

[the sylvanian]

winter 2017

Pennsylvania Chapter Sierra Club • pennsylvania.sierraclub.org



THE WOODS IN WINTER



explore, enjoy and protect the planet.

[from the editors]

...let it snow

We can't find much to be happy about in the recent elections. Environmentalists took a serious hit. We can't be sure what Donald Trump will do. He frequently makes outrageous claims just to distract us from other issues, but if he does what he claims to intend, we will have to be outspoken and effective defenders like never before.

Meanwhile, we look forward to winter. Winter is a time when dedicated outdoorspeople find the woods less crowded but still intriguing. We spend a day or an overnight in the woods, but animals and plants large and small are there full time. We will look at the steps some of them take to survive.

My co-editor, Wendi Taylor, will be noticeably missing from this issue of *The Sylvania* (and perhaps the subsequent issue) while she undergoes chemotherapy for the next six months.



Wendi Taylor



Phil Coleman

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

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:
carli.timpson@sierraclub.org

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



[the sylvanian]

[the woods in winter]

special report

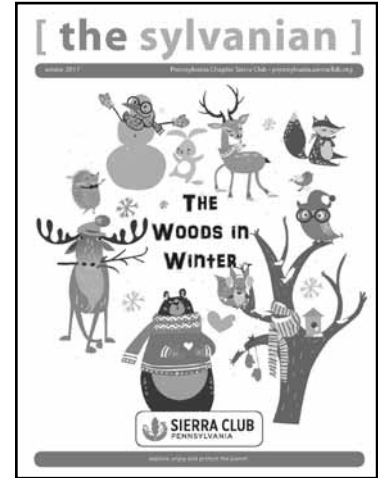
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[on the cover]

In this issue, we discuss how you can continue to enjoy the outdoors during our coldest months, and we help you understand how our wildlife copes with the frigid temperatures.

Baby it's cold outside!

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next deadline: March 15

Send articles & photographs to: wendi.taylor@verizon.net or pcoleman19@tampabay.rr.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

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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 March 15 (Spring issue), June 15 (Summer issue), September 15 (Fall issue), and December 15 (Winter 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.

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[a message from our chair]

message from Veronica Coptis

This past year as Chapter Chair, I have gotten to meet so many amazing leaders in their communities fighting for environmental and social justice in their communities. Our chapter has so many dedicated people fighting for a healthy climate, that it renewed my hope that we will have a better future for our kids and grandkids. Our members are diligent, persistent, and patient in challenging bad legislations, fighting dirty energy projects, and building lasting relationships with allies.

Seeing how strong our chapter is and the dedication of our active members

makes knowing that we will be facing the most anti-environment president in my time easier to handle. I know I will not

will also push our state leaders to protect basic rights that the federal government will be trying to strip away.

I know I will not be alone in challenging all the climate deniers that President-Elect Trump has appointed to his cabinet.

be alone in challenging all the climate deniers that President-Elect Trump has appointed to his cabinet. I know that others will be hitting the streets with me to demand that we are heard. I know that we

This year it is going to take all of our members getting out and taking action to fight for our climate. We are also going to have to stand with many of our allies and support immigration rights, racial justice, economic equality. I am ready to do what it takes to make sure communities are not sacrificed for another's gain and looking to forward to many new members I will meet along the way.

a reminder of our mission



SIERRA CLUB

PENNSYLVANIA

Our mission is 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 human environment; and to use all lawful means to carry out these objectives.

The PA Chapter was organized in the early 1970s and officially opened its office doors in Harrisburg in 1983. Our 25,000 members are lead by an all-volunteer executive committee who drive the conservational, political, and organizational development of the Chapter as it seeks to reach the objectives of the Sierra Club mission.

The Pennsylvania Chapter is composed 10 area groups that are each governed by their own executive

committees who are elected by group members on an annual basis. The statewide Chapter is also served by an executive committee comprised of delegates from each of the 10 groups within the Chapter, at-large delegates, and a variety of officers. Officers and delegates are elected annually, while at-large delegates serve for two-year terms and are elected by the general membership

ryerson station appeal

by Patrick Greuter

On December 21st, the Sierra Club and Center for Coalfield Justice (CCJ) filed an appeal of a permit issued by Pennsylvania Department of Environmental Protection (DEP) that would allow Consol Pennsylvania Coal Company (Consol) to mine underneath Ryerson Station State Park, damaging the streams that flow through the area. The groups are asking the Environmental Hearing Board (EHB) to halt mining in the park while the appeal is being considered. The appeal comes after the DEP issued a permit to Consol on December 13 allowing the company to perform extensive and destructive longwall mining beneath the surface of two streams - Polen Run and Kent Run - portions of which are within the Park. The permit was issued despite the fact that the application filed by Consol predicts significant damage, notably subsidence and flow loss, to these streams.

The activity authorized by this new permit is predicted to result in flow loss that would prevent aquatic life, like fish, salamanders, frogs, and macroinvertebrates (such as mayflies, dragonflies, and other insects that live in streams) from surviving in the streams. Thousands of fish have died from mining at this Consol complex in the past and thousands of future memories and experiences have been stolen from visitors of Ryerson Station State Park.

The story of our fight for Ryerson Station State Park goes back nearly fifteen years. In 2005, Duke Lake, a 62-acre lake which was Ryerson's main attraction, was destroyed because of mine subsidence which caused the dam that created the lake to become dangerously unstable. Consol's Bailey mine was the only feasible source of ground movement in the area, but the company denied responsibility for more than five years, during which time the lake bed

remained dry. Finally, the state began enforcement actions to force Consol to repair Duke Lake, ultimately settling with the company in 2013 under terms incredibly favorable to the company. Part of the settlement included the right to frack underneath Ryerson, and the conveyance of more than 500,000 tons of coal reserves under the eastern portion of the park. These reserves are part of the appeal that we are fighting today.

It is incredible that for so many years, the state has overlooked and has even facilitated the destruction of a state park in an environmental justice area, forcing area residents and groups to band together to defend it. There are plenty of opportunities to get involved and support this fight. Reach out to the Chapter office to learn more.

in pictures... how fracking is destroying Ryerson



The stream at Ryerson as it was before Consol placed a mine underneath Ryerson State Park.



A crack in the stream bed that has led to the emptying of the water



The meadow above is the lake -- minus water for ten years now.

[letter to the editor]



Dear Sylvania Staff,

I enjoyed your article on Global Warming (page 20 Summer 2016 issue) but felt you missed mentioning a very important source of wasted energy..... needless car idling.

Everywhere I go I see people needlessly idling their cars as they sit and look at their cell phone, wait for someone in a store, start their cars before leaving the house to warm up or cool it down before leaving or worst of all leaving the car running while they go into a store to get something. Idling wastes countless billions of fuel and money each year but nobody seems to realize it. I would like to offer the suggestion to the Sierra Club to point out this source of needless pollution and energy waste to the public in any and as many forums as possible. People are oblivious to the endless waste of gasoline that this mindless activity produces.

Respectfully submitted,

Mark Rubin

From the editors: Mark: Thanks for your suggestion. We'll point out the problem right here. Americans, even Sierra Clubbers, love their cars. It's hard to get them to change. But we'll try.

[coleman's lantern]

45 years with the sierra club

by Phil Coleman

I paid my membership dues a few weeks back, so yesterday I received a "Certificate of Appreciation" for 45 years of membership. The certificate brought back memories.

Not many Pennsylvanians have been members for more than 45 years.

