

Pennsylvania Naturalist



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Connecting People, Nature and Community

FALL-ing Into Winter

Our cottage home is along Pine Creek a short distance from Hawk Mountain Sanctuary. Bordered to the south by thousands of acres of hardwood forest and to the north by miles of unbroken upland meadows, we have a remarkable treasure. We live in a handmade house that Dotty and our three children built. Our family has grown over the years. On most Sunday evenings throughout the year we gather, all eleven of us, either by the fireplace inside or around the big fire ring stream side.

Through the long lingering summer nights we are witness to magical forest sounds. Deer shuffling through forest floor leaves, coyote voices across the meadow on Hamm's Hill, nearby screech owls call back and forth from the hemlocks. On rare nights we hear the barred owl's 'who cooks for you' repeated over and over and over from the slopes below the Pinnacle. We respond

with our own calls and have already been witness to four species of owls at one time—screech, great horned, barred and saw whet – very close and VERY thrilling.

Days begin to shorten and apricot sunsets signal change. Black gum and locust trees are first to shed their leaves. Soon the first katydid will draw one wing against the other producing their haunting wing song. I wait with great anticipation the full complement of these winged nighttime musicians. The forest will soon be filled with the night symphony, an incredibly stirring and wondrous music of these male katydids rasping the night away for the sole purpose of attracting a lady katy. While the katydid is dominant, thousands of crickets provide a softer counterpoint for the performance. Every night as that first rasp announces the coming of the full symphony a singular rasp on a cold early November night signals the finale. Females have deposited their eggs on leaf edges. Both sexes

will die. Eggs will lie dormant until warm spring breezes cover the forest. The cycle begins anew.

Nights continue to cool. We carry wool blankets into the meadow. In the fire ring oak logs settle to a flicker. Nowhere are there dusk to dawn lights. Dark sky experiences are becoming a rarity as our human population grows, but here in our meadow we can lie on our backs and witness the glory of the heavens. Starlight from far beyond the corner of our galaxy. The Milky Way directly above.

We first believed there was only one galaxy in our 13.7 billion year-old Universe, but now we know there are 100 billion galaxies. We are asked to ponder that our Earth was once molten lava and now she sings opera.

Across the lane in Leckey's marsh the earlier magnificent profusion of golden rods show the persistent hits of October frosts.

Winter is coming.

—Jim Brett

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For more program information and to download registration materials, visit www.PICEweb.org



PICE News

Jam-Packed Spring and Summer Schedule

Wow—this has been our busiest program season to date, with the second annual Wildlife Leadership Adventures Field School, the Elk County Visitor Center project planning, and a full slate of Field Seminars and Retreats. We are pleased to note that even in this unstable economy, all but one of our Field Seminars and Retreats filled up and ran as planned.

The second Wildlife Leadership Adventures: PA Bucktails field school ran July 8-12 at the Raystown Field Station. This program is selective and competitive and we enrolled 20 top-notch high school students from our pool of applicants. Half of the students were girls and half were boys and they came from 14 counties across the state. Over the 5-day field session the students "wowed" our instructors with their motivation, energy, and personal growth. In the first few weeks after the field school, I received half a dozen newspaper articles written by WLA students, and received reports of students conducting television and radio interviews with local stations, giving PowerPoint presentations at their schools, and more. We eagerly await their Early Bird Books of Accomplishments this November!

Michele and Emily have been traveling all over the country this summer visiting state of the art natural science education centers as part of their research for the Elk Country Visitor Center (ECVC) education program proposal. Although travel-weary, they are energized by their meetings with Directors and program staff at top-notch facilities such as North Cascades Institute, the Teton Science Schools, the National Elk Refuge, and the Aldo Leopold Legacy Center. The ECVC program proposal will be submitted to the Rocky Mountain Elk Foundation near the end of the year.

PICE Says Goodbye and Good Luck

Program Coordinator, Gail Farmer, is expecting her second child in early 2009. With this exciting new addition to her family, Gail has decided to take a time-out from her career to nurture and care for her children full-time. Although we will miss Gail, we wish her the best with her growing family!

The Institute's President and Co-Founder Discovers Ancient Hominid Footprints in Africa

Jim Brett has been leading field expeditions in Africa for over 25 years, but this spring he and PICE Board Member Joseph Reibman, along with Dan and Colleen Hill of Erie, PA, came upon something extraordinary — a set of hominid footprints in Tanzania some 65 km from Laetoli where Mary Leakey discovered 3.4 million years old prints in 1974.

