



Winter 2010/2011
Volume 14
Issue 4



MISSOURI ENVIRONMENTAL EDUCATION ASSOCIATION

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Over 20 in the next 2 weeks and more
on the website

The MEEA Newsletter
is published quarterly by the **Missouri
Environmental Education Association**
Comments or Questions may be directed
to Jan Weaver, 208 Tucker Hall, MU, Columbia
MO 65211 or weaverjc@missouri.edu

President's View by Mike Kromrey

Is MEEA still relevant? Any hope of addressing environmental problems or a more sustainable global society hinges on education, so I think the answer is YES! In Missouri, we are the only non-profit with the specific vision of an environmentally responsible citizenry. As the new board chair, I have a challenge for you. What we need, and what I am challenging you to think about, are ways we can strengthen this organization to promote our worthy vision and mission.

One specific challenge we have been facing is that our once popular conference which generated members, excitement, and revenue, has been dwindling. MEEA is not the only organization to experience this trend, and many factors probably contribute, but how can we adapt? The board has decided to uphold the tradition of the conference by pursuing partnerships with other conferences like STOM. Do you think this is the right track? What else can we be doing? I would appreciate your feedback! (mike.kromrey0@gmail.com)

We have work to do, but I also have good news and accomplishments to report from 2010. We began researching how to align our MEEA certification with the NAAEE standards, and developed a draft of the State Environmental Literacy Plan (ELP), which will be especially useful if/when the No Child Left Inside act passes. We also set up an internal audit committee, a facebook page, and held a workshop on the NAAEE Guidelines for Excellence for EE Materials.

I would like to thank the people who have made this all happen. First, thanks to retiring board member Jenna Rhodes for her 5 years of service and leadership, as well as Eric Arnold and Doug Miller who are also retiring. Thank you to renewing board members John Sode who is serving his second term as secretary, and to Deb Ballin who is the new president elect. I also want to thank past president Nancy Snider, and board members Andrea Putnam and Carol Mahan who will both continue for another year. Our new board members are: Karen Armstrong, Kirksville; Kim Garbs, O'Fallon; Heather MacCleoud, Jefferson City; and Sharon Ruhnke, the St. Joseph area. And last but not least, thanks to our executive manager Jan Weaver.

Congratulations and welcome MEEA team 2011! Don't forget to send me your ideas... mike.kromrey0@gmail.com

Sincerely

Mike Kromrey
2011 MEEA President



NAAEE 40TH ANNUAL CONFERENCE

Raleigh-Durham, North Carolina • October 12-15, 2011

NAAEE Conference
October 12-15,
Raleigh Duram, NC
Call for Presentations
February 1, 2011
<http://www.naaee.org/conference/call-for-presentations>

Statewide Conferences and Workshops

- January 6-8 - Great Plains Growers Conference - Missouri Western State University, Fulkerson Center, St. Joseph, MO - <http://greatplainsgrowers.org/>
- January 22 - Missouri Votes Conservation 9th Annual Statewide Environmental Summit - 9:00 am to 3:30 pm, Anheuser Busch Natural Resources Building, MU, Columbia - <http://movotesconservation.org/MVCEFsummit.aspx>
- January 28 or 29 - Landscape Design with Missouri in Mind - 8 am to 3:30 pm, Lee's Summit, \$25, 28th for landscape professionals, 29th for enthusiasts - <http://www.grownative.org/about/events.asp>
- February 2-4 - The Human Element, Missouri Natural Resources Conference - Tan-Tar-A Resort, Lake of the Ozarks - <http://www.mnrc.org/index.html>
- February 10-12 - Missouri Organic Association Annual Conference - Ramada Oasis Conference Center, Springfield - <http://www.missouriorganic.org/Events/MOAAAnnualConference.aspx>
- February 25 or 26 - Landscape Design with Missouri in Mind - 8 am to 3:30 pm, Lee's Summit, \$25, 25th for landscape professionals, 26th for enthusiasts - <http://www.grownative.org/about/events.asp>
- February 24 - 26 - Interface A Grades K-6 - Annual MO Department of Elementary and Secondary Education Science and Math Professional Development Conference, Tan-Tar-A, Osage Beach - <http://dese.mo.gov/divimprove/curriculum/conference/>
- February 27- March 1 - Interface B Grades 7-12 - Annual MO Department of Elementary and Secondary Education Science and Math Professional Development Conference, Tan-Tar-A, Osage Beach - <http://dese.mo.gov/divimprove/curriculum/conference/>
- March 8-11 - Missouri Park and Recreation Association Annual Conference: Take Me Out to Play -St. Louis Hilton - <http://www.mopark.org/>
- March 28-30 - Joint Meeting MO American Water Works Assoc and Missouri Water Environment Association - Tan-Tar-A Lodge and Resort, Osage Beach - <http://www.mwea.org/index.html>
- June 6-8 - Missouri Recycling Association - Radisson Hotel, Branson, submission deadline April 8 - http://www.mora.org/conference/upcoming_conferences

Membership Report (includes renewals due)

