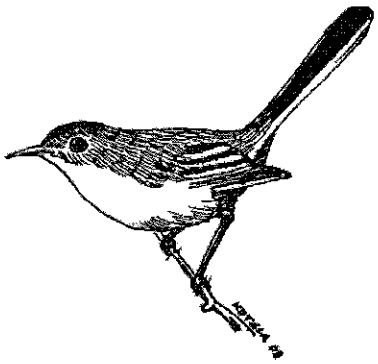
The Gnatcatcher

Newsletter of Juniata Valley Audubon

Volume 42 No. 3 May/June 2010 www.jvas.org



Learning about Amphibians at the JVAS Frogwatch at Flowing Spring

The calls of frogs and toads are some of the most evocative heralds of the end of winter, representing a thawing of the frozen world and the return of warmth to the landscape.

On April 18, a dozen people who were eager to learn about our amphibian friends gathered at the Flowing Spring trailhead of the Lower Trail near Canoe Creek State Park for JVAS' Frogwatch at Flowing Spring.

JVAS Conservation Chair Dr. Stan Kotala gave a brief introduction to frogs and toads, including suggested reference materials and auditory aids to identifying frog and toad vocalizations.

Young and old alike enjoyed the frog and toad board quiz and calls ID tests, with JVAS patches being awarded to the participants. Handouts regarding frog and toad ecology, identification, and conservation were provided, including information on how to make your yard friendly for amphibians.

After the school session, participants walked a short distance downstream along the Frankstown Branch of the Juniata River to a complex of ponds between the river and the Lower Trail. It was easy to see the egg masses of spotted salamanders, glowing white under the water like submerged baseballs. A few Jefferson salamander egg masses were seen also. This was especially gratifying because this species is an amphibian of special concern in Pennsylvania.

Fortunately, these riparian ponds are protected from development, as are the surrounding uplands. Although laying their eggs in such ponds, most frogs, toads, and salamanders spend the majority of their lives in upland habitats.

The wood frog, one of our earliest callers, breeds in March and early April. We observed many wood frog tadpoles, and participants learned that wood frogs require intact forested habitats adjacent to the ponds to complete their life cycle. Less than a week is spent in the ponds during breeding season, and the tadpole stage lasts only a few weeks. The rest of the wood frogs' lives, which may last for a decade or two, are spent entirely on land, including hibernating in leaf litter on the forest floor.

The evening was cold and it had snowed lightly earlier that day, so we did not hear much frog calling. Although the spring peepers were silent, we were treated to a nice chorus of eastern American toads, complemented by a displaying woodcock and a bat flying over the meadow, catching mayflies that were hatching from the river.

Participants went home with a greater appreciation for our amphibian friends and more complete knowledge of the ecological needs of frogs, toads, and salamanders.

JVAS Ironstone Trail Hike, April 3, 2010

20 hikers enjoyed a very warm and sunny spring day on Saturday, April 3, for JVAS' 5-mile Ironstone Tail hike from the top of Tussey Mountain to the Shaver's Creek Environmental Center.

Guided by Helena Kotala, hikers saw trailing arbutus and hepaticas in bloom, wood frog and spotted salamander eggs, red-spotted newts, a Louisiana waterthrush, and a blue-headed vireo.

Red maples in full bloom, emerging skunk cabbage leaves, and spicebush flowers were seen in the lowlands along Shaver's Creek and its tributaries.

At left is a photo of our group in front of the Monroe Furnace above Shaver's Creek near Rt 26.

ANNUAL SIERRA CLUB MOSHANNON GROUP RATTLESNAKE HIKE

Sunday, June 27

Field specialists Matt and Paula Wilson will lead a hike for a close-up look at the timber rattlesnake. The hike will be approximately 1 mile round trip. All safety procedures will be followed. Bring your camera. On the hike last year, many outstanding photos were taken of these fascinating reptiles. Approximate time 3 hours.

Meet at Parker Dam State Park at 9 a.m. at the swimming area of the dam.

Matt Wilson 642-7864, rattler52@pennswoods.net.

All JVAS members are invited.

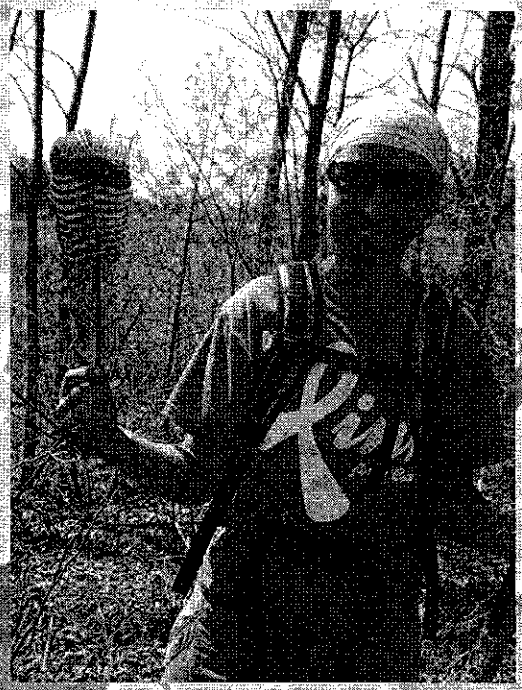
Find *Juniata Valley Audubon Society* on Facebook!

