlife in Canada. Still, it received no real protection. That fall some logging and filling was done at the wood poppy site which destroyed about 500 plants.

In 1994 the Ontario Endangered Species Act came into effect and the wood poppy and its habitat were now protected. Since 1997 a recovery team has been working to understand more about the plant's ecology in order to ensure its survival.

Once the wood poppy and its status became known in the London area two people reported having seen it in the wild in the 1970s. After a number of searches, both patches were rediscovered. Currently, the total known wild population of wood poppy in Canada consists of about 450 plants in three locations. All are within 15 kilometers (about nine miles) of London and two are along the Thames River. At one site there are only six plants occupying one square meter (a little more than a square yard) of ground. No seedlings or new recruits have ever been reported there.

In addition to the wild populations there are about 220 "captive" wood poppies. One collection is growing under ginseng shade at the Environmental Field Station at the University of Western Ontario; the other is at the Royal Botanical Gardens in Hamilton. All were grown from seed collected in the wild in Ontario. About 200 are from 21 sources of known maternal origin (i.e., it is known which individual plants the seeds came from).



Photo by Tracey Knierim, NPSNEO Board Member

This is valuable information enabling botanists to keep track of which plants belong to which genetic lines and whether there are differences among the populations.

Wood poppy is not an easy plant to spot except for the few days in spring when it is flowering. The leaves are very similar to those of greater celandine (*Chelidonium majus*), a close relative. They are basal, long-stalked and deeply lobed, dark green above, paler below and slightly waxy. The flowers are much larger than those of celandine, up to five centimeters (about two inches) across, and the same deep shining yellow as a marsh marigold (*Caltha palustris*). The flowering stem has a pair of leaves about two-thirds of the way up from the base (hence the specific name *diphyllum* which means two-leaved) and one to four flowers. The stem is hollow and slightly fleshy and all parts of the plant produce an acrid dark orange juice. Flowering occurs in May but the leaves remain green all summer. The fruits are greyish capsules the shape of a football; they are covered with stiff fleshy hairs. As the fertilized seeds grow and get heavier the capsule hangs downwards under its own weight. When the seeds are ripe the capsule splits open and the seeds fall to the ground. They are about 1.5mm (1/10 inch) in diameter, dark brown and have a contrasting white fringe of oil bodies (tiny balloons filled with oil) arranged like a Mohawk hairdo.

Wood poppy is one of several plants that are rare in Canada because they are at the extreme northern limit of their range. In the United States, especially Kentucky, eastern Missouri, southern Illinois and western Virginia, the species is fairly common, although it grows in widely scattered localities. Often the genetics of outlying plants are distinctly different from those growing near the centre of the range. Outlier populations are important for maintaining genetic diversity in the population as a whole, an issue currently under study. Collections of material have been made to examine the genetic variation within and among the three Canadian and several US populations.



Wood Poppy
Stylophorum diphyllum

For example, it is not known if the Ontario wood poppies are all closely related (implying a single colonization that since dispersed) or if they represent two or more colonization events. If it is found that one population is distinctly different, and related to plants from Kentucky or elsewhere in the United States, then it suggests a post-settlement introduction at that site, i.e., a garden escape. Until we know more it is important that the Canadian germ lines (genetic lines) not be "contaminated" with foreign material.

The big question about wood poppy is: why is it so rare in Canada? At first glance it does not have the characteristics that typify rare species. Many plants are rare because they require specialized habitats that have been fragmented or destroyed as a result of European settlement. This is not the case for *Stylophorum diphyllum*. Suitable habitat seems to be readily available, and the plant was extremely rare here even before European settlement. None of the life history traits of wood poppy suggest why the species might be rare. The plants mature quickly and can flower in their first year. The adults are long-lived and produce blossoms most years. Flowering is quite profuse and the flowers are self-compatible (meaning that the pollen of a flower is capable of fertilizing an ovule in the pistil of the same flower). This is a useful strategy for plants that grow in woods early in the season when there may be few pollinators, so that cross-pollination is not always an option.

The average wood poppy produces about 2,000 seeds a year. Once the seeds have undergone a period of cold stratification to break dormancy, germination rates are reasonably high. Under cultivation wood poppy can even have distinctly weedy tendencies.

The factors limiting the increase and spread of wood poppy populations appear to be connected with seed survival and germination. The seeds are normally dispersed by ants, a phenomenon known as myrmecochory that is common among woodland herbs. The ants are attracted by the oil body (elaiosome) and carry the seed off to their nest. Once there, the nutritious oil body is removed and the hard-coated kernel is discarded. An ant midden provides an ideal place for the remaining seed to germinate. However, recent studies have found that there is competition between ants and mice for wood poppy seeds and, if the mouse gets there first, the whole seed is eaten and never has a chance to produce a new plant.

There may be other factors, unknown to us, that limit germination in the wild. Seeds collected and planted at existing wood poppy sites failed to germinate, even though seeds planted in cultivation have done well. The germinating seed may require nothing more than a site safe from competition and predation, but further study is required. The recovery team is currently attempting to uncover and overcome the roadblocks to successful wood poppy reproduction.



Greater Celandine, *Chelidonium majus*

Native plant gardeners have shown themselves eager to aid in the wood poppy's recovery by introducing the plants into their own gardens. However, the recovery team urges caution. The "wild turkey approach" is entirely inappropriate. Introducing *Stylophorurn diphyllum* from a variety of unknown sources into places it has never grown naturally may not help the recovery effort; in fact, it could disrupt local ecosystems. Furthermore, there may be important ecological and genetic messages in the rarity of the wood poppy. In our enthusiasm to save the species we should not erase those messages before they have been read and understood.

Jane Bowles is a freelance ecologist and adjunct professor in the Departments of Biology and Geography at the University of Western Ontario in London. She is concerned with protecting natural habitats and native species in the fragmented landscape of southern Ontario. With Michael Oldham she wrote the original *Status Report for Wood Poppy* in 1991 and has since served on the recovery team for this plant.

Reprinted from the *Blazing Star*, Newsletter of the North American Native Plant Society, Summer 2003, Vol.4, Issue 3.

Skunk Cabbage
The Year's First New Wildflower

By Gordon Mitchell

By February, most of us are probably tired of winter and looking forward to spring with great anticipation. Some of us are even walking through the fields and forests in search of the first signs of spring. If you know where to look, you may find the new wildflower of the spring. That flower would probably be the Skunk Cabbage (*Symplocarpus foetidus* [L.] Salisbury ex Nuttall). (Some references have replaced the “ex Nuttall” with ”ex W.P.C. Barton”.)



