

# Refuge News

Summer 2015

## Seney National Wildlife Refuge

### Manager's Corner

by Sara Siekierski

This summer has been incredible! From the hard working interns, dedicated volunteers and professional staff working to deliver services on the ground - to glimpses of secretive wildlife, young of the year and inspiring landscapes. One aspect of the Refuge that stands out to me is our volunteers! The volunteer program continues to excel on all levels! I am impressed and want to share how proud I am of what has been accomplished. Things that I have appreciated and attributed directly to the volunteer program:

- The great customer service at the front desk of the Visitor Center, including the flexibility to cover shifts for each other.
- All the fantastic items and educational materials in the Seney Natural History Association's (SNHA) Marshland Bookstore and how well they are presented! I think the bookstore adds to the experience of our visitors and compliments our exhibits nicely.
- The live monarch display - every visitor that comes in checks it out.
- The native plant landscaping - Steve and Laura Gasaway put countless hours into.
- The resident volunteer (RV) program. This was my first experience with a RV program and I realized how much we relied on and benefited from their efforts. This summer Jan and Rocky Larson did a fantastic job for us. They were self-motivated and worked hard to ensure the Refuge made a good impression on our visitors.
- The volunteer chauffeurs for Refuge bus tours.
- The amount of work and effort volunteers made to help with Children's Fishing Day.
- SNHA's support as cooperator on grants and intern sponsors.
- The amount of work the interns from Visitor Services and Applied Sciences accomplished. From giving presentations, Facebook posts, and planning events, to slogging around in the backcountry for wildlife surveys and invasive plant treatments. The interns have been a wonderful addition this summer!

I hope the volunteers have the same sense of pride in all the work they have accomplished. I also hope this shows my gratitude and appreciation to those who have made volunteer contributions and to the staff that facilitated those opportunities.

Feel free to email me suggestions, topics or questions to cover in future newsletters. You can reach me at [sara\\_siekierski@fws.gov](mailto:sara_siekierski@fws.gov). ❖

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### Whitefish Point Unit

The Whitefish Point Unit of Seney NWR has installed a new accessible boardwalk. If you haven't visited for a while stop by and check it out. The boardwalk is wide enough for a wheelchair and has passing lanes every 200 feet. We hope this trail will make it easier for guests to enjoy the property.

Photo: © Laura Gasaway

# Hunting Opportunities Expanded on Seney National Wildlife Refuge

By Jennifer McDonough

The U.S. Fish and Wildlife Service expanded fishing and hunting opportunities on numerous refuges throughout the Service's National Wildlife Refuge System.

"The National Wildlife Refuge System is a national treasure that conserves millions of acres of wildlife habitat and provides Americans with unparalleled opportunities to hunt, fish and experience the wonders of the natural world," said U.S. Fish and Wildlife Service Director Dan Ashe "By expanding those opportunities, we are enhancing the lives of millions of Americans, stimulating the national economy to which hunting and fishing contribute significantly, and generating much needed additional funding for wildlife conservation."

Under the *National Wildlife Refuge System Improvement Act* of 1997, the Service permits hunting and fishing along with four other types of wildlife-dependent recreation (wildlife observation, wildlife photography, environmental education and interpretation) these "Big 6" are allowed when they are compatible with an individual refuge's purpose and mission. Hunting, within specified limits, is permitted on 336 wildlife refuges, including Seney National Wildlife Refuge (NWR).

## Seney NWR

As part of this system wide hunting and fishing ex-

pansion, Seney NWR re-evaluated its hunting plan and determined that it could expand quality hunting opportunities that would simultaneously help it reach its habitat management goals.

Specific changes from previous hunting regulations include:

- The creation of Area C from a portion of former Areas A and B and a section of land that was previously closed to hunting. Area C will be open to the state seasons for ruffed grouse, American woodcock, Wilson's snipe, snowshoe hare and white-tailed deer (archery, regular firearms, and muzzleloading).
- Expanding the hunting seasons for snowshoe hare in Area A from December 1 to March 31 to the entire state season.
- Expanding the archery white-tailed deer season to include all state seasons in Area A.
- Black bear hunting is closed in Area C. Bear hunting was previously allowed south of the Manistique River on Refuge property in the section that is now Area C.

Area C also encompasses the Northern Hardwoods Cross-county Ski and Hiking Trails. A "No Hunting Zone" is established around the majority of the trails but trail users and

[Continued on page 5](#)