Through the Branches

By JVAS member Deb Tencer

Ray of Sunshine

It was a wonderful, fantastic and absolutely incredible day! March 21st and 67 degrees. We certainly earned this day. I was unable to hike in the mountains for most of February and a good part of march. The snow this year was so deep! I was beginning to get very blue, seasonal depression they call it. I bet almost everyone experienced a certain degree of this.



We had so much more disabling snow this year than the past several years. I don't mind snow cover but without snowshoes I couldn't dare get lost in my woods this past 6 weeks.

It felt so good to get out this week. I ventured in the hills near my home several times. I feel such a sense of adventure and freedom when I "get lost" in the woods. This week I actually did get confused and turned around in the hills. I wasn't afraid. I knew I wouldn't have to go far before I came to a road..... somewhere. Altoona really isn't that isolated. Its hard for me to trust others . Life has taught me some difficult lessons but this time I laid my trust in another, my hiking companion, my collie mix, Sally.

Although we went a different way back she knew exactly where she was going. We had never been this way, but she followed a maze of timber roads and ATV trails and came out of the woods. Along side someone's home and onto a familiar road, perhaps a mile or two from where we walked before. It just amazes me! I always wonder how dogs find their way so easily, so sure of the direction they need to go. I hear stories about animals getting lost and traveling cross country to find their loved ones. Its incredible.

I often wonder if we just listen to our instincts, very closely, would we have that sense of direction? Sometimes I sense things, but rarely do I listen to my "instincts". Sometimes our instincts or warning lights come on so strongly you have to listen. Have you ever pulled the car over for just a minute to find out later you just missed an accident? One time I was hiking with my children up a trail only to freeze in my tracks. My children wanted so desperately to stay on that trail to see the waterfall. They could not understand my reaction but I sensed danger up ahead. My sense of smell became stronger, my animal instinct to fight or flight was so strong. What I suddenly smelled was a very foul odor. Reminded me of the stink at the zoo. I believe had I continued on that trail I would have run into a bear with her young and perhaps experienced a very bad situation, So I protected my young and headed the opposite way. It was an important lesson for my children, not to ignore those strong warning lights. Many years later on several occasions I have hiked that same trail but from an opposite direction many miles away. Every time I come closer to that area my dog becomes very excited, like there's another animal nearby but I never see one. She pulls me so hard I always give up and turn back. This one section of the trail can never be hiked by me. Makes you wonder.....

But back to today. I enjoyed every minute! Every inch of wooded trail! Every ray of sunshine! Every new blade of grass! Every beautiful green fern pushing through the leaves! The sight of all those mountains thrilled me to my soul and it felt good to know I survived another hard winter, and life and all that's in it is reborn!

Red Trillium
By Deb Tencer

Disappearing from the Night

By Heidi Mullendore

After the steep climb along Hartman Trail, I turned to admire the scenery of Canoe Creek State Park. On this beautiful spring morning, the wind was driving sky blue waves on the lake and ripples of silver through new field grasses. Grackles were aggravating each other, chorusing their disapproval of nearby jays, while metallic tree swallows arrowed over their nest boxes. The warm sun and peaceful scene betrayed nothing of the quiet deaths taking place under my feet.

I was taking one of my last hikes to check on the bat mine for signs of WNS (white nose syndrome) hitting our bat colony. The PA Game Commission had installed gear focused at the mine entrance to detect the calls of bats. The emergence of bats before their usual spring exodus would provide the park and PGC biologists indication that White Nose Syndrome had at last hit this exceptional hibernation site.

WNS has been sweeping down from the New England states in the last few years, wiping out over a million bats across hibernation sites in the northeast. Numbers indicate that once WNS finds its way into a wintering colony, over 90% of the bats will die.

Scientists still cannot agree if the fungus that appears on bat muzzles and wings is the cause of death. Some propose the white fungus appears on the bats after their systems are weakened from starvation. It may be possible that pesticides accumulate in the bats' tissues, increasing their metabolisms and forcing them into starvation before outside temperatures are warm enough to provide them the insects they need.

Crossing the ridge, I circled down on the dirt road to the mine entrance. The tightly fitted gate, only five feet high and eight feet wide, was designed to stop intrusion of predators (mostly human) into the hibernating colony. However the bat gate, now a standard measure across the country for protecting wintering colonies, was not designed to prevent against disease such as WNS.

