



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.

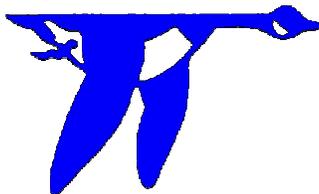
29 Tabor Road, Swanton, VT 05488
(802) 868-4781 ext 121
www.friendsofmissisquoi.org

E-mail: info@friendsofmissisquoi.org

Newsletter edited by Ken Copenhaver

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

Life of an RV-Volunteer

by Mary Bennett, RV-Volunteer at MNWR, summer 2013

I have been volunteering for much of my life — Brownie/Girl Scout leader, foster parent, choir, various service organizations, etc, so it makes sense that after retiring as a clinical psychotherapist, I would choose the role of RV-volunteer as a life style. Many folks I meet are astonished that a person would give up their "life" in order to go from place to place, working for others, and receive no pay! They ask, "What do *you* get out of it?"

I grew up in a New York suburb and spent summers in the Adirondacks where I was able to explore lakes and mountains, and during the school year I survived by playing in the woods behind our house in New Jersey. But as I grew older, I followed the accepted path for women at the time: college, marriage, and babies. When the children were little, I was involved in a severe accident which left me in a wheel chair and crutches for 1 1/2 years. At the same time my marriage fell apart. I had lots of time to think about what I really love, which resulted in my moving from the suburbs of Connecticut to a small farm in northern Pennsylvania. It was as close to living outdoors as I could get! During my 15 years there, I went back to school and got an MSW, which allowed me to work as a Clinical Social Worker with victims and families of sexual abuse and also with offenders. With both children off to college I sold the farm and took professional employment in several states. By the time I retired, I had lived in 7 eastern and mid western states. Toward the end of my employment, I bought an RV, drove across Canada to Alaska for two summers, and really came to understand the depth and breadth of this wonderful country in which we are privileged to live.

During my travels I discovered National Wildlife Refuges as well as State and National Parks, but more importantly I met the wonderful RV Volunteers who work long term in these places. Conversation revealed that they were very excited about sharing their knowledge and using their energy in service of raising the general public's awareness of, and love for, the natural world. I made up my mind to join them! Positions have taken me to Maine, South Carolina, Texas, and here at Missisquoi NWR!

What do I get out of it? How often does one get to babysit a Praying Mantis egg case and share the experience of their hatching and release with a group of astonished adults? When a 1" long, perfectly formed Praying Mantis crawled to the tip of my index finger and looked me in the eye, I thought I might burst with the awe and pleasure of being able to share this experience.

We say that Parks and Refuges are our way of providing and protecting habitat for critters. But they are more than that. These Parks and Refuges also provide an opportunity for humans to reach out and share with others and experience the joy in doing so. RV volunteers are just one group. Another VERY important group is comprised of folks who live nearby and join a "Friends Of..." group. They carry on the work throughout the year by raising money, working the Visitor Center, supporting a gift shop, etc. RV volunteers are very thankful for every "Friends Of.." group!!!

To Nap or Not, That is the Question

by Judy Sefchick Edwards, Wildlife Biologist, Missisquoi NWR

Make no mistake about it, there's no napping going on at Missisquoi National Wildlife Refuge this summer. Unless, of course, you spell it 'k-n-a-p-p-i-n-g,' and mean, "a search and destroy mission for invasive spotted knapweed plants in refuge grasslands." If 'knapping' isn't happening, then 'knotting' may well be, since Japanese knotweed control efforts are taking place along the banks of the Missisquoi River as well. This summer, "To nap or not...that is the question!"

You may be asking, "What is spotted knapweed and what does it look like?"



With pale slender leaves and moderate height, this invasive looks just like any other wildflower or weed at first glance. But take a closer look: if you see flowers that resemble tiny pineapples with punk-rock-style spiked purple hairdos, then you've spotted this knapweed.

