

[the sylvanian]

summer 2017

Pennsylvania Chapter Sierra Club • pennsylvania.sierraclub.org



explore, enjoy and protect the planet.

[from the editors]

our last issue

After several years of co-editing *The Sylvanian*, Wendi and I are retiring. We leave the job feeling good about what we have managed over the years but also recognizing that it is time for some one or more younger members to take over. We hope that some of you readers volunteer, or at least consider volunteering.

We also want to thank two members who worked with us over the years. Gary Thornbloom contributed regularly. Dan Schreffler kept the web site up to date and looking good. Others who contributed occasionally are too numerous to mention. We are happy that Veronica Coptis continues as chair.

Our web site claims on its first page that "We are the only member-led statewide environmental organization in Pennsylvania. . ." We want that claim to continue to ring true. At present, there are fourteen Sierra Club staff located in Pennsylvania. Some are answerable to our elected chapter leadership. Some work for national issue committees. They all seem to be good people. But it is important to remember that volunteer leaders run the Club. Staff report to our volunteer leaders.

WENDI TAYLOR AND PHIL COLEMAN
Co-editors of *The Sylvanian*



Wendi Taylor



Phil Coleman

DO YOU HAVE
SOMETHING ON YOUR MIND?



Consider this your invitation to say it on our blog. Yes, the Sierra Club Chapter has a blog that allows our members to share their thoughts, ideas and peeves with the rest of us on Sierra Keystone Conversations.

THE PROCESS IS SIMPLE.

Submit your blog to:
Chantal.Mulenga@sierraclub.org

Or, of course, you can just be a regular reader. Find it at:
<http://sierraclubpa.blogspot.com/>

PENNSYLVANIA CHAPTER OFFICE
Phone: 717-232-0101
Email:
pennsylvania.chapter@sierraclub.
org
Website:
www.pennsylvania.sierraclub.org

Editors: Wendi Taylor &
Phil Coleman

Feature Writer: Gary Thornbloom

Design: Sydney Willis
Strategy Design Studio

The Sylvanian, © 2017 Sierra Club Pennsylvania Chapter. Issued four times per year.

This publication is dedicated to serving the Sierra Club Pennsylvania membership, and is a forum for internal policy discussion and debate among those truly concerned with protecting the environment. Opinions expressed herein are the personal opinions of their authors and may or may not reflect Sierra Club policy.

Contributor deadlines are September 15 (Fall issue), and December 15 (Winter issue), March 15 (Spring issue), and June 15 (Summer issue). Anonymous contributions are not accepted.

SIERRA CLUB MISSION STATEMENT: To explore, enjoy and protect the wild places of the earth; To practice and promote the responsible use of the earth's ecosystems and resources; To educate and enlist humanity to protect and restore the quality of the natural and human environment; and To use all lawful means to carry out these objectives.

The Sierra Club seeks to become a fully realized multicultural organization and is working to make the systemic changes required to welcome, respect, support, and value any individual or group to fully participate.

PRINTED ON RECYCLED PAPER WITH SOY INKS



[the sylvanian]

[pennsylvania warming]

special report

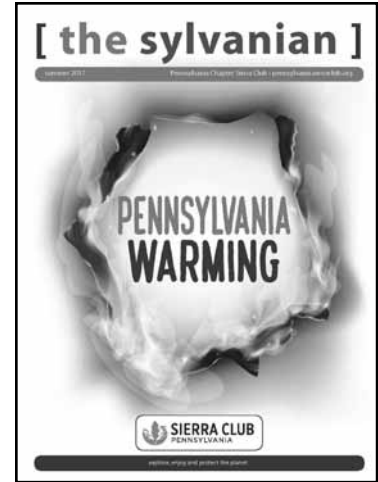
- 9 Introduction
- 10 A Conversation with Cindy Dunn
- 11 DCNR Studies Climate Change
- 13 The Gadfly: It's 2 1/2 Minutes to Midnight
- 14 History of Abuse in Pennsylvania
- 16 Forest Watch Outing to SGL 103

landmarks

- 2 From the Editors
- 4 A Message from the Chair
- 6 Explore, Enjoy... Pennsylvania
- 8 Letter to the Editor
- 18 Coleman's Lantern
- 24 Crossword

news & outings

- 5 Historic Win for Ryerson
- 17 Nymph Life
- 19 Dog Day Cicadas
- 21 Wyona Coleman Scholarship
- 22 Community Comes Together... in Ryerson Station State Park
- 23 Call for At-Large Delegates



[on the cover]

While climate change is a global issue, the effects are felt in Pennsylvania. Some unique to our state, and others that are not. In this issue we do a deep dive into what qualifies as [pennsylvania warming].

To send photos by email:
veronicacoptis@gmail.com To mail photos: Sylvanian, Sierra Club - PA Chapter, PO Box 606, Harrisburg, PA 17108

next deadline: September 15

Send articles & photographs to: veronicacoptis@gmail.com

chapter directory

Due to space restrictions, the Chapter Directory was not included in this issue. To view the directory, go to: <http://pennsylvanian.sierraclub.org> and select "Volunteer Resources." The password is: VolunteersRule

[a message from the chair]

Since the November election, our volunteer leaders have been hard at work resisting and building a better future. When I attend Sierra Club events, I am always blown away by the strong commitment our members have to clean water, clean air, and healthy communities. What has really warmed my heart is how our members have shown up to support our movement as a whole, such as the Women's March, the Immigration Day of Action, and the Science March. Members from all over the state rallied in Harrisburg to push back on Trump's visit to Pennsylvania. Members in Philadelphia have been supporting the union workers at the EPA. And these are just the events I am aware of. (Did I miss any? Send me an email and let us know!)

It is clear that we are good at hitting the streets and calling decision makers to protect our rights but at the executive level the chapter will be having some volunteer

transitions coming up and we need help moving people into these roles.

In order to ensure that as our veteran volunteers step back to make space for new energy, I am putting together a volunteer management team. If you are interested in helping to make sure we don't miss a step during transitions, please join us. We expect to have to fill several volunteer leadership roles across the state very soon and we need your help.

In addition to this leadership transition, our communication tools will be going through an update as well and I ask that you all be patient with this process and provide constructive input on this new system. We have been slowly rolling out these changes (check out our new website and opt-in emails!) and they have already helped amplify our voice and deepen our impact.

We want to better communicate the diverse body of happening across the chapter and be able to get action alerts

to our members in a timely manner. Our newsletter will be changing in the coming years and the executive committee is working out how those changes will be implemented.

If we do not have your email please consider providing it to the chapter.

It will help us be able to reach you easier and more quickly so that you can help join the thousands of other members who are taking action everyday to protect our homes, water, and places we recreate, and getting notices about fun outings and events to celebrate together.

— Veronica Coptis
Chapter Chair

From the editors: New Yorker magazine, July 3, 2017 published a great article on Veronica. You can access it at:

<http://www.newyorker.com/magazine/2017/07/03/the-future-of-coal-country>

Help Wanted!

The Sylvania Needs an Editor (or two)!

Phil Coleman and Wendi Taylor have retired, and the chapter needs a replacement.

Coincidentally, this change comes at a time when we are again asking what form *The Sylvania* should take.

- **Is it important to continue a print format?**
 - **Should we supplement with Blogs?**
- **Should The Sylvania be delivered in multiple formats?**

We need to hear from interested members.

This is a volunteer position.

Contact Veronica Coptis: veronicacoptis@gmail.com

historic win for Ryerson

There have been a number of significant updates, including an historic victory, in our legal fight for Ryerson Station State Park since we've last sent a newsletter out. In December, we again partnered with the Center for Coalfield Justice to appeal another unlawful mining permit for the Bailey Mine that allowed Consol to undermine Polen Run and Kent Run next to and inside of Ryerson Station State Park in Greene County. The permit was issued despite the fact that Consol's application predicts subsidence-induced flow loss and the need for disruptive post-min

ing stream remediation. Since Consol's longwall mining operation at the Bailey Mine caused the destruction of Duke Lake over ten years ago, Polen Run and Kent Run are some of the most important remaining water features and fishing spots in the Park. Unfortunately, despite the fact that we filed our petition with one week of the permit being issued, Polen Run above the 3L panel, which is located just outside of the Park, had already been undermined.

On December 21, 2016, we asked the Environmental Hearing Board to issue a supersedeas and prevent Consol from longwall mining beneath Kent

Run within Ryerson Station State Park while our appeal is pending. In order to win our petition, we had to prove that we will likely prevail on the factual and legal merits of our appeal and that the harm to our members, the public and the environment, and to Kent Run and its watershed outweighs any harm that Consol might suffer if it was temporarily prohibited

Especially given the uphill battle we faced,

we were thrilled when we learned that the Judge agreed with us and granted our petition after a three day hearing in Pittsburgh. The decision forbade Consol from mining within 100 feet of Kent Run in the 3L panel of the Bailey Lower East Expansion while our appeal is pending.



The fight for Ryerson is far from over. In response to our successful work in the courts and community, the coal industry is buying their way out of litigation by pushing legislation (SB 624) that attempts to exempt underground longwall mine operators from the PA Clean Streams Law. We have held many meetings with legislators and delivered thousands of letters. (Before publication the bill will either become law or be vetoed so should hold a spot here for that)

Despite significant opposition from the state and coal industry, we have been steadfast in our belief that public parks and resources must be protected.

This win is an important step in our fight and one worth celebrating. Thank you to our members and volunteers for their support.

Please call us if you have any thoughts or questions.

from longwall mining beneath Kent Run. A supersedeas is an extraordinary remedy that is not often granted by the Environmental Hearing Board and, to the best of our knowledge, this is the first time that the Environmental Hearing Board granted a supersedeas against a longwall mine.

