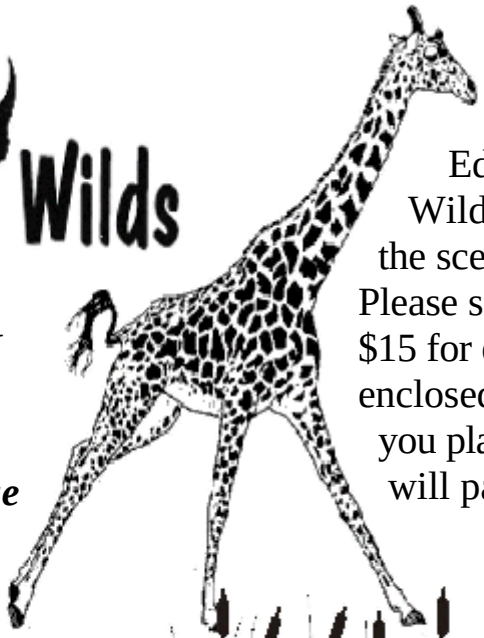
Public Is Invited

Marietta Natural History Society

Summer 2003 Newsletter

Field Trip to the Wilds



Thursday, July 10, 6:30 PM
We'll carpool from the Hermann Fine Arts Center parking lot, Marietta College

Al Parker, Education Director at The Wilds, will provide a behind the scenes look at The Wilds – Please send names and check for $15 for each adult in the enclosed envelope by July 3 if you plan to attend. MNHS will pay for children's fees.

Visit to the Union Carbide Superfund Site

Thursday, September 11, 6:30 PM
We'll carpool from the Hermann Fine Arts Center parking lot
Tour Guide: Marilyn Zumbro, Regional Director with Kemron Corp. and Program Manager for the superfund site

After a short orientation meeting, we will have a walking tour of the site to see the capped landfill and the newly planted trees along the infamous Unnamed Stream. We will learn about the ongoing monitoring activities.

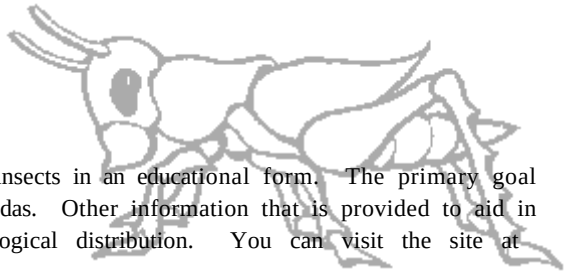
Field Trip to Kroger Wetland

Thursday, August 14, 6:30 PM
Meet at the new parking lot between Hong Kong Restaurant and Krogers.

We will check out progress being made since the city received this property about a year ago. Wear sturdy shoes and long pants, bring water and binoculars if you want. If parking lot is not complete, we will meet at side of Hong Kong parking lot closest to Kroger.

Special MNHS Trip – Owl Talk!

Tuesday, July 29, 7:30 – ~9:30 PM
See page 3 for more information.



Insecta Songs. The Singing Insects of North America presents audio clips of singing insects in an educational form. The primary goal of the web site is to teach people to identify the songs of crickets, katydids and cicadas. Other information that is provided to aid in identification includes images of the insects, and geographical, seasonal and ecological distribution. You can visit the site at **http://buzz.ifas.ufl.edu/.**

Bird Bookings. Planning a trip and want to know what birds might be at your destination? Bird Links to the World, Denis Lepage's web page, includes checklists for more than 500 areas that can be printed out. Find it at **www.bsc-eoc.org/links/links/jsp.**

Wild Place. Since we will be going to the Wilds this summer, it seems an appropriate time to highlight their web site. The Wilds web site has a variety of features of interest to visitors, including educational information, events descriptions, and an image gallery. You can also select from several 'Wild' wallpaper patterns for your computer. You can find the site at **www.thewilds.org.**

Look at your mailing address label!

Is there a red dot?
If so, it means that your MNHS membership is past due.
(Maybe a good time to invite someone else to join also.)

