



Pennsylvania Naturalist

Connecting People, Nature and Community

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Naturalists at Home

Jim Brett

I live in the forest along Pine Creek. Precious are these mid summer evenings when I adjourn to my library to write. The loft window is open. Katydid's have begun their night music; higher in the forest- canopy crickets softly trill half the night away. These are moments of magic. Compare katydids and crickets with the deafening sound of roaring motorcycles which are increasing year after year. Believe it or not the early years of my nature travels was on a 1954 Harley-Davidson 125 Hummer. Soft engine, little racket. Saddle bags with field guides, binoculars, thermos and lunch. Fun.

Darkness comes with welcome respite. Holy is the music of these simple creatures-- summer's night-time symphony.

In this issue I want to write about the naturalists at home. In these woods and along these waterways there exist local natural historians who could parallel Muir, Burroughs, Abbey or Thoreau. I am proud to be living here and so pleased to call them neighbors and

friends. Though not particularly a gathering of lettered folk, each brilliant in his own way; they are whom I like to be with.

A few evenings ago I sat with Uncle John on his back porch. Secretly I've always called John Kunkle 'Uncle John' and any reference to him in my journals is of 'Uncle'. If anyone has reminded me of the naturalists-of-old it is John. John Kunkle turned 82 in January. He is a farmer, a woodsman, really a philosopher in his own right. Each time I travel by way of Hawk Mountain Road, and approach John's place, instinctively I slowdown. Never is there a time when I'm not looking for him. He can either be in his fields mowing hay, cutting firewood next to his sawmill shed or tending to his vegetables and chickens, always softly on the go. John Kunkle personifies the naturalists of older times especially the likes of the old man of *Slab Sides*, John Burroughs. Or when I find John crossing Hawk Mountain Road, in my mind's eye I see Henry Thoreau in gait, stance and calmness of expression.

Uncle John lives where Ben Austrian lived. John's grandfather Albert Kunkle rented the farm house to Austrian who called it Clovelly at Pinnacle. Ben was the artist for the Bon Ami Company and is well known for his sweet paintings of hens and chicks. Austrian was one of the most reputable nature artists of the time. He died suddenly at age 51 and is buried in the Bethel Union Church Cemetery at the site he chose looking at Clovelly and the Pinnacle. Not far away lived Conrad Roland. Roland was a bird-artist of note having been commissioned by the writers of *Bird Studies in Old Cape May* to illustrate many of the plates for that well-known ornithological masterpiece. John Kunkle told me of the time Conrad asked John to sit for him. John thinks he was around 10 years old; he still has that pencil sketch. I want to write on and on about Uncle John. But there are others as well. I need tell about George Hamm and Roy 'Binky' Keim, about Norm Bailey and Wirt Bond....up here in the loft when katydids and crickets are about. Precious times.

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PICE Program News

Successful Pilot of the Pennsylvania Master Naturalist Training Program in Philadelphia, PA

This summer, PICE launched the much anticipated pilot of our Pennsylvania Master Naturalist (PMN) training program in greater Philadelphia. The training focused on urban ecology and the Northern Piedmont and Middle Atlantic Coastal Plain ecoregions of southeastern Pennsylvania. The program generated a lot of interest from across the state and through a difficult selection process, a team of advisors selected 20 applicants, all of whom live or work in the greater Philadelphia region and represented a diverse demographic and socio-economic mix.

Key to the success of the pilot was the strong coalition of regional partners PICE brought together in hopes of increasing connections among the public and their community conservation organizations as well as further nurturing relationships among regional organizations and institutions with shared interests. "This class gave me awareness of all of the local people and organizations that care about our environment in a great, comfortable atmosphere" commented one of our 2010 participants.



2010 pilot program participants at Wissahickon Creek

Our PMN partners from greater Philadelphia include:

Sponsoring partners:

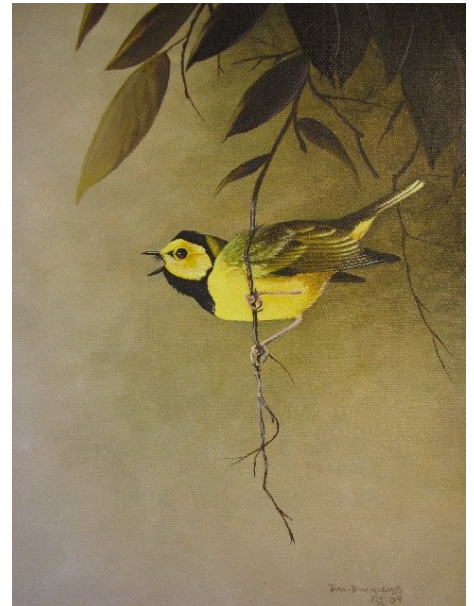
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Minnesota Master Naturalist and the Regents of the University of Minnesota
Natural Lands Trust
New Jersey Academy of Aquatic Sciences
Pennsylvania Horticultural Society
Pennypack Ecological Restoration Trust
Philadelphia Parks & Recreation
Silver Lake Nature Center
Stroud Water Research Center
Temple University

Wildlife Leadership Academy Expands

Once again, the Wildlife Leadership Academy (WLA) provided an unmatched opportunity for Pennsylvania youth during our summer field schools. For the first year, WLA offered *Pennsylvania Drummers*, a field school focusing on our state bird the Ruffed Grouse. We also continued the established *Pennsylvania Bucktails*, which focuses on white-



tailed deer. Between the two field schools, WLA introduced 38 students to wildlife biology and management, media and communication skills, and leadership training. The field schools are just the beginning however – WLA mentors and staff will follow up with the youth in the months ahead by providing opportunities and encouraging them to complete outreach activities where they communicate what they've learned through education, service, media, and the arts.

In Good Company: Wine, Wild Mushrooms and a Good Cause...

In August, PICE arranged a special event hosted by our very own Jim Brett, which included an afternoon of wild mushroom hunting and gathering followed by a four course wild mushroom dinner at Jim's Pine Creek cabin. In the 1500 acres woodland adjacent to Jim's property, event guests found over 35 species of fungi--some edible, others not. This was certainly unexpected due to the lack of rain for the previous two weeks! Many of the guests expressed surprise by the diversity of mushrooms they found in just a small section of the forest. As evening fell, the group headed from the field to Jim's creekside cabin for refreshments and relaxation. "The mushroom dishes were superb and the atmosphere was delightful" said event guests Terry and Larry Ehrenreich. Jim is a warm, generous, and utterly charming host.

The Wild Mushroom program is an important fundraiser for PICE and we thank our 2010 guests for their support. We hope you will join us in 2011 for a very special evening.



Wildflowers in Winter

Rebecca Bowen

One chilly day in February, I took a walk in the woods, down the steep hillside of beech, maple, oak and tulip trees. This time of year there wasn't much to see except some skunk cabbage poking their stinky noses through the frosty mud at the bottom of the hill. There was, however, one interesting exception, crane-fly orchids. They showed up as a splash of green leaves on the dull leaf mould. It was like a preview of spring. I carefully flipped one of the veiny leaves over in my hand and saw a bright silky green on the upper side and brilliant purple below. In fact, their scientific name, *Tipularia discolor*, refers to the different color of the underside of their leaves.

Crane-fly orchids have winter, or "hibernal," leaves. Putty root orchid (*Aplectrum hyemale*) is another hibernal leaf orchid, but their leaves are a stripy green. Hibernal leaf orchids display one leaf in winter, which dies back before the flower blooms. The crane-fly orchid bloom is a flowering stalk with many long-spurred flowers attached to it in a raceme. The orchid gets its name for the shape of the greenish blossoms, which are somewhat reminiscent of a crane-fly.

One normally thinks of orchids as tropical and temperamental, loving the humid, pampered life of a greenhouse. But here, in the chilly northeast winter were orchids! I shouldn't have been so surprised: there are about 1000 orchid species in North America, and about 145 of those are found in the temperate areas, inhabiting a wide range of habitats. Crane-fly

orchid has a range from Michigan east to New York, south to Florida and west to Texas. However, they are considered rare in some of those states including Massachusetts and New York where they are endangered, Florida and Michigan where they are threatened, and Pennsylvania where they are ranked as rare. I was in Maryland enjoying the orchids on the hillside, where they are not listed as a species of concern.

I sat back and watched the dappled sunshine play amidst the little crane-fly orchid leaves. The shiny green leaves nearly coated the little hillside, once I took the time to notice them. They made a cheerful contrast to the dry brown ground, and gave me hope of spring. I will definitely have to remember this spot and come back in July or August when the plants may be flowering.

I'll remember my camera too. It's important to take only photos of wild orchids, as they belong in their wild habitat and don't like being transplanted. Never disturb plants

that are considered threatened, endangered or rare by your state's regulations.

