Welcome to Pennsylvania: The State of Extraction

Marcellus Shale drilling poses new threats to our environment

Oil was first drilled in 1859 in the With mineral extraction laws currently protected, more than $5 billion. (Continued on page 4)

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Wikipedia.org. Photo: R. Koury

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President’s Perch

AAS Action Plan

Audubon is a diverse organization with a mission involving education, conservation, and citizen science. The goal of all we do is to connect people with nature while working together to protect and restore habitats, particularly as it relates to birds.

How do we turn that vague goal into an annual “to do” list? We have a variety of on-going activities that make up the bulk of the list, with a few special things that change from year to year. This is our annual Action Plan.

A lot of our plan involves education mixed with recreation: monthly programs (topics local and afar); field trips (learning about birds and their habitats); newsletter articles; scholarships to summer ecology camps for students and teachers; and a variety of special events, projects, speakers, and exhibits as opportunities arise.

We take positions on issues and work to mobilize members and the public when habitat degradation is at stake, with the intent on influencing public policy. We also step in to help save land – sometimes by buying it and other times working with partners to influence land use ordinances or landowner management practices.

And, of course, we count birds: nesting surveys, Christmas Bird Counts, Waggoner’s Gap Hawk Watch, and the upcoming Great Backyard Bird Count (February 12 – 15) to name a few bird count activities.

Some of these “action items” require money, so we sell bird seed and native plants. We have a spring fundraising appeal for a dedicated conservation cause, and we hold a silent auction during the annual banquet in May. These events bring in the annual funds needed to do the important work listed above. Your support of these fundraisers helps us do that, and any friends and neighbors you involve is greatly appreciated.

Our board and committee members are busy volunteers, and help keep all this great stuff moving forward. I thank them for their dedication to AAS and encourage you to join the volunteer fun if you read about something that piques your interest.

Never doubt that a small group of committed people can change the world. Indeed, it is the only thing that ever has.
Margaret Mead
One visitor we observed in October was a small, furry creature, scurrying amongst the fallen leaves. It was visible only long enough for me to make a tentative identification. It appeared to be a pine mouse [or pine vole], *Pitymys pinetorum*.

This mouse is distinct from our other mice in that it has a shorter, more rounded snout, and looks like a miniature muskrat. However, it has a very short tail. The result is that the pine mouse appears bunter, more hunched up, and slower moving than the other mice.

William Hamilton, Jr., describes it as "A small, robust, short-tailed mouse, with very soft, short, dense fur, which is almost mole-like. The eyes and external ears are much reduced, with the latter usually hidden in the fur."

One day, early in November, Anna cried out, "Hawk! Hawk!" and sure enough, there was a Cooper's Hawk on the ground almost under the bird feeder, playing with a mouse, much as a cat does. It would let the mouse go, permit it to almost reach cover, and then dash after it.

With binoculars I could make out more detail—it was our short-snouted mouse. We observed for a while then went outside. At our appearance, the hawk took off with its prey.

On November 29, having worked late the previous night, we slept later than usual. I went to get the coffee started. Needless to say, Anna had to take over, for I became fascinated by a large chicken-like bird that was sitting on the old decaying stump of a mimosa tree feeding. In its stance, it did not resemble our traditional idea of how to recognize a hawk.

This hawk was a heavily striped bird, with yellow eyes, three distinctive bands on the slightly rounded tail, with dark feathers over the back, mottled with white. It was a large bird, definitely not a Sharp-shinned. In fact, we began to think it was a Northern Goshawk, except it lacked the zigzag pattern in the tail.

When it finished what it was eating, it reached into a hole, and pulled out another piece, which it devoured. And, it repeated this process. It had cached parts of its meal in a decayed hole in the stump!

Finally finished, it flew to a low branch on tree, giving us a better look. I turned to the Peterson Guide. When I returned, it was holding something bright in its beak. Apparently, while I was looking in the Peterson field guide, the bird had picked up something from ground and returned to its perch.

After examining what it had picked up, it apparently satisfied itself that the item was of no value, and dropped it. It was my missing hook for the bird-feeder!

The bird remained long enough for us to determine that its tail was only slightly rounded, and that the bird was just as long as the hanging bird feeder—16 inches. Our conclusion: an immature male Cooper's Hawk. -R.K.
In Response

AAS member Dan Welte has been leading Ralph Kinter’s walk at Cornwall for fall wildflowers for the last eight years. He has this response to Ralph’s Winter Plant Identification article reprinted in the December 2009–January 2010 issue of the Kingfisher Courier:

“The Puttyroot plant was pointed out to me on the Cornwall walk by Ralph many years ago. This however, is not the only native to have fully developed leaves that over-winter. The Cranefly Orchid (Tipularia discolor) has a very similar life cycle with a single leaf in winter. It is not common however, and I don’t know of it in central PA. There are 3 species of Rattlesnake Plantain Orchids that have basal (ground level) leaves over-wintering. The most common is the Downy Rattlesnake Plantain (Goodyera pubescens) and it is in our area.”

Thanks Dan for your comments and photo!

