

Refuge News

Summer 2012 Newsletter

A Publication Funded by Seney

Natural History Association for its Members.

Seney Natural History Association

Table of Contents

Manager's Corner	1
Return of the Piping Plover to Whitefish Point	2
Children's Fishing Day	3
Volunteer Spotlight	4
Discover Seney Offers A Unique Look at the Refuge	5
Corrections and Announcements	5
Youth in the Outdoors	6
Satellite in Lake Superior, Huron NWR	7
Seney NWR Calendar	8
Join the Social Network	10
Nature Nut Column	11
Venation - Patters of Pipework	12
Great Lakes/St. Lawrence Seaway Symphony	13



Photo: Lake Superior Shoreline at the Whitefish Point Unit. Credit: Jeremy Maslowski, USFWS.

Photo: Mark Vaniman. Credit: Mike McCarthy, SNHA Intern.

Manager's Corner

by Mark Vaniman, Refuge Manager



As most of you may know I consider myself to be a very fortunate man. In addition to personal effort and a supportive family, I count a good measure of plain old luck in the fact that I ended up at Seney. Although I have never been on a bad refuge, this station certainly stands out among the top in a career that has spanned 28 years, seven states and nine refuges. All of the refuges on which I have worked have, in their own special way, been spectacular, and Seney is no different. One other commonality I have noted at all refuges is the people I have had the pleasure to deal with. I have been exposed to people who love the Service and people who hate the Service (hard to believe); people who like me and people who don't like me (even harder to believe) and people who become friends and people who are just friendly. In almost all cases, regardless of how we felt about where we were living, the thing that stands out the most in my memory is the people I dealt with – professionally and personally.

This is especially significant here at Seney where interactions with an eclectic mix of people and groups play a large role in the successes we enjoy here every day. Our networks within the Service and outside, professional ties with universities and researchers, interactions with state agencies, other federal agencies and non-governmental organizations all add to the efficacy of our efforts. Of course, an essay about human

Continued on Page 3

Seney Natural History
Association
Board of Directors 2012

President
Dee Phinney

Vice President
Tom Kenney

Treasurer
Nancy Strawe

Secretary
Joe Kolder

Directors
George Phinney
Pat Foldenauer
David Fleischmann
Liz Hill
Laura Gasaway

Book Store Manager
Claudia Slater

Refuge Manager
Mark Vaniman

Friends' Liaisons
Sara Giles
Jennifer McDonough

Friends Email:
snhafriends@gmail.com

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

Phone: (906) 586-9851
Fax: (906) 586-3700

Website:
www.fws.gov/midwest/seney

Refuge Email:
seney@fws.gov

Photo: Piping Plover Tracks in the
Sand. Credit: Jeremy Maslowski,
USFWS.

Return of the Piping Plover to Whitefish Point

by Jeremy Maslowski
Student Career Experience Program

As waves wash lightly along the cobble-lined shoreline, the 647 foot Great Lakes Freighter, Arthur M. Anderson, drifts by silently on the horizon. A few lone "peeps" are heard off in the distance and to the avid birder it is the distinct sound of the Federally Endangered Great Lakes piping plover.

The Whitefish Point Unit is a satellite unit of Seney National Wildlife Refuge located on the south shore of Lake Superior about an hour and a half northeast of Seney. This parcel of property on "the point" as it is often referred to, was transferred to the U.S. Fish and Wildlife Service in 1998 from the U.S. Coast Guard. It is a unique, 33 acre, stunted jack pine, gravely beach and sand dune-dominated habitat that acts as a funnel for numerous species of birds crossing Lake Superior each spring and fall.

From 1985-2008 piping plovers were non-existent at Whitefish Point, but in 2009, the first pair in 23 years nested and successfully fledged four young. Single pairs returned again in 2010 and 2011 and raised three chicks each year. Two-thousand and twelve has been a terrific year as the point saw four separate pairs of plovers utilizing the shoreline. In late May three of the four pairs nested on the beach and hatched 12 young, of which 11 fledged. Before each young plover reaches ten days old it receives its own distinct colored band combination which makes it easier to identify in future years. College students from Lake Superior State University in Sault Ste. Marie, MI monitor the beach at Whitefish Point, Vermilion, and Port Inland. As in-kind service for piping plover monitoring at Whitefish Point, Seney provides housing for the monitor who primarily works at Port Inland. The U.P. Land Conservancy monitors the beaches at Gulliver and Grand Marais. Piping plover monitors spend long days early in the summer walking miles of shoreline along Lakes Superior and Michigan looking for plovers and their nests. Once a nest is located an enclosure is put up to keep predators and humans away. About thirty days after nesting, young plovers will be scur-



Photo: Piping Plover.
Credit: Jeremy Maslowski, USFWS.

rying along the sand in search of an easy meal of insects. The young grow quickly and just forty-five days later they are able to fly and prepare for the 1,000 mile journey to the southeastern United States along the Atlantic coast for the winter.

