



MISSISQUOI MATTERS

NEWSLETTER OF THE FRIENDS OF
MISSISQUOI NATIONAL WILDLIFE REFUGE

Fall, 2024



Fall Activities Schedule at Missisquoi NWR *29 Tabor Road, Swanton, VT 05488*

The Big Sit!

Saturday, October 12th, from sunrise to sunset

On Saturday, Oct. 12th, flock on over to the observation platform at the Stephen Young Marsh. The Missisquoi Marsh Mellows will once again use the platform as the center of their 17-ft. diameter circle as they try to observe as many bird species as they can from that location. Anyone is welcome to come and join them for any part of the day. Last year 32 species were recorded, but we'll be shooting for the record of 46 species set in 2018.

What exactly is a Big Sit!? Some call it a "tailgate party for birders". It's an annual, international, noncompetitive, extremely sedentary birding event organized by the New Haven (Connecticut) Bird Club. It's like a Big Day or a bird-a-thon in that the goal is to count as many bird species as possible within a 24-hour



period, but with the major restriction that observations must be made from within a 17-ft. diameter circle! There are Big Sit! circles all over the world.

Participants can come and go as they please during the day, and the circle need not be occupied for the entire 24 hours. The platform at Stephen Young Marsh is well within the 17-ft. limit. Someone will be "sitting" at the platform from dawn to dusk. A table for snacks is featured most years. Bring a snack to share if you'd like. Sitting for long periods really works up a big appetite!

Rain date is Sunday, October 13th.





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.

29 Tabor Road, Swanton, VT 05488

(802) 868-4781 ext 121

www.friendsofmissisquoi.org

E-mail: info@friendsofmissisquoi.org

Newsletter edited by Al Crist

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October 13th, 2024

Save the Date

We want your participation in the



...stay tuned for details coming soon

We're in the process of planning a great event to kick off National Wildlife Refuge Week and we want you to be there to celebrate with us! Details, once they are available, will be posted to the Friends' website calendar. In the meantime, mark your calendars today!

Monthly Bird Monitoring Walks

Friends board members and birders extraordinaire Ken Copenhaver and Julie Filiberti lead the walks on various refuge trails beginning at 8 a.m. on the **third Saturday of each month (except for December, when it is on the 2nd Saturday)**. 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. These walks are appropriate for birders of all skill levels and provide a wonderful opportunity to learn about birds throughout the seasons.

After 173 months of walks, we have recorded 165 species of birds. Registration for the walks is not required.

The schedule for the next three months is:

Sept. 21: 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.

Oct. 19: Discovery Trail. Meet at the Visitor Center parking lot on Tabor Rd.

Nov. 16: Maquam/Black Creek Trail. Meet at the parking lot located on Rte. 78, approximately 2½ miles west of Swanton village.

If and when new Refuge events are scheduled, they 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 www.friendsofmissisquoi.org and click on "Calendar".

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

Eagle Point Outing Report!

Every June the Friends of Missisquoi and the Memphramagog Watershed Association hold a joint birdwalk at the Eagle Point Wildlife Management Area, located just south of the US - Canada border on the shore of Lake Memphramagog. Eagle Point WMA is owned by the U.S. Fish and Wildlife Service and is part of the Missisquoi National Wildlife Refuge. However it is managed by the Vermont Department of Fish and Wildlife.

The property consists of nearly a mile of lakeshore habitat, numerous wetlands, large meadows, as well as hemlock and mixed forests. It supports a great diversity of wildlife including aquatic mammals, waterfowl, grassland birds, and many other wetland and terrestrial species. It is a wonderful location for birding and over 150 species have been seen on the property.

Grassland species include Bobolink, Savannah Sparrow, Field Sparrow, and Eastern Meadowlark. Also present are a variety of raptors. There are excellent opportunities to see a variety of wetland and marsh species, including herons, bitterns, snipe, Pied-billed Grebes, rails, Common Moorhens, and Marsh Wrens.

41 species were recorded on this year's walk, including a Black-billed Cuckoo, 8 species of warblers, and numerous Bobolinks.



