From Co-chair Linda:

The month of April is starting out in a blustery way. It seems we still have some March weather to endure for a few more days.

2016 has already been busy! Winter Workshop 2016 was held in early February at Springbrook Conservation Education Center with over 90 people registered, with most of these representing a conservation agency or organization! It was a great learning opportunity for those of us in the non-formal classroom to learn about Iowa's new science standards. Watch the ICEC website for more resources to help us improve our programs to meet the Iowa Science Standards.

Thoughts are already forming for the focus of Winter Workshop 2017. Once again, the workshop format will return to a Friday and Saturday. When
dates for the workshop are confirmed, we'll be sure to let you know so you can mark your calendars and secure professional development funds!

March 22 was our chance to speak with our state representatives and senators at the Environment Day on the Hill. Linette and I were there with our ICEC display and spoke with some legislators and I also had the chance to introduce Linette to keep people in other environment-based organizations also in attendance.

This is your last call to renew your ICEC membership for 2016. All non-renewing members will be purged from our mailing list as of May 2016. You can renew online [here](#). Remember that if you attended Winter Workshop 2015 as a non-member, we had funds to pay a one-year regular membership for you. There are many people who fall into this category. We certainly hope you will consider renewing your membership in this professional organization. Your membership supports the work of ICEC.

It is always a great feeling to honor colleagues for their passionate work in environmental and conservation education. Please visit this [link and click the radio button for '2015' to read](#) about the 2015 Iowa Association of Naturalists / Iowa
Conservation Education Coalition Award winners! Congratulations to all. Awards are reviewed by a committee of both IAN and ICEC members. We need to recruit two members to serve on this committee. If interested, please contact Linette, ICEC Executive Director. Remember this annual opportunity to submit nomination to recognize valuable work. Nominations are due by December 1. We'll share details in the August and November newsletters.

Winter Workshop 2016 Recap
Evaluation results from the post-workshop survey form showed useful information for moving ahead with skill development related to the new Iowa Core Science Standards, and also for continuing with technical sessions followed by time to discuss or work with content. 58 evaluation forms were collected, 65% were non-formal educators and 14% were conservationists without specific educational duties.

Overall participants generally agreed with the statements that they knew more about the Disciplinary Core Ideas, Science and Engineering Practices, and Crosscutting Concepts. The average from a possible 5-point scale was 4.5, 4.3, and 4.5 respectively. Similarly they learned more about soil (4.5), water availability (4.4), and butterfly habitat (4.3) from our keynote scientists.

Participants rated their confidence in working with the three dimensions and in being able to improve presentations to adults as somewhat lower 4.0 and
3.9 respectively, indicating that further skill development is needed. Not all participants work with adults, just as not all in attendance work with K-12 schools. The strongest overall agreement was with an interest in improving educational skills (4.6) and more technical information (4.5).

These results combined with observations taken during the workshop of effective working groups in discussions leads us to the next steps for ICEC to meet the needs of conservation educators in Iowa. We will propose a series of regional workshops for further practice working with the standards and having those workshop results feed into the coming winter workshop.

If you attended Winter Workshop 2016, you should have already received the second (and final) post-workshop evaluation. Please complete as soon as you can. Your thoughts will help with planning for 2017!

**Winter Workshop 2017 Ideas**

Discussions about Winter Workshop 2017 are combining evaluation feedback and outcomes from both the 2015 and 2016 workshops, and there are ideas emerging. Noting that a group of naturalists meeting with two classroom teachers at the 2016 workshop were highly successful in melding the new science standards with naturalist program offerings – we are in the very initial planning stages of AEA regional teams of two naturalists, two teachers, and an AEA Science Consultant to work on the same thing this summer. We envision a one day work session at a nature center host site within each AEA region (with two work groups in Heartland AEA). Likely times would be late July-
early August. Each AEA work team would look at the standards at a specific grade level and take some common naturalist program topics and propose how the programs could be adapted to incorporate the Science and Engineering practices (SEP), Crosscutting Concepts (CCC), and the Disciplinary Core Ideas (DCI).

