Save the Pine Bush

July/August Newsletter

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Vegetarian/Vegan Lasagna Dinner Wednesday, July 20, 6:00 p.m. Beverley Bardequez

will speak about

The Rapp Road Project: Southern Life and Northern Cities The History of the Rapp Road Community

Beverley Bardequez is a Rapp Road resident and lives in the house her grandparents lived in. She tells the fascinating and unusual story unique in Albany's history.

At the First Presbyterian Church, (State and Willett Sts, Albany, please enter from State St.). All-thevegetarian-and-vegan-lasagna-you-can-eat, garden salad, garlic bread and homemade pies. Only \$10 for adults, \$5 for students, and \$2 for children. People who make reservations are served first. For reservations, please leave a message for Rezsin Adams at 462-0891 or Lynne Jackson at 434-1954 or email pinebush@mac.com. Interested people are welcomed to attend the program beginning at 7:00 for which there is no charge.

July Pine Bush Wildflower Walk Saturday July 23, 9:00 AM

Meet at: Pine Bush Discovery Center Parking Lot,East side of New Karner Rd. (Route155) opposite "T" with Old State Rd., Albany, NY

Leader: Amy Riley For more information, call John Wolcott at 465-8930

These wildflower hikes are absolutely wonderful for nature photography so be sure to bring a camera perhaps a note book. We've had some emphasis on Karner Blue nectar feeding plants. The importance of these needs to be understood and appreciated more. It's true that the Karner Blue couldn't exist at all without the wild blue lupines for the larvae and caterpillar to survive, but it's post hatching survival depends on the presence of nectar feeding plants. Butterflies in general help to pollinate wildflowers. These are but a few of the manifold, endless examples of symbiosis in nature which are too often upset or destroyed in mankind's blind, careless uninformed and unnecessary interference.

There seems to be an increase of ticks in much of the Pine Bush. Please take extra added precautions continued on page 4

www.savethepinebush.org

The Farnsworth Middle School Pine Bush Project

If you weren't at the June 15 dinner, you missed hearing from six of Dr. Alan Fiero's outstanding Farnsworth Middle School students about their work in the Pine Bush. Their names are: Christine Myers, Katie Lamar, Matthew Krieg, Salil Chaudhry, Meghan Dillon and Miranda Seguin. The authors of the article below are Matthew Krieg, Christine Myers and Meghan Dillon.

On June 15, 2011 Salil, Christine, Meghan, Miranda, Katie, and I all went to the Save the Pine Bush dinner. I am Matthew Krieg. Salil and I talked about Karner Blue Butterfly rearing. We talked about how the whole program began 3 years ago.

Our school has an amazing science teacher, Dr. Fiero. He had just started a program where

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Fishers in the Pine Bush! May 2011 Pine Bush Dinner with Scott LaPoint

Albany, NY: Recently, a friend out in Rensselaer County grabbed my arm and said "don't you dare release your rehabilitated (orphan) rabbits out here—The Fisher will get them!" She went on to describe an animal so mean and vicious that no other mammal would be safe around them. And so, though I haven't ever met a fisher, I got an idea of the reputation that precedes them.

It turns out that fishers are a member of the weasel family. They belong to Order Carnivora, Family Mustelidae and are known as Martes pennant. They are chocolate brown sleek mammals with long thick tails. The female is about the size of a housecat with a very narrow face, while the male is twice that size with a fuller face. They weigh about 11 pounds. They are not related to cats and they don't fish and so it is a mystery why they were originally called fisher cats by settlers in the new world. Some think that is

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the students at Farnsworth would get to take care of Karner Blue butterflies, an endangered species. For this program, the school got a couple of female Karner Blue butterflies that would lay eggs. The first year we had 2 females. We got a total of 50 eggs. The students got to take care of the butterflies as caterpillars up until they reached the pupa stage. Then they were released into the wild before they came out. The students had to clean the little larva cups every day and give the caterpillars new blue lupine plants, the Karner Blue's only food. This program continued this way for 2 years.