Natural View, # 2

The second issue of *The Natural View of Washington County,* the MNHS summer circular has been printed and is available most places around town where free tabloids are distributed. If you want one mailed to you, contact a MNHS Board Member or the Newsletter Editor. Lots of interesting articles; and be sure to mention to our advertisers that you saw their ad when you visit their store.

Getting the Blues over Purple LooseStrife by Marilyn Ortt

Purple loosestrife (*Lythrum salicaria*) has been recognized as Public Enemy No. 2 of wetlands in many states - No. 1 would have to be the bulldozers that are used to drain, fill or otherwise outright destroy these special habitats.

Purple loosestrife is not native to this country. It showed in southeastern Ohio starting about 20 years ago, becoming well established first in ditches and along riverbanks in benign-appearing clumps. No sign it would ever be sufficiently aggressive to replace other wetland species. Give loosestrife a mudflat, though, and it goes berserk, covering as many acres as the right habitat offers. As with other invasives removed from its predators, pathogens and other limiting factors of its homeland, there is no natural check on its spread.

Native wetland species that offer food, cover and nesting sites for our native wildlife are denied space by this invader. The sedges, native grasses and flowering plants that make wetlands home for many species of wildlife forming the incredibly diverse web of life a wetland offers are simply out competed. The entire ecosystem can be altered within a very few years.

Purple loosestrife spreads by rhizomes as well as by seed. Seeds, leaves ands stems are not utilized significantly by wildlife. Insects are sometimes attracted by nectar in the flowers but not sufficiently to make up for the desert-like effect acres of this species presents.

It is especially galling to wildlife managers to see people screeching to a halt along the interstate highway to photograph the admittedly striking appearance of hundreds of acres of purple loosestrife in the Montezuma Wildlife Refuge in New York State, for instance. The same view can be seen in Ohio, Illinois, Indiana, and other Great Lakes states. The photographers probably have no idea that what they are recording is a disaster scene. **See Strife, page 5**

July 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4 Indepen-dence Day	5
		Look For Swallowtail And Monarch Butterflies				
6	7 ◐	8	9	10 MNHS Field Trip	11	12 Long-Horned Beetles Active
Cicadas and Katydids Tuning Up						
13 ○	14	15	16	17	18	19
	Squirrels Bear Summer Litters	Mayapple Fruits Ripen And Soon Fall To Ground				
20	21 ◑	22	23	24	25	26
Warblers, Wood Thrush And Towhees Singing		Wild fuits Become Major Food Source For ...				
27	28	29 ●	30	31		
	Wishing For Rain We Had In May??					

September 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
	1 Labor Day	2	3 ◐	4	5	6
			Blue-Winged Teal Migration Underway			
7	8	9	10 ○	11 MNHS Field Trip	12	13 Perseid meteor Shower Peak
Snakes Beginning Winter Dormancy						
14	15	16	17	18 ◑	19	20
		White Tailed Deer Now Breeding (Through November)				
21 Monarchs On Way To Mexico	22	23 Fall Equinox	24	25	26 ●	27
		Early Fall Color Shows on Blackgum, Sassafras, and Dogwood				
28	29	30				
Walnut Has Already Lost leaves						

Owl Talk! A Special MNHS Outing

Tuesday, July 29, 7:30 - ~9:30 PM
Meet at Hermann Fine Arts Center parking lot. A short 20 minute drive -- if they're talking, we'll hear them! Coyote and whippoorill also possible. Dress for weather, no special foot gear necessary.

August 2003

Sun	Mon	Tue	Wed	Thu	Fri	Sat
There are an estimated 8,750,000 insect ecies, only about 1 million are named. (*Nature*, vol 403, 853-858, 2000)					1 Beetles Bountiful	2
3	4	5 ◐	6	7	8	9
		Look For Young Striped Skunks Striking Out On Their Own				
10	11	12 ○	13	14 MNHS Field Trip	15	16
		Sumac Fruits Are Crimson Red				
17	18	19	20 ◑	21	22 Wild Grapes Ripen	23
Purple Martins Flocking			Butterfly Weed And Woodland Sunflower in Bloom			
24	25	26	27 ●	28	29	30
				Songbird Fall Migration Begins		
Late Summer Molt Leaves Drap Plumage In Robins And Other Birds						
31	Of the estimated 1,500,000 species of fungi, only about 72,000 are named. (ibid)					