The piping plover has come a long way since being listed on the Federal Endangered Species List in 1985. All of the efforts described have contributed to the growing population from an estimated 17 pairs in the Great Lakes region to a high of 71 breeding pairs in 2009. This is due, in large part, to monitoring by many dedicated employees and volunteers, predator and human exclosures, and a captive rearing program for orphaned piping plovers. The piping plover in the Great Lakes region is destined to make a comeback on many shorelines in the Midwest. ❁



Photo: Piping Plover.
Credit: Jeremy Maslowski, USFWS.

Manager's Corner **Continued from page 1**

interactions at Seney would be incomplete without mention of our volunteers. This group of more than 50 individuals and their concomitant mix of backgrounds and skills is an incredible resource. I am continually amazed by the hours donated to the Refuge and the work that gets done due to these donations.

The Visitor Center would not be open seven days a week were it not for volunteers, and our ability to hire interns would be severely hampered without the support of the Seney Natural History Association. There is also a lot getting done in the background with the maintenance of grounds and facilities, recycling and support for special events such as Children's Fishing Day. The list goes on and on. If you already volunteer I look forward to your continued efforts. If you are not a volunteer give us a call and I am sure we can find something interesting for you here. And – if you can't volunteer just give your support by being a good steward of this planet we call home and/or support SNHA. In fact, we have a great program called *Discover Seney* coming up August 15th geared towards people who are interested in volunteering at Seney or becoming members of the friends group. To (mis)quote Dave Mason, "let's get on board these *Relation Ships* and see where they take us." ❁

Children's Fishing Day 2012

by Dawn Marsh, SNHA Intern

The 23rd Annual Children's Fishing Day was a great success and everyone had a fantastic time. Of the 170 visitors at Seney NWR on Children's Fishing Day 2012, 72 were children registered for the fishing contest, the largest number in recent years. Forty-four fish were brought in for measurement. The largest pike was 28½" and the largest perch was 9½". Once the participants were done fishing they enjoyed games and activities, such as Pike Bite (our bean bag game) and creating their own fish. Many kids used their imagination to make alien fish with multiple eyes. Meanwhile, Seney staff and SNHA volunteers worked diligently to create a delicious meal consisting of fresh whitefish, rolls, coleslaw, beans, corn, and brownies. After dinner, certificates were given to the first, second, and third place winner of each age category for each species, pike and perch. Soon after, a raffle took place for prizes donated by local businesses. This year, local businesses donated over \$500 worth of supplies and prizes which allowed every child that participated to be a winner. ❁

Volunteer Spotlight

by Liz Hill,

Seney Natural History Association Board Member

You could probably count on one hand the number of people associated with Seney National Wildlife Refuge who don't know Jim and Margie Wicks. They've been volunteering here for well over a decade.

And if you don't know them, you probably know their work. It's all over the Visitor Center. This artistic duo carved and painted the loon on the Donation box at the Front Desk. Margie said, "The loon on the donation box is checking its nest below and is watching its nest egg grow!" They painted the four fish models hanging on the wall between the restrooms so that visitors could get a look at what they might catch, should they decide to drop a line during their visit. Then there's the background for the wolf exhibit. Margie painted that.

Both are retired state employees who now enjoy the Upper Peninsula and operate South Lake Decoys. "We both carve and paint the decoys," Jim said. "But I paint as far as I can before Margie says, 'Give me that before you ruin it.'"

In addition to their artistic contributions, they volunteer for special events at the Refuge including Children's Fishing Day and Scout Days. "I'm famous for my session on duck calling at Scout Day. But they never asked me again. I gave away 50 duck calls and it got a little noisy," he said with a laugh. They also worked at the information desk for many years and Jim takes full credit for the establishment of Donut Day Wednesday, an event he observed each week with gusto. ❁