- **December 2010:** 151 members (6 students, 7 retirees, 5/12 institutional, 125 professional, 1 lifetime)
- **November 2010:** 148 members (6 students, 6 retirees, 7/14 institutional, 122 professional)
- **October 2010:** 149 members (6 students, 6 retirees, 7/14 institutional, 123 professional)
- **Welcome to New Members!** Larry Henneke, Columbia Career Center; Christine Jones, Chillicothe Middle School, Chris Murakami University of Missouri
- **Thanks to Renewing Members!** Catrina Adams, Missouri Botanical Garden; Deb Ballin, St. Joseph Public Schools; Loring Bullard, Watershed Committee of the Ozarks Springfield (Inst); Susan Flowers, Washington University Science Outreach; Kim Garbs, O'Fallon North H.S.; Michael Kromrey, Watershed Committee of the Ozarks Springfield (Inst); Jim Lubbers, MO DNR Jefferson City (Lifetime); Carol Mahan, MDC Rolla/Ozarks; James Sandfort, MDC Parkway Outdoor School; Nancy Snider, MDC St. Louis; Jan Weaver, MU Environmental Studies; Jennifer Wellman, Eldon H. S.
- **Renewals Due (if your name is listed by mistake, please email weaverjc@missouri.edu and I will correct the records):**
- **December** - Nadine Ball, Thomas Ball, Kathleen Bockhorst, Ollie Bogdon, Jack Bowels, Tom Bratkowski, Colleen Crank, Nikki Davenport, Jim Denner, Loring Diefenbacher, Li'Anne Drysdale, Jean Ducey, Matt Garrett, Melvin Johnson, Jaclyn Johnson, Gail Johnston, Liz Lyons, Tori Mack, Judy Mitchell, Sarah Moonier, Kim Petzing, Cassandra Phillips, Nandini Rmaswamy-King, Susan Richmond, Katy-Mike Smaistra, Priscilla Stotts, Gayla Tippet- Auten, Dick Turner, Lurinda Turner, Jim Wilson, Katie Zimmer.
- **November** - Aileen Abbott, David Bruns, Lorna Domke, Donna Dupske, Bridget Ebert, Sam Faith, Jamie Hubert, Bridget Jackson, Jim Jordan.
- **October** - Denies Bumb, JoAnn Carnagey, Anna Clausen, Kelly Coiner, A. D. Daniels, Kara Debacker, Kelbie Fries, Jennifer Fry, Melida Gutierrez, Joe Kleiber, Nicole Knipmeyer, Eileen McManus, Norma Neely, Ruth Anne Parrant, Shanna Raerker, Jan Sassman, Hammons Schanda, Nancy Schanda, Sarah Schmitt, Cathy Wissehr
- **September** - Bobby Jamison, Retha Meier, Andrea Putnam, Bernard Rodgers-Hill, Pamela Rodgers-Hill, Trudy Swan, Diane Swift, Joan Twillman

RENEW your MEEA Membership TODAY! - ONLY \$15 Professional or \$7.50 Student/Retiree

at <http://www.meea.org/membershippaypal.html>

or send check + changes in contact information to Jan Weaver, 208 Tucker-MU, Columbia MO 65211

Environmental & Environmental Education News

EPA Enforces Pollution Reduction in Missouri

The EPA listed a long term clean up of Kansas City's sewer system and the installation of air pollution equipment in a Pevely glass manufacturing company as benefits of its civil enforcement activities in Missouri.
http://www.epa.gov/region07/enforcement_compliance/end_of_year_10_results.htm#state3

Child Nutrition Reauthorization Bill has \$40 million for New Farm to School Program

The bill will offer competitive grants to schools or non-profit organizations to develop purchasing contracts with local farmers, plan seasonal menus, build school gardens, develop hands-on nutrition education, and develop solutions to storage, transportation, food preparation and technical training issues related to local food programs.
<http://www.examiner.com/environmental-news-in-kansas-city/usda-farm-to-school-program-to-receive-40-million>

34 Missouri Public Drinking Water Systems Chronically Fail to Complete Testing

The Department of Natural Resources released a list of 34 public drinking water systems that have failed to complete testing required by law. The drinking water is not necessarily unsafe, but without the data, safety cannot be verified. The 34 systems are only 1.2 % of the 2,800 systems in Missouri. A list is at <http://www.dnr.mo.gov/newsrel/nr10-688.htm>

Department of Natural Resources Invites Earth Day Video Entries from 5th Graders

Missouri fifth-grade teachers are urged to submit student entries in the Missouri Department of Natural Resources' 2011 Earth Day Slogan Contest. Videos should feature the theme "Living Green." An entry form, contest rules and details are available on the department's Website at dnr.mo.gov/earthday/videocontest.htm. Deadline for entry is Feb. 28. The winner will be announced in March. Videos will be featured on the department's Website and displayed at the 17th annual Department of Natural Resources' Earth Day celebration to be held from 10 a.m. to 2 p.m. on Friday, April 29 at the Capitol in Jefferson City. State and federal agencies participate in the event with environmental and educational exhibits and activities.