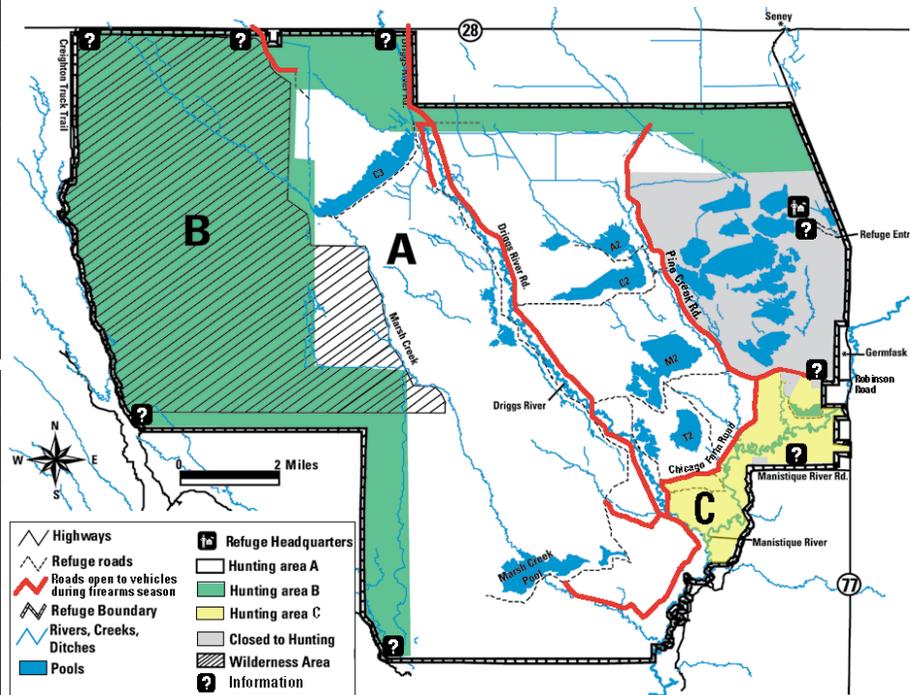
## Species Permitted and Dates Allowed

*Species not listed may not be taken*

Small Game	Area A	Area B	Area C
Ruffed Grouse	Closed	State Season	State Season
American Woodcock	Closed	State Season	State Season
Wilson's Snipe	Closed	State Season	State Season
Snowshoe Hare	State Season	State Season	State Season

Big Game	Area A	Area B	Area C
White-tailed Deer (Archery)	State Season	State Season	State Season
White-tailed Deer (Regular Firearms)	State Season	State Season	State Season
White-tailed Deer (Muzzleloading)	State Season	State Season	State Season
Black Bear	Closed	State Season	Closed

## New 2015 Hunt Map



Note: All locations shown are approximate. Observe posted refuge signs. For onsite orientation ask for a more detailed map at the Refuge Headquarters.

[See the full hunting brochure.](#)

# Nature Nut Column



Dear Nature Nut,

I was driving around the Refuge, and noticed multiple trees that had white colored bark. It seemed that there were two different trees with this unique white bark. The trunks looked very similar, except one tree was more of a pure white, and the other had a yellow tint to it. What's the difference? Are they both birch trees?

Sincerely,  
Confused Tree Enthusiast

Dear Confused Tree Enthusiast,

Good eye! They are different trees; one is a paper birch, and the other a quaking aspen. Here's the difference.

Common in the northern United States and throughout Canada, paper birch, or white birch, speckles the forest with its distinctive peeling white bark. One way to help you identify the tree is by looking at its branch scars that resemble thunderbirds. The Chippewa tribe, among others, considered birch trees sacred. The legend of a native figure, Winabojo, sought protection from thunderbirds inside a hollow birch; he

then blessed the tree for the benefit of humanity.

Aspen bark is whitish and smooth, turning gray and thick as it ages. They are not always one individual organism, but a clone of trees. One stand of aspen may be from the same root system, which means it is actually one tree with many trunks, sometimes extending in a stand of more than a hundred stems. In early spring, compared to the paper birch, the leaves are a lighter shade of green.

Both trees are often found in pure stands, and turn golden and yellow in the fall. An easy way to tell paper birch apart from aspen is that paper birch often has peeling bark that resembles paper falling off the tree. Quaking aspen's bark does not peel, as it is very smooth when young. Next time you see a tree with white bark, take a look at details (compare their bark colors and properties), and see if you can identify it!



Paper or White Birch branch scar resembles a thunderbird.  
Photo: Ellen DiGiacinto



Paper birch's bark peels off in sheets. If you look closely you can see the different shades of white where bark has peeled.  
Photo: Ellen DiGiacinto



Quaking aspens  
Photo: Ellen DiGiacinto

Happy tree-watching!  
The Nature Nut

Dear Nature Nut,

While I was on my last trip to the Refuge I heard something about an invasive species. I was just curious as to what exactly that is, the effects they have on the environment, and what can be done about them.

Sincerely,  
A Befuddled Visitor

Dear Befuddled Visitor,

What excellent questions!

An invasive species is a species of plant, animal, or other living organism that will take over an area causing difficulties for other organisms. These organisms have negative effects on the environment. The effects of them vary from case to case. For instance they can limit or even destroy the amount of available native habitat, have negative effects on ecosystem health, and out compete the native species.

There are a variety of ways to deal with invasive



If you see garlic mustard (above) please mark your location on a map and let someone at the Visitor Center or office know.  
Photo: WhatsAllThisThen, Flickr Creative Commons

species. One technique is manual control; this is when people pull or dig the up invasive plants by hand. A second method is the use of fire via prescribed burns, some plants did not evolve with fire, and if the habitat you are trying to protect did, this may be a good option. A third method is biological control which uses other organisms to control the invasive species, plants and insects tend to evolve together so when a plant is introduced to a new area local insects may not be able to digest it or use it for a benefit. If a plant is invasive an insect that can eat only that plant may be used to help control it. The new organisms have to be tested carefully so that they do not become a problem themselves by eating their way through plants we don't want them to. Another technique is using chemicals to kill the invasive species. Stopping the introduction of invasive species in the first place is another big part in the battle. This is why, at the Refuge, we do not allow many public vehicles on the backroads and when public vehicles do go into the backcountry during guided tours the wheel wells, bumpers and dirt on the side of vehicles must be washed off the vehicle. Dirt and mud stuck to cars, shoes, and bike tires can transport these undesirable seeds.

Here at the Refuge managing and dealing with invasive species is of great importance. For the past few



Don't confuse purple loosestrife (left) with the fireweed a native wildflower (right). Report all sightings of purple loosestrife on the Refuge to the Visitor Center or office.  
Photos: Joanna Gilkeson, USFWS and © Larry McGahey

summers we have asked visitors to report sightings of specific highly invasive plants including purple loosestrife and garlic mustard, to refuge personnel. Early sightings help us to remove individual plants before they become a problem. It is best to report sightings of these plants to the Visitor Center rather than pulling them yourself so that we are able to locate the area and monitor it over the next few years to ensure we have successfully removed the threat.