[explore enjoy...pennsylvania]

quehanna backpacking

by Gray Thornbloom

Backpack the Quehanna Trail and you will encounter wildlife. The trail traverses a wide range of habitat types: mature trees, stands of hemlock, meadows, mountain streams, rocky ridge tops, mountain laurel and rhododendron penetrable only after a trail is cut through it. This varied, large, remote and wild landscape gives wildlife the space they need.

Look closely and some human history is present.

Or, simply walk on and use the silence to find yourself.

Drop a shuttle vehicle where the Quehanna Trail crosses Lost Run Road, and continue to Parker Dam State Park. That sets you up to enjoy 20 miles of trail.

The Pennsylvania forest that seemed limitless to the colonists was gone by the early 1900's. A display at the trail head offers a glimpse back into that era: a forest of white pine and the ingenuity it took to fell that forest. Head up the trail and into today's forest. It is beautiful, but far different from unbroken forest of the past.

The trail is next to, and then above Little Laurel Run. Immersed in the sound of the mountain stream, followed by the view of it threading through a meadow, then rhododendron thicket, is a delight.

We heard woodpeckers hammering, and then the laugh of a pileated woodpecker. We flushed grouse as we walked through a young emerging forest. We saw the first of many piles of bleached coyote scat, thick with animal hair.

The trail followed the Goodyear Logging Company railroad grade. Depressions where the ties once were are clearly visible. The trail parallels a deer fence enclosure — constructed after logging to

and sheep in the area after the lumbering. The mine output fueled logging engines." (Foot Trails)

Today it is a beautiful mountain stream embraced by a thick hemlock forest.

Emerging from its darkness we climbed into an open area filled with late afternoon sunlight. In a protected spot under overhanging rock the distinctive chevron yellow and black pattern of a timber rattler soaking up the warmth of the sun caught my eye.

Sunshine gave way to late afternoon shadows as we descended to Trout Run. More rocks and a beautiful stream dropping over rock into deep, clear pools. After crossing the bridge over Trout Run we found home, for that night.

The next day we continued through this valley of rocks. The trail follows a tributary of Roberts Run, crosses it and follows a sidehill to an impressive view of a huge meadow and beaver dam. This looked like a likely place to see wildlife. Our first sign of elk was along here: long tooth marks where elk had stripped bark from a sapling.

The trail turns away from the beaver dam and follows another tributary for a mile. There are many large beech and hemlock trees. As we worked our way through dense hemlock two large animals left their beds. Their distinctive gait and white rumps immediately identified them as elk.

Porcupine teeth marks scarred several beech trees. Porcupine droppings spread away from the cavity at the base of one of one beech.



protect young trees from deer damage.

Ralph Seeley wrote *Foot Trails of the Moshannon and Southern Elk State Forests*, a hiking guide that includes history of the area. Ralph recommended Alex Branch when I asked him where he would backpack on the Quehanna Trail.

"Alex Branch was named for Alex Wallace, the same man for whom Wallace Mines Road is named. He herded cows



The climb to Chestnut Ridge was rewarded with a view to the north. We sat and ate our lunch.

After lunch we crossed Knobs Road, and entered a site with ruins from Civilian Conservation Corps Camp S-74 (Bucks Camp) which housed 136 young men in the mid 1930's. CCC boys built roads that became part of the infrastructure that exists in our State Forests today. They also fought forest fires that were another part of the legacy of the mess left by the logging industry.

After the CCC site the trail parallels headwaters of Deer Creek — a pretty, small stream in a small valley with white pine and hemlock. This was a picturesque, but very rocky, section to walk through!

The Quehanna Trail crosses the Caledonia Pike, threads through mountain laurel and drops to Gifford Run. An expansive meadow spreads out at the bottom. You can see the remains of a splash dam, dams that loggers built on small streams to hold water that was released in the spring to float logs downstream to mills.

We found a campsite beneath large white pines. That evening we sat around a campfire talking, and sim-

ply listening to the silence, well into the evening.

A short morning hike led us to some rocks and ledges with an impressive view. Back on the trail, we shouldered our packs and climbed out of Gifford Run.

We dropped into Deserter Run. Seeley's account resonated: The story behind the name is that a World War I deserter lived here in a hermit shack; perhaps a Civil

War draft-dodger did the same.

Our three days were relatively easy ones — late starts and modest miles.

The Quehanna Trail is a wonderful place to encounter wildlife in their space, on their terms. It is a place to glimpse the human history. But mostly it is a place to find yourself, footstep after footstep with only the trail ahead.



[letter to the editor]

Dear Wendy and Phil,

In his letter to the editor in the spring 2017 issue of the *The Sylvania* hunter Mike Mays took issue with Phil Coleman's call (winter 2017 issue) to reduce the deer population in Pennsylvania by half with "no justification except they like to eat...Phil's rhododendron". Mike said that "deer are a huge wildlife success story" and reducing the number of deer would mean fewer deer for hunter to shoot... Please no more anti-wildlife rants."

I wish to speak for the forest, and provide ample justification for reducing the deer population in Pennsylvania. I have a PhD in plant ecology and worked for a major conservation organization in New York for 21 years before retiring and moving to Pennsylvania in December 2015. I spent 15 of my years in NY monitoring the recovery of a deer-damaged oak-beech forest on Long Island following intensive recreational hunting. In my younger days I was married to a hunter, did some hunting myself, helped process field-dressed deer into packages in the freezer, and enjoyed many meals of venison. We need hunters to help fill the role of the missing wolves and pumas that kept deer populations in balance with their environment prior to European settlement.

Deer were nearly eliminated by market and subsistence hunting by the late 1800s. Strict hunting regulations in the early twentieth century brought deer back from the brink of extinction, which was indeed a success story. However since then removal of predators (as pointed out by Phil) and human modification of habitats allowed deer populations to skyrocket to densities high enough to cause severe damage to forest habitats in Pennsylvania by the 1930s (DCNR 2013). Extensive scientific literature documenting the ecological damage caused by too many deer in eastern forests goes back many decades.

As a result of excessive deer browse Pennsylvania's forests - and forests almost everywhere in the eastern United States - have been severely impacted. Recent efforts to "balance" deer populations with habitats have allowed forest recovery to begin in some parts of Pennsylvania. However "...in general, the forests of Pennsylvania are still in poor condition" (DCNR 2013).

In severely browsed forests there is a "browse line" at about 6.5 feet, the highest a hungry deer's mouth can reach while standing up on its hind legs. Below 6.5 feet deer have eaten essentially all tree seedlings and saplings, shrubs, and wildflowers in most forested areas.

What is the future of over-browsed forests? Large old trees are gradually dying and falling with no saplings to replace them. Nearly one-third of the forest understory is now dominated by unpalatable or resilient vegetation like hay-scented fern, striped maple, American beech and mountain laurel (FIA data 2005-2009).

continued on page 20

[pennsylvania warming]



introduction: Pennsylvania warming

Global Warming/climate change is not a weather term. Neither is it a glacial period, much less a geologic period. Weather changes daily (or hourly). Glacial periods change over thousands or tens of thousands of years.

The Climate Change we are experiencing may develop over a hundred years and may persist or disappear. Rising sea levels will impact a few low lying islands and shore lines in a few years. West Palm Beach seems to be experiencing difficulty even now – which leads us to ask why in the world developers built so close to the ocean. Sand Bridge, Virginia lost a row of houses ten years ago. People were lamenting the loss of farm land there long before we began to be concerned about climate change. This was just a matter of shore erosion.

But climate change is real, and is made worse by our devotion to fossil fuels. It will affect more than shorelines and low islands.

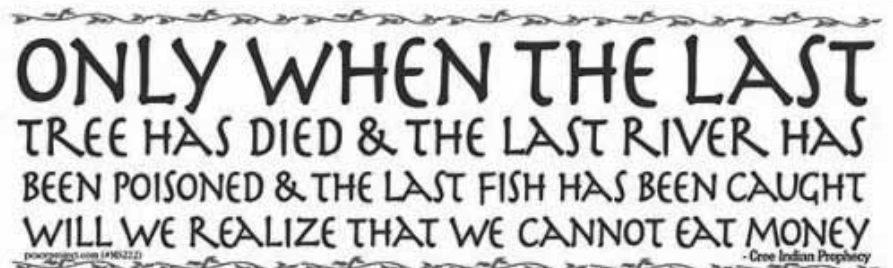
In this issue of Sylvanian, we look at some of the impacts we will feel in Pennsylvania. We note right away that most people will survive climate change, even if they undergo traumatic changes. Wild plants and animals will be impacted more than people will be.

In fact, the most serious impacts, such as foul air, acid rain, and polluted streams, would be problems even if the climate didn't change at all.

Read on to learn more.

special report articles

Conversation with Cindy Dunn.....	10
DCNR Studies Climate Change.....	11
Its 2 1/2 Minutes to Midnight.....	13
History of Abuse in Pennsylvania	14
Forest Watch Outing to SGL 103	16



[pennsylvania warming]

a conversation with Cindy Dunn

DCNR secretary speaks out about climate change

by Phil Coleman

Department of Conservation and Natural Resources (DCNR) Secretary, Cindy Adams Dunn, joined the Sierra Club even before graduating from Shippensburg University some years ago. She became an outings leader even as the Pinchot group was organizing, and she met her husband, Craig Dunn, on a Sierra Club hike.

Dunn worked for Audubon Society and American Rivers. She became concerned for the Chesapeake Bay and the Susquehanna which contributed significantly to its pollution.

She then worked for DCNR Bureau of Parks and Recreation, where she helped communities build parks and recreation facilities. Later, she became president of PennFuture.

At the beginning of his term Governor Tom Wolfe appointed her secretary of DCNR.

I talked to her recently about global warming as it affects Pennsylvania. “Global Warming is already impacting Pennsylvania,” she said. She pointed out a change she has personally observed. Pennsylvania is historically home to the Black Capped Chickadee. We all have seen it on occasion and enjoyed its song. As climate changes, the Black Capped Chickadee, range is moving north, and the Carolina Chickadee is tending to replace it. The Black Cap’s crisp song is being replaced by a slurred imitation. Not quite as pretty.