Sara Parker Pauley New Department of Natural Resources (DNR) Director

The DNR looks after air and water quality, solid waste and is responsible for enforcing many federal environmental regulations in Missouri. It also manages state parks in Missouri. Pauley previously served as a deputy director in DNR from 2001 to 2005, and then worked for Prime-Gen Power and D J Case and Associates before being appointed to the DNR Director's position this month. A Columbia native (Hickman) Pauley has a bachelor's in Journalism and a Law degree from MU and is a lifelong conservationist and avid hunter.
<http://www.dnr.mo.gov/dir-bio.htm>



EE Jobs in the Missouri Region (descriptions are edited to conserve space!)

Natural History Biologist -Missouri Department of Conservation - Northeast Regional Office, Kirksville - Closing Date January 14, 2011 - Under the supervision of the Regional Supervisor, works with staff from Forestry, Wildlife, and Fisheries Divisions to provide management recommendations for the restoration of natural communities and ecosystems. Bachelor's in Wildlife Science, Ecology, Biological Science, Range Management, Botany, Zoology or related field with 3 years progressively responsible professional experience. <https://mdc5.mdc.mo.gov/recruitment/JobDetail.aspx?intPstID=997>

Natural History Biologist -Missouri Department of Conservation - Northwest Regional Office, St. Joseph- Closing Date January 14, 2011 - Under the supervision of the Regional Supervisor, works with staff from Forestry, Wildlife, and Fisheries Divisions to provide management recommendations for the restoration of natural communities and ecosystems. Bachelor's in Wildlife Science, Ecology, Biological Science, Range Management, Botany, Zoology or related field with 3 years progressively responsible professional experience. <https://mdc5.mdc.mo.gov/recruitment/JobDetail.aspx?intPstID=998>

Executive Director - Missouri Pro Vote - Manage daily operations, do fundraising, work with community and labor groups to facilitate policies to build social, economic and environmental justice. Qualifications: demonstrated fundraising success, 5 years experience, experience with boards, working with elected officials, 501 (c) (3), budgeting.
<http://www.missouriprovote.org/executivedirector.pdf>

Green Schools Report Card - Take a short Quiz at
<http://greenschools.net/form.php?modin=53>
and let us know how you did!
weaverjc@missouri.edu



PD Corner: Guidelines for Environmental Education Materials

As part of the National Project for Excellence in Environmental Education, the North American Association for Environmental Education (NAAEE) produced a series of booklets laying out guidelines for preparation of formal and non-formal educators, strands for grades K-4, 5-8 and 9-12, and guidelines for evaluating and preparing EE materials. This PD (Professional Development) Corner provides a summary of the EE Materials Guidelines.

Summary of the EE Materials Guidelines

1. Fairness and accuracy: EE materials should be fair and accurate in describing environmental conditions, problems, and issues and in reflecting the diversity of perspectives on them.

- 1.1 Factual Accuracy
- 1.2 Balanced presentation of differing viewpoints and theories
- 1.3 Openness to inquiry
- 1.4 Reflection of diversity

2. Depth: EE materials should foster an understanding and appreciation of environmental concepts, conditions, and issues, as appropriate for different developmental levels.

- 2.1 Focus on concepts
- 2.2 Concepts in context
- 2.3 Attention to different scales

3. Emphasis on skills building: EE materials should build lifelong skills that enable learners to address environmental issues.

- 3.1 Critical and creative thinking
- 3.2 Applying skills to issues
- 3.3 Action skills

4. Action orientation: EE materials should promote civic responsibility, encouraging learners to use their knowledge, personal skills, and assessments of environmental issues as a basis for action.

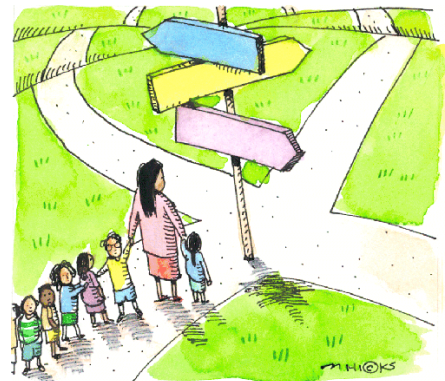
- 4.1 Sense of personal stake and responsibility
- 4.2 Self-efficacy

5. Instructional orientation: EE materials should rely on instructional techniques that create an effective learning environment.

- 5.1 Learner-centered instruction
- 5.2 Different ways of learning
- 5.3 Connection to learners' everyday lives
- 5.4 Expanded learning environment
- 5.5 Interdisciplinary
- 5.6 Goals and objectives
- 5.7 Appropriateness for specific learning settings
- 5.8 Assessment

6. Usability: EE materials should be well designed and easy to use.

- 6.1 Clarity and logic
- 6.2 Easy to use
- 6.3 Long lived
- 6.4 Adaptable
- 6.5 Accompanied by instruction and support
- 6.6 Make substantiated claims
- 6.7 Fit with state or local requirements



The full EE Materials Guidelines (and other booklets) can be downloaded for free from NAAEE at <http://eelinked.naaee.net/n/guidelines/topics/EE-Materials-Guidelines-for-Excellence> or they can be purchased for a modest amount. There is also a workbook for the materials guidelines to help develop understanding of how to use them.

