



CREED

Curriculum Resources for
Environmental Education Development

Spring 2015



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President's Letter

Jabin Burnworth

I'm getting old. I knew it was going to happen, and other "old" people told me that it was coming sooner than I thought. I expected changes in my body and my mind. I knew there would be slip ups and fall downs. Unfortunately, it really is happening sooner than I thought. In February, John Brady and I presented a session on the Environmental Literacy Plan at the annual Hoosier Association of Science Teachers meeting. After the meeting I had a chance to talk with my friend Wayne Gartner. Wait, what? Wayne, no Warren! I actually called Warren...Wayne. I was embarrassed. Luckily, Warren is a forgiving man. I've been thinking a lot about aging these days. I have a 2 year old and a 6 month old. They are constantly challenging me to go beyond my limits. I know that as they grow older they will be able to perform feats that I will be unable to accomplish. I will most likely never again ride my skateboard behind a car like Marty McFly did in Back To The Future. Fortunately though, I am an Environmental Educator. I believe that those in the EE field have an advantage over those in other fields. Working outside nourishes the brain more than four walls of concrete ever could, and of course the youth we work with keep us young. Those youth remind us that finding a feather on the path may, "Just be the best thing ever." We may be getting older, but fortunately our job keeps us younger. Now, if i could only remember Sam's last name...



On Saturday, January 17th we had a wonderful board meeting at Fox Island County Park in Fort Wayne, IN. Thanks to Natalie Haley for hosting us, and thanks

to Paul McAfee for providing lunch. Our next board meeting is April 15th online from 4:30-6:30pm. If you would like to join us, send me a note. I'll add you to our Google Hangout.

The 2015 conference committee is hard at work. The 46th annual conference at Indiana Dunes National Lakeshore keeps getting better. Have you seen the schedule on the website? You should have also received an email about the conference. Let us know if you aren't receiving emails, or are having trouble with the website. If you know of someone who is having trouble as well, please let us know.

In the last CREED I asked the question, "Did you know EEAI is also on Facebook?" Evidently, many of you did not. We received a message from Facebook that our trending was up 2,300%! Thanks to everyone for spreading the word about our social media options. Again, the link for our Facebook page is found on the eeai.org home page. We hope that you will visit our Facebook page and will "like" it. EEAI is also on Twitter. Find us by searching for Environmental Ed in Indiana @INEnvEd Indiana Children and Nature Network is also on Facebook and Twitter. Find a link for their Facebook page on our website. ICAN Twitter @INKidsandnature

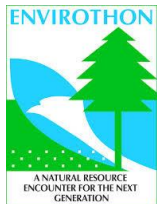
Presidents Award



Oops in the last news letter the Presidents Award was accidentally omitted. We all wish to congratulate Jan Sneddon on receiving the Presidents award. Jan has served eeai as a board member and president for a number of years. Her hard work and dedication has been greatly appreciated. Congratulations Jan!

Indiana Envirothon March Madness

March Madness is not just reserved for basketball! It is the start of the Envirothon contest season in Indiana. Tip off for the first of our seven regional contests is March 17, with the final regional



taking place March 19. Team line-ups from our participating schools are being established and it appears that competition will be fierce. Once the top regional teams have been crowned, players will hit the drills even harder for the coveted state championship on April 29 at Camp Illiana in Washington, Indiana. Volunteers and spectators are welcome and admission is free! Contact Darci Zolman, darci.zolman@in.nacdnet.net for details!

One Man's Perspective: Travels With Morris (Part 1) by Sam Carman

I usually use this column space to ponder philosophically about environmental education, talk about experiences I've enjoyed in the outdoors, or rant about things that I think need to be fixed. Through the years I've written about everything from mushroom hunts to snipe hunts; from tree roots to historical roots; from a messenger of hope (Jane Goodall) to a reality of despair (demise

of DNR's Natural Resources Education Center). But this column begins a series that will take a decidedly different direction, because I'll be ghostwriting for an acquaintance I made in 2009. So without further ado, I would like to introduce.....

Hello, my name is Morris. Actually, my name is much longer than that, but you can call me Morris. And I'm a bug. Yep, you read it right—I'm a bug. Now some of you students of literary history might be saying, "Hey, this has been done before, way back in 1935. I remember reading 'The Life and Times of Archy & Mehitabel' by Don Marquis. That was written from the perspective of a cockroach."

Yes, you are correct. But I can assure you that I am no lowly cockroach! In fact, unlike that six-legged pest, I have no legs at all—and yet I rarely stay in one place very long. But I don't want to get ahead of the story, so let's start at the beginning.

My existence began on March 12, 2008 in sunny Florida, about 500 feet north of the Gulf Breeze Parkway on a narrow peninsula about 25 miles west of Fort Walton Beach. It was a lovely place and I could have easily remained there, but that was not to be. You see, I'm a traveler—and that's what I want to tell you about.