Suspecting these prints were prehistoric, Brett contacted the Smithsonian Institution's Department of Anthropology and the Anthropology Department of The American Museum of Natural History and put together a team of scientists to determine the age and significance of the prints. The team visited the site and took some samples of the volcanic tuff which are being argon/argon dated at Rutgers University. Results will be conclusive in December. For now geochronologists have told Jim that these prints are very old indeed and may exceed 2 million years.

The Project Team has received grants from Appalachian State University and applications pending with National Geographic. They will present a paper announcing the discovery at the East African Society of Paleoanthropologists and Paleontologists Conference in Arusha, Tanzania, in August 2009.

Wildlife Leadership Adventures Awards College Scholarships to Outstanding Youth Ambassadors for Conservation

WLA recognizes outstanding work in conservation outreach and service among our program graduates by awarding college scholarships to students based on their WLA Book of Accomplishments. This July, we were pleased to award our first two scholarships to 2007 Bucktails Carlos Cuevas and Pat Calpin. Carlos is currently a high school senior and is planning to attend Penn State next fall. Pat is a Freshman at Paul Smith's College in the Adirondacks, majoring in Wildlife Science. We are very proud of the work these two students have done as Ambassadors for Conservation in their communities.

We thank the Quality Deer Management Association, Pennsylvania Chapter for contributing to the WLA college Scholarship Fund. If you would like to contribute to this fund and support youth conservation leadership development, please contact Gail Farmer (gfarmer@PICEweb.org).

First Meeting of Advisors and Partners for the Master Naturalist Program a Success

In May we gathered a group of Philadelphia area conservation organizations at the John James Audubon Center to discuss the development of our first Master Naturalist module focusing on the Northern Piedmont ecoregion and urban ecology of greater Philadelphia. Organizations present at the meeting included the Philadelphia Horticultural Society, The Stroud Water Research Center, the Schuylkill Center for Environmental Education, Fairmount Park, NJ Academy of Aquatic Sciences, PA Environmental Council, and the Silver Lake Nature Center.

The meeting was an energetic and enthusiastic discussion of the Master Naturalist program and how it can be used to unite the goals and efforts of many Philadelphia area volunteer-based conservation organizations. We will be holding our second planning meeting this fall and hope to expand our partnership reach in the Philadelphia area further.



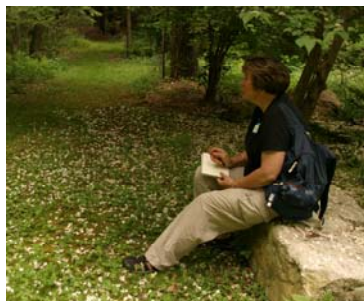
Fall Featured Field Seminars & Retreats



Ferns and Mosses

SEPTEMBER 6 (SAT), Ricketts Glen State Park, *Susan Munch, Ph.D.*

The forests of Pennsylvania provide ideal habitat for luxuriant growth of ferns and mosses as well as other nonflowering plants. Investigate the habitats and uniqueness of these fascinating plants as we explore old forests, wetlands and Appalachian landscapes. Learn to identify major common genera and species from an experienced botanist. For our field studies, we will explore the most beautiful and alluring Pennsylvania natural area where nonflowering plants thrive. Ricketts Glen is known for its abundance of scenic waterfalls.



Nature Journaling

SEPTEMBER 12-13 (FRI – SUN), Canoe Creek State Park, *Heidi Boyle*

Nature journaling has served explorers, pioneers, botanists, doctors, artists and more throughout history. Come practice the time-honored art of observation while learning field-friendly techniques for sketching and writing. Participants will make their own journals and spend relaxing time journaling in a peaceful natural setting. Participants will also explore a variety of ways to create and use journals in daily life. Be ready to go off trail to explore in shade or sun.



Exploring Landscape through Photography

OCTOBER 18 – 19 (SAT – SUN), Fulton and Bedford Counties, *Scott Brown*

The landscape of southcentral Pennsylvania showcases the splendor of the Appalachians and its fall beauty. Beautiful natural surroundings abound and provide photographic opportunities. Scott Brown will guide all levels of photographic experience towards an end product of extraordinary visual satisfaction. Imagine returning home with a collection of stunning landscape photographs which can be shown as hanging portraits, shared e-mail images, and greeting cards. All camera formats are acceptable, but 35mm and digital formats are encouraged.

