



MISSISQUOI MATTERS

NEWSLETTER OF THE FRIENDS OF
MISSISQUOI NATIONAL WILDLIFE REFUGE

Fall, 2022



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

The Big Sit!

Saturday, October 8th, from sunrise to sunset

On Saturday, Oct. 8th, 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 36 species were recorded.

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.

Rain date is Sunday, October 9th.





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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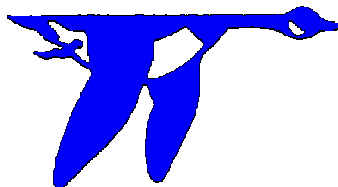
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Newsletter edited by Al Crist

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Ken Sturm	<i>Refuge Manager</i>
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Lisa Swainbank	<i>Office Administrative Assistant</i>

Monthly Bird Monitoring Walks

Friends board members and birders extraordinaire Ken Copenhaver and Julie Filiberti lead the walks 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. These walks are appropriate for birders of all skill levels and provide a wonderful opportunity to learn about birds throughout the seasons.

After 148 months of walks, we have recorded 162 species of birds. Species number 162, a Northern Rough-winged Swallow was added on the June walk.



Northern Rough-winged Swallow

Registration for the walks is not required.

COVID Notice: We will be following Vermont state COVID-19 protocols for outdoor activities. We ask that you stay home if you are feeling ill and to wear a mask if you are unvaccinated and when you can't maintain a safe social distance.

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: Old Railroad Passage Trail: Meet at the parking lot on Tabor Rd, about a mile past the refuge Visitor Center

November 19: Maquam/Black Creek Trail. Meet at the parking lot located on Rte. 78, approx. 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/

Refuge Managers Update - August, 2022

by Ken Sturm, Refuge Manager, Missisquoi NWR



August at the refuge is always a busy time for the staff. In baseball terms, I think of August as rounding third base and heading for home. Much of the field season is behind us at this point, yet there is a significant push to complete

field work and other projects before the weather turns. And like baseball, the refuge has been relying on “pinch hitters” to get us around the bases, more so this year than ever due to the loss of our maintenance mechanic, Joe Bertrand, who retired in June.

Who are these “pinch hitters”? Volunteers, of course! If you have been in the visitor’s center during the week you certainly have met one of our new volunteers who have stepped up to staff the front desk and help with other administrative projects. The team so far includes Patsy Trombley, Phyllis Tiffany, Dan Mathison, Alan Smith, and Linda Eldredge. Working the visitor’s center is incredibly important for the refuge staff as it helps us focus on other work projects and keep the building open for the public when field duties call. These folks have learned a lot about the refuge during their summer at the front desk, and have done an amazing job sharing their knowledge with the visiting public.

Our volunteer “trail angel” this year has helped tremendously with routine trail maintenance. Greg Simard really stepped up his activity this year by trimming trails, cutting downfalls, and regularly stocking the Friend’s trail card boxes for visitors. Our neighbor, and often volunteer Wil Roberts, has also spent some time with trimmers keeping our trails looking good. Our other seasonal volunteer, Norman Lyman, can be seen each week mowing parking areas and trails on the refuge as well as cleaning the two pit toilets, keeping them ready for visitors. Without a maintenance position, Greg and Norman have been principally responsible for keeping trails and trail heads in good shape for our visitors.

Another regular “pinch hitter”, Paul Madden, continues to help the biological program by mapping invasive species in our grasslands and floodplain forest. This work is important for the refuge to evaluate invasive species treatments each year, as well as document new areas of infestation. The information collected is used to track management actions and plan for the most effective future treatment in subsequent field seasons. Paul is often joined by John Cesarek and Ken Whitehead in these endeavors, and they have become a great team on our volunteer invasives patrol.

Of course you are reading this newsletter thanks to our committed team of volunteers who make up the Friends of Missisquoi! Hosting monthly bird walks, annual art shows, migratory bird day, and other events are just some of the important work these volunteers do for the refuge. Thanks to the Friends, we receive annual grants from the Lake Champlain Basin Program to help control water chestnut and other invasive plants on the refuge. This year the Friends used the funds to treat 72 acres of floodplain forest for yellow iris. Using another grant from the Franklin County 100 Women Who Care, the Friends paid for trained educators to work with school groups and summer camps, providing meaningful environmental education programs at the refuge.

There is a lot going on behind the scenes to keep this National Wildlife Refuge going. With a small staff and currently without a maintenance position or a public use position, we are extremely limited. With only three staff members in the “dugout”, our refuge volunteers keep us going as we round the bases and head for home. I thank each and every one of our volunteers for their dedication and support, especially over this last year which has been difficult and has taxed our small staff continuously. If you are interested in becoming a volunteer, please drop by the refuge or give me a call, I would be happy to hear from you!