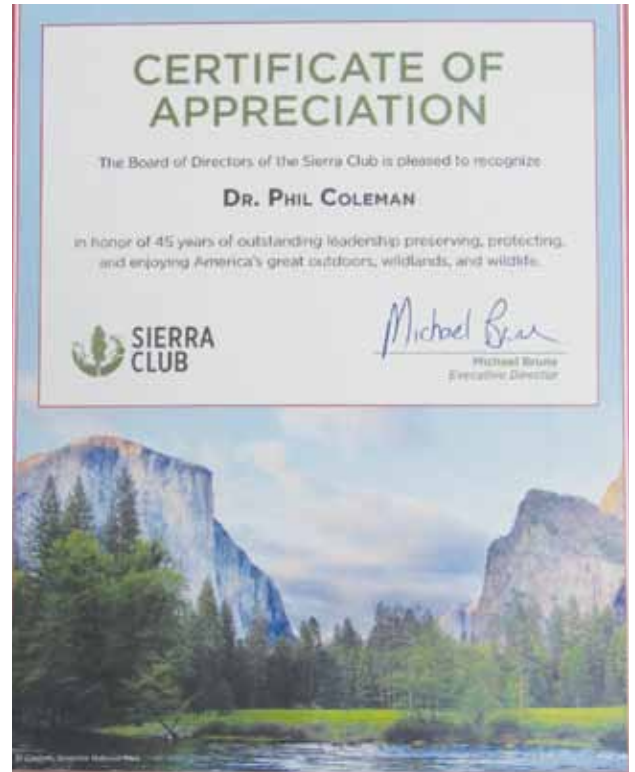
The first Earth Day was 46 years ago, April 22, 1970. Wisconsin Senator Gaylord Nelson founded Earth Day and said it should be a teach-in about environmental concerns. I organized a teach-in at California University of Pennsylvania. Following that day, Wyona (my wife) and I became interested in environmental issues. The next year, not knowing that "Earth Day" would last forever, I organized a "Sun Day," another teach-in at California.

In the early 70's, the Sierra Club was still largely a San Francisco centered

organization, just beginning to recruit members nationwide. We joined, and Wyona became active in Pennsylvania Chapter leadership. The Club soon had chapters in every state and expanded its Washington, DC office. The timing was right. It became the powerful organization it is today. When Sierra Club speaks, people listen.

I would like to hear from any of you old timers who are still around.

Drop me a note at pcoleman19@tampabay.rr.com.



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[the woods in winter]

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introduction: the woods in winter

We are fair weather hikers. We love Spring flowers. We like the shade of leafy trees. We canoe the rivers and swim in the lakes when the water is warm. But that is our mistake.

Some of us hike and backpack in winter and find a different set of pleasures. Skiing, snowshoeing, even backpacking offer alternative pleasures we should not ignore. Years ago,

I would don my wetsuit and go white-water canoeing on many a winter weekend.

The winter woods offer alternative pleasures, but to some animal and plant species they also offer challenges. Our contributors touch on challenges to deer, bear, bats, and bees.

Please read on.

hibernation

by David Sublette

When temperatures begin to drop and food becomes scarce, many species of wildlife find close quarters in which to spend the winter in a dormant condition. Mammals spend months before hibernation consuming large amounts of food; the pregnant black bear, for example, may eat 20,000 calories a day and increase her body weight by 35 percent before hibernating.

The mammal that best demonstrates the true definition of hibernation is perhaps the woodchuck. The woodchuck's heart rate drops from about 80 beats per minute to 5 or 6 beats per minute, while its body temperature decreases by about 60 percent. In other species, hibernation may be best described as long naps, with the animal awakening on occasion to feed if food is available. Skunks, raccoons, and squirrels hibernate this way, while eastern chipmunks are usually in for the duration.

Earthworms, amphibians, and snakes also hibernate, as does the queen bumble bee (though the remainder of the hive normally dies off).

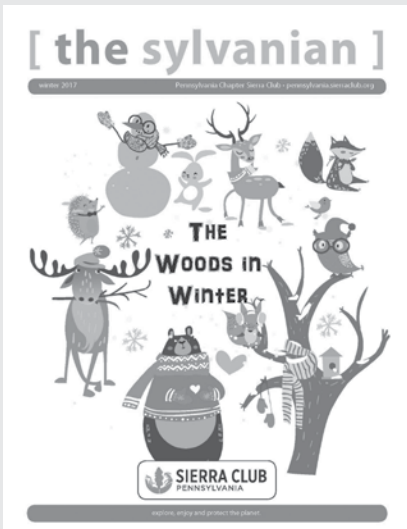
The two species that have garnered the most attention in Pennsylvania are the hibernating cave-dwelling bats and the black bear. Bat hibernation began to re-

ceive increased attention in 2007, when a devastating disease called White Nose Syndrome was discovered in caves in New York and soon thereafter in Pennsylvania. The disease causes its victims to consume over twice as much energy as healthy bats, robbing them of nutrition and severely depleting the body fat necessary for their long dormant state. This physiologic change signals the bats that it's time to feed; and when they come out of torpor—too soon—they essentially die of starvation. As a result, millions of bats have died. In Pennsylvania, 98 percent of little brown bats, tri-colored bats, and northern long-eared bats are gone.

BLACK BEARS

In the US, some of the best field research on hibernating black bears has been conducted by former Pennsylvania Game Commission biologist, Gary Alt, PhD. Alt field-researched black bears for 25 years for the Commission, and his work is the standard for many areas of the country. He states that about 75 percent of counties in the Commonwealth have bear populations.

Alt has found that, in Pennsylvania, black bears hibernate primarily in rock formations, though they also den in culverts and beneath houses, hunters'



camps, and leaf piles or tree roots. The gestational period for female bears is about 7 months; but the fertilized egg, after the June-to-August breeding season, will not attach to the uterine lining until after the bear hibernates. Pregnant bears usually enter hibernation in October and emerge in April. (Non-pregnant bears may wait until December to hibernate and then awaken in March.) Black bears give birth to very small cubs and routinely have a litter of 2 to 3 cubs, depending on the age and size of the female.

Temperature levels in hibernating bears do not decrease as much as they do in smaller mammals, but the respiratory rate can decrease from 6 to 10 breaths per minute to one breath every 45 minutes. Heart rate may decrease from 40 to 50 beats per minute to 8 to 10 beats per minute. During their months-long hibernation, black bears do not drink, eat, urinate, or defecate, nor do they appreciably lose bone density or muscle mass.

The Black Bear Research Center at Virginia Tech has been doing important research on hibernating black bears since 1988, but their studies involve bears in captivity that are denned on the property and their findings should therefore not be confused with the actual field studies conducted by Dr. Alt.

hibernation or torpor?

Torpor is a lighter form of hibernation that allows the animal to wake for small periods of time and then go back into a light hibernation.

bears

Torpor: The difference between torpor and hibernations is that during a torpor the animal is easily awoken. So tread lightly near that bear's den; it will wake up.

bats

Hibernate: Bats go into a true hibernation. They may appear to be dead!

hedgehogs

Hibernate: During hibernation, their heart rate drops almost 90 percent. They wake briefly if their body temperatures drop too low.

prairie dogs

Both: Depending on the species of prairie dog and the area it lives in, it either hibernates or goes into torpor.

hamsters

Torpor: Many a pet owner has believed their pet was dead, only to learn they were actually in torpor. Hamsters awoken from this state can have a heart attack, literally scaring them to death.

skunks

Torpor: During their few month torpor, they occasionally wake up and come out to scrounge up something to eat. Skunks also grow a thicker, warmer coat during the winter to help keep them warm.

ground squirrels

Both: Most types of ground squirrels hibernate, but they also torpor for a few days at a time.

bees

Hibernate: Most bees and wasps hibernate. Many species have only one survivor per colony each year, and, of course, its the queen. When the males and workers die off in the fall, the queen finds a safe, warm place to hide until the following spring.

reptiles and amphibians

Hibernate: Snakes hibernate during the cold of winter because they're cold-blooded animals. Surprisingly, even normally solitary snakes will create a hibernating mass; a den of over 8,000 garter snakes was once discovered in Canada, although dozens of garter snakes is more likely.

[the woods in winter]

bees in winter


by Phil Coleman

In the early 19th century, Washington Irving took a sightseeing trip west to see the frontier. At one point he ran into a wave of bees.