Don't let its pretty appearance fool you though—spotted knapweed, like all invasive plants that I've come to know, has plenty of tricks up its leaves! Besides having a tap root that extends to the other side of the planet, spotted knapweed flowers for 3 months (June through August) and produces around 1,000 seeds per plant. Seeds can remain viable in the soil for 5 years or more, but that's not knapweed's best trick. Stopping at nothing to outwit, outcompete, and outlast other plants, this invasive may even resort to chemical warfare, by making and secreting chemicals into the soil that kill other plants!

Japanese knotweed, with its shrubby green appearance, bamboo-like stems, heart-shaped leaves, and reddish twigs, doesn't look like anything out of the ordinary—until, of course, you realize that it's 10 feet tall and the only species of plant on the riverbank for miles around! How does knotweed grow so far so fast? Not only does it produce lots of seeds from the numerous tiny white flowers that bloom in August and September, but it also spreads through an extensive network of rhizomes (roots that can sprout new stems) that can send shoots 65 feet

away from the parent plant! Sadly, it seems that almost nothing can hinder or destroy naughty knotweed—it only takes a half-inch long



root or stem fragment to break off, for colonization at a new site to occur.

With ingenious invasive plants like knapweed and knotweed, is it any wonder that hand-pulling, digging, cutting, and mowing have done little to stop their spread? There's no denying it: the time has come for the refuge to practice some chemical warfare of its own. As you may expect, spraying chemicals on a National Wildlife Refuge is a big deal and not a decision to be made lightly. Not only does the refuge have to research and select the least toxic chemicals for the job, but all chemicals have to be reviewed and approved by the Services' Regional and Washington Offices as well.

This July and August, it's time to nip these plants in the buds (literally!). With the refuge motto of, "Spray 'til you drop" driving us, we're kicking the invasive plant search-and-destroy mission into high gear. Look out everyone—the staff at Missisquoi NWR is armed and dangerous! With spray tanks on our backs, and nozzles in our hands, we may look like something out of the movie *Ghostbusters*; but don't worry, the only thing we're busting are invasive plants!

As you may suspect, controlling invasive plants is not glamorous work. Let's face it—walking transects through eighty acres of tall grasslands, looking for purple flowers, while swatting deer flies, and dealing with ninety degree heat, has its own set of challenges. Keeping our minds focused on the goal (along with plenty of cold drinking water and chocolate bars for energy!) helped. After all, maintaining quality habitats for fish and wildlife resources is one of the Fish and Wildlife Services' most important missions. Look out invasive plants: this year and for years to come, there will be no napping at Missisquoi!

Manager's Musings: Fall Report

by Ken Sturm, Refuge Manager, Missisquoi NWR

Although summer's end is within sight (and temperatures currently seem more like early fall than late summer) refuge work at this time of year is at its peak. All programs are busy completing summer field projects and at the same time making preparations for the fall while working to balance the needs of the refuge within the tight budget framework we are given.

A main highlight for the summer has been our accomplishments in controlling the invasive plant, water chestnut, on all parts of the refuge. This is in thanks to a \$14,000.00 grant provided by the Vermont Agency of Natural Resources and managed by the Friends of Missisquoi NWR. The grant is truly a gift of increased management capability that has allowed regular staff to focus on other aspects of refuge management rather than worrying about the spread of this particular invasive plant. Please take time to read the brief about the work which has been accomplished on water chestnut in this newsletter.

The refuge has continued to provide a venue for local schools and organizations for environmental education, outreach, and planning. The refuge classroom and facilities were visited by over 400 students and teachers this summer, keeping Park Ranger Dave Frisque and our ever-reliable volunteer Steve Vittum quite busy! With such a great area for place-based education it is refreshing to see so many schools and camps interested in taking advantage of the refuge. As always we encourage volunteers interested in environmental education and interpretation to contact Park Ranger Frisque to help out during the busy times of the year with large school groups. Not only does the extra help make things easier, but it allows schools to break kids into smaller groups, facilitating learning and increasing the value of the refuge experience.

