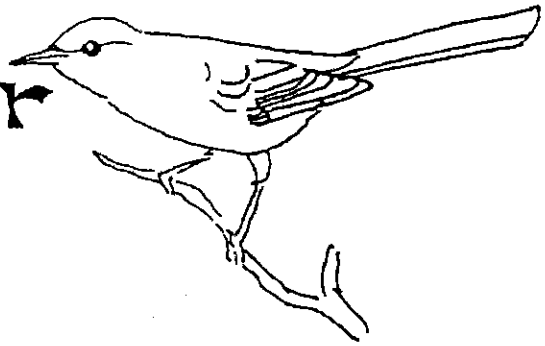
The Gnatcatcher



Newsletter of the

Juniata Valley Audubon Society

P.O. Box 32, Tyrone, Pennsylvania 16686 — Vol. 33, No. 6 – October 2001

Life Abounds Underfoot in the Forest

By Shelby E. Chunko, Pennsylvania Forest Stewardship Project

It's hard not to notice the animals around us as we walk through Pennsylvania forests. Hawks soar overhead, squirrels scurry up tree trunks, and white-tailed deer browse the underbrush. But, have you ever considered the animals that spend all or part of their lives beneath your feet?

Who's down there? In Pennsylvania, some of the more common underground species include moles and chipmunks, voles and shrews, groundhogs and rabbits, and skunks, coyotes and foxes. Earthworms, too, are an important part of the underground forest community, along with termites, roundworms, various kinds of insects, and throngs of other creatures too small to see with the naked eye. Many of the microscopic creatures that live underground spend their time creeping between individual soil particles and feeding on decaying plants and animals, the roots of living plants, and sometimes on each other.

Stout forelegs and strong claws are two adaptations that help some animals adapt to subterranean life. The mole, which spends most of its life underground, has powerful, clawed, paddle-like front feet. Moles use their feet to "swim" through the soil in search of grubs, worms, and other small prey. Their keen snouts help them detect vibrations in the soil. The vibrations provide information that moles can use to locate prey and avoid predators. Moles also have a great sense of smell. On the other hand, their sense of sight is poorly developed. Mole eyes can't

[*Cont'd on page 3*]

– October Program –

"PROJECT FEEDER WATCH." Bill Voight is the area's Project Feeder Watch ambassador, working with Cornell University. Project Feeder Watch is an outreach program run by the university that is entirely dependent on private citizens collecting and recording data on the birds seen at their feeders, then sending the information to Cornell to be compiled and analyzed. The data are useful in determining species densities in a given area, migration patterns, bird diseases, and winter irruptions. Cornell's ornithological research is world-renown, and we, as citizen scientists, can play a vital role.

7 P.M., Tuesday, Oct. 16 in the chapel at Alto-Reste Park Cemetery, on Plank Rd., Altoona – across from Wal-Mart.

– October Field Trip –

FALL FOLIAGE WALK AT CANOE CREEK STATE PARK. Heidi Boyle, the new park naturalist at Canoe Creek State Park, invites you on a down-and-dirty exploration of the fall foliage and what lives beneath leaves, bark, and roots of Beaver Pond Trail at the park. Test your outdoor I.Q. with this 2-hour fun walk. We'll explore what's happening as the year begins to wind down to the sleepy chill of winter. We'll finish with some fresh cookies and cider! For more information, phone Heidi at 695-6807.

1:30 P.M., Sunday, Oct. 21. Meet at the park's Visitor Center.

– Next Board Meeting –

Juniata Valley Audubon board members will meet at 7 P.M. at the Hoyer residence on Tuesday, Dec. 4. All Juniata Valley Audubon members are welcome. For directions, phone 684-7376 or send an e-mail message to <charma@nb.net>.

The Gnatcatcher

VOL. 33, NO. 6 — OCTOBER 2001

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Juniata Valley Audubon is a chapter of the National Audubon Society, serving members in all of Blair and Bedford Counties, and portions of Cambria, Centre, Clearfield, Fulton, and Huntingdon Counties.

Program meetings are held temporarily in the chapel at Alto-Reste Park Cemetery, Plank Road, Altoona (directly across from Wal-Mart) on the third Tuesday of the month in February, March, May, September, October, and November at 7 P.M. The public is invited to attend.

From the Gnatcatcher's Nest

After two years serving Juniata Valley Audubon as Education Chair, Shirley Wagoner has resigned the post, citing pressure from other activities. Thank you, Shirley, for your efforts.

