

Natural Ohio

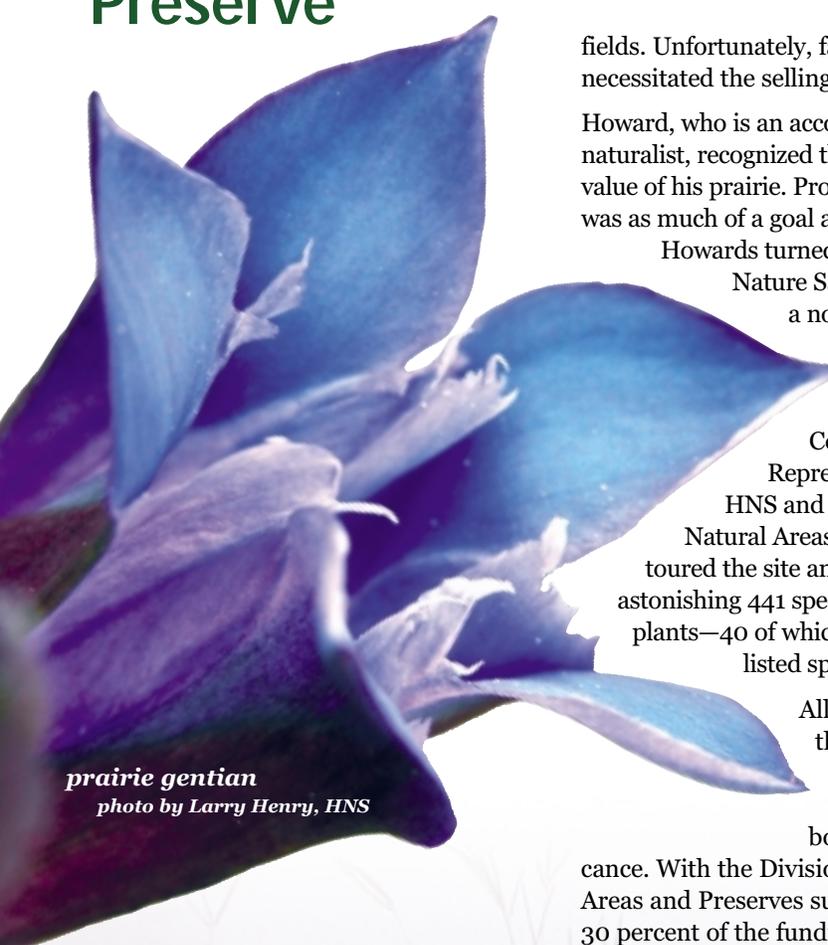
Division of Natural Areas and Preserves

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Adams County Prairie Becomes Ohio's Newest State Nature Preserve



prairie gentian

photo by Larry Henry, HNS

THERE AREN'T MANY OHIOANS WHO COULD BOAST ABOUT OWNING ONE OF THE STATE'S FINEST PRIVATELY OWNED PRAIRIES, BUT JOHN HOWARD IN ADAMS COUNTY COULD.

In 2003, Howard and his family were faced with a dilemma. They had devoted themselves to protecting 80 acres of rare short-grass prairie. Their "back forty" was one of the best prairie remnants left in Ohio. Because of the Howards' wise land management skills, prairies were even popping back up in their farm

fields. Unfortunately, family obligations necessitated the selling of their land.

Howard, who is an accomplished naturalist, recognized the inherent value of his prairie. Protecting the land was as much of a goal as selling it. The

Howards turned to Highlands Nature Sanctuary (HNS), a non-profit land conservancy organization in Highland County.

Representatives from HNS and the Division of Natural Areas and Preserves toured the site and found an astonishing 441 species of vascular plants—40 of which are state listed species in Ohio.

All involved agreed the prairie was a state treasure of stunning botanical significance.

With the Division of Natural Areas and Preserves supplying about 30 percent of the funding through the purchase of a conservation easement, HNS was able to purchase Howard's land. In the process, acquiring the prairie spurred the organization to reach beyond the confines of Highland County to protect other Appalachian sites. By the end of this year, Highlands Nature Sanctuary will have protected more than 2,800 acres of southern Ohio land.