State of Extraction (continued)

(Continued from page 1)

Just as the federal government is beginning to pass legislation to begin addressing the cleanup need for our abandoned coal mines, another energy extraction boom is making it feel like the 1859 oil-drilling frenzy all over again.

A New Gold Rush

Marcellus Shale, deep underground, has a very pure natural gas locked in its layers. New drilling techniques have made this gas accessible, and landowners are being paid vast sums of money for land leases and extraction royalties throughout Pennsylvania’s northern tier. Gas drilling companies are clearing forests for drilling sites and a network of pipelines, resulting in severely fragmenting forests that had just recovered from the heydays of lumbering.

An article on Marcellus shale printed in the December 2009 issue of the Chesapeake Bay Journal succinctly describes the drilling process and the environmental problems that can result:

“To reach the gas in the Marcellus layer, drillers must bore through dozens of geological formations. Then, workers pump into the well millions of gallons of water mixed with sand, salt and a cocktail of chemicals to fracture the gas-bearing rock. This process, known as hydraulic fracturing, or “fracking,” was pioneered by energy giant Halliburton in the 1940s. The gas flows from the broken rock out of the well to a compressor. With it comes about one-fifth of the water that was pumped in, bearing the chemicals used in fracturing and radioactive elements that occur naturally in the rock. The remainder of the water stays deep in the formation-well below drinking water aquifers, according to regulators and energy companies.

(Continued on page 5)
State of Extraction cont:

(Continued from page 4)

“The drilling and fracking process presents three water-related problems. The first is withdrawals. Gas companies need about 5 million gallons to frac each well. They pull the water from streams, and because nearly three-quarters of the Marcellus is in the Susquehanna River basin, much of that water has and will come from those feeding the Bay’s largest tributary. The companies have occasionally pulled water from small headwater creeks that are slow to refill, which can change temperatures and oxygen levels and endanger fish.

“The second is the fracking wastewater, called flowback, which is usually stored in a plastic-lined impoundment before it can be trucked to a treatment plant. Critics worry that the wastes could spill during transit or operations and run into waterways or seep into groundwater. Earlier this year, Texas-based Cabot Oil Co. spilled 8,000 gallons of fracking waste into Stevens Creek, a tributary of the Susquehanna River in the northeast Pennsylvania hamlet of Dimock. Because fracking waste can have five times as much salt in it as ocean water, groups such as Trout Unlimited worry that accidents like that will forever change the ecology of fresh, coldwater streams.

“The third problem is groundwater contamination from methane accidentally released through the drilling. Today, at least 13 families in Dimock, home to more than 63 of Cabot’s gas wells, can’t drink their well water because it contains methane. Methane contamination has been reported in other states where drilling has occurred, and critics worry it could become a bigger problem in Pennsylvania.”

A Call to Action

The conservation community of Pennsylvania is extremely concerned about the impacts of this new “gold rush” to land and water resources of the state. From the map on page 4, you can see that this shale layer makes up an enormous part of the state and will be an issue of great concern for decades to come. Audubon PA is gearing up an action strategy for chapters and members statewide, and will be in contact with all of us in the near future.

Fortunately, it’s not just Audubon that is fired up about this issue. Public hearings and forums around the state have begun to be held by the PA Senate Environmental Resources and Energy Committee, the Department of Environmental Protection, and the Pennsylvania Environmental Council. Governor Rendell has also pledged to include in his 2011 budget proposal an excise tax on Marcellus gas drillers to help pay for impacts to communities and natural resources.

If you would like to read more about the Marcellus gas drilling boom and the impact it has had so far on Pennsylvania landowners, the complete Chesapeake Bay Journal article is a good place to start: www.bayjournal.com/article.cfm?article=3715.

- Paul Zeph

Upcoming Field Trips

**Saturday, February 20, 2010**

**Winter Birding Trip**
Ramsay Koury, one of our AAS birding experts, will again surprise us with a great birding experience with the possibility of traveling out of state in search of some interesting species. Contact Ramsay at 761-1871 or RKoury123@aol.com.

**Sunday, March 14, 2010**

**Ned Smith Waterfowl Watch**
This is an annual event to watch waterfowl along the Susquehanna River in Millersburg, home of artist and outdoorsman, Ned Smith. The event is held from 8 a.m. to 1 p.m. Please dress warmly and bring along your binoculars and spotting scopes. Refreshments are available. For details contact Beth Sanders at the Ned Smith Center at 692-3699 or Judy Bowman at 761-3815 or bowma99@aol.com.

Save Trees and Mailing Costs! Receive the E-version of the Kingfisher Courier!

Recognizing a national trend of organizations converting from paper newsletters to e-versions, AAS would like to offer you an option of receiving the Kingfisher Courier by e-mail.

This will result in a significant cost savings to the chapter!

To receive the e-version, please send an email from the account that you wish to receive the email notice to appaudubonsoc@yahoo.com or call Ed Smith at 717-960-9441. Please include your name and address in any correspondence so we can match you to our mailing list!

Thank you very much for considering this option!

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Marcellus Shale drilling in Pennsylvania
Page 1