That’s a small change. But it is a harbinger of bigger changes to come. One that concerns the timber industry is

the northward movement of the Black Cherry’s range. Black Cherry of our northern counties is one of the staples of the industry. Pennsylvania is sometimes noted as the most productive hardwood producer in the nation, but the recession of 2008 demonstrated that it is in a delicate financial balance. If, twenty years from now, the best stands have moved to New York and/or Canada, the impact could be serious.

Milder winters and earlier springs will affect numerous wildlife species, but we don’t know how these changes will play out.

On another front, we can’t trace—and can only partially control – invasive troublesome species. The invasion of woolly adelgids, which damage hemlocks, is partially due to Climate Change. These insects, native to Asia, have seemed to thrive and to move their territory northward as temperatures have risen.

Dunn points to a power point presentation prepared by Greg Czarnicki, which reports in detail on climate change, including warming, flooding, and forest fires and then describes the consequences to plant and animal species we can expect. Of course, immediate threats to humans include flooding and fires. Indirect threats include impacts on business such as the timber industry.

- One limitation of this study is that it restricts itself to the concerns of DCNR. It does not address game management
- the purview of the game commission – or impacts on agriculture. But the conclusive final points are interesting.



We should:

- Manage for change and not just some ideal end point,
- Focus on maintaining ecological management, not just species,
- Create arenas of evolution, not museums of the past.

There is realism in these lines. Some would argue that we should work to preserve threatened species at all costs. We have argued this in the past. In the face of climate change, I’m not sure.



studies climate change

The following is an excerpt from "DCNR and Climate Change: Planning for the future."

A NEW CONSERVATION PARADIGM

As the climate changes, so must our approach to conservation and land management. Historically, conservation has focused on maintaining things as they are or returning them to some former state. The conditions under which species, communities, and natural systems evolved, however, are changing, rendering the old conservation paradigm invalid.

Wayne Gretzky, arguably the greatest hockey player of all time, said, "I skate to where the puck is going to be, not where it has been." This is the essence of the new conservation paradigm. We need to base conservation on where the natural world is going, not where it's been.

Rather than manage for persistence, the department should manage for change. As species begin to move in search of more favorable climatic conditions, the plants and animals found in a place will change and consequently so will the natural communities found there.

The conservation goal should be to preserve the stage, but allow the actors to change. DCNR should promote and sustain arenas of evolution, not museums of the past.

Exactly how climate change is going to manifest itself in the Commonwealth is unknown, but uncertainty is not the same as knowing nothing. As climate models continue to improve and monitoring begins for climate-related changes, the level of uncertainty will decline. Some argue that this uncertainty is a justification for doing nothing. But instead of inaction, decision-making strategies such as scenario-based planning, struc-

tured decision making, and adaptive management should be used to incorporate uncertainty into our planning and management. As Gretzky says, "You miss 100% of the shots you don't take."

The following sections provide some recommendations as to how this new conservation paradigm can be implemented.

ADAPTATION & RESILIENCE

Climate change adaptation can be defined in a number of ways, but put most simply, it refers to those things we can

DCNR has a long history of addressing these stressors, but the rapid pace of climate change will require us to reassess these threats and our approach to them.

do to limit the impacts of climate change and ultimately increase resilience. It does not include mitigation, which is the reduction of greenhouse gas emissions.

The first step in a well-designed adaptation strategy is to build resilience to other stressors, such as pollution, habitat fragmentation, energy extraction, invasive species, and deer overpopulation. Just as a healthy person is more likely to bounce back from a serious illness than someone who already has health issues, so, too, is a healthy ecosystem.

Resilience is determined by an ecosystem's adaptive capacity, which is the ability to cope with the effects of climate change with minimal disruption. Generally speaking, unfragmented ecosystems with high biodiversity have a higher

adaptive capacity than those that are fragmented, isolated, or contain fewer or more specialized species.

DCNR has a long history of addressing these stressors, but the rapid pace of climate change will require us to reassess these threats and our approach to them. Climate change intensifies the impact of many of these stressors by affecting their timing, spatial extent, and intensity. Consequently, the department needs to assess the additive impact that climate change will have on these threats and how we respond to them.

There are several adaptation approaches, frameworks, and processes that have been developed and are in use by government agencies and environmental NGOs.

They include Ecosystem-Based Adaptation, which has been pioneered by the United Nations Environment Program, Climate Smart Conservation, which was developed by the

National Wildlife Federation and numerous federal agencies, the Climate Change Response Framework, developed by the US Forest Service, and others.

One example of an approach to adaptation comes from the U.S. Forest Service.

It lists the following 10 key components:

1. Sustain fundamental ecological functions.
2. Reduce the impact of existing biological stressors.
3. Protect forests from severe fire, wind, and ice disturbance.
4. Maintain or create refugia.

continued on next page

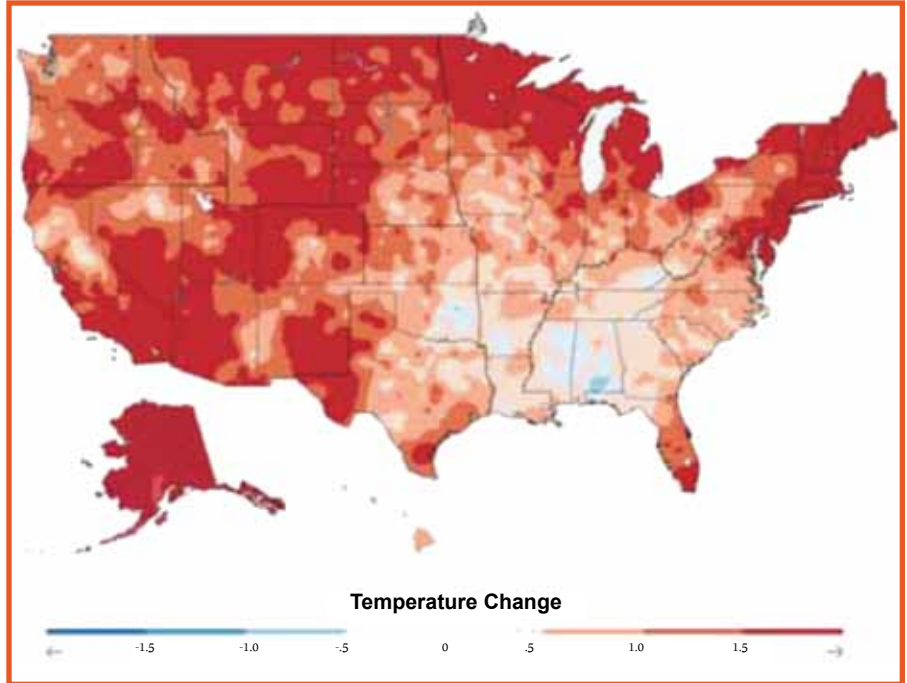
[pennsylvania warming]

5. Maintain and enhance species and structural diversity.
6. Increase ecosystem redundancy across the landscape.
7. Promote landscape connectivity.
8. Enhance genetic diversity.
9. Facilitate community adjustments through species transitions.
10. Plan for and respond to disturbance.

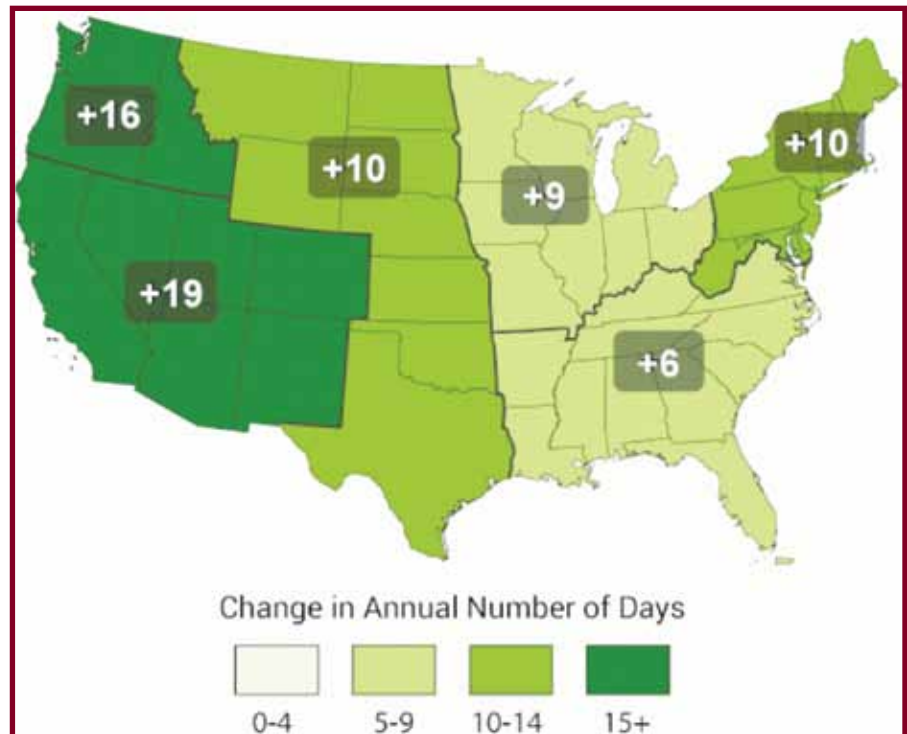
The department is already implementing many of these strategies as part of its approach to ecosystem management; however the way we employ them may need to change. It will be necessary to explicitly consider climate impacts, because how, when, and where these strategies should be implemented may change. The National Wildlife Federation refers to this approach as Climate Smart Conservation and defines it as the intentional and deliberate consideration of climate change in natural resource management, realized through adopting forward-looking goals and explicitly linking strategies to key climate impacts and vulnerabilities.

