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Environmental Education Council of Ohio

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Number 1

Winter 2004-2005

Watch your Mail for Registration Materials

38th Annual Conference

Meet us in Marietta!

Spring comes early this year! The EECO Annual Conference – a high point in the year for many EECO members and other formal and nonformal EE providers – is not far away!

This year's theme – **Confluence of Rivers, Industry, History and Ecological Systems** – reflects the Marietta area's uniqueness and the important role it has played in Ohio for more than 200 years. The conference will take place **March 18-20** at Washington State Community College. Lodging will be at nearby hotels. A number of interesting field trips to area natural and historic sites are planned.

Conference strands include:

Confluence of Responsibility and Stewardship.

- Partnerships for waste management, pollution control, economic development, and recreational planning.

Confluence of Rivers and History

- The influence of river ecology on Ohio history.

Confluence of Education and the Environment

- Meeting the new science, math & language arts standards with environmental education activities.

Early bird registration will be \$70/(member), \$95/(non-member)

Hotel: \$59/night per room, continental breakfast included

Costs for other meals and field trips vary.

Many old favorites – like the Silent Auction, Make-It – Take-It, great keynoters, and super concurrent sessions – are planned. Recharge your winter-weary spirit and reconnect with friends!

More information is headed for YOUR mailbox!



Historic Downtown Marietta, Ohio

A word from the President...



Laura Busby

You are invited to attend EECO board meetings. Our next meeting is a “retreat” scheduled to be held at Ashland University Friday evening, January 7 through the afternoon on January

8. Please contact me or our executive director at director@eeco-online.org if you plan to attend.

The next year holds many exciting events and activities for EECO members and for the organization itself. Major undertakings

include strategic planning, our fabulous annual conference in Marietta in March, other workshops and conferences, and expanding our member benefits through new membership sections. These will be some of the topics at our January meeting.

As the “new” EECO, we will begin our strategic planning process with an emphasis on environmental education needs throughout the state. Similar to the EE 2000 strategic plan, the goal will be to look beyond EECO’s organizational needs to a broader perspective for Ohio environmental education. We currently provide services to K-12 formal and nonformal educators, but hope to expand our services for adult audiences, the business community, environmental organizations, community-based groups, universities, the general public, and other underserved audiences. This is indeed an exciting and challenging undertaking that will involve work in many areas and many vol-

unteers. Please let me know if you have an interest or expertise in strategic planning and want to be a part of this process!

March 18 – 20, 2005 EECO will host our annual conference in beautiful Marietta, Ohio. I hope you can join us to get new ideas, replenish our spirits, meet new colleagues, and enjoy the company of old friends at the *Confluence of Rivers, Industry, History, and Ecological Systems* Conference. This year promises to be one of our best conferences ever!

As I listened to Mr. Bob Terwilliger spin a tall tale around the campfire at the 101 Conference at Camp Kern in October, I

found myself gaining momentum and invigoration for the valuable role I can play as a conservation educator. You can experience this “pick me up” and group camaraderie in a more intimate atmosphere at the *Winter Snow – Out We Go* conference February 11 – 13th, 2005.

Lastly, we are planning to develop new member sections within EECO. Similar to NAAEE (North American Association for Environmental Education), EECO members will be able to sign up for a section that represents their professional area of interest or activity. Please let us know your ideas for how this new benefit could best meet your needs.

Check out our informative new web site for more information on these activities at www.eeco-online.org.

Have a safe and happy holiday season!

...we will begin our strategic planning process with an emphasis on environmental education needs throughout the state...

Dan Kush Education Fund Established

Many readers of the EECO Newsletter knew Dan Kush, a water quality educator with the Ohio Department of Natural Resources's Division of Soil and Water Conservation. And many of you know that, sadly, Dan was killed in a car accident last December. Dan never knew a stranger, and if you knew Dan, you were his friend. He was an avid outdoors enthusiast, and loved to share his knowledge (especially of aquatic critters and their habitats) with people of all ages.