He wrote: “The beautiful forest in which we were encamped abounded in Bee trees; that is to say, trees in the decayed trunks of which wild bees had established their hives. It is surprising in what countless swarms the bees have overspread the Far West, within but a moderate number of years.” Washington Irving

No one knows exactly when bees came to America from Europe. Perhaps the early Pilgrims brought them – intentionally or accidentally. But they were an invasive species. In the new world, they found flowers aplenty and little competition in harvesting from them. They thrived. When their territory became crowded, all they had to do was move an edge west to find more bounty. So they moved west in a seeming wave.

According to Irving, “The Indians consider them the harbinger of the white man, as the buffalo is of the red man; and say that, in proportion as the bee advances, the Indian and buffalo retire. . . . They have been the heralds of civilization, steadfastly preceding it as it advanced from the Atlantic borders.”


 In recent years, we have learned that many bee colonies are crashing, to a large extent because of pesticides. In cold climates, getting through the winter is a challenge.

The bees must store a supply of honey to see them through the winter months. As the weather cools, they form a cluster in the hive, surrounding the queen bee to keep her warm. They flutter their wings


and shiver to create heat to keep her at a minimum warmth of 70 degrees. The worker bees must consume honey to have the energy to keep their warmth production going. A hive consumes a minimum of 30 pounds of honey through the winter.

In the spring, as the weather warms, their exodus from the hive must be timed with the blossoming of the earliest spring flowers so they don't starve then. No wonder that the average worker bee lives about five months.

However, the queen may live five or more years.

 **Bees' two most valuable functions for humans are the production of our beloved honey and the pollination of our fruits and vegetables.**

However bee health has been threatened by several factors: the invasive varroa mite, emerging diseases from viruses and gut parasites, transportation to multiple locations across the country, and inadequate variety of nutritional sources. All these contribute to immune suppressing stress.

 **And now the bees latest source of suffering is from the effects of a new deadly group of pesticides -- the neonicotinoids—“neonics” for short.**

Fruits, vegetables, ornamentals—are sprayed with neonics, turning the plants poisonous to insects eating them. Neonics are produced by Bayer,

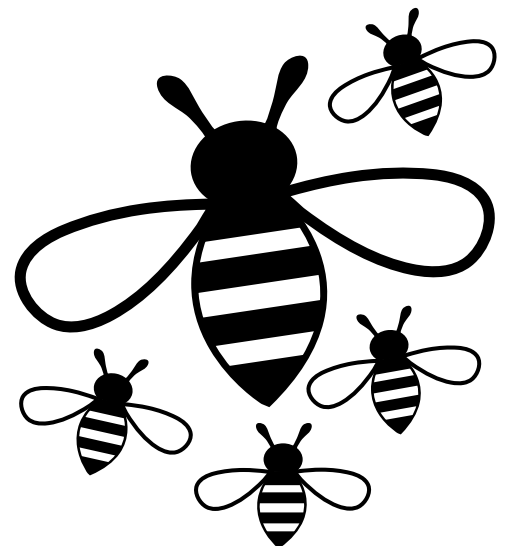
a German company, but they are banned in Germany and all of Europe.

Bees were an invasive species three hundred year ago (at about the same time our European ancestors were invading), but they are now as naturalized as we are. They live in balance with our natural world. They struggle to survive, as all of the ecosystem does. But the introduction of neonics has produced a new invader. The life of a bee is tough in the best of circumstances. We need to ban neonics.

Also, although Europe has restrictions in place regarding the use of some pesticides, we should extend the scope of these restrictions so that neonics and other bee harming pesticides such as clothianidin, imidacloprid, thiamethoxam, and fipronil are banned completely. We need to support research and development of non-chemical alternatives for pest management.

NRDC is developing a petition to EPA to get neonics banned. If you would like to sign, follow this link:

<https://www.nrdc.org/experts/jennifer-sass/nrdc-petitions-epa-cancel-neonicotinoid-pesticides>



deer in winter

by Phil Coleman

To an old grouch like me, some answers are easy. Does Pennsylvania have too many deer? Yes. Should we reduce the herd by half? Yes. End of story.

To someone who isn't an old grouch the answer is a bit more difficult.

Pennsylvania has 1.5 million deer. With an area of 46 thousand square miles, that means Pennsylvania has on average 32 deer per square mile. Why do we have so many deer? To a large extent we have eliminated the natural predators – wolves and mountain lions. We have an abundance of coyotes, but they are not effective predators of adult deer. In fact, bears kill more fauns in spring than coyotes do. Cars kill a fair number of deer each year. There are about 115,000 accidents a year, killing about three fourths that number of deer. (About 15 people die in these accidents.) Hunters kill 350,000 deer each year. They kill more does than bucks, but not enough more.

Deer are remarkably able to live through Pennsylvania winters without much die off. They have thick coats of both short and long fur. They put on quantities of fat before winter comes. And they manage to feed on a variety of plants, even in winter. They do major damage to struggling forests, and sometimes they do damage to plants in suburban yards. (They feed on the rhododendron in my yard.) In one case, they have been accused of destroying bird habitat.

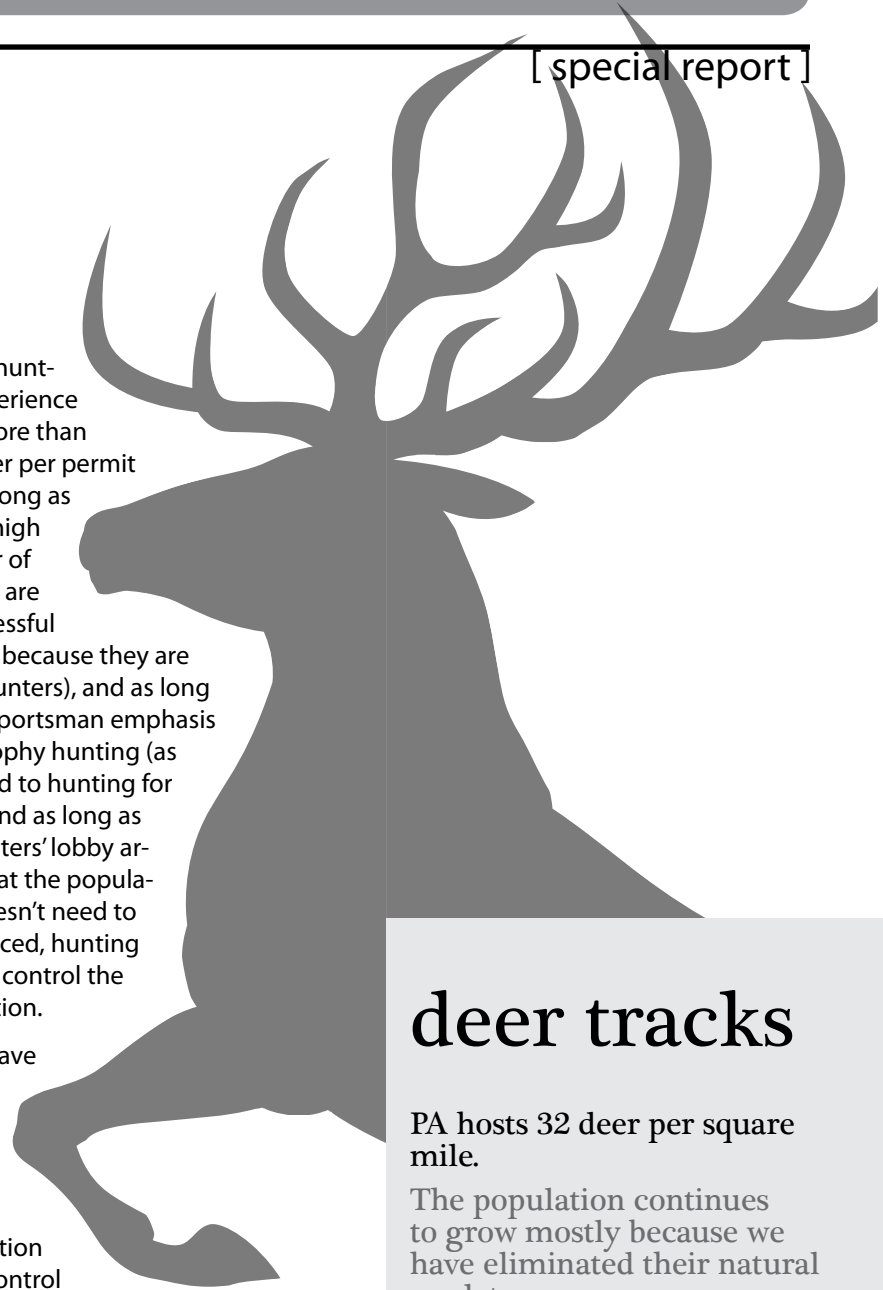
It would be nice to argue that increased hunting could reduce the population; however, as long as the

typical hunting experience is no more than one deer per permit and as long as such a high number of hunters are unsuccessful (largely because they are inept hunters), and as long as the sportsman emphasis is on trophy hunting (as opposed to hunting for food), and as long as the hunters' lobby argues that the population doesn't need to be reduced, hunting will not control the population.