The last 40 – 50 years of studying bats have shown us that we reap incredible benefits from services they provide as they cull insect populations. The US Forest Service estimates that 2.4 million pounds of bugs will go uneaten and become a financial burden to farmers. As such, crop production will require more insecticides, raising food costs and increasing untold environmental concerns. In Pennsylvania, a state with an agriculture-based economy, those losses are no small thing.

As WNS has spread like wildfire, crossing thousands of miles in just a few years, biologists, environmentalists and finally economists have raised their voices at local, state and federal levels to bring much-needed attention and money to study the disease.

PGC biologists Greg Turner and Cal Butchkoski have watched helplessly as thousands have bats have poured from Pennsylvania hibernation sites as a result of WNS. Getting agencies coordinated to come together to provide information and data has been an immediate need in order to devise a plan to stop WNS.

Last year the fungus, previously unknown to science, was identified as *Geomyces destructans*, a cold-loving fungus that grows between 41 and 50 degrees Fahrenheit – typical temperatures for a good hibernation site. Although identifying the fungus of WNS was a huge breakthrough, it still leaves some pretty big unknowns. Scientists know the white fungus appears on the dead/dying bats but it still hasn't been proven that *G. destructans* directly causes bat deaths.

As I leaned against the cold slats of the bat gate of the Canoe Creek mine, I peered into the fading light of the passage below. I could not see any bats near the entry way and there were no bats scattered like dead leaves around the tree trunks and nearby slopes. Even so, the PGC had just informed us that over half our bats were infected with WNS. It had previously been estimated that our mine would suffer an initial hit of 10 – 20%, but a recent foray into the mine revealed their early estimates were low.

Deep in the mine, bats were hibernating next to dead and dying bats whose faces and wings were frosted with the white cotton-like fungus. Just how PGC will have to deal with cleaning up thousands of dead and dying bats, while knowing the survivors will be carrying the deadly spores to neighboring sites, reveals the scope of the problem scientists are dealing with.

How do scientists stop the bats from dying if they still don't know the cause of death or how the fungus is spread? Some have had limited luck with applying anti-fungal medicine to the muzzles of bats, while some have discovered that applications of vinegar relieves the destructive effects of the fungus on the wing membranes of living bats.

Such successes are miniscule compared to the millions of bats that need treatment or a vaccine. As the disease spreads, eliminating colonies in what seems like the blink of an eye, drastic measures have been proposed to stop its spread, including killing all the bats in an infected site, or simply blocking the entrance so infected bats cannot emerge and carry the disease abroad. Even after such decisions are made, the question of how to clean up and decontaminate caves from billions of microscopic spores overwhelms the mind.

Not a sound came from the depths of the mine as I turned away from the gate to head down the trail. We had almost made it through winter and, as the months had passed, the hope had grown that our bats would come through unscathed. Now something was snuffing out the lives of thousands of bats down in the depths of the mine and the insidious fungus was wrapping its white shroud around the bats.

For many years I have led thousands of park visitors to the mine and to the summer colony in the old bat church. My five-year old daughter loves to watch the bats and spends hours drawing pictures of bats. I am sad that scientists are predicting that within her lifetime the cave-dwelling bats in the eastern US are likely to become endangered with some species disappearing entirely.

As of spring 2010, infected colonies have already been found west of the Appalachian Mountains, the only significant geological barrier between our infected colonies and the Midwest states. I can only hope scientists discover the cause of the deaths and can work to prevent its grim flight west before bats disappear entirely from the night.

More Bad News for Bats

Significant bat mortality at wind energy facilities first became widely known in the United States in 2003 when research scientists observed alarming numbers of bats killed at FPL Energy's Mountaineer wind energy plant in West Virginia. The forty-four turbine site located along the forested Backbone mountaintop was found to be slaughtering bats at annual rates of over 50 bats per turbine with some estimates placing the count at close to 100 bats. High mortality was also observed that year at the Meyersdale wind farm in Pennsylvania, another FPL project.

Researchers from Texas-based Bat Conservation International ("BCI") were invited to investigate the cause for the high mortality with the intent of trying to minimize and/or avoid the impact. FPL (now Next Era) initially agreed to cooperate, but in 2004 abruptly changed course and banned further visits by scientists to the sites. To our knowledge, bats kills are continuing unabated and Windaction.org has no independent information to suggest anyone is even monitoring the problem.

In 2007, renowned bat expert Dr. Thomas H. Kunz and others published "Ecological Impacts of Wind Energy Development on Bats" which detailed the significant risk that industrial-scale wind turbines posed for migratory and local bat populations in the Mid-Atlantic region of the United States. The authors projected that by 2020, annual bat fatalities at wind energy facilities in this area alone could reach 111,000 bats.

"The most severe threats facing bats in eastern United States are habitat loss, White Nose Syndrome, and proliferation of poorly sited industrial wind developments."

The authors also made clear that their preliminary projections of cumulative bat fatalities were likely unrealistically low.