At different times in history, other references have listed the Skunk Cabbage's scientific names as *Arum americanum* Catesby, *Dracontium foetidum* (L.) Willdenow, *Ictodes foetida* [sometimes *foetidus*] Bigelow, *Pothos foetida* [sometimes *foetidus*] Michaux, and *Spathyema foetida* (L.) Rafinesque.

The Skunk Cabbage is a member of the Arum, the Calla, or the Philodendron Family (*Araceae*) and of the *Calloideae* Subfamily. The current generic name, *Symplocarpus*, is "compound fruit". Of the other generic names, *Arum* is the name of the plant, *Dracontium* is "dragon", *Ictodes* is "skunk oil", *Pothos* is "regret", and *Spathyema* is "spathe-like". The specific epithets, *foetida*, *foetidum*, and *foetidus*, all are "evil smelling."

The Skunk Cabbage gets its name from the fact that the leaves emit a very foul, stinking odor whenever they are bruised or crushed. Other local common names for the Skunk Cabbage are Bear's Foot, Bear's Leaf, Bear's Root, *Byron-Blad*, *Byron-Ritter*, *Chou puant*, Clumpfoot Cabbage, Collard, Cow Collard, Dracontium, Eastern Skunk Cabbage, Elephant Ears, Fetid Hellebore, Irish Cabbage, Marsh Cabbage, Midas Ears, Meadow Cabbage, Parsons in the Pillory, Pockweed, Polecat Root, Polecat Weed, Poke, Pokeweed, Polkweed, Purple Skunk Cabbage, Rockweed, Skunkroot, Skunk Weed, Stink Cabbage, Stinking Poke, Swamp Cabbage, *Tabac du diable*, and Wild Cabbage.



Photos (this page) by Tracey Knierim, NPSNEO Board Member

Thermogenesis
The flowers can be seen in the winter, even when there is ice and snow on the ground. Respiration and other activities of the cells during its early winter growth lead to thermogenesis (thermo is Greek for "heat" and genesis is Latin for "birth") of both the flower's salicylic acid and its related salicylates, which produces enough heat to melt the ice and snow and to allow-the plant to push to the surface. The heat also releases and intensifies its odorous chemicals, which would attract some pollinating insects.
The flower's temperature may sometimes be 36 degrees F. higher than the surrounding air. If the outside temperature can stay above freezing for at least 24 hours, then the flower's temperature may reach 72 degrees F. These high temperatures may sometimes last as long as 2 weeks.

Calcium Oxalate
The entire Skunk Cabbage plant contains sharp, needle-like crystals (also called raphides) of calcium oxalate. If any part of this plant is tasted, these calcium oxalate crystals can cause the mouth and the throat to blister, burn, swell, or become extremely irritated. This can make breathing, speaking, and swallowing difficult. Fortunately, these discomforts are temporary. If swallowed, the crystals can cause distress in the digestive tract. Fortunately, these crystals are water-insoluble and would not enter the bloodstream from the digestive tract. If handled without protective clothing, the sap can cause dermatitis. Despite the presence of these calcium oxalate crystals, parts of the Skunk: Cabbage can be used for food or for medicine if properly prepared before use. Aside from the calcium oxalate, the Skunk Cabbage also contains the minerals iron, manganese, resin, silica, sulfur, and tannin.





Photos by Tracey Knierim,
NPSNEO Board Member

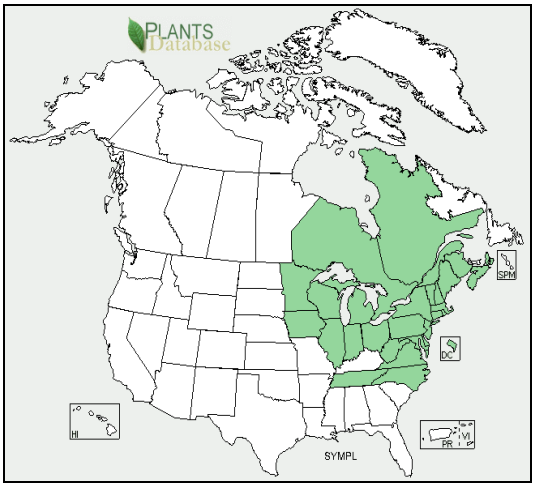
Medicinal Uses
Although they are considered to be toxic if consumed in large doses, the roots and the rhizomes of the Skunk Cabbage can have many medicinal uses. Various uses of the rootstocks have been for asthma, bronchial catarrh, cancer, convulsions, cramps, delirium tremens, diabetes, edema, epilepsy, hysteria, intestinal worms, nervous disorders, parturitions, pertussis, scurvy, tetanus, and toothaches. The rootstocks were used as an antispasmodic, a permanent contraceptive, a diaphoretic, a diuretic, an emetic, an emmenagogue, an expectorant, a narcotic, and a sedative. If the roots are consumed in large doses, they can lead to impaired vision, headaches, stomach and intestinal distress, and vertigo. A root poultice was used for treating bruises, sores, swellings, wounds, and was also used as an underarm deodorant. The rootlets and the root hairs were used to treat toothaches and gum ailments, and to stop bleeding. The dried roots were sometimes mixed with honey and were used for treating asthma and spasmodic coughs. The powdered roots were sometimes mixed with grease and were used to treat rheumatism.
One Native American tribe sniffed the roots (and the rolled up leaves) as a treatment for migraine headaches. In 1749, Swedish botanist Peter Kalm recorded getting a headache from inhaling the aromas of the Skunk Cabbage. In 1768, English explorer Jonathan Carver recorded that the roots were sometimes made into lotions and were used for treating rheumatism, ringworms, and for itching. Other Europeans and European Americans, like Cadwallader Colden and Manasseh Cutler, also recorded Native American tribes using the Skunk Cabbage. A tea

was made from the roots and was used to stop external bleeding. Another Native American tribe mixed the powdered Skunk Cabbage with dyes from other plants and, using sharp fish teeth as a needle, made tattoos. These illustrated tattoos were supposed to be used as charms to ward off diseases.
The roots are best harvested in the fall, after the first frost has killed the leaves, or in the early spring. If the rootstocks are gathered for medicinal uses, they should be used as soon as possible because they will lose their potency after a period of time. The Skunk Cabbage rootstocks had so many medicinal uses that Skunk Cabbage was listed in the U.S. Pharmacopoeia from 1820 to 1882. The seeds of the Skunk Cabbage are believed to be more potent than the rootstocks and will retain their potency longer.