Suggestions, Comments or Contributions for the MNHS Newsletter? Send them to the (lonely) editor:
625 5th St
Marietta, OH 45750
374-8778
spilatrs@marietta.edu

Mulling Over Mulberry in Plant and Poem by Steven R. Spilatro

Say! That makes a story that no one can beat,
When I say that I saw it on Mulberry Street.
– Dr. Seuss

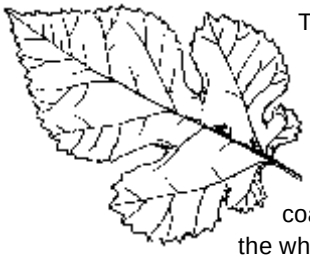
Considering the many old lanes lined with mulberry trees, there are surely many stories to tell! The mulberry trees themselves are a multicolored story, with roots that extend around the globe and in many a verse.

I lay under blackening branches
where the mulberry leaves hung down
Sheltering ruby fruit globes
from a Sunday-tea-time heat.
– John Betjeman (1906)

Red mulberry (*Morus rubra*) is our native species; and the Ohio Valley region may be its prime natural habitat. It is a medium size tree, reaching heights of 40 - 60 feet with a trunk 12 - 18 inches in diameter. Preferring rich bottomland soil, it is not commonly found growing along city streets. The leaves of the red mulberry are variably shaped, like those of sassafras. Leaves may be unlobed, mitten-shaped, or three to five lobed.

When far overhead hang gorgeously
Large luscious berries of sanguine dye,
For the best grows highest, always highest,
Upon the mulberry tree. – Dinah Maria Luloch

Although there are about a dozen mulberry species in North America, the fruits of our native red mulberry are generally considered best to the human palate. This is in part due to a mild acidic quality not always found in fruits of other species. Actually the name is somewhat misleading, since the berries only pass through a red color to become dark purple when ripe. The mul-'*berry*' actually is a cluster of individual drupelets, analogous to a cluster of small cherries. Each of the druplets consists of a fleshy fruit around an individual seed.



"John there's a burglar in the house!
I hear him at the cupboard!"
"Where you put the mulberry pie?"
"Yes. Oh, John, where are you going?"
"I'm going down to rescue him?"
– George W. Jacobs. American Humor (1900)

Few children can resist the chance to sample from a tree fully laden with mulberries, especially since the fruit conveniently drop upon ripening. Mulberry trees can vary greatly in the taste of the fruits that they produce, ranging from bland to sweet, which undoubtably reflects qualities of the local habitat. Although once an important traditional food source, red mulberries are now principally fare for wildlife.

'Of all the cultivated trees, the Mulberry is the last that buds, which it never does until the cold weather is past, and it is therefore called the wisest of trees. – Pliny

Red mulberry has a variety of traditional uses and medicinal qualities. The wood is very tough, and although not serving as a significant lumber source, it has been used in furniture making, for fence posts and in ship building. (A taxonomic aside: osage orange (*Maclura pomifera*), with one of the heaviest woods among native species, is also a member of the mulberry family.) Choctaw Indians wove cloaks from the fibers of the inner bark. American Indians also well knew that mulberries can be used as a mild laxative and to alleviate fever. Appalachian folk medicine employs mulberry syrup and juice as cough suppressants and to treat gout. The bark of the roots has been used as a vermifuge, to rid the body of intestinal parasites.

It changed like this
Just three more time
And always in between
It ate and ate and ate and ate
Mulberry leaves so green
– Silkworm poem

The other mulberry species that occurs abundantly in our area is the white mulberry (*Morus alba*), an exotic species native to Asia. The leaves of the white mulberry are the main food for silkworms, which have been cultivated in China for millennia. It was brought to the U.S. (and Marietta) in colonial days in an abortive attempt at silk production, and has since spread widely. Its hardiness has made it a common 'weed-species' along city streets.