And developers' own consultants agree. During court proceedings before the U.S. District Court involving the Beech Ridge wind energy facility proposed for West Virginia, experts predicted that more than 130,000 bats would be killed by the turbines through a combination of direct collision with the turbine blades and barotrauma. The Beech Ridge project is close geographically to the Mountaineer facility..

Dr. Kunz elaborated on his concerns in written testimony submitted to the court as follows:

> ***"the most severe threats facing bats in eastern United States are habitat loss, White Nose Syndrome, and proliferation of poorly sited industrial wind developments. Habitat loss and degradation as a result of human activity has been occurring for a long time, but the recent threats of White Nose Syndrome and industrial wind developments - and particularly the cumulative effects of the two simultaneous threats -could have especially deleterious effects on a number of bat species in the eastern United States, including the endangered Indiana bat."***

Vermont's Agency for Natural Resources is taking bat mortality very seriously. In recommendations to the Vermont Public Service Board involving a 5-turbine project along Vermont's Georgia Mountain, the agency proffered maximum allowed mortality thresholds:

> *"Adverse impacts to bat populations may occur as a result of the new wind facility and should be addressed when estimated bat fatalities for the period July 1 through September 30 at the Green Mountain site exceed 0.0 threatened and endangered bat species/ turbine (Indiana or small footed bat), 3.0 migratory bats/ turbine (combinations of red bat, hoary bat and silver- haired bat) or 5.0 bats/ turbine of other species (combinations of little brown bat, big brown bat, northern long-eared bat, and tri-colored bat)."*

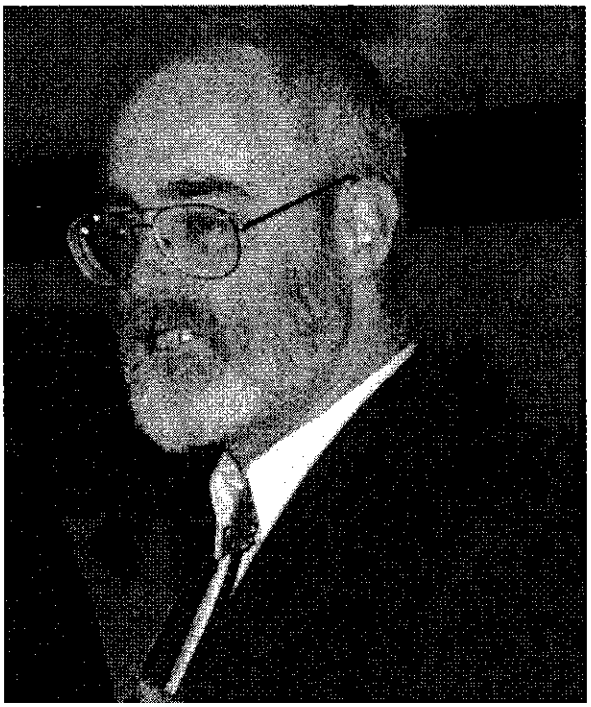
But wind developers building in agriculture areas or areas away from forests essentially ignored the bat problem believing it only applied to a few projects along ridgelines in eastern States.

In proceedings before the Wisconsin Public Service Commission on the Blue Sky Green Field Wind Energy Center (88 turbines), developer We Energies dismissed recommendations by the State's Department of Natural Resources (DNR) that pre- and post- construction studies be conducted to understand the effect on resident and migratory bats. Their witness testified that the "project's bat mortality rate is reasonably likely to compare with the published mortality rates at wind farms located in similar agriculturally-dominated landscapes."

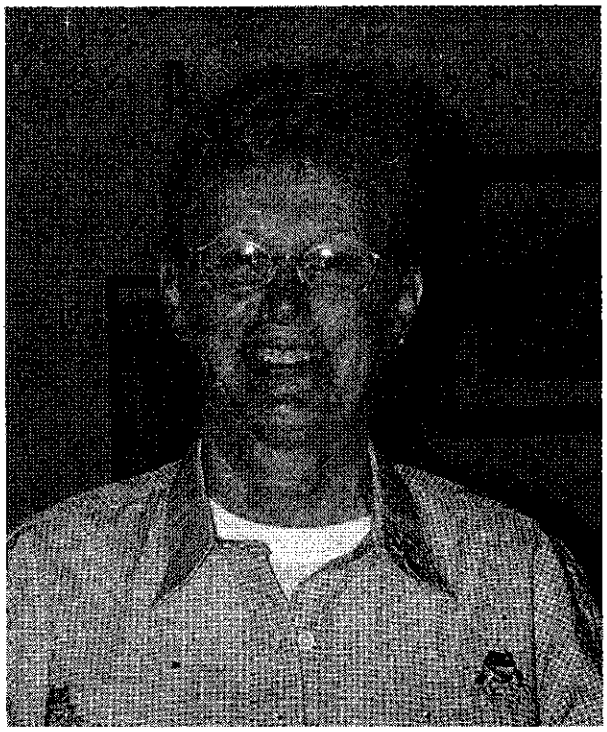
Still, the Commission required the project conduct post-construction studies and the results were staggering. **Bat mortality was found to be *over* 40 bats per turbine per year with counts nearly split between migratory and resident species.** In an expected 20-year project life, over 70,000 bats will be decimated by this single project.