We have been fortunate to have a few new volunteers helping this year. Doug Apirian began volunteering with the refuge this spring and has been working with us regularly ever since. Doug has been an invaluable "jack of all trades" helping out in just about all refuge programs. Mary Bennett has been our summer volunteer staying in her RV while performing a variety of maintenance and public use functions. And finally Katharine Cody, a student

volunteer, helped out the biology program this summer; you can read more about Katharine in this newsletter. We will undoubtedly be relying more on volunteers and searching for grant funds to help the refuge maintain existing work priorities during certain difficult budget years ahead.

Another note on public use activities comes from our Eagle Point Unit on the shore of Lake Memphremagog. Our management partner, the Vermont Fish and Wildlife Department, helped organize a work crew from the Northern Forest Canoe Trail (NFCT) to construct three tent platforms on the unit this summer. Camping is quite unusual on National Wildlife Refuges, most of which typically are closed from sunset to sunrise. However, as requested in the will of Michael Dunn, who generously donated this land to the refuge, canoe access camping will be permitted as long as it can be managed as a compatible use. We thank the NFCT for its work building the platforms and for agreeing to help with the annual maintenance of the site.

The biology program has had a difficult season in some ways due to that ever-persistent plan changer, the weather. Exceptionally rainy, the month of June made it difficult to begin a new regional acoustic bat survey as well as conduct regular breeding bird surveys on the refuge. High water in Lake Champlain caused the refuge Black Tern population to scatter into different and less traditional areas of the refuge for nesting, which made counting nests more challenging. And due to budget cuts and slow budget delivery we were unable to hire an invasive species control company to treat refuge grasslands for the invasive spotted knapweed. This required the refuge to conduct all control operations "in house" – an exceptionally time-intensive operation. Fortunately we were able to have the assistance of the USFWS Lake Champlain Fish and Wildlife Resources Office, who generously provided staff during the hottest week of the summer to help our biologist, Judy Sefchick-Edwards, begin the assault on knapweed infestations.

As we look forward to the fall and winter there are several exciting projects still to come. In particular we will be hosting a second tree-planting on the

refuge to complete another grant facilitated by the Friends of Missisquoi NWR on National Public Lands Day, September 28th. We will again be focusing efforts in the fields along route 78 between the Black/Maquam Trail parking and Louie's Landing. Please come out and support this activity.

There is so much more to talk about but not enough room to report it all. The refuge is winding down another busy field season and looking forward to the

changes that fall brings. I encourage everyone to reach out to refuge staff to find out what has been going on this year and what we anticipate for the coming seasons. And above all else get out and enjoy what the refuge has to offer – a place of wildlife and quiet reflection, a place for education and wildlife-oriented recreation. It is a very special place in the corner of Vermont.

For more information about the refuge, visit <http://www.fws.gov/northeast/missisquoi/>

Water Chestnut: A summer of intensive control

by Ken Sturm, Refuge Manager, Missisquoi NWR

This summer the refuge was fortunate to be able to make great strides in controlling water chestnut, a troublesome aquatic invasive plant that has exploded on the refuge since the flooding of 2011. Thanks to the support of the Friends of the Missisquoi NWR who received a State invasive species grant this year, we have been able to hire one full time and one part time position to concentrate entirely on pulling this invasive plant.

Water chestnut is problematic as it forms dense mats of floating vegetation that can quickly replace native aquatic plants, reducing the diversity and productivity of wetland habitat. Its explosive growth can quickly choke out shallow bays and wetlands. In 2011 the refuge experienced a dramatic increase in the number of water chestnut plants, particularly in Cranberry Pool, a managed wetland area critical to migrating waterfowl. It was apparent that the refuge needed to take immediate action to control the spread and impact of this aggressive aquatic invasive plant.

Bob Lutz was hired in June to be our full time invasive species contractor. A retired Vermont State Game Warden, Bob was a natural choice as he was trained in operation of the low water boat required to access shallow bays and impoundments of the refuge. He was also very familiar with the refuge

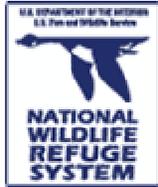
through his years of service as a state warden. We also hired Alex Deuso, a recent Missisquoi Valley Union High school student, to work with Bob during the peak of the growing season. Alex had been working with the refuge since the Fall of 2012 as a volunteer and has proven himself to be hard working and reliable.