FRIENDS OF MISSISQUOI NATIONAL WILDLIFE REFUGE

BI-MONTHLY BOARD MEETINGS

Wednesday, November 13th, 2024 at 6:30 PM via Zoom

Wednesday, January 8th, 2025 at 6:30 PM via Zoom

email info@friendsofmissisquoi.org if you'd like to attend via Zoom

Members are always welcome & encouraged to attend.

Refuge Managers Update - August, 2024



If you have walked the Stephen J. Young Marsh trail since mid-July you surely have noticed the new boardwalk on the south end of the loop trail. The new 300-foot board walk used a

combination of pressure treated and recycled plastic lumber for durability and sustainability. Thanks to a generous contribution from the Friends of Missisquoi, the refuge was able to use all recycled lumber for the decking!



This was a project I had envisioned for many years since the original trail needed constant maintenance to unplug culverts to allow sheet water flow across the wetland complex. In recent years, battles with our beaver population in the marsh made it clear that we simply did not have the ability to keep the culverts open for water flow from the south to the north side of the trail.

by Ken Sturm, Refuge Manager, Missisquoi NWR

This project not only created a raised boardwalk, but also focused on cutting water channels at regular intervals through the existing trail to improve the wetland hydrology that feeds the Stephen J. Young Marsh.

What folks may not know is that the U.S. Fish and Wildlife Service (USFWS) labor for this project was from a regional “strike team” funded by the Great American Outdoors Act. The Great American Outdoors Act (GAOA), passed in 2020, is a historic investment in the protection and sustainment of our public lands by providing funding to address the vast maintenance backlog, also known to refuge employees as “deferred maintenance”. The USFWS used GAOA funding to hire permanent maintenance staff to work on these “deferred maintenance” projects across the refuge system. Working alongside our Maintenance Mechanic, Chris Whitaker, we had 5 other GAOA maintenance staff helping knock out the boardwalk at Stephen J. Young Marsh as well as building a tip-out with benches on the Discovery Trail.

While this is an obvious improvement to the refuge trail system through the GAOA, Missisquoi has also benefitted from this Act to retrofit our geo-thermal cooling system to prevent pipe and equipment damage from excessive moisture and humidity. While this is completely behind the scenes to the public, it was a great improvement to ensure that the refuge office and visitor’s center continue to perform as expected and prevent future damage to plumbing and other equipment.

One last comment about the GAOA is that it provided permanent funding for the Land and Water Conservation Fund (LWCF). This fund supports land acquisition for agencies such as the National Wildlife Refuge System. >> **page 5**

Who's Out & About on the Refuge?

Meet Sadie Preece, Missisquoi's 2024 seasonal biotechnician. Sadie has been a familiar face at the refuge since April and will continue her work into October. Sadie comes to us from Texas, having grown up, attended college, and worked her first US Fish and Wildlife job there. Having worked in the coastal prairie habitat of Attwater Prairie Chicken National Wildlife Refuge west of Houston, Sadie made a choice to come to Vermont to experience work in Missisquoi's wetland habitat and enjoy the change of seasons. She's especially looking forward to experiencing Vermont's renowned fall foliage.

Her education was focused on ecological restoration, and her long-term aspirations are to become a biologist or ecologist within the National Wildlife Refuge System, but Sadie is still in the infancy of her career. She is looking forward to experiencing work in a variety of places and habitats until she can discover the one that matches her best. She has chosen the NWRS because their primary focus is on managing the land, improving ecological function, and protect-

ing habitats for wildlife. Among the jobs that Sadie has worked on here at Missisquoi, much of her time has been spent on the native bumblebee survey being conducted on the refuge. The staff has enjoyed adding Sadie to the team and holds hope that she will have treasured her time at Missisquoi enough to want to return again next year to continue her work.



<< **page 4** Before GAOA, this fund relied on annual congressional appropriations. Thanks to GAOA and the LWCF, public land agencies now have a more secure way to plan for land protection across the country.