The entire document can be found at:

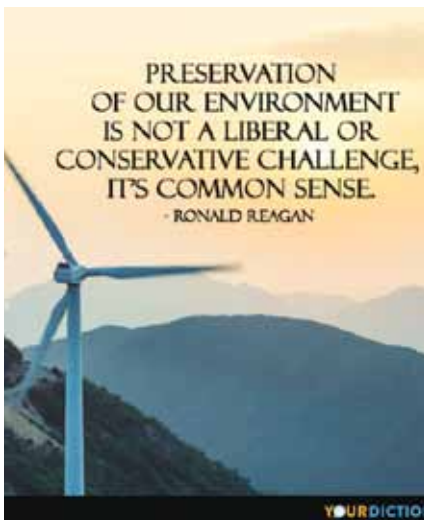
http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_20031815.pdf



The colors on the map show temperature changes over the past 22 years (1991-2012) compared to the 1901-1960 average. The period from 2001 to 2012 was warmer than any previous decade in every region. (Figure source: NOAA NCDC / CICS-NC).



The frost-free season length, defined as the period between the last occurrence of 32°F in the spring and the first occurrence of 32°F in the fall, has increased in each U.S. region during 1991-2012 relative to 1901-1960. Increases in frost-free season length correspond to similar increases in growing season length. (Figure source: NOAA NCDC / CICS-NC).



[the gadfly]

it's 2 1/2 minutes to midnight, part I

by Mort Malkin

The famous Doomsday Clock was the idea of the Bulletin of the Atomic Scientists. It's now 2 1/2 minutes from Midnight. The Atomic Scientists — some of them worked on the Manhattan Project — have set the Clock closer to the extinction of people. Also: polar bears, orangutans, and the EPA.

Are they worried about Global Heating and Climate Chaos reaching the Point of No Return? Perhaps — the greenhouse gas concentrations in the atmosphere are now above 400 ppm for the first time in many millennia. But, the major concern of the Atomic Scientists is nuclear radiation. Lately, they've been reminded of the fallibility of mankind re: 1) nuclear weapons and 2) nuclear power plants.

First, the bombs and missiles. Nowadays, the nuclear weapons of US and Russia add up to about 1400; France, UK, China, India, Pakistan, and Israel together have another several hundred. Poor North Korea has only about 5. Lowering the total by even 5 would matter.

So, how crazy (stupid?) is it for the US not to negotiate a peace treaty to officially end the Korean War, when Kim Jong Un has said several times that he will undo his nation's nuclear program the moment a treaty is signed? You mean there's only a cease fire between the US and North Korea all these decades? Of course, we must be officially at war to make "overflights" of North Korea with B2 nuclear-capable bombers? That's just politics??

Whom else are we targeting with our nuclear missiles? Not Russia now that Vladimir Putin and Donald Trump are friends and have business together. Not China — Walmart would never agree to that. Did anyone suggest dismantling the US nuclear arsenal?

Perhaps the Atomic Scientists read

the recent reports that a diver may have discovered a nuclear bomb lost off British Columbia in 1950. It was reportedly marked with the identification M IV. The diver was scared to death it might go off if he touched it. He called the Mounties who called in the Royal Navy.

The Atomic Scientists were also aware there have been more than 32 other "significant incidents and accidents" with nuclear bombs, six never recovered. Several were well known to the public at the time they were lost. The short list includes:

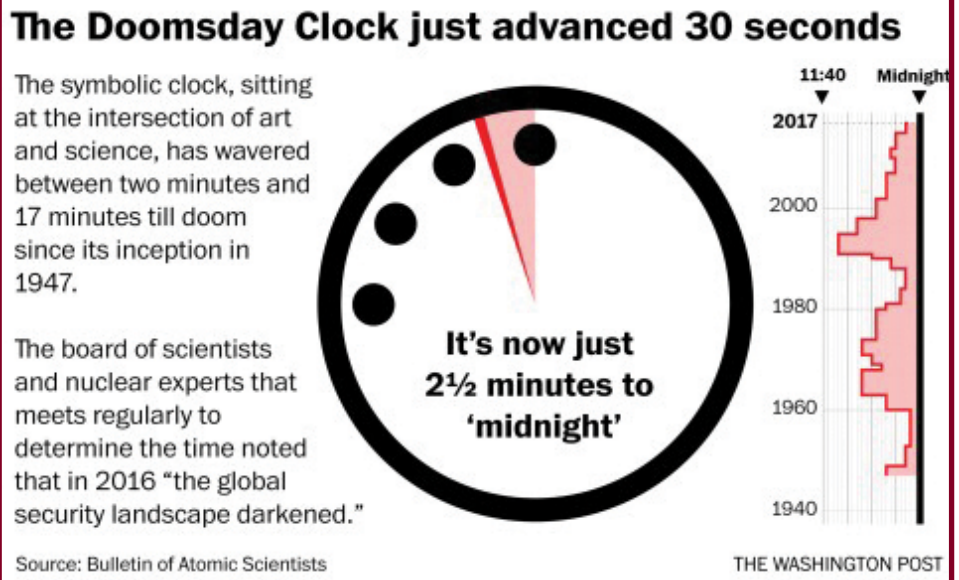
The day in 1958 that two planes collided off Savannah, GA — one carrying an H-Bomb. The B47 was damaged badly and decided to drop its Bomb into the sea near the Savannah River. Search teams were quietly sent to cordon off Wassaw Sound. They searched underwater, from the surface, and from the air, but couldn't find the Bomb or the plutonium trigger. Two months later, the search was suddenly called off — the teams had to be sent to South Carolina where another

B47 accidentally dropped its H-Bomb. 200 lbs of TNT (part of its trigger) exploded on impact, scattering radioactive debris across the landscape. Fortunately, the core of the bomb didn't detonate. The Air Force sheepishly requested one replacement bomb. The Savannah bomb is still missing.

In 1961, a B-52 carrying 2 nuclear bombs exploded and crashed near Goldsboro NC, ejecting its H-Bombs. One landed in a swamp and broke apart without blowing up; the other deployed its parachute and landed tangled in a tree. Incredibly (or not so), 5 of the 6 fuses inserted to prevent an unintended detonation failed. [Sometimes, failure can be good.]

In 1966, near Palomares, Spain, a B 52, carrying 4 H-Bombs, crashed while trying to refuel midair. One bomb hit the ground and was recovered smashed up a bit; the TNT of two exploded, scattering radioactive debris everywhere; and one landed off shore in almost 3,000 feet of water. A mini-submarine located it

continued on page 22



[pennsylvania warming]

history of abuse in Pennsylvania

by Phil Coleman

Let's look at eight ways Pennsylvania has been abused over the last 300 years.

1 ANTHRACITE COAL

Believe it or not, there was an energy crisis in the early 19th century. People depended on wood for heating and cooking, and as villages grew they cut all the suitable trees nearby. This crisis did not cause but predated the first exploitation of coal, the anthracite region of eastern Pennsylvania.

At first, anthracite mining took place on a hit or miss scale. Lack of transportation for the coal delayed large scale mining, but by mid 19th century Anthracite mining became a major enterprise. The result was an area of over 100,000 acres denuded of trees and unable to regenerate forests, with miles of acid damaged streams unable to support aquatic life. There was not then and has not since been a comprehensive effort to clean the streams.

2 TIMBER

After the Civil War, lumber barons began general cutting of massive areas in central Pennsylvania. They would cut everything, harvesting hemlocks for the tannin in the bark, Pines for pulp and other trees for lumber. They built temporary railroads, frequently following small streams, to remote regions. Lumberjacks could skid felled trees downhill to the streamside tracks. Their proclaimed practice was to cut everything and move on. They pulled the tracks and loaded them on the last train out so they could reuse them at the next site. When clear cutting left the land denuded, without the habitat that wildlife needed, regrowth was slow and did not represent the species that had previously dominated. Some foresters talk about the fortunate development of black cherry forests where oak and hemlock had thrived. But the lumber barons

put money in the bank and didn't look back. Deer population declined during this period, partially because of habitat destruction but also because of disease. We all know that deer have rebounded in the last fifty years, but there was a period of a few decades when there were few healthy deer around. Massive clear cutting also affected bird life, but no one can quantify changes in specific species.

3 OIL

When oil was discovered at Oil Creek in 1859, the first exploration boom took place. Wells were planted all over western Pennsylvania, wherever oil might be hoped to exist. This boom took place before cars were developed.

The principal derivative of oil was kerosene, which replaced whale blubber as the main source of light. Oil probably saved several whale species from extinction.

In western Pennsylvania and eastern Ohio the oil was 50 feet or less deep, so these fields were exploited first. When wells went dry, drillers moved on. In a few decades there was a boom in Texas, and well rigs sprung up everywhere. Oil production in Pennsylvania slowed to a trickle. However, the quality of Pennsylvania oil as a lubricant gave the industry continued life.

Wherever wells were drilled, they were abandoned when the well went dry. Casings were left in the ground, frequently with no effort to seal the pipes. To this day, some of these abandoned wells are polluting ground water.

4 BITUMINOUS COAL

Even as anthracite mining was thriving, mining for bituminous coal developed. Bituminous coal burned more easily than anthracite and was pre-

ferred for general heating and producing steam. In the late 19th century and early 20th century, agents circulated in rural Pennsylvania, buying mineral rights from land owners for very small sums that looked like a boon to the land owners who couldn't believe that anyone would ever try to harvest the coal.

The standard mining method was room and pillar mining, which worked well where strata were fairly level and coal seams fairly thick. Immigrants, many from eastern Europe, poured into Pennsylvania to labor long hours in foul air, risking roof falls and mine fires, all for low pay. In the mid 20th century, Pennsylvania mines produced hundreds of millions of tons each year. When mines played out, they left behind massive slag heaps, fouled streams, and unemployment. They also left behind the threat of mine subsidence which could destroy surface structures that seemed to be sound years after the area had been mined.