Edible Uses
The rootstocks and the young, unfurled leaves of the Skunk Cabbage can also be used as food. The plant itself contains vitamin C. Before performing any food preparation, the leaves and the rootstocks must be thoroughly washed. Cold water is preferred. Drying the plant can remove the calcium oxalate crystals from the roots. The roots should be dried for at least 5-6 weeks. Boiling the leaves in several changes of salt water (along with a pinch of baking soda) can remove both the calcium oxalate crystals and the foul smells. The leaves should be boiled for at least 20 minutes. The water should be changed whenever its color darkens. The roots may have to be boiled for up to 3 days.
Some Native American tribes roasted the roots in pits with hot coals for 2-3 days. The roasting was supposed to destroy the calcium oxalate crystals. Today, the roots may only need to be roasted in an oven for at least 1hour. The dried or boiled young leaves are edible and can be added to soups and to stews. The dried roots can be ground into flour. Some people claim that the flour tastes like cocoa.
There have been no known cases of any fatalities from eating the raw Skunk Cabbage. It's doubtful that any person or domestic animal would have ever taken a second bite of it!



Skunk Cabbage
Symplocarpus foetidus



The Origin of the Skunk Cabbage
In 1949, Dr. Harold Norman Moldenke, Curator of the New York Botanical Garden, stated that the Skunk Cabbage probably had its origins in Asia. (A close relative of the Skunk Cabbage had been identified in Asia.) Millions of years ago, when the Earth was warmer, this plant's ancestor probably migrated from Asia to North American via the Bering Strait. When the Ice Age arrived, the ancestor's Asian and North American populations were probably cut off from each other and later evolved separately into their present-day species.

Description
Perennial: Some botanists believe that a single plant can live up to 1,000 years.
Height: About 1-3 feet for the leaves and about 3-6 inches for the flowers.

Stem: Stemless above the ground. Below the ground, the stem is a thick vertical rhizome. The rhizome is about 2-12 inches long and about 2½ inches in diameter. The roots encompass and radiate outward from the rhizome. Despite its large rhizome, the Skunk Cabbage does not reproduce vegetatively.

Leaves: Simple. Leaves are arranged in a basal rosette of about 8. Each leaf is about 1-4 feet long and about 1-2 feet wide. It has a cordated base and an acute tip. Oblong or ovate shaped. Cabbage-like. Leathery texture. Leaf margins are entire. Unlike other monocots, which have parallel venation, its venation is heavily netted. .

These leaves are coiled into a small, wrapped, elongated cone when very young. The leaf buds usually emerge when the spathe emerges. The leaves will elongate after the flowers have been pollinated and the spathe begins to wilt. Only when the outside temperatures get warmer will the leaves finally unfold.

The Yellow-Throated Warbler (*Dendroica dominica*) may sometimes nest within these leaves. The leaves' odor masks the bird's own scent, which would discourage any mammalian predators.

There are a few animal species that eat the leaves. Slugs sometimes eat parts of the leaf between the leaf's veins. These slugs leave oval-shaped holes in the leaves. The Black Bear (*Ursus americanus*) will also eat the leaves. These leaves contain a large amount of air and water, and have no woody fibers. When the leaves decay, they develop holes, turn black, become slimy, and dissolve. Unlike other plants, the Skunk Cabbage leaves do not become part of the leaf litter.

Flowers: Has only 1 spathe and 1 spadix per plant. The buds for new spathes and new spadixes can actually form a few years in advance! Flowers bloom while still enclosed within the spathe and before the leaves unfold. Each flower is radially symmetrical and has a calyx with 4 fleshy, inconspicuous, wedge-shaped, and truncated sepals; no petals; 4 yellow stamens; and a pistil with a hairy stigma, a 4-sided style, and a single-celled ovary. These flowers are protogynous, which means the female parts mature first. The flowers at the top of the spadix bloom first, with the blooming sequence moving downward upon the spadix.

Flowers are pollinated by both carrion flies and carrion beetles, which are both attracted to the plant's odor. After pollination, both the spadix and the spathe wilt and decay.

Sometimes, the plant must have about 5-7 years of growth before it can produce flowers. Flowering season is usually January to May.

Spathe: Shell-like and hooded bract. Has an auriculated (ear-like) base and has an acute and twisted tip. Spathe is about 2-8 inches long and about 2-3 inches wide, at its widest point. The spathe is spongy and has air pockets, which help insulate the spadix. Its margins are folded inward to help keep the heat from leaving the spadix. There is an opening along the side of the spathe, which permits air to enter and circulate (which regulates the temperatures and facilitates wind pollination). The spathe is subtended with light green bracts. Its color is a mottled brown, green, purple, red, and yellow.

Spadix: A clubbed, knobbed, or round spike. It has a fleshy and spongy texture. Spadix is about 1¼ inch tall, about 1 inch wide, and about 3/4 inch thick. Muskrats (*Ondatra zibethica*) sometimes eat the spadix.

Fruit: Berry. Fleshy. Arranged in a globular spongy, red mass. Mass is about 6 inches in diameter. Remains on the spadix after the leaves are gone. After the spadix wilts and dies, its stalk elongates and raises the fruiting mass. Fruiting season is usually August to September.

Seeds: Spherical. Dark-colored. Located beneath the fruiting surface. Dispersed in the late summer. Eaten by the Bobwhite Quail (*Colinus virginianus*), the Ring-Necked Pheasant (*Phasianus colchicus*), the Ruffed Grouse (*Bonasa umbellus*), and the Wood Duck (*Aix sponsa*).

Roots: Roots are about 3-5 inches long and about 2 inches in diameter. Light reddish-brown on the outside and white or yellow on the inside. Main roots are horizontal and terminate with numerous fibrous rootlets that penetrate about 6-24 inches into the ground. There are no taproots or branches near the root tips. Black Bears may eat these roots.

The roots also have small ring-like ridges that encircle them. These rings are due to the root's slight contractions after its spring growth. The contractions of these roots pull the plant closer to the ground, which keeps the plant near the ground.

Habitats: Wetlands.

Reprinted from the newsletter of the Central Ohio Chapter of the Ohio Native Plant Society, *The Catchfly*, Vol.18, Issue 2. Gordon Mitchell works for the Columbus, Ohio Metroparks and was a member of the Central Ohio Naïve Plant Society, which merged with the Columbus Historical Society in the Spring of 2010.

Woodland Dental Hygiene

By Guy L. Denny

What does a delicate woodland wild flower have to do with dental hygiene? Well, actually, nothing unless that wildflower is bloodroot (*Sanguinaria canadensis*). You see, not too many years ago scientists discovered that the alkaloid sanguinarine, contained within this common spring wildflower, is a plaque-inhibiting agent. Sanguinarine apparently interferes with the ability of bacteria to convert carbohydrates into enzymes that destroy gum tissue, causing bacterial plaque and gingivitis. *Sanguinaria* extract was a principal ingredient in Viadent® toothpaste and mouthwash distributed by Colgate Oral Pharmaceuticals, Inc.