I simply relaxed, took in the scene and enjoyed my preview of spring!

Rebecca Bowen is an Environmental Review Manager with DCNR Dept. of Forestry.



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

Please support our efforts with a financial contribution.

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www.picweb.org/donate.htm

Featured Artist: David Hughes

A native of Pottstown, Pennsylvania, Dave made his home in the city with his heart in the mountains. He spent many youthful hours in the stream and woods near his parent's suburban home fascinated by all that he encountered in nature.

David works with pencil sketches, acrylic paints, watercolor, oils and more recently - coffee.

Most pieces are one-of-a-kind copyrighted originals. Commission pieces are his favorite because he can personalize the design concept.

David Woodring Hughes / Art Gone Wild / Deer Trail Studio
Artgonewild@aol.com



Naturalist Rambles

Robert Mercer began his explorations of the natural world as a small boy when his mother sent he and his 7 siblings out the door each day (so she could have some peace!). Since then, he has always embraced the opportunity to roam and explore the outdoors. In fact, this is Bob's 35 year anniversary as Director of the Silver Lake Nature Center, a 235 acre preserve and education center in the most heavily populated region of Bucks County (and a partnering organization with PICE's Master Naturalist program in greater Philadelphia). We salute you, Bob!

What experience(s) do you attribute to the development of your passion for the natural world?

A single day during a single class lit my interest in nature and being a naturalist. As a Parks and Recreation Management major at Clemson University in South Carolina, a required class was interpretation. A young and enthusiastic professor, Paul Hamel, took us out into the field. "The day" happened to be wet and rainy. Wrapped in our raingear, we set off down the trail. Members of the class, who were far more knowledgeable about the identification of plants and animals, asked questions and offered up their knowledge. The group looked at EVERYTHING. After two hours, we had traversed less than 100 yards and could still see the cars in the parking lot. That experience opened my eyes to the variety and complexity of nature, turning my love from "being outdoors" to wanting to "know, understand, and share" the outdoors.

Where do you go to escape the hussle and reconnect with nature?

I do not need to find a wild undisturbed natural area. Just sitting in my 60 by 100 yard may bring me close to a hummingbird, allow me to watch a spider recycle its web material or expose me to a hawk consuming a rabbit. The yard, which my wife has transformed from grass to a haven for wildflowers, herbs, and colorful flowers, exposes the daily world as it inexorably changes and evolves. It underscores the impact we humans have on the health of the environment. It offers me the chance to

"play God" making the tiny decisions as to which plant or animal are weeded out and which survives as I manipulate my tiny Eden to my liking. While puttering around, the senses are constantly tuned for the passing bird, the butterflies currently in season, the flowers in bloom, or the sounds de jour. My yardbird list currently stands at eighty-five, with the most exotic being a Mississippi Kite.

The best thinker(s) in my field:

As a generalist dabbling in a wide range of topics, it is a challenge to pinpoint a field much less the best thinkers.

Locally, my mentor was and is Rick Mellon, a man whose interest in birds led him to study plants to understand natural relationships. That led him to soils and then into geology. As a result, he sees the intricacies of the web of life better than anyone I know.

Most influential book:

A Peterson's field guide—pick one. These clear, simple, and accessible books open up a world of knowledge and understanding. They provide a fabulous START that, for me, led to deeper understanding.

Over the years, authors ranging from Edwin Way Teal or Euell Gibbons to E.O Wilson, Steven Jay Gould, Richard Dawkins, or John McPhee have all opened new worlds for me to ponder. Inspiring authors like Scott Weidensaul or Donald and Lillian Stokes stimulated my teaching style. Mike Weilbacher has often twisted my vision to a new perspective when exploring the question, "What is or should be our message?" Within my profession as a nature center director and administrator, a long list of peers has guided my vision and spurred growth spurts in management skills.

The best thing anyone ever taught me is:

Open my senses to everything, in particular sound. Most of us turn our



Bob Mercer afield

senses off in an effort to prevent overload, but we miss so much. As I sit clicking the keys of the humming and hot laptop, the brain also grabs the ticking of the clock, the whirr of the tree cricket, the bark of the neighbor's incredibly annoying dog, the hum of distant cars, the far off "hoot" of a Great Horned Owl, and the onomatopoeic sound of a katydid. I need to identify—not dwell on—but just to identify every sound, every sight, every sensation.