I'm very pleased to announce, however, that Jody Wallace, of Sinking Valley, has agreed to serve as JVAS Education Chair for at least one year. Jody, who had received the JVAS Conservation Award in 2000, has a background in education, being a former school teacher. She has dedicated countless hours to the JVAS as an environmental educator. Jody taught the JVAS Summer Nature Camp at Penn-Mont Academy in 1998, assists Dr. Stan Kotala in teaching the JVAS-sponsored "Stream Class" to school students, and is the Environmental Education Coordinator at the Fort Roberdeau Historic Site.

On another note, I'd like to recognize JVAS Fund-raising Chair Anne Borland for her collecting and redeeming BiLo Foods and Riverside Markets cash register receipts for cash for Juniata Valley Audubon. During the last fiscal year, she received checks from The Penn Traffic Company totaling $130.74. Thanks, for your diligence, Anne; every bit helps!

Charlie

✦ ✦ ✦

If you're reading this newsletter but are not an Audubon member, you're invited to join by mailing the coupon to:

Juniata Valley Audubon Society
Alice Goodlin, Membership Chair
R.R. 3, Box 127
Altoona, PA 16601-9207

You'll receive the bimonthly *Audubon* magazine, each one filled with superb nature photography and in-depth reporting on environmental issues. You'll also receive Juniata Valley Audubon's newsletter, *The Gnatcatcher*, containing articles on local conservation topics and nature themes.

AUDUBON
Membership Application

☐ **YES**, I want to join the **Juniata Valley Audubon Society** and the **National Audubon Society** at the special Introductory Rate of $20.

☐ As a senior citizen or student, I'm eligible to join for only $15.

My $_____ check, payable to **Audubon**, is enclosed.

Name _____

Address _____

City _____ PA _____

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CONSERVATION CORNER

By Mark Henry

Instead of drilling . . . .

Proponents for oil drilling on the coastal plain in the Arctic National Wildlife Refuge have used recent tragic events to push for legislation to permit drilling. They are ignoring such facts that 95% of Alaska is already open for drilling, that there is only a six-month to one-year supply according to government estimates, and that energy conservation would more than make up the difference. Drilling proponents state that we need this energy source (oil) to meet the nation's energy requirements and for national security. In other words, reduce this country's consumption of imported oil.

However, there are options other than drilling for oil in the Arctic Refuge that will meet the energy needs of this country. These options include developing alternate energy sources, such as solar power, and improving the energy efficiency of the major user of oil our vehicles. Thus the subject of this "Conservation Corner" — instead of drilling for more and more oil, improve fuel efficiency and reduce our dependency on oil.

In a recent report issued by the Union of Concerned Scientists (UCS), two-thirds of the nation's oil is consumed by transportation. If we improved the fuel efficiency of vehicles, we could significantly reduce our consumption of oil. The UCS report states that the auto industry is capable of producing a fleet of cars and trucks that meet an average fuel economy of more than 40 mpg by 2012. Further, using available technologies, automakers could improve average fuel economy to 55 mpg by 2020.

The benefits of such actions are many. Not only will this help us meet our energy needs, but will help decrease our consumption of oil (which in turn reduces the need to drill), provide economic benefits by giving consumers more disposable income, and will improve air quality through fewer air pollution emissions. In fact, the UCS estimates that 273 million tons of annual global warming emissions could be eliminated in 2010 by just improving the fuel efficiency of our vehicles.

To many of us, the choice is obvious. However, powerful special interests continue to push for more oil consumption and drilling and will use any and all arguments to prove their point. As conservationists and consumers, it is important to let our elected officials know that there are better options to more and more drilling.

In fact, right now would be a good time to let our U.S. Senators know how we feel. Several U.S. Senators are trying to get legislation passed to allow for drilling and they will use any means available to accomplish this goal. If they can't get a bill passed, they will attach an amendment to another bill — something they already have tried. Thus, it is important that Senators Specter and Santorum hear from us. They need to know that the citizens of Pennsylvania want the Arctic Refuge protected and that there are better alternatives for meeting our energy needs than drilling for more oil.

Letters can be sent to our senators at the Senate Office Building, Washington, DC 20510. Specter's telephone number is (202) 224-4254 and Santorum's number is (202) 224-6324. ❖

. . . Life Abounds Underfoot [*From first page*]

do much more than distinguish light from darkness, and in some species, skin covers the tiny eyes.

Not every animal that spends time underground digs its own home. Many creatures, such as foxes and skunks, simply take over a burrow that a groundhog or other animal has excavated and do a bit of enlarging and remodeling. Some animals use their underground homes only for nesting, but others live there year 'round.