After acquiring the site, HNS's first challenge was giving the prairie a proper name, one that would

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The Basics of Botanizing

HAVE YOU EVER WALKED THROUGH A LOCAL NATURE PRESERVE OR PARK AND WANTED TO KNOW MORE ABOUT THE PLANTS GROWING THERE? HAVE WILDFLOWERS SPARKED YOUR INTEREST BUT THE NUMBER OF DIFFERENT PLANTS SEEMS OVERWHELMING?

Knowing native plants and wildflowers by name will help you become a better naturalist, as well as give you insight into Ohio's biodiversity. Ohio has more than 2,500 native species and learning to recognize them can be a rewarding and fun experience.

Identifying all those plants may seem daunting, but with a little persistence, you can become an expert at identification as well as impress friends and family on your next nature hike.

Start with a good book

A good field guide, such as the classic *Newcomb's Wildflower Guide*, is a must. This book uses simple plant characteristics, such as leaf type and flower color, to provide quick identification of wildflowers. Field guides focusing on other groups of plants including trees and shrubs are available at your local library or bookstore.

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FROM THE CHIEF

There are a variety of words to express the last months' adventures as the newest chief of the Division of Natural Areas and Preserves. Certainly awesome would be appropriate were it not so overused on things much less awe-inspiring than our natural Ohio.

I have visited Fowler Woods, Clear Fork Gorge, Sheldon Marsh, Stage's Pond, Cranberry Bog, Gross Woods and Lake Katharine state nature preserves, as well as experienced the Little Miami, Little Darby, Stillwater/Greenville, Mohican, Little Beaver Creek and Grand state scenic rivers. The flora, fauna, history and setting of each do indeed evoke awe. Their preservation within Ohio's very developed landscape is both remarkable and awe-inspiring. Much would have been lost were it not for the foresight of citizen-naturalists, the dedication of the division's remarkable staff and the support of thousands of Ohioans throughout the state.

Awe, however, is tempered by the formidable challenges which remain. Many noteworthy sites remain unprotected. Both invasive development and species threaten the nature of the legacy we work to pass on.

But, I have seen an eagle soar over the Grand State Scenic River and touched a majestic chestnut, one of the last of its kind, at Sheldon Marsh State Nature Preserve. I have stood among trees predating our nation. The awe is palpable. It is shared by many. It's available to everyone and it inspires our work for the future.

Natural Ohio.....awesome! ✨



Steve Maurer
Chief
Division of Natural Areas and Preserves



(Ka-ma-ma Prairie, continued from page 1)

connect the land with its heritage. Ka-ma-ma, meaning butterfly in Eastern Cherokee, was a fitting name as more than 65 species of butterflies have been found at the preserve.

According to botanical experts, Ka-ma-ma Prairie is one of the best examples of short-grass prairies (xeric limestone prairie or cedar barren) remaining in Ohio. These prairies are found in a narrow finger-shaped portion of the Bluegrass Region in extreme southern Ohio. Prairies like Ka-ma-ma occur on a particular type of bedrock. Peebles dolomite is a calcareous rock formed from ancient coral reefs of a shallow inland sea which existed millions of years ago.

The land harbors a number of prairie openings, but one in particular features incredible diversity. The opening is cloaked with prairie forbs including

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Ka-ma-ma supports a variety of butterflies including these fritillaries.

photo by Tim Pohlar

(*Botanizing, continued from page 1*)

If you are hoping to identify species not included in a field guide, or want specific information about a species' plant ecology, scientific classification or geographic distribution, you'll need to turn to a flora. Used by professional botanists and amateurs alike, a flora is a comprehensive guide to all plants known to grow in a particular area.

Floras typically include dichotomous keys which ask simple questions about a plant's flowers, fruits or leaves. The answer key eventually narrows an unknown plant down to family, genus, and finally species. *The Ohio Academy of Science's Ohio Flora Project* is especially useful in Ohio—several volumes have been published. If you frequently stray out of state, you'll want to pick up a copy of *Gleason and Cronquist's Manual of Vascular Plants*, which covers all plant species in the northeastern United States.