The results from the regional teams will be shared at the winter workshop 2017. This collection of programs will offer processes for teaching that will help get across how our activities can be different, which may be helpful going forward as new naturalists join the ranks. This will help build more relationships with the AEAs and classroom teachers plus build momentum across the state.

Next year’s winter workshop details are still in motion, and if you have ideas you’d like to have added to the mix, please email Jean Eells or Linette Bernard. Drop us a line if you want to be part of a regional team this summer!

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**Opportunities and Resources!**

**Iowa Academy of Science Annual Meeting** is 22-23 April at Grandview University. Advanced registration deadline is 12 April. Visit the Iowa Academy of Science [Annual Meeting webpages](#) to learn more about speakers, meals, and directions and more.

**Drake / Metro area STEM festival** is being held on 14 April from 4:30-6:30 P.M. at the Bell Center on the Drake Campus. This event is for preschool-
8th grade students and their families. More info here! Stay a bit longer and see Bill Nye the Science Guy at 7:00 p.m. in the Knapp Center. Free and open to all.

See this Iowa STEM calendar for more STEM events across the state and go here to see the STEM regions and the contact person.

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**Growing Up WILD - Exploring Nature with Young Children** -- Sign up now for this training being offered in Story County on Saturday, April 23 from 8:30-12:30!

- Location will be at the Story County Conservation Center at McFarland Park, 56461 180th St, Ames.
- Registration: Iowa Child Care Providers Training Registry — Click on Search Training, then search 'Reconnecting' in the Title.
- Cost is $35 and you must register by April 15, 2016.

Questions? Contact trainer Malisa Rader!

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**Monarch Monitoring Citizen Science - Train the Trainer Workshop on May 6-7** at Neal Smith National Wildlife Refuge - The Monarch Joint Venture will be putting on this to provide training in several popular Monarch citizen science programs. This "train the trainer" event is geared towards preparing folks to recruit and train volunteers to work for Monarch conservation. Here is what will be covered: "Protocols we cover include larvae density, milkweed density, and survival. We also cover protocols from other citizen science programs, including tagging, Journey North reporting, and Project Monarch Health testing for OE. With all this we cover how to ID monarchs to..."
the instar, and how to ID milkweed plants.” Pre-registration is required. Cost is $20. Please direct questions to Katie-Lyn Bunney.

Taking STEM Outside: WILD Project-based Learning June 13 and 14 at the Guthrie Center Elementary Outdoor Classroom! Take STEM outdoors. Learn how outdoor projects, exploration, and investigations provide fantastic opportunities for project-based learning that address Iowa Science Standards. Participants will discuss how to bundle favorite Project WILD and Aquatic WILD activities with field investigations to create project-based learning units. Much of the professional development opportunity will be creating your own path through a host of nationally developed and tested resources to engage your students in authentic inquiry through modeling, discussion, and practice using your school yard or a local natural area and your classes as the framework. Info on credit and registration here. If you do not want to take this workshop for credit, please email Barb Gigar directly. Registration deadline June 8.

Quad Cities Pollinator Conference -- Second Annual Quad Cities Pollinator Conference, to be held June 23 – 24, 2016. This conference is geared toward the agricultural community; municipal, state and federal government employees; landowners; homeowners and urban dwellers; beekeepers; students; and educators. Over the two days, topics will cover native insects, honey bees and creating pollinator friendly habitat. Visit the pollinator conference website for more details!

Fish Iowa! Training on Monday, June 27 and 28, 2016 at the DMACC West Campus at 5959 Grand
Avenue, West Des Moines, Iowa. Some sessions also at Raccoon River Park and Walnut Woods State Park (100% attendance required for credit; assignment due July 14, 2016) Registration Deadline: June 20, 2016. Note: There is a limit of 20 participants and 4 have registered already. This two-day workshop will acquaint participants with the Fish Iowa! fishing education modules and a variety of other resources to teach fishing in a variety of settings - ponds, lakes, rivers.

