Summer 2013 Newsletter

Refuge News

A Publication Funded by the Seney Natural History Association for its Members.

Seney Natural History Association

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Photo: Sunset Tamarack - Dave Chase, 2012 Photo Contest.
Photo: Mark Vaniman - Sara Giles, USFWS.

Manager's Corner

by Mark Vaniman

"It is apparent that the days of relatively high output are gone forever. The nearest approach to reasonable efficiency in this type of work unit is found in the use of its machinery; but little talent for construction, sloping, chopping, and sawing, and work of like nature exists in the present crop of CCC youths. Consequently the supervision and facilitating costs are much higher per head now than formerly. We know of several persons who use a factor of 0.25 in setting up man-day production estimates."

The above quote is from the first Refuge Manager, C.S. Johnson, who in 1937 was describing the Civilian Conservation Corps (CCC) from Camp Germfask. Mr. Johnson was an outspoken gentleman who was generally unafraid to speak his mind and some of his more notable quotes are summarized in a booklet *In the Words of "C.S." Johnson* compiled by Mrs. Elizabeth Losey. Manager Johnson followed the above quote in his 1939 Annual Narrative stating, "This report is closed in expressing to the leaders and men of the work organization, sincere appreciation for their high spirit and consistent efforts. The work record speaks for itself. To do less the next year, or to better the accomplishment is a matter of personal attitude."

From a cursory review of the booklet it appears that Mr. Johnson had mixed feelings regarding the CCC, however the work they accomplished is very evident on the Refuge today. All of the dikes and pools in Unit 1 are a result of their efforts and much of the infrastructure as one moves west across the Refuge was completed by the CCC.

So – why am I quoting Mr. Johnson? Because a lot of the hard work completed by the CCC under Manager Johnson is now being modified and even removed, using the guidance of our 2009 Comprehensive Conservation Plan which is based on our contemporary understanding of the natural world. In the nearly 75 years since Mr. Johnson wrote these words many changes have occurred to the natural world (including a dramatic increase in the human population) and many advances have been made in our understanding of the interactions between the biotic and abiotic. These management changes are not being done because what the CCC did was wrong, but because their efforts were geared towards a different goal – a more species-specific goal which has changed as we gain more knowledge of land management and head towards a more ecological and system based management scheme. Good examples of

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Photo: Morning Reflection - Canada Geese - Fred Gaunt, 2012 Photo Contest.

Seney NWR and Kirtland's Warbler WMA:

Species Centered or Ecosystem-Centered Land Management?

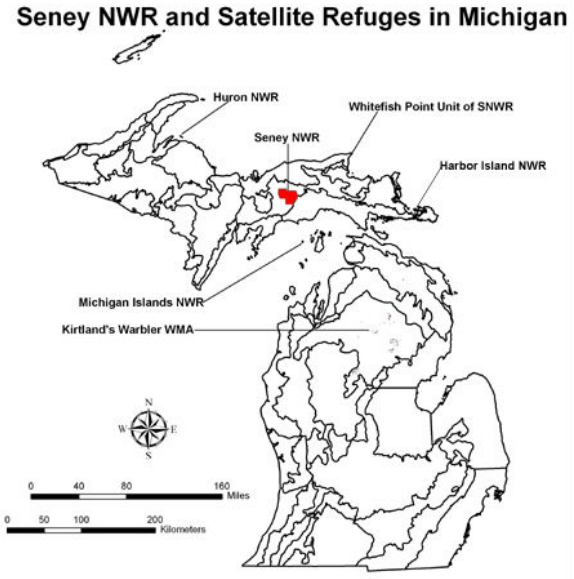
by Carolyn Fado, College of Wooster

Habitat and Ecosystem Management, Species and Ecosystems

Several factors must be considered when managing habitats and ecosystems. Habitats and ecosystems are not the same. The term "habitat" refers to the environment of a particular organism or species: food, water, cover. An "ecosystem" refers to a community of organisms and their systematic relationship with the surrounding environment. Scientists approach the preservation of biodiversity from various levels, including the species-level, the ecosystem-level, and the landscape-level. In a species-level approach, habitats are often managed to maintain or enhance individual species or populations. This approach could have unforeseen consequences, however, because it can simplify complex systems. Conversely, an ecosystem approach allows for the consideration of all of the organisms and their relationship with the surrounding environment, but it may bypass important aspects of the life history of a given organism. As a Refuge with little human disruption and thus one that can manage broad ecological processes (such as fire), Seney National Wildlife Refuge (NWR) is an ideal location for management from an ecosystem approach. The management at Kirtland's Warbler Wildlife Management Area (WMA) adopts a more species-based approach that focuses on an endangered migratory songbird, the Kirtland's warbler, but here too consideration of the importance of fire is necessary.

Seney National Wildlife Refuge

Seney NWR, located in the eastern Upper Peninsula of Michigan, is located within a regional landscape with low human population density and an abundance of public lands. Not surprisingly, Seney NWR has a high degree of ecological integrity. Compared to other Midwest Refuges, Seney NWR remains truer to what the ecology would have been prior to human intervention (European settlement); nevertheless, fire and hydrology have been changed from human intervention, and management focuses on the restoration of these important workings of the landscape.



Kirtland's Warbler Wildlife Management Area

Unlike Seney NWR, Kirtland's Warbler WMA consists of small parcels distributed across eight counties in the northern Lower Peninsula. This Refuge was founded to conserve endangered fish or wildlife or plants, and it particularly focuses on the Kirtland's warbler. This bird nests on the ground in jack pine forests.

Forest fire is important for biodiversity and restoration.
Photo: Sara Giles, USFWS

Before European settlement, jack pine forests and jack pine barrens dominated the area and wildfires produced these ecosystems which served as habitat for the warbler. After settlement, fire suppression led to fewer areas of dense, young jack pine and reduced the habitat availability for Kirtland's warbler.