The materials guidelines were prepared by Bora Simmons (Department of Teaching and Learning, Northern Illinois University, DeKalb, IL), Michele Archie (Harbinger Institute, Kapa'au, HI), Terry Bedell (Clorox Company, Oakland, CA), Judy Braus (World Wildlife Fund-US, Washington D.C.), Glenda Holmes (Washington D.C. School District), Mary Paden (Academy for Educational Development/GreenCom, Washington D.C.), Robert Raze (Florida Gulf Coast University, Tallahassee, FL), Andrew Smith, (American Forum for Global Education, New York, NY), Talbert Spence (Cranbrook Institute of Science, Bloomfield Hills, MI), George Walker (Office of EE, US EPA, Washington D.C.), Brenda Weiser (Environmental Institute of Houston, University of Houston-Clear Lake, Houston, TX). Copyright 1996,1997, 1998, 2000, 2004. Educators may photocopy up to 100 copies of these materials for non-commercial educational purposes.

The temptation in winter is to limit occasions outdoors to scraping ice off the windshield, but winter offers some great opportunities to get to know nature. In spring, summer and fall, there are thousands of reptiles, birds, mammals, and insects competing for space, searching for food and advertising for mates. It can be daunting to try and develop the ability to recognize and distinguish among them. In the winter there is a much smaller, but still active contingent of animals. So even a little time hiking (5.4) or making observations out the back window (5.3) can make you a skilled observer of winter species. (Possible connections to Material Guidelines are shown in parentheses - what do you think?)

Seeing Animals: The most important thing isn't to identify the animal using a guide, it is to learn to recognize it whenever you see it. So to begin with, all you really need are your senses, your brain and maybe a notebook to record what you see. Here's how to recognize an animal in seven steps. (1.3, 2.1, 2.2, 3.1, 3.3, 6.2)

1. Look for movement and then find the source of the movement - you have your first animal observation.
2. Get a rough idea of the size of the animal, taking distance into account. Use familiar objects of a comparable size as a measure - a coffee cup or a loaf of bread, your fist or your head.
3. See if there is a pattern to the animal's behavior. Does it fly up, fly down or stay level? Does it leap, scurry and pause, or does it run without stopping? Does it respond to your movement or to sounds you make?
4. See if you can get closer. If it is watching you, move slowly and act casual. For an animal, that means approach at an angle and don't make eye contact or orient your face to it. If it startles, turn away and stop for a bit.
5. Once you are closer, gather more information. Check your estimate of size. Determine the overall color and texture of the fur or feathers. Compare the animal's overall shape to that of an animal you are already familiar with - a dog or cat, or a common bird. Are its legs longer or shorter? Is the head or beak pointier or blunter? Is the body elongate and slender or compact and chunky? Is it making a sound, can you make the same sound? Go over the body, identifying color, size and orientation of different body parts.
6. As you are doing this, repeat in your head the list of characteristics you have put together - size, behavior, color and patterns, and where you found it (tree, shrub, ground, woods, grassy area, on trail, next to a stream, etc.). When you have an opportunity, take a moment to write down your observations or even make a sketch.
7. Once you have the animal's characteristics more or less fixed in your head, then leave it. Continue on and look for a new animal. When you see movement, stop, locate the animal, estimate size, observe behavior, approach, catalog its characteristics, review and record what you observed. Decide whether it is the same kind of animal as one you have already seen. If you can do this, then you have learned how to recognize at least one kind of animal in the field. (4.2, 5.8)

Seeing Animal Signs (1.1): Even if you cannot always see an animal, you can sometimes see animal signs. Tracks are the first thing most people think of. Next to snow, the best place to see them will be in soft soil that takes an impression. Along a stream bank is an ideal place because animals will come there to drink. You can also look for trails made by animals. Deer will make narrow trails in woods or fields traveling between food sources, water and places to bed down. In a grass land, you can find vole or lemming trails by gently separating and lifting grass stems, and looking for tunnels at ground level. In the forest, you can find the trails of shrews by gently peeling back the layers of accumulated leaf litter.

You can also look for signs of feeding and droppings. Deer feed by nipping off the tips of branches, and they leave piles of 50-100 dark finger tip-sized pellets. Mice, voles and lemmings have droppings that are roughly the size and shape of rice grains. Rabbits have rounded, slightly smaller than marble-size droppings packed with plant matter. Carnivores have thumb-sized or larger, compact droppings packed with hair, fur and bones. Omnivores like Raccoons will have the remains of berries in their droppings, and Muskrats will leave piles of clam shells and scattered droppings on the logs where they feed. Squirrels will leave piles of chewed acorns at their favorite feeding spots. Woodpeckers, Flickers and Sapsuckers will drill holes in dead and dying trees for the insect larvae that live under the bark.



Gray Squirrel Drey

Last but not least, you can look for nests or retreats. The easiest to see will be the bundles of leaves and/or twigs in trees that squirrels build (dreys). You can also look for holes along stream banks or the mounds of sticks, mud and leaves made by muskrats and beavers in pools of water.

Guides (6.5)

The Wild Mammals of Missouri 1981 Charles and Elizabeth Schwartz (great illustrations and lots of info on habits)

Birds in Missouri 2001 Brad Jacobs (organized by habitats with great illustrations and useful info)

Winter Birds <http://mdc.mo.gov/nathis/birds/winterbd/>

Missouri Department of Conservation <http://www.mdc.mo.gov/nathis/mammals/index.htm>

Have an idea for a topic? Have a lesson you would like to share? Submissions welcome! 400 to 800 words. Suggest connections to the materials guidelines.