Bloodroot
Sanguinaria canadensis

Bloodroot is one of our earliest spring wildflowers. It can be found in virtually every rich, moist but well-drained woodland in Ohio including numerous state nature preserves such as Fowler Woods, Gahanna Woods, Eagle Creek and Clifton Gorge. Making its appearance in late March and early April, the large two-inch-across white flower with bright yellow clusters of stamens in the center is a welcome sight in the otherwise drab forest floor. The solitary flower, comprised of 8-10 white petals (the two sepals fall as the petals open), is situated at the end of a 6-10" high scape (leafless flower stalk) around which is wrapped a single, bluish-green leaf borne on a separate stalk. The leaf does not unfold and enlarge until after the flower opens and is pollinated. It is broadly circular and palmately lobed in outline, giving it somewhat the appearance of Batman's cape icon. Although the petals drop off in a day or so, the distinctive leaf enlarges and remains well into early fall.

Bloodroot has a long history of medicinal use. Even today it continues to be dug by root dealers and sold to pharmaceutical companies. What is commonly referred to as the root is actually a rhizome or horizontal underground stem about the size of a small finger. The actual rootlets emerge from along the underside of the rhizome. When the freshly dug rhizome is removed from the ground and cut or broken open, an orange-red juice, resembling droplets of blood, oozes out. This, of course, is the origin of the common name "bloodroot." Its generic name, *Sanguinaria*, comes from the Latin *sanguinarius*, meaning "bleeding." This red coloring was used by Native American Indians as a dye as well as for painting themselves. Ojibwa, and other Algonquin tribes dried and pulverized the rhizome of bloodroot and then boiled it in combination with other plant materials such as the inner bark of wild plum, sumac, red osier dogwood and alder. This produced a beautiful scarlet color for dying porcupine quills, baskets, mats, tools, leather, etc.

The rhizome was also a strong medicine. Bloodroot is a member of the Poppy Family (*Papaveraceae*). Among the many powerful and potentially dangerous alkaloids contained within the plant is protopine, which is also found in opium. Overdoses of medical preparations from the rhizome can cause death. Native American Indians made a tea from the rhizome which was used to induce vomiting as well as to treat rheumatism, fever, stomach cramps and sore throats. Externally, the acid and corrosive orange-red juice was used to treat warts, ringworm, fungus infections and even cancerous growths. Bloodroot was an official botanical drug listed in the U.S. Pharmacopoeia from 1820-1926.





Bloodroot , *Sanguinaria canadensis*
Photo by Tracey Knierim, NPSNEO Board Member

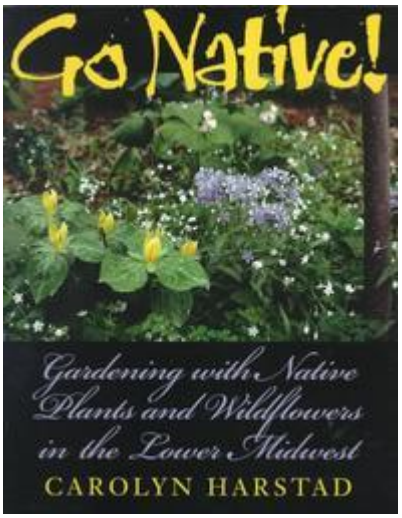
The seeds of the bloodroot, just like those of trilliums and violets, are myrmecochorous, which means they are designed to attract and be dispersed by ants. If you examine the fresh seeds with the use of a hand lens, you can see the attached gelatinous elaisomes to which ants are attracted and feed upon. Typically the seeds are carried off to their tunnels where the ants eat the elaisomes and discard the seeds which, in the process, have now been planted and are ready for germination. It is an effective and fascinating seed dispersal mechanism worthy of such a lovely and interesting spring wildflower.



Guy L. Denny – 6021 Mt. Gilead Rd. Frederickton, OH 43019
Reprinted from ODNR Division of Natural Areas & Preserves Newsletter.

Book Review

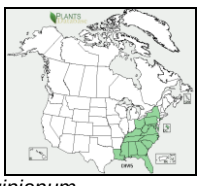
Go Native!
Gardening with Native Plants and Wildflowers in the Lower Midwest
By Carolyn Harstad



Author: Carolyn Harstad, Jeanette Ming (Illustrator)
Format: Hardcover
Publish Date: July 1999
ISBN-10: 0253335612
ISBN-13: 9780253335616
List Price: $35.00

***Go Native!* author Carolyn Harstad suggests six ground covers for the native plant gardener:**

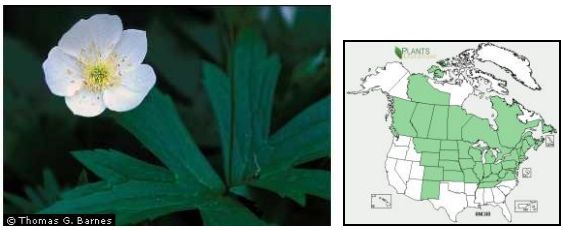




Green and Gold, *Chrysogonum virginianum*

1. **Green and Gold** (*Chrysogonum virginianum*) she describes as "a cheerful little plant that is tolerant of a wide range of environmental conditions." It has yellow flowers. Peterson says, "Note the 5 rounded rays and the long-stalked, heart or spade-shaped leaves." *Chrysogonum* grows less than 1 ft. and likes moist shady woodlands

2. **Wild Ginger** (*Asarum canadense*) begins spring with tiny wrinkled leaves that grow into heart-shaped leaves. It grows 4-9 inches tall and can take dry conditions as well as some sun. Halstad points out that its shallow roots can exist well with fibrous rooted trees such as maple or beech. It is a larval food source for the Pipevine Swallowtail Butterfly. Careful, though. It can be invasive.



Canada anemone, *Anemone canadensis*

4. **Allegheny Spurge** (*Pachysandra procumbens)* is our native pachysandra. Harstad notes that it is much more interesting. It grows 6-12 inches tall and has gray-green scalloped leaves that mottle with age. It has fragrant pinkish white flowers that look like bottlebrushes. It is a slow grower.