Fire and Ecosystem Management for Seney NWR

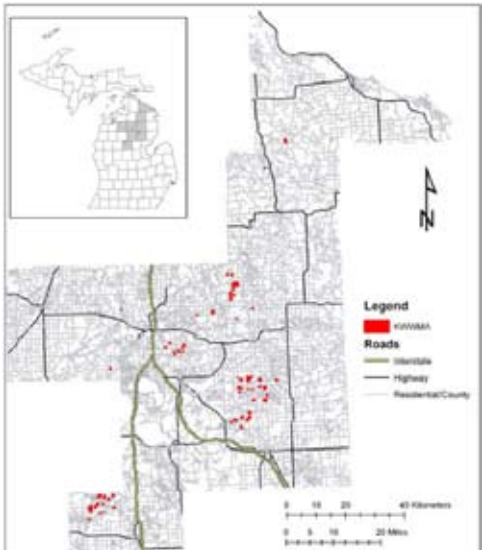
Prescribed or managed fire is an important tool for managers. At Seney NWR, fire can be used to restore or conserve many ecosystem types. Fire is an important disturbance that dynamically shapes the Refuge over time. Mixed- pine forests, for instance, need fire as an ecological disturbance in order to thrive; these fires do not kill adult trees, but only typically kill seedlings and some saplings.

Fire and Habitat Management for Kirtland's Warbler WMA

Because Kirtland's Warbler WMA is found within a more human-populated part of the state, prescribed or managed wildfire is not as viable an option for habitat management. Instead, older jack pines are cut down and jack pine seedlings are planted. Land managers are now trying to work on ways in which this management better mimics patterns that fire would create. Unfortunately, fire-adapted ecosystems and habitats, in the end, need fire.

Ecosystems, Always Important

In managing both habitats and ecosystems, it is important to consider the effect of management on the ecosystem as a whole. Unfortunately, we might simplify complex ecosystems by focusing on a particular species. Considering the ecosystem as a whole helps ensure a balanced community. At Seney NWR and Kirtland's Warbler WMA consideration of the effects of fires on ecosystems and habitats is essential. ❀



Kirtland's Warbler WMA in red.

2013 Youth Conservation Corp (YCC)

by Greg McClellan

The Refuge had a very successful YCC program in 2013. Much of the credit goes to our outstanding YCC crew leader, Mark Wilson, who was an excellent mentor and teacher to the kids. We also had four outstanding crew members, Greg Bowler from Seney, Tessa Gage from McMillan plus Brianna Rohr and Clarence Brock from Germfask. The two primary projects completed this year were adding an additional 278 feet to the length of the accessible portion of the Pine Ridge Nature Trail (for a total length of 1,478 feet) and building ramps at both ends of the two walking bridges at the west end of the Pine Ridge Nature Trail. Also, I want to thank Refuge volunteer Dave Fleischmann for assisting in construction of the ramps. Several times during the summer, the crew broke up and cleaned away beaver dams blocking water control structures or bridges including the bridges on the nature trail.

The crew did an excellent job throughout the summer in maintaining Refuge facilities including brushing out hiking trails and fire lines, replacing and brushing out signage, cleaning the accumulated dirt, gravel and pine needles on Refuge bridges and water control structures, including unclogging drainage holes. The crew removed debris and picked up litter at various places including the new Helmstrom addition up at Whitefish Point. The crew also treated all wooden railing systems with water sealer on all Refuge bridges and water control structures and removed the bases for the observation scopes on the Marshland Wildlife Drive's observation decks. The crew assisted with putting up and taking down items for Kids Fishing Day.

Thanks to the assistance from staff with the Applied Science Program, Fire Program and Visitor Services Program, the crew was exposed to and given multiple opportunities for environmental education. These included surveying colonial nesting birds, monitoring of nesting piping plovers; observed part of the M-2 to T-2 west prescribed burn, snag ecology and management, invasive plant management and ecological restoration. This part of the program was a big improvement

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Manager's Corner
Continued from page 1

these changes can be found in the Walsh Ditch project initiated in 2002 and the recently completed Riverside Dike Project. Both projects were initially conceived by former Refuge Manager, Mr. Michael Tansy, and were followed up by Refuge Ecologist Dr. Greg Corace. Working with colleagues at Michigan Technological University, Greg, Dr. Thomas Pypker, and Ph.D. Student Ms. Meral Jackson designed a research project that integrated the treatment designs of the Refuge Maintenance Staff. Treatments started in earnest on July 15 and our maintenance crew (Rich, Matt, Don and Jim) have spent most of their recent work time on this month-long project.

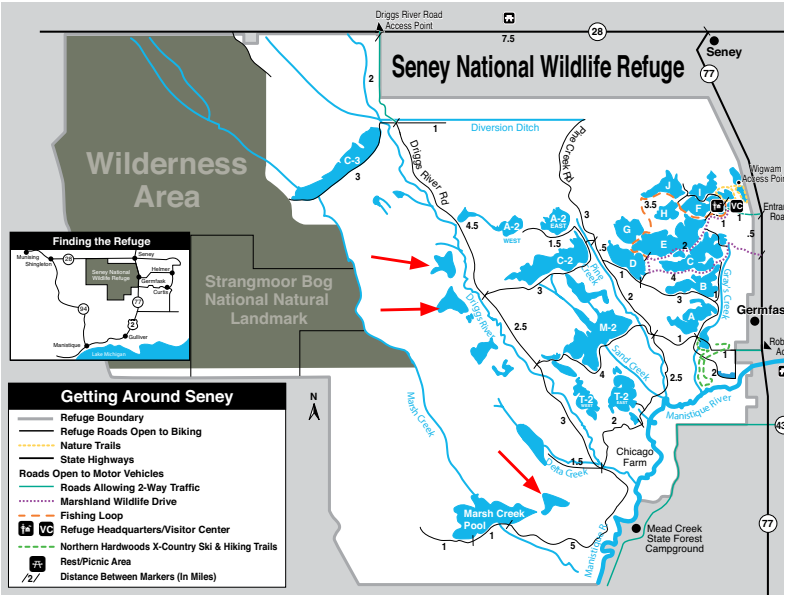
Ditches and dikes constructed by the CCC have changed the hydrology of the landscape by intercepting and redirecting groundwater and surface water movement. The restoration objective of this project was to install water crossings through the Riverside Dike to restore the pre-drainage hydrology. Meral has been collecting pre and post construction data on the three sites along the Riverside Dike, with a more northern "control" site. On each of the three sites the dike was breached and a low water crossing built. These cuts are designed to reduce the surface acreage of open water in the pools above the cuts and convert the open water areas to a mosaic of open wetland, lowland coniferous forest, and scrub-shrub vegetation. These changes are expected to restore groundwater levels and vegetation to roughly pre-drainage conditions. Meral's research will provide the information to determine what has happened on the short term as a result of our efforts.