Participants will learn fishing basics including fish identification, fishing locations, casting techniques, and cleaning and cooking fish. Participants will experience pond (bank) fishing, lake fishing (including kayak, canoe, and/or fishing boat), river fishing, and fly-fishing. Instruction will include a variety of demonstration and hands-on, experiential approaches. Activities will also include peer teaching and small group work to develop appropriate teaching strategies for individual teaching situations.

Lodging is on your own.

The registration fee includes lunch, teaching modules, and an instructor kit. The materials will be provided in PDF format, so please bring a laptop or similar device with a USB port:

- $75 (includes materials and lunch only; no credit – email Barb.Gigar@dnr.iowa.gov to register)
- $100 (includes materials and 1 license renewal credit)
- $175 (includes materials and 1 EDMA graduate credit)

Electronic Registration for credit.

Environmental Issues Instruction - Soil: The Earth beneath our Feet on July 7-8 with a follow-
up March 31-April 1 (you must be available all dates) at the Charles City Sleep Inn. An interdisciplinary, undergraduate or graduate level college credit course for all teachers K-12. **Total cost of $250** includes the 2 college credits, food, lodging, and a plethora of teaching materials. [Complete registration information here](#). Direct questions to [Barb Ehlers](#). Registration open until full.

**Climate Generation: A Will Steger Legacy** is a nonprofit in Minneapolis, MN. Their mission is to educate and empower people to engage in solutions to climate change. This group has an upcoming professional development conference focused on climate change -- Summer Institute! [Summer Institute for Climate Change Education 2016](#) will focus on resources and training to integrate the Next Generation Science Standards into your classroom, which for the first time include climate change. Resources will include our newest middle school curriculum, [Next Generation Climate](#). Hear from experts in climate science, engage with hands on activities that help bring climate change concepts into the classroom, and network with other educators. This year’s Institute will be most valuable for middle school and high school teachers. Please contact [Jenna Totz](#), Curriculum Coordinator, with your questions.

**Iowa STEM Teacher Externships - teacher and workplace opportunities!** The Iowa STEM Teacher Externships Program aim to help teachers answer that age-old question, "When will I ever use this?" During the summer, educators work side-by-side with knowledgeable and skilled industry employees who help bring the classroom curriculum to life. Teacher Externships provide
educators with the exposure to answer questions about real-world application, prepare students for careers they may have in the future, and improve educational experiences. Learn more about Teacher Externships here. Also... workplace sites are needed, too. In past years, workplace sites have included county conservation boards, Natural Resources Conservation Service, specific projects within Iowa DNR, museums, zoos, and other conservation organizations! See the map of past externship sites and check out the workplace interest form for summer 2016! What a great way to get classroom teachers to have a deeper understanding of conservation work!

Terraoak and clean stoves -- Watch this short YouTube video to learn about Max’s innovative stoves using clean technology. Maxwell Chinnah, CEO of Terraoak, is looking for 5-10 individuals willing to test his stove for camping, tailgating, block parties, and get-togethers. (Wouldn't this have been nice the summer there were so many county burn bans!)

If you are interested, please contact Max directly via email. He is also willing to demonstrate the stove for groups of individuals.

News from the Council on Environmental Education -- Now available for download is the Correlation of Next Generation Science Standards with Aquatic WILD Activities. This PDF documents how Aquatic WILD activities help educators fulfill the Next Generation Science Standards (NGSS) Student Performance Expectations (PEs). This document, like other WILD correlation documents, will help individual educators document how they are meeting NGSS
through use of Project WILD materials, as well as help school districts and non-formal providers provide the necessary documentation for educators to receive professional development credits in many states. The document can be accessed on the Project WILD website. The direct link to the correlations page is http://www.projectwild.org/Correlations.htm.

BEETLES (Better Environmental Education, Teaching, Learning & Expertise Sharing) creates free resources for three primary audiences: outdoor science program leaders, field instructors, and classroom teachers.