Professional Development Workshops

sorted first by region - NW to SE - then by date; date, title, MEEA Category -(1), (2) or (3) - location - webpage or email
MEEA Workshop Categories - Category 1: environmental education objectives; includes at least three activities; furnishes background information; supplies resources or references; incorporates a glossary; and includes an evaluation. These workshops must be approved by MEEA. **Workshops already approved for college credit are automatically approved for Category 1 Workshops.** Category 2: structured outdoor experiences. Category 3 : EE resources. Some workshops may have fees. College credit courses will have tuition fees. Some workshops have pre-registration deadlines, act quickly if you would like to attend. Additional workshops at <http://www.meea.org/profdevcalendar.shtml>. Certification Program information at <http://www.meea.org/certification.shtml>

Northwest (Cameron, St. Joseph, Maryville, Trenton)

- April 16 & 17- Learn to Camp (2) - 3:00 pm 16th to 9:00 am 17th, Crowder State Park - 660-359-6473 to register - <http://www.dnr.mo.gov/calendar/public/calendarParksSearchDetail.do?eventId=10144>

Northeast (Hannibal, Kirksville, Macon, Mexico, Moberly)

- nothing at this time, check nearby areas

Kansas City (Blue Springs, Kansas City, Lee's Summit, Liberty, Sedalia, Warrensburg)

- January 8 - Level 2 Volunteer Water Quality Monitoring Workshop (3)- 8:30 am to 5:00 pm, MDC Discovery Room, State Fairgrounds, Sedalia -http://mostreamteam.org/online_level2.htm
- Tuesdays January 11 to Feb 15 - Tree Keeper Workshop (3)- 6:30 to 8:30 pm, Belton Community Center, 16400 N Mullen Road, Belton MO, \$75- registration required; noelle.morris@bridgingthegap.org - <http://www.bridgingthegap.org/egap.php?id=116>
- January 22 - Level 2 Volunteer Water Quality Monitoring Workshop (3) - 8:30 am to 5:00 pm, Math/Science Building, Metro Community College, Maple Woods Campus, 2601 NE Barry Rd, Kansas City, registration required - http://mostreamteam.org/online_level2.htm
- January 22 - Gear Up for Camping (3) - 1:00 to 2:30 pm, Burr Oak Woods Nature Center - <http://mdc.mo.gov/events/location/Burr%20Oak%20Woods/heading/Burr%20Oak%20Woods%20Nature%20Center>
- January 29 - Eagle Days for Teachers(2) - 7:00 am to 3:30, Shell Osage Conservation Area, departing from KC Discovery Center at 7 am to view Eagles, registration required - <http://mdc.mo.gov/education/workshops>
- February 5 - Tracking for Families(2) - 1:00 to 2:00 pm, Burr Oak Woods Nature Center, for families with children 7 and up - <http://mdc.mo.gov/events/location/Burr%20Oak%20Woods/heading/Burr%20Oak%20Woods%20Nature%20Center>
- February 15 - Bird Hike (2) - 8:30 to 10:00 am, Burr Oak Woods Nature Center, all ages - <http://mdc.mo.gov/events/location/Burr%20Oak%20Woods/heading/Burr%20Oak%20Woods%20Nature%20Center>
- February 15 - Conservation Discovery Trunk Training (1) - 5:00 to 8:00 pm, KC Discovery Center, registraion required - <http://mdc.mo.gov/education/workshops>
- February 25 or 26 - Landscape Design with Missouri in Mind (3)- 8 am to 3:30 pm, Lee's Summit, \$25, 25th for landscape professionals, 26th for enthusiasts - <http://www.grownative.org/about/events.asp>

Central (Columbia, Rocheport, Jefferson City, Marshall)

- January 8 - Level 2 Volunteer Water Quality Monitoring Workshop (2)- 8:30 am to 5:00 pm, MDC Discovery Room, State Fairgrounds, Sedalia -http://mostreamteam.org/online_level2.htm
- February 26 - Level 2 Volunteer Water Quality Monitoring Workshop (2) - 8:30 am to 5:00 pm, MDC Resource Center, 1110 S. College Ave, Columbia - http://mostreamteam.org/online_level2.htm

St. Louis (St. Louis, St. Louis Co Cities, Sullivan, Washington)