5 SURFACE MINING

Strip mining did not develop as rapidly as room and pillar mining, apparently because the technology of machinery was not developed. In addition, surface mining required miners to own or pay for surface rights as well as mineral rights. However, after World War II, an increasing tonnage of coal was produced by surface mines each year. The laws and regulations governing surface mining were virtually non-existent. Streams were polluted, and farms were left barren of soil. These conditions continued until the Surface Mining Control Act (SMCRA) was passed.

6 LONG WALL MINING

Coincident with the passage of SMCRA, The technology for long wall mining was developed. Mines us-

ing the longwall method no longer had to leave pillars behind. Subsidence was instant and theoretically not destructive. Further, the automated machinery of longwall required many fewer miners. Production went up. Labor costs went down. Longwall was developed for the Pittsburgh seam, which is for the most part eight feet thick, but adaptations have enabled continuous mining to work in much narrower seams.

The idea that longwall causes minimal subsidence has been disproved time and again. Home after home has been damaged. In some cases, the mining companies have bought property rather than have to deal with the damage they knew was coming.

The dam at Ryerson Station State Park was destroyed by longwall subsidence. After twelve years and protracted legal battles, the company has not repaired the dam and is now planning to undermine a feeder stream to the former lake.

7 FRACKING

Having exploited the land and shallow subsurface in all the ways we could think of, energy companies have done the unthinkable. They have discovered that shale deposits over five miles deep contain lots of natural gas. And they have developed the technology to extract it. Fracking: fracturing of shale deposits to release the gas. Although states near Pennsylvania – New York and Maryland – have rejected fracking, our state government has permitted widespread development. The industry claims that its extraction of gas does no harm – naturally, that’s where those seeking a profit always begin – fracking is polluting water and fouling the air and sickening vulnerable people, especially children. There will soon be three studies published demonstrating this problem.

Further, the claims of tremendous resources that will give us 100 years of “energy independence” are based on optimistic projections that will not bear out. We know that when the gas is gone

we will be left miles of rusted pipe, leaky holding ponds, fields once fruitful, now incapable of being farmed.

8 CARS

When it comes to gasoline, Pennsylvanians are not unique in the United States. Simply put, almost all Americans are addicted to cars. Americans use more gas per capita than any other country. And it makes little difference whether we are Sierra Club members or not. Almost all American adults are addicted.

We cannot argue that driving does no harm. We are guzzling a limited resource. We are fouling the air. We fund highway construction, maintenance, repair above all else, even defense and education. Given a choice of bus, train or automobile, we choose the car almost every time. And we should know that if we fly somewhere, we are opting for the only form of transport that uses more energy than our car.

Some of us drive hybrids that use a bit less gas, but we still drive whenever and wherever we want to go. Frequently we find ourselves part of a three lane parade of cars dashing south while an opposing three lanes are dashing north. What do they find north of us that we can only find to the south?

We grumble about the price of gas. We grumble about the cost of insurance. But some of us have more cars per household than people.

I can think of three Pennsylvania Sierra Club members (I won’t name them) who make a conscious and effective effort to keep driving to a minimum. There are probably eight or nine more whom I don’t know. But over 25 thousand of us Pennsylvania Sierra Club members talk a good conservation game but will drive as long as there is a drop of gasoline.

CLIMATE CHANGE

When our environment has been damaged over the last two centuries, we have been able to focus responsibility on a few companies or an industry. However, every company, industry and individual is a part of the human contribution to warming. Farming, heating and cooling homes, lighting the nighttime sky, every enterprise seems to contribute its little bit. A growing population adds significantly to the problem. In a sense, we are past the tipping point, but in another sense, we will never get there.

If humanity survives long enough, and I think it will, warming will seem but a blip in our history. An ice age will cool generally and for millennia, not centuries. Florida will have washed away by then, so Americans will flee to Mexico.

If we can just get through that wall.

PENNSYLVANIA OFFICIALS SAY
THEY’VE **confirmed the
state’s first fracking-
related earthquakes**

TOOK PLACE LAST YEAR IN LAW-
RENCE COUNTY, NORTHWEST OF
PITTSBURGH. – STATE IMPACT,
NPR, 2-18-17

HARRISBURG, PA. –
THE STATE SENATE
THIS WEEK PASSED A
BILL THAT WOULD AL-
LOW A MINING COMPANY
TO **knowingly damage
streams.**

– PUBLIC NEWS SER-
VICE, 6-9-17

[pennsylvania warming]

[explore enjoy...pennsylvania]

Forest Watch Outing to SGL 103 orphaned gas well, history, and natural history

by Gary Thornbloom

Pennsylvania's Public Lands are predominately forested, and Forest Watch Outings are a way into those forests. In February seventeen hikers participated in the first Forest Watch Outing in 2016. The walk into State Game Land 103 began on a slush covered woods road from the past.

We began by walking along a field that was planted for wildlife. Turkey and what may have been bear tracks were fading in the melting snow. Trees along the edge of the road had been cut down and left lying. This provided food, browse, for wildlife. Stump sprouts would provide more browse in a different season. The tangle of tree tops with thorny canes that had pushed up throughout branches provided wildlife cover.

Our drop into Wallace Run paralleled Grindstone Gap. We were easing our way down and would eventually be about 1000' below the knobs adjacent to our path and the rim above Wallace Run that stretched in front of us.

As we approached the bottom of the hollow a track veered away from ours and to the left following the contour of the mountain side. This was from either the logging or fishing club that were a presence in the last century. Stone bridge abutments and rotting railroad ties were visible along that track.

One of our destinations was at the mouth of the hollow as it met Wallace Run. A pool of water, the outline of a well casing under water, occasional bubbles and the faint fleeting odor of rotten eggs was our destination. This

was a wildcat gas well that was drilled about eighty years ago. The well is one of the tens of thousands of orphaned and abandoned oil and gas wells scattered throughout Pennsylvania.

This well has likely been leaking methane, a powerful greenhouse gas, for decades. A local man told me about visiting this site in the 1950's. At the time there was a shack over the wellhead, and they, young boys, would close the door, let the gas build up, and light it to see if they could blow the door open.

We talked about this legacy from past drilling and about how widespread the problem is. It was an easy lesson to grasp as our group shifted positions to better view the gas bubbles and smell the odor.

After crossing the stream in Grindstone Gap we climbed the steep bank on the far side. At the top we encountered the first of several "bear beech trees" — beech trees scarred by bear claws. Some of the imprints, left many years ago, were perfect paw prints.

Further along the mountainside we came to stone steps, a relic from days of widespread government programs like the Civilian Conservation Corps. In the 1930's and 40's the federal government funded programs for young men who were out of work. CCC camps throughout Pennsylvania built bridges, trails, and cabins in many of our State Parks. Older men, down on their luck and also out of work, were in other programs which built roads and other public works.

At the top of the steps we talked about the CCC programs, and works through-

out our Public Lands. And the stone steps? They were built by a crew of older men who lived in a camp at the top of the hollow. The steps made it easier to access a small pool they had built in Wallace Run to cool off in on hot summer days.

Back across Grindstone Gap we retraced our path most of the way up the hollow. We dropped back into the hollow to take a look at some grindstones. Grindstones were common throughout the 18th and 19th centuries. Used in mills, as well as on farms, you can see them today, relics of a past era, now standing by driveways and homes throughout rural Pennsylvania.

The arc of blanks in the stone showed us where grindstones, three high, had been removed. The outline of a grindstone that was never removed remains in the bedrock of the stream. Slices of broken grindstones are scattered along the stream. The edge of two grindstones with the square cut in their centers lay underwater.

Once you become aware of what to look for, there is a lot of history and natural history in plain view. You also do not have to look too hard to encounter the past legacy of the heavy hand of industrial impacts throughout the landscape. Forest Watch Outings give us a better understanding of our Public Lands.

nymph life

by Phil Coleman

Bill Hamilton offers a detailed discussion of Cicadas, covering much of what we know about them (See p. 19). Some years ago, a friend commented to me, "What a miserable life Cicadas lead. They live for a couple of weeks and then are slugs for years." At first, I agreed with him, but then I thought about it in a different way. We humans judge Cicadas by our standards. Maybe we should judge them in other terms.

To us, the important part of life is centered around sex, so the mating phase – that two week period of Cicada agony and ecstasy -- is all important. To us, that is the total of Cicada life; everything else, especially the nymph stage, is merely storage. Living in dirt, in total dark, with an occasional nibble on tree roots: that amounts to solitary confinement, a long mindless jail term.

But consider this: to some among us, meditation is a high point of experience. Can the quiet of a Cicada nymph's life be so very different from meditation?

As a matter of fact, Cicada nymphs have elevated meditation to levels of contemplation unimaginable by people. Lying beneath the soil in total dark, one cicada began to contemplate gravity. Even underground, he could still feel the pull of the earth. He wasn't distracted by other petty concerns, so he could concentrate. When he contemplated what he felt, he began to differentiate. Letting no

other thoughts, events, or feelings distract him, he realized that he could feel the much fainter and changeable gravity tugs of the sun and moon. Being undisturbed by anything else, and contemplating over time, he expanded his awareness to include the solar system, then the Milky Way, then the entire universe. He felt the ripples in gravity that Einstein contemplated mathematically but couldn't prove

energyless, dimensionless mass which will probably last another 970 billion years, before a new Big Bang and the agony and ecstasy of what we humans call life.