Glossy buckthorn is an example of an invasive species



Glossy buckthorn's leaves have almost a glossy sheen to them growing more pronounced as the leaves age. Berries ripen from green to black. Photo: Laura Gasaway

that had been reproducing for many years unchecked. For several years our Applied Science Program has waged an ongoing battle against this intruder. While we are not asking the public to report sightings of the plant, the public can often see the results of the war along the Pine Ridge Nature Trail, the Marshland Wildlife Drive and Fishing Loop in the form of patches of dead plants. Research conducted here at the Refuge has shown chemical control is the best and most effective method for dealing with this plant. Patches of dead vegetation mark the withered shrubs and over-spray which occurs are as result of this battle. I hope this has been helpful and answers all your questions!

Your Friendly Neighborhood Nut,  
Nature Nut

Dear Nature Nut,

I'm a mother traveling through the Upper Peninsula with my family on vacation and we were interested in visiting Seney National Wildlife Refuge. I hear that you have gray wolves around the Refuge. I have little kids and am worried for their safety as we hike. Are the wolves known to be vicious? What do you do if you come across one?

Sincerely,  
Worried Mother

Dear Worried Mother,

I appreciate your concern for your family in regards to wolves. I have good news for you! Wolf attacks on people are extremely rare, even in areas with large wolf populations in Canada and Alaska. In fact, of all large predators are the rarest to attack humans. Generally wolves are shy toward people and avoid contact with them. However, if you do come across one there are several points of advice. First and foremost, do not turn your back or run away! This will make you look like prey and may entice the wolf to chase. Instead, stand tall and make yourself look large and impressive, maintaining eye contact as you slowly back away. Most often the wolf will run away, but if not continue backing away until you're at a safe distance, out of sight, then walk back the way you came. If it shows signs of aggression then begin shouting and throwing things at it to make it realize you're a foe it doesn't want to mess with. Also, if you have any pets be sure to keep them on a leash. Make sure that your children don't run too far ahead on the trail, but instead stay together as a group.

Most documented wolf attacks have been in areas where wolves have become used to people by either being fed by humans or rummaging through garbage for food. In order to prevent the wolves at the Refuge from succumbing to this danger, there are some things you can do to help. Even though the wolves are fascinating creatures, resist the temptation to approach them. They are wild animals that deserve respect and space. Don't feed them or leave food outdoors for them to scavenge later. If you see any dens or fresh wolf kills, be sure to steer clear of those areas. If you see a wolf that looks comfortable with people or is seeking human food, please let us know.

All in all, if you use common sense and keep your eyes open, you'll be perfectly safe with your family. So do not worry about wolves or coming to the Refuge! You and your family will have a blast and be glad you included it as part of your vacation.

Sincerely,  
The Nature Nut

*The questions in the Nature Nut Column come from questions posed by visitors. This month's columns were written by Ellen DiGiacinto (trees), Alejandro Cruz (invasive species) and Andrea Martinson (gray wolves). If you have a question you would like the Nature Nut to answer email [Sara\\_Giles@fws.gov](mailto:Sara_Giles@fws.gov). ❖*



Gray wolf. Photo: April Payne

## Hunting Opportunities Expanded Continued from page 2

hunters need to be aware of the multiple use opportunities in these areas during the hunting seasons from September to March.

### Philosophy Behind the Changes

The 2013 *Habitat Management Plan* suggested expanding hunting opportunities for white-tailed deer as a way to help ensure their population does not negatively affect the hardwood forests over the long-term. Opening more of the hardwood forest and former farm fields to white-tailed deer hunting will increase opportunities to hunt white-tailed deer. The fields are being encouraged to return to native vegetation types. Deer browse can slow this progression. Browse by white-tailed deer is a management concern on the Refuge as it impacts forest development processes and thus, in turn, can effect entire ecosystems and habitats for species such as migratory forest birds.

Opening additional areas for Wilson's snipe, American woodcock, and snowshoe hare hunting will provide more wildlife dependent recreational opportunities in areas where populations are stable and hunting pressure is not likely to effect these populations negatively. All new hunting opportunities follow DNR management guidelines. ❖

# A Journey With The Fisher

by Andrea Martinson

She was born in the hollow of a fallen white pine on a sunny spring afternoon; small eyes squeezed shut as if reluctant to see the world of light and coniferous forest surrounding her. Her body that weighs the same as eight stacked quarters shivers as she takes her first draught of cool air into her lungs. Her twin is also huddled on the dark damp dirt—nose snuffling and twitching. Rough scratching from their mother’s sandpaper tongue licks their wet fur clean.

She stays with her brother in the warm safe den, eyes still closed but soft nose constantly sniffing, feeling. At last, at about 53 days old, her eyelids crack open and let a ray of light touch her retinas. She and her brother adjust to their newfound sense in the den until they are weaned at nine weeks old. Then their mother coaxes them out of the security of the den into the wide, waiting world.

Together, the trio explores the forest at night. Their patient mother teaches them how to hunt and forage for snowshoe hares and berries, how to make or find dens in hollow trees, slash piles or abandoned porcupine dens, and what enemies to avoid such as gray wolves and bobcats. The siblings learn fast, and when they are four months old they part ways with their mother and each other, seeking their own home ranges.

She travels alone, hunting at night using her keen nose and ears to track down snowshoe hares, squirrels, and voles. Once she spots her prey, she gives a burst of speed and snatches up her dinner before they can escape. Sometimes she uses her retractable claws to climb rough red pines and fish her meal out of the branches. She later encounters her first porcupine. Using the tactics her mother taught her, she avoids the sharp quills and instead claws and bites at the porcupine’s unprotected face until it is too stunned to stop her from flipping it onto its back and attacking its vulnerable belly. It becomes her favorite delicacy.