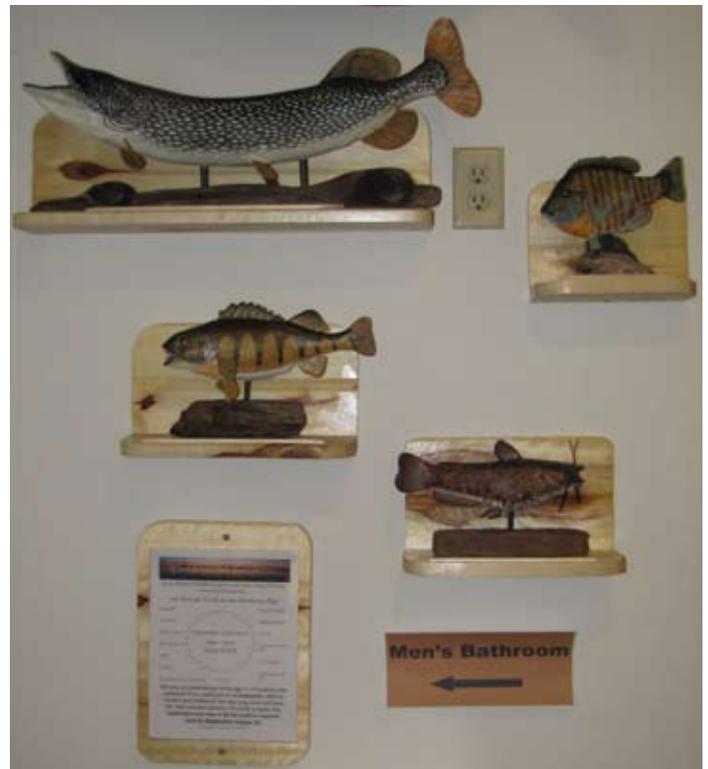


Photo: Donation box carved by Jim and Margie Wicks.

Credit: Sara Giles, USFWS.



Photos: Above: Wolf display. Margie painted the background. Right: Fish display, mounted and painted by the Wicks. Top to bottom - Northern pike, bluegill, yellow perch, and a brown bullhead. Credit: Sara Giles, USFWS.



Discover Seney Offers Unique Look at the Refuge

by Liz Hill,
Seney Natural History Association Board Member

Ever take the Marshland Drive auto tour at Seney National Wildlife Refuge? Ever wish you could see more of the 150 square miles of the refuge? *Discover Seney* is your chance.

Discover Seney is set for Wednesday, August 15. A maximum of 50 people will get an up-close and personal look at the nature, natural history and wildlife of this gem of the Upper Peninsula. The day-long event includes speakers, tours and hiking opportunities. The registration fee is \$5 and includes lunch.

Seney NWR Visitor Services Manager Sara Giles explained that the day is designed to offer a wide variety of opportunities to learn about the Refuge. Participants can choose from lectures on loons, wildflowers and creating diversity on the Refuge. *Seney Safari* and *Secrets of the Marsh* offer a glimpse into the backcountry environment. "If you like to walk, you'll enjoy both the *Birding by Sight and Sound* and Hardwood Forest hikes," she said. "We'll also have sessions on stewardship reforestation where you can help plant trees and a tour of the Pine Creek North wildfire. " Each participant will choose two morning and two afternoon sessions.

Lunch, which is included in the \$5 registration fee, will feature a panel of Seney Natural History Association members who will talk about volunteer opportunities at Seney.

Giles added that since attendance is limited, individuals interested in discovering Seney should register as soon as possible. The last day to register is Friday, Aug. 10. Register by calling 906-586-9851, ext. 10 or email Sara_Giles@fws.gov. ❁

Huron NWR Website

Huron NWR is the first of the Seney satellite refuges to receive its website makeover. Please feel free to check out the new website at www.fws.gov/refuge/huron. Still to come; Michigan Islands, Harbor Island, and Seney NWRs as well as Kirtland's Warbler Wildlife Management Area. ❁

Correction

The ABJ Loon

ABJ stands for "Adult Banded Juvenile". Due to an error in editing, the Spring 2012 issue stated that the loon was named after its three letter leg code which is incorrect. ❁

Announcements

Wildflower Trivia

Visitor Services Manager Sara Giles has created a *Wildflower Trivia* game. If you have a group that loves wildflowers, need a presenter at one of your club meetings, and are located within 100 miles of the Refuge, contact Sara to schedule an outreach program. You and your group will enjoy this fun and interactive program where wild and outlandish wildflower facts will keep you guessing. How long does a bee's tongue have to be to drink from a Dutchman's breeches? Do you know the carnivorous flowers of the U.P.? After this program you will be able to answer these questions, plus learn a host of other interesting facts about wildflowers that will open your eyes to a whole new world. Contact information - Sara_Giles@fws.gov or call (906) 586-9851 x10 to schedule your program. ❁

Thank You

We would like to thank our 2012 Children's Fishing Day sponsors: Seney Natural History Association, Big Cedar Campground, Northland Outfitters, Seney Party Store, Fish and Hunt Shop, JR's Sports Shop, The Trading Post, Top 'O Lake Sport Shop, Glen's Market, Holiday Station 155, Madigan's True Value, Bob's IGA, Wilderness Sport Shop, Snyder's Drug Store, Garden Sports Shop, and the Marquette Walmart. ❁

Youth in the Outdoors!

A New Program to Get Youth Outside!

by Mike McCarthy, Seney Natural History Association Intern



Photo: Nature Journaling.
Credit: Carol Campbell, Volunteer.

Youth in the Outdoors is brand new this year and will take the place of *Scout Day*. It will be held on *National Public Lands Day* - Saturday, September 29th, 2012. *Scout Day* has always been one of Seney's largest events, so opening the event to youth that may not be involved in scouting organizations was a clear choice when deciding how to market and enhance the experiences youth gain from this event.