This project, which is taking place in a relatively inaccessible area of the Refuge, is guided by our 2009 Comprehensive Conservation Plan and the more recently completed 2013 Habitat Management Plan. These documents provide long term guidance for making management decisions on the entire Refuge and are available online at our website: www.fws.gov/refuge/Seney/what_we_do/conservation.html

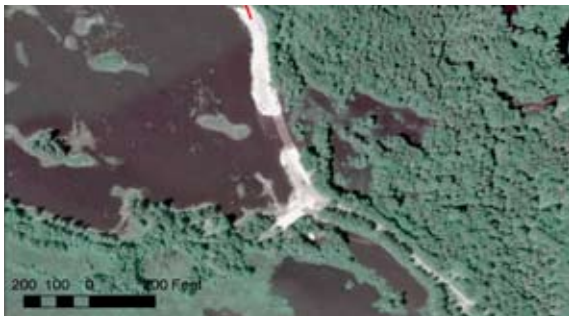
Published papers, theses, and dissertations regarding these and other projects on Refuge lands are found at: fws.gov/refuge/Seney/what_we_do/research.html

Mr. Johnson may have had misgivings about the CCC crews of the day, but these misgivings are not shared by this writer with our current staff – this project enjoyed a minimum 1.25 person/day production factor. We are working hard and using the considerable talents of our staff to make Seney NWR the example for quality and innovative land management for the attainment of our mission goals. ❀

Riverside Dike Low Water Crossing Project



Red arrows point to the affected pools.



An aerial photo of the new low water crossing at Big Spur Pool. Notice the water is flowing over the top of the crossing, to the Driggs River.

A view from ground level of the completed low water crossing on Big Spur Pool. These low water crossings will help restore pre-drainage hydrology to the area near the Driggs River.

Riverside Dike south crossing. Looking from the south side to the north. Basically, a hole is dug where the crossing will go. Then, filter fabric is laid to help stabilize the road bed. Next, rip-rap is put in place to complete the road bed.

Marsh Thistle

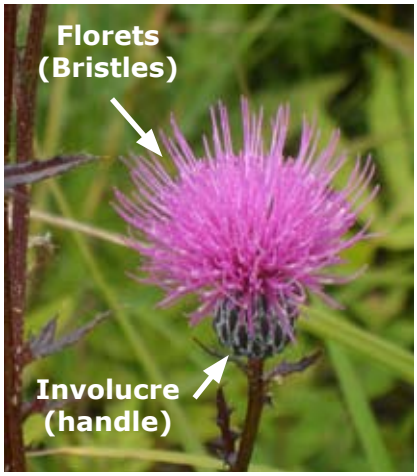
by Jennifer McDonough

Swamp Thistle Plant.
Credit: Steve Gasaway.

"I know of no object more unsightly to a careless glance than an empty thistle-head. Yet, if you examine it closely, it may remind you of the silk-lined cradle in which a prince was rocked." – H.D. Thoreau (1860)

Probably very few of us stop to admire the thistle. In fact, other than being turned off by the thistle's prickly architecture it likely receives no more than the careless glances suggested by Thoreau. When one does stop and examines thistles closely, as might a black swallowtail butterfly or a goldfinch, one begins to notice structural details and differences among individual species.

Take for example the native swamp thistle *(Cirsium muticum)*; becoming acquainted with this species will likely result in wet feet for it is one of few thistles in our area that habitually grows in wetlands. An encounter with a swamp thistle during its first year of life will mean squatting down to examine its rosette of spiny leaves. However, during the swamp thistles second summer you will be able to make your examinations standing up for its stem will have grown up from the rosette and the flowers will be forming near eye level. This biennial life cycle is typical of many thistles.



Swamp Thistle Flower Head.
Credit: Steve Gasaway.

When observing swamp thistle's flower heads you should take note of their shape and structure, which resemble a shaving brush with rose-purple bristles and a round to oblong handle. The "bristles" are actually florets, individual flowers forming a dense cluster that appears to be one flower. The "handle" of this species (botanically referred to as the involucre) is decorated with a white woolly pubescence or cobwebby like white hairs, but no spines, which are both distinguishing identification features. As summer wanes, a fluffy mass replaces the rose-purple bristles as each of the florets progresses to become a seed with a silky strand attached. These silky filaments are lifted away by the wind, dispersing the seeds. Like the wind, goldfinches will also break apart these fluffy heads to eat the seeds or use the filaments for nest construction.

Swamp Thistle Seed Heads.
Credit: Laura Wong.

When your attention is no longer held by the flower take stock of the stem below. The swamp thistle's stems are relatively unarmed compared to our other wetland thistle, the non-native marsh thistle *(Cirsium palustre)*, whose stems are equipped with spiny wing-like leaf bases. And the fact that swamp thistles do not grow in colonies like the non-native, upland, Canada thistle *(Cirsium arvense)* means you can meander around single stems rather than trying to avoid a thick patch of prickles.