You might think that living underground helps keep animals safe from predators, but just like their aboveground kin, subterranean wildlife species also are part of the predator-prey network. From the smallest to the largest, every animal living in the soil is fair game for another animal's dinner. Ground beetles, centipedes, and other hunters always are on the prowl underground. Snakes, weasels, and even

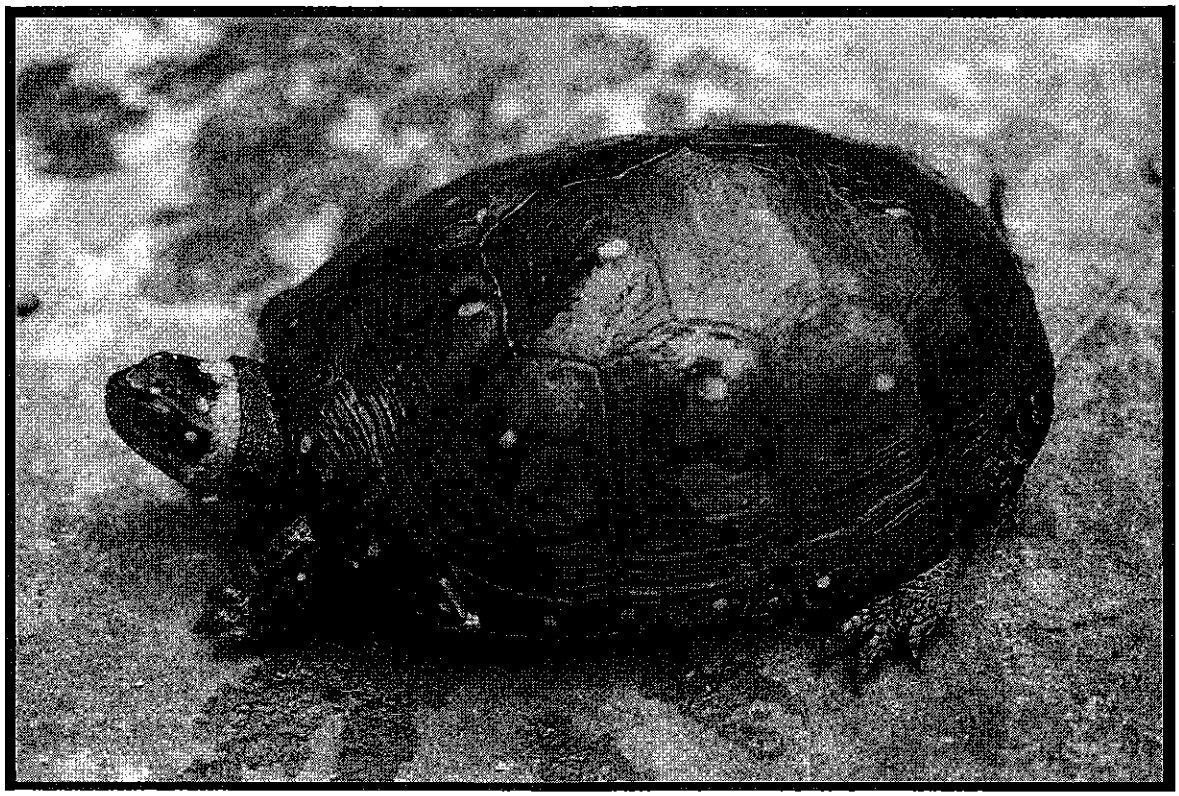
[*Cont'd on page 6*]

Herpetological Atlas Data Due

Swamp white oaks cast long, blue shadows across the cooling marsh as I weave through the alders to the base of the beaver dam. Through the clear water I see a wood turtle burrowing into the sticks of the dam's foundation. Here it will spend the winter.

I am reminded that the 2001 Herpetological Atlas season is drawing to a close. This year saw the western Ridge and Valley Region again leading the state in the number of reptile and amphibian observations.

If you have recorded any data in Blair, Bedford, Huntingdon, Fulton, Juniata, Mifflin, or Perry County, send your results to Dr. Stan Kotala, Western Ridge & Valley Regional Coordinator, Pennsylvania Herpetological Atlas Project, R.R. 3, Box 8666, Altoona, PA 16601. All data are due by Thanksgiving Day. ❖



The first spotted turtle (*Clemmys guttata*) documented in Blair County. It was found by Dr. Stan Kotala and his daughter Helena on June 14, 2001. Unlike its close cousin, the endangered bog turtle, the spotted turtle is found in good numbers throughout its range mainly along the Atlantic coast from southern Maine south to Georgia. In Pennsylvania, this small turtle (upper shell length is from three to a little over four inches) usually is found east and west of the Allegheny Mountains.

Don't forget to send your BiLo Foods and Riverside Markets cash register tapes to Anne Borland at 138A Larch St., Hollidaysburg, PA 16648. Anne redeems the tapes for $$$ for the JVAS.