In addition to opening the event to all youth ages 7 - 17, we will be offering sessions based upon what youth will encounter



Photo: Junior Fire Fighting.
Credit: Carol Campbell, Volunteer.

outdoors rather than on specific badge requirements. One big change we are going to make is the youth's schedule for the day. Participants will have a choice between a full day session, two half day sessions, four mini sessions, or a combination of one half-day session and two mini sessions. This new format will increase the amount of information and skills we can share in each session. One tradition that will continue is that all youth participating in the day will earn a *Youth in the Outdoors* patch.

Volunteers are needed to help with the following sessions: kayaking, canoe-



Photo: Trapping session.
Credit: Carol Campbell, Volunteer.

ing, hiking, backpacking, geocaching, Jr. fire fighting, wilderness cooking, registration, parking, lunch setup and serving for volunteers, and bus drivers. If you would like to help with one of these sessions please contact Mike McCarthy at 906-586-9851 x15 and he will be happy to talk to you about the program plan and sign you up to help.

Youth event registration is due September 14th.

More information will be posted on the Refuge's website in August.

www.fws.gov/midwest/seney ❁

Satellite in Lake Superior, Huron NWR

By Dawn Marsh, Seney Natural History Association Intern

As an intern, I was fortunate to have the opportunity to visit one of Seney's satellite refuges, Huron NWR, located in Lake Superior between Big Bay and the Keweenaw Peninsula. The day of the adventure, we packed up the 25' Boston Whaler and hauled it to a public access site in Big Bay. From the dock, we travelled 12 miles out to the Refuge. The ride gave us 45 minutes of spectacular views of the Huron Mountains, a chain of mountains that were once larger than the Rocky Mountains but have been eroded over time to large hills. Lake Superior was fairly calm; in fact, on the way to Marquette the lake appeared to be made out of glass, a rare sight on a lake so large.

Once we arrived at Lighthouse Island, one of the eight islands that make up Huron NWR we were greeted by our sign designating the islands as a National Wildlife Refuge. It lists the activities that you may choose to partake in while on Lighthouse Island. Lighthouse Island, the western most island, is 40 acres and is open to the public to visit via a private vessel. The remaining islands are designated Wilderness area and are closed to the public. To me, the island emanated a feeling of isolation. Couple that with the abandoned lighthouse and U.S. Coast Guard Station, and the whole place feels rather eerie. An old cement path leads you from the dock through overgrown plants teeming with pollinators, mostly bees, and takes you to the lighthouse. The lighthouse's construction, in 1868, was no easy task because of the steep cliffs and dangerous waters. The lighthouse is beautiful and looks like a scene out a movie because of the way it sits atop the rocky outcrops.



Photo: Lighthouse Island.
Credit: Sara Giles, USFWS.



Photo: Lighthouse.
Credit: Jeremy Maslowski, USFWS.

From the lighthouse, we continued to follow the path through the thick wild columbine that had taken the island hostage. A bald eagle had made a nest in one of the pines along the shoreline and had a couple of large eaglets poking their heads out. The path eventually led us to the bunkhouse and the fog signal building. Here the rails, which were put in place to allow supplies to get to the buildings, are visible. The far end of the island also has an old helicopter pad. At this point, the waves were starting to pick up and our stomachs were rumbling so we explored for a few more minutes, took some more photos, and made our way back to the dock. In the midst of exploring, we found an outcropping that had

Continued on Page 15

Seney National Wildlife Refuge

2012 General Calendar

Wildlife Wednesdays

Wednesday nights June – August
7 - 9:30 p.m.

Join us Wednesdays for an evening guided auto tour of the Refuge backcountry. We'll be on the lookout for a variety of wildlife while sharing Refuge history and management practices. Please meet inside the Visitor Center to coordinate vehicles, pick up binoculars, and begin the tour.



Photo: Wildlife Wednesdays.
Credit: USFWS.

Amateur Photo Tours

Most Thursdays June - September
7 - 10 a.m.

Join other amateur photographers to explore the Refuge, look for great shots, and share photos and skills. You should have a working knowledge of your equipment and come prepared for a variety of weather and bug conditions. Pre-registration is required by 4:00 p.m. the previous day. Call 906-586-9851 x 15. Meet at the Visitor Center.

Fire!

August 12, 20, & 26
2 - 4 p.m.

Fire at Seney has always been a common occurrence and vital need among most of our habitats. Come learn and see the effects of fire on a fire dependent landscape. View the Pine Creek North Wildfire from the Fishing Loop auto tour route; see the tools used in wild land fire suppression, and talk to us about, you guessed it, fire! This program is designed as an on-going discovery station located along the Fishing Loop so just stop by and stay as long as you would like.