Scientists at the DNR made it clear to the Commission that there were too few scientific studies completed nationwide for anyone to understand the estimated potential for impacts for a particular wind farm simply by performing a literature review and extrapolating the results from wind farms located in similar environments. And they were right!

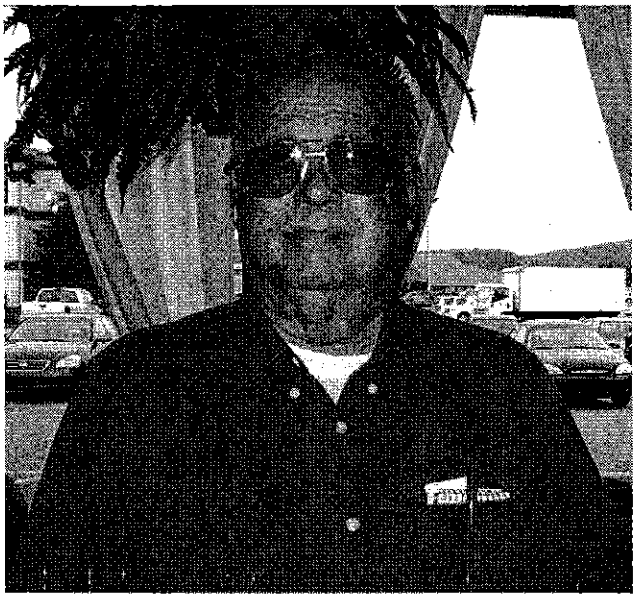
Meet the New JVAS Officers



PRESIDENT Dave Bonta has been vice president of our chapter for close to a decade, serving with distinction during the Wentz and Kotala administrations.



VICE PRESIDENT Laura Jackson has served as a director of our chapter for many years,



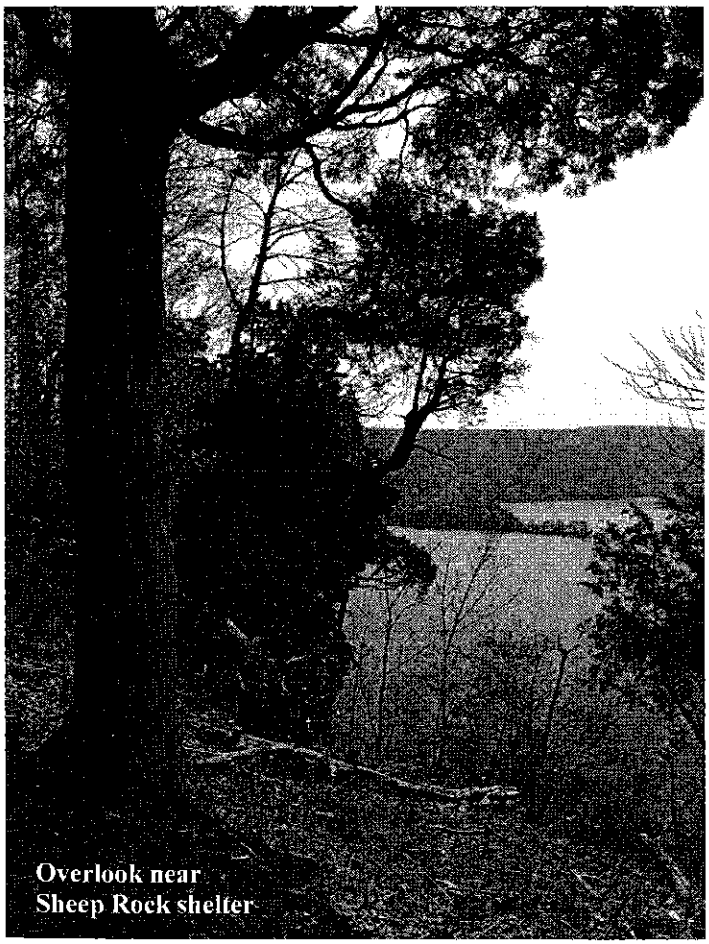
SECRETARY Dr. Alice Laskaris has served JVAS as education chair, newsletter editor, and membership chair over the course of two decades.

TREASURER Warren Baker will continue in the capacity of treasurer, which he has held for close to a decade.