Should you notice a thistle while exploring a fen, conifer swamp, sedge meadow, moist forest or water's edge consider glancing less carelessly and examining more closely the thistle's structural characteristics and wildlife visitors. Have you found a native marsh thistle or one of the exotic species? Can you recognize the décor on the handle of the "shaving brush"? Are the stems spiny? What insects are visiting it? Take

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Visitor Center landscaping looking better than ever thanks to volunteers!

by Jennifer McDonough

If you have been to the Visitor Center this summer you may have noticed that the flower beds are actually weeded regularly, the trees are trimmed and more non-native plants have been removed and replaced with native species. Other recent enhancements include an artistic sign holder and plant identification labels. All this great work has been completed by volunteers. Laura and Steve Gasaway have given many hours to regular maintenance of the flower beds, searched out a perfect limb for the butterfly sign and hand made all the identification labels, Vern and Sherry Metzger have conscientiously trimmed trees and Joanne and John Kleis are continuing the battle against invasive plants around the Visitor Center and the Pine Ridge Nature Trail. Thanks to all these folks for creating and maintaining a good looking entry space for our visitors. ❀

Marsh Thistle
Continued from page 5

a moment to become acquainted. Who knows, maybe, like the regal fritillary, you too will find something worthy of a prince. ❀

Swamp thistle stem.
Credit: Steve Gasaway.

Marsh thistle stem.
Credit: Steve Gasaway.

Canada thistle colony.
Credit: Steve Gasaway.

Left: Plant markers created by the Gasaways.
Credit: Jennifer McDonough, USFWS.

Right: Visitor Center Landscape.
Below: Monarch Waystation.
Credit: Jennifer McDonough, USFWS.

Friends of the Refuge

by Nancy Strawe and Tom Kenney

The Seney Natural History Association (SNHA) is one of the oldest U.S. Fish & Wildlife Service "Friends" groups in the nation. The organization was established in 1987, assumed operations of the bookstore and from then on committed all of its proceeds toward support of the Refuge. Through 2012, SNHA has provided approximately $500,000 to the Refuge to enhance its biological and public use programs.

In 1993, SNHA began funding the internship program to provide opportunities for students wishing to gain experience in natural resource management. In 2009, at a cost of $60,000, they funded the production of the orientation film, *The Wonder of Nature*, shown at the Visitor Center.

Each year, approximately 50 SNHA members volunteer to help the Refuge by staffing the Visitor Center, collecting biological data, performing maintenance and assisting with office work.

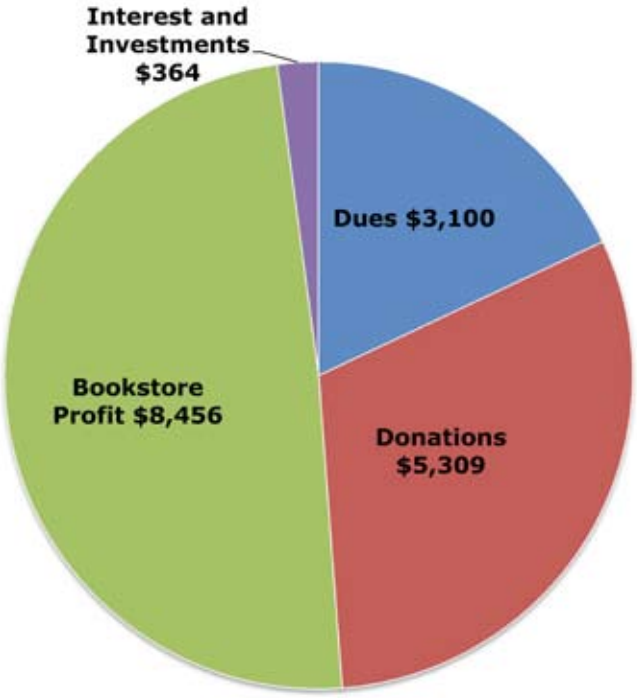
At the present time, the association has a total of 230 memberships which represent individuals, many families and some businesses. Membership dues and donations, along with profits from the bookstore sales, are vital to the association's goal of promoting and supporting the future needs of the Refuge and its visitors. SNHA wishes to thank its members for their past support and encourage them to please consider an additional tax-exempt donation. Seney Natural History Association is a 501(c)(3) non-profit organization. ❀

Back Row: Liz Hill, Laura Gasaway, Dave Fleischmann, George Phinney. Front Row: Treasurer Nancy Strawe, Vice President Tom Kenney, President Dee Phinney, Secretary Joe Kolder. Not Pictured: Pat Foldenauer. Photo: Sara Giles, USFWS.

Seney Natural History Association

November 2012 through July 2013

Incomes



Expenses

Youth in the Outdoors

by Ronald Allen

This years *Youth in the Outdoors* is planned for Saturday, September 28th. Formerly known as *Scout Activity Day* the event name and philosophy has changed a little bit to include all youth. We are planning to have 70-100 kids at the event. With 10 different activities offered throughout the day, there should be plenty for the kids to choose from.

Activities will include half day and mini sessions. If you have kids of your own, grandkids, friends with kids, or you are a kid, and you want to participate, please look over the activities available on pages seven and eight then cut out the attached registration form found on page nine and return it to the Refuge.

It should be a lot of fun. We look forward to seeing you in September! ❀

2013 *Youth in the Outdoors* Sessions

PLEASE REMEMBER: THIS IS A RAIN OR SHINE EVENT AND THE LONGER 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 (approximate ages 8 and up). Please help your kids choose sessions appropriate to their abilities.

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; BCS – Bear Cub Scout; WEB – Webelos; BS – Boy Scouts; BGS – Brownie Girl Scout; JGS – Junior Girl Scout

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

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

Half Day Sessions:

Biking at *Youth in the Outdoors*.
Credit: Jan Barrett

Adventure Through Seney

Spend half a day embarking on an active adventure by kayak, foot and bicycle through a small portion of the Refuge. Youth will be introduced to the basics of kayaking, will hike through wildlife habitat, and bike on two-track roads. All kayaks and bicycles will be provided. **Participants must wear closed toe shoes and clothing appropriate for the weather and be physically capable of 3 hours of activity.** An additional fee of $20 is required to help cover the costs of renting equipment. (If you have a bike you are willing to bring, use, and let the other session borrow let us know.)
BS – Cycling 7; JGS – Sports Sampler, Adventure Sports 3 & 6