- January 13 - Native Plant School: Invasive Woody Plants (2)- 1:00 to 4:00 pm, Bascom House Carriage House, Shaw Nature Center, Gray Center - https://www.mobot.org/iebms/coe/coe_p2_details.aspx?eventid=28437&sessionid=fcofanfgpfgkfgmfap&rankid=S
- January 13 or 14 - Control and ID of the "Worst" Invasive Plants (2) - 1:00 to 4:00 pm, Shaw Nature Reserve, Gray Summit, \$15, reservations required - <http://www.shawnature.org/nativeland/NativePlantSchoolHomeownerSeries.aspx>
- January 15 - Level 2 Volunteer Water Quality Monitoring Workshop (3) - 8:30 am to 5:00 pm, Powder Valley Nature Center, 11715 Cragwold Rd, Kirkwood, registration required -http://mostreamteam.org/online_level2.htm
- January 15 - Wind Workshop on Energy and Sustainability (teachers grades 6-12) (1)- 8:00 am to 12:30 pm, 151 Busch Lab, Washington University, Danforth Campus, St. Louis - <http://www.so.wustl.edu/wind.html>
- January 29 - Landscape Design with Missouri in Mind (3) - all day, Mineral Area College, Park Hills
- February 5 - Biomass Workshop on Energy and Sustainability (teachers grades 6-12) (1)- 8:00 am to 12:30 pm, 151 Busch Lab, Washington University, Danforth Campus, St. Louis - <http://www.so.wustl.edu/biomass.html>
- February 18 - Eco-Art: TreeHuggers as a Case Study for Teachers (grades 5-12)(1) - 1:00 to 5:00 pm, Commerce Bank Science Education Center, St Louis- https://www.mobot.org/iebms/coe/coe_p2_details.aspx?eventid=28516&sessionid=fc7fckfg5ei5fh1fgn
- February 19 - Eco-Art: Arts and Science Integration Without Even Trying (teachers grades 5-12) (1) - 9:00 am to 4:00 pm, Commerce Bank Science Education Center, St. Louis- https://www.mobot.org/iebms/coe/coe_p2_details.aspx?eventid=28517&sessionid=fc7fckfg5ei5fh1fgn
- February 21 - Buildings as Teachers: Teaching the Arts and Science with the Built Environment (teachers grades 5-12) (1) - 9:00 am to 4:00 pm, Commerce Bank Science Education Center, St. Louis - https://www.mobot.org/iebms/coe/coe_p2_details.aspx?eventid=28518&sessionid=fc7fckfg5ei5fh1fgn

Southwest (Bolivar, Branson, Carthage, Joplin, Lebanon, Marshfield, Monett, Nixa, Ozark, Springfield)

- January 29 - Level 2 Volunteer Water Quality Monitoring Workshop (3) - 8:30 am to 5:00 pm, 222 Trustee Science Building, Drury University, Springfield, registration required - http://mostreamteam.org/online_level2.htm
- February 5 - Fire Making (2) - 1:00 to 3:00 pm, Springfield Conservation Nature Center, dress for weather, 18 and above, registration required, moderate to difficult, bring water and sack lunch - <http://mdc.mo.gov/events/location/Springfield%20Conservation%20Nature%20Center/heading/Springfield%20Nature%20Center>

Ozark (Cabool, Eminence, Huston, Mountain Grove, Rolla, Saint James, Salem, Waynesville, West Plains, Willow Springs, Winona)

- February 19 - Level 2 Volunteer Water Quality Monitoring Workshop (3) - 8:30 am to 5:00 pm, Bulter Carlton Civil Engineering Building, 1401 Pine St, Rolla, registration required - http://mostreamteam.org/online_level2.htm

Southeast (Cape Girardeau, Doniphan, Farmington, Hayti, Ironton, Jackson, Kennet, New Madrid, Piedmont, Poplar Bluff, Sikeston)

- January 28 or 29 - Landscape Design with Missouri in Mind - 8 am to 3:30 pm, Lee's Summit, \$25, 28th for landscape professionals, 29th for enthusiasts - <http://www.grownative.org/about/events.asp>
- March 12 - Native Plant Seminar - 8:00 am to ?, Cape Girardeau Conservation Nature Center, registration required - <http://mdc.mo.gov/events/location/Cape%20Girardeau/heading/Cape%20Girardeau%20Nature%20Center>