Starting last year we started to get the caterpillars once they had hatched. We found this method much more successful. We could not do this program this year because the butterflies hatched too late, even though we were going to raise 300 butterflies. Every year we do help, even if we are the only school in the world that raises Karner Blue butterflies. — by Matthew Krieg

The six of us who spoke at the dinner stayed after school several times to put our talks together. We presented about our field trips to the Pine Bush to girdle aspen trees in the spring and to collect bush leaf clover back in the fall. During these two trips, students were able to harvest approximately 35% of all the bush leaf clover and kill hundreds of aspen trees.

Another event that was talked about was the lupine festival. Students volunteered to sell lupine seeds and other native wildflowers to the community hoping to insure a greater food supply for the Karner Blue butterflies.

Personally as a student enrolled at Farnsworth, this semester was phenomenal. Each and every student grew as a learner, and was introduced to possibilities that we had never even considered becoming a reality. We realized that the world around us is so much more than what we have taken it for, all thanks to Dr. Fiero. Before his class this year, I knew the Pine Bush as a place to go ride bikes or go hiking. Now, as the year wraps itself up, I see it as one of the most unique historical landmarks in New York State. I think that it should be saved, and if we all come together as a community, then it truly can be. — by Christine Myers

Dr. Fiero got my team from Farnsworth Middle School to help save the Pine Bush. This year I took a trip to girdle aspen trees in the Pine Bush. Even though the aspen tree is a native plant to the Pine Bush, it is becoming a major problem. With this tree taking up a lot of space, it is hard for plants such as lupine, pitch pine and other plants to grow at the Pine Bush. Lupine is important here because it is a main food source for the Karner Blue butterflies.

The aspen tree has a very thick bark and it is grayish black in color. The aspen tree also has a different looking leaf than the pitch pine does. The leaf of the aspen tree is oval shaped and the sides are pointed and look like the blade of a saw. My team and I went to the Pine Bush to help girdle these trees. To kill the aspen tree, we had to use a bark spud to cut into the bark and then cut a ring of bark off to kill it. Doing this stops water and other things the tree needs to grow from going to the top and it eventually dies out. As a team at the Pine Bush, we girdled 960 trees all together.

If an aspen tree is cut down, it will grow back, whereas when you girdle the tree, you are stopping anything the tree needs to live from moving up the tree, so this will kill the tree and keep it from growing back over and over again. It is the only way to get rid of these trees. As you can see, we need to get rid of the aspen trees or the other plants will be at risk of going extinct. So we need to help out and get rid of the aspen trees. So help out the Pine Bush before it is too late. We need your help! — Meghan Dillon

Fishers, from page 1

because they reminded Europeans of the pole cats back home.

They are quick and nimble tree climbers and when it is cold they will go into the ground, often usurping the nest of another animal. In fact, as a fisher climbs into a rabbit burrow, he will happily eat the rabbit and then snooze in his new home. In nicer weather, they choose tree holes for their homes; this is where a female fisher will give birth to 2 or 3 kits per season. She will look for a tree hole in which she is a tight fit, to house herself and her babies. Her home will not be large enough for her male mate to cohabit; this may prevent the kits from being mauled by the male. The mother fisher will also move the kits during their infancy to a new tree, despite the dangerousness posed to the vulnerable kits. Nobody is very sure why they do this, though it could reflect their struggles with fleas and other parasites in the trees.

Fishers have a weird and unique reproduction which demands they mate in March or April, after which the fertilized egg just floats in the mom until the following January, at which point delayed implantation in the lining of the uterus occurs and the fetus develops normally for a March birth. A week after giving birth, they mate again.

Thus began the lecture on fishers was given by Scott LaPoint, a student of our old friend Roland Kays (the NY State Mammologist) at the May SPB vegetarian dinner at the First Presbyterian Church. Scott travelled from Germany to come study the wildlife here in the States; he performed his fieldwork in the US and his analysis in Germany. His work on fishers has been supported by Universitat Konstanz, the National Science Foundation, the New York State Museum and the Max Planck Institut for Orthologie. In addition to doing the science, he is educating the public about fishers and his recent observations in the field.

