



Marietta Natural History Society

Summer 1998 Newsletter

Land Rescue Before and After Reclamation

Thursday, July 9, 6:00 PM

*Meet at the Hermann Fine Arts Center
parking lot at Marietta College*

Leader: Pat Feeley

Pat Feeley, Civil Engineering Technician for NahRAC Resources Conservation Service, will lead us on a field trip to an abandoned stripmine near Lower Salem.

We will see an unreclaimed stripmine and the condition after reclamation has occurred. We will learn about problems generated by abandoned stripmines and the suitability of the reclaimed lands for wildlife. Wear walking shoes and dress according to the weather.



GRINDSTONE COUNTRY

*Thursday, August 13
6:00 PM, Meet at the
Hermann Fine Arts Center
parking lot at Marietta College*

Leader: Brad Bond



A Field trip

The grindstone industry is one of the oldest in Washington County. Brad Bond, a local authority on the history of this once-thriving business, will take us to an actual quarry where we can have a glimpse into the past. Wear walking shoes and dress according to the weather.

Night Hike

Thursday, September 24, 6:30 PM

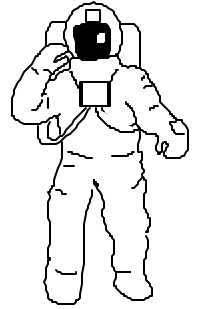
**WWNote: This is 4th Thursday of MonthWW
Meet at Hermann Fine Arts Center Parking Lot**

Leader: Lynn Barnhart

Lynn Barnhart, a local naturalist, will lead us on a hike that will sharpen our senses to the sights and sounds of the night. A great experience for kids and adults. Wear walking shoes and dress according to the weather.



The Internet to the Stars! Learn about the Universe—near and far. The NASA StarChild site is packed with 'star-stuff' for adults and children, including lessons on the universe, puzzles and biographies of famous astronomers. Check out this award winning site at <http://www.starchild.gsfc.nasa.gov>. While you are away, don't forget to look back at the Earth every now and then. The web site called "Earth from Space: An Astronaut's Views of the Home Planet" features over 350 beautiful photographs of the earth taken by Space Shuttle astronauts. Find it at <http://www.jcs.nasa.gov>.



Local Study Finds Possible Lasting Effect of Clearcut Logging

Logging, especially on public lands such as Ohio's Wayne National Forest, has been a regular source of controversy in recent years. Of the various logging methods employed, what foresters call "even-aged management", commonly known as "clear-cutting", has been the clear-cut winner in generating public opposition. Although most of the public antipathy to clear-cutting is based on its aesthetics, biological concerns have also been expressed. These center on the effects of clear-cutting on forest attributes such as amphibian diversity, migrant bird habitat loss, etc.

In 1992 a paper appeared in the journal *Conservation Biology* [Duffy, D.C. and A.J. Meier. 1992. *Do Appalachian herbaceous understories ever recover from clearcutting? Conservation Biology 6:196-201*] which suggested, based upon field studies conducted in the southern Appalachians, that clear-cutting has a long-lasting deleterious effect on the diversity of plant species in the herbaceous layer of hardwood forests. Since I had been visiting a recently clear-cut area, adjoined by mature forest, in a survey of bird species diversity, I decided, in the Spring of 1996, that I would like to see for myself by studying the herbaceous layer in my bird study area.

My study area is located on Wayne National Forest land east of Marietta between Pine Ridge and Dart (Lawrence Twp.). Two adjoining areas were studied. First, an approximately 12 acre slope clearcut in 1990 and

since allowed to reforest. Second, an equal-sized stand of mature timber on the same slope. Before cutting, the two stands were very similar in tree age and composition, dominated by oaks.

From April 25 to May 30 (this was research for a graduate school class too) I thoroughly searched the ground layer of both areas for flowering herbaceous species and for ferns. All species found were identified and recorded.

The results? Sixty-nine (69) species of flowering plants and ferns were identified, representing 35 plant families. Fifty-four species were found in the mature forest; only 35 species in the clearcut. Twenty species were found in both stands, so the mature forest held 34 species NOT found in the clearcut. The clearcut DID contain 15 species not found in the forest, but they were mostly common "weedy" species such as Yarrow and Ground Ivy.

To use percentage terms, it appears that, 6 years after clear-cutting, 63% of the mature forest herbaceous species are not to be found in the clearcut stand. Those species are largely the ones requiring a shaded moist environment to survive, such as the Maidenhair Fern and Indian Cucumber Root. Will they ever return to the clearcut area? Only time will tell.