Fishing

This half day fishing session is one that will include more than just wetting a line. Participants will practice both spin casting and fly casting, learn knots for tying on hooks and lures, be introduced to seeking out good fishing spots, learn to properly remove fish from hook, see how to gut, clean and prepare a fish for cooking, and maybe even cook some fish on the spot for eating!
BCS – Requirement 23c; Fishing Belt Loop; WEB - Fishing Belt Loop; BS – Fishing 1 - 9; Fly Fishing 1 - 9; Wildlife Management 7; Nature 4; JGS – Environmental Health 10; Sports sampler 4

Pond and Stream Safari

Life below the water is fascinating. This session will take youth to two different aquatic habitats to collect and investigate aquatic insects, crustaceans, mollusks and other invertebrate life. Youth will discover the diversity of life in aquatic habitats and learn the importance of these macro invertebrates as water quality indicators. **Youth will need to bring waders and/or a change of clothes and shoes because they will be partially in the water while sampling. Youth should also bring drinking water and outerwear that will keep them comfortable for the weather conditions.**

WEB – Naturalist 4, 8 & 11; BS – Wildlife Management 6; Insect Study 2, 4 & 11; Nature 4; JGS – Wildlife 4, 7 & 8

Pond and Stream Safari Half Day Session - Youth in the Outdoors Activity. Photo: Jan Barrett

Mini Sessions:

Nature Journaling/Drawing

Youth will get to make their own nature journal, learn journaling tips and start making observations and recording perceptions about the natural world around them.

Birding

Lace up your hiking shoes and take a tour with some of our local Refuge birders in search of some of Seney's avian inhabitants. Along the way learn about bird habitat, behavior, breeding and chick rearing. Youth will have the chance to identify and learn about the birds they see, while taking in the sights and sounds of the Refuge. Youth will learn binocular use.

WCS – Elective 13d; BCS – Sharing Your World with Wildlife 5d; WEB – Naturalist 4, 6, 8 & 10; BS – Bird Study 3 - 7; Nature 4; Wildlife Management 6; BGS – Earth & Sky 5; Animals 2; Watching Wildlife 2; JGS – Wildlife 4,7 & 8

Amphibians

Join a local naturalist as you learn about native amphibians of the Refuge. The amphibians will include frogs and salamanders.

WEB – Naturalist 4 & 8; BS – Reptile and Amphibian Study 1 - 4, 7 & 9; Wildlife Management 6; Nature 4; JGS – Wildlife 4 & 8; Plants and Animals

Nature Photography

Join a local nature photographer to work on image composition and wildlife photography ethics. Participants need to bring their own cameras and know the basics of how to use them. (Geared towards kids 10 and older.)

BS – Photography 1 - 4, Mammal Study 4b; JGS – Your Outdoor Surroundings, Camera Shots 4

Outdoor Cooking

Food always tastes better when cooked in the great outdoors! Here is a chance to try out several different methods and recipes. Mmmm yummy.

BGS – Ready, Set, Go; Camping 3; JGS – Outdoor Cook 1, 3 & 5

Archery

Archery. Credit: Jan Barrett

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

WCS – Elective 20a; BS Archery 1, 2, 3 & 5; JGS – Sports Sampler 4; Your Outdoor Surroundings 5

Short Sessions:

Tracking and Trapping

Here is a chance for youth to spend a little time with an experienced trapper and learn a few tricks of the trade. Trapping involves understanding habitats and animal behavior and is an interesting part of our history. Youth will explore beaver and muskrat habitat and be introduced to how and where to set traps to effectively catch these species. **Youth should bring boots to keep your feet dry in shallow water and outerwear that will keep them comfortable for that days weather conditions.**

BS – Mammal Study 3 & 4; Nature 4; BGS - Watching Wildlife 1

Name: _____ Phone #: _____

Address: _____

Email: _____ Age: _____ Grade: _____

Please mail and return this sheet with your $5 (check or cash) non-refundable registration fee by **SEPTEMBER 23rd!**
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 and any additional fees must be paid the day of the event or before the event.***

Rank your session choices 1 – 10 with 1 being the session you would most like to take. We will make our best effort to get you into your first choices, but session choices are made on a first come first served basis. *Remember that if you choose a half session you must be prepared for extended physical activity and current weather conditions.*

#	Half Sessions	#	Short Sessions	#	Mini Sessions
	Adventure Through Seney *		Tracking and Trapping		Outdoor Cooking
	Fishing				Nature Journaling
	Pond and Stream Safari				Birding
					Amphibians
					Archery
					Nature Photography

	Mini Sessions 45 minutes	Short Sessions 1hour 45 minutes	Half Day Sessions 2hour 45 minutes
8:00 am - 8:45 am	Registration		
9:00 am - 9:45 am	Session 1	Session 1	Session 1
Break			
10:00 am - 10:45 am	Session 2		
Break			
10:00 am - 11:45 am	Session 3		
11:45 am - 1:00 pm	Lunch		
1:00 pm - 1:45 pm	Session 4	Session 2	Session 2
Break			
2:00 pm - 2:45 pm	Session 5		
Break			
3:00 pm - 3:45 pm	Session 6		

* Additional fee is required.
See session information sheet for more information.

New Brochure

Seney National Wildlife Refuge - Whitefish Point Unit has a brand new general brochure and it looks great. Sierra Utych's photo of a piping plover which was entered into last year's photo contest graces the cover. See the new brochure at www.fws.gov/refuge/seney/publications.html.

Nature Nut Column

Dear Nature Nut,

A few days ago, my friend and I were waiting for the Visitor Center to open and we noticed a number of ducks swimming in a nearby pool. The ducks appeared to all be female wood ducks and we realized that we had not seen a brightly colored male lately. Where have all the males gone?

Signed,
Curious Visitor

Dear Curious Visitor,

Excellent question! The male wood ducks are still around, but they have transitioned into what is known as their "eclipse" plumage. Birds annually undergo molts that occur at specific times during the year that vary depending on the species. For example, species in the *Anatinae* subfamily (true ducks) exhibit prominent sexual dichromatism that varies in intensity throughout the year.