Foamflower, *Tiarella cordifolia*

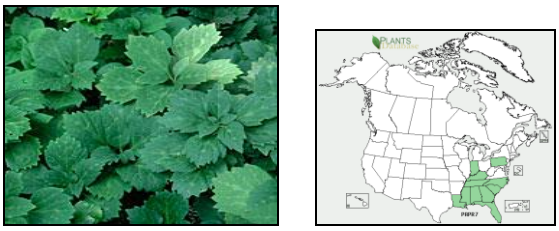
6. **Partridge Berry** (*Mitchella repens*) is an acidic loving cover, good under Pin Oaks, by rocks or fallen logs. It is a low-growing, evergreen vine with tiny fragrant white flowers that grow in pairs. Bright scarlet berries persist into early winter.

Reprinted from *The Bark*, newsletter of the Native Plant Society of the Miami Valley, 2001.



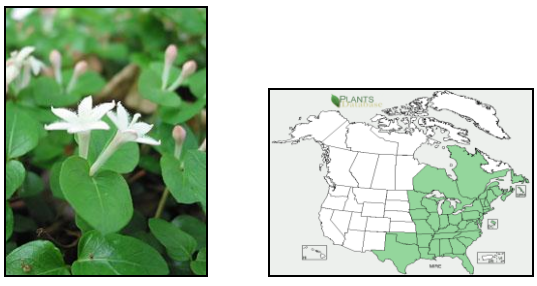
Canadian Wild Ginger, *Asarum canadense*

3. **Canada Anemone** (*Anemone canadensis*) has glistening white flowers with bright yellow centers that bloom from late spring to midsummer. Also know as Windflower. It grows 12-20 inches high. Is an aggressive plant.



Allegheny-spurge, *Pachysandra procumbens*

5. **Foam Flower** (*Tiarella cordifolia*) is the same family as Miterwort. It blooms from April to May with little white flowers on plants that grow 6-12 inches high. The leaves resemble maple leaves. It forms dense mats and looks attractive at the base of trees.



Partridgeberry, *Mitchella repens*

Invasive Plant:

May's the Month To Pull Garlic Mustard

While strolling the woodland in May you come upon a vast carpet of pretty little four-petalled white flowers atop 2-foot stems, ornamenting the forest floor. A pretty sight indeed—for a noxious weed that has aggressively invaded our forested natural areas! It's that evil invasive garlic mustard, capable of dominating the ground cover layer to the exclusion of other herbaceous species. Here's what you need to know about it.

Garlic mustard or *Alliaria petiolata* (M. Bieb.) Cavara & Grande occurs most frequently in upland and floodplain forests, savannas, and along roadsides. It invades shaded areas, especially disturbed sites and open woodland. It is capable of growing in dense shade and occasionally occurs in areas receiving full sun. Garlic mustard is native to Europe, and also occurs in northern Africa, Sri Lanka, and India. It was introduced into the U.S. in the 1800s and cultivated for food and medicinal purposes. In North America, garlic mustard is now distributed from Quebec and Ontario, south to North Carolina and Kentucky, and west to Kansas and North Dakota. In Indiana, it has been documented in almost every county and is now abundant in many of our forested areas.

How will I recognize it?

Garlic mustard is generally the only tall, white-flowered, four-petalled plant that blooms in May. It is easily distinguished from all other woodland mustard plants by its characteristic odor of garlic and the 2-4 foot (0.6-1.2 m) tall flower stalks covered with numerous small white flowers. The alternate, coarsely toothed, broadly triangular stem leaves with a distinct petiole are also characteristic. The garlic odor gradually dissipates by autumn, and garlic mustard rosettes may then be mistaken for violets (Viola spp.) or immature white avens (*Geum canadense).*



Garlic Mustard, *Alliaria petiolata*

Garlic mustard is a biennial herb. Seeds germinate in early spring, young plants overwinter as basal rosettes, and adults bloom from May-June the following year. Each plant dies after producing seed. Seeds disperse when the siliques burst at maturity in August. Seeds have a 20-month dormancy period and do not germinate until the second spring after ripening. The species reproduces readily from the numerous seeds produced.

Garlic mustard can be distinguished from other species by examining the roots. It has a white slender taproot, with a characteristic crook or "s" shape at the top of the root, just below the base of the stem. Garlic mustard should be accurately identified before attempting any control measures. If in doubt, confirm the plant's identity with a knowledgeable individual or by consulting references.



Now that I know it's garlic mustard ...

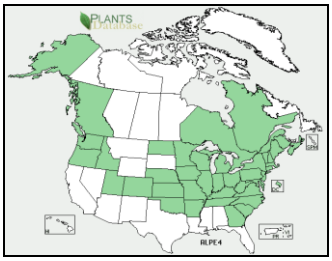
If you've encountered a light infestation, remove the plants by hand-pulling. Such control is effective as long as the root is removed. If the stem snaps off from the root crown of a non-flowering plant, the plant may re-sprout. When hand-pulling, disturb the soil as little as possible, and tamp the soil firmly after removing the plant. Soil disturbance can bring garlic mustard seed to the surface and create a favorable environment for garlic mustard germination and growth.

Additional effort may be required to control garlic mustard in high quality natural communities with heavy infestations. Research indicates that cutting flowering stems at ground level results in 99% mortality, while cutting at 4 inches (10 cm) above ground level produces 71% mortality and reduces total seed production by 98%. Plants cut near ground level when in full flower usually do not resprout. Viable seed may be produced after stems are cut, so remove cut stems from the site when possible.

Besides manually cutting the plants, additional efforts using herbicides, burning the area, or a combination of these practices may be needed for heavy infestations, and it is recommended that you enlist professional assistance. Pesticide application and or prescribed burning should be carried out appropriately according to all state and federal laws. The Nature Conservancy has successfully controlled or eliminated this plant from several sites by a combination of spring burning, hand-pulling, and cutting flowering stems with a scythe. When garlic mustard occurs in nearly pure populations with few other plants, scything is advantageous in that large areas can be covered quickly and the soil is not disturbed.



Garlic Mustard: Young Plant



Reprinted from *Indiana Native Plant and Wildflower Society News*, Spring 2007 and Spring 2000.

Tell me more...

For more details about garlic mustard and other invasive species, get a fact sheet from the Midwest Invasive Plant Network at www.nps.gov/plants/alien/fact/alpe1.htm or visit the Midwest Invasive Plant Network website at www.mipn.org. For help with evaluating a garlic mustard threat in your woodland, identify your local forester at IDNR Division of Forestry by visiting www.in.gov/dnr/forestry and selecting Private Landowner Assistance from the menu. Your local Soil and Water Conservation District (SWCD) can also be of assistance; get their contact information at www.in.gov/isda/soil/contacts/map.html.