Spring

By Helena Kotala

Outside, I hear the constant dripping of the water pouring off the black roof as the snow melts. The sound is a promise, a promise of warmer weather and sunshine and flowers. It is a promise of spring. I lift my face toward the sun and feel the rays burn into my skin, relishing the feeling. It's been so long. I can finally walk outside without a coat, sit on the porch and read. The wind gently flutters the pages of my book as I take a break to observe the world around me. It is a warm wind, not harsh or biting, a mild breeze that makes the leaves in the trees dance and the birds sing their songs of spring. A flock of geese flies overhead, honking as they migrate back to their summer home. I find myself wondering what it would be like to be a bird, to fly over the landscape, to soar over the mountains, to be completely unbound. I am startled out of my daydreaming by the cacophonous chatter of two chipmunks chasing each other over the thawing ground. Amused, I watch them as they dart and scamper, excited as I am that the warmth has returned to central Pennsylvania. The cute little mammals finally disappear behind the house and I look up at the cloudless sky, marveling at its deep azure hue. It's been a long winter, but spring has finally sprung, bringing with it the promise of new life and new beginnings.

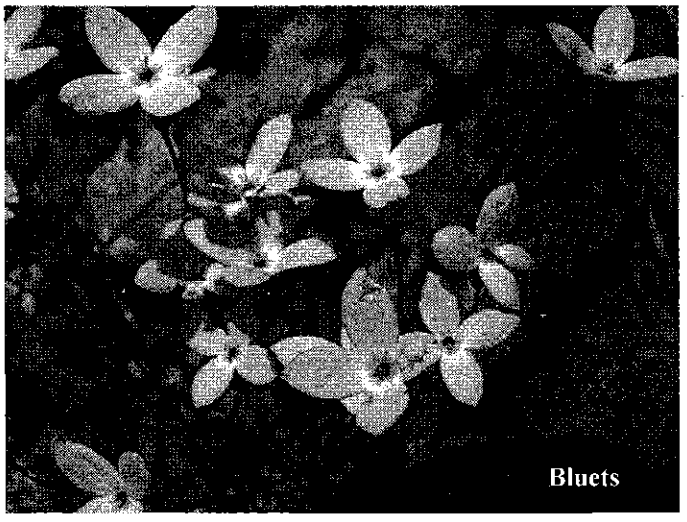


Overlook near Sheep Rock shelter

JVAS Old Loggers' Trail hike

April 11, 2010

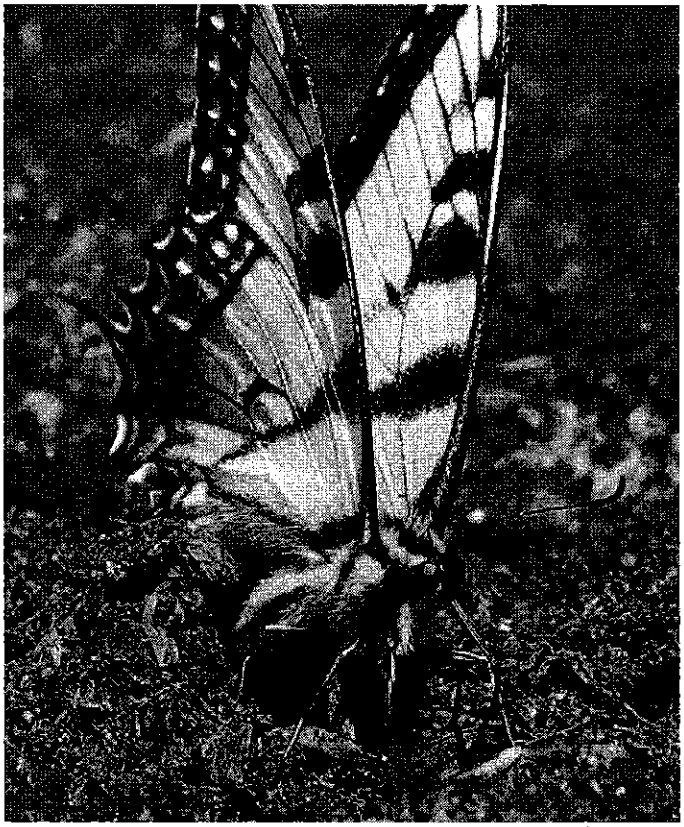
Half a dozen hikers enjoyed beautiful weather for a 6.5 mile hike led by Helena Kotala on the Old Loggers' Trail near Raystown Lake. Large numbers of bluets, spring beauties, hepaticas, and rue anemones were in bloom. We were serenaded by Louisiana waterthrushes and blue-headed vireos.



Bluets

Spring Awakening

By Deb Tencer



The thing I miss the most in winter is the song of the birds. The silence is deafening. In the spring I can sit with the warmth of the sun on my skin forever. I close my eyes and just listen to the birds. The song fills my head and chases away my thoughts, both good and bad.

The smell of lilacs is overwhelming, bringing old and new memories to my mind if I allow it. The tiny little seedlings in my garden reach for the sky and I'm as content as the sun which is warming up the soil to create new life.

I sit for hours listening and closely watching my little world in my yard. Chipmunks scurry haphazardly, occasionally startling a robin in search of the perfect worm. The swallowtail butterfly appears and just as quickly disappears from my sight.