Returning to one of her favorite dens one evening, she comes to the spot and discovers her home has been destroyed. The strong beech tree that her den had been nestled under has been reduced to a stump, and the hollow amongst the roots is now filled with earth, sawdust, and the odor of humans. She doesn’t know how the tall, proud tree had vanished or her den filled—all that she knows is that she must seek out a safer home range now that her current one is being cut down. She avoids the range of another female and then finds an unclaimed range that she quickly calls home.

Cold, wet winter snowballs in and settles thick onto the forest, but she does not retreat from the cold or snow and leave her newfound range. Instead, she begins to hunt in the day and take shelter in her den at night, bushy tail wrapped around sleek body for extra warmth. By now her mahogany-colored fur is thick and glossy with a speckling of gray on her head and shoulders, and her foot-long tail is a third of her body length. She is five pounds, strong, and healthy.

When spring blooms and she turns one year old she begins to seek a male to mate with. She finds a large, strong two-year-old fisher that is twice her length and weight—an average size for a male. After they mate she has delayed implantation, her body not letting the embryos implant until nine months later. In the winter the fetuses begin to grow, and then two months later in the following spring she gives birth to her first litter of three newborns. Ten days after giving birth she mates again and undergoes delayed implantation. After securing the next generation in her womb, she then focuses on rearing her current litter, passing down what she has learned and sustaining the population of fishers in the Upper Peninsula of Michigan. ❖



Fisher drawing: © Walt Plavljanič

# Well-Traveled Birds of Seney

by Ellen DiGiacinto

Some migratory birds have traveled quite a distance to spend their summer season at Seney National Wildlife Refuge, just like some of our visitors! Trekking north for the summer to find the right location to nest and have enough resources to survive the winter are huge driving force for our feathered friends to migrate. Once the summer has ended, they begin their trek south to a place with an abundance of food. For some, that is thousands of miles. Long-distance migrants can travel 150 miles in one night.

Many birds migrate at night to avoid predators and hot daytime temperatures as well as to eat and rest during the day. The journeys for these birds are dangerous. For some species, up to 85% of deaths occur during migration due to storms, predators, obstructions like towers, illness, and exhaustion.

That bird you just saw may spend its winters in a different country. It's hard to imagine our tiny ruby-throated hummingbird migrating all the way to Belize, Honduras or Panama by crossing the Gulf of Mexico! Or our turkey vultures cleaning up carcasses in the southern United States throughout South American.

Here are just a few more examples of birds found on the Refuge during the summer months who are avid travelers. Sometimes people don't realize how far these birds migrate. ❖



**Eastern Kingbird**  
**Venezuela to Argentina**

Photo: © Jack Cook



**Wilson's Snipe**  
**Southern USA to Columbia**

Photo: © Teresa McGill



**Osprey**  
**Gulf Coast to Argentina**

Photo: © Teresa McGill



**Upland Sandpiper**  
**Brazil to Argentina**

Photo: Jeremy Maslowski, USFWS



**Yellow Warbler**  
**Belize to Venezuela**

Photo: © Keith Perish

# SEPTEMBER EVENTS

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1	2	3	4 Morning Bus Tour 10am	5
6	7 Marshland Wildlife Drive open to fishing	8 Voting Starts for the Photo Contest	9	10	11	12
13	14	15	16	17	18 Morning Bus Tour 10am	19
20	21	22	23	24	25	26 Youth in the Outdoors 9am - 4pm
27	28	29	30 Last day to Fish the Refuge and Drive the Fishing Loop			

# OCTOBER EVENTS

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 Fishing Loop Closed	2 Morning Bus Tour 10am	3 Fall Color Float 11am
4 Fall Color Float Rain Day	5	6	7	8	9	10
11	12	13	14	15	16 Morning Bus Tour 10am	17

**Celebrate National Wildlife Refuge Week**

18 Hamm Radio Event 9am - 4pm	19 Tomorrow is your last day to vote for your favorite photo	20 Last day Marshland Wildlife Drive and Visitor Center are open	21	22	23	24
25	26	27	28	29	30	31

## **Morning Bus Tours**

Join us Friday mornings in the fall, September 4th and 18th and October 2nd and 16th at 10:00 am to experience a guided tour of the Refuge. This intern guided tour will take approximately 2 to 2 1/2 hours. We will be on the lookout for a variety of wildlife while sharing information about the animals we see, the history of the Refuge, and current management practices.

## **Additional Pools Open to Fishing**

On Monday, September 7th, 2015 (Labor Day) additional pools will open for fishing! If you love to fish, don't miss out on the chance to fish E, C, D and portions of B Pool that are only open to fishing from Labor Day through September 30th. Fishing is allowed during daylight hours only.

## **Youth in the Outdoors**

Youth in the Outdoors will be held Saturday, September 26th! There will be several different activities to choose from which include mini sessions, long sessions, and half day sessions. If you have kids, grandkids, friends with kids, or are a kid, and you want to participate send an email to [digiacinto.e@gmail.com](mailto:digiacinto.e@gmail.com) to be added to our mailing list and registration materials will be sent to you. Pre-registration by September 21 and a \$5 registration fee are required.

## **Fishing Closes on Refuge**

Fishing on the Refuge pools closes September 30th. Fishing is permitted on all stretches of the following rivers and streams during regular state seasons: Walsh Creek and Ditch, Creighton, Driggs and Manistique Rivers. The Refuge is open from dawn until dusk.

## **Fishing Loop Closes**

September 30th is the last day the Fishing Loop is open. Starting October 1st the Fishing Loop will be closed to all traffic, including foot and bike traffic. This is to provide a place for migrating birds to rest undisturbed. Birds that live on the Refuge throughout the summer months are often times accustomed to people and cars. Birds that stop at the Refuge during migration are easily disturbed. These birds need their rest to complete their long flight. This is the reason for the closure of the Fishing Loop at an earlier date than the Marshland Wildlife Drive.