These resources include:

- professional learning sessions that are active experiences crafted to encourage field instructors to look at specific aspects of research-based science pedagogy and to inspire shifts in instructors’ thinking about their own teaching and learning;
- student activities that empower students to use tools and practices of science to explore, wonder and think about nature wherever there’s a patch of green in their world;
- a variety of supplemental resources, including "how-to" videos, information and tools for creating a culture of reflective teaching among instructors, support for promoting productive discussion amongst students, and recommended reading; and
- classroom lessons that support outdoor science programming by providing pre and post experiences in the classroom that are connected to and coherent with their field experiences (coming soon!).
All BEETLES resources are based on current research and understandings about how people learn and tested by dozens of programs in diverse settings all over the country (and beyond!). Although BEETLES materials have been designed for residential outdoor science schools, they’ve been snatched up and used successfully in a wide variety of outdoor science education settings. Learn more at beetlesproject.org.

BEETLES is one of many programs at the Lawrence Hall of Science, a public science center created in 1968 as part of the University of California at Berkeley.

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**NAAEE National Conference**

Who doesn’t love Madison, Wisconsin in the fall? October 18-22 are likely to see temperatures in the high 50s and the peak fall color may be just past. However, the 45th annual NAAEE (North American Association for Environmental Education) Annual Conference: From Inspiration to Impact WILL be in full swing.

Naturalists and other environmental educators have to think hard about spending the money and time to attend a national conference. To be honest, sometimes as we leave, we shake our heads and wonder, "What did we get out of it?” But if the NAAEE 2015 conference was any indication, this one, right out our kitchen door (cheese) will have a number of benefits.

*For our customers* -- Broadening our perspective on the issues facing conservation education can really deepen our commitment to the work we do,
as well as open our eyes to new possibilities. In 2015 it was diversity, wind energy, teens in stewardship roles.

**Learning** -- Averaging 1,000 participants each year, the NAAEE conference promotes learning, and dissemination of best practices.

**Connections** -- It’s amazing to connect with educators from Canada to Mexico, Hawaii to Maine. There are lots of opportunities to connect with experienced leaders as well as young folks just starting down the road we’ve traveled for a while.

**Leadership** -- ICEC is the NAAEE affiliate in Iowa. Take this opportunity to get ideas from similar organizations about where our organization can go from here.

**Bring all of that back** -- content, enthusiasm, ideas. It can only strengthen your commitment to your work and fuel your enthusiasm for the year to come.

The conference is just six short months away. If you’re interested in working with ICEC to find resources to get a group of environmental educators to Wisconsin for this conference, contact Martha McCormick. It would be great to make a big splash in Madison next fall!

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**Affiliate News from NAAEE**

The Environmental Education Association of Alabama (EEAA) recently shared [this incredibly inspiring video](#) that shows how one Alabama
school system fully embedded environmental education into everything they do, in and out of the classroom. The program began through a partnership between Munford Schools, the U.S. Forest Service, Alabama Wildlife Federation, and has been supported by EEAA, the Southeast Environmental Education Alliance and NAAEE through resources, conference sessions, grants, and networking and communication opportunities for teachers. As one student puts it, "I learned that the world is as big and as awesome as I want to make it."

NAAEE has started a monthly webinar series to bring new ideas and innovation to environmental and conservation education! Expert communications strategist Andy Goodman will speak about the power of storytelling—and how we can change the world by changing our story. Click here to find out more about Andy and his work in strategic communications. Then, register now for the webinar held on April 26 at 3:00 EST (this link opens into a Google Document to sign up).

The Iowa Conservation Education Coalition (ICEC) is a 501(c)3 Iowa non-profit first organized in 1958 with a long-standing tradition of providing professional development to formal and non-formal educators and in conservation and environmental education.

ICEC needs you! Join or renew your membership today. Membership is for a calendar and expires on January 31. Your membership supports excellence in conservation education through networking with formal and non-formal educators, their support services, and conservation
professionals!

Remember to visit the ICEC Facebook page, like it, and share it! From time to time, I try to post interesting and pertinent information and would appreciate feedback on those posts! The more you comment on a page’s post, the more that page will show in your news feed!

Sincerely,
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