Appropriately, an educational fund has been established in Dan's honor. The Dan Kush Gwynne Conservation Area Educational Fund will be used for the development and implementation of educational programs, exhibits, and displays about natural resources and conservation management at the Farm Science Review's Gwynne Conservation Area. Dan, as a key member and past chairman of the Gwynne Conservation Area Committee, was instrumental in helping establish the conservation area.

A tree planting ceremony dedicating the fund was held at the Gwynne during the Farm Science Review. Dan's wife, Jane, received a plaque in Dan's memory during the ceremony, which was well attended by Dan's coworkers, friends, and admirers.

Contributions to the Dan Kush Fund can be mailed to Farm Science Review, 232 Ag Engineering Bldg, 590 Woody Hayes Dr., Columbus OH 43210. Contributors are asked to place the development fund number 311780 on donation checks. For more information, call 614-292-4278.



Healthy Water, Healthy People Moving Forward



Healthy Water, Healthy People (HWHP) is an exciting new national curriculum on water quality monitoring from the creators of Project WET and Hach Scientific. Classroom and outdoor activities are designed for grades 6-12. The HWHP Educators

Guide has 25 classroom activities to introduce students to data collection and interpretation, sampling methodologies and the causes and consequences of water pollution. The HWHP Test Kit Manual provides background information on testing water quality parameters such as alkalinity, conductivity, dissolved oxygen, nitrates and phosphates. The two books can be ordered directly from the HWHP Web site www.healthywater.org for \$40, or at a discount from Ohio Environmental Protection Agency (EPA) for \$30 (\$18 Educators Guide and \$12 Test Kit Manual). It is not necessary to attend a workshop to order the materials.

Recently, the Ohio Department of Natural Resources (ODNR) Division of Soil and Water Conservation turned over statewide coordination to Ohio EPA's Office of Environmental Education (OEE). Dennis Clement is the new contact person for HWHP.

"It's Ohio EPA's goal to continue to work with ODNR and other agencies to build on what already has been accomplished by the Division of Soil and Water Conservation," said Clement. "We will be working with trained facilitators around the state to publicize and offer educator workshops, and to schedule a facilitator training in 2005. HWHP activities are also being correlated with the Ohio Department of Education's new Academic Content Standards for science education."

To purchase HWHP materials, to be added to Ohio's HWHP e-mail listserv or for general information, please contact dennis.clement@epa.state.oh.us or Ohio EPA's, Office of Environmental Education, P.O. Box 1049, Columbus, Ohio 43216-1049, telephone (614) 644-2873. Upcoming workshops will be posted on the calendar on OEE's Web at www.epa.state.oh.us/oee/.

Another good reason for EE!

Outdoor learning may lessen ADHD

Activities in "green" spaces such as farms, parks, and even backyards may temporarily quell ADHD symptoms in children, according to a study of 452 parents of children with attention-deficit hyperactivity disorder.

Children were more likely to show improved symptoms in the hour after an outdoor, green activity than after activities performed indoors or in concrete-and-steel settings, according to parents' reports.

The findings, along with past research, have "exciting implications," according to the study authors, Drs. Frances E. Kuo and Andrea Farber Taylor of the University of Illinois at Urbana-Champaign.

They speculate that daily doses of "green time," such as simply taking a greenery-splashed route when walking to school, or playing on grass instead of concrete, could aid in managing ADHD.

Some past research has suggested that natural settings help battle so-called attention fatigue in people without ADHD. This temporary fatigue is thought to develop when people have to work to focus their attention on a task, blocking out distractions from their surroundings; the theory is that natural environments provide respite from this effort, according to Kuo and Taylor.

Attention fatigue, though fleeting, shares characteristics with ADHD, the researchers note. Some studies, mostly in urban areas, have suggested that spending time in green spaces eases children's ADHD symptoms. The researchers reported their findings in the September issue of the American Journal of Public Health. (2004, August 30). Great outdoors may ease ADHD symptoms. *Reuters*. Retrieved December 7, 2004, from <http://www.healthypages.net/newspage.asp?newsid=4527>

New curriculum now available!

Science and Civics: Sustaining Wildlife

Science and Civics: Sustaining Wildlife is a new high school curriculum guide from **Project WILD** that is designed to involve young people in decisions affecting people, wildlife, and the habitat they share.