American settlers have a long exploitative history with fishers. In colonial times, fisher ranged from Tennessee through all of Canada, California, and Washington State. From 1600-1900, logging and hunting were the main occupations in NY State and consequently forest cover dramatically declined as the whole state was logged over. The number of fishers, a forest animal, plummeted so that by the 1920's their populations were at an all time low, and the price of a fisher pelt shot up to \$100.

Since then, there has been dramatic reforestation of New York State, up to 75% cover. The agricultural boom across the state preserved open land. Additionally, conservation laws banned trapping for fishers in 1936. In 1970, 40 fishers were reintroduced in Ulster County. There were similar reintroductions in various other parts of the country as well. We were fortunate, for though the fishers are still listed as an endangered species in California, and not doing well in Oregon or Washington, here in New York State, they have flourished to such an extent that trapping is again legal.

Though fishers were believed to need big forest territories to be viable, it turns out they are adaptable animals and are turning up in cities; the Albany Pine Bush has a dramatic urban/wildlife interface and so it was a great place to conduct a study. The researchers intended to compare Albany Pine Bush fisher behavior with the ways of Grafton Park fishers, who are forest dwellers. They had state of the art animal collars with GPS, triaxial accelerometers which measure motion, and pingers which emit a high frequency sound that the fisher can hear. It turned out to be very challenging to track the fifteen Grafton animals in the long tracts of land, and they even used planes to find them. In the Pine Bush however, they were successful with motion sensor cameras and radio tracking.

What they observed was that the fishers are a very nocturnal species. Their peak activity is between 7pm and 3 am. They travel FIVE MILES A NIGHT in very complicated paths involving lots of loops.

An important find was that the fishers do

use the culverts below the roads to safely cross them. This is a great strategy but hampered by the times the culverts get blocked up; and so maintaining these safe crossing and adding additional ones is critical to these animals surviving the urbanscape.

Their night journeys are to catch game; they eat small field mice, chipmunks, voles, moles, gray squirrel and opossum. They will eat deer carcasses, and they like wild grasses as well as other plants. They are the only predator to feed on porcupine, as they have figured out how to attack the belly in an effective strike. However, despite the fears of the public, so far we have no confirmed reports of fishers eating cats.

The adult fishers have no predators upon them to worry about-making them one of the top carnivores in the Pine Bush. Their kits are vulnerable to predation however. They are thought to be solitary hunters, coming together for mating and then parting ways. However, Scott observed some cooperative fisher behavior - travelling together and watching over each other during feeding on a kill. Some sneaky fishers helped other fishers remove their collars! The researchers noticed lots of variation in fisher personality.

Fishers also display strategy: they can't eat all their game in one sitting because of their small stomachs. So they will hide it. For porcupines, they will prop one up so that it looks alive and they can come back to finish their meal later.

To test different degrees of curiosity and daring in fishers, Scott and Roland, set up a foreign object in fisher territory, near cameras. It was a pink flamingo drenched in orange extract. Indeed, fishers had different reactions. One fisher took a minute to go bite it and run, while another fisher just approached and ran. As yet, we can conclude that fishers have differences in how they approach a citrus scented plastic flamingo, and by extension, different levels of curiosity or caution. The researchers dream of being able to gather enough data to average out characteristics of fishers who live close to cities versus attributes of fishers in the wilderness, in order to be able to compare.

This is a little video of fishers approaching the flamingo!

http://video.nytimes.com/video/2011/05/06/ science/10000000807480/fisher-behavior.html

Scott LaPoint has been studying fishers for over three years. His work has established that the little populations of fishers in the Albany Pine Bush:

1) Numbers about 12.

2) Is nocturnal. This protects them as they are safer to move close to people and traffic at night. (In the wilderness they have a lot of nighttime activity but also travel and hunt by daylight.)

3) They use culverts to cross roads when they can.

4) They have "rest site plasticity," meaning that they are willing to vary where they stay, including napping behind people's houses.

The researchers would like to further investigate fisher behavior in different habitats and how they use each habitat to meet their needs (food, sleep, shelter, safety). They hope to study movement patterns further. They have some amazing maps of fisher movement in the Pine Bush generated by the GPS collars. It would be interesting to see the differences these journeys have with those travelled by fisher in larger, more isolate habitats.