Document your observations

Write down and draw what you see. Even if you don't know the name of a plant, describing and sketching the plant in a field notebook will help increase your botanical knowledge. Be sure to note the color and shape of flowers, fruits and the presence of hair, prickles or thorns.

Another important tool is a land lens, which looks like a hand-held magnifying lens. Similar to a jeweler's loupe, the land lens lets you identify small features of a plant, such as the number of reproductive parts or the size and shape of leaf hairs.

Digital cameras make it easy to take close-up pictures of plants and their flowers. Be sure to turn on your camera's macro mode, usually denoted by a flower icon.

As you begin to identify more plants, keeping their names in your notebook will help. Sooner than later, you'll begin to recognize each species like an old friend. Although common names will suffice, all plants have scientific names. Learn those in addition to the common names, and you're on your way to being an expert.

Don't go it alone

Learning to identify Ohio's native plants in the field is a definite challenge, but joining others in the field is a great way to share knowledge and learn more plant names. Attending a Natural Areas Discovery Series event is a great way to meet preserve managers and other botanical staff who are happy to identify plants for visitors. With a little help, you'd be amazed how many plants you can identify in one day.

Know where to go and when to go

Certain habitats and landscapes feature more species than others and they can be spectacular sights when in full bloom. Mature forests are alive with colorful woodland wildflowers in April. The Oak Openings region, west of Toledo, is especially colorful in May. Wetland habitats, such as bogs and fens, are at their botanical peak in June. Prairies reach peak bloom in mid-July and early August. Old fields blaze with colorful late wildflowers in September.

Become an expert

Pick a small place—a backyard or local park—and learn the names of all the plants growing there. Start in the spring and document different species as they flower throughout the growing season. If you know the plants in your yard or neighboring park, you'll quickly learn to spot those in new locations as you explore Ohio.

Or, you might consider picking a specific sub-set of plants to study, such as trees. They grow throughout the state in a variety of habitats, and can be identified all year long. Spring wildflowers may be another excellent choice. Sedges and grasses, often shunned by the beginning botanist, are a fascinating group of plants to study because of their presence in all types of habitats throughout Ohio.

Knowing your native plants is a great way to better understand our natural world. It's a fun and rewarding experience... now go out and botanize. ✨

Tom Arbour
Natural Heritage Ecologist



milkweed



obedient plant



showy lady slipper



Lou Campbell State Nature Preserve

“A short distance to the west (of Toledo) were hills of sand upon which only oak trees grew, and so sparse were the trees that a wagon could be driven in any direction through the patches of forest without hewing a path.”

Lou Campbell, an early prominent naturalist, was describing the Oak Openings region of northwestern Ohio. Encompassing about 130 miles in Lucas, Fulton and Henry counties, the region is home to perhaps the greatest concentrations of rare plant and animal species in the state—many of which are found nowhere else in Ohio.

The principal difference between this region and the rest of northwestern Ohio is sand. The sand from ancient Lake Erie beaches lies atop the typical clay soil of the area. Water flows easily through the sand, but the clay is impervious. This creates harsh living conditions for plants which demand fluctuating water levels. Few trees, mostly oaks, could survive these extreme conditions, as well as the periodic fires which swept through the region.

Today, much of the area is developed, and all of it has been altered by land management practices during the early 20th century. Manmade ditches altered the hydrologic cycle. The fires which

once frequented the oak savannas were suppressed. These factors enabled forests to grow, shading the unique savanna plants of the original landscape.

A variety of agencies, such as the Division of Natural Areas and Preserves, The Nature Conservancy and Toledo Metroparks, have protected hundreds of acres of this ecologically diverse region. Managed by the division, Lou Campbell State Nature Preserve protects more state-listed species than most other Ohio state nature preserves.

Habitat diversity abounds at this 170-acre Lucas County site. Wet meadows, oak savanna and sand dunes to name a few. There is always something new to see throughout the growing season.

Although the site is only open with an access permit, the division held its first open house in May. Visitors were greeted with blooming wild lupine, plains puccoon, lance-leaved violets, mountain phlox, dwarf dandelion and lyre-leaf rock-cress. All of these rarities are state endangered or threatened species. The division is planning another open house next year.