Ideally, social studies and science teachers work as a team to guide student directed action projects that benefit wildlife. The guide consists of four major components: **Awareness** alerts all students to the effect of human and individual activities on habitat quality and quantity. Both the science and social studies classes work together on this part. **Participatory Democracy** develops principles related to government structures and is appropriate for government and civics units of social studies courses. **Habitat Exploration** studies biotic and abiotic parameters of a site and is appropriate for both ecology and environmental science units of science courses. **Taking Action** guides both classes together again in designing, implementing and communicating about their own action projects.



To learn more about Science and Civics, contact Jen Dennison, Ohio's Project WILD coordinator, ODNR Division of Wildlife, 2045 Morse Road, Bldg G, Columbus, OH 43229; Tel: (614) 265-6310; E-mail: jen.dennison@dnr.state.oh.us

Or visit the website: www.dnr.state.oh.us/wildlife/resources/projectwild/project_wild.

Be among the first in Ohio to learn about and use these new materials!

Saturday, February 5 (9:00-1:30) & February 12 (9:00-1:00)

This workshop is designed for teams of 9-12 grade Science and Civics teachers in Champaign, Clark, and Miami Counties, and education students from area colleges. The workshop will be held at the Sullivan Road Facility for the Miami County Park District, 8787 Sullivan Road, Tipp City. There's a \$5 fee to cover the cost of morning refreshments each Saturday. Sam Zook and Michael Stewart, Miami County Park District Naturalists and trained facilitators for this new curriculum, will conduct the workshop. For more information, call Mike Stewart at 937-324-3967 or 1-937-667-1086.

Oak Mistletoe

Meet (me under the) *Phoradendron leucarpum*

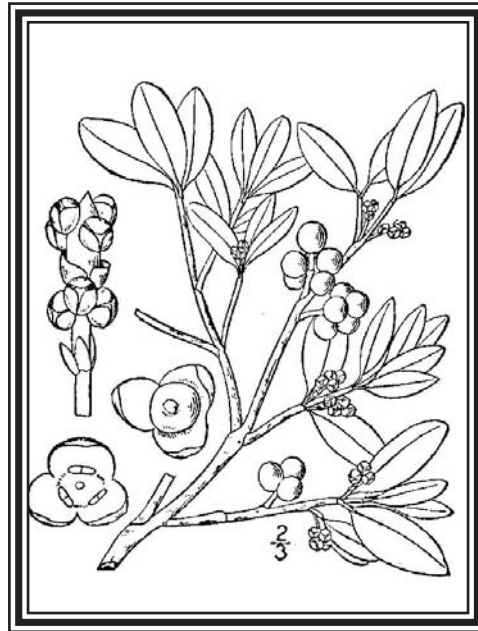
Maybe I've spent too much time in the woods, but the tradition of kissing under the mistletoe (which started in England during the 19th century) is one of the least interesting things a person could know about this plant. (I'll be curious to see if that statement generates any lively debates at the next EECO conference!)

A number of species of mistletoe occur in North America and Europe. The oak mistletoe ranges from New York, south to Florida and west to New Mexico, and occurs in southern Ohio. Mistletoes are epiphytic shrubs (meaning they grow in the branches of trees) ranging from a foot or so tall to two or three feet wide. Their leaves are yellow-green, $\frac{3}{4}$ - 5 inches long, opposite and leathery. Their relatively inconspicuous yellow flowers are only about $\frac{1}{8}$ inch wide and have 3 sepals but no petals. The fruit is a waxy white, 1-seeded berry, much favored by a number of song-birds. All parts of the plant are poisonous to humans.

Mistletoes are parasites that derive water and much of their nourishment from their host plant. In fact, the genus name *Phoradendron* comes from the Greek – *Phor* meaning “thief,” and *dendron*, “tree.” Being green plants they do, however, contain chlorophyll and produce some of their own food. They are considered a pest in many places and can kill their host plant. As you might guess from the common name, this particular mistletoe is fond of oaks, but will also parasitize hackberries, apples, and lindens. Other mistletoes live on a variety of other broadleaf and needle trees.