Duffy and Meier compared the herbaceous layers of "old-growth" or "virgin" forests to forests known to have been heavily logged 80-120 years previously, but undisturbed since. They concluded that the logged forests had

NOT recovered the diversity of herbaceous species they presumably once had. My study, in contrast, compared a recent clearcut to a forest more comparable to their logged ("second-growth") forest. This suggests that even if the clearcut eventually returns to the species diversity seen in the "mature" stand, BOTH stands may be less diverse than the forests of Washington Co. 200 or more years ago. The fact that the forest in my study is secondary, with old roads obvious to view, does offer some hope that the clearcut might someday return to the level of species diversity seen today in the neighboring mature forest. I hope to return periodically to test this hypothesis.

— Bob Scott Placier, School of Natural Resources, Hocking College, Nelsonville, OH

Correction —and addendum

In the previous newsletter it was incorrectly reported that the total area of the Marietta Unit of the Wayne National Forest was approximately 60,000 acres. This is actually the area of lands owned by the Forest Service, whereas the total area (that which includes privately owned lands) is approximately 275,000 acres. The following is a breakdown of land ownership in the Marietta Unit by county:

Privately owned: (67%)
Washington: 88,294 acres
Monroe: 118,757
Noble: 5143
Forest Service owned: (23%)
Washington: 38,589
Monroe: 24,097
Noble: 388

July 1998

Sun	Mon	Tue	Wed	Thu	Fri	Sat
			1 E	2	3	4 Independence Day
Bull & Green Frogs Concerting In Wetlands						
5	6	7	8	9 A MNHS Field Trip 6:00 PM	10 Listen For Nighthawk Calls In Evenings	11
Tree Frogs Chirping in Back Yards						
12 Goldfinches Gathering Thistle Fluff For Their Nests			15 Look For Hummingbirds Hovering Around Trumpet Creeper Flowers	16 X	17	18 Look for Wasps Making Paper Nests
19 Insect Night Chorus Tuning Up	20	21	22 Gregor Mendel Born 1822	23 Δ	24	25
Look For Monarch Butterfly Caterpillars Feeding On Milkweed L.						
26 Butterfly Gardens Are In Full 'Wing'	27	28	29	30	31 E	

Dates To Remember

June 20— Ohio River Sweep. To volunteer, call 1-800-359-3977

August 3— River Islands Refuge meeting. In council Chambers, Parkersburg

August 4— River Islands Refuge meeting . In Marina Building, St. Mary's.

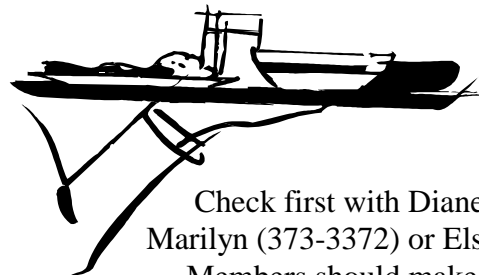
September 1998

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		1	2	3	4	5 County Fair Begins
Monarch Butterflies Are Frequenting New England Asters						
6 A	7 Labor Day	8	9	10 ***** See 9/24 *****	11	12 X Migration of Green Darner DragonFlies
County Fair						
13	14	15	16	17 5:30 AM Find Mars Left Of Crescent Moon	18	19
Robins Love Those Pokeberries!						
Swallows and Purple Martins Gather On Utility Wires For Fall Migration						
20 Δ	21 Monarchs On Way To Mexico	22 Autumn begins	23	24 MNHS FIELD TRIP 6:30 PM	25	26
27	28 E	29	30 Nighthawk Migration Begins			

August 1998

Sun	Mon	Tue	Wed	Thu	Fri	Sat
Watch for the Perseid Meteor shower over several consecutive nights and peaking the morning of the 12 th . This comet is a remnant of the Swift-Tuttle comet that appeared in 1862.						1
2	3	4	5 Neil Armstrong 68th Birthday	6	7 A	8
Look For Franklin Trees In Flower						
9	10	11	12 Watch For Early Goldenrod	13 MNHS FIELD TRIP 6:00 PM	14 X	15 Cattails Have Reached Full Height
16	17	18 Meriwether Lewis Born 1774	19	20	21 Δ	22
23	24	25	26	27	28 Songbird Fall Migration Begins	29 E
Check Out Those Thistle Plants!						
How Many Insects Can You Find On The Plants?						
30	31					

You can have
Dinner with the speakers
5:00 at the Levee House



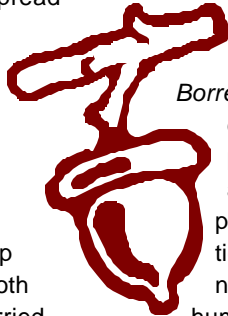
Check first with Diane (373-8031), Marilyn (373-3372) or Elsa (373-5285). Members should make their own reservations.