As summer progresses, so too does the blooming of more rare plants. Canada frostweed, Atlantic blue-eyed grass, twisted yellow-eyed grass, grass-pink orchid and spatulate-leaved sundew thrive under the protected conditions of a permit-only site.

Not to be left out, autumn also brings its own crop of state-listed species, such as soapwort gentian, Kalm’s St. John’s wort, Great Lakes goldenrod, fringed gentian and Missouri ironweed.

Campbell is home to more than just rare flowers. The botanically gifted will find rare grassy species including field sedge, low-sand sedge, Greene’s rush and tall nut rush.

Because Campbell is a permit only preserve, you’ll need to apply for a permit before visiting. To learn more about the permit process, visit www.ohiodnr.com/dnap. 

Ryan Schroeder
Northwest District Preserve Manager



sundew

(Ka-ma-ma Prairie, continued from page 2)

several species of blazing stars and sunflowers, Indian paintbrush, prairie dock, whorled rosinweed, rattlesnake-master, flowering spurge, American aloe and obedient plant.

The beautiful and state endangered prairie gentian (*Gentiana puberulenta*) occurs in this prairie as well. This western prairie plant is a rarity for our state because the only other area it occurs is in the Oak Openings Region of northwest Ohio.

Along the edges of the prairie, in the open chinquapin oak woods, grows a state threatened orchid—crested coral-root. This leafless orchid relies primarily on its fungal associations for nourishment and only sporadically sends up a flowering stalk in the summer. In Ohio, it is only known from the Bluegrass Region.

In areas where dolomite rock is at or near the surface, several rare plants may be found including the small, early spring blooming *Leavenworthia* and Carolina whitlow-grass. Both of these species are members of the mustard family and grow to a maximum height of 8 inches.

The preserve also features dolomite rock exposures and dry chestnut oak woods, adding to the list of habitats available for native species. On the rocks, ferns, such as smooth purple cliffbrake and walking fern, can be found thriving along with the uncommon flowering *Sullivantia*. High plant diversity delivers a variety of wildlife. Some of Ka-ma-ma's residents include the hognose snake, prairie warbler and red fox.

Ka-ma-ma Prairie became Ohio's newest state nature preserve in late 2006. Protected by strong land protection laws, Ka-ma-ma Prairie will remain pristine for generations to come.

(Thanks to Mandy Henderson from Highlands Nature Sanctuary and Rick Gardner, DNAP heritage botanist, for contributing to this article. To learn more about Ka-ma-ma Prairie, please visit www.highlandssanctuary.org)



Ohio's Aquatic Monster

GO CAT FISHING ON A SUMMER NIGHT ALONG THE LITTLE BEAVER CREEK STATE AND NATIONAL WILD AND SCENIC RIVER AND YOU MAY FIND YOURSELF REELING IN A WRINKLED, DARK CREATURE RESEMBLING SOMETHING FROM THE JURASSIC ERA. IF IT'S A BIT ON THE UGLY SIDE, YOU'RE PROBABLY LOOKING AT OHIO'S LARGEST SALAMANDER—THE HELLBENDER.

The hellbender (*Cryptobranchus alleganiensis*) may grow up to 30 inches in length. These creatures range in color from yellowish-brown to dark brown or nearly black. Some feature spots which give lighter colored individuals a mottled appearance.

With its heavy tail, compressed body and broad flattened head, the hellbender prefers watery habitats, such as shallow riffles or runs with flowing water and big rocks to hide under. They spend the daylight hours hiding under those large rocks, emerging at nightfall to hunt the stream bottom.

The hellbender's preferred prey is crayfish, but small fish, worms and aquatic insects are also eaten. Their preference for crayfish is why it is possible for anglers who are using crayfish for bait and fishing at night to reel in one of these animals instead.

Hellbenders breed in the late summer—males excavate depressions under large flat rocks to attract females into the nest. Eggs are externally fertilized and the males may sit on the nest for some time, presumably to guard it from other hellbenders since they are known to prey upon their own eggs and larvae.