The principle I wish I could live by is:

The Rotary has a principle that says, "He who gives the most, gets the best." Many understand that as meaning one must give money to the community. Wrong! It is a lifestyle. My money is not precious! My short time on the Earth is precious, and if there is an opportunity to share, whether it is my knowledge, my muscle power, or my time, I believe that I am the one who gains in the long run.

Artists & Writers: Submit Your Work to PA Naturalist

We welcome your submissions of nature painting, photography, sketching, poetry and short essays for future issues of Pennsylvania Naturalist. Visit our website for submission details: www.picweb.org/PA_Naturalist.htm

Learn More With PICE Bat Ecology Workshop

August 3-5, 2011



Ask The Expert:

Dr. DeeAnn Reeder, Bucknell University Bat Researcher, Answers Your Questions about White-Nose Syndrome in Bats.

Q: What is white-nose syndrome and how was it discovered?

A: White-nose syndrome is an emerging infectious disease that was described in hibernating bats in the winter of 2006-2007. It was discovered by a state wildlife biologist and cavers in the state of New York and since then has spread throughout New England and into the Mid-Atlantic states.

The fungus that's associated with white-nose syndrome is the most likely candidate for the pathogen or disease-causing organism, but that has not yet been proven. Typically fungal infections don't kill animals. Typically, animals get fungal infections when they are immune-compromised. We know a fair amount about what white-nose syndrome is doing to the bats but we don't know exactly why they die. We know their hibernation patterns are altered in a way that would cause them to lose weight. We know that in many cases they appear to have starved to death. What we don't know is how you go from a fungal infection in your skin to starving to death.

Q: How many states are involved in the effort to find out about white-nose syndrome and what is being done to find the causes and a possible cure for the condition?

A: Pennsylvania, New York, Vermont, New Hampshire, Massachusetts, New Jersey, Connecticut, Virginia, West Virginia all have bats with white-nose syndrome, but there are more states involved because people are getting ready. In Kentucky and Tennessee, for example, those folks are trying to do surveillance and learning as much as they can about it. Given that we think a million bats

have died so far, there are relatively few people working on this, but there are labs throughout the country studying the causes and effects. We are trying to understand what is happening with the bats behaviorally and physiologically and then trying to work out potential mitigation strategies. One aspect of that is trying drug treatments, which were started in my lab on Jan. 27. There are a number of agents that have anti-fungal properties, including some natural products and drugs with Terbinafine, the active compound in over-the-counter antifungal creams for athlete's foot, which has been demonstrated to kill the fungus.

Q: How do bats benefit people and the ecosystem in general and what are the expected long-term effects of the demise of various bat populations?

A: Bats do a lot of things in terms of the role they play in the ecosystem. The bats that are affected by white-nose are insectivorous bats that hibernate, so they perform an ecosystem service in that they eat a significant number of insects. We estimate that a million bats have died so far. Those million bats would have eaten 694 tons of insects last year.

Bats prefer to eat moths, and many of those could be agricultural pests. They also eat mosquitoes. There's not another nighttime insectivorous kind of organism that will come in and take their place. Birds are out during the day. These insects come out at night. So we may see populations of mosquitoes go up. Mosquitoes are associated with disease. We may spray for those. We may spray more for agricultural

pests, so we may see an increase in pesticide use.

Q: What bat species are affected and is there a chance that we will lose some or all of these species?

A: Six species of bats have been affected so far. I think that one of those species, the big brown bat, will probably be OK. I think the other species -- the little brown bat, the tri-colored bat, small footed myotis, the Northern long-eared myotis and the Indiana bat, which is critically endangered already, are all equally highly susceptible. We are probably going to add the Virginia big-eared bat and the gray bat, which are endangered.

I think within several years there will be practically no bats left in Pennsylvania. New York is empty. Massachusetts is empty. There are just handfuls. One of our sites that we study heavily, the Shindle Iron Mine, normally has over 1,000 bats. Now it has six. Even if there are survivors, these bats may become functionally extinct, meaning that we might have some small populations but they will be below a viable population size. They are not going to have enough genetic diversity. There are not going to be enough individuals to find each other for mating. Even if low numbers of bats survive, I'm not sure they will be able to rebuild. These are long-lived, slow-reproducing animals; they have one pup a year and juvenile survival is only 50 percent. It could take decades to rebuild populations, and that's a best-case scenario.

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