Grants, Awards, Scholarships and Other Opportunities

- **Conservation Federation of Missouri Affiliate Mini-grants.** *January 5, 2011.* For CFM Affiliates (check here) up to \$2,500 for connecting families with nature, conserving plants, animals or natural communities, funding for operations, capital improvements and special projects. Matching funds encouraged. Report within one month of project completion To become an affiliate go here. To apply for a grant - http://www.confedmo.org/index.php?option=com_content&view=article&id=356&Itemid=165
- **Earth Expeditions Field Expeditions Application.** *January 28, 2011.* Open to educators from all disciplines and settings from preK-12 teachers, school administrators, university faculty, non-formal educators and naturalists, must have a bachelor's degree, internet access, be in good health and able to sustain moderate physical activity. Award is fully waived tuition at Miami University Ohio's field expeditions (7 graduate credit hours). Additional costs are \$1150 + Airfare. <http://www.earthexpeditions.org/admissions/index.php>
- **Ronald F. Layton Student Scholarship Application** - *January 31, 2011.* College or technical school students majoring in an engineering or related field, interested in wastewater/water treatment or a related environmental field, well-rounded, good grades, leadership experience, volunteer or public service experience - <http://www.mwea.org/index.html>
- **DuPont Challenge Science Essay Competition.** *November 15 to January 31, 2011.* Students 7th through 12th grade. Research and write a 700 to 1000 word essay about a scientific discovery, theory, event or technical application that has captured their interest. Savings bonds up to \$5000 and an expenses paid trip to Walt Disney World and the Kennedy Space Center. Teachers of winning students also get trips and \$500 education grants and sponsorship to the 2011 NSTA National Conference on Science Education in San Francisco. <http://thechallenge.dupont.com/>
- **Volvo Adventure.** *January 31, 2011.* Teams of two to five students 13 to 16 with an adult supervisor. Winners receive an all expenses paid trip to Sweden to compete in the international event. Any environmentally related environmental subject. http://www.volvoadventure.org/va_scoutentry.aspx
- **State Farm Youth Advisory Board Environmental Responsibility Award.** *February 1, 2011.* \$25,000 to \$100,000 for in school, student-led, service learning projects. <http://www.statefarmyab.com/applyNAT.php>
- **Planet Connect Wildlife Conservation Grants** - *February 1, 2011.* High schools students with a creative idea for conserving and protecting wildlife. \$1000 to implement your plan. <http://planet-connect.org/2011wcgrants>
- **Wildlife Conservation Professional Development Grants.** *February 1, 2011.* Grants for full-time middle and high school teachers with at least 2 years experience, expecting a teaching assignment for th 2011-112 year and a member of Classroom Earth (free) enabling them to take a six-week on-line course by the Wildlife Conservation Society. Graduate Credit available. <http://www.classroomearth.org/2011wcgrants>
- **Green Prize in Public Education.** *February 15, 2011.* \$10,000 for a K-12 public school that has most successfully implemented an innovative, sustainable and replicable school-wide greening effort involving and benefitting its students. Also two \$5000 merit awards. http://neefusa.org/grants/green_prize.htm
- **Lowe's Toolbox for Education.** *February 18, 2011 or whenever 1,500 applications have been received.* \$5,000,000 distributed to 1000 schools. For schools or parents teacher groups to improve the facility, for landscaping or do a major cleanup for their school, and that involve parents and the community. Basic needs will take priority this year. <http://www.toolboxforeducation.com/>
- **Toyota Tapestry Grants.** *February 23, 2011.* 50 large grants totaling \$550,000. For K-12 science teachers for innovative projects that enhance science education in th school and/or district. <http://tapestry.nsta.org/>
- **International Young Eco-Hero Award.** *February 28, 2011.* Cash prize and recognition for youth ages 8 to 16 whose personal actions have significantly improved the environment. <http://www.actionfornature.org/dox/e-2011.html>
- **Siemens We Can Change the World Challenge.** March 15, 2011. For students in grades k-12, bonds, scholarships and school grants. <http://www.wecanchange.com/>

For other resources, visit **EE Link** - <http://eelink.net/grants-generalinformation.html> or **Grant Wrangler** <http://www.grantwrangler.com/index.html>

Calendar of Selected EE Events more events at <http://www.meea.org/events.html>

Northwest (Cameron, St. Joseph, Maryville, Trenton)

- January 15 - Winter Day Camp - 1:00 to 4:00 pm, St. Joe Nature Center, 3rd, 4th or 5th grade, \$7, prereistration required - <http://www.stjoenaturecenter.info/events.cfm>

Northeast (Hannibal, Kirksville, Macon, Mexico, Moberly)

- Nothing this month, check nearby locations

Kansas City (Blue Springs, Kansas City, Lee's Summit, Liberty, Sedalia, Warrensburg)

- January 5 - Owls: Eyes of the Night - 2:00, Erine Miller Nature Center, 909 N. Highway 7, Olathe KS - <http://jcprd.com/apps/events/>
- January 6 - Bird Hike - 8:30 to 10:00 am, Burr Oak Woods Nature Center - <http://mdc.mo.gov/events/location/Burr%20Oak%20Woods/heading/Burr%20Oak%20Woods%20Nature%20Center>
- January 12 - Homeschool -Skull Skills - 10:00 to 11:30 am, Burr Oak Woods nature Center for 6-8 , 9-11 and 12 to 18 year olds - <http://mdc.mo.gov/events/location/Burr%20Oak%20Woods/heading/Burr%20Oak%20Woods%20Nature%20Center>
- January 22 - Gear Up for Camping - 1:00 to 2:30 pm, Burr Oak Woods Nature Center - <http://mdc.mo.gov/events/location/Burr%20Oak%20Woods/heading/Burr%20Oak%20Woods%20Nature%20Center>

Central (Booneville, Columbia, Fayette, Fulton, Hermann, Jefferson City, Mexico, Osage Beach)

- January 8 - Woodpeckers of Missouri - 10:00 to 11:00 am, Runge Nature Center, Jefferson City - <http://mdc.mo.gov/events/location/Runge/heading/Runge%20Nature%20Center>
- January 11 - Owl Prowl - 6:30 to 8:00 pm, Runge Nature Center, Jefferson City - <http://mdc.mo.gov/events/location/Runge/heading/Runge%20Nature%20Center>
- January 17 - MLK Day Stream Clean-up - 1:00 to 3:00 pm, Twin Lakes Recreation Area, 2500 Chapel Hill Road - <http://columbianativeplants.missouri.org/activities.shtml>
- January 18 - Biomass Energy and the Missouri River Floodplain - 7:00 pm, Les Bourgeois Bistro, Rocheport, Big Muddy Speaker Series -http://mostreamteam.org/online_level2.htm