Please take a moment as you walk across the new boardwalk at Stephen J. Young Marsh to thank both the Friends of Missisquoi for their generous contribution and also the legislators that worked to pass the Great American Outdoors Act. The GAOA can be thanked for funding permanent maintenance positions to work on deferred projects as well as providing permanent allocations for protecting public land. I encourage everyone to learn more about this legislation and its impact on our public lands.

Visit <https://www.facebook.com/friendsofmissisquoi> to learn more about the refuge and coming events. You can also look at, comment on, and share your own photos.

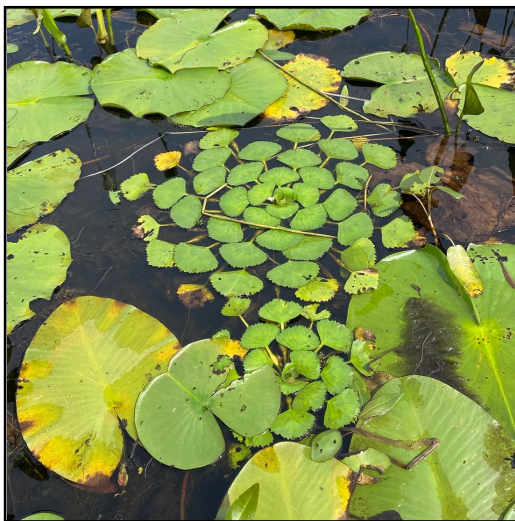


Water Chestnuts: A BIG Missisquoi Problem

by Julie Filiberti

Like many places in Vermont, Missisquoi National Wildlife Refuge certainly has its share of invasive species, but none are quite as worrisome as *Trapa natans*, the European water chestnut. This invasive was brought to the United States in the 1870's by a gardener at the Harvard University Botanic Garden. By the 1940's it had made its way to into Lake Champlain, and today is found in the Northeast from Maryland to Canada. It was first detected at Missisquoi in 2005 and in each year since, considerable time and money has been spent each summer to keep it in check. Without this yearly intervention, its exponential growth pattern would very quickly allow it to multiply and carpet most, if not all, of the refuge's waters, choking out all other aquatic flora, suffocating all fauna under the surface, and bringing an end to much of the boating and fishing at Missisquoi.

The water chestnut is a rooted aquatic plant that makes its home in nutrient rich shallow and slow moving waters (...much of the waters of the refuge). It grows from a very large seed (or nut) that has 4 sharp spines, each tipped with barbed hooks. As the seed sprouts and grows, a rosette (or 10 to 15 of them!) forms on the surface of the water.



This will flower in June and begin to set seeds; 10 to 20 of them! To make matters even worse, each of these seeds remains viable in the water for over 10 years! Computing conservatively, here's the math. One nut can produce 10 rosettes, and then each of those rosettes will produce 10 nuts. That means there are now 100 nuts that will germinate the next year. The following spring those 100 nuts will collectively grow out 1000 rosettes that will collectively produce 10,000 new nuts to germinate the following year. And in year three? Yep, there's the potential to have 1,000,000 nuts!!! One can easily see why this nuisance species needs to be kept in check. Without intervention, these rosettes will form a mat of overlapping leaves on the surface of the water and take the place of the native species that live there. This mat will be so thick that it will prevent sunlight from reaching the water underneath and thus deplete the water of the oxygen that fish and insects need to live. A once healthy ecosystem is now destroyed.

Early detection is critical so the rosettes can be removed from the water before the seeds detach from the plant. In some places in Vermont, the waters are so infested that machine harvesters are required to go in and cut away the mats. At Missisquoi, removal is done by hand due to the facts that the water is too shallow for mechanical harvesting and most areas of the refuge are not accessible to machine harvesters. The water level of Lake Champlain dictates whether or not certain areas of Missisquoi's shallow wetlands can be surveyed. In a dry year, there are parts of the wetlands that aren't navigable even with the specialized shallow-water "go-devil" boat that is used. In these areas, rosettes are free to multiply. Put a few of these dry years back to back, and the multiplying becomes a crisis. Dry years are not >> **page 6**

<< **page 5** good, but flooding can also present a problem. In addition to being carried to new places by wildlife, floodwater currents can easily pick up and transfer the nuts as well.