## **Fall Color Float**

Join Refuge staff for a 4-5 hour canoe/kayak trip October 3rd, 2015. Early October is a beautiful time to visit the Refuge as the leaves will be changing color. Pack a lunch, dress for the weather (could be warm or cool), and remember to pre-register so we know that you're coming. Bring your own boat or rent one from one of the local outfitters. This year the Fall Color Float will depart from the Big Cedar Campground in Germfask, MI at 11 am. Please be ready to depart at that time. If it is raining, snowing, or below 40°F we will reschedule for the following day, Sunday, October 4th, 2015. If the

weather is still not cooperating, the trip will be canceled.

## **National Wildlife Refuge Week**

Celebrate National Wildlife Refuge Week October 11th to 17th. Visit your National Wildlife Refuge and see what it has to offer. The Visitor Center is open from 9 a.m. - 5 p.m. The Marshland Wildlife Drive is open from dawn to dusk.

## **Hamm Radio Event**

Join John Forslin at the Seney National Wildlife Refuge Visitor Center as he reaches out to people around the world during this fall's Hamm Radio event October 18th from 9 a.m. to 5 p.m. - weather dependent.

## **Marshland Wildlife Drive and Visitor Center Closes**

October 20th is the last Day the Marshland Wildlife Drive and Visitor Center are open. Beginning on October 21st the Visitor Center and Marshland Wildlife Drive will be closed for the winter. Just because the Visitor Center and Marshland Wildlife Drive are closed, it doesn't mean you can't visit the Refuge. There are a number of fun activities you can participate in over the winter.



Youth in the Outdoors is a fun family event.  
Photo: April Payne.

# **Cast Your Vote**

Vote for your favorite photo in the Seney National Wildlife Refuge Photo Contest. Cast your vote in person at the Visitor Center or, if you live too far away, check out the entries on our [facebook](#) page and email your choices to [seneyvs@gmail.com](mailto:seneyvs@gmail.com). This is a peoples' choice photo contest and the winners are awarded ribbons and prizes from the bookstore, as well as bragging rites. We commonly use photos from the contest to adorn our publications, signs, and websites.



**Fan us on  
Facebook!**  
[www.facebook.com/  
seneyrefuge](http://www.facebook.com/seneyrefuge)

# Youth in the Outdoors 2015

The fourth annual *Youth in the Outdoors* event at Seney National Wildlife Refuge will be held on Saturday, September 26. There are 12 different activities offered, including mini sessions, long sessions, and half day sessions. Please choose events to participate in throughout the day. Be sure to cut the attached registration form and return it to the Refuge with your \$5 registration fee.

## 2015 Youth in the Outdoors Sessions

**\*Please Remember: THIS IS A RAIN OR SHINE EVENT. Please wear outerwear that will keep youth comfortable for the day's weather conditions.**

SOME SESSIONS CAN BE PHYSICALLY DEMANDING AND MAY NOT BE APPROPRIATE FOR ALL PARTICIPANTS.

All activities are geared toward kids in upper elementary school or older (approximately age 7 and up). Please help your kids choose sessions appropriate to their abilities.

\*Only 12 kids per session. Spots are limited\*

Youth will need to bring a sack lunch the day of the event, lunch is not provided.

All youth must be accompanied by an adult

SCOUTS: Some of these sessions may help meet badge requirements and some of those requirements are listed under the session descriptions – you may find more connections.

Abbreviations are as follows: WCS – Wolf Cub Scout; TCS – Tiger Cub Scout; BCS – Bear Cub Scout; WEB – Webelos; BS – Boy Scouts; BGS – Brownie Girl Scout; JGS – Junior Girl Scout

**Using these descriptions, rank the activities on your registration form in the order that you would like to participate.**

### **Mini Sessions: 30 to 45 minutes**

#### **Owl Pellet Dissection**

Get your tweezers ready, this mini session will have you dissecting owl pellets! Pick apart an actual owl pellet, and learn how to identify the contents to see what was on the menu. Take home your findings to show your family and friends!

BCS – Bear Trail 5d, 10a

#### **Outdoor Cooking**

Food always tastes better when cooked in the great outdoors! Here is a chance to try out a different method of cooking, and sample your creation! Yum!

BGS – Read, Set, Go Camping 3, JGS – Outdoor Cook 1, 3, & 5;  
BCS – Bear Trail 5d, 9g, 10a, 12d

#### **Archery**

Step right up and take your best shot. This session will give youth a chance to hone their skills whether they're a novice, or an expert archer. Youth will learn to shoot like pros after a discussion on safety and equipment. Bows and other equipment are provided.

WCS – Elective 20a, Arrow Point Trail 20c, BS - Archery 1, 2, 3, 5;  
JGS – Sports Sampler 4, Your Outdoor Surroundings 5

#### **Monarchs and Milkweed**

Learn about the complex life of a monarch butterfly from their life cycle to what they eat! Search for milkweed seed pods and take seeds to plant at your own garden for monarch's to munch!

BS – Insect Study, Nature Study

#### **Eco Games!**

How do animals camouflage themselves? Learn what it takes

to hide in the woods. Oh Deer! This game showcases the importance of hunters and predators to prey populations.

### **Long Sessions: 1.5 to 2 hours**

#### **Draw Your Own Seney Picture Book**

Travel by foot to different stations to illustrate the landscape before you. Create your own Refuge picture book using different mediums and techniques.

WEB – Artist 1 & 3; BCS – Bear Trail 5d, 10a, 12d, Arrow Point Trail 9a, 9c; JGS Outdoor Creativity 1, Your Outdoor Surroundings 5, Drawing & Painting 2,6

#### **Pond Safari**

Life below the water is fascinating. This session will encourage youth to explore pond habitat to collect and investigate aquatic insects, crustaceans, mollusks and other invertebrate life. Youth will need to bring waterproof boots and/or a change of clothes and shoes.