Acorn, Gypsy Moth and Lyme Disease Connection

Oak trees, a major target of gypsy moth damage, may forestall spread of these insect pests by producing a bumper crop of acorns. So a recent study [Clive et al. (1998) *Science* 279:1023] suggests. More acorns mean more mice — mice that munch happily on pupae of gypsy moths and help control the size of the gypsy moth population. The study was carried out in upstate New York in 1995, a year when mice were particularly plentiful. The scientists removed mice from 3 forest plots and found 45 times more gypsy moth pupae and egg masses than in control plots. The connection was also tested with the

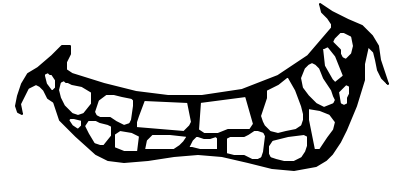
service of local Girl Scouts who helped spread 3500 Kg (that's almost 4 tons!) of acorns on experimental plots. As predicted, the mouse populations surged when this favorite food was abundant. Although many factors influence the size of gypsy moth populations, mice could serve as an important natural control.

Now the bad news. The scientists also found mice in acorn-augmented plots harbored 40% more deer tick



larvae, the notorious vector of Lyme disease. Not surprisingly, acorns also attract deer, and deer carry deer ticks and *Borrelia*, the bacterial agent of Lyme disease. These are readily passed to white-footed mice, also a natural reservoir of the pathogen. More mice mean more ticks. And while the study did not measure actual instances of human infection, more ticks may mean a greater risk of Lyme disease.

Other scientists note that confirming an acorn—Lyme disease linkage will require much more research. Nevertheless, the findings underscore how the complexity of ecosystems may long foil human attempts at manipulation. Gypsy moths, like so many other pest organisms, were introduced into new ecosystems through human actions and all strategies to date have been notably unsuccessful in halting their spread. We are also forewarned of unsought consequences of human intervention. It is now conceivable that some strategies aimed at controlling gypsy moths or Lyme disease might have opposite effects on the other. Human meddling has so entangled webs of many ecosystems, and we lack yet the wisdom to unravel the knots.



Dental Records of Another Kind

The Radiation and Public Health Project in Collaboration with the Nuclear Information Resource Service is coordinating the "Tooth Fairy Project." They request children's baby teeth be sent for a national scientific study of how much Strontium-90 is entering bones at a given location and time. Sr-90 is deposited along with calcium in bones and teeth. Most of the strontium in baby teeth is transferred to the fetus by the mother during pregnancy.

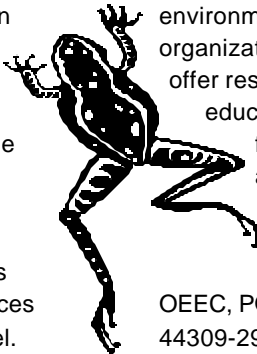
By knowing when and where the mother carried and the baby was born, the level of Sr-90 exposure at that time and place can be determined.

If you or parents you know have children in their baby-tooth-losing stage and are willing to participate, envelopes can be obtained by calling 1-800-582-3716. The envelopes include a form for recording the vital information. Only one child's tooth can be included per envelope for the study to be accurate, but you can send in separate envelopes multiple teeth from the same child.

MNHS is in State Education Resource Directory

The MNHS is one of the many groups listed in the Directory of Ohio Environmental Education Sites and Resources, developed by the Ohio Environmental Education Council and the Ohio EPA. The MNHS is included in section I which identifies local Environmental Education resources. Section II provides an extensive listing of resources available at the statewide level.

These include ODNR, OEPA, and other government agencies, environmental groups, industrial organizations, and other groups which offer resources on environmental education. It's a great resource for finding goals, names and addresses, and other information about EE resources in Ohio. Copies are available from the OEEC, PO Box 2911, Akron, OH 44309-2911, (330)225-2261, and the Washington County Public Library.





Natural History Question?

Do you have a question about our local natural history? Submit it to the Newsletter editor and we will print it with an answer from local experts.

Suggestions, Comments or Contributions for the MNHS Newsletter?

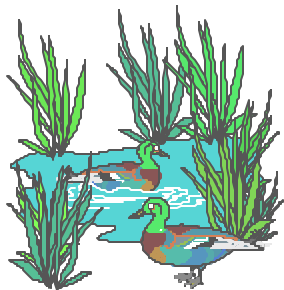
Send them to the Editor:

625 5th St
Marietta, OH 45750
374-8778
spilatr@s@marietta.edu

Field Checklist of Birds of Ohio

The Ohio Department of Natural Resources, Division of Natural Areas and Preserves, in collaboration with the Ohio Birds Record Committee, has prepared a checklist that includes every bird species documented in Ohio. The checklist also includes other useful information, such as last sighting of rare species and which species are confirmed as breeding in Ohio. You can help the DNAP maintain its comprehensive database of Ohio's Biota by using the checklist when you go out into the field and reporting back any unusual sightings. The cost is 50¢ per checklist; a minimum order of 10 through the mail is \$5.00. Send check or money order to:

ODNR, Natural Areas and Preserves
1889 Fountain Square, BLDG. F-1
Columbus, OH 43224



Local Residents Being Asked To Help Develop River Islands Refuge Plan

The U.S. Fish and Wildlife Service (FWS) is starting work on a long-term plan for the Ohio River Islands National Wildlife Refuge. The goal is to prepare a plan for managing the refuge and protecting the unique diversity of life that exists within it over the next 10 to 15 years. Local residents are being given the chance to provide input through a questionnaire and a series of meetings this summer.

