



Missisquoi Matters

is the quarterly newsletter of the Friends of Missisquoi National Wildlife Refuge, Inc., a non-profit 501(c)(3) organization, dedicated to promoting a better awareness, appreciation, conservation, and responsible utilization of the Missisquoi National Wildlife Refuge.

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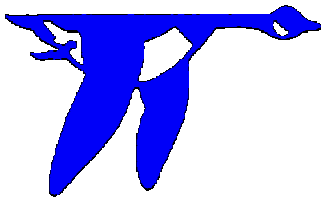
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Newsletter edited by Ken Copenhagen

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MNWR HQ hours are
Monday thru Friday
8:00am – 4:30pm
Saturdays
10:00 am – 2:00 pm

Manager's Update – August 2016

by Ken Sturm, Refuge Manager, Missisquoi NWR

Summer at Missisquoi is always a busy time for the refuge staff. Given the short growing season it is always a task to fit in all the project work we plan and squeeze in those new projects that seem to present themselves each year. In looking back at this summer's field work and emphasis for the biological program, I can truly say that it has been a season of invasive species.

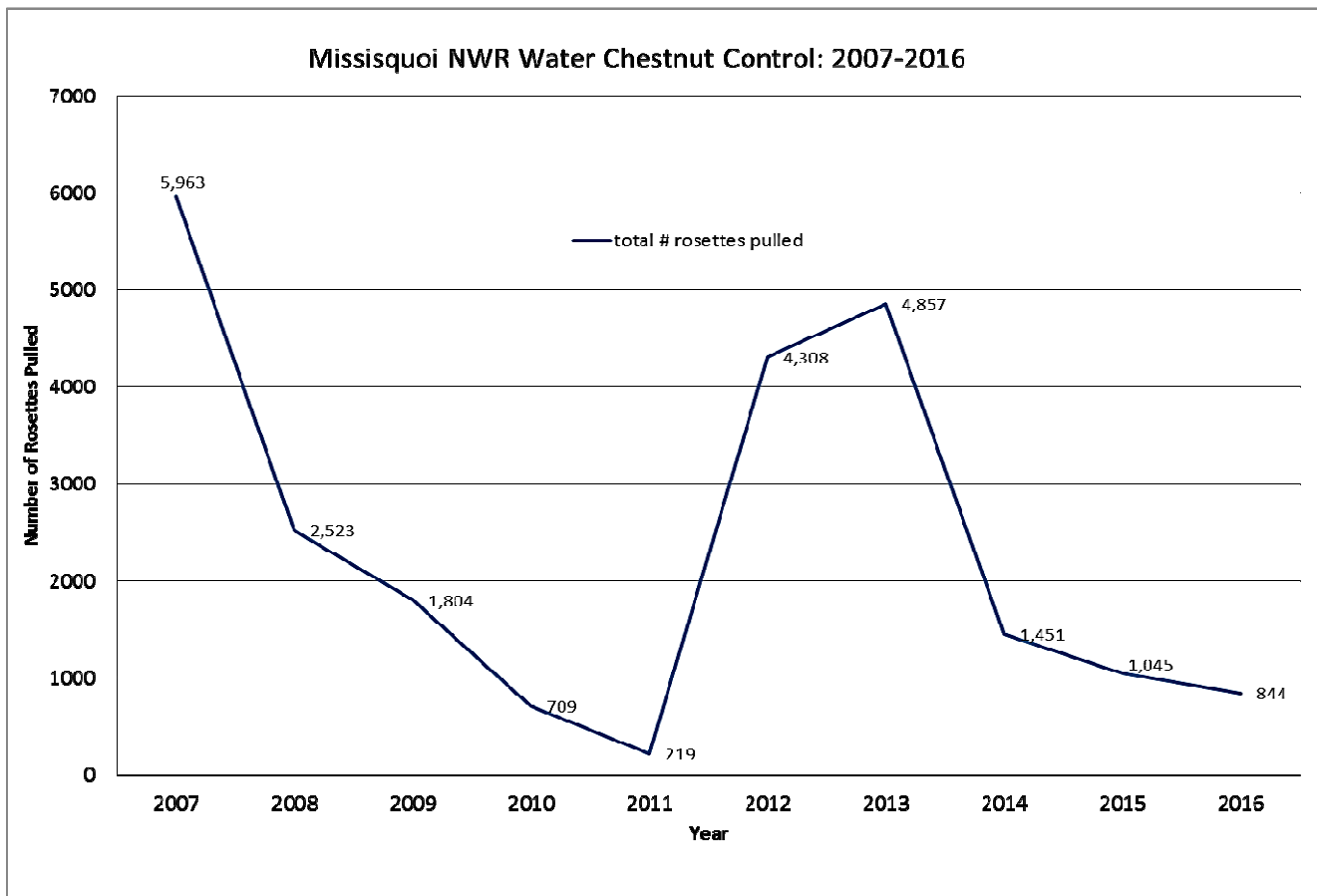
This is not to say the refuge staff doesn't spend considerable time *every year* managing non-native invasive plants, it's just this year we have an added emphasis. In part this was due to a regionally funded inventory project to map invasive plants. This project utilizes iPad and remote GIS technology to create the refuge's first ever comprehensive survey for invasive plants in the floodplain forest. Primarily the crew is looking for Japanese knotweed, *Phragmites*, and yellow iris. Funds were used to hire two biological technicians, Katie Leuenberger and Megan Kane. By using the iPad the crew methodically searches 50x50 meter squares within the forest for these invasive plants. Once found, they fill out a datasheet right on the iPad, which uploads directly to the refuge's online GIS site. In this way the refuge can prioritize management and have confidence in assessing the amount of invasive species in this habitat type.