WEB – Naturalist 4 & 11; BCS – Bear Trail 5d,10a, 12d; JGS – Water Fun 8, Wildlife 4

#### **Chocolay Birds of Prey**

Get up close and personal with live birds of prey. Talk with an expert who rehabilitates and cares for these birds. Learn about raptors and what makes them top hunters.

BCS – Bear Trail 5d, 10a, 12d; JGS – Wildlife 4

#### **Tracking & Trapping**

This is a chance for youth to spend a little time with an experienced trapper and learn a few tricks of the trade. Explore beaver, muskrat, and otter habitat and learn how and where to set traps to effectively catch these species. Youth should bring

boots to keep feet dry in shallow water.  
 BS – Mammal Study 3 & 4, Nature 4, BGS – Watching Wildlife 1;  
 BCS – Bear Trail 5d, 10a, 12b, 12d; TCS – Let’s Go Outdoors 5g;  
 WCS – Wolf Trail 10c; JGS – Your Outdoor Surroundings 5, 9

the backcountry. Bring your bike, helmet, and water, and be ready to cycle! Participants should be capable of riding 15 miles, and bicycles should be capable of traveling hard packed gravel roads.

BS – Cycling 7b

**Basic Birding with Binocs on a Bus**

Start to master birding gear while searching for birds on the Refuge. Learn and perfect binocular and spotting scope skills. Travel on bus to explore multiple habitats while learning about birds and how to identify them.

BS – Bird Study 3, 4, 7a

**GPS Scavenger Hunt**

Youth interested in exploring the Refuge in search of geo-caches will love this session. Youth will learn how to use a simple GPS unit and then learn how to locate different geo-caches made especially for *Youth in the Outdoors*. Work through different mini activities at each cache to find clues to the next one! This activity involves hiking, youth should bring comfortable shoes.

WEB – Athlete 5e; BCS – Bear Trail 5d, 10a, 12b, 12d; TCS – Let’s Go Outdoors 5g; WCS – Wolf Trail 10c; JGS – Your Outdoor Surroundings 5

**Half Day Sessions: 3 to 4 hours**

**Bicycling the Backcountry**

Navigate through the Refuge on bicycle. Learn the basics of reading multiple types of maps while you find your way through

Name: \_\_\_\_\_ Phone #: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_ Age: \_\_\_\_\_ Grade: \_\_\_\_\_

**Please mail and return this sheet with your \$5 (check or cash) non-refundable registration fee by SEPTEMBER 21st! To: Seney NWR YO Registration 1674 Refuge Entrance Rd. Seney, MI 49883  
Please make all checks payable to Seney Natural History Association**

\*You will be notified of your session choices by email or phone.\*

Rank your session choices 1-12 with 1 being the session you would most prefer. We will make our best effort to get you into your first choices, but session choices are made on a first come first serve basis. Remember to be aware of the physical activity level of each session and come prepared for the day’s weather.

#	Mini Session	#	Long Session	#	Half Day Session
	Owl Pellet Dissection		Draw Your Own Seney Picture Book		Bicycling the Backcountry
	Outdoor Cooking		Pond Safari		GPS Scavenger Hunt
	Archery		Tracking and Trapping		
	Monarchs and Milkweed (Sessions 1 - 3)		Chocolay Birds of Prey		
	Eco Games (Sessions 4 - 6)		Basic Birding with Binocs on a Bus		

	Mini Session 30 - 45 min.	Long Session 1.5 - 2 hrs.	Half Day Session 3-4 hrs.
8:00 - 8:45 am	Registration		
9:00 - 9:45 am	Session 1	Session 1	Session 1
10:00 - 10:45 am	Session 2		
11:00 - 11:45 am	Session 3		
11:45 - 1:00 pm	Lunch		
1:00 - 1:45 pm	Session 4	Session 2	Session 2
2:00 - 2:45 pm	Session 5		
3:00 - 3:45 pm	Session 6		

# Lake States Fire Science Consortium

A JFSP KNOWLEDGE EXCHANGE CONSORTIUM



## Small Mammals and Fire in Northeastern Minnesota Mixed Conifer- Hardwood Forest

by Shelby A. Weiss (Applied Sciences Program Intern, Seney NWR)

Wildfires occurred in northeastern Minnesota in 1952 and 1955, providing the opportunity to study the changes in small mammal populations after fire in a mixed-conifer-hardwood forest and to relate those changes to plant communities. The Heart Lake Fire burned 803 acres on April 28, 1952. Small mammal populations in a 10-year-old jack pine (*Pinus banksiana*) plantation within the area had been sampled prior to the fire. Trees were completely consumed in this area. Within days following the fire, jack pine cones opened and dispersed seeds, and red pine (*Pinus resinosa*) trees were planted the following fall. The Keeley Creek Fire burned 30 acres on July 11, 1955. The forest had been a mixture of jack pine, black spruce (*Picea mariana*), balsam fir (*Abies balsamea*), quaking aspen (*Populus tremuloides*), and paper birch (*Betula papyrifera*). Researchers compared the effects of these fires on vegetation and small mammal communities to an unburned site.

Snap-trapping was done in each site along two parallel transects 66 yards apart and 157 yards long with a total of 20 trap stations per line. Each trap station had three baited mouse traps. Trapping took place over three consecutive nights each fall from 1955-1967. Vegetation composition was measured at each study area three times for the burned areas and twice for the unburned area over the duration of the study using 30 circular plots 107 square feet in size set 33 yards apart.

Deer mice (*Peromyscus maniculatus*, consumers of insects and seeds) and red-backed voles (*Clethrionomys gapperi*, consumers of succulent plant parts, some seeds, and some insects) were most abundant on the two burned sites, with deer mice generally increasing in the first seven years following the fire, then decreasing and red-backed voles increasing during the latter half of the study (Table 1). Eastern chipmunks (*Tamias striatus*) were only abundant throughout the study at the Keeley Creek Fire.