Many thanks to Scott for all his work - including long days of tracking fisher in the snow. Much of the information he generated confirms generations of observation by the trappers of New York State. But his work also establishes that fisher and other mammals will use underpasses to cross the road. Wildlife underpasses and overpasses, to safeguard passage across 155, Washington Ave Extension and I-90, are critical for wildlife in the area. Perhaps the National Science Foundation can offer a grant to build and study this important solution to the highway massacre of mammals whose home are in this rare Pine Barrens. - by Grace Nichols

Reprinted from the Times Union Pine Bush fires cut tick threat Union College study shows Lyme disease-

carrying pests reduced By BRIAN NEARING Staff writer Published Thursday, June 16, 2011

ALBANY -- Fires used in the Pine Bush to restore native habitat of scrub pine and open grassland also greatly reduce chances that hikers will pick up ticks that could carry Lyme disease.

A study by two Union College professors has found areas of the Pine Bush that have already been restored carried 98 percent fewer ticks -- and that each avoided case of the tickborne illness saves on average about \$8,500 in medical costs.

The concept on display in the report by Economics Professor Stephen Schmidt and Kathleen LoGiudice, a biology professor, is that of "ecosystem services" -- how the environment can perform functions with benefits to people and that those benefits carry a monetary value.

Habitat restoration in the Pine Bush can plausibly be justified solely on the benefit of Lyme disease cases averted, according to the report, which will be published in the peerreviewed journal Restoration Ecology.

The study began in 2007 in the Pine Bush Preserve, a 3,100-acre protected area along the boundaries of Albany, Colonie and Guilderland. Some of the area has classic habitat, while other parts are overrun with black locust trees and other non-native species.

Each year, preserve officials cut down some sections of overrun area, and deliberately start controlled fires, which clears ground cover and allows native plants to recolonize the sandy soils. Since 1991, more than 1,100 acres have been burned to restore the pine barrens habitat. Native plants have been replanted in about 240 acres.

Blueberries, huckleberries and a variety of herbs thrive in the sunny openings of restored pine barrens. Blue lupine, the plant that is food to the Pine Bush bellwether species, the Karner blue butterfly, also requires these open conditions.

During three summers, graduate student Scott Morlando and the researchers dragged cloths, meant to attract and retain ticks, along the ground in areas that had been restored to native habitat. The cloths were also dragged through areas where invasive trees like black locust result and other vegetation create a more shaded, moister environment more conducive to ticks.

And, as was expected, when areas were restored to native habitat, which are more open, get more sun and are drier, the amount of ticks present dropped dramatically, LoGiudice said.

It was not clear how many of the 625 cases of Lyme disease reported by Albany County residents last year may have come from ticks picked up in the preserve. But that habitation restoration is making the preserve a safer place to hike.

An average case of Lyme Disease results in about \$8,500 in medical bills, Schmidt said. The preserve spends about \$630,000 a year to restore Pine Bush habitat, which is equivalent in medical bills to 75 cases of Lyme disease.

Pine Bush Preserve Executive Director Chris Hawver said up to 100,000 people a year visit the preserve, and about two-thirds of the visitors use the hiking trails.

"By law, we have to manage the Pine Bush for habitat. It is good that there is also a side benefit that is a positive social and economic aspect for people," Hawver said.

"We don't know how many cases of Lyme disease have been avoided because of habitat restoration, but there likely are some," said Schmidt.

"What this study shows is that this habitat restoration, in addition to helping reestablish species like the Karner blue butterfly, also carries other benefits that can be measured."

Reach Nearing at 454-5094 or bnearing@ timesunion.com.