According to the West Pennsylvania Conservancy's website, the common name “mistletoe” also has some pretty dog-gone

interesting roots. The plant seemingly got its name in the second century from the Anglo-Saxons, whose word “mistel” meant “dung.” Their word for “twig” was “tan” – hence, misteltan or “dung twig” for the bird droppings on tree branches, said bird droppings containing mistletoe seeds. Makes ya want to pucker right up, doesn't it?



There are many myths and legends surrounding mistletoe. Pre-Christian Europeans considered the plant mystical and sacred, as it would seemingly spring from thin air in the branches of trees. The plant was supposedly considered a symbol of healing and used in various ways to cure disease and render other poisons harmless – interesting attributes for a plant that is itself highly toxic. The Druids thought mistletoe magical, and employed it in winter festivals for luck and to

welcome the New Year.

So let's recap: The “dung twig” or “thief tree” plant is a poisonous parasite, considered a pest by many, that will kill the plant that it lives on. Sounds romantic to me!

Sources:

West Pennsylvania Conservancy, www.wpconline.org

Ohio State University Extension
www.enature.com

www.hort.purdue.edu

In mid November, the World Conservation Union, the recognized global watchdog on endangered species, released its list of the world's most threatened wildlife.

At least 15 species have gone extinct in the past 20 years and another 12 survive only in captivity, the union said in a report that accompanies its annual "Red List."

Current extinction rates are at least 100 to 1,000 times higher than natural rates found in the fossil record, the report stated. The data were released as 3,500 delegates gathered in Bangkok, Thailand, for a World Conservation Union conference focused on halting what's considered an extinction crisis.

The report concluded that humans are the main reason for most species' declines. "Habitat destruction and degradation are the leading threats," the union said in a statement, "but other significant pressures include over-exploitation (for food, pets, and medicine), introduced species, pollution, and disease. Climate change is increasingly recognized as a serious threat."

The union, a coalition of leading conservation groups, called the report "the most comprehensive evaluation ever undertaken of the status of the world's biodiversity."



According to the report:

- 15,589 species (7,266 animal species and 8,323 plant and lichen species) are now considered at risk of extinction — an increase of 3,330 species since the 2003 Red List. The increase is largely due to the fact that scientists have finally been able to assess all of the world's amphibians.
- One in three amphibians and almost half of turtles and tortoises are known to be threatened with extinction, along with one in four mammals, one in five sharks and rays, and one in eight birds.
- The numbers of threatened species are increasing across almost all major taxonomic groups.

Craig Hilton-Taylor, who managed the Red List compilation, noted that "although 15,589 species are known to be threatened with extinction, this greatly underestimates the true number, as only a fraction of known species have been assessed."

"There is still much to be discovered about key species-rich habitats," he said in a statement, "such as tropical forests, marine and freshwater systems, or particular groups, such as invertebrates, plants and fungi, which make up the majority of biodiversity."

The entire Red List database is online at:

www.iucnredlist.org

(2004, Nov. 17). Species disappearing at an alarming rate, report says.

MSNBC. Retrieved Nov. 17, 2004, from

<http://www.msnbc.msn.com/id/6502368/>

Think Globally...Act Locally!

Ohio has its share of endangered plants and animals. Learn more about Ohio's endangered mammals, birds, reptiles, amphibians, fishes, mollusks, and insects at

www.ohiodnr.com/wildlife/Resources/mgtplans/endangered.htm

and www.ohiodnr.com/endangered/default.htm You can also check out Ohio's endangered and threatened plant species listings at www.ohiodnr.com/dnap/heritage/Rare_Species2002.htm

Get ready to embrace the season at Winter Snow – Out We Go!

Join fellow educators at Cuyahoga Valley Environmental Education Center February 11-13 for a weekend of learning and FUN! Improve and enhance your skills, whether you are a formal or nonformal educator. This workshop is designed to provide you with hands-on and minds-on activities, ideas and resources. Network with other educators, learn new techniques, and reinvigorate yourself in the heart of the beautiful Cuyahoga Valley National Park!!