As its Latin name implies, the hellbender is found primarily in streams of the Allegheny Plateau region. Outside of Ohio, the hellbender's range extends from southern New York and northern Pennsylvania southward into northern



Alabama and northeastern Mississippi. The species is also found in Ozark Mountain streams in Missouri.

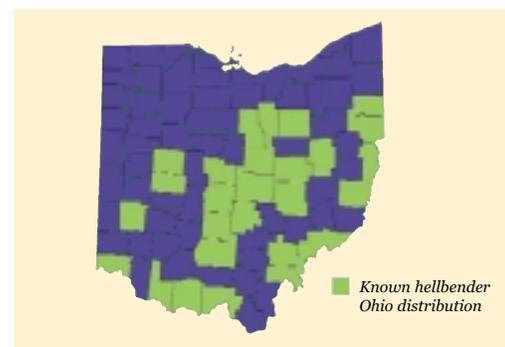
Because it produces a slimy, noxious skin secretion, hellbenders have few natural predators. Although some species of large fish, snapping turtles and common water snakes may feed upon them, the largest threat to their population is human activity.

Dammed rivers and streams, pollution and sedimentation have all taken a toll on hellbender populations. It is now listed as a state endangered species. The most recent finds of hellbenders have been primarily in state scenic rivers, such as Kokosing, Mohican and Little Beaver Creek, as well as a few other high quality streams.

If you do happen to hook one of these ugly guys, do your best to release it back into the wild.



Bob Gable
Group Manager
Ohio Scenic Rivers Program



Deep Woods Wildflowers

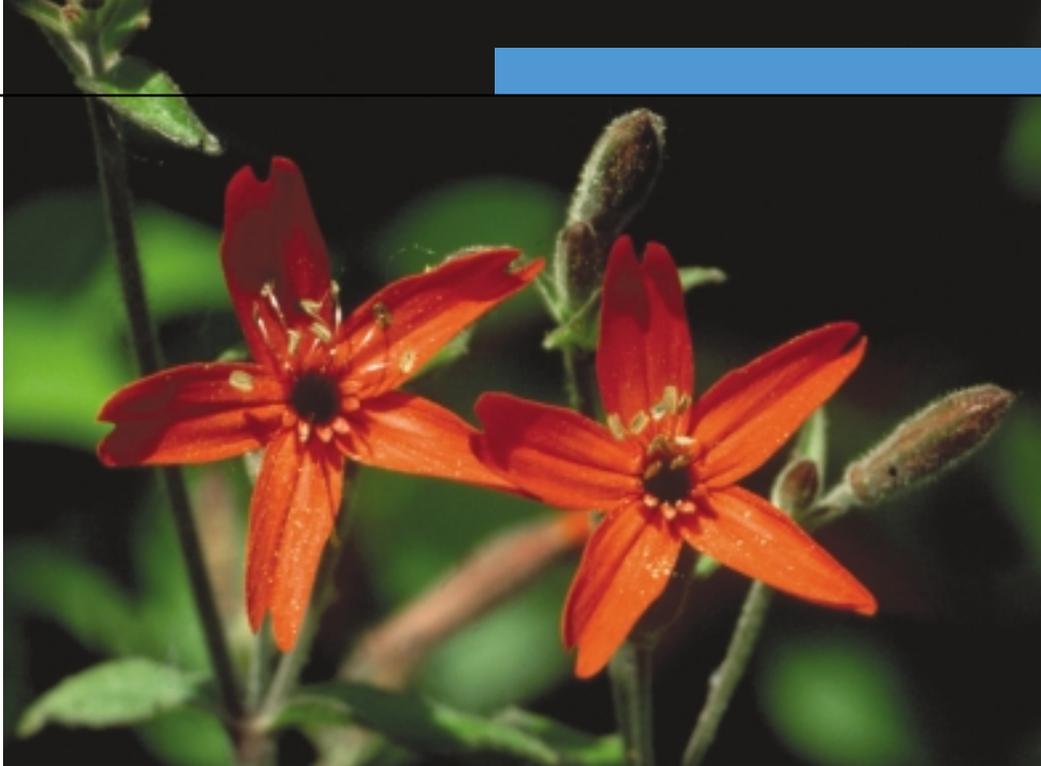
AS WE'VE COVERED SO OFTEN IN PREVIOUS ISSUES, SPRING IS WHEN OHIO'S WOODLANDS ARE CARPETED WITH THE MANY COLORS OF EPHEMERAL BLOSSOMS. BY MID-JUNE, THE SHOW FADES AS PLANTS SET SEED AND GO DORMANT BENEATH THE EVER-THICKENING CANOPY OF LEAVES OVERHEAD. BUT NOT ALL FLOWERS ARE INTIMIDATED BY THE SHADE OF AN OHIO FOREST IN SUMMER. A FEW BLOOMS BRIGHTEN EVEN THE DARKEST REACHES.