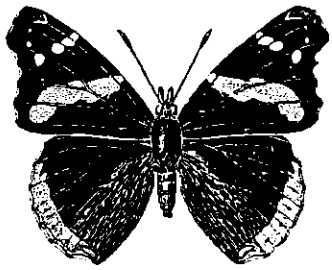
Butterfly Fields

By Marcia Bonta

During the dark days of September, my spirits were lifted whenever I walked through our fields past patches of goldenrod that gleamed in the sunshine and fluttered with nectaring butterflies.

I expected the dozens of monarchs and the scattering of clouded sulphurs, cabbage whites, summer azures, great spangled and meadow fritillaries, and even the red admirals. But why were there so many red admirals? Often, I counted eight or ten in a small cluster of goldenrods.

With their wings closed, they sport patriotic colors — red, white, and blue along the forewing — matching the mood of our country. Seen from above, their reddish-orange bands on both brownish-black wings, make these rapid, erratic fliers easy to identify. As I watched them, they often battled with the larger monarchs for the same goldenrod blossoms.



They, like monarchs and several other species, are migratory, streaming north as far as Canada from the southern coastal and Gulf states and Mexico in the spring. They move quickly then, making it from North Carolina in early April to New York State by mid-April. My first record for them this spring was April 22.

In the fall they move south in September and October. "Occasionally," Jeffrey Glassberg writes in his superb book, *Butterflies through Binoculars: The East*, "these movements are spectacular." This was obviously one of those years.

Red admirals like woodland edges and clearings as well as stream banks and bottomlands, but they also inhabit fields, abandoned farms, railroad grades, and orchards, where they search for their favorite foods — dung, fermenting fruit, sap flows, and carrion. Although red admirals are not discriminating flower lovers, as most butterflies are, they do feed occasionally on such flowers as thistles, milkweeds, dogbane, red clover, ox-eye daisy, Queen Anne's lace, and lilac — all of which we have. But in September our red admirals seem to prefer goldenrod.

Once they arrive here in spring, the males perch along gravel roads and are active at dusk. Females too are late fliers, beginning egg-laying at noon and continuing until the end of the afternoon. Their preferred larval host plants are nettles including stinging, wild, false, and wood nettles.

Red admiral caterpillars are variable in color. Some are black with cream or white dashes, and their several rows of branched spines are white or black. Other red admiral caterpillars look gray because of heavy white speckles on their bodies and the bases of their whitish spines are brown or red. They live in leaf shelters that are folded and tied with silk. Their chrysalides also are variable, from grayish brown to brown marked with black, and are flecked with gold.

The first brood hatches in June and flies in July, and the second hatches in August and flies in September. Some years they are barely noticeable; other years they are abundant.

The red admiral — *Vanessa atalanta* — is closely related to the American lady — *Vanessa virginiensis* — and the painted lady — *Vanessa cardui* — all of which are migrants. The painted lady and the red admiral also are cosmopolitan species, found in Europe, Asia, and northern Africa. The other strongly migrant butterfly species include the monarch — *Danaus plexippus* — and the queen — *Danaus gilippus* — as well as the question mark — *Polygonia interrogationis*. I've often seen single question marks as late as mid-October, but along the coast their numbers can be as dramatically high as those of the monarchs.

So, while most of us look for migrating Neotropical birds and raptors in the fall, it pays to watch for butterflies as well. Except for the queen, the other migrants are abundant in Pennsylvania. And butterfly fields of goldenrod and asters are good places to search. ❖

. . . Life Abounds Underfoot [*From page 3*]

domestic dogs can be life-threatening intruders in underground habitats.

All this underground activity provides a service to the rest of the forest community — plowing and soil aeration. Air and water move easily through loose soil, providing good growing conditions for forest plants that, in turn, help maintain good habitat for the creatures that live above ground. And, of course, when the whole forest is healthy, that benefits us!

Did you know that on one acre of good soil, worms can bring as much as 18 tons of subsoil to the surface every year? Eighteen tons! And they do it just by eating their way through the earth, digesting dead leaves and other organic material, and eliminating the rest on the surface in what are called "castings." Worm castings are high in nutrients and help enrich topsoil.

The next time you take a walk in the woods, look down. You might see clues to the life that abounds just a few inches beneath your feet. ❖

Editor's Note: In the box on the first page is a description an upcoming JVAS field trip that relates to this article. There won't be any real digging, but trip leader Heidi Boyle will help you do a "down-and-dirty" exploration of what's beneath leaves, bark, and roots!

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And above, in the light
Of the star-lit night,
Swift birds of passage wing their flight
Through the dewy atmosphere.

I hear the beat
Of their pinions fleet,
As from the land of snow and sleet
They seek a southern lea.

I hear the cry
Of their voices high,
Falling dreamily through the sky,
But their forms I cannot see.

— From "Birds of Passage" (Henry Wadsworth Longfellow)

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