Together Bob and Alex have spent 434 person hours pulling water chestnut from the refuge. A total of 4,752 rosettes (individual leaf arrangements) have been pulled to date from refuge waters. For comparison, this is only 200 rosettes shy of what the refuge has pulled on its own in the last four seasons. There are two reasons for this: first, having the luxury of two dedicated workers focused on nothing but pulling water

chestnut naturally increases the number of rosettes removed and, secondly, that the flooding of 2011 dramatically increased the abundance of this invasive plant in refuge waters.

Tracking the number of water chestnut rosettes pulled from year to year is very revealing. From a high of nearly 6000 in 2007 to a low of only 219 in 2011, we showed great progress. Then in 2012 it became obvious that the previous year's flooding allowed this plant to get out of control. The result was over 2200 rosettes being pulled in 2012 and more than double that number so far in 2013.



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.

Fall Open House

Saturday September 21, 8:00 AM to 2:00 PM

Refuge staff and Friends of MNWR will celebrate the arrival of Fall with an Open House at the refuge Visitor Center on Saturday, September 21, 2013. Activities include:

- 8:00 to 10:00 AM: A bird walk at Stephen Young Marsh Trail. (See Monthly Bird Monitoring Walks below for further information.)
- 8:00 to 9:00 AM: Artist registration for Missisquoi "Paint-out" – plein-air painting with artists in various locations on the Refuge, as well as in West Swanton and East Alburg, all within 4 miles of the Visitor Center. Visit the artists as they work.
- 9:00 to 11:30: Photography Workshop – Understanding Exposure. Principles of controlling and using exposure to produce better photos will be presented using slides and demonstrations. After lunch, participants will have the opportunity to practice what they have learned outside near the Visitor Center and on the Discovery Trail. Be sure to bring your camera!
- 12:00 PM: Lunch will be provided.
- Other activities, exhibits, or presentations to be announced. See the Friends website Events Calendar for up-to-date information.

Volunteer Tree Planting

Saturday September 28

CELEBRATE NATIONAL PUBLIC LANDS DAY AT YOUR NATIONAL WILDLIFE REFUGE!

Please come and help restore riparian forests on the Missisquoi National Wildlife Refuge. We will be planting native trees to bring back the floodplain forest community along the Missisquoi River. This project will benefit a host of migratory birds, reduce forest fragmentation and improve forest connectivity by reforesting the narrow fields along this section of Route 78.

COME HAVE FUN AND PLANT SOME TREES!

Gloves will be provided. Bring a shovel if you can. Meet at Louie's Landing Boat Launch on rt. 78, 3.5 miles west of Swanton.

Note that the exact meeting time could not be confirmed as of publication date. Please contact the refuge at 802-868-4781 for times and any other questions. Further information will also be made available on the Friends' website Events Calendar at <http://friendsofmissisquoi.org/calendar/>

Also check out the Friends Facebook page at <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. Please stop by and let us know what you think!



Monthly Nature/Photography Walks 1st Saturday of each month, 9:00 am 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 7: Jeep Trail. Meet at the Louie's Landing boat access area. We will drive in to the trail head at Mac's Bend.

October 5: 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 2: 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 am 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 will be 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 42 months of walks we have recorded 131 species of birds.** Registration is not required. The schedule for the next three months is:

September 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.

October 19: Old Railroad Passage Trail. Meet at the parking lot on Tabor Rd, about a mile past the refuge Visitor Center and across the road from the Stephen Young Marsh.

November 16: Maquam/Black Creek Trail. Meet at the parking lot located on Rte 78 approx. 2 ½ miles west of Swanton.

To check for any schedule changes or additions, visit the Friends website at www.friendsofmissisquoi.org and click on the "Calendar."

The Friends' Store

at the Missisquoi National Wildlife Refuge

BOOKS

GAMES

GIFTS

TEE SHIRTS

HATS

for people of all ages who love the outdoors

The Friends' Store now has a new stock of T