Post-fire vegetation differed between the two burn sites. At the Heart Lake Fire site, trees were completely consumed and seed-reproducing herbaceous species increased following the fire. These colonizers were important to small mammals immediately after the fire, but their abundance decreased after five years. No other seed- or berry-producing plant species increased in this area sufficiently to make up for this decline in the first group. Contrary to this, jack pine released seeds at the Keeley Creek Fire, and other seed-reproducing species, were also available. Though jack pine seeds were less available a couple of years after the burn, these other seed- and berry-reproducing species increased strikingly, making a supply of seeds and berries



Photo: Chipmunk, © Thomas Heatley

### MANAGEMENT IMPLICATIONS

1. Deer mice (*Peromyscus maniculatus*) and red-backed voles (*Clethrionomys gapperi*) were most abundant at two burned sites, and eastern chipmunks (*Tamias striatus*) were only present at one of the burned sites in northeastern Minnesota.
2. Deer mice began to decline 7 years following the fire at both sites, whereas red-backed voles began to increase during the second half of the study (the last 6 years). Their respective declines and increases were likely driven by changes in vegetation cover.
3. Food availability and cover are important to small mammal populations following fire; however, individual species may have different requirements.

#### Want to learn more?

Greg Corace at Seney National Wildlife Refuge ([Greg\\_Corace@fws.gov](mailto:Greg_Corace@fws.gov); (906) 586-9851 x14.

available continuously over the duration of the study at this site.

**Table 1. Percent of red-backed voles, deer mice, and other small mammals trapped in each area sampled for the periods of 1955-1961 and 1962-1967.**

	Area	Red-backed Voles Trapped (% of total trapped)	Deer Mice Trapped (% of total trapped)	Other Small Mammals (% of total trapped)	Total number of small mammals trapped
1955-1961	Unburned	84%	6%	10%	200
	Heart Lake Burn	12%	56%	32%	162
	Keeley Creek Burn	14%	62%	24%	271
1962-1967	Unburned	3%	9%	6%	155
	Heart Lake Burn	11%	49%	30%	160
	Keeley Creek Burn	30%	39%	33%	118

For red-backed voles it was suggested that cover density differences, rather than food preferences, accounted for changes in abundance at sites. The Keeley Creek Fire had more debris remaining from the fire than the Heart Lake Fire, potentially creating the preferred type of cover utilized by red-backed voles. At both sites, percent cover increased over time, suggesting that the decline in deer mice for both sites may have been a result of increased cover, whereas red-backed voles showed an affinity for it. Eastern chipmunks were more abundant at the Keeley Creek Fire, and were likely influenced by the presence of dispersed jack pine seed. Consumption of seeds following a fire, particularly jack pine, has the potential to influence changing vegetation patterns.

The results of this study in northeastern Minnesota suggest that food availability and cover are important to small mammal populations following fire. Individual species may have different requirements and respond in the years following fire depending on how structure and food availability change over time. ❖

## References

Kreftig, L. W., and C. E. Ahlgren. 1974. [Small mammals and vegetation changes after fire in a mixed conifer-hardwood forest.](#) *Ecology* 55:1391-1398

## Research Brief for Resource Managers

December 2014

[www.lakestatesfiresci.net](http://www.lakestatesfiresci.net)

@LSFireScience

# Bats in Peril

by Alejandro Cruz

Bats are one of those animals that get a bad rap based on urban legends and tall tales. For example a lot of people think bats are out to get them, whether it be intentionally flying into their hair or wanting to suck their blood. However bats in the Upper Peninsula are more interested in eating insects, than biting people.



Northern long-eared bat with white-nosed syndrome. Photo: USFWS

The little brown bat (*Myotis lucifugus*) is one of the most common species of bat in Michigan, as well as here on the Refuge. Their diet is 100% insects; they eat insects like flies, moths, wasps and most importantly mosquitoes. In order to locate their prey they use echolocation in which the bats send out a high-frequency sound. The sound then travels and hits an object, it bounces back for the bat to hear, and the bat can then identify what the object is also how far away the object is.

The northern long eared bat (*Myotis septentrionalis*) is another bat that calls the Upper Peninsula home. This bat also eats only insects and in the summer roosts under the bark of trees both dead and alive. In the winter some individuals have been known to migrate up to 50 miles in order to find a cave or

abandoned mine to hibernate. However due to a disease known as White-nosed Syndrome this bat was placed on the Threatened Species List in April 2015.

These amazing creatures are under attack, White-nosed Syndrome is sweeping through bat populations all across the eastern United States. White-nosed Syndrome is caused by a fungus called, *Pseudogymnoascus destructans*. The fungus grows on the nose of the bats and other parts of the bat that are not covered with fur, like the ears and wings. During their hibernation the bats infected by the fungus are constantly woken up due to irritation. Because they are constantly being woken up the bats quickly burn through their fat reserves and starve to death before spring.

[Continued on page 15](#)



# Lake States Fire Science Consortium and Demonstration Sites at Seney NWR and Kirtland's Warbler Wildlife Management Area

by Carolyn Fado and Emily Grover (College of Wooster)

## The Joint Fire Science Program and Lake States Fire Science Consortium

The Joint Fire Science Program (JSFP) supplies research to help meet the needs of fire and fuel managers and policymakers. One of the goals of JFSP is knowledge exchange done by consortia. The Lake States Fire Science Consortium (LSFSC) is a network of scientists and fire managers across Minnesota, Wisconsin, Michigan, Ohio, and Ontario. The LSFSC seeks to increase the understanding of fire science and meet the needs of resource managers and policy makers.