Photo: Wildfire.
Credit: Sara Giles, USFWS.

Secrets of the Marsh

August 11 & 17
10 - 11 a.m.

"Gug glunk!" called the American bittern. You never know what you might hear along the Marshland Wildlife Drive. Join us as we learn about secretive marsh birds and other critters that can be found in Seney's marshes. Meet at the Visitor Center for a driving tour that will last roughly an hour.



Photo: American bittern.
Credit: Jennifer McDonough, USFWS.

Investigate Seney:

A mini inventory and sensory exploration of Refuge habitats.

August 13, 19, & 27
2 - 4 p.m.

August 18, & 24
10 a.m. - Noon

Join us for a trip to the "field" to inventory, identify and enjoy the plants and animals found in small designated plots. Besides the fun of discovering the biodiversity of a small space we will also be using the information we collect to enhance projects such as our species lists, herbarium contents, ebird list, and the Michigan Herp Atlas project. We will be outside for two hours so be sure to dress for the weather and insect conditions. Meet at the Visitor Center.

Monarch Madness

Sunday, September 2nd

9 a.m. - 1 p.m.

Would you like to participate in collecting and tagging monarch butterflies? Join us for this morning of monarch education and citizen science. We will start with an orientation session and then head to the field for about 3 hours.

Using Macroinvertebrates to Do Stream Assessment with Common Inexpensive Lab Equipment

Thursday, August 23rd

9 a.m. - 2 p.m.

Attention middle and high school science teachers or other interested educators. Larry Feldpausch, a retired high school science teacher, will be leading a macroinvertebrate workshop class. In this five hour workshop, you will learn how to involve your students in stream water quality assessment using animals from a stream. You will learn how to collect, sort and identify stream animals called macroinvertebrates. An assessment form is then used to determine the health of the stream. This is an opportunity to teach your students to become citizen scientists at a young age.



Photo: Larry Feldpausch assists kids with aquatic animal identification at Children's Fishing Day. Credit: Dawn Marsh, SNHA Intern.

Amateur Photo Contest

Deadline to enter is August 31

Did you get some great photos while enjoying the Refuge? Enter them in the amateur photo contest! In September, we will display all the entries in the auditorium and on the Seney Natural History Association's Flickr site, where visitors will vote for their favorites. When on display for voting, the entries depict an incredible array of Refuge experiences. Details can be found at the Visitor Center or on our website.



Photo: White Water Lily.

Credit: Conrad Warren, 2011 Photo Contest.

Youth in the Outdoors Day

Saturday, September 29

9 a.m. - 4 p.m.

This event is a spin-off from our annual Scout Activity Day event. This event is designed to get youth out into the Refuge to explore and learn. Participants will choose from a variety of full day, half day, or mini sessions. Full day and half day sessions will travel through the refuge by canoe, kayak, bike, or foot. Mini sessions will be located near the headquarters. The event is open to kids ages 7-17. Pre-registration and a \$5 registration fee is required by September 14th. Call the Visitor Center to be put on the mailing list to receive registration materials. 906-586-9851 x 15.



Photo: Archery.

Credit: George Phinney, Volunteer.

Continued on Page 10

2012 General Calendar
Continued from page 10

Science & Seney Series

Seney National Wildlife Refuge is offering a series of evening programs by guest presenters. This series of evening presentations covers a variety of topics including research and monitoring projects occurring on the Refuge. All presentations in this series will begin at 7:00pm in the Visitor Center auditorium.

Coyote Distribution and Feeding Habits in Southeastern, Michigan.

Thursday August 23
7 – 7:45 p.m.

Coyotes have readily adapted to areas dominated by humans and are the top carnivore in many major metropolitan areas in the Midwest. In the metropolitan area of Detroit, increases in coyote sightings and removal activities suggest that coyote abundance may have increased in the region. This presentation is about the assessment of the distribution and feeding habits of coyotes in the region.

Presenter: William B. Dodge, Ph.D.
Candidate, Wayne State University.

Sea Lamprey in the Manistique River Watershed.

Tuesday, September 11th
7 – 8 p.m.

While in the area treating parts of the Manistique River Watershed, staff from the Marquette Biological Station will provide a presentation about Sea Lamprey. Depending on the presenter the talk will focus on one of the following: General background of the sea lamprey control in the Great Lakes, Native lamprey history of the Manistique River, or past and present treatments of the Manistique River.



Photo: Fall Color Float.
Credit: Tom Kenney, SNHA Vice President.

Fall Color Float **Sunday, October 7th** **11 a.m. - 4 p.m.**

Join our staff for a 4-5 hour canoe/kayak trip down the Manistique River. Boat rentals are available locally. **Preregistration is required.** Call for details.