For details and registration information on these field seminars, visit our website www.piceweb.org.

Featured Artist: Sandra Blair



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Sandra Blair

SAA, AFC, BWS

Ms. Blair hails from southwestern Pennsylvania where she developed her passion for art and nature at a young age. With her watercolors and acrylics she “strives to capture the wonder that I experience when I come upon an animal in its natural environment — not a photographic likeness, but the essence of the natural world.”

To see more of Ms. Blair’s captivating work, visit her webpage: www.natureartists.com/sandra_blair.asp

You may contact Ms. Blair at: sblairart@verizon.net

Science News for Naturalists

A summary of relevant research on wildlife and ecology.

Biodiversity Intensifies Our Emotional Attachment to Green Spaces.

A study conducted in the UK has demonstrated that people living in metropolitan areas show greater emotional attachment to outdoor spaces with more species diversity. For example, city-dwellers were more likely to agree with the sentence "This park feels like a part of me" when there were thirty kinds of birds inhabiting a park instead of only ten. Biodiversity also seems to affect how conducive to relaxation and reflection a park is, for example, people were more likely to agree with the sentence "coming here clears my head" in locations where there were seven habitat types instead of only two and when there were several hundred types of plants present instead of only ten.

Fuller, R.A. et al. 2007. Psychological benefits of green space increase with biodiversity. *Biology Letters* 3(4):390-394.

Size Matters: Sexual Cannibalism Among Spiders.

The Black Widow, a spider whose name is based on the fact that the female of the species consumes the male shortly after he fertilizes her eggs, is probably the most famous example of sexual cannibalism among spiders. However, many species of spiders engage in sexual cannibalism and until recently, no one understood why some species did and others didn't. Wilder and Rypstra's study demonstrated that species with the greatest sexual size dimorphism, where the female is substantially larger than the male, were significantly more likely to engage in sexual cannibalism.

Wilder, S.M. & A.L. Rypstra. 2008. Sexual Size Dimorphism Predicts the Frequency of Sexual Cannibalism Within and Among Species of Spiders. *American Naturalist* Vol. 172, pp. 431-440.

Nest-site Selection in a Migrant Songbird: Keeping Up with the Jones'.

A recent study published in the *Proceedings of the Royal Society, Series B* examined the role of social information in nest-site selection among Black-throated Blue Warblers. Current theory predicts that birds choose their nest-sites based solely on vegetation structure. Betts' study provides the first evidence that what birds hear may actually play a more important role in breeding site selection than vegetation structure in some songbird species. For his experiment he chose a selection of sites that contained



high quality habitat, mediocre habitat, and low quality habitat. Among these sites, he played tape recordings of the songs of successful breeders at some of each, and at the rest vegetation was the only cue. Overall, he found that male birds were four-times more likely to settle in sites where they heard bird songs than those with good vegetation alone. It seems that birds like to raise their young in neighborhoods full of other families...sound familiar?

Betts, M.G. et al. 2008. Social Information trumps vegetation structure in breeding-site selection by a migrant songbird. *Proceedings of the Royal Society, B* 275(1648):2257-2263.

—Gail Farmer

Winter Wildlife Watching Hotspots

Conowingo Dam

What's There:

Winter congregations of Bald Eagles

There is a viewing platform near the parking area.

Where: Just south of the Maryland border on the Susquehanna river about 4 miles upstream from the Chesapeake Bay; The dam is run by Philadelphia Electric.

Gettysburg National Park

What's There:

Winter vulture roosts

Viewing is best in the morning (before they leave to forage for the day) and in the late afternoon (when they return to roost).

Where: Southcentral PA; Big Round Top is historically the area with the largest roosts.

For more information:
<http://www.nps.gov/gett/>

Lake Erie Tributaries

What's There:

Spawning Salmon in the fall; October is best.

Where: Northwestern PA; any of the tributaries should have salmon, however, **Trout Run** is the most accessible and productive spot to visit.