Common *Anatinae* ducks on the Refuge include wood ducks and mallards. For instance, the wood duck male is brightly colored with an ornate design from late fall to the following July. This colorful plumage is considered to be the bird's "alternate plumage". Having bright feathers is one of the many ways a male will attempt to attract a female for the breeding season. Soon after breeding, the male wood duck will transition from the alternate plumage into its "basic plumage", which is also known as the bird's "eclipse" plumage. The eclipse plumage is similar to the plumage of a female wood duck which can make it difficult to discern the bird's sex.

Male Wood Ducks in Eclipse Plumage.
Photo: Alexandra MacKenzie

During the molting process, the male becomes flightless for roughly three weeks as the wing and tail feathers are replaced. The nondescript appearance of a male in eclipse is presumed to be a form of defense from potential predators such as great horned owl, mink, raccoon, and fox. The male wood duck will retain the eclipse plumage from midsummer until autumn. Another species on the Refuge, the blue-winged teal, is unusual because it retains its eclipse plumage well into the winter months. Males aren't the only ones who experience plumage changes throughout the year. Females also undergo the molting process, but the changes in their plumage are difficult to discern.

Sincerely,
The Nature Nut

Dear Nature Nut,

Where are the moose when I visit Seney National Wildlife Refuge? When I am in the UP, and at a WILDLIFE Refuge, I expect to see a moose. This cannot be too much to ask.

Best,
Common Tourist

Dear Tourist,

To answer your question, I, the Nature Nut did some studying to determine where all those moose are located today. The history of moose in Michigan goes back nearly to the end of the last ice age. At a time when the Native Americans were the only ones to traverse the land, now known as Upper Peninsula of Michigan, moose traveled freely. Moose at this time would have been the most common hoofed animal in the boreal and coniferous-deciduous forests of Michigan (both upper and lower peninsulas). With the introduction of the European immigrants the moose population took a pronounced decline in population. The decline of moose was not entirely due to hunting, many anthropogenic (man-made) factors have influenced the decline. As logging grew to a grandiose scale vegetation changed and the moose's habitat was altered. Forests were turned into fields, uncontroled slash fires burned out of conrol and the area where moose could thrive shrank.

As time has gone on there have been a few attempts to reestablish the pre-European moose population. With a very successful cohort of moose on Michigan's Isle Royale the Michigan Department Natural Resources (DNR) decided to relocate 69 of them to the Upper Peninsula in the 1930's. The transplanted population held on for a few years, but eventually died off. With one failed attempt, it was a whole 40 years before another was initiated. Continued research helped land managers understand ideal moose habitat and another attempt to reestablish moose in the U.P. ensued.

In the 1980's there was a collaborative effort by the Michigan DNR and Ontario Ministry of Natural Resources to reestablish a moose population in Marquette County. Within 3 years, 59 moose were captured in Algonquin Provincial Park, Ontario, Canada and relocated to Marquette County. The moose population was expected to grow to 1000 animals by 2000. This goal was not accomplished but the population has held on successfully, ranging from 400-500 animals.

Moose principally occupy the northwest corner of Marquette County, where they were released. Other moose have traveled farther east into Schoolcraft, Luce, Chippewa and Mackinaw Counties.

Several moose sighting this spring and early summer caused a buzz on the Refuge. Refuge manager, Mark Vaniman spotted the moose first through the Refuge

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Children's Fishing Day 2013

by Dawn Marsh

The 24th Annual Children's Fishing Day event was a success. This year, 101 children participated, the highest participation since 2004, and approximately 225 fish dinners were served. Ninety-seven fish were brought in for measurement. The largest pike was 29", caught by Josh Monroe, and the largest perch was 9 ½", caught by Kaylie Gould. After testing their skills along the Fishing Loop, participants were able to practice their casting upon their return to the Visitor Center as part of a new game that was created this year by Ronnie Allen. Additional games and activities, such as *Pike Bite* (a bean bag game) and *Pin the Fin on the Fish*, were held in and around the Visitor Center. While the children and their families exchanged fishing stories and explored the Visitor Center, Seney staff and SNHA volunteers worked diligently to create a delicious meal consisting of fresh whitefish and lake trout, rolls, coleslaw, beans, corn, and brownies. After dinner, certificates were presented to the first, second, and third place winner of each age category for pike and perch. A raffle for prizes donated by local businesses was held soon after. This year, local businesses donated over $700 worth of supplies and prizes.

A special thank you to this year's donors:

Big Cedar Campground, Northland Outfitters, Seney Party Store, Fish and Hunt Shop, JR's Sport 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 (Newberry), Garden Sports Shop, and Wal-mart (Marquette).

Children at Fishing Day.
Photo: Jan Barrett.

Nature Nut
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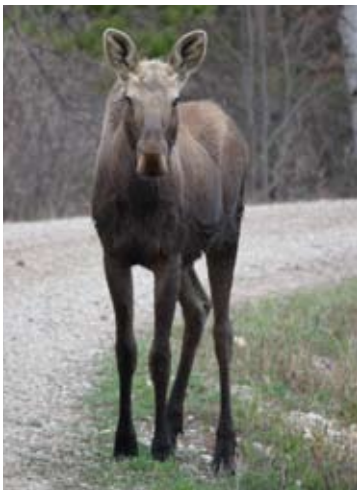
Headquarters office windows. He began yelling "moose, moose, moose! Come on!" So all staff members and interns went running outside and caught sight of a yearling bull moose. Several other sightings have occurred on the Pine Ridge Nature Trail, M-28, and the Marshland Wildlife Drive. Most Refuge sighting of moose are in spring and fall.

Good Luck,
The Nature Nut

The questions in the Nature Nut column come from questions posed by visitors. This month the nature nut column was written by Dawn Marsh (wood ducks) and Ronald Allen (moose), Visitor Services Interns. If you have a question you would like the Nature Nut to answer email Sara_Giles@fws.gov. ❀



Yearling bull moose seen several times this spring. Photo: Greg Corace, USFWS.

Youth Conservation Corps
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over previous year's efforts.