National Wildlife Refuge Week **Week of October 7th to the 13th**

Lace up your hiking shoes, strap on your bike helmet, grab your binoculars, launch your boat in the river, drive your car... whatever your passion, come to the Refuge and enjoy your great outdoors! ❁

Join the Social Network

Seney NWR has hosted three social networking sites since 2010. These sites have blossomed and grown into wonderful communication tools. We often hear how much visitors enjoy the updates on Refuge happenings. Today we have over 1,595 Facebook fans, 60 Twitter followers, and many more enjoy looking at the photos posted on our Flickr photo sharing website. If you haven't done so, Fan us on Facebook to stay up to date on the happenings at Seney NWR. Become our contact on Flickr and see up to date photos of the Refuge. ❁

www.facebook.com/seneyrefuge
www.flickr.com/seneynwr
twitter.com/usfwsseney



Nature Nut Column

Dear Nature Nut,
I've been seeing a lot of monarch butterflies around lately, and I am curious about how the population is doing. Has the population recovered from the "Big Freeze" at all?



Signed,
Curious Viceroy



Photo: Male Monarch Butterfly.
Credit: Carol Campbell, Volunteer.

Dear Curious Viceroy,

In the winter of 2002, tens of millions of butterflies, died as a result of an unusually cold storm. Over the years, the overwintering monarch population has fluctuated but recently the population has shown an overall decline.

This decline can be attributed to the loss of forested habitat in Mexico and milkweed habitat, as well as other nectar sources, in the United States. An increase in genetically modified corn and soybeans, in a once productive monarch habitat, has brought the overwintering population down to cover only 7.41 acres in Mexico for the 2011-2012 winter season. The average overwintering monarch population in Mexico from 1994 to the present has covered 17.3 acres and the average population from 2004 to the present has covered 10.3 acres. When I say "covered", I mean "covered". Ernest Williams, a conservation biologist from New York says that, "It's stunning, sometimes you look at a tree trunk

and you can't see the bark," and when the butterflies take off, "you can hear a whishing sound of their wings."

In an effort to reverse this decline, various programs like *Monarch Waystations* and *Bring Back the Monarchs* have been created. If you come to the Visitor Center, you'll notice that Seney NWR is a Monarch Waystation. It is an area that draws in many monarchs and other pollinators throughout the summer months.

According to *Monarch Watch*, the organization that created the *Monarch Waystation* program, the Waystations "provide resources necessary for monarchs to produce successful generations and sustain their migration." To create your own waystation, you can plant any of the following Upper Peninsula of Michigan native, plants: common milkweed, swamp milkweed, sand coreopsis, common boneset, Joe-Pye weed, big leaved aster, wild blue flag, rough blazing star, wild bergamot, black-eyed Susan,

Continued on Page 15



Photo: The whole Refuge is considered the Monarch Waystation. Credit: Dawn Marsh, Seney Natural History Association Intern.

Venation - *Patterns of Pipework*

by, Jennifer McDonough, Park Ranger

The veins of a leaf, which create intricate artistic patterns, are vital to the life of the plant. These veins are an important part of the plants internal plumbing. Veins are complex conducting tissues made up primarily of xylem and phloem which carry such essentials as water, minerals, and nutrients, throughout the plant. Xylem and phloem cells are connected end to end like pieces of pipe. The phloem tubes carry "food", created through photosynthesis, from the leaves down into other parts of the plant. The xylem tubes bring water and minerals from the roots up into the leaves.

Look closely at a leaf and you will see its pattern of pipework. This pattern, created by the veins, is called venation. There are a number of different types of venation, sometimes simplified into three basic types: reticulate, parallel, and dichotomous.



Reticulate venation of a mullein leaf.
Credit: Jennifer McDonough, USFWS.

Reticulate Venation

Reticulate venation is a net-like pattern typical, but certainly not limited to, the dicotyledons (flowering plants that have two leaves as a seedling). The mullein leaf is an example of reticulate venation.

Parallel Venation

Parallel venation has the veins lined up parallel to the midrib of the leaf. This pattern is typical of, but not limited to, the

monocotyledons (flowering plants that have only one seedling leaf). The cattail leaf is an example of parallel venation.



Parallel venation of a cattail leaf.
Credit: Jennifer McDonough, USFWS.

Dichotomous Venation

Dichotomous venation is like the branching of a tree. The veins branch off from one another but do not touch to create a net-like pattern. This pattern is much rarer but is seen here in the venation of the bracken fern. ❁



Dichotomous venation of a bracken fern.
Credit: Jennifer McDonough, USFWS.

Great Lakes/St. Lawrence Seaway Symphony

by Mike McCarthy, Seney Natural History Association Intern

What a summer it has been so far! Wow, a fire, trainings, and over 100 visitors a day for some time now. Although it's been crazy, I have enjoyed every minute of my time here! As we all know our little piece of heaven here in the U.P. is within a watershed and that watershed is within the Lake Michigan watershed or Lake Superior watershed. Those two watersheds make up, along with the other Great Lakes and countless other lakes along the way, the Greater St. Lawrence Seaway watershed. This is truly amazing to think about when you consider the amount of land that covers this area and the amount of water that drains from this land. I talk about this because in my previous job with the Bi-national Public Advisory Council for the St. Marys River Area of Concern (BPAC) we talked a lot about our watershed and how it's a part of a much, much larger watershed.