Some have argued that contraception and/or sterilization could control populations, but such approaches are expensive and have not proved effective.

If I were in charge (which I will not be), I would institute a program that requires each hunter to kill a doe and contribute the body to a food bank before he or she is entitled to hunt for a trophy buck. But those who depend on hunting tourism would be badly hurt by such a program.

So I will just continue to be an old grouch and grumble quietly that we have too many deer.



deer tracks

PA hosts 32 deer per square mile.

The population continues to grow mostly because we have eliminated their natural predators.

Hunting doesn't effectively control the population. Only one deer is allowed per permit and many hunters are unsuccessful.

Sterilization is expensive and has proved ineffective.

There are about 115,000 auto accidents a year involving deer.

[the woods in winter]

a snowy time

by Phil Coleman

Mark Kuskie threw a steak on the coals, let it sear on one side, turned it over and seared the other. He announced, "I'm having a Tarzan steak." With our meager dinners already eaten, we were jealous of his seeming delicious meal.

Forty years ago, ten of us were on a winter backpack. For some reason, I was temporarily in charge of outings for the Southwestern Group, and in midwinter, I planned a Quebec Run overnight. Participants included my sons Phil and David, my boating friend Mark Kuskie, Mark Neth (a friend of Dave's), and three or four young women from California University. My sons and both Marks were experienced backpackers. I felt that at least two of the women were not. But this was a simple backpack with a mere three mile hike. I wasn't worried about their being able to do it. We were in Quebec

Run wild area, at the intersection of Mill Run and Quebec Run.

I can't even remember what

month it was. But it was definitely Winter. We had left our cars at the Ranger's house because the road, covered with four inches of snow, was slick. From there we hiked a long downhill to our camp spot. We prepared a campsite, brushing away snow to the extent we could and set up our tents. Everyone helped to gather firewood, and several people ventured downstream to see what the cold stream was like in winter. It got dark early, so we cooked our separate meals and ate.

It was too cold for sitting around. The girls tried singing some camp songs, but I crawled in my tent, and before long everyone went to sleep. As I dozed off, I knew it had started to snow.

When I awoke in the morning, my tent was sagging. I crawled out and discovered that we had had over a foot of fresh heavy snow. A couple of the tents were completely flat from its weight. Soon, everyone was struggling out of their mounds of snow and looking at the morning world with awe. The snow made everything quiet. It seemed to absorb voices. We felt like whispering.

What a mess! The weather had seemed mild that weekend – on the cool side, but nothing like this. The woods were beautiful, but cold and wet.

I had tucked some kindling under my tent, so we had

enough dry wood to get a fire started. We had pancakes for breakfast and then struggled to pull our tents out of the snow and pack them. All plans to do exploratory hikes disappeared. Our challenge would be our three mile plus uphill hike to our cars. We were about 450 feet lower than our cars. And our packs would be heavy. In spite of all we could do to brush our tents clean, we would be carrying some snow weight we didn't have the day before.

As soon as we started out, even before we got to the small stream we had to cross, one of the college students fell and twisted her ankle. She announced that she couldn't walk. We tried to get her to stand and use a crutch, but she whined she couldn't. I said I would tape her ankle, but she said touching it hurt too much. All we could do was carry her. The five males, all fairly strong, took turns, two at a time, to carry her across a small creek and up the long hill. We were slow, but stayed cheerful. We traded packs, and sometimes the guys not carrying the girl toted the carriers' packs. We trudged and carried and rested, and finally by mid afternoon made it back to our cars.

Fortunately, we were only two hundred yards from the crest of Chestnut Ridge. With the help of a four wheel drive Jeep, we got our cars up the little bit of hill. When we started down from the ridge, the deep snow disappeared almost immediately. By the time we were half way down, there was no snow. We wondered about the difference 1500 feet of altitude had made.

I understand that when the injured girl was delivered to her dorm she had no trouble hobbling in.



go for a hike

by Krissy Kasserman

I live in Pennsylvania's Laurel Highlands region. My home is four miles from Laurel Hill State Park and just a few more from Laurel Ridge and Laurel Mountain. It's a short drive on mostly dirt and gravel roads to Forbes State Forest. I have three or four great swim holes, some of the best cross country skiing, and miles and miles of trails within a ten-minute drive. These Laurel Highlands are a significant part of my life and who I am, and I'm incredibly grateful for this place.

Like many others, I feel a certain dread about the impending Trump administration, particularly with regard to environmental policy and the treasured places I care so deeply for. President Obama's expansion of protected lands and waterways is the most extensive of any U.S. President and has added thousands of acres to our shared legacy of public lands. We will likely have to fight for these places, as they will likely be increasingly opened for coal mining, gas drilling, and other forms of environmental exploitation over the next several years.

It isn't only at the federal level that we must be vigilant. In the summer of 2016 Pennsylvania's House Bill 2013 encouraged the use of "public-private partnerships" to facilitate the construction of golf courses, water parks, hotels and other forms of private development on state park and forest land. Though this bill sailed out of committee, it failed in a floor vote in late June thanks to thousands of calls and emails from concerned citizens. Remember the firesale that took place in 2010 in which thousands of acres of state forest were leased for shale gas drilling? There is now a moratorium on future leasing in place—largely

as a result of enormous public pressure. We've only just learned that the Department of Environmental Protection has issued a permit allowing Consol to long wall mine under additional portions of Ryerson Station State Park (Greene County's only state park). Thankfully, this permit is under appeal by Sierra Club and Center for Coalfield Justice, but the list goes on...

What can we as individual citizens do? Vote the environment. Create a dialogue with our elected officials, and use that relationship to advocate for good policy—or to oppose bad policy. Give to organizations dedicated to protecting the places we care about. Make phone calls, write letters and comments, fill out action alerts, and encourage our friends and neighbors to do the same.

We should also go for a hike.

Or go cross-country ski, fish, bike, swim, paddle, bird watch, sled ride, picnic or take part in any of the thousands of other ways to enjoy Pennsylvania's public lands. Yes, really. This land is your land, this land is my land. Our public lands are our birthright. We spend a tremendous amount of energy and time advocating for these sacred and beloved places, but we must also make time to enjoy them. This is our civic duty. Why? The obvi-



ous benefits to our mental and physical health aside, our public officials, policy makers, and regulators need to understand that our public lands are a valuable resource to which we, the citizens, have a deep and important connection; we advocate for these places because we want and need them... to explore, challenge ourselves, spend time with family, create memories and seek solace. We value these places because they are an important part of our lives, and because we can't do without them. We must develop our feelings for these places into a narrative... an elevator speech of sorts. When it comes time to advocate for our public lands we must be able to tell the stories of what they mean to us, the countless ways in which they enrich our lives, and how we would not be the same without them. Our presence in these places will contribute to their protection. It isn't enough to ponder the importance of our public lands in an abstract way. It's up to us, as citizens, to prove it.

I'll see you out there.

[the woods in winter]

[explore enjoy...pennsylvania]

celebrate winter — snowshoe!!!

by Gray Thornbloom

With a pair of snowshoes hanging from the rafters you will be eagerly waiting for snow. Deep snow will be even better! With a pair of snowshoes you can walk in a tradition that dates back thousands of years. Snowshoeing may be your way into a better appreciation of winter.