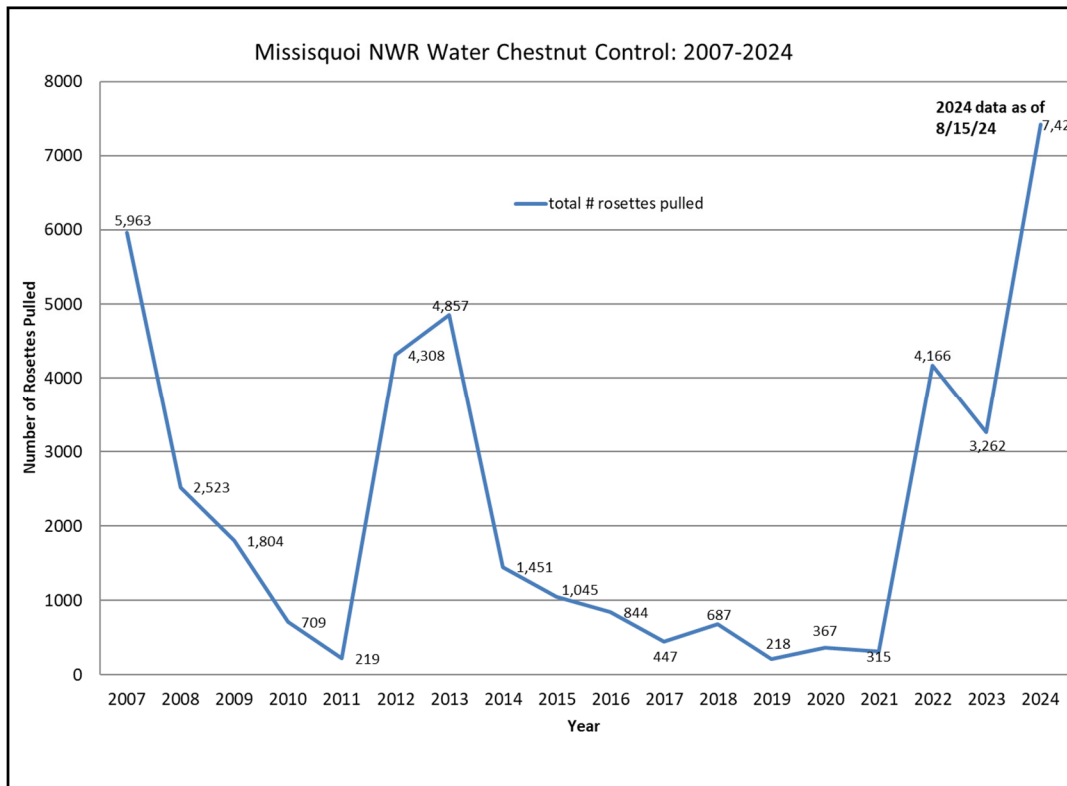
Detection requires keen mental focus and diligent eyes to pick out the rosettes among all the water lilies and other aquatic plants on the surface of the water. To ensure areas are covered completely, transects are followed. When a rosette is spotted, it is pulled up out of the water, using care to keep the plant from breaking off from the root or dropping the nuts back down into the water. It is a tiring and tedious job, and a full day of detection and removal might cover only a very small portion of the water. Many weeks of work are required every year.

Like many invasives, complete eradication may never be possible, but there is great value in the time, money, and energy expended each year to keep it from gaining a stronghold. The Friends of Missisquoi have an important role to play by securing the grant monies that enable this critical



Judy Sefchick, refuge Wildlife Biologist and Joe Bertrand, retired refuge Maintenance Mechanic (and now volunteer!) pulling water chestnut.

work to take place. You can help, too, by removing any water chestnuts you find while out on the water. If you have some time to put toward helping with this vital project in the future, let the refuge know you'd be willing to volunteer to help.



Birding Q & A

by Ken Copenhaver

Q. Why do Goldfinches always seem to be “on the move” year-round and not associated with a territory like most other songbirds, even during nesting season?