Program highlights include keynoters Susan Fowler (Friday evening) and Carolyn Platt, coauthor of "Birds of the Lake Erie Region" on Saturday. Bluegrass band Bucktown Kickback will entertain Saturday evening. A number of indoor and outdoor concurrent sessions are also planned on a wide range of subjects. This annual favorite is cosponsored by EECO, the Cuyahoga Valley National Park Association, and the Ohio Environmental Education Fund.

Cost of the weekend (including lodging, all meals, and educational materials is only \$150 (\$140 for EECO or CVNPA members). A Saturday only registration is also available. For more info, visit www.cvnpa.org or www.eco-online.org.



HEAR YE!

EE Enrichment Opportunities for Winter, Spring 2005



January 19 – **COSI-SECO Earth Science Summit** (Erosion, Geologic Timeline, Astronomy) – COSI Columbus. One-day content-based mini-conference designed to expose elementary - high school level educators to hands-on, real world science. Concurrent sessions emphasizing different topics and grade levels will provide educators with the science understanding and ideas necessary to confidently teach science according to Ohio's Academic Content Standard. \$90 for SECO non-members (includes SECO Membership) or \$70 for SECO members. Includes registration, materials, COSI Admission, Parking. 8:30 am – 4:30 pm. Information/registration (614) 228-2674.

February 9 – **COSI-SECO Physical Science Summit** (Force and Motion, Energy, Engineering), COSI Columbus. *See January 19 above for description.* \$90 for SECO non-members (includes SECO Membership) or \$70 for SECO members. Includes registration, materials, COSI Admission, Parking. 8:30 am – 4:00 pm. Information/registration (614) 228-2674.

Feb. 11-13 – **“Winter Snow, Out We Go”** – Cuyahoga Valley Environmental Education Center (EEC), Cuyahoga Valley National Park, Peninsula, OH. *See page 6*

February 24 – **“Warming Up to Worms” Workshop** – Looking for a way to teach about composting or soil development? Want to reduce the amount of food waste going to the landfill? Then vermicomposting is for you! Participants will receive a worm bin (with worms!), activities to do with your students, Mary Applehof's book *Worms Eat My Garbage*, and all the information needed to care for a worm bin. For information, contact Holly Borer, Hocking SWCD, (710) 385-3016 email: holly-borer@oh.nacdn.net or Gail Doyle, Athens SWCD, (740) 797-9686 email: gail-doyle@oh.nacdn.net

February 25-27 – **Discovering the Wonder of Nature** – Camp Asbury, Hiram. A Hiram College workshop for teachers, naturalists, and environmental educators. Develop the "habits of mind" that accompany naturalist skills and explore ways to develop, teach and promote these skills. Taught by Clifford Knapp, professor emeritus, Department of Teaching and Learning, Northern Illinois U. Clifford specializes in nature education and environmental ethics and authored *Humanizing Environmental Education*, *Lasting Lessons*, and *In Accord With Nature*. Information at 330-569-6003 or email sorrackmw@hiram.edu.

March 9 – **Big, Bold and Beautiful Wildlife** – Aladdin Shrine, Columbus – 2005 Wildlife Diversity Conference hosted by ODNR's Division of Wildlife. Info available at www.ohiodnr.com/wildlife or 1-800-WILDLIFE.

March 18-20 – **EECO's 38th Annual Conference** – Marietta. Confluence of Rivers, Industry, History and Ecological Systems – The EECO Annual Conference is a “must” for your EE calendar! *See page 1 for more info!*

June 20-24 - **Language of Nature** Summer Retreat and Writing Institute at Cuyahoga Valley Environmental Education Center. Whether you are a writer or language arts teacher looking to improve your understanding of nature, a naturalist looking to improve your writing, or someone looking for an inspiring week of self-discovery and renewal, this one's for YOU! Lodging, meals, materials, instruction all for one LOW price. Check www.eeco-online.org for more info.

Have an event you'd like to promote to the EECO membership? Send information on date, time, title and topic, along with a brief summary and contact information to:

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For membership application, please contact Wendy Welsh, Membership Manager. For information about EECO's programs and services, please contact Brenda Metcalf, Executive Director.

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