Correcting thy stout heart
How humble as the ripest mulberry
That will not hold the handling
– Shakespeare: Coriolanus, Act III

The fruit of the white mulberry range in color from white to light purple. While the fruit is well appreciated by birds, many people consider its taste blander than that of red mulberries. Like other species of mulberry, the white mulberry produces a milky fluid, called latex, that will coagulate to a rubbery texture in the air (similar to the white 'sap' of milkweeds). It has been suggested that this material contributes tenacity to the silk produced by the silkworm.

Here we go 'round the mulberry bush,
the mulberry bush, the mulberry bush,
Here we go 'round the mulberry bush,
So early in the morning. – Children's verse

The black mulberry (*Morus nigra*) is a smaller tree than its red and white cousins, reaching a height of only 20 -30 feet. The black mulberry is also an introduced species, native to Asia Minor, Armenia and the Southern Caucasus region, although it is not common in our area. This is the mulberry under which Pyramus and Thisbe were slain in the *Metamorphoses* of Ovid, an act fabled to have changed the fruit from white to deep red by absorbing their blood.

P.S. Do you know where Mulberry St. is in Marrietta?

Strife, con't from page 2

This Eurasian species began to escape in the 1930's after being introduced in this country as a garden specimen as has been the case with so many of the invasives. Purple loosestrife is now on Ohio's noxious weed list and should not be sold or planted.

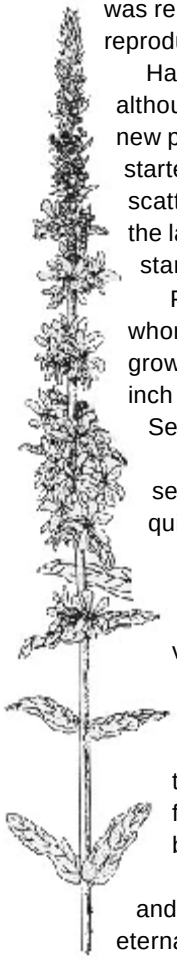
Reproducing vegetatively as well as by seed, stands grow so dense that waterfowl cannot move through the stiff stems as they can cattails and other native wetland species. A check about 10 years ago on a population of an Ohio Endangered plant species that colonizes mudflats showed the rapidity with which native species can be replaced. Whereas about 10 years earlier, mud-plantain had been fairly dominant on the Gallia County Ohio River mudflat, now the entire mudflat was filled with purple loosestrife. A plant species known to be rare in Ohio had become more rare.

Working with the US Fish and Wildlife, one day of a Sierra Club service trip to the area was spent pulling up huge plants of purple loosestrife from old-field areas on Middle Island.

The gazebo at Leith Run Recreation Area provides a view of the Ohio River backwater and mudflats. Wildlife watchers may be initially dazzled by the display of rose-purple but when they realize the implications, the saying "Beauty is as beauty does" may come to mind.

This kind of beauty is so detrimental to wetlands and wildlife that it is possible more money and effort have been put into trying to fight purple loosestrife than any other non-native, invasive plant species.

Dr. Bernd Clossey at Cornell University worked with European botanists to identify an insect that would feed only on purple loosestrife in its home country. Extensive testing was done to ensure that the target species was the primary food and the insects would survive in our climate so they would be relatively easy to rear in captivity for release in large stands of loosestrife. After approval by the U.S. Technical Advisory Group, a couple of species of beetles have been reared and released in Minnesota, Indiana, and Illinois. In 2000, the same species of beetle was released at Leith Run but so far they have not reproduced sufficiently to have an impact.



Hand pulling is the most effective means of control although fragments of the rhizomes may be the starts of new plants. Plants should not be pulled if seeds have started to mature because of the likelihood they will be scattered. Pulled plants should be bagged and sent to the landfill so that small pieces don't inadvertently act as starters.

Purple loosestrife leaves are opposite or may be in whorls of 3 on the herbaceous stiff square stem. Plants grow to be 3-5 feet tall with spikes of rose-purple ½-1 inch 6-petaled flowers. Since they flower from June to September, they are easily identified.

Since one plant may produce a million seeds in one season the potential for purple loosestrife to spread quickly is fearsome.