Mad About Moss
Sometimes the Path of Least Resistance Is a Mossy One

By Joni Blackburn

When my husband and I bought our home in the western Catskills more than a decade ago, the lawn surrounding the house was lush with thick green Kentucky bluegrass, even in the shade of the fir trees on the side of the house. Our next-door neighbor, who had diligently tended the property for the owners while it was on the market, informed us that the lawn was accustomed to a weekly crew cut to two inches, as well as regular doses of fertilizer and weed killer. We nodded politely and only half listened to all the advice about lime and dandelion control—after all, how hard could it be to let grass grow?



Photo by Tracey Knierim, NPSNEO Board Member

Fast-forward to a chilly April morning 12 years later. Pulling on the season's first pair of garden gloves, I stepped out into the side yard onto a scruffy, balding plot of weeds scattered with yellowish tufts of vestigial turf grass. Despite some clumps of budding lily-of-the valley and a chartreuse row of ferns unfurling along the side of the house, the yard—after a decade-plus of neglect—was not a pretty sight. And something needed to be done.

From the start, reviving the green-grass lawn of yore seemed out of the question. First, it would take hours of maintenance per week, and with almost two acres of flower, fruit, and vegetable gardens to attend, time was what I had the least of. It would also take a lot of soil amendment, since the Catskills are naturally acidic and moist. If I limed the soil enough to please the grass, the acid-loving rhododendrons, trilliums, pinxter-bloom azaleas, and other natives along the edge of the lawn would protest. And it would take more sun than I was willing to give it—I like me privacy and "woodsiness" that the fir trees' droopy old branches offer.

Taking the path of least resistance, I decided to nurture what was the happiest there already. I was content with the woodland shrubs and ferns growing along the edge of the house and along the bank that rises in the back yard—my only problem was the lawn or lack of it. As I kneeled down on the greenest patch and peered closely at it, I saw that most of what was green there was not grass at all, but moss! Hmmm…

Weaving the Carpet

After doing a little web surfing and library work, I came across an essay by the bryologist Robin Wall Kimmerer in her book, *Gathering Moss* (Oregon State University Press, 2003), in which she offered a solution: "Mosses appear in a lawn when conditions for moss growth are better than conditions for grass growth. Too much shade or water, too low pH, soil compaction ... discourage grasses and let mosses grow. Better to ... pull out the remaining grass and let nature build you a first-rate moss garden." I had the ideal conditions—all I had to do was bring out my ready-made moss garden's inner beauty.

I even broke down and purchased a book—by gardeners' consensus *the* book—*Moss Gardening: Including Lichens, Liverworts, and Other Miniatures*, by George Schenk (Timber Press, 1997). In addition to pages devoted to appreciating and cultivating mosses in Japanese gardens, alpine gardens, bonsai plantings, containers, and other places, the book had just what I was looking for—a chapter about growing moss carpets. Schenk waxed poetic about the sensuous attractions of moss that go beyond the visual—especially soft, cushiony expanses that invite you to walk barefooted on them.

Schenk describes no fewer than six methods of starting a moss carpet, including starting from scratch and preparing the soil for the natural colonization of moss from self-sown spores (a long-term project); transplanting moss, either in large sheets or in small, spaced-out plugs; and nurturing preexisting mosses in an area naturally hospitable to them. After gazing at two color plates in Schenk's book—a shady patch of mossy ground before and after it had been relieved of stringy tufts of pale grass and tree litter—I set a goal of 50 square feet by summer's end and started picking up pinecones.

Hand-pulling blades of grass 'twixt thumb and forefinger, along with the occasional *Ajuga* plant, could be considered tedious work, but compared with the frantic pace my usual chores demand, it was an exercise in meditation. After removing every strand of grass, wild strawberry, and hawkweed shoot from the first square yard of ground, I was perversely gratified to see that the lawn was predominantly moss and that my job would be time-consuming but not Sisyphean. I became obsessed with weeding my plot and started looking for opportunities away from housework and garden hoeing to sit and pick awhile.



Sphagnum

Once I actually got down on the ground, I had the usual revelations folks report when they get really close to the earth and can see more of what goes on down there. As I watched countless spiders, beetles, and earthworms take evasive action from my fingers—as opposed to the ants, which skittered purposefully toward me in attack mode—I noticed that I didn't have just one kind of moss growing in my yard. Despite the wonderful photographs in Schenk's book, identifying species proved difficult—even experts admit that distinctions between mosses are often hard to make without a microscope—and I was satisfied if I could narrow a moss to its genus. In the low spots, especially near the sump-pump

outlet, *Sphagnum* and several species of haircap moss (*Atrichum*) grew in abundance. A tiny knoll six inches higher in elevation was covered in ferny *Thuidium*. There were even more varieties of moss growing in microenvironments such as on the exposed roots of the spruce trees and on the laid-stone foundation of the house.



Atrichum

A Gathering of Mosses

In addition to nurturing the species I found growing naturally, I experimented with transplants: I covered some hard-packed bare spots with platter-size sheets of *Dicranum* that I'd found growing under similar conditions up the hill from my house. I also put down some cushion moss (*Leucobryum*) and a brushy clump of "mystery" moss I'd gathered from a walk in our woodlot. Since mosses don't have roots, using rhyzoids to anchor themselves to soil or rock or wood, most species can be gently collected by hand or with a spatula or flat-edged spade and transplanted onto soil that's been minimally raked to give the plant a foothold. The soil can be amended with an acidifier such as powdered sulfur or rhododendron food to give it an optimal pH of 5.5. Since I knew my soil was amenable to moss already, I added nothing. And although I was curious to see if the often prescribed blended-buttermilk-and-moss method would work, I couldn't bring myself to sacrifice my only blender to a botany experiment.



Dicranum

Except for one corner where the preponderance of slugs defeated my resolve, by late July I'd hand-picked all the weeds and grass from my 50 square feet, and I was pleased with the result: a landscape of many-hued mosses that was truly evocative of a velvet carpet. Now it was time to think about nurturing and maintenance. In moss gardens like mine in which the moss has been there all along, watering is not usually necessary; some moss varieties may yellow or get a bit crunchy during periods of dry or hot weather, but naturally growing mosses will usually recover. Transplanted patches or plugs of new moss, however, need regular sprinkling or misting until they become established. The Web provides several sources for mail-ordering moss, as well as for starting and caring for moss gardens.



Thuidium

With abundant water and shade assured, the only things I had to watch out for were overtreading and debris. Moss is surprisingly tough, and most ground-growing species tolerate occasional foot traffic. A birthday-party incursion of preschoolers with Tonka trucks did only temporary damage to my moss carpet. The only areas where I discouraged walking were on the transplanted spots, and I hope that even they will be safely treadable by next summer. Once a week I spent a few minutes gathering fallen twigs and dead leaves. (Aesthetics aside, since mosses have no vascular systems and they absorb water directly from the air or through rainfall, they don't do well under a mat of leaf litter.) And I did occasionally have to pick out weeds that had sprung up. I used a small, soft-bristled whisk broom to brush off accumulated pine needles from the velvety Dicranum, and after the ground froze, I gently raked and swept the fall's leaf and pine-needle drop.