The partners of the Lake States Fire Consortium.

## What are Demonstration Sites?

The LSFSC uses demonstration sites as one method in fulfilling its mission of increasing the public's awareness of fire and fire science in the region. What these sites demonstrate may be broken down into three categories: those that show natural fire regimes, those that exemplify pertinent fire and/or fuels management issues, and those that demonstrate fire and fuels management practices.

## Seney National Wildlife Refuge

The 25,150-acre Wilderness Area of Seney National Wildlife Refuge (NWR) demonstrates a natural fire regime. In it is embedded the Strangmoor Bog National Natural Landmark. The Wilderness Area contains mixed-pine forests of primarily red and eastern white pines growing on "pine islands." The majority of these forests have never been cut.

Although logging, fire suppression, and altered hydrology on many parts of Seney NWR have changed the fire frequency and fire rotation, or the number of years needed to burn an area equal to the



The network of demonstration sites of the Lake States Fire Science Consortium. See website: [lakestatesfiresci.net/demosites.htm](http://lakestatesfiresci.net/demosites.htm) for more information.

area being studied, the Seney Wilderness Area has been relatively unaffected. The fire frequency and fire rotation at Seney Wilderness Area is close to the pre-European Settlement values of: frequent (~every 40-60 years) low-severity fires and a fire rotation of one in 100 years.

## Kirtland's Warbler Wildlife Management Area

A parcel at the Kirtland's Warbler Wildlife Management Area (WMA) exemplifies pertinent fire management issues. The WMA is primarily managed for an Endangered, migratory songbird, the Kirtland's Warbler, which nests in young jack pine forests. This site demonstrates differences between natural patterns of fire in jack pine and patterns that have resulted from plantation management that has accommodated Kirtland's Warbler.

Kirtland's Warbler WMA is dominated by jack pine forests. Unlike mixed-pine forests at Seney NWR, jack pine



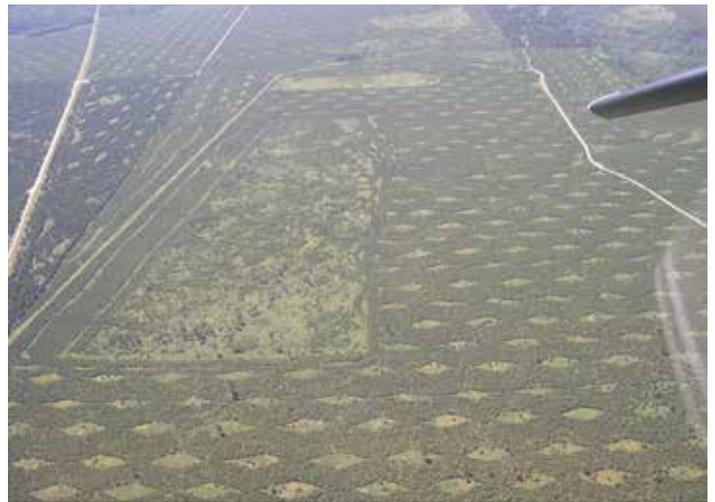
The Seney Wilderness Area has one of the best examples of a patterned fen in the Lower 48.

stands at the WMA were historically maintained by stand-replacing, crown fires that regenerated jack pine about every 35 years. However, unlike Seney NWR, the area around Kirtland's Warbler WMA is more populated, so prescribed fire is difficult to use. Fire suppression has led to the simplification of the landscape. Current studies at Kirtland's Warbler WMA are working on ensuring that habitat management approaches do not create a homogenized landscape (from focusing on needs of the warblers and not emulating patterns of natural disturbances, such as fire).

## References

Corace, R. G. III & Goebel, P.C. 2010. [An ecological approach to forest management for wildlife: Integrating disturbance ecology patterns into silvicultural treatments.](#) *The Wildlife Professional* 4, 38-40.

Corace, R. G., Goebel, P. C., & McCormick, D. L. 2010. [Kirtland's warbler habitat management and multi-species bird conservation: Considerations for planning and management across jack pine \(\*pinus banksiana\* lamb.\) habitat types.](#) *Natural*



Structural patterns of jack pine stands resulting from: prescribed fire (at left) and plantation management (at right) on the Kirtland's Warbler Wildlife Management Area.

*Areas Journal*, 30(2), 174-190.

[Seney National Wildlife Refuge Habitat Management Plan.](#) Planning document of Seney NWR.

Slaughter, B.S., & Cohen, J.G. 2010. *Natural community abstract for patterned fen.* Michigan Natural Features Inventory. ❖

## Bats in Peril Continued from page 13

White-nosed Syndrome has caused the death of over 5.5 million bats since 2006. White-nosed Syndrome does not affect people, however humans can transmit the disease. A good way to help prevent the spread of White-nosed Syndrome is to not enter caves or other areas that are known to have bat colonies. If you see a bat that may be infected with White-nosed Syndrome or if a bat is being active during winter, you should report it to your local state wildlife agency or a nearby U.S. Fish and Wildlife Service office. We must protect these amazing creatures who play a large role in insect control and that are a vital part of the ecosystem. ❖



Little brown bat with White-nosed Syndrome fungus on the wing. Photo: Ryan von Linden/ New York Department of Environmental Conservation

Seney National Wildlife Refuge  
1674 Refuge Entrance Road  
Seney, MI 49883



Answers: 1) Blue Vervain, @ Dawn Vervain, @ Seney National Wildlife Refuge; 2) Joe-pye Weed, @ Laura Gasaway, @ Seney National Wildlife Refuge; 3) Goldenrod, @ Jack Cook; 4) Humped Bladderwort, Sara Giles - USFWS; 5) Boneset, @ Dawn Vervain, @ Seney National Wildlife Refuge; 6) Evening Primrose, Sara Giles - USFWS