The Ohio River National Wildlife Refuge (ORNWR) was established in 1990, and presently embraces 19 islands, stretching over 430 river miles. As local residents know, two Ohio River islands occur in our immediate area: Buckley Island, which Rt 77 bridges, and Muskingum Island, just down river and the site of a MNHS field trip in 1995. Only Muskingum Island currently is part of the islands refuge system; however, this plan is likely to effect future use and management of both islands. Eventually, the refuge may encompass as many as 35 islands and thousands of acres of embayments and wetlands along the Ohio River.

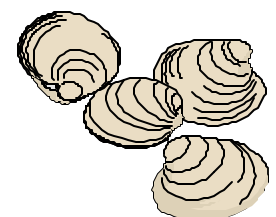
As it plans the future of the ORNWR, the FWS necessarily confront a number of challenges such as conserving fish and wildlife and their habitats, protecting private property rights and the local economy, and providing opportunities for recreation, education, and access. Input from local residents will be important as the FWS seeks to balance these often-opposing goals.

You can help by filling out an issues questionnaire (a copy can be obtained from the MNHS Board members or the Newsletter Editor) and mailing it to the FWS, and/or attending one of the public meetings scheduled for our area. Some of the key questions to which residents are asked to respond include:

- ! What do you consider to be the most important problem facing the Ohio River today?
- ! What do you value most about the Ohio River?
- ! What are your major concerns about existing wetlands and embayments along the Ohio River?

If you missed an opportunity to attend public forums in Marietta and Belpre in June, other meetings will be occurring in Parkersburg on Monday, August 3 in the Council Chambers, One Government Square, and in St. Mary's on August 3, in the Marina Building. Each meeting will include an Informal Open House with displays and an opportunity to meet representatives of the FWS from 2:00 - 5:00 PM. A Public Information Meeting with then take place from 6:30-9:00 PM. This is the chance for you to have your voice heard. For more information, contact:

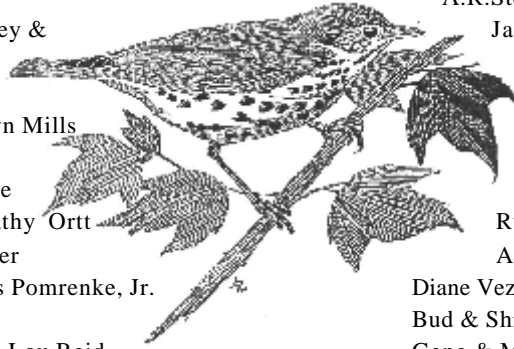
Jerry Wilson, Refuge manager
Ohio River Islands NWR
P.O. Box 1811
Parkersburg, WV 26102-1811
(304) 422-0752



The Marietta Natural History Society -- Membership, 1998

Richard Allen
Mr. and Mrs. Norman Baker
Lynn Barnhart
Howard & Luella Beale
Brad & Bar Dee Bond
Bill Book
Ava Bradley
Christine Broyles
Wes Clarke
Diane Dudzinski
Nancy Ezzard
Tom & Sharon Fenton
Margaret & Roland
Fredericks
Gillian & Dan Harrison
Karen Hunsaker
Dawn Inabnet
Elin & Arthur Jones

Flo Kim
Jane King
Jody Kohler & Jim Wright
Doug & Ethel-Marie LaVasseur
Kurt Ludwig
Dave McShaffrey &
Ann Delleur
Laurie Meagle
James & Marilyn Mills
Diane Mitchell
Jim & Gwen Noe
Marilyn and Kathy Ortt
Bob Scott Placier
Audrey & Louis Pomrenke, Jr.
Roberta Reese
Russell & Anna Lou Reid
Kenneth Sisco &
Cindy Yoho



Steve, Jane, Michael &
Daniel Spilatro
Tom Steckel
A.R.Stoltenberg
Jay & JoAnn Stowe
Barbara Tabor
Bob & Marilyn Taylor
Bill & Elsa Thompson
William Thompson III &
Julie Zickefoose
Ruth Thorniley
Almuth Tschunko
Diane Vezza
Bud & Shirley Voelker
Gene & Melanie Wagner
Anita Wall

Please notify a Board member of any omission

The MNHS Vision

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



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