The season also has been busy due to an increased effort to control for the ever-encroaching noxious weed, wild (or poison) parsnip. This plant has become much more common not just on the refuge but throughout New England. It is particularly nasty as it can cause severe skin irritation if handled improperly. The refuge controls a variety of invasive species to reduce impacts to natural biological diversity and help improve wildlife and native plant habitat. Each year it seems a new threat rears its ugly head, requiring more time and effort (and of course money!) to maintain the refuge's natural biological integrity, diversity, and environmental health.

Many of the invasive plants the refuge has been fighting are on land; however one has received extra emphasis in our wetlands. This is of course the pervasive water chestnut (*Trapa natans*). It grows prolifically in wetland habitats, out-competes native plants, limits light critical to the aquatic ecosystem, and can quickly dominate the floating aquatic mat habitat. Missisquoi's population of water chestnut is the northern-most site in Lake Champlain (in Vermont), but significantly separated from the

other lake infestations in the southern part of the lake. As such it has been the subject of great interest by the refuge and the state to prevent spread into other areas in the northern lake.

Thanks to a grant provided to the Friends of Missisquoi NWR from the state of Vermont we were once again able to have contractors work on the refuge to remove this invasive plant. This summer the contractors worked 14 days from mid-July to early August to hand pick water chestnut “rosettes” on the refuge. The good news is that overall numbers of rosettes are down to the third lowest number in almost 10 years. The bad news is that it still persists in some of the most vital habitat areas on the refuge—Cranberry Pool and Big Marsh Slough. We are grateful to have the Friends of Missisquoi NWR support these efforts! Here are the results of the past few years of Friends-sponsored water chestnut control:



Aside from invasive plants, so much more has been going on this summer. The refuge hosted a local Youth Conservation Corps crew this year that helped improve trails, improve refuge waterfowl banding sites, and maintain a variety of infrastructure. The Refuge has increased its outreach with the Swanton Public Library and has hosted library youth groups on site as well as given presentations at the library. We feel this is a great way to get the refuge and wildlife into the town of Swanton rather than always asking local residents to come out to the refuge.

We again worked with the Friends, Northern Forest Canoe Trail, and LLBean to put on our third “Family Paddle Day” in August. Although there were some “hiccups” the program was again a success and we have already heard from a family that attended who are planning to purchase a canoe for family outings as a result! We look forward to continuing this event in future years. (Continued on next page.)

This year was also a trial year to host a day “camp” at the refuge. We worked with Dr. Fred Wiseman who, with the Friends, received a grant to develop a “Culture and Ecology” camp. Thanks to the grant the program was free to kids 15-18 years of age. We had a great group who enjoyed learning about the geomorphology of the Missisquoi Delta, ways to differentiate and identify Native American stone tools, how to identify, press and mount plant specimens, and much more.