A. Yes, American Goldfinches can be found on almost every birding outing, and they always seem to be “on the move,” most often being seen or heard flying overhead. First, they are an abundant species, thus we see and hear them frequently. But why they are “on the move” depends on the season and on some habits peculiar to this species.

In winter, American Goldfinches can be found in large flocks, often seen at nyjer seed and sunflower seed feeders. In the northern part of their range, Goldfinches are short-distance migrants, with the population generally shifting southward from October to December and northward from April to early June. Once on their wintering grounds, they are nomadic, moving to wherever they find food. So from October to June they can seem to be “on the move” due to migration and searching for food.



It might seem that June is rather late for migrating. That’s because Goldfinches are in no rush to breed. In fact, they are one of the latest breeders of North American songbirds. So while other species are settling down to build nests, lay eggs, and raise chicks, Goldfinches are still “on the move.”

So why do Goldfinches nest so late? Apparently, the main reason is that their diet consists almost entirely of seeds. While birds that feed their young insects need to get an earlier start to assure an abundance of food, Goldfinches wait until the fluffy down of thistle, milkweed, and other wildflowers is available for nest-building. Then, when eggs are hatched, the seeds of these plants are available for feeding young, which they do through regurgitation. As an aside, when Goldfinch nests are parasitized by Brown-headed Cowbirds, the intruder chicks rarely survive, presumably due to the all-seed diet.

Once incubation begins, males can leave the nest site for long periods and are not involved in defending the area. Also, as a very social species, members of a flock will move in and out of each other’s territory for communal feeding. So even during nesting season, groups of Goldfinches are somewhat “on the move.”

The last eggs are laid in mid-August. While most pairs have time for only one brood, if the first nest was started early enough, some females will start a second nest. Interestingly, she will abandon her first nest, leaving it to her mate, and find a new mate for her second nest.

This late-season breeding works for them because, as short-distant migrants, they aren’t in a hurry to start their migration, as are long-distance migrants. So we see that American Goldfinches really are “on the move” to one degree or another throughout the year.

Have you missed one of the great Zoom presentations sponsored by the Friends of Missisquoi? Would you like to re-watch “Bird Tales”, or the recent presentation about Vermont Bats, or the presentations on Bobolinks and Meadowlarks, or our recent three-part series about invasive species in Vermont?

Well, you’re in luck! Check out our Friends of Missisquoi YouTube Channel:

<https://www.youtube.com/@friendsofmissisquoi1650/videos>



Missisquoi NWR Receives Special Recognition

The Missisquoi National Wildlife Refuge has been honored by being the recipient of the National Wildlife Refuge System’s “Historic Preservation Award.” The award recognizes special achievements by employees of federal, state, tribal, and local preservation programs who have made outstanding contributions to the preservation of historic places. The staff of Missisquoi NWR are honored to receive the award and acknowledge all of our partners in the tribal community, our Friends group, and the local and state agencies who support historic preservation and education.

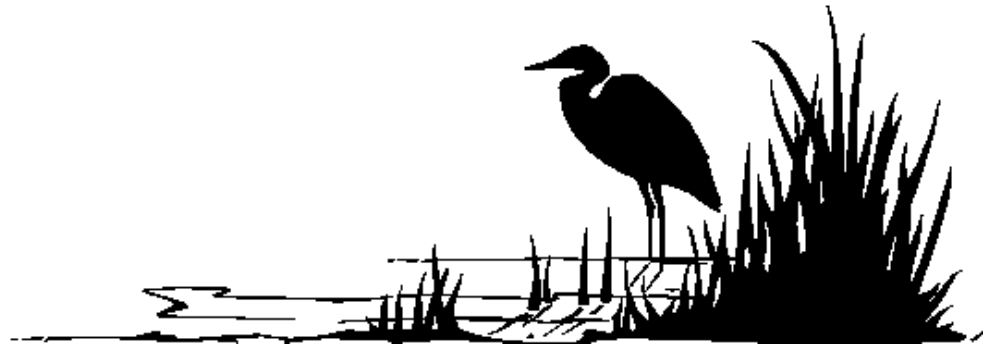
The award was in response to the many things the refuge has done to be inclusive of the historic indigenous cultures of the refuge.