For this reason, substituting blazing star, false spirea, cardinal flower, obedient plant or salvia in our gardens would be wise. The supposedly sterile version of purple loosestrife still sometimes found in nurseries has been found to cross-pollinate with established plants to produce viable seed and perhaps an even more vigorous strain. Plants of this species from landscapers may struggle in the flower garden but in a wetland, they are limited only by the size of the area.

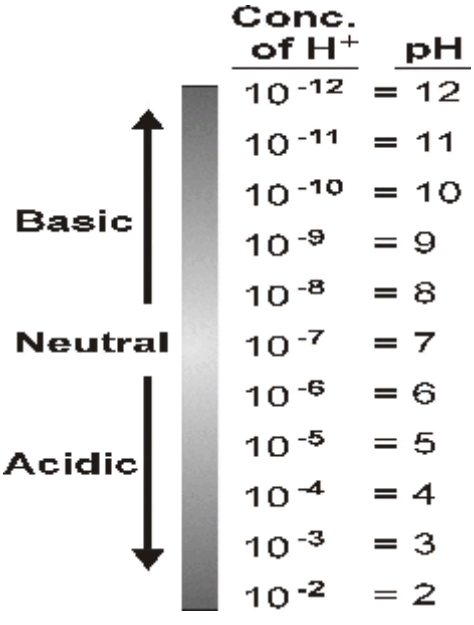
And if you see a clump in a roadside ditch, pull it and bag it! As with all invasive non-native plant species, eternal vigilance is the word.

The Basics (and Acidics) of pH

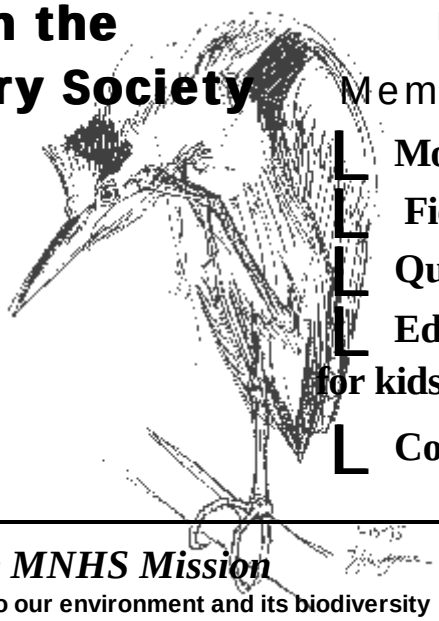
A point of much confusion about pH is the relationship between pH value and the concentration of hydrogen ions (H^+) that it measures. Let's try to sort it out. Sorry, but this will require some math...

In absolutely pure water, the H^+ concentration equals 10^{-7} Molar (we'll gloss over the Molar part; basically, it's a technical measure of concentration of dissolved substances). 10^{-7} is a very low concentration, but for H^+, its strictly 'middle-of-the-road' and declared to be the neutral. In the abbreviation 'pH', the 'p' stands for the 'negative logarithm', in this case, of the hydrogen ion concentration (H). Since the logarithm of neutral H^+ is 10^{-7}, its 'p' value is '7'; or mathematically, $p(10^{-7}) = 7$.

Thus, in the world of mathematical relationships, as H^+ concentration increases, the pH value decreases: 10^{-6} = pH 6, 10^{-5} = pH 5, etc., and the condition is said to be increasingly acidic. As the H^+ ion concentration decreases below 10^{-7}, the pH values increase and the condition is said to be increasingly more basic. In general, soil pHs tend to lie in a range between 5.5 and 8.3; acidic precipitation often has a pH 4 and 5, but extreme values below 3 have been recorded.



Invite a Friend to Join the Marietta Natural History Society



Wood Thrush — Individual	**$15**
River Otter — Family	**$25**
Monarch — Friend	**$50**

Why not give a gift membership?

Mail check to address given below

Benefits of Membership

- **Monthly programs**
- **Field trips**
- **Quarterly newsletter**
- **Educational experiences for kids and adults**
- **Conservation Projects**

The MNHS Mission

- To foster awareness of and sensitivity to our environment and its biodiversity
- To provide a place where people with these interests can gather for information and activity
- To create a presence in our community representing these ideas

Marietta Natural History Society
P.O. Box 1081
Marietta, Ohio 45750
(740) 373-5285