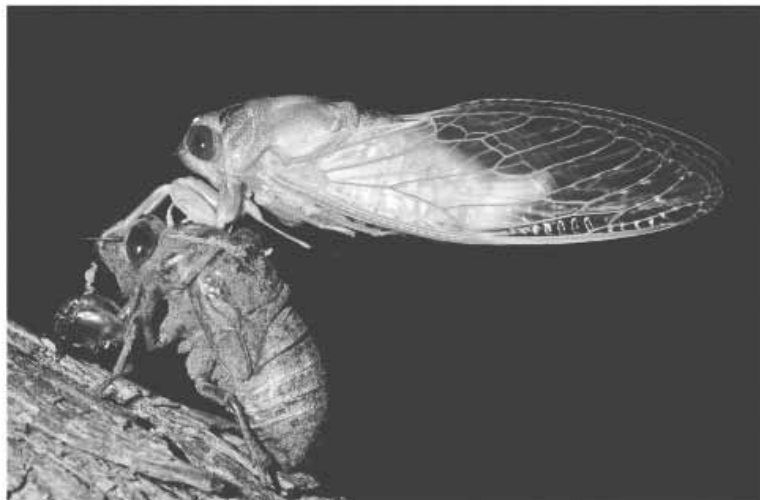
To the Cicada, time being relative, our days are as transitory as his. These busy days don't seem to derive any profound significance as the exclusive preserve of people. It's true that people have learned a lot of stuff,

technical or fanciful, but they lag behind Cicadas when it comes to understanding the universe, or, for that matter, life.

Note: The nymph knew that his subsoil existence would come to an end, so he wanted to preserve the results of his contemplation. He told other nymphs of his formulations, and this knowledge became a part of the nymph community body of knowledge. We store info in "the cloud"; they

store it in "the clod."

Nymphs don't use language as we do. They don't use sounds or signs. To the extent that they know about the squealing calls of "mature" Cicadas, nymphs sigh and shake their heads. They communicate, but not in a way that people can know anything about. I wouldn't know anything about nymphs if I didn't have a worm drilling through my brain.



experimentally, and he traced them back to the Big Bang. He considered further, and realized that the quiescence before the Bang was much like the quiet of his subsoil life. But it lasted much longer. Whereas the existence of the universe (by his calculations) will have lasted a total of 22 billion years (even though the earth will burn up after 17 billion years), the quiet period of what he had come to term "the megaverse" had lasted 970 billion years. His projections called for the universe, as a part of the megaverse, to return to a state of

[coleman's lantern]

moving on

by Phil Coleman

As I finish editing my last *Sylvanian*, I have to think back a while to when I started it.

In the mid 1970's, the chapter started a four page insert that groups could enclose in their newsletters. This was a clear sign that a few groups were better organized than the new chapter. But things changed. We recognized that influencing state government was crucial. We hired our first lobbyist (Jeff Schmidt) and began to exert our little bit of influence.

In 1981, I proposed to edit and publish a chapter tabloid. Given our state name, calling it *The Sylvanian* seemed natural. The printing business was undergoing change. I was lucky that Brownsville, Pennsylvania (where my wife Wyona and I lived) had a daily newspaper called the Brownsville Telegraph which owned the only offset press in the area. And I was especially lucky that the publisher was

friendly and soon gave me a key to his back door.

I could go in at night and use the layout and cut and paste equipment. So I started *The Sylvanian*, and kept it up for about eight years, as I remember, before passing it on to other editors.

The printing business became generally offset everywhere and continued to develop technically and business-wise. Small town newspapers began to disappear or be consolidated with other papers. Soon, the Telegraph closed shop. So it was fortunate that I had passed the editorship on down the line.

This also was the beginning of the era when computer programs replaced cut and paste layout. In a sense, the pre-press part of editing became a lot easier.

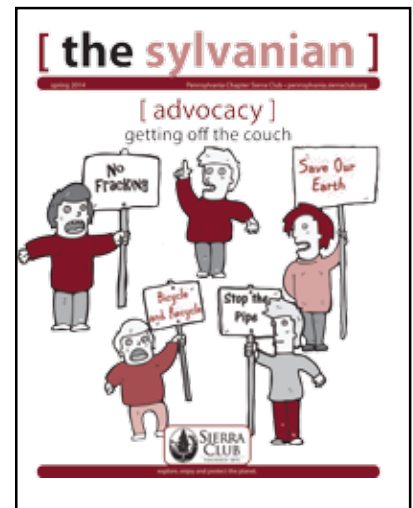
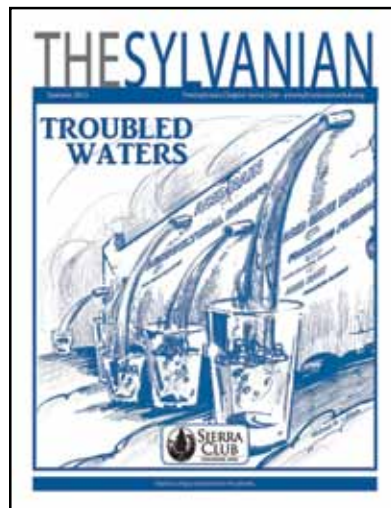
As *The Sylvanian* was passed along from editor to editor, I continued to write a column for each issue, gener-

ally on an outdoors topic. Carol Fryday suggested the name "Coleman's Lantern," so I have used that catch-all since then.

Eight years ago, *The Sylvanian* was again in need of an editor. That was when Wendi and I agreed to co-edit. We have enjoyed our efforts, and we have enjoyed working together. But all good things must come to an end and we are passing the baton to someone as yet unknown.

The printing business and media business as a whole have continued to change. A few years ago we tried an all digital version of *The Sylvanian*, but members objected and wanted to see the publication in print. Changes will continue to affect *The Sylvanian*. I plan to continue to write Coleman Lantern columns as long as there is a publication, as long as new editors want them, and as long as I am able.

See you down the road.



Past issues of *The Sylvanian* — Winter 2010, Summer 2013, Spring 2014

dog day cicadas

by Bill Hamilton

The ancient Romans called the midsummer the “dog days” in honor of the rising of the dog star, Sirius, with the morning sun. They thought that the heat and almost unbearable humidity of the late summer were due to the combined powers of these two stars bearing down on the Earth. The dog days were a time of madness when both man and beast hovered on the edges of despair and rage. One component of these hot, humid days and maybe a part of this seasonal madness is the emergence and almost incessant buzzing of the annual, “dog day” cicadas.

Dog day cicadas have life cycles that range from two to five years in length. A given area, though, will have cohorts that reach their adult stages in the late summer of any given year. So, as we go into August, we will be greeted by the nearly continuous singing of the annual cicadas.

These cicadas begin their lives as eggs deposited in clusters under the bark of small tree branches and twigs. After six to seven weeks the eggs hatch into tiny nymphs which drop to the ground and burrow into the soil where they will live and grow, feeding primarily on the sap from tree roots (especially oaks, ashes, and maples) for the next two or more years. In the late summer they crawl up out of the soil and climb back up the trunks of their trees and carry out their adult molt. Their empty, dry, pre-adult exoskeletons can often be seen clinging to a tree’s trunk or branches!

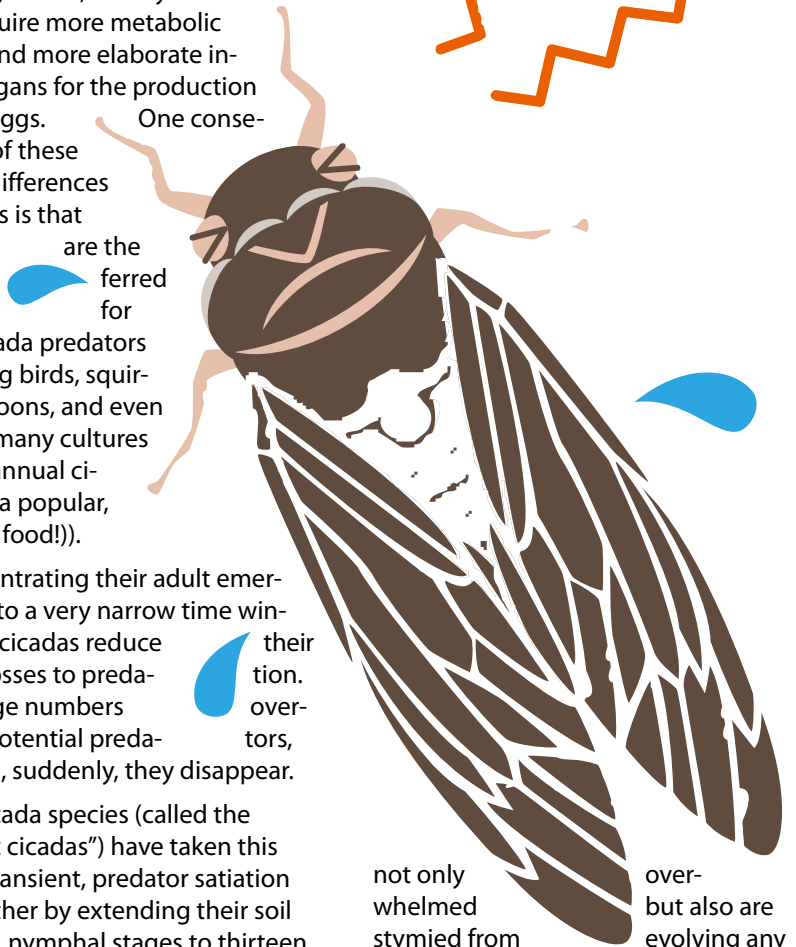
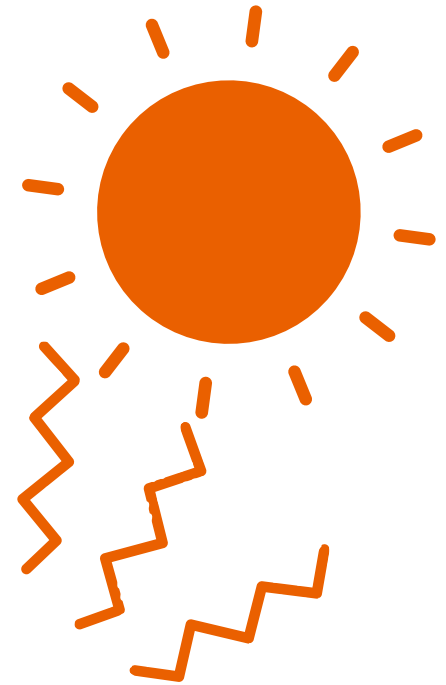
Male cicadas climb further up the tree and begin to sing. Thin, exoskeleton membranes (called “tymbals”) on the sides of their abdomens are pulled

inwardly and then released to make loud “clicks.” The males’ bodies are quite hollow and act as amplifying, resonance chambers for the generated sounds. The purpose of the song is, of course, to attract females for mating. Mated females will then lay their cluster of eggs under the bark of a twig or branch of the tree and start the life cycle all over again. Females have very dense, “meaty” bodies. They require more metabolic energy and more elaborate internal organs for the production of their eggs.