St. Louis (St. Louis, St. Louis Co Cities, Sullivan, Washington)

- January 1 - Audubon Christmas Bird Count - Confluence Circle - contact Randy Koretev, koretev@wustl.edu
- January 3 - Audubon Christmas Bird Count - Weldon Spring - Tom Parmeter 314-921-6017
- January 11 or 23- Cashing in on Home Comfort - 6:30 to 8:00 pm, Commerce Bank Center for Science Education, \$20, reservations required -https://www.mobot.org/iebms/coe/coe_p2_details.aspx?eventid=28537&sessionid=fc6falfg8fgkfe7fao
- January 13 - Native Plant School: Invasive Woody Plants - 1:00 to 4:00 pm, Bascom House Carriage House, Shaw Nature Center, Gray Center - https://www.mobot.org/iebms/coe/coe_p2_details.aspx?eventid=28437&sessionid=fcofanfpgfkgfmgfap&rankid=S
- January 15 Eagle Days at the Confluence - 10:00 am to 3:00 pm, Columbia Bottoms, reservations required for photography workshop - <http://mdc.mo.gov/events/location/Columbia%20Bottom/heading/Columbia%20Bottom>

Southwest (Bolivar, Branson, Carthage, Joplin, Lebanon, Marshfield, Monett, Nixa, Ozark, Springfield)

- January 7 - Owl Prowl and Evening Stroll - 6:00 to 9:00 pm, Springfield Conservation Nature Center, 6:30 and 7:30, bring flashlight - <http://mdc.mo.gov/events/location/Springfield%20Conservation%20Nature%20Center/heading/Springfield%20Nature%20Center>
- January 8 - Virtual Hunting and Fishing - 2:00 to 4:00 pm, Springfield Conservation Nature Center, drop in - <http://mdc.mo.gov/events/location/Springfield%20Conservation%20Nature%20Center/heading/Springfield%20Nature%20Center>
- January 8 - Christmas Bird Count for Kids - 9:00 am to 12:30 pm, Wildcat Glades Conservation and Audubon Center, Joplin, 7 and up, registration required - <http://wildcatglades.audubon.org/upcomingevents.html>
- January 15 - Attracting Birds to Your Backyard - 10:00 am to noon, Springfield Conservation Nature Center, registration required, 5 and above with adult mentor - <http://mdc.mo.gov/events/location/Springfield%20Conservation%20Nature%20Center/heading/Springfield%20Nature%20Center>
- January 15 - Eagle Watch - 3:00 to 4:30 pm, Roaring River State Park, Cassville - <http://www.dnr.mo.gov/calendar/public/calendarParksListAction.do?parkNm=Roaring%20River%20State%20Park>

Ozark (Cabool, Rolla, Saint James, Salem, Waynesville, West Plains, Willow Springs, Winona)

- Nothing this month, check nearby locations

Southeast (Cape Girardeau, Farmington, Poplar Bluff, Sikeston)

- January 12 - Homeschool Special: Winter Tree ID - 8:00 am to 12:30 pm, Cape Girardeau Conservation Nature Center, registration required - <http://mdc.mo.gov/events/location/Cape%20Girardeau/heading/Cape%20Girardeau%20Nature%20Center>
- January 13 - Nature Center at Night - 5:00 to 8:00 pm, Cape Girardeau Conservation Nature Center - <http://mdc.mo.gov/events/location/Cape%20Girardeau/heading/Cape%20Girardeau%20Nature%20Center>
- January 15 - Eagles - 1:00 to 4:00 pm, Cape Girardeau Conservation Nature Center - <http://mdc.mo.gov/events/location/Cape%20Girardeau/heading/Cape%20Girardeau%20Nature%20Center>

meea Membership Application

New or Renewing Member of NAAEE? Y N

Professional \$15 School \$50

Student/Retiree \$7.50 Organization \$100

Name _____

Affiliation _____

Street/P.O. Box _____

City _____ County _____

State _____ Zip _____

Email _____

Phone (h / w) _____

Date _____

Please include a check or money order made payable to MEEA and return to MEEA P.O. Box 104505 Jefferson City MO 65110-4505

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2011 MEEA Officers

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President Elect: Deb Ballin - St. Joseph
Past President: Nancy Snider - St. Louis
Secretary: John Sode - Lebanon
Treasurer: Fran Fry - Niangua

2011 MEEA Board

Karen Armstrong - Kirksville - 2011-2012
Kim Garbs - O'Fallon - 2011-2010
Heather MacCleoud - Jefferson City - 2011-2012
Carol Mahan - Rolla - 2010-2011
Andrea Putnam - Jefferson City - 2010-2011
Sharon Ruhnke - St. Joseph area -2011-2012

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Our Organizational Members

- ◆ AbitibiBowater
- ◆ Cape Girardeau Nature Center
- ◆ Missouri Recycling
- ◆ Under the Rain Tree
- ◆ *Watershed Committee of the Ozarks*



Thank you for your support!



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MEEA Vision

An environmentally responsible citizenry in Missouri

MEEA Mission

Advance environmental education in Missouri by providing innovative professional development and networking opportunities for those who share our mission

MEEA Value

Connecting people, ideas and resources throughout Missouri

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