For more information:

<http://www.fish.state.pa.us/images/fisheries/fcs/fairview/fcs.htm>

Naturalist Rambles

Laurie Goodrich has been studying the natural world for much of her life, from her grandmother's garden and childhood landscape to her near 25-year career as an ornithologist. She currently works as the Senior Biologist for Hawk Mountain Sanctuary, where she has worked since 1984. Laurie can often be found on top of the mountain, simply enjoying casual conversation with visitors, pointing out birds, and appreciating the view she's looked at for many years, but which never seems to get old.

What experiences do you attribute to your passion for the natural world?

I got interested generally because my father and grandmother took me outside. My father took me on hikes, and my grandmother had a huge garden and bird feeders. Every time we went to visit, I would go into the garden, and I'd watch the birds. I especially remember watching the birds in the wintertime.

I started pretty early with a general interest in nature. I was very lucky because when I was five years old, we moved into a house with a huge wooded area in back. I used to just hang out in the backyard, climbing trees



and going down to the stream or running around with the other kids in the neighborhood.

What do you find most rewarding about your daily work?

The best thing about my job is being able to be outside, seeing something new every day and being able to share that with the visitors. There's always something new. For example, I've been coming to this lookout for almost 25 years, and today I saw a Blackburnian Warbler take a grasshopper.

Other than the lookout, where do you go to escape the hustle and reconnect with nature?

Just out into the woods, taking hikes, or working in my garden.

What's the best thing anyone ever taught you?

Natural history knowledge. I'm always learning new things from new people.

Who do you see as the best thinker (or thinkers) in your field, and why?

In Raptor Biology, I would say Ian Newton, because I like the way he asks questions. He studies very basic questions, and brings up new ideas about life histories. He also looks at things long-term, not just once and done.

In Conservation Biology, I would say David Orr. He has a good way of seeing all of the connections of things and making it easy to understand. He writes an essay in every issue of the Journal of Conservation Biology, and he's always right on.

What's the most influential book that you've read?

Roger Tory Peterson's Field Guide to Birds. There are so many great books and authors that I've read, by great naturalists, but if I'd want to choose just one book, I would have to choose this one. Being able to figure out one bird from the other opened up a whole new world for me. I came to it late; I didn't start looking at bird books until college, but it started getting me outside more, and looking at other things, like plants and butterflies. I spent a lot of time with that book. Now I hardly look at it because



Laurie Goodrich at North Lookout

there are so many others.

What principal do you strive to live by?

To try to leave the world a better place, particularly for wildlife, and that everything has value; from the millipedes to the mammoth elephants, everything is important.

—Emily Brodsky

Wildlife Watching Hotspot

This autumn, join Laurie on Hawk Mountain Sanctuary's North Lookout to witness the spectacular fall migration of songbirds (best near dawn), raptors (best on days with a north westerly wind), dragonflies and monarchs. Hawk Mountain is located in northern Berks County.

For more information visit:

www.hawkmountainsanctuary.org

Support Our Work

OUR MISSION AND PURPOSE

The Institute is dedicated to stimulating knowledge of, interest in, and an appreciation of natural history by providing extraordinary field-based educational opportunities in Pennsylvania and beyond.

We are committed to creating a more ecologically literate population; one that becomes increasingly engaged in the conservation of natural resources.

Your support makes our programs possible. Please let us hear from you today and we will put your contribution to work.

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Winter Reading *Staff Picks*



Emily:

Ravens in Winter, by Bernd Heinrich, Vintage 1991

Bernd Heinrich, a professor emeritus at the University of Vermont, spent many years studying the behavior of ravens. In addition to many scientific papers on the subject, Heinrich published two books describing his personal experiences conducting this challenging field work, and his observations and reflections on raven behavior in layman's terms. *Raven's in Winter* is the first of these books, and follows Heinrich through several harsh Maine winters as he explores why unrelated ravens share their food.

Gail:

The Island Within, by Richard Nelson, Vintage Books 1989

When we think of rainforests, our minds usually steer towards the tropics, not North America. *The Island Within* will deliver you into the heart and



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continued...

The Island Within, by Richard Nelson, Vintage Books 1989

soul of the Northern Temperate Rainforests of the Pacific Northwest. Richard Nelson is a superb naturalist who takes readers with him on his personal journey exploring the small island a short skiff ride from where he and his family live. Nelson's clear writing and poignant observations help us to understand what it means to be "home," a place that inhabits us as much as we inhabit it.

This book is best experienced over a cup of hot cocoa, curled up on the couch with a warm blanket.