One consequence of these gender differences in cicadas is that females are the preferred food for most cicada predators (including birds, squirrels, raccoons, and even people (many cultures include annual cicadas as a popular, seasonal food!)).

By concentrating their adult emergence into a very narrow time window the cicadas reduce overall losses to predators. Their large numbers overwhelm potential predators, and then, suddenly, they disappear.

Other cicada species (called the “periodic cicadas”) have taken this idea of transient, predator satiation even further by extending their soil dwelling, nymphal stages to thirteen or even seventeen years! These periodic “locusts” are so rarely abundant and when out are in such incredible numbers that predatory species are



not only overwhelmed but also are stymied from specialized feeding strategies. There are twenty-three identified “broods” of these multiyear cicadas! One may be popping up near you soon!

letter to the editors

(continued from page 8)

These persistent species, along with Japanese barberry, Eurasian bush honeysuckle and other invasive plant species that deer don't prefer to eat cast dense shade on the forest floor that suppresses the growth of tree seedlings and other plants (Latham et al. 2005; DCNR 2013).

Soil seed banks become exhausted over time and there are few remaining oaks, dogwood, hobblebush, trilliums, lilies, Canada mayflower and other species to be sources of new seeds. These "legacy impacts" can suppress forest regeneration for decades. Understory wildlife habitats are severely damaged to the detriment of songbirds, game birds and other wildlife (DCNR 2013; references p.16). In many areas decades of excessive browse has already reduced the ability of forests to sustain deer themselves.

Although forest regeneration is affected by invasive plants, gypsy moths, plant diseases, altered fire regimes and other issues "the consensus among biologists and natural resource managers remains that the most important factor affecting forest regeneration is deer browsing and legacy impacts" (DCNR 2013). Once forests are severely degraded by excessive deer browse it may take more than 50 years – or be impossible – to reverse the damage even if the deer population remains low (Latham et al. 2005). Simply put, our forests are disintegrating.

How many deer are there, and by how much must the deer population be reduced to enable forest restoration? Unfortunately there is no single method for determining how many deer there are in a particular area that is scientifically credible, accurate and affordable in time or money. However site-specific estimates of the relative

abundance of deer and change with time may be useful for management (Latham et al. 2009; PCG 2009). Forest ecologists advise monitoring impacts on vegetation instead of trying to estimate deer density (Latham et al. 2009). Deer numbers alone would not tell the whole story anyway. Deer densities depend on available forage and are low in badly over-browsed forests.

As of 2003 the Pennsylvania Game

Commission uses indicators of deer health, forest habitat health, and deer-human conflicts as the basis for their deer management recommendations (PGC 2009). "In a 2001 survey, 9 out of 10 hunters agreed that managing game to promote healthy habitat for ALL wildlife species should be an extremely or very important consideration in wildlife management (Responsive Management 2001)."

Given the poor condition of Pennsylvania forests I hope the majority of hunters will urge the Pennsylvania Game Commission to follow through on their Goal number 3: "Manage Deer for Healthy and Sustainable Forest Habitat" (PGC 2009). Doing so will probably mean significantly reducing

the deer populations in many or most Wildlife Management Units. Deer take objectives should always be based on frequent accurate assessments of forest health. Active restoration efforts will likely also be required to overcome intractable legacy impacts. In the long run healthy forests will support healthy deer and a great diversity of wildlife.

It is a tragedy that many people today may not know what a healthy forest should look like –thickly vegetated with regenerating trees and a diversity of shrubs and blooming wildflowers, and abundant wildlife. Restoring our forests won't happen quickly enough for me to see it in my already long lifetime, but if we work together it could happen in our children's lifetimes.

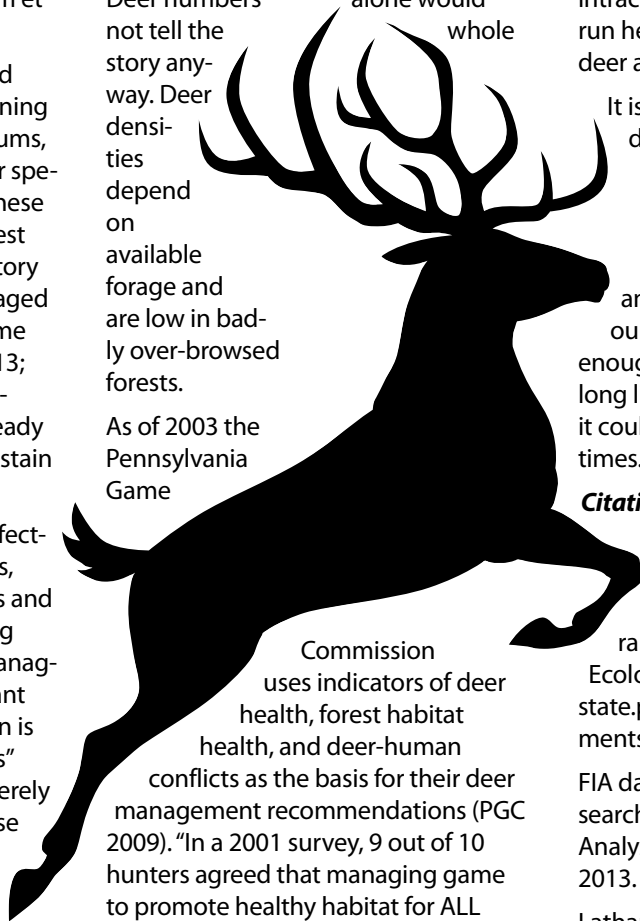
Citations:

DCNR 2013. White-Tailed Deer Plan. Pennsylvania – Department of Conservation and Natural Resources - Bureau Of Forestry-Ecological Services. http://www.dcnr.state.pa.us/cs/groups/public/documents/document/dcnr_20027101.pdf

FIA data 2005-2009. The Northern Research Station's Forest Inventory and Analysis (NRS-FIA) as cited by DCNR 2013. <https://www.nrs.fs.fed.us/fia/>

Latham, R. E., et al. 2005. Managing White-tailed Deer in Forest Habitat From an Ecosystem Perspective: Pennsylvania Case Study. Report by the Deer Management Forum for Audubon Pennsylvania and Pennsylvania Habitat Alliance, Harrisburg. xix + 340 pp.

http://pa.audubon.org/deer_report.html



Commission uses indicators of deer health, forest habitat health, and deer-human

conflicts as the basis for their deer management recommendations (PGC 2009). "In a 2001 survey, 9 out of 10 hunters agreed that managing game to promote healthy habitat for ALL wildlife species should be an extremely or very important consideration in wildlife management (Responsive Management 2001)."

Given the poor condition of Pennsylvania forests I hope the majority of hunters will urge the Pennsylvania Game Commission to follow through on their Goal number 3: "Manage Deer for Healthy and Sustainable Forest Habitat" (PGC 2009). Doing so will probably mean significantly reducing

need help paying for college?

Apply for Wyona Coleman Scholarship. The Pennsylvania Chapter of the Sierra Club awards one or two \$1,000 scholarships each year in honor of Wyona Coleman.

The scholarship is open to all Pennsylvania residents who are seniors in high school, in addition to those already accepted or enrolled in college.

The Wyona Coleman Scholarship Fund is a memorial to Sierra Club member Wyona Coleman, who was a founding member of both her local group and the Pennsylvania Chapter. Coleman was a longtime champion of coalfield residents victimized by unregulated strip mining, and was so instrumental in advocating for the Surface Mining Control and Reclamation Act, that she was invited to the White House to witness President Jimmy Carter sign the bill into law.

Applications must include: (1) a letter of application, (2) the student's academic record, (3) two letters of support -- at least one from a community group in which the applicant has done volunteer work, and (4) a 300-word essay on how the student intends use his or her education to protect the environment. The letter of application should include some basic biographical information about the student and attest to the student's financial need. Each essay must include a heading with the applicant's name, home mailing address, email, and phone number.

Applicants will be evaluated on academic potential and financial need.

Those awarded the scholarship will be required to provide their Social Security Numbers and the name and address of the institution they will be attending.