We thank the crew for all the hard work this summer and wish them all the best in the future and hold out hope that we might be able to rope Mark Wilson into returning next summer as the YCC crew leader again. ❀

Greg Bowler, Clarence Brock, Brianna Rohr, Tessa Gage and Emilar Gavard. Photo: Mark Wilson, USFWS.

Manistique River Clean-up

by Ronald Allen

On July 20th the Refuge hosted its first Manistique River Clean-up. The clean-up drew 21 volunteers to the unusually high river to help out. In order to cover 25 miles of river we divided up into two groups. One group covered the 10 miles of the north section and collected one full bag of trash. The second group covered 15 miles of river, most of which was within the Refuge area, and collected two full bags of trash. There were a couple items that exceeded our carrying capacity and were left behind (these items were sections of wood dock or similar boards). The project was funded through the Michigan Department of Environmental Quality. Germfask Township was the official grant recipient but worked with the Refuge to organize and host the event. With a grant of $845, and a >50% match from the Refuge and volunteers hours, all boats, lunches, and gifts were covered with no additional cost. Thank you to everyone who helped out. ❀

Seney National Wildlife Refuge
2013 General Calendar

Morning Tours
September 20 & 30, October 7 & 18
10am to 12:30pm
Would you like to get more out of your trip to Seney National Wildlife Refuge? Some wildlife can be difficult to see, but trained staff and volunteers know where to look or listen. Join us mornings at 10:00 am to experience a guided tour of the Refuge. The tour will take approximately 2 to 2 ½ hours. We will be on the lookout for a variety of wildlife while sharing information on the animals we see, the history of the Refuge and current management practices.

Amateur Photo Contest
Last day to enter is August 31
The purpose of the contest is to encourage you to visit and enjoy the Refuge. When on display for voting the entries create an incredible array of Refuge experiences. Details can be found in the Visitor Center or on our website.

Youth In the Outdoors
For elementary age boys & girls
Saturday, September 28th
9am to 4pm
On September 28th, 2013 the Refuge will host *Youth in the Outdoors*. This event is a spin-off from our annual *Scout Activity Day.* The day is designed to get youth out into the Refuge to explore and learn. Participants may choose from a variety of sessions. The event is open to kids ages 7-17. **Pre-registration and a $5 registration fee are required. Some activities may have an additional charge.**

Fall Color Float
Saturday, October 5
11am to 4pm
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 (906) 586-9851 X15.

Float on the river - Tom Kenney.

National Wildlife Refuge Week
Week of October 13 to the 19
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!

Behind the Scenes...
Summer Lecture Series
Thursday September 12th
7:00pm - 8:30pm
This year, the Refuge is offering a series of evening programs from guest presenters. This series of evening presentations covers a variety of topics including research and monitoring projects occurring on the Refuge. All presentations will be located in the Visitor Center auditorium.

Thursday's Programs Include:
Wetland Restoration Effects on Hydrology, Water Chemistry, and Gas Flux in Seney National Wildlife Refuge
Seney National Wildlife Refuge is dominated by wetlands interspersed with upland forests and other cover types. The wetlands have been heavily impacted by human activities, such as the series of dikes constructed to create pools for waterfowl habitat. The dikes have intercepted normal ground and surface water flow and have changed the hydrology and carbon dynamics of the system. This study is examining current hydrology and carbon dynamics and how they change when hydrologic function is restored to pre-dike conditions. Results to date will be presented.
Presenter: Meral Jackson, Doctoral Student, Michigan Technological University

What's In The Air?
Most visitors expect clean air and good visibility in wildlife refuges but Seney is affected by regional urban and industrial areas and biomass burning. Air pollutants can harm natural and scenic resources in the Refuge such as surface waters, plants, soils, fish, birds, animals, and visibility. In 1978, Congress acknowledged the uniqueness of the Seney Wilderness Area by naming it as a Class I air quality area and since 2000 the US Fish and Wildlife Service has worked with several other programs to monitor and better understand air quality at Seney National Wildlife Refuge. This presentation will provide an overview of the air quality monitoring program at the Refuge.
Presenter: Jim Patton and Don Gardner, Air Monitoring Station Volunteers, Seney NWR

Fire tower,
© John Hysell

Summer help on the Refuge

by Ronald Allen, SNHA Intern

This summer the Seney Natural History Association was able to fund four interns. With four interns working for the Refuge the full-time personnel are able to accomplish more work. Having interns work with the staff is similar to a symbiotic relationship. The Refuge staff receives much needed help from the up and coming interns while the interns earn the experience needed to start work in their field.

So some of you may be wondering, 'What in the world do those 'interns' do all summer?' The answer is: not much. No, no, no. I'm kidding of course. We do a lot more than you may think we do. There are times that I feel like I have not done a darn thing for a couple weeks. In the eyes of our trusted supervisors they see four little angels diligently at work.

Two of those wonderful interns work in the Applied Sciences Program with Greg Corace. Their work for the summer has included nightjar surveys, frog and toad survey, invasive plant management, marshbird survey, and many other tasks. Emily is now off to graduate school pursuing a M.S. in Wildlife Conservation. Nick will stick around a little longer and is awaiting word on a few job inquiries.

The other two interns, Dawn Marsh and Ronnie Allen, worked in the Visitor Services Department with Sara Giles and Jen McDonough. While working as a Visitor Services intern at the Refuge can be the most fun, there are many days that last 12 hours. Work for the Visitor Services interns included the 24th Annual Children's Fishing Day, 4-H camp, Youth in the Outdoors, Urban/Multicultural Day, Wildlife Wednesday Tours, Monday Morning Tours, school field trips, local library programs, festivals, volunteer socials, and the list goes on. Dawn's best memory after working at the Refuge was this year's Curtis Parade when Mark Vaniman (Refuge Manager) dressed up as an ovenbird and rode a bike. Ronnie enjoyed working with the volunteers and what fascinated him the most was how much people love the birds and wildlife here.

Two additional helpers, who were rarely seen, except for their excellent work, were Vern and Sherry Metzger. These two wonderful resident volunteers dedicated their summer to helping Seney. Embarking on a great migration from Texas they first found Seney to be a little chilly. Their work for the summer has included helping the maintenance department mow the lawns and roads on the Refuge, painting, posting and fixing signs, etc. With their hard work we had another structurally sound summer on the Refuge.