The earliest snowshoes were little more than slabs of wood tied onto early man's feet, and it was only after crossing the snow covered Bering Strait that snowshoes were perfected in North America. Each Native American tribe that lived in areas where deep winter snows made getting around difficult perfected a style of snowshoe that worked best for regional snow conditions.

Different conditions led to different shapes. The basic shapes share the names of the Native American Tribes: Huron, Yukon, Ojibwa, and Cree.

Snowshoeing, once essential to winter survival, can get you out and enjoying the winter woods. If you can walk, you can snowshoe. The easiest way to learn

is to put a pair on and walk. Initial awkwardness will disappear by the end of an afternoon on the snow.

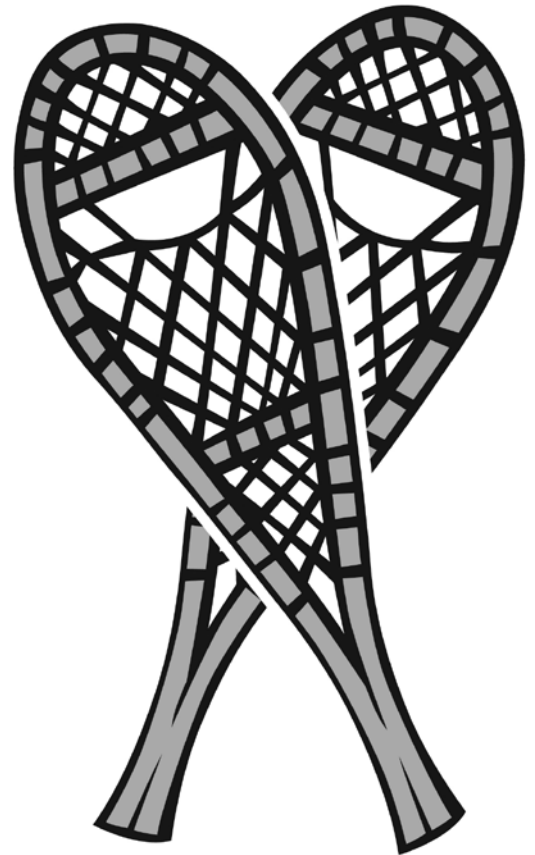
Snowshoeing is appropriate for the entire family. Beginners and those with more experience can enjoy being out together. The pace can range from a stroll to an aerobic workout.

With sufficient snow — six inches is minimal, but twelve or more is best — the woods are open for your adventure. Floating a foot or two over the forest floor eliminates the need for staying on a trail. Places inaccessible to a cross-country skier are accessible on snowshoes. Steep mountain sides or thick woods—no problem with enough snow and snowshoes.

The experience of walking into the whiteness of a landscape covered with a blanket of new snow stretching for miles into the wildness of the woods is accessible to most of us.

Choose a place that you are familiar with, or travel with an organized outing. Once you get the feel for snowshoeing, the winter world is open for exploration. If you are comfortable ease your way into bushwhacking.

To avoid getting lost, choose an area that has very obvious boundaries formed by streams, roads, utility right of ways, or the edge of mountains.



There are several million acres of Public Land in Pennsylvania.

The Moshannon State Forest is near where I live. PA-504 between Black Moshannon State Park and the end of the mountain above Unionville offers nearly seven miles of roughly west/east highway.

With a long straight boundary to come back to I have found it impossible to get lost. I also can rely on a compass and a map, the sun, or my tracks.

Once you are comfortable wandering around in the woods, each day offers unique adventures. The white unspoiled world of a new snowfall will eventually contain the tracks where many animals





be lost in the woods.

Dressed in layers, safety concerns addressed, snowshoes strapped on—it is time to head for the woods and enjoy winter. Snowshoeing offers a way for each of us to explore the Public Lands that are there for all of us. Snowshoeing is a way to enjoy winter, a season that is often under appreciated.

And remember, snowshoeing can be as simple and enjoyable as a walk in the woods.

have written their story. That story is often filled in by following those tracks. Some days are pure fun —“skiing” down steep inclines with the higher comfort level snowshoeing offers as compared to cross-country skiing.

Winter safety can be enhanced by following a few basic precautions. Always let someone know where you are going and when you expect to return. Dress in layers adding and subtracting them as your comfort level dictates. Drink plenty of fluids. In winter it is easy to overlook the fact that you need to replenish what you are losing as you perspire.

On winter outings include a daypack with items such as: a dry layer of clothing, dry socks, a headlight with lithium batteries, matches and fire starting material, an emergency bag (“space blanket” material), whistle, sunglasses, first aid kit, duct tape and bailing wire (snowshoe repair).

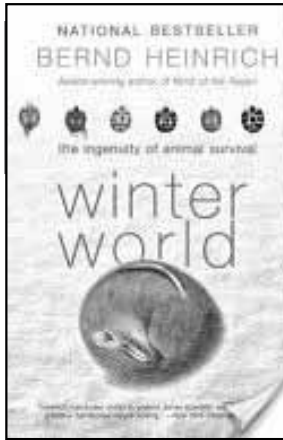
One last emphasis on a compass and

map: even if you know where you are going they could be needed if you become disoriented. Winter is no time to



[the woods in winter]

[book review]



**Bernd Heinrich, *Winter World - The Ingenuity of Animal Survival*
Harper Collins, 2003**

Reviewed by Gary Thornbloom

Winter World is a journey into the ways in which insects and animals survive the

cold - as cold as -50°C - northern winters. It is a journey armchair explorers may enjoy. It is a journey that will lead to "ah-ha moments" for anyone who has spent time outdoors in the winter. It is a journey that will open your eyes to the marvelous intricacies and balance of nature.

We enter Bernd Heinrich's *Winter World* through his experience as a young boy venturing into the Maine woods. Jack London's *To Build a Fire*, where the protagonist new to the north dies through lack of imagination, colored Heinrich's adventures.

Heinrich writes: Thus the greater our empathy with a variety of animals, the more we can learn.

The golden-crowned kinglet (*Regulus satrapa*) weighs about as much as two pennies. It winters in the north. Heinrich was amazed when as a young boy he encountered such a tiny bird. How does such a tiny bird survive the icy grip of northern winters? The long cold nights? This amazement continued through his life and led him into "...the winter world of the north woods, and into this book, spurring me on to find the miraculous."

Heinrich often writes with the precision of a scientist. That usually ends with getting out in the woods and experiencing what is there.

The kinglet emerges throughout the book as the winter world narrative proceeds. The narrative meanders to include life 3.5 billion years ago; the "Snowflake Man" of Jericho, Vermont; life both under and above the snow; winter walks -- bird nests, tracks, snowfleas (*Hypogastrura tooliki*)- an "ah-ha" moment for me; weasels, squirrels, bears; microclimates - dens and nests.

Just as you are wondering how dissecting kinglets leads to dinosaurs, you are back to wet feet in Jack London's short story. The text is also sprinkled with Heinrich's drawings.

Heinrich does not write from a dispassionate distance. He adopted a northern flying squirrel allowing it to live in an empty bedroom in his house. He takes apart a squirrel's nest, crawls into a beaver lodge, and examines contents of a honey bee's rectum and crow pellets. He experiments and observes, all to better understand the winter world.

Heinrich notes our astonishment that some frogs survive being frozen, and that the tiny kinglet can survive the northern winter. We are surprised "...because we compare them to ourselves." The narrative then delves into lives of even smaller creatures, insects.

Insects must deal with "...the same problems of cold, freezing, and energy balance that we or a kinglet deal with." Insects reach some of the same solutions, but also some very different solutions. It is the diversity of solutions that leads to worldwide success of insects.

Winter World explores the diversity of insect solutions, including the marvel of the mourning cloak butterfly which overwinters in northern New England as a hibernating adult. Other moths and

butterflies overwinter in different life stages as egg, larva, or cocoon.