Now you've probably heard about the monarchs that make an annual trip to Mexico? Or the swallows that return each year to San Juan Capistrano, California? And how about those buzzards that descend on Hinckley, Ohio every year—what a mess! Well, my destiny was to make a round-trip from my digs in Florida all the way to Maricopa County, Arizona, and back again. And just so the folks in Florida would have no doubt that I arrived at my mid-point destination safe and sound, I was to have my picture taken right next to a specific U.S. Geodetic Survey benchmark (exact location: N 33° 51.210 W 112° 37.380). Oddly enough, I was named after this benchmark; but that's another story. By the way, if you aren't familiar with U.S. Geodetic Survey benchmarks, they are often round, brass 3 1/2" discs that are set in concrete or stone, usually at ground level, but sometimes as part of a structure. (There is a fascinating history of these markers and how they came about at: www.ngs.noaa.gov/web/about_ngo/history/Survey_Mark_Art.pdf.)

They say that a journey of 1,000 miles begins with one step. In my case, 1,000 miles was merely my first step—1,092 miles to be exact. When I was about 3 weeks old, I travelled all the way to Iron County, Michigan. Talk about a shocking experience! Going from the nearly tropical environment of the Florida panhandle to the cold balsam, spruce and cedar woodlands of Michigan's Upper Peninsula was quite a change. At least I was still within a stone's throw of water, although Iron Lake had little in common with the Gulf of Mexico. The many cranes, pelicans, armadillos and skinks that inhabited my Florida home were replaced by northern Michigan's black bears, beavers, long-eared owls, and a bunch of these things called Yoopers. Well, I've used most of this column to introduce myself and set the stage. Be sure to watch for the next CREED when I'll tell you much more about my travels. So until next time, as they said in Florida, "Later, Gator"; or as the Yoopers might say, "See ya when da snow melts, eh!"



The Purdue Student Chapter of Environmental Education

The Purdue Student Chapter of Environmental Education (SCEE) is hard at work this spring educating the public about the environment. Already this semester, we have had a very successful bake sale, club call-out, and have participated in the Department of Forestry and Natural Resources career fair at Purdue University. Later this semester we plan to create interior cards for Greater Lafayette's City Bus, which will teach people about invasive and native plant species, as well as how to be eco-friendly at home or in the city. We also will be re-designing the wildlife display cases in the Forestry Building on campus to teach students and visitors about native wildlife.

On April 18th, we will be participating in Purdue's Spring Fest so come make a track cast with us and learn about native wildlife! Other activities that we will be pursuing are creating a new lesson plan to present at the Mayflower Mill Elementary School, creating educational videos to go along with existing Purdue extension publications, and creating a community nature night that will apply what we learned last fall about developing a family nature club from Warren Gartner and Sam Carman. With so much planned, SCEE strives to reach many people and make a difference in their environment.



Follow us on Facebook: <https://www.facebook.com/PurdueSCEE>
And Twitter: <https://twitter.com/purduescee>

Paul -itics by Paul Steury

For some reason science is getting a bad rap – and not really for science but for politics.

I wish those ladies and gentlemen from the Intergovernmental Panel on Climate Change wouldn't have said anything about human causing (Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history) ... that's what's causing this debate - a debate on if humans can have a global affect.

I personally think that it's a holistic problem. Sure there could be change happening globally because of historic cycles of warming shown by reading geologic timelines, but also because people are making an impact through levels of consumption, and the link between the earth's environmental services and how it handles urbanization, feeding 7 billion+, and air & water pollution without stressing its health.

Scientists are taking data, interpreting it, and letting people know about it.

Livescience says, "Science is a systematic and logical approach to discovering how things in the universe work. It is derived from the Latin word "scientia," which translates to knowledge. Unlike the arts, science aims for measurable results through testing and analysis. Science is based on fact, not opinion or preferences. The process of science is designed to challenge ideas through research. It is not meant to prove theories, but rule out alternative explanations until a likely conclusion is reached."

Natasha Bertrand from the Business Insider says, "More than one-quarter of Americans are climate change skeptics, according to a new report released by the Public Religion Research Institute. These deniers don't believe that the planet Earth's climate is changing, even though 97% of scientists believe it is. When asked why they don't believe, the skeptics' most common response was that they had not noticed a change in the weather around them, and that the weather was actually getting colder where they lived."

Pew Research Center a couple weeks ago published an article called "Public and Scientists' Views on Science and Society" stating that there is a large gap between scientists and the public on many arenas from genetically modified food to vaccinations to climate change.