Leucobryum

This spring, as soon as all the patches of snow are gone, I'll give my carpet a tonic of manure tea. With the exception of the tufty mystery moss, which, if not dead, sure looks it, all my transplants have thrived. With spot weeding and occasional sweeping of my moss carpet, I should have it made in the shade.

Joni Blackburn is the copy editor of *Plants & Gardens News* and the Brooklyn Botanic Garden All-Region Guides.

Reprinted from *PLANTS & GARDENS NEWS* Spring 2004.

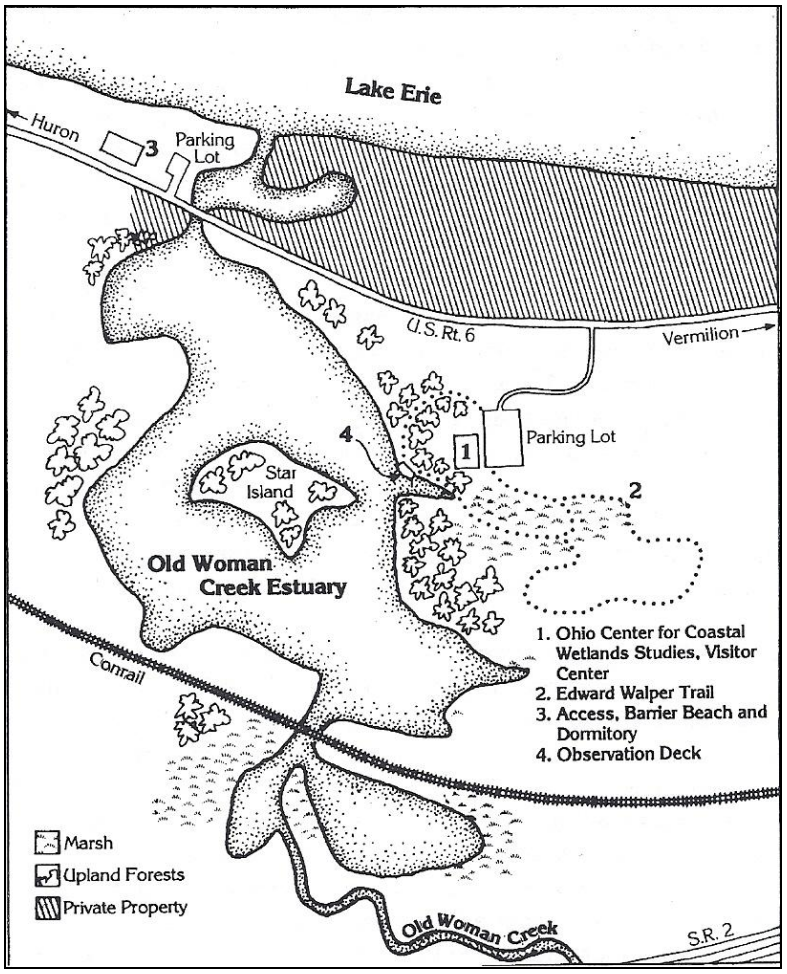
Old Woman Creek
A National Estuarine Research Reserve and State Nature Preserve ODNR

Lake Erie and its coastal zone are among Ohio's most valuable natural resources. As the state's once-expansive coastal wetlands continue to disappear in the face of encroaching development, the preservation of these natural features becomes more critical. Old Woman Creek is now protected as a National Estuarine Reserve and State Nature Preserve because it is one of Ohio's best remaining examples of a natural estuary. This 571-acre reserve is located in Erie County, two miles east of Huron on U.S. Route 6. The estuary serves as a field laboratory where scientists can study this naturally functioning system and as a place where students and the general public can learn about estuarine ecology in a natural setting.

An estuary is traditionally defined as that place where the land's fresh waters meet and mix with the saltwater of the sea and where water levels are affected by tides.

Lake Erie is actually a freshwater inland sea. Although salt concentration or salinity is not a factor here, the waters of the lake and Old Woman Creek combine in the estuary to form a third type of water, chemically different from that of either the creek or lake. Furthermore, even though the lunar tidal effect on Lake Erie is extremely small, lake levels are affected by weather conditions which, in turn, do influence the water levels of the estuary.

Old Woman Creek Reserve contains a variety of aquatic and terrestrial habitats: marshlands, open water, a barrier sand beach, upland forests, and old crop fields in early plant succession. As a transition zone between land and water, the estuary brings together many kinds of life. Attracted by the water supply and abundance of food and shelter, birds, mammals, fish, reptiles, amphibians, and insects are drawn here.



Separating the estuary from Lake Erie, the wind-swept barrier beach is a dynamic environment, continually being altered by pounding waves and shifting sand. Although harsh and unstable, the beach habitat is always beautiful. Shorebirds and migratory waterfowl are common visitors to this portion of the sanctuary.

The waters of the estuary are rich in floating microscopic plants and animals called plankton, which are basic to the estuarine food chain. Many other tiny organisms cling to the underwater stems of water lotus, cattails, sedges, and other aquatic vegetation. The estuarine waters provide excellent spawning and rearing habitat for many kinds of fish because here they find protection from predators and a ready supply of food. The fish of the estuary include such species as largemouth bass, sunfish, perch, shiners and gizzard shad. Bird life in the estuary is equally diverse. Ducks, herons, shorebirds and songbirds can be seen throughout most of the year.

The uplands surrounding the estuary offer a mixture of terrestrial habitats that are also important components of the estuarine environment. Oak-hickory forests covering the steep banks provide valuable habitat for untold numbers of wildflowers, woodland birds, and other creatures.

Much of the reserve's uplands are former crop fields in various stages of reversion to natural conditions. Goldenrod, asters, and grasses are present here. These and other wild plants provide food and cover for wildlife.

Attracted by insects and weed seeds, great numbers of birds come to feed. Hawks, owls and foxes hunt for small rodents, insects, and other prey species that inhabit this old field community.