One of the brightest lights in the summer woods is cast by fire pinks—their star-shaped, brilliant scarlet blossoms seem to glow against the gloom. Similar to its rare cousin, the royal catchfly, fire pink may be distinguished by the notch indenting the end of each petal as well as by where they live. Royal catchflies prefer sunny prairie openings, rather than the shaded woodlots where fire pinks may be found.

Ramps also flower in summer. The paired, strap-like leaves of the plant appear early in spring, sometimes in colonies so dense they cover whole swaths of the forest floor. But the leaves soon wither away and are long gone by the time each plant puts up its single flower stalk topped with an explosion of small white blossoms. So great is the gap between the disappearance of the leaves and the appearance of the flowers that many people believe they are two different plants.

Also called wild leeks, ramps grow from bulbs which are edible. Whole celebrations in the Appalachian Mountains are built around the finding, eating and appreciation of ramps.

The small-flowered leafcup is notable less for its flower than for its odor. A member of the composite family, its



fire pink

small flower heads are surrounded by a few short, yellow rays—hardly the stuff of dramatic flower arrangements. But run a hand lightly across one of its furry leaves and you'll release a spicy smell into the air. A friend once called this the "shaving lotion plant," and the name fits.

One of the most elegant of our summer blooming woodland plants is the tall bellflower. A member of the bluebell family, its tall, wand-like stalks are studded with light blue, star-shaped flowers which may reach 6 feet in



tall bellflower

height. This is the most common of our three native *Campanulas* (harebell and marsh bellflower are the others) and it may be found across the entire state.

Later in the summer, the woodland goldenrods bloom. Although most goldenrods require sunlight and lots of it, there are two species that thrive in the darkened woods.

Zigzag goldenrod can be identified by its broad, egg-shaped leaves which are sharply toothed and narrow abruptly to a short stalk. The plant stem bends slightly where each leaf joins it, which explains the zigzag name. Small clusters of typical goldenrod flowers grow in the axils where leaves meet stem. This goldenrod is found throughout the state, as is the other common woodland goldenrod, the blue-stem. Named for the tinge of color often found on the stem where its sharply-pointed, lance-shaped leaves attach, this one also has yellow flowers clustered in the axils.

Here, then, is proof that the flowery interest of our woodlands does not wither once the tree leaves unfold. If you can brave the mosquitoes, the deep woods of Ohio hold treasures for the finding, even under the densest shade. ✨

Tim Snyder

Retired preserve manager

Mohican Scenic River Celebration



Ohio Department of Natural Resources' Director Sean Logan (*at podium*) was joined by nearly 100 guests at the Mohican State Scenic River Celebration in May. In addition to remarks from Director Logan, Chief Steve Maurer (*center*) and Mohican River volunteer David Greer (*left*) also spoke about the success and future of the state scenic rivers program. All three speakers praised the spirit of cooperation which marked the designation of the Mohican State Scenic River.



The outdoor event, held at the Mohican State Park campground, offered guests an opportunity to learn stream quality monitoring and browse more than a dozen conservation displays. The celebration concluded with a memorial tree planting which gave American history students from Loudonville High School (*group photo*) an opportunity to make a little of their own history.

Mason High School Recycles for Natural Areas & Preserves



For several years, Tim King and his students at Mason High School in Warren County have been donating both time and money to the Division of Natural Areas and Preserves. From pulling invasive plants to turning recyclables into cash for the division, this is one group of committed teens.