We thank the Friends and all of our volunteers and partners who have helped make this an incredibly productive summer. It is always amazing to me to see the ways in which our many volunteers step up to help. We really couldn't do it without all of you. And with that I will put in a plug for our annual Volunteer Dinner – this year being held on September 21 at 6 pm at the Franklin County Field Days Grounds again. I hope to see you all there!

FRIENDS OF MISSISQUOI NATIONAL WILDLIFE REFUGE

Bi-monthly Board Meeting

Wednesday, September 14, 2016 at 6:30 pm

At the Refuge Visitor Center

Members are always welcome to attend. Come and see what the board is planning and contribute your ideas.

Next meeting: Wednesday, November 9, 2016 at 6:30 pm

Snakes...on a...What?

by Judy Sefchick Edwards, Wildlife Biologist, Missisquoi NWR

Who would have thought that snakes, of all creatures, would be so fascinated by transportation? I'm not talking about the rapid slithering or slinking they do on land, or even the skiing and sliding they do in lakes and rivers. I'm speaking of the types of transportation that humans use too. Understandably, “*Snakes on a Plane*” made even the most secure folks a bit nervous. Then there's the lesser-known, possibly even scarier, sequel that came out this summer.

The day started out innocently enough. The task at hand: pick up thirty-some bags of Japanese knotweed cuttings left on the bank of Dead Creek a few days earlier. Upon arrival, the very full, sometimes torn, awkwardly shaped bags were heaved over the bank and loaded onto the boat. Simple enough; now it's back to the refuge headquarters. Despite looking like a garbage barge, and puttering along at a ridiculous rate due to the heavy load, nothing else seemed unusual. Then the

screaming began. Was that a tiny head, with a flickering tongue, poking out between the bags? No, surely not. I look again and see one, then another, then one more, until I finally lose count. Oh-oh, only look if you dare: It's “*Snakes on a Boat*,” right here at Missisquoi National Wildlife Refuge!

Snakes have a dreadful reputation, mostly for...well, just being snakes! The common garter snake is no exception. Having the widest distribution of any North American snake, and found practically everywhere, garter snakes are encountered by almost everyone, whether they like it or not. Don't believe the rumors: They aren't slimy, they lack aggression (i.e., no ‘bad hair days’), and they don't chase humans, because they're too busy fleeing from them. Believe it or not, YOU are the scary one!

Although garter snakes are usually dark with three longitudinal light stripes, they can vary in coloration and pattern, just to keep you guessing. They may seem huge and Anaconda-like to tree-huggers who

aren't snake-lovers, but the average length of a garter snake in Vermont is just 28 measly inches, with males being smaller than females. If that wasn't enough to make you feel silly, a typical garter snake only weighs five ounces, and most live only a few years.

There's no denying that the common garter snake is not just your typical snake in the grass! Found in all sorts of habitats, it prefers to live near water, making the refuge's floodplain forests, creeks, fields, and wetlands perfect habitat—lucky us! Living further north than any other garter snake, the common garter has a plan for winter: It hibernates in stream banks, natural cavities, burrows, or even man-made structures, like the stone wall at the refuge headquarters building. Because it's cold-tolerant, this spirited serpent may be out-and-about from March to November, making it one of the first snakes to emerge in spring, and one of the last to hibernate.

Did I mention that common garter snakes love company? During winter, they huddle together in hibernacula. If they can't find their own species, no problem, as any old snakes will do! Ophidiophobiacs (those who fear snakes) beware: One limestone sinkhole in Manitoba is reported to

host more than 8,000 hibernating snakes—the ultimate overwintering party!

Colossal clusters of snakes in the spring indicate emergence from a nearby overwintering site. I witnessed this amazing spectacle first-hand along the Old Railroad Trail. Males are the first ones out, but once joined by females, they form large mating aggregations with frenzied courtship and behavior. Afterwards, they disperse to summer feeding grounds, often miles away. If that wasn't enough, female common garters have been known to produce as many as 70 live young (though the average is 7 to 20), each being 5 to 9 inches long at birth!

To end this story, the only thing I can think of, is that the “Snakes on a Boat” were first “Snakes in a Bag,” seeking warmth and shelter during a cool summer evening. Little did anyone (or any snake) know they'd eventually be tossed, stacked, and taken for a boat ride! Don't be concerned—no snakes were harmed in the production of this film. Instead, they were gently tossed overboard to swim back home. Although not everyone on the boat was thrilled by the day's events, I smiled the entire way back. Just another escapade, all in a day's work, at this desk job I have at Missisquoi National Wildlife Refuge.



Garter Snakes peaking out from the stone wall outside the Refuge Visitor Center



Fall Activities Schedule at Missisquoi National Wildlife Refuge

29 Tabor Rd.
Swanton, VT 05488

All programs and tours are free, but registration is required where noted.

Monthly Nature/Photography Walks 1st Saturday of each month, 9:00 to 11:00 AM

Join Friends of Missisquoi NWR members Joe Belanger, Mark Batchelder, and Bob Chaperon for nature/photography walks on various refuge trails, held the first Saturday of each month. Registration is not required. The schedule for the next three months is:

September 3: Jeep Trail. Meet at the Louie's Landing boat access area on Rte 78. We will drive in to the trail head at Mac's Bend.

October 1: Stephen Young Marsh Trail. Meet at the parking lot on Tabor Rd, about a mile past the refuge Visitor Center and across the road from the marsh.

November 5: Maquam/Black Creek Trail. Meet at the parking lot located on Rte 78 approx. 2 ½ miles west of Swanton.

Monthly Bird Monitoring Walks 3rd Saturday of each month, 8:00 to 10:00 AM

Friends of MNWR members Ken Copenhaver and Julie Filiberti will lead bird monitoring walks year-round on various refuge trails on the third Saturday of each month. The purpose of the walks is to gather long-term data on the presence of birds, their abundance, and changes in populations. Observations are entered into the Vermont eBird database where data is stored by the Cornell Lab of Ornithology and the National Audubon Society. These walks are appropriate for birders of all skill levels and provide a wonderful opportunity to learn about birds throughout the seasons. **After 77 months of walks we have recorded 143 species of birds.*** Registration is not required. The schedule for the next three months is:

September 17: Stephen Young Marsh Trail. Meet at the parking lot on Tabor Rd, about a mile past the refuge Visitor Center and across the road from the marsh.

October 15: Railroad Trail. Meet at the parking lot on Tabor Rd, about a mile past the refuge Visitor Center and across the road from the marsh.

November 19: Maquam/Black Creek Trail. Meet at the parking lot located on Rte 78 approx. 2 ½ miles west of Swanton.

***During the past 3 months we added 3 new species to the list: Golden-winged Warbler, Swainson's Thrush, American Kestrel, and Blue-Gray Gnatcatcher.**

Other Fall events will be posted on the Friends website as soon as dates are known.

To check for any schedule changes or additions, visit the Friends website at

www.friendsofmissisquoi.org and click on "Calendar."

For more information about the refuge, visit www.fws.gov/refuge/missisquoi/

Look Up. That Bird Was Probably at a Wildlife Refuge

*By Cynthia Martinez, Chief, National Wildlife Refuge System
Reprinted from The Friends Newswire*

Well-known birder and author Kenn Kaufman said on Facebook, “National wildlife refuges protect some of the most amazing habitats for birds and other wildlife in the USA. These public lands represent a treasure for all Americans.”

I whole heartedly agree.

Pick up any birding magazine or guide, and you’re sure to see so many references to wildlife refuges that you will lose count. We all know the story of the brown pelican whose protection launched the National Wildlife Refuge System in 1903 with the establishment in Florida of Pelican Island bird reservation – now known as a national wildlife refuge. More than 200 refuges have been established for migratory birds.

In our 113-year history, the National Wildlife Refuge System has made huge strides on behalf of migratory bird conservation. Not only do millions of migratory birds find homes among the National Wildlife Refuge System’s stunning array of marshes, wetlands, deserts, forests, great rivers and small prairies. But they also find a home in the urban areas served by wildlife refuges. Not enough urban residents know that.

The Urban Bird Treaty program has helped make a difference. Cities today are filled with hawks, osprey, songbirds and more.

Now let’s teach kids and families in big and small cities that when we talk about migratory bird flyways, those are not far off places.

Flyways include places where millions of people live, city neighborhoods where people can see a breathtaking variety of birds. With effective communications, city residents will recognize that they can go to a nearby refuge to learn more about helping bird populations.

The Refuge System has been crucial in nurturing migratory bird species. State-of-the-art waterfowl management is practiced on thousands of waterfowl protection areas and hundreds of wildlife refuges. We’ve brought birds back to their historic ranges, increased populations, given visitors sights that they’ll travel hundreds of miles to see – and helped sustain the economies of communities where birding is a passion.

Fewer people know that our federal wildlife officers are among migratory birds’ best friends. They regulate migratory bird take and possession limits under international treaties like the Migratory Bird Treaty Act. They regulate hunting license capability to ensure that proper limits are met on particular migratory bird species. And they ensure that migratory birds have safe places to rest during non-hunting seasons as they work closely with sportsmen’s groups, tribal law enforcement and state agencies.

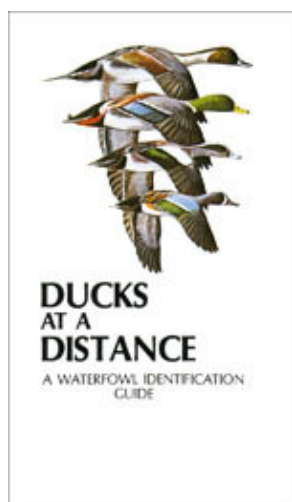
Americans are learning that when they see birds in their communities, vast flocks on the wing, even some hummingbirds at their feeders, they have national wildlife refuges to thank. So, when you look up and experience the magnificence of a bird in flight, you might wonder which national wildlife refuge provided benefit to that bird.

The Friends' Store

at the Missisquoi National Wildlife Refuge

BOOKS GAMES GIFTS TEE SHIRTS HATS

for people of all ages who love the outdoors



Ducks at a Distance

A Waterfowl Identification Guide

Bob Hines

\$ 3.00, paper, 52 pages, 4 x 6 3/4, full-color illustrations

Public Lands Interpretive Association

Identifying waterfowl gives many hours of enjoyment to millions of people. This guide will help you recognize birds on the wing, emphasizing their fall and winter plumage patterns as well as size, shape, and flight characteristics. It does not include local names.

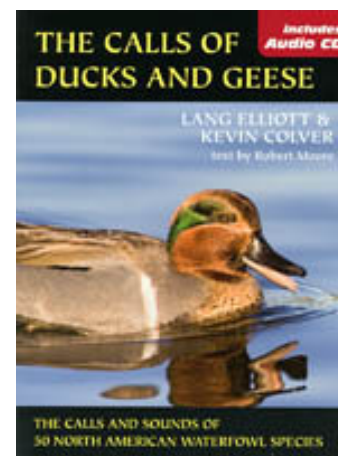
The Calls of Ducks and Geese

The Calls and Sounds of 50 North American Waterfowl Species

Kevin Colver, Lang Elliott & Robert Moore

\$ 19.95, paper + compact disc, 103 pages, 6 x 8, full-color photographs.
Includes Audio CD

Learn the songs and calls of 50 waterfowl species found across North America. An audio soundtrack combined with detailed text and beautiful color photographs make this a useful guide for any birder. From the distinctive quack of the American Black Duck and whistled "peep" of the Cinnamon Teal to the cuckoo-like call of the Pied-billed Grebe and yodel of the Yellow-billed Loon, this package covers waterfowl species in an easy-to-use format. Includes dabblers, sea ducks, geese, and other waterfowl.



Folding Guides: Sibley's Ducks, Geese & Swans of Eastern North America

David Allen Sibley

\$ 7.95, laminated fold-out guide, 12 panels, full-color illustrations, 4 x 9 1/4 folded, 24 1/2 x 9 1/4 unfolded

- 50 species—both common and rare—found in eastern North America
- Dabbling and diving ducks
- Swans, geese, and duck-like species
- Includes detailed range maps