BPAC is a nonprofit organization of stakeholders along the St. Marys River on both the U.S. and Canada sides of the river. This group is part of a larger organization called the International Joint Commission which is an organization between the U.S. and Canadian that focuses on the clean up and protection of international waterways. The St. Marys River is one of those waterways and has been environmentally degraded over the past century from human development along the river. BPAC is one group of many here in Michigan that work on international waterways with local stakeholders to voice their concerns and work with local organizations on the cleanup of these sites.

This past February local stakeholders from the St. Marys River along with hundreds of other stakeholders that have interests in the Greater St. Lawrence Seaway Watershed met and discussed concerns and views of the watershed as a whole. This summit and group of people are now known as the Great Lakes/ St. Lawrence Seaway Symphony, the first of its kind. This group discussed their

vision for the watershed and what is important to us as land owners living in the watershed. The group discussed how they believe science initiatives are growing and showing positive results within the basin. However, but non-technical important aspects of science have not been voiced enough from the public and stake holders, and therefore a challenge was issued to local organizations to have our voices heard by responding to five simple questions:

What unites all of us who live in the Great Lakes/St. Lawrence system? What is important to us and what worries us regarding our waters? What do we want to promote? What is our vision for 2035? What actions should we take to make our vision come true?

Conveniently enough these questions can be answered by anyone at: lake-superior-section-glsls.blogspot.com, and more information about the symphony can be found at www.sie-isw.org/en/the-first-great-lakes-a-st-lawrence-symphony.

The symphony group plans to gather a group of 50 some delegates from this project. They will meet and develop a common vision statement that they will present at the annual meeting of the Great Lakes Cities Initiative which is a collaborative of mayors of Great Lakes cities.

It is one of my many interests to have people share their views of our natural resources and is the reason I chose to work for BPAC while I attended school. I hope some of you choose to participate and have your views expressed in this vision statement.

More information about the Bi-national Public Advisory Council for the St. Marys Area of Concern can be found at www.lssu.edu/bpac. ❁

Photo: Painted Turtle.

Credit: Atlee Hart, 2011 Photo Contest.



Pine Creek North Wildfire

By Sara Giles, Visitor Services Manager and Mike McCarthy, SNHA Intern

In the wee hours of the morning on Monday, May 21st, 2012, lightning struck igniting a fire in a section of the Refuge just north of the Fishing Loop. By the time the fire was reported to Refuge personnel, at about 2:30 p.m., over 60 acres had already burned and Refuge personnel sprang into action. The fire was promptly accessed, and plans were quickly made to put out the blaze.

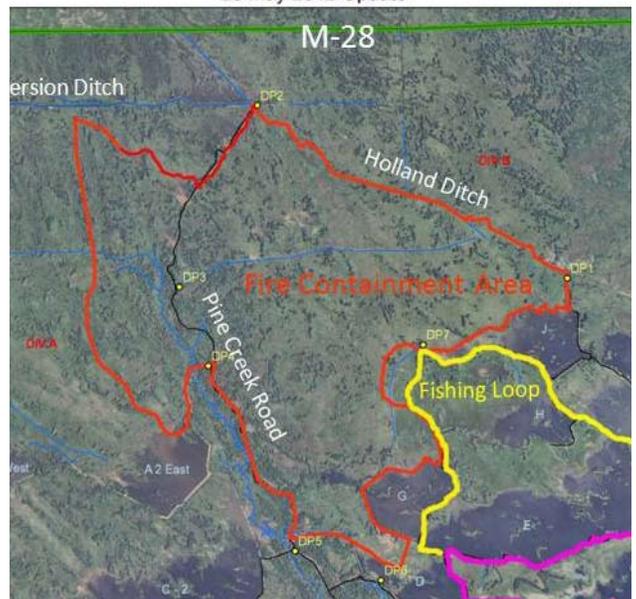
Fortunately, Refuge staff members are intimately familiar with the Refuge, and Fire Management Officer, Gary Lindsey, has spent many hours preparing for just such an emergency. Many areas of the Refuge have established fire plans which assist with managing a fire. With plan in hand, Gary and other fire personnel were able to effectively call in resources and begin to suppress the fire.