King, who has made the environment as much a part of his English course as

poetry and fiction, is teaching his students the importance of making a difference. Not only do students read Aldo Leopold's "The Land Ethic," but King also has students reading sections of the Endangered Species Act and other environmental laws.

The division applauds the work of King and his students— they are true symbols of how individuals do make a difference!

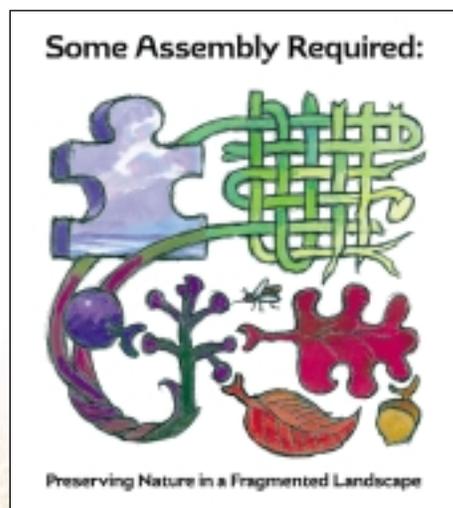
National Natural Areas Conference Coming to Ohio

The 34th Annual Natural Areas Conference will be held October 9-12 at the Cleveland Marriott at Key Center. This year's theme—Some Assembly Required: Preserving Nature in a Fragmented Landscape— will emphasize how ecosystem fragmentation has altered biodiversity across the country.

Presented by the Natural Areas Association and the Cleveland Museum of Natural History, along with partners like the Division of Natural Areas and

Preserves and other conservation organizations, the conference will offer a variety of programs and field trips to provide a forum to discuss the challenges of conserving fragmented natural areas. Other topics to be covered include invasive species, fire ecology and global climate change.

For more information on registering for the 2007 Natural Areas conference, please visit www.naturalareas.org.



Upcoming Natural Areas Discovery Series Programs

Kent Bog and Triangle Lake Bog, Portage County

Tale of Two Bogs • August 18, 10 a.m. to 2 p.m.

Visit two jewels of the Ice Age representing two different eras of plant community succession—an open water lake and a mature bog meadow. Both harbor unusual plant communities including carnivorous plants, tamaracks, rare northern shrubs and sedges.

After the 10 a.m. hike at Kent Bog, we'll travel to Triangle Lake Bog around noon. After lunch (bring water and sack lunch), a guided tour of Triangle Lake Bog will begin.

Meet at Kent Bog State Nature Preserve's parking lot, located on Meloy Rd, just west of S.R. 43, south of Kent. For more information, contact **(330) 527-5118**.

Headlands Dunes, Lake County

Birding on Coastal Dunes • September 15, 8 a.m. to 3 p.m.

As summer turns to autumn, experience one of Ohio's best coastal dunes communities. Whether your interest is botanical or avian, there is plenty to see. Many rare plants grow on the dunes and a variety of shore birds and warblers can be seen at the preserve. Begin your visit with an 8 a.m. bird hike or learn more about coastal plants by joining one of two hikes (11 a.m. or 1 p.m.) which will focus on the unique vegetation of the dunes.

Located west of Fairport Harbor at the north end of S.R. 44 and extreme east end of Headlands Beach State Park. For more information, contact **(440) 632-3010**.

Conkle's Hollow, Hocking County

Fall Foliage Festival • October 20-21, 9 a.m. to 4 p.m.

Conkle's Hollow is a great place to enjoy the splendor of an Ohio autumn. Choose the accessibility of the Lower Gorge trail or the more challenging Upper Rim Trail. This event features a pioneer encampment and uniformed naturalists along the trails.

Located about 12 miles south of Logan on S.R. 664, 1 mile north on S.R. 374, and 1/4 mile east on Big Pine Rd to the signed entrance. For more information, contact **(740) 420-3445**.



Preserving Nature Today for the Needs of Tomorrow

Mission Statement:

Administer a system of nature preserves and scenic rivers by identifying and protecting Ohio's significant natural features.

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www.ohiodnr.com/dnap



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