Wyona Coleman

Applications are due July 30, 2017, and should be submitted electronically to:

pennsylvania.chapter@sierraclub.org
Please place the word "Scholarship" in the subject line. The scholarships will be awarded August 15, 2017.

answers to crossword puzzle

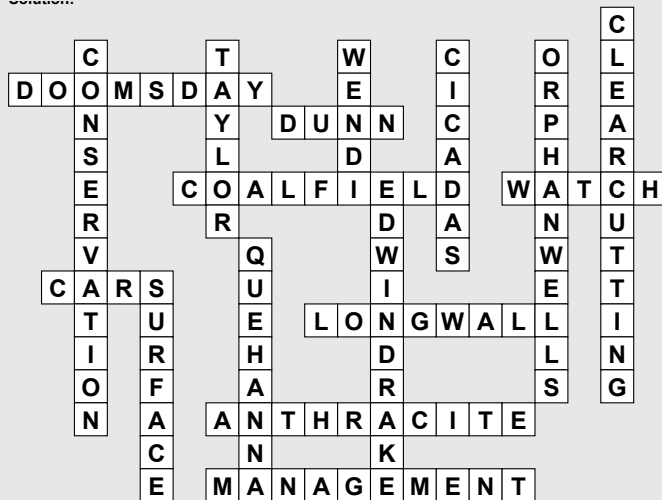
(from page 24)

Across

- 7 Doomsday
- 8 Dunn
- 9 Coalfield
- 11 Watch
- 13 Cars
- 15 Longwall
- 16 Anthracite
- 17 Management

Down

- 1 Clearcutting
- 2 Conservation
- 3 Taylor
- 4 Wendi
- 5 Cicadas
- 6 Orphan Wells
- 10 Edwin Rake
- 12 Queshanna
- 14 Surface



Community Comes Together to Fight for Streams in Ryerson Station State Park



The 11th Annual DRYerson Festival was a huge success. Over 60 people came together to celebrate Ryerson Station State Park and took action to protect our streams in and around the park.

We celebrated with good food and awesome music from the talented Steve Ventura, who also plays in the band Mon Valley Push. . Veronica Coptis, our Executive Director, said the following:

Being here at Ryerson with all of you is so powerful to me. It is impossible to put into words the influence these majestic hills and forests have had on me. I grew up here as I'm sure so did many of you. Most major memories in my life have something that ties back to the park, our streams, and what used to be our lake. That is why it means the world to me and the Center for Coalfield Justice that you took time today to make it clear that our community will fight back against the many attacks on our park right now.

At the same time that we are working so diligently to protect the park from more harm, the Ryerson Task Force is working hard to rebuild a place where memories can be made again. The design work for the new pool almost completed and feasibility studies are being done for restoring the stream in through the dry lake bed. But all of the money that has been set aside for restoring Ryerson will be wasted if we don't have any water left in the park.

Over fifteen people recorded video messages to Governor Tom Wolf about what Ryerson Station State Park means to them and why protecting the park is so important. There can be no doubt that people are dedicated to the fight for Ryerson are going do what it takes to protect it.

We ended the day with water balloons. Thank you to everyone that supported and attended this year's DRYerson Festival!

the gadfly

continued from page 13

several months later. Whether it was ever recovered depends on whom you ask. That "significant incident" on foreign territory, not under the authority of the CIA, could not be hushed up and remains in the folklore of the villagers of Palomares.

Two years later, a B-52 carrying four H-Bombs caught fire and crashed in Greenland (Danish territory) near Thule Air Force base. The TNT of the plane's 4 bombs exploded strewing radioactive uranium, tritium, and plutonium across the ice.

Also in 1968, the nuclear attack Submarine, Scorpion, carry-

ing two nuclear torpedoes, sank in 9,800 feet of water near the Azores. Both (torpedoes) are still there.

A few nuclear military catastrophes of the Soviet Union and a few more of US origin have also occurred. Now we must include radiation on the list of man-made environmental dangers.

That's just the military side of the madness. Next issue of the Sylvanian, Gadfly sets its satirical eye on the civilian side. Watch this space for Part II.

call for at-large delegates

The nominating Committee wants to know who you think is qualified to represent you on the Pa Chapter executive Committee. Each year the statewide membership of the Sierra Club elects three members as delegates to the Chapter executive Committee for two-year terms. These delegates, along with representatives from each group, comprise the governing body of the Pennsylvania Chapter.

Generally, at-large delegates have a broad interest and/or knowledge of the activities of the Club throughout the state. Nominations are now being sought for these three important at-large Delegate positions. Members are encouraged to submit the names of people (including yourself) to the nominating Committee. Submit the names and contact information of people you want to be considered by the nominating Committee as nominees no later than August 15, 2017.

Further, members who are not officially nominated by the nominating Committee can be added to the election ballot for at-large Delegates through a simple, written petition process.

A valid petition consists of the name, address and membership number of the petition candidate, along with a statement that the candidate has given approval for the petition and intends to serve if elected. A telephone number and e-mail address of the candidate are also requested. Members

signing petitions must include their printed membership name and address, the date and a legible signature. The telephone number, e-mail address and membership number of members signing the petition are also requested in order to verify current membership. Both members of a joint membership may sign. A minimum of fifteen (15) valid signatures is required on a petition. Because some signers may have unknowingly let their membership lapse, a greater number of signatures is recommended. Petition candidate statements and completed petitions must be received by the nominating Committee no later than August 31, 2017. (See the address below.) Ballot candidates for at-large Delegates should prepare a written statement highlighting their qualifications to serve as delegates, which will appear in the fall edition of The Sylvanian. Statements are limited to 200 words and should be e-mailed to the nominating Committee by September 5, 2015. Petitions and petitioners' statements should be mailed to the nominating Committee by the U.S. Postal Service or a commercial overnight delivery service at the following address:

Chapter nominating Committee; Jack Miller; 6 West Sycamore Place, Lewisburg PA 17837. In addition, the nominating Committee will gladly accept recommendations for various posts and volunteer positions. Please contact Jack Miller at: jmiller1018@yahoo

[connect with your sierra club group]

Chapter Executive Committee

<http://pennsylvania.sierraclub.org/>

Follow us on Facebook: <http://www.facebook.com/PASierraClub>

Follow us on Twitter: @SierraClubPA

Allegheny Group

www.alleghenysc.org

Governor Pinchot Group

<https://gvpsierraclub.wordpress.com/>

Kittatinny Group

<http://kittgroup.weebly.com/>

Follow us on Facebook: <https://www.facebook.com/Sierra.Kitt.Club>

Lake Erie Group

www.lakeeriegroup.webs.com

Lancaster Group

www.lancastersierraclub.org

Follow us on Facebook: <https://www.facebook.com/sierraclublancaster>

Email: sierraclublancaster@yahoo.com.

Lehigh Valley Group

www.sierraclublehigh.com

Follow us on Facebook: <https://www.facebook.com/sierraclublv/>

Moshannon Group

www.sierramsh.org

Follow us on Facebook: <http://www.facebook.com/#!/groups/112180198821601/http://pennsylvania.sierraclub.org/moshannon/outings.html>

Otzinachson Group

<http://otzinachson.wordpress.com>

Follow us on Facebook: (<https://www.facebook.com/Otzinachson?ref=ts&fref=ts>)

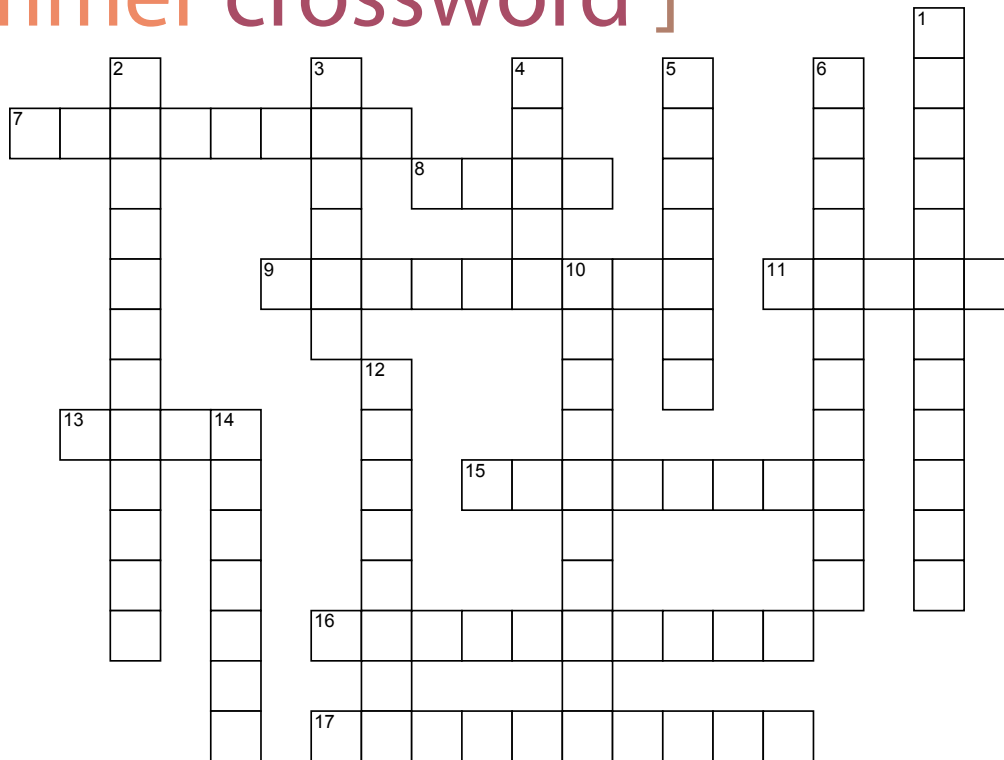
Southeastern Group

<http://pennsylvania.sierraclub.org/southeastern>



explore, enjoy and protect the planet.

[summer crossword]



www.CrosswordWeaver.com

Across

- 7 Atomic Scientists' idea: _____ Clock
- 8 Secretary of DCNR, Cindy _____
- 9 Center for _____ Justice
- 11 Forest _____ Campaign
- 13 an American Addiction
- 15 _____ mining

16 Hard Coal

17 Volunteer _____ Team

Down

- 1 Taking all the trees
- 2 New _____ Paradigm
- 3 Wendi _____, Sylvaniaian Editor

4 _____ Taylor, former Chapter Chair

5 Dog Day _____

6 Pennsylvania has over 200,000

10 Colonel _____ Struck Oil in 1859

12 Lost Run Road crosses _____ Trail

14 Mining above Ground

answers on page 21