For example, the refuge was instrumental in developing a cooperative agreement between the

refuge, the Vermont Department of Historic Preservation, and the Saint Albans Museum to provide artifacts to the museum and develop public displays. The refuge has been committed to working with the Abenaki of Missisquoi for some time. They have hosted educational programs presented by Fred Wiseman, a local Abenaki educator, for many years. The refuge is currently working with the state of Vermont to submit the refuge for the National Register of Historic Places based on the significant archaeological history here. More recently, the refuge helped the Friends of Missisquoi NWR to develop a “Land Acknowledgement” for the current Abenaki culture of the area and the historic indigenous cultures that occupied the refuge and surrounding areas. This Land Acknowledgement is now prominently displayed at all refuge trailheads.



Friends of Missisquoi National Wildlife Refuge, Inc.
29 Tabor Road
Swanton, VT 05488



Please tell us how to serve you better - The Friends of Missisquoi NWR Board is eager to know more about the kind of programs, outings, or activities you would like to have offered on or about the refuge. Please email your suggestions and comments to info@friendsofmissisquoi.org. Thanks!

Yes! I want to support the Friends of Missisquoi National Wildlife Refuge and its programs with my membership. My dues include a subscription to Missisquoi Matters and a 10% discount on items at the Friends Gift Shop. Enclosed is my contribution of:

Membership Level

- \$10 Student
- \$15 Individual
- \$20 Family / Classroom
- \$50 Supporting
- \$100 Steward
- \$250 Life / Business
- \$1000 Patron

Would you like to receive your newsletter by postal mail or by email? Please circle one:
Postal Mail Email

Date: _____ (membership begins the month you join)
Name: _____
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____ E-mail: _____

(Your email address will not be shared with any other organization. We would like to be able to contact members regarding last minute changes to Friends activities and events.)



THE ROOKERY



Fall 2024

Missisquoi National Wildlife Refuge
Swanton, Vermont
Youth Newsletter

Fall is a beautiful time to explore the Refuge!

Check out the changing colors and enjoy migrating birds in a less buggy atmosphere. Borrow a backpack with supplies from Headquarters to enhance your exploration.

You'll notice a new boardwalk being built on the south side of the Steven J. Young Marsh trail and a small addition to the one on the Discovery Trail making it more accessible to wheelchairs.

Join us for the BIG SIT on Saturday, October 12th as we try to identify as many birds as we can from the observation platform. Last year, 32 species were sighted!

Best ways to see wildlife



WALK LIKE A FOX

“City walking” (heel to toe) is loud and sends sound waves through the air.

This scares creatures.

Slow down and soften your steps and you may notice more wildlife.



PUT ON DEER EARS

Cup your hands around your ears to increase your ability to hear the sounds of wildlife around you.



USE EAGLE EYES

Use wide angle vision to see more wildlife. Take your time and look carefully sweeping from one side to the other and back again.

Leaf Identification



Red Oak



Birch



Quaking Aspen



White Oak



Sugar Maple



White Ash



Shagbark Hickory



**Silver Maple
(silver on back)**



Red Maple

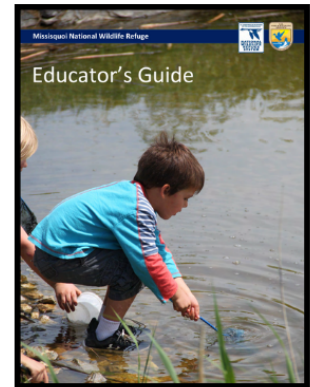


American Beech



ARE YOU A 4TH GRADER?
You and your family get free access to hundreds of parks, lands, and waters for an entire year. (everykidoutdoors.gov)

GIFT SHOP
The Refuge Gift Shop is open most weekdays from 9-2. T-shirts, Caps, Pins, Books and more!



EDUCATOR'S GUIDE
Available on the MNWR website



**"There is no Wi-Fi in the forest,
but I promise you will find a better connection."
-Ralph Smart**