July Wildflower Walk continued from page 1 with light colored clothes long sleeves, long pants. High shoes or boots, and tuck your pants into boots or socks and fasten the latter with rubber bands or something. Old army or navy canvass puttees (leggings) are real good especially the white navy ones. Check carefully for ticks afterward. Recently burned Pine Bush areas are reportedly free of ticks for quite awhile (see article from Times Union on page 3). So send in suggestions to the Commission to get a little bolder in burning larger areas and worry less over residents and car drivers in the burn-smoke opportunity times. If the report is accurate; then burning has become a direct health issue as well as a Pine Bush restoration issue. You also might want to suggest to the Pine Bush Commission that they re-open closed off portions of some two rut old wagon-car truck roads and also run a jeep or truck on them once a week or so and mow the brush and grass in the median. That will make these old road and trails the safest ones to walk on in the Pine Bush. The Commission also needs to take off the ridiculous term of "illegal paths" if they apply them to old roads. The opposite may be true if certain ones weren't legally closed by Albany, Guilderland or Colonie,

We have a copy of a County Highway Map showing which ones were officially designated as town roads, not too long ago. A few of these old road and trails are also historic roads, like the King's Road highlighted in the last issue of this newsletter and in the *Altamont Enterprise* of weeks ago.

For those who can't drive or don't wish to, call the information number at 465-8930 and we will seek to arrange a ride.

The Wild Flower walk is free and open to the public!

Sally's Recycling Corner Where Can I Find a Trustworthy E-cycler?

Q: What's a trustworthy place to donate computers? I'm concerned about my privacy and guaranteeing everything will be wiped off the computer's memory/drives. – Sherry Shapiro **A:** Many recyclers will guarantee your hard drive is wiped before recycling. However, it's always best to clear those files yourself before bidding farewell to your old computer.

With an increase in reports of companies carelessly dumping toxic e-waste overseas in developing countries and improperly handling this type of waste, choosing a legitimate e-cycler is one of the most important things to think about when recycling your defunct electronics.

For those readers that are unfamiliar with this highly controversial e-waste dilemma, we'll give you a quick rundown. Oftentimes, informal recyclers export electronic waste to developing countries. In this type of unverified recycling sector, many of these electronics are bashed, burned, flushed with acids and melted down in unsafe conditions, affecting the health of residents.

Twenty-three states have passed e-waste recycling legislation, however, an industry-wide standard or federal regulation prohibiting e-waste exportation overseas does not yet exist. However, we're getting closer as manufacturers, consumers and government officials are pushing concrete rules and regulations.

Here's the good news: in late September, U.S. Representatives Gene Green and Mike Thompson introduced the Responsible Electronics Recycling Act of 2010, an effort to stop U.S. "recyclers" from dumping electronic waste in developing countries. The new bill would be a step forward in establishing this type of federal legislation against dumping.

The bad news is that this bill will have to go through a lot of red tape and revisions before it is

officially put into action. In the meantime, there are programs and certifications you can use as references to ensure your electronics are properly recycled and your personal information is safe.

First, familiarize yourself with the ISO 14001, which addresses a series of well-rounded aspects of environmental management. If you are talking to an e-waste recycler and they do not know what ISO 14001 is, that should raise a red flag.

Other certifications to look for include the Responsible Recycling (R2) Practices, which is facilitated by the U.S. EPA. R2 contains criteria regulating export, but it doesn't ban the export to developing countries. It ensures recyclers are only exporting to countries that legally accept the electronics, though critics argue it gets a bit vague after that. R2 also ensures that personal data is cleared or destroyed.

The Basel Action Network's e-Stewards certification is another comprehensive global program that has quickly become one of the most well-known certifications in the industry. e-Stewards builds off of existing ISO 14001 systems, and it prohibits the exportation of hazardous waste from developed to developing countries. Also, e-Stewards does have language regarding data security. But it gets a little confusing if data security services are not provided to a customer. In this case, he or she must sign a waiver before recycling.

Concerning the safe data wipe issue, many recyclers will often advertise that they will remove your personal information and files before recycling. To truly ensure no one can get to your old credit card information or social security number, you should wipe that data yourself. Your computer should have included a startup disk that will guide you through this process.

But if you can't find that old disk stashed away in a desk drawer, we recommend using CNET's Quick Guide to Data Wipeout.

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Save the Pine Bush A Project of the Social Justice Center 33 Central Avenue Albany, NY 12210



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