Refuge “Land Acknowledgement” Finalized

After extensive consultations between Julie Filiberti, representing the Friends of Missisquoi; Ken Sturm, Refuge Manager; the local Abenaki community; and the U.S Fish & Wildlife Service’s Tribal Liaison, the wording for the Land Acknowledgement has been set. The fact that the Abenaki are a state recognized tribe, but are not federally recognized complicated matters.

The Friends will commission construction of four 18” x 24” signs for the refuge. They will be posted on the existing kiosks at Louie’s Landing and the Railroad/Marsh Trail parking lots, and mounted on posts at the trailheads of the Discovery and Black Creek/Maquam Creek trails.

Here is a draft of the signs that the Friends will purchase and erect:

Missisquoi Lands and Waters

The lands and waters of the Missisquoi National Wildlife Refuge are very special places to those who make it their home, and we, as the current stewards of this area recognize our responsibilities in caring for these lands and waters. They are a critical resting and feeding spot for numerous migratory birds, and the plant life they support provide essential habitat for deer, beaver, muskrats, turtles, insects, and other animals that make this place their year-round home.



We recognize that these lands and waters are also important to the Abenaki Nation of Missisquoi, the previous caretakers of this land. We are grateful to them and their ancestors for caring for this land and its surrounding waters for thousands of years. Their families have been nourished by fishing and hunting in Bitawbagw (Lake Champlain) and the length of the Mazipskoisibo (Missisquoi River). For generations their people have been sustained by hunting and gathering in the lush forest and by growing corn, beans, and squash in the fertile earth. We understand the importance of this land in the Indigenous heritage of the region and to the Abenaki, present and past.

We recognize the hardships and suffering these families endured when they were pushed out of their traditional ancestral lands as European colonization took hold, and we acknowledge their agony and despair when their access to the delta for subsistence was ended by the creation of this wildlife refuge. We acknowledge the continual struggles that they endure in keeping their culture alive in the world of today.

We, the Friends of Missisquoi National Wildlife Refuge, honor the Indigenous heritage of the region and welcome the opportunity to assist the Abenaki Nation of Missisquoi in maintaining their close connection with their ancestral lands. Through education and partnership, we will work to bring awareness to their culture and existence. We invite our visitors to share in honoring this vision by engaging in mindfulness while enjoying the Refuge lands and waters and by holding the space with care and appreciation.



In addition, the above Acknowledgement or possibly a shortened version, will be read aloud at the beginning of all Friends events.

Also, 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.

You do not need to have a Facebook account to view the page.



Missisquoi Bay's Spiny Softshells

by Al Crist

Iconic and unique are apt descriptions of the Missisquoi Bay population of eastern spiny softshell turtles (*Apalone spinifera spinifera*). Found nowhere else in New England or Quebec, spiny softshells have two distinct populations in Lake Champlain: the Missisquoi Bay area and a smaller population in the lower Lamoille River and adjacent Lake Champlain. It's estimated that the population of adult turtles numbers not much more than 300 individuals. Because of a historic population decline and the continued loss of good nesting habitat, spiny softshells were state-listed as Threatened in Vermont in 1987.

Spiny softshells are distinguished by their flattened, leathery upper shell (carapace), their pointed nose, and their long life of up to 50 years. Females of the species can grow quite large, with shells up to 21" long and weighing up to 25 pounds. Males are much smaller. They are strictly carnivores, feeding on crayfish, mollusks, tadpoles, frogs, minnows, aquatic insects, and other organisms.



Adults are found in the inshore areas of northern Lake Champlain where sunlight reaches the bottom and which have good aquatic plant growth (littoral zone), and in adjacent marshes, and tributary streams. In the refuge, they can be found in the Missisquoi River delta, up the Missisquoi River, Dead Creek, and Cranberry Pool.

They hibernate for nearly 6 months, from November through April, and return every year to their same hibernation areas (hibernacula). These sites must provide well oxygenated water, be free from ice scour,

and lack disturbance. When not hibernating they, like all aquatic turtles, periodically surface to breathe. However in winter, during hibernation, they stay submerged for months by drastically slowing their respiration and absorbing oxygen from the surrounding water. The area around the causeway and bridge on Rte. 78 between Swanton and Alburgh is an extremely important hibernacula.

Softshells require well drained sand or gravel beaches that are relatively free of vegetation and are exposed to the warming sun for large parts of the day. Due to extensive shoreline development on the lake, these areas have become quite rare. After mating, adult females come ashore in June to dig their shallow nests and lay their eggs, with nest size varying from 5 to 30 eggs. After females cover their eggs, no further care of the eggs or hatchlings occurs. Incubation takes 82 to 84 days if the heat of the sun warms the beach sufficiently. After the eggs hatch, the hatchlings dig an emergence tunnel to the surface and head for the water. As populations of raccoon and skunk have exploded due to the decline of large predators in the environment, the predation of softshell nests has greatly increased.