Perhaps even more incredible is the moth *Gynaephora groenlandica*. It lives near the north pole. It freezes and thaws annually to take advantage of the brief arctic summer. It grows very little each year, and must freeze and thaw thirteen to fourteen years before it is a fully grown adult caterpillar. It must then molt, pupate, emerge an adult, mate, lay eggs and die within a few days.

Heinrich includes close to home experiences with Maine cabin housemates in a chapter titled "Supercool(ed) Houseguests (with and without Antifreeze). Many readers will be familiar with late autumn house crashing of Asian ladybugs.

Chapters on monarch butterflies and bats describe the energy balance and the thin edge of survival which is "...balanced on the winter world to which they are adapted."

Kinglets return in the closing chapter of the book where, with illumination provided by the preceding chapters, keys to kinglet survival in cold northern winters are discussed. A scientific understanding of this survival increases the amazement with which Heinrich views the natural world as well as his beloved kinglets.

Winter World rewards the reader with a wider understanding of the winter world and life there. *Winter World* will increase your awe, your amazement of the natural world.

[book review]



Walter M. Brasch, *Fracking America, Sacrificing Health and the Environment for Short-Term Economic Benefit*, Greeley & Stone, Publishers, LLC, 2016

Reviewed by Phil Coleman

Walter Brasch has written a carefully researched and detailed analysis of the fracking industry throughout the United States, and what he has come up with is an indictment of not only the industry but most of the government agencies charged with regulating industry and protecting the environment.

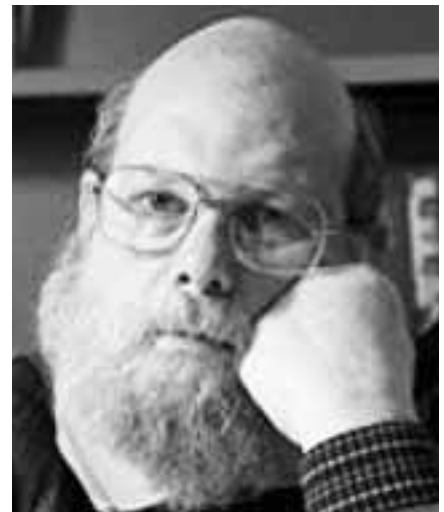
This is not his first book. He wrote *Collateral Damage in the Marcellus Shale* in 2013, and *Fracking Pennsylvania* in 2013. He knows Pennsylvania and the in-roads made by the industry when Corbett was governor, and he knows that Pennsylvania is the bullseye of the Marcellus shale formation, one of the richest deposits of deep gas. He has documented the health hazards and environmental damage done by the regulated industry. He has traced the movement of regulators and lobbyists back and forth from

government to industry to government, showing friendship to the industry wherever they are.

In *Fracking America*, he expands his analysis to all of the United States, and he studies in more detail the business machinations of multiple companies. His chapter “A Brief Look into the Future” demonstrates that the future of shale gas isn’t nearly as rosy as the industry (and even government leaders, including President Obama) makes it seem to be. Brasch argues, “the continued push for fossil fuel development, and more than \$4 billion in governmental subsidies, slows the development of renewable energy, while escalating the problems associated with climate change. . . .”

This book has detailed documentation, with over 4000 end notes. It demonstrates overwhelmingly that enthusiasm for deep gas is mistaken and wrong-headed and leading us to big problems down the road.

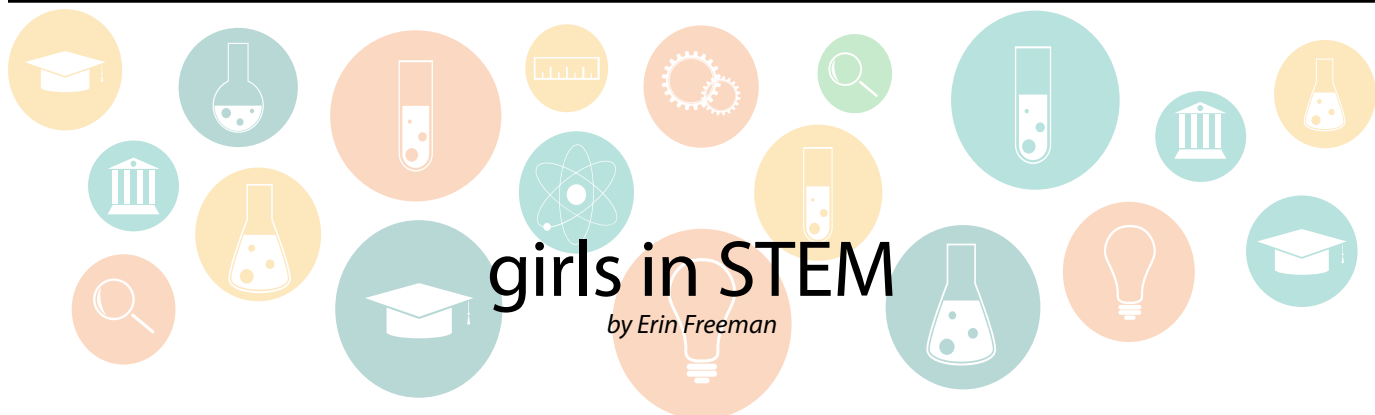
This is a must-read for Sierra activists.



Walter M. Brasch is an award-winning American social issues journalist and university professor of journalism.

He is the author of a weekly syndicated newspaper column and the author of 18 books, most of which fuse historical and contemporary social issues.

Among his books are *Before the First Snow*, a critically-acclaimed novel that looks at what happens when government and energy companies form a symbiotic relationship, using cheaper, cleaner fuel and the lure of jobs in a depressed economy.



girls in STEM

by Erin Freeman

Although women make up 48% of the US workforce, they only hold 24% of positions in science, technology, engineering, and mathematics (STEM). The numbers are even more profound when you factor in race: black and hispanic women, 6% and 7% of the US workforce respectively, each hold only 1% of STEM jobs. Where do these disparities come from? What is being done to combat the forces that keep women out of STEM?

It is well documented that girls and boys exhibit similar levels of interest in science and math in elementary school. But as girls become older and are continuously exposed to societal expectations of women, their interest in the sciences -- especially the hard sciences and math -- suddenly declines.

They are not born with less ability; they are made

to believe that they do not belong.

Girls of color have much more to overcome than just sexism -- they have been kept on the outskirts of US educational systems and academia and, consequently, the workforce.

What happens if, despite all of this, they do make it into the STEM field? Consider the results of a report from the University of California's Hastings College of the Law where 100% of the women of color interviewed reported experiencing gender bias.

Here are other findings:

- Black and Latina women said they were regularly mistaken for janitors.
- Asian-American women felt more pressure to act traditionally feminine.
 - Black women controlled emotion to avoid an "angry black female" stereotype.
 - Latina women reported being labeled as "crazy" when they expressed emotion.
 - Asian-American women faced more push back from peers if they acted assertively.

(Source: <http://mashable.com/2015/01/26/women-of-color-stem-research/>)

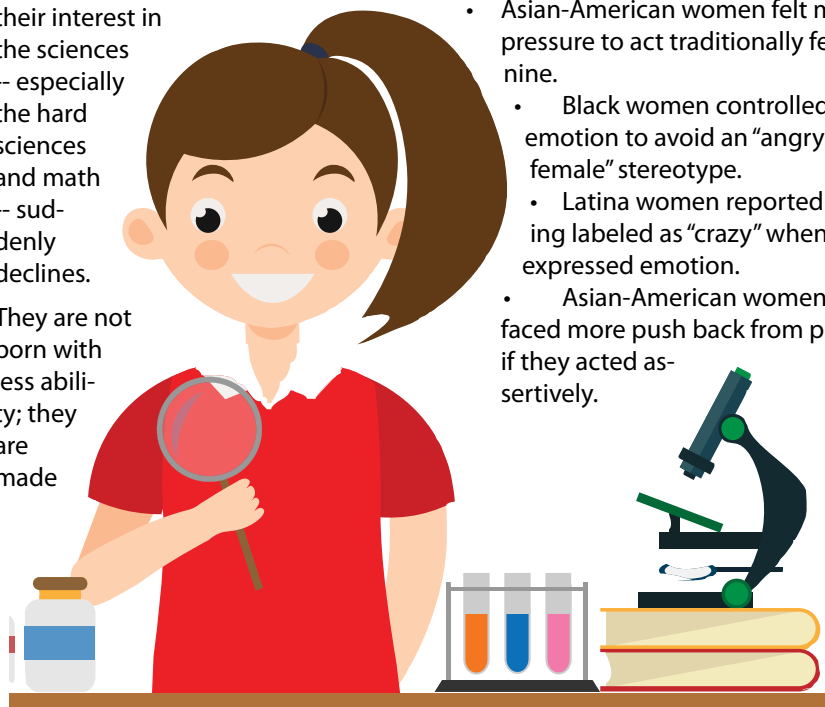
Against such odds, it is no wonder that women are underrepresented in STEM.