Of course we cannot forget our 60+ volunteers who helped out this season and every other season. Volunteer work included working the front desk, inventory, stocking merchandise, invasive plant management, cooking for volunteer socials, gardening, and so many other great deeds. Their work as always is invaluable.

This could not have been done without the guidance and support from the Refuge staff. The Refuge staff is always there to aid everyone in making sure we accomplish our mission. ❀

Another Productive Year for Piping Plovers

by Greg McClellan

The Endangered piping plover *(Charadrius melodus)* had another productive nesting season at the Whitefish Point Unit for the fifth year in a row (2009-2013) after a 25 year absence. As was the case in 2012, we again had three successful nests in 2013 with 11 eggs hatched and 10 chicks fledge. In 2012, 11 chicks fledged.

This year we had a total of four nests, but one nest failed as the female of the pair was predated upon by a merlin. The eggs were recovered and taken to the captive rearing facility at the University of Michigan Biological lab near Pellston, but the eggs were not viable. The male from the pair tried to pair with other females, but was unsuccessful. This was the first documented predation of an adult plover by a merlin at Whitefish Point since we began monitoring nesting plovers in 2009. In past years, all the plover nests were on the main point out from the bird observatory birding shack. However, we had one nest on the beach area between the main point and the new Helstrom addition this year. One of the chicks was prayed upon by an unknown predator. The plovers used the new beach acquired in the Helstrom addition to feed. In addition, two captive reared chicks were released at Whitefish Point. In previous years we had posted and closed the beach around the main point, but with the new addition, we also closed the beach south to private property, including the beach encompassed by the new Helstrom addition.

As in years past, plover monitoring was conducted by technicians hired by Lake Superior State University (LSSU) and who were stationed at Vermillion, west of Whitefish Point, and also monitored the plovers at Whitefish Point. In exchange for the monitoring at Whitefish Point, the Refuge provided housing at our River Road Quarters for one plover tech hired by LSSU who monitored nesting piping plovers at Port Inland. Thanks to LSSU for all the work they do in monitoring the plovers at Whitefish Point. ❀

Piping Plover. Photo: Sarah D'Angelo.

The Creighton at Night

by Dawn Marsh, SNHA Intern

Eastern Whip-poor-will.
Photo: Laura Gooch, Flickr Creative Commons.

This summer I was presented the opportunity to assist the Applied Sciences Program interns on a number of surveys conducted during the field season: frog and toad, secretive marshbird and nightjar surveys. Of these surveys, the Michigan nightjar survey was the most memorable for me because of its protocol and species of focus. Nightjars, or goatsuckers, comprise the family Caprimulgidae (cap-rim-mole-ja-die) and are described as, "nocturnal birds with ample tails, large eyes, tiny bills, large bristled gapes, and very short legs". In the Upper Peninsula, two species of nightjars can be found: whip-poor-will and common nighthawk. These two species are commonly identified at night by sound. The whip-poor-will repeats its name vigorously over the course of the night and the common nighthawk will make a "peent" sound similar to that of the American woodcock. The survey is sponsored by the US Fish & Wildlife Service and is a project of the Michigan Bird Conservation Initiative and its partnering agencies and organizations. The purpose of the survey is to gain a better understanding of the nightjar population in Michigan, as their nocturnal habits make it difficult to obtain reliable population estimates during the Breeding Bird Survey (BBS).

The surveys are conducted from late May through early July while the moon is at least 50% illuminated. The route follows preexisting BBS points and is a total of 10 points spaced one mile apart. The Creighton route begins near the Seney NWR sign along the Creighton Truck Trail. Surveyors must begin at least 15 minutes after sunset and end no later than 15 minutes before sunrise. At each point, the surveyor stops and listens for six minutes. During this time, each individual that is calling is noted each minute interval with the direction the sound is coming from. The survey is generally completed in ninety minutes.

Common Nighthawk.
Photo: Jason Crotty, Flickr Creative Commons.

Nick Marengo, Applied Sciences intern, and I went out May 25th and June 17th to conduct the surveys. The first run resulted in whip-poor-wills and common nighthawks, as well as, a deafening chorus of spring peepers that was present at the majority of the stops. The second run of the survey proved to be more exciting due to an increase in the number of whip-poor-wills heard along the route. I have a slight fear of things jumping out at me, so I was thankful that I was assisting Nick. At roughly the fourth stop, we got out of the truck and had just started our six-minute listening period when something in the woods began running towards us. Of course, Nick grabbed the flashlight and tried to find it while I tried to ignore it, not wanting to know what it was. Our best guess was that it was only a white-tailed deer, but we like to tell people that it was a wolf or a bear. The next point proved to be even more heart-pounding. We stopped, got out, and started listening just as another critter ran towards us. This time the animal was closing the distance between us rapidly and gave us no indication of stopping. All of the sudden, a snowshoe hare bursts out of the woods into view and scampers across the road right in front of us. Seconds later, three more hares leap from the woods and sprint after the initial hare. The excitement and relief of knowing that it was only a passel of hares resulted in hysterical laughter from one of the interns, not telling who. The rest of the survey was uneventful in that regard, but it was always entertaining to hear whip-poor-wills overlapping their calls and creating a musical round. At the final survey point, the International Space Station passed overhead and then vanished into the starry sky.

The survey was a great opportunity to gain field experience and a greater appreciation for all that the Refuge has to offer.

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

Bookstore Sale!

Starting August 30th
15% off Storewide
25% Inventory Reduction on Select Merchandise
40% Off Sellout Items
Stop by and save!!!

Normal SNHA Members Discount of 10% is not cummulative.

Photo Contest!

Don't Forget! Photo Contest Entries Must be Postmarked by August 31st.
We look forward to seeing your photos!

Buckeye. Photo: Barbara Hysell

Goldenrod. Photo: Jack Cook

Beaver. Photo: Sigurd Utych