My wife, Beth Deimling, and I recently volunteered to join Vermont Fish & Wildlife's Spiny Softshell Turtle Recovery Project to assist in monitoring turtle nesting at two beach areas in northern Lake Champlain.



Fish & Wildlife has gone all out to maximize nesting success at these beaches. Electric fencing is erected on the two busiest beaches after females have laid their eggs. Wire mesh

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Rare Find at Missisquoi BioBlitz !

On June 25th, Missisquoi National Wildlife Refuge and the Vermont Center for Ecostudies (VCE) joined forces to present an insect-focused BioBlitz at the refuge.

Nathaniel Sharp and Julia Pupko, VCE Citizen Science Outreach Naturalists, led a small group of participants for the Missisquoi BioBlitz. A BioBlitz is a citizen science effort to record as many species as possible within a designated location and time period.

The highlight of this BioBlitz was the find of an extremely rare lady beetle (aka ladybug). *Hyperaspis deludens* is so rare it doesn't even have a common name. Julia and Nathaniel led a small group of volunteers down the Black/Maquam Creek Trail during the BioBlitz that Saturday. Very few lady beetles had surfaced, and the group had shifted its focus from lady beetles to wild bees. "I half-heartedly swept my net across a blooming elderberry bush at a bee that had been effectively evading me for the past few minutes," said Julia.. "Once I opened my net, I saw a tiny black lady beetle." After photographing it extensively, the biologists determined that they were looking at something new to them. Pupko eventually narrowed the species down to *H. deludens*, a species never before seen in Vermont! What an exciting addition to VCE's Vermont Lady Beetle Atlas!



Hyperaspis deludens



Nathaniel Sharp works on insect ID as
Beth Deimling looks on.

Turtles- from << page 5

fencing, with holes big enough for hatchlings to pass through but small enough to discourage digging by predators, is laid out over nest areas. Restricted area signs are installed to minimize human disturbance.

Volunteers monitor beaches three times a week, digging up nests that show evidence of emergence. The number of empty egg shells are noted, and other data is collected. Viable un-hatched eggs, partially hatched eggs, and hatchlings that have yet to absorb their egg sack are all collected and delivered to ECHO's animal care unit. Healthy hatchlings found still in the nest are released into the lake. Beach monitoring by volunteers and Fish & Wildlife staff begins in mid-August and

continues through October and sometimes into early November.

Since nest monitoring began in 2006, the number of nests as well as the number of hatchlings produced has exploded. From an estimate of about 200 hatchlings in 2006, the average in recent years has been over 1000 hatchlings emerging yearly from these two beach areas!

The long term goal of the project is to enhance the Lake Champlain spiny softshell turtle population to the extent that the species may be delisted from the Vermont list of threatened and endangered species. So far, tremendous progress towards reaching this goal has been made!

Seasonal Trail Closures and Advisories-

Missisquoi National Wildlife Refuge

**For a pleasant and safe hiking experience at the Refuge,
use this guide to help plan your outing.**

Jeep Trail

Closed:

April 1- August 1 (Nesting Season Closure)

Youth deer weekend: Oct. 22 - 23

Muzzleloader Season: Dec. 3 - 11

Trail Advisory:

Waterfowl Season: Oct. 15 - Dec. 13

Discovery Trail

Closed:

Youth deer weekend: Oct. 22 - 23

Regular deer season: Nov. 12 - 27

Muzzleloader Season: Dec. 3 - 11

Trail Advisory:

Archery Season: Oct. 1 - Nov 11 & Nov. 28 - Dec. 15

Small Game Season: Sept. 1-Dec. 31

Old Railroad Passage Trail

Closed:

Youth deer weekend: Oct. 22 - 23

Regular deer season: Nov. 12 - 27

Muzzleloader Season: Dec. 3 - 11

Trail Advisory:

Archery Season: Oct. 1 - Nov 11 & Nov. 28 - Dec. 15

Small Game Season: Sept. 1-Dec. 31

Stephen J. Young Marsh Trail

Closed:

Youth deer weekend: Oct. 22 - 23

Regular deer season: Nov. 12 - 27

Muzzleloader Season: Dec. 3 - 11

Trail Advisory

Archery Season: Oct. 1 - Nov 11 & Nov. 28 - Dec. 15

Small Game Season: Sept. 1-Dec. 31

The "**Trail Advisory**" is a notification that the area is currently open to hunting and visitors may proceed with caution. Trails will be posted to advise hikers that the area is open to hunting.

The **Black Creek/Maquam Creek Trail** area is completely closed to hunting and is a great choice for those not wishing to hike in an area which may have hunters.

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.)