It is difficult to envision yourself succeeding until you have seen someone similar to you succeed. Many girls -- and especially Hispanic and Black girls -- grow up without an awareness of the STEM career opportunities supposedly available to them because they often do not have mentors with experience in those fields. This only perpetuates the cycle of oppression.

But the fight for gender and racial equality continues daily. There are women in STEM fighting for more women to join them. From small-town initiatives to connect girls with women STEM mentors, to state-wide campaigns to increase school funding for underfunded districts -- educators and legislators and parents are pushing against the walls that keep girls from pursuing their geeky dreams.

A student once said to me about becoming a naturalist, "I want to do that. I never knew someone could have that job." The wellbeing of our communities rests on our support and our willingness to nurture of the imaginations of our children -- especially our girls.

Erin Freeman works at a science museum in Lancaster, PA. A former geeky girl, she now spends her time preaching the creepy-crawly gospel to hundreds of children every week.



[chapter news]

lancaster sierrans advocate for environment in millersville parade

The Lancaster Group was well-represented in the exciting and popular Millersville Community Parade on Oct. 22.

In keeping with the parade theme, "Hollywood Comes to Millersville," Group members and friends characterized the movie "Happy Feet" as they strutted along the line of march in colorful homemade penguin

costumes and displayed signs that encouraged positive environmental actions.

Thousands of people from throughout southeastern Pennsylvania lined the streets of Millersville to view the annual procession, which had more than 2,500 participants, including 20 bands, 28 floats, numerous twirlers, impersonators, costumed characters

and mascots. The parade has been a perfect opportunity for Lancaster Sierrans to give a face to its Group and to publicize the efforts of the Sierra Club.



The Lancaster Group marches in the Hollywood themed Millersville Parade dressed as characters from the movie Happy Feet.





Marilyn Skolnick — 1925-2016

The Sierra Club recently lost one of our most productive and influential members. Marilyn Skolnick died on December 10, 2016: she would have been 92 in this month (January 2017).

For Marilyn, environmental issues were the central issues in her life, and her work had major positive impacts. Marilyn made very significant contributions to the Sierra Club, both to the Allegheny Group and to the Pennsylvania Chapter. In the Allegheny Group, she sat on the Executive Board and was chair from 1988-1991. She was also air quality chair, co-conservation chair, and transportation committee chair. For the Sierra Club Pennsylvania Chapter, Marilyn was land use and transportation co-chair and sat on the Chapter's Board of Directors starting in 1986. She was also a leadership member of GASP (Group Against Smog and Pollution). In addition, Marilyn hosted a local cable television program, with very useful discussions of environmental issues.

Public transportation was a major focus for Marilyn. She was on the Board of Directors for the Port Authority of Allegheny County from 1982-1995; president of the Allegheny County Transit Council from 1997-1999; and its vice president in 1999-2000; and a member of the Pennsylvania Transportation Advisory Committee starting in 1983. For the Transportation Research Board, she was also chair of its Citizen Participation Committee. From 1992-2007, she was a member of the Pennsylvania Small Business Compliance Advisory Committee, and from 2004-2006 a member of the Pennsylvania Department of Transportation Mobility Plan for Pennsylvania.

Another of Marilyn's major areas of focus was air pollution: she was a member of the Allegheny County Health Department's Air Pollution Central Advisory Committee from 1985 through 2009, and she was the chair of its Pollution Prevention Com-

mittee from 2004-2009. She served on subcommittees of the Allegheny County Health Department and the county's Emergency Management Council. Marilyn was also a member of the Pennsylvania Small Business Compliance Advisory Committee (part of the Pennsylvania DEP's Bureau of Air Quality) from 1992-2007.

Because she so clearly understood the importance of planning for environmental issues, Marilyn was also a member of the Allegheny County Local Emergency Planning Committee from its inception in 1988; and of the Public Participation Team of the Allegheny County Comprehensive Planning Committee starting in 2008. For Monroeville, from 1983-1985 Marilyn was the Chair of the Monroeville City Planning Commission (which "holds public hearings to receive proposals as well as environmental impact statements prior to action on land subdivision or other likely environmental disturbances, including but not limited to the use of public facilities, drainage systems, traffic flow, public safety, schools, and recreation," per their website).

Marilyn obtained her bachelor's degree in anthropology from the Brooklyn College of the City University of New York, her master's degree in geology from the University of Oklahoma, and did postgraduate work at the State University of Iowa. She was a member of the National Academy of Sciences from 1987 through 1994. Her husband Herbert Skolnick was a geologist for Gulf Oil Company for many years. They were married for more than six decades, and Marilyn accompanied him to the locations in which he was stationed, including Texas and California and even Nigeria and the Canary Islands.

[the gadfly]

our health and the environment

by Mort Malkin

Gadfly has been accused, in the past, of neglecting the nitty-gritty and addressing nothing less than planetary matters. Gadfly pleads guilty and sheepishly explains that grand matters matter.

For this issue of the Sylvanian, the Gadfly Revelry & Research team has investigated family farming. What could be more local than family farming?

Family farming goes back to 13,000 BP (Before the Present), but we need to go back only to mid-20th century for our story of the epidemic in cancer we see today. My residency training, 1956 to 1959, was a time of intensive medical/surgical education. I went through the pathology accession books of cases from 1945 through 1950 to identify cases of inflammation, cysts, tumors, and relevant systemic disease — anything that would be important for a young hospital resident to study. Among all the cases of cancer, I found only two of prostate cancer, and relatively few of breast cancer. Remember, this was a large hospital with an active operating room, sending lots of tissue specimens to pathology lab for analysis. Today, every man knows more than two friends, neighbors, and relatives afflicted with prostate cancer; and every woman knows several with breast cancer. Between those early post-war years and today, there has been an explosion in prostate and breast cancers, a literal epidemic.

Here's the story.

During WW II, the chemical companies were busy making explosives for shells and bombs. When the war ended, they were less celebratory than the rest of the country, for they suddenly had idle production capacity. Their best [amoral] minds identified any groups who might be customers for the large quantities of chemicals they could and would produce. Ah, the farmers! So, they promised the farmers of America higher yields by killing off the insect pests that ate up a goodly portion of their crops. They also promised to make farming less labor-intensive by killing off all the weeds that competed with the food crops for the nutrients of the soil.

The farmers bought it. The use of chemicals in farming soon was soon advertised as “conventional,” and the use of the farmers’ families to weed the rows and pick off the bugs from the growing food crops was disdained as crazy and called “organic.” Chemicals were advertised to bring “Miracles through Chemistry.” But, chemicals became pervasive in our air, soils, foods, and bodies. Many of these chemicals that infested our environment were harmful to our tissues and organs, and some even were proven to cause cancer. Eventually, the word chemical became associated in the public mind not with “miracles,” but “toxic.”

“Now in the 21st century, the chemical companies complain bitterly when Michelle Obama plants an organic garden on the White House grounds. The First Lady has stood her ground...”

Still, the chemical companies — Monsanto was their poster child — would not be deterred. By the 1960s, only 20 years after WW II, chemical warfare [remember Agent Orange] was used in Vietnam. PTSD rates soared. The main culprits were: proven Agent Orange exposure and the lies behind the war.