As you walk the woodland trail, visit the barrier beach, or stop by the research center, we ask you to do your part to protect and preserve these fragile habitats of the estuary by observing the special rules and regulations posted on the bulletin boards. Old Woman Creek Estuary is a diverse place where land and water join together to form a complex natural community that performs many natural functions, such as:

- Filtering out sediments and pollutants from the stream before they enter Lake Erie.
- Affording protection from flooding. Its basin can retain large volumes of flood waters after heavy storms .
- Providing habitat for fish. Over 40 kinds of fish are known to use the estuary waters at some time during their life cycle. Thus, commercial and sport fishing industries benefit from the estuary.
- Serving as a way station for tired and hungry migratory birds. Nearly 300 species have been recorded in and around the estuary.
- Furnishing a home for numerous plants, mammals, reptiles, and amphibians, some of which are threatened or endangered species in Ohio.

The Reserve's administrative offices are located in the Ohio Center for Coastal Wetlands Studies, which overlooks the eastern shore of the estuary. The center also provides laboratory facilities for ecological research and serves as a focal point for public visitation and educational programming.

Research

Research on brackish-water estuaries has demonstrated the importance of these wetlands in providing natural and cultural benefits. The objective of studies undertaken in Old Woman Creek Reserve is to determine the extent that freshwater estuaries and Great Lakes coastal marshes perform similar functions. The information derived from this research program will be useful in development of sound management techniques for the coastal wetlands of Lake Erie and the other Great Lakes. A major function of the reserve staff is to encourage members of the research community to undertake field studies within the coastal zone, with special emphasis on research in the estuary.

Public Visitation and Education

During your visit to the sanctuary, you are encouraged to stop by the Visitor Center to view the natural history exhibits, aquarium, and nature artworks that depict the ecology of the estuary. Visitors may also walk through the oak-hickory forest along the mile long Edward Walper Trail to the observation deck overlooking the estuary. From this vantage point, the ever-changing natural community of plants and animals can be observed in every season. Specialized on-site education programs and workshops are available on a limited basis to interested individuals, educational institutions, and civic and youth groups. Workshops concentrate on topics directly related to the reserve and its management. As time permits, staff members are available to assist teachers and leaders in development of units and activities in aquatic education. Please phone or write for information.

The reserve is open daily from 8 a.m. to 5 p.m. Visitor Center hours are: OPEN – Wednesday through Sunday, 1-5 p.m. CLOSED – Monday and Tuesday.

Reprinted from a brochure published by the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, 4/9.

Do We Need a Purple Dead Nettle Festival?

By Charlie Lapham

YES, WE NEED A PURPLE DEAD NETTLE FESTIVAL! We have strawberry and pumpkin festivals but nothing in the early spring. And even though *Lamium purpureum* is a very successful plant, it gets no respect whatsoever. It is a common weed of cultivated places like flower beds. It has stolons that get just about everywhere. Fragments make new plants, so pulling it seems to spur reproduction. It is a mint, and unfortunately several mints tend to get weedy. If it would only stay put, it could be a ground cover. Masses of it grow in lawns.



Photo by Tracey Knierim, NPSNEO Board Member

Why then do we need a festival for a dreadful weed, and an alien to boot? Toward the latter part of March, dead nettle puts on a wonderful show. It blooms in great profusion. The charming little purplish mint flowers in the leaf axils would be better appreciated if it weren't so common. I propose a period of amnesty for dead nettle during the bloom period to coincide with the festival. Like tax amnesty, this amnesty will not last forever. The rest of the year you can pull it out just like you normally do. This won't adversely affect next year's festival unless you use weapons of mass destruction. Purple dead nettle is stronger than we are.

During the festival you can pull all the other weeds to add to your dead nettle bouquets. Dead nettle fills a void when there isn't much else available for table arrangements, and it is no prima donna. You can pick as much as you like, which is more than you can say for orchids. A stunning festival arrangement can be made to feature dead nettle's flowers, buds, and foliage, accented by common chickweed and Pennsylvania bittercress. All three can be salvaged from flower bed weeding. Containers refined enough to enhance such arrangements may not be immediately obvious, but standard sauce dishes and the little liquor bottles dispensed on airplanes are a good place to start. If you know a diabetic, insulin bottles would work really well too. Such diminutive arrangements will fit on most any table and suit any decor, but an arrangement on the patio where you might drink red wine to keep your arteries open is a nice touch. The flowers close at night, but the foliage is nice by candlelight.

Daytime appreciation of your dead nettle arrangement is more challenging. Dead nettle's flower buds need lots of sunlight to open up fully. If you don't have a window with quite a bit of direct sun, it may be necessary to keep your arrangements outdoors most of the time to get the flowers to open up. It might be easier to just enjoy them *in situ* to begin with. Sometimes it's difficult even knowing an open flower when you see it. The small flowers, buds, and un-opened flowers sometimes look similar. A 10x magnifier will settle the matter. Upon inspection, the unopened flowers will actually be found to be about half open. The flowers are really neat under 10 x magnifications. We think nothing of getting the glass out for Corallorhiza, why not dead nettle?



Purple dead nettle, *Lamium purpureum*

Perhaps the best thing about the dead nettle festival is that dead nettle is a prophet of sorts. As the festival comes to an end, you know the mesic slopes are about to explode with spring ephemerals. It deserves some respect anyway, and growing it is no problem whatsoever. If perchance you don't already have it, you could forgo the dead nettle festival, but *Don't plant it under any circumstances*. There are the other 50 weeks of the year to consider as well. Besides, your next nursery plant will likely give you plenty of dead nettles without any effort on your part.

If all else fails, don't despair. You can substitute any other obnoxious little weed that blooms in the early spring. You could, for example, have a creeping charlie festival.

The possibilities are endless....

Reprinted from *The Lady-Slipper*, 18:1 / Early Spring 2003.



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The Botanizers
The Wilderness Center
Gordon Maupin
P.O. Box 202
9877 Alabana Av. SW
Wilmot, OH 44684
330-359-5235
http://www.wildernesscenter.org

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- Promote conservation of native plants and natural plant communities through habitat protection and other means
- Foster public knowledge and appreciation of native plants
- Support proper methods of natural landscaping
- Raise awareness of the ethical issues regarding native plants.
- Encourage surveys and research into native plant species and the publication of findings
- Promote cooperation with other programs and organizations concerned with the conservation of natural resources

On The Fringe

In this issue:

Wood Poppy: Rare For a Reason – Jane Bowles
Skunk Cabbage, The Year's First New Wildflower – Gordon Mitchell
Folklore: Woodland Dental Hygiene – Guy L. Denny
Book Review: Carolyn Harstad – Go Native! Gardening with Native Plants and Wildflowers in the Lower Midwest
Invasive Plant: May's the Month To Pull Garlic Mustard
Mad About Moss – Joni Blackburn
Old Woman Creek: A National Estuarine Research Reserve & State Nature Preserve – ODNR
Do We Need a Purple Dead Nettle Festival? – Charlie Lapham

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