Sometimes the safest, easiest, most environmentally friendly and cost effective way to extinguish a fire is by conducting burn out operations. A burn out is when firefighters ignite fire inside a control line to consume fuel between the leading edge of the fire and the control line. On the Pine Creek North Fire firefighters used man-made and natural barriers such as streams, ditches, roads, lakes, etc., as control lines. By igniting fire along these features in a purposefully timed and controlled manner the fire fighters were able to burn out the fuel between these features using fire with less intensity than if the fire had burned up to them unchecked. During the Pine Creek North Wildfire, this practice was used to stop the fire from spreading past the Holland Ditch. The Refuge's pool system and the Fishing Loop road stopped the spread of the fire to the south.

On May 23rd, the fire made a run that threw burning embers a distance of ¼ mile across Pine Creek Road and Pine Creek igniting a spot fire. This occurred before the crews had time to complete the burn out operation along Pine Creek Road. The spot fire burned 400 acres before it was finally contained. Seven amphibious tracked vehicles, two CL-215 air tankers and a type 1 helicopter were used to help slow and eventually put out this fire. An effective technique used when dealing with this portion of the fire was to use compress lines where the tracked vehicles drove over marsh plants and pressed them into the water to help slow the fire's spread. These compressed lines were then burned out to create a barrier. Refuge managers also diverted as much water as possible into these wetlands to raise the water levels which helped stop the spread of the fire.

About one and a half weeks after the wildfire began it was considered contained. In the end, roughly 3,420 acres burned. It is important to remember that wildfire is a natural occurrence and vital for the health of most forests. Wild animals have evolved with fire and, if they are able, they walk, run, fly, swim or dig to escape. Over a century ago, wildfire spread through this area uncontrolled with few homes or buildings in its path, leaving the area revitalized and new. Today, we control wildfire to stop the damage it may cause to our communities. Fire isn't always bad for our environment; it's bad for us because we live among landscapes that need fire to survive. ❁

Pine Creek North Wildfire (Seney NWR, Seney, MI): 2012
25 May 2012 Update



Nature Nut

Continued from page 11

smooth aster, swamp aster, blue vervain, spreading dogbane, Labrador tea, red-osier dogwood, choke cherry, ninebark, and nannyberry.

Signed,
Nature Nut



Photo: Bald Eagle.
Credit: David Chase, 2011 Photo Contest.

Dear Nature Nut,

Do Bald Eagles swim? My friend said she saw one swimming, but I have never heard of such a thing.

Signed,
A Curious Friend

Dear Curious Friend,

What a great question! The answer is yes, bald eagles do swim. Eagles eat fish as well as lots of other things, so swimming is probably something an eagle should know how to do. When eagles are seen swimming it's usually because they fell into the water while fishing. In one case, in Florida, two biologists observed two eagles fighting and they both fell in the water. One eagle was able to take off again from the water, but the other eagle was waterlogged and had to swim to shore. It is really hard for an eagle to take off from the water, especially if they become saturated with water. Since eagles don't have the right type of feet for swimming, they maneuver through water by us-

ing their wings like oars on a boat. I hope that answers your question on swimming eagles. Now you can tell your friend all about swimming eagles.

Signed,
The Nature Nut

The questions in the Nature Nut column come from questions posed by visitors. This month the nature nut columns were written by Dawn Marsh (monarchs) and Mike McCarthy (eagles), Visitor Services Interns. If you have a question you would like the Nature Nut to answer email Sara_Giles@fws.gov. ❁

Satellite in Lake Superior, Huron NWR
Continued from page 7

been painted to read Huron Island from the lake. Now, the paint has faded, but the words are still faintly visible to boats that pass by.

On our way back to the dock, we stopped to observe the other islands that make up the Huron NWR. Cattle Island is 12 acres and received its name from the sinking of the *Arctic*. This ship was carrying roughly 65 passengers, 35 workers, freight, and cattle. All hands, including the cattle, made it to what is now known as Cattle Island. McIntyre Island is the largest island at 77 acres and contains many various habitats, including bogs. Gull Rock and several other unnamed granite outcroppings are rock islands that herring gulls have colonized. These gull colonies are one of the reasons the Huron NWR was established in 1938. If you are ever presented the opportunity to visit, I highly recommend it and suggest that you bring a camera. ❁



Photo: Herring gulls on Gull Rock at Huron NWR.
Credit: Sara Giles, USFWS.

Seney Natural History Association
 1674 Refuge Entrance Road
 Seney, MI 49883



Above: The group of staff/ volunteers that walked in the Curtis Parade on July 1st. Mark and Susan Vaniman deserve a pat on the back for their excellent Loon and Swan riding skills! Credit: Mike McCarthy, SNHA Intern.



Photos: Left: Bart Spratto driving the bus for Wildlife Wednesday tours and in the Manistique parade.

Above: Jeff Brockway and Allen Maves measure fish caught during Children's Fishing Day.



Above: Dawn Marsh (Visitor Services intern riding the loon) and Liz Hill (in center) walking in the Manistique fourth of July parade.



Left: A young angler with a Northern Pike. Credits: Dawn Marsh, SNHA Intern.