Now in the 21st century, the chemical companies complain bitterly when Michelle Obama plants an organic garden on the White House grounds. The First Lady has stood her ground and didn't cave in to industry demands. She, unlike her husband, is one tough hombre for the greater good. She is a model for the rest of us.

All told, there was one major change from the time when nylon was the only synthetic plastic — and when I could find only two cases of prostate cancer in five years of reviewing everything that went through the Pathology Department of a large City Hospital — until now, when prostate and breast cancer is epidemic. That change is the flooding of hundreds of thousands of artificial chemicals into the environment. All of us, were we to have blood tests, would show, literally, dozens of toxic chemicals in every system of our body and brains. Other changes — our diets, our sedentary activities, computer use — all are minor compared to the soup of chemicals in our environments since the mid-20th century.

It is time to become angry, maybe to get mad.

what we face in the next four years

by Phil Coleman



FOR A MOMENT, LET'S TAKE TRUMP AT HIS WORD. HERE IS SOME OF WHAT HE HAS PROMISED:

1. He will lower corporate taxes.
2. He will rewrite trade agreements.
3. He will demolish EPA so corporations don't have to worry about environmental regulations.
4. He will open public lands and the Arctic to oil and gas exploration.
5. He will bring "jobs" back to the United States

All of these, with the partial exception of #2, are plans to advantage the rich on the old fashioned theory debunked during the Reagan administration of "trickle down" economics: if you give funds to the captains of industry, some of the wealth will trickle down to the poor and middle class. Trump is clever enough not to use the term trickledown, but the only way his proposals help working Americans is for industry to hire more people.

He pledged jobs to unemployed autoworkers, other assembly line workers, and miners. So let's look at that pledge. First – miners. Coal mines have cut back on actual miners for a few decades now. Monster automatic long wall and continuous mining machines do the work in underground mining. Mountain top removal mining is done by explo-

sives and monster earth movers. Less than one tenth of the labor per ton of coal is now required, compared to 1970 techniques. Burning more coal will not increase jobs for traditional coal miners. The poor families who used to make decent wages mining coal want a return to that economy, but no matter what Trump does to advantage mine companies and burn more coal the jobs that were lost will not return.

Second – assembly lines. If the manufacturers who are now using child labor in China and elsewhere reform and bring their manufacturing back to the United States, it will be to plants where robots do all the work. There will not be a sudden influx of the kind of jobs assembly line workers used to do. In fact, regardless of anything Trump or others do, robotics will replace much manual labor. Only the technically educated/adept workers will find an increasing number of jobs.

Besides, Trump recently described his plan for getting rid of trade agreements as a plan to simply raise tariffs. Does he believe that such action will not be met with other countries raising tariffs on the goods the United States exports? What will the reactions of Canada and Mexico be?

Third – the environment. There is no doubt that he will do serious harm to EPA and the environment it protects. His selection of Ryan Zinke as secretary of Interior and Scott Pruitt as EPA administrator makes this clear. These are two men clearly, even outspoken, in their hostility to the environment. It will be difficult for Congress, even if it wants to, to rein in the executive actions they might implement.

Let's go on. Relaxing clean air and clean water standards may enable some industry to operate more profitably and to hire a few more workers, but the health of middle class and poor people will be impacted. Recent visitors to China report that air quality in large cities is such that they have to mask their faces. Is that what we want here? Gas and oil from the Arctic and from public lands may ease the oil shortage temporarily, at the expense of global warming, and leave permanently despoiled natural areas in its wake.

Environmentalists will need all the support they can get from the likes of us.

at-large delegates elected

In the balloting completed this December, Don Miles, Sue Edwards, and Jeff Schmidt were elected to two year terms as at-large delegates. Their terms begin in January 2017 and run until January 2019. At-large delegates serve on the Chapter Executive Committee just as group representative delegates do.

Balloting was conducted and ballots were counted by Roy Fontaine and Dave Hafer, the elections committee.

answers to crossword puzzle

(from page 24)

Across

- 5 Ryerson
- 6 Tarzan Steaks
- 11 Washington Irving
- 12 Woodchucks

Down

- 1 Chemicals
- 2 Native American Tribes
- 3 Thirty Two
- 4 White Nose Syndrome
- 7 Quebec Run
- 8 Neonics
- 9 Gary



[connect with your sierra club group]

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Southeastern Group

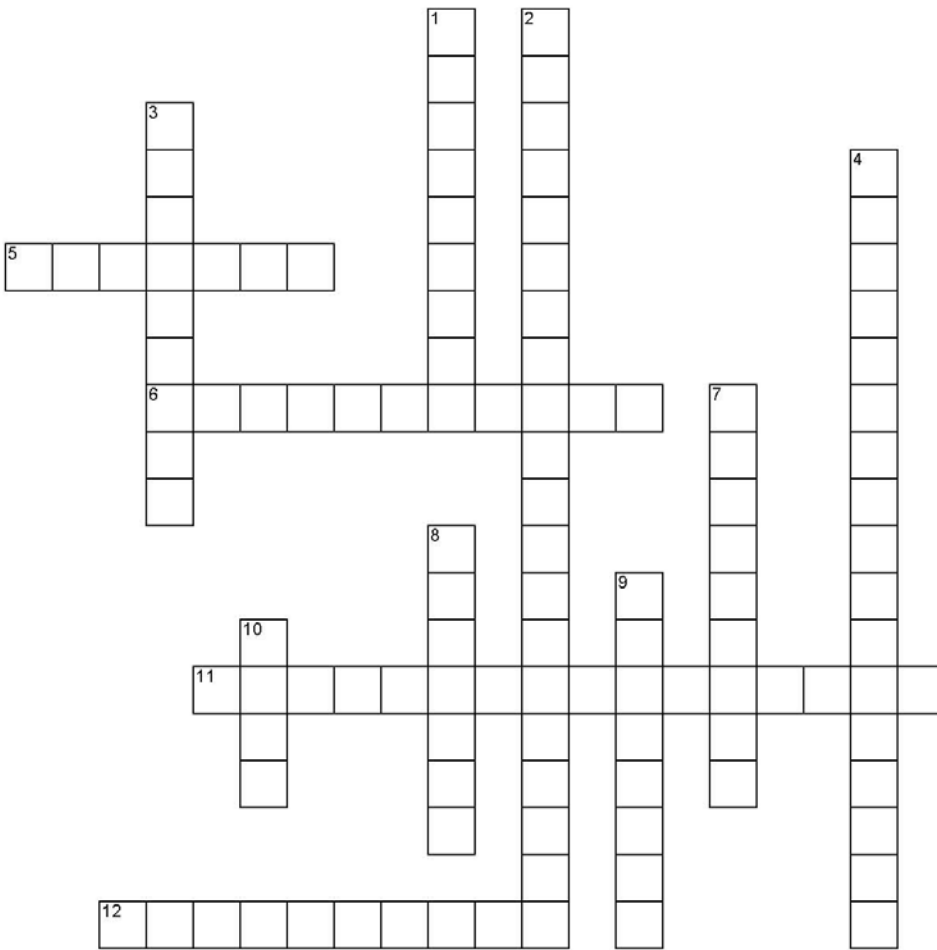
<http://pennsylvania.sierraclub.org/southeastern>

NON-PROFIT
US POSTAGE
PAID
HARRISBURG
PA
PERMIT NO.
705



explore, enjoy and protect the planet.

[winter crossword]



Across

- 5 Threatened by undermining
- 6 Cooked on the coals
- 11 Ran into a wave of bees
- 12 Sleep the winter away

Down

- 1 Pervasive in our air, soils, foods, and bodies
- 2 Developed snowshoes
- 3 Deer per square mile in Pennsylvania
- 4 Threatens bats
- 7 Great place for snow storm
- 8 Immune suppressing pesticides
- 9 Poster child of chemical industry
- 10 _____ Alt, black bear expert

www.CrosswordWeaver.com
answers on page 23