Pew Research Center's research stated, "Public attitudes about climate change have become increasingly contentious over the past several years. The new Pew Research survey included

two separate measures to gauge public attitudes about climate change. When asked to pick among three choices, 50% say that climate change is occurring mostly because of human activity such as burning fossil fuels, 23% say that climate change is mostly because of natural patterns in the earth's environment, and another 25% say there is no solid evidence the earth is getting warmer. The share of the public saying climate change is due to human activity is about the same as when last asked in a 2009 Pew Research survey, but more now say there is no solid evidence of warming (25% today, up from 11% in 2009) and fewer say that warming is occurring due to natural patterns in the environment (23% today, down from 36% in 2009)."

"American Academy of Arts and Sciences (AAAS) scientists' views about climate change, using the same three-choice measure, contrast starkly with that of the public. Fully 87% of scientists say climate change is occurring due to human activity, 9% say climate change is mostly due to natural patterns and just 3% of this group says there is no solid evidence the earth is getting warmer. An overwhelming majority of AAAS scientists from all disciplinary specialties believe that climate change is mostly due to human activity. Those with a primary specialty in the earth sciences hold about the same views as all AAAS scientists surveyed (89% say climate change is mostly due to human activity). In 2009, 84% of AAAS scientists said the earth was warming mostly because of human activity."

So what I read from that is educators need to do a better job of informing the public about how climate affects us even though northern Indiana might not be feeling the affects. But California, Tuvalu, Bangladesh, and Alaska sure are! How do we help others understand global versus local impact?

Important research finding - "People are not idiots." Princeton University researcher Dr. Susan Fiske acknowledges. "The public's issue with science is not necessarily ignorance. So, the road to communicating climate science starts with some advantages. The public has some knowledge. Climate science communicators have effectively conveyed much evidence, which should encourage their continuing to educate and communicate. Just like other communication, science communication needs to continue to convey warmth and trustworthiness, along with competence and expertise."

Piercarlo Valdesolo who writes from Scientific American reminds us "Science is not about certainty. Science cannot assure us of a solution. It can only provide the best possible guess."

Science educators are teaching how we interpret peer-reviewed data. Currently climate change data is telling us the level of CO₂ is 400 parts per million in the atmosphere. The year I was born the CO₂ level was 319 parts per million in the atmosphere. With calculations done by businesses environmental quality readers in the world we are putting 2.4 million pounds of carbon dioxide into the air every second...

We know the earth does absorb CO₂ but according to the U.S. National Oceanographic and Atmospheric Administration's Earth System Research Laboratory it only draws in about half of what we emit.

If I were making an educated guess – which I ask my 7th graders to do all the time by taking information from their personal knowledge data base – we humans have made an impact.

A couple questions I ask

What makes it difficult for people to “believe” that they make an impact?
How can scientists become “warmer” and more “trustworthy”?

And

What is your educated solution?

AND

EEAI – what are you going to do about it??



Indiana Children and Nature Network

ICAN is moving forward. We have a new look and logo! We have launched an updated [website](#) with more information about getting kids outside and more connections. With the invaluable help of Claire Lain from the Hamilton County Soil and Water Conservation District, we have new [print materials](#) available to download. Check out our new poster and brochure. Feel free to print these off and spread them around. The poster could be put up in doctor’s offices, daycares, preschools, churches, schools and other public places to remind adults that kids need nature!

The ICAN team is working to define our short term and long term goals and to develop an advisory board. In March Warren and Ann presented to 120 people at the sixth annual Southern Indiana Conservation Happenings Meeting. This spring we will be participating in a number of meetings and activities. For instance, Eagle Creek will host a Family Nature Club Training in April. We will participate in the Indiana Association for the Education of Young Children (IAEYC) conference. ICAN is always seeking more volunteers. Let us know if you are interested!

Congratulations to the ELP Committee for completing the Environmental Literacy Guidelines!

John Brady

The ELP committee would like to thank the dedicated members of EEAI for your efforts in helping to complete the Environmental Literacy Guidelines document! A PDF version can be found on our outstanding [website](#). This document is a testament to the bright, committed, volunteer committee who have spent the last seven years working to create a foundational document for EE in Indiana! Thank you!

At HASTI this spring, Jabin Burnworth (President of EEAI) and John Brady presented this document to educators and began pulling together resources that support the teaching of the guidelines.

Now comes the fun part! With a completed Guidelines document, we are challenged with how best to disseminate and communicate the use of this great resource to formal and informal educators across the state. The committee will now begin work securing endorsements from agencies and organizations in support of the guidelines and find strategic partners who can

use them. We look forward to our continued work on the Indiana Environmental Literacy Plan!

2016 Conference

The conference for 2016 is in the planning stages. it will be a summer conference in Richmond. If you are interested in helping plan the conference please contact [Paul McAfee](#)

Great Lakes



Literacy

2015 Conference

Its time to register for the 2015 Conference

September 25-27

[get registered](#)