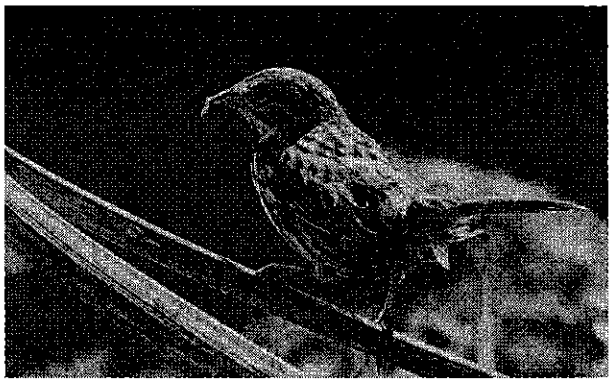
It's easy to shut out the sound of traffic and human interference as the sound of a woodpecker steals my attention.

Tiny little purple forget- me- nots overflow the garden, reappearing each year with ever growing abundance.

My old trees slowly die as my newly planted babies slowly grow in their place, reminding me of the cycle of life..... new replacing old. The flow of the seasons..... spring replacing winter.

Eastern American Toad
By Dr. Stan Kotala

Song sparrow
By
Alan Minasi



JVAS THANKS ITS CORPORATE SPONSORS

join JUNIATA VALLEY AUDUBON!

Juniata Valley Audubon membership provides you with the following benefits:

- Notification of Juniata Valley Audubon's exciting activities including nature programs, field trips and other events
- Subscription to the bimonthly chapter newsletter, *The Gnatcatcher*
- Opportunities to participate in conservation projects and environmental advocacy, and ***have fun!***

Become a chapter-only member:_____**Individual:** $15 _____**Family:** $20 _____**Supporting:** $35

_____**Friend of JVAS:** $50 _____**Corporate:** $100

_____**Life Membership:** $500– JVAS Life Membership provides you with all the benefits listed above for a once-in-a-lifetime fee of $500.

Name_____

Street_____

City_____State_____Zip_____

Phone_____

E-mail_____

Mail this form to

Juniata Valley Audubon

P.O. Box 148

Hollidaysburg, PA 16648-0148

JVAS BOARD MEMBERS

OFFICERS

President.....Dave Bonta 684-3113
bontasaurus@yahoo.com

Vice-President.....Laura Jackson 652-9268
mljackson2@embarqmail.com

Secretary.....Dr. Alice Kotala 946-8840

Treasurer.....Warren Baker 684-4549

COMMITTEE CHAIRS

Membership..... Dr. Alice Kotala 946-8840
ccwiba@keyconn.net

Programs.....Laura Jackson (see above)

Conservation ..... Dr. Stan Kotala 946-8840
ccwiba@keyconn.net

Education..... Jody Wallace 684-2425
creatureteach@aol.com

Field Trips..... .....**VACANT**

Publications.....Dr. Stan Kotala (see above)

Hospitality..... ....**VACANT**

Historian.....Charlie Hoyer 684-7376
charma77@verizon.net

DIRECTORS

CBC Coordinator.....Steve Bonta
stevebonta@yahoo.com

SOAR Representative....Laura Jackson 652-9268
mljackson2@embarqmail.com

MAY/JUNE PROGRAMS

May 18 — "Golden-winged Warbler Ecology and Conservation in Pennsylvania"

Jeff Larkin will present findings from an ongoing study of this critically threatened species in Sproul and Bald Eagle State Forests. Larkin, a professor at Indiana University of Pennsylvania, is one of the state's foremost wildlife biologists.

JUNE 15 Tuesday — **ANNUAL JVAS MAXINE LECKVARCIK MEMORIAL PICNIC:** Covered-dish social followed by an evening walk in the park. Pavilion 2 in Canoe Creek State Park at 6 p.m. Georgia Bottenfield 832-2273

MAY/JUNE/JULY/AUGUST FIELD TRIPS

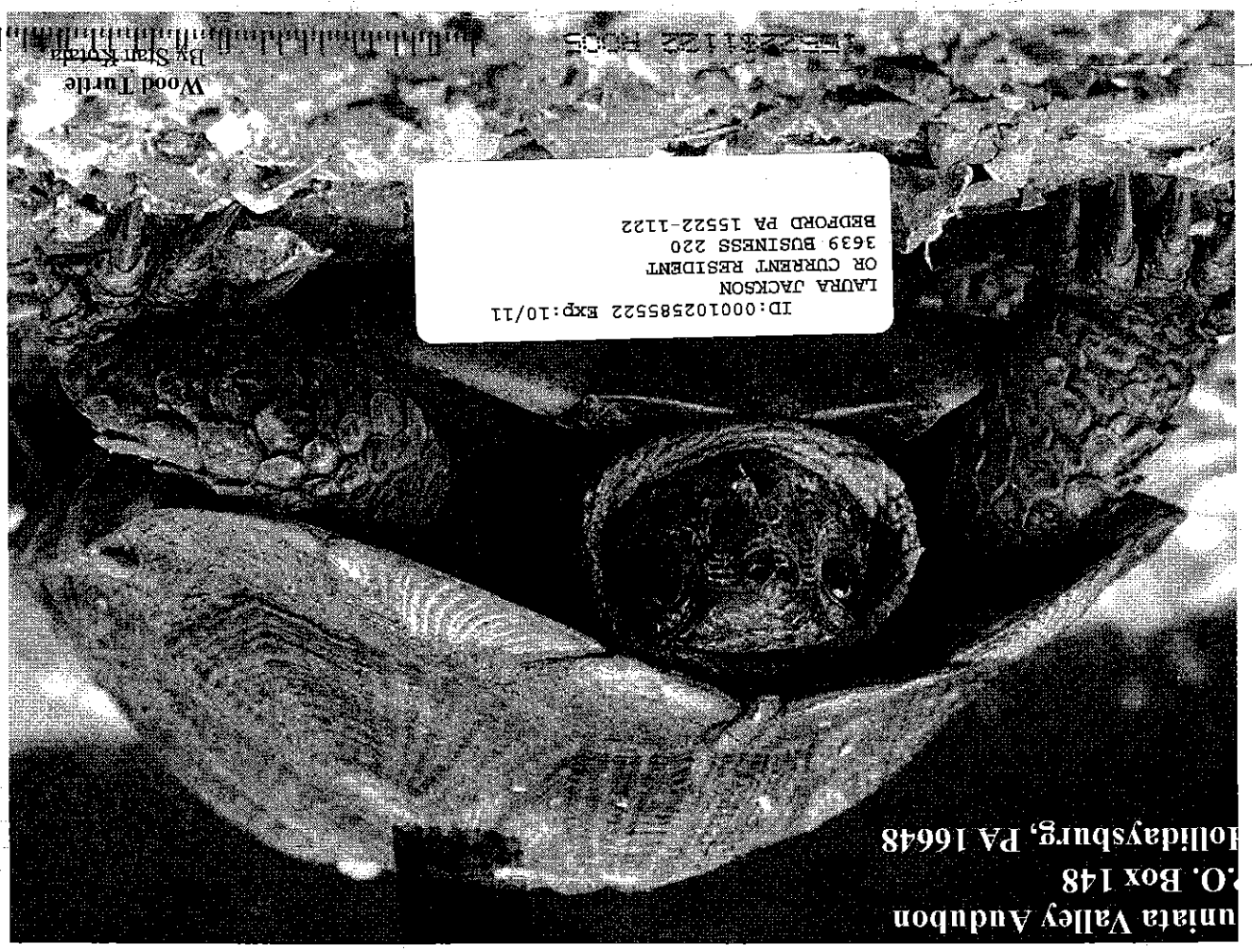
MAY 2 Sunday — **ROCKY RIDGE NATURAL AREA:** Four-mile hike in this geologically and botanically rich area along the Standing Stone Trail north of Huntingdon. Meet at McDonald's on Rt. 22 in Huntingdon at noon. Dr. Stan Kotala 946-8840, ccwiba@keyconn.net.

MAY 8 Saturday — **INTERNATIONAL MIGRATORY BIRD DAY:** Meet at the Education Center, Canoe Creek State Park at 8 a.m. for a morning bird walk to see as many as 150 bird species during the peak of spring migration. Later in the day, meet at the Lower Trail Flowing Spring Trailhead at 7 p.m. for an evening bird walk to see as many as 100 bird species. Click here to go to a PDF containing a map of the Lower Trail. Dr. Stan Kotala 946-8840, ccwiba@keyconn.net.

AUGUST 22 Sunday — **BATS OF BRUSH MOUNTAIN:** Hike the trails of the Nature Conservancy's new Brush Mountain Preserve to observe bats. The site is part of the Canoe Creek Important Mammal Area. Meet at the Canoe Creek State Park Environmental Education Center at 7 p.m. We'll carpool to the Brush Mountain Preserve. Dr. Stan Kotala 946-8840, ccwiba@keyconn.net.

ABOUT JVAS PROGRAMS: Programs are presented on the *third Tuesday of each month, September through May (except December).* **They begin at 7 PM in the BELLWOOD-ANTIS PUBLIC LIBRARY.** Take the Bellwood Exit off I-99, go straight thru the traffic light at the Sheetz intersection, proceed about 4 blocks and turn right just before crossing the railroad overpass. Turn left at the next intersection, another 2 blocks and the library is on the right.

Printed by Wick Copy Center



Non-Profit Org.
U.S. POSTAGE
PAID
Altoona, Pa.
Permit No. 238

Return Service
Requested

ID:000102585522 Exp:10/11
LAURA JACKSON
OR CURRENT RESIDENT
3639 BUSINESS 220
BEDFORD PA 15522-1122

uniata Valley Audubon
.O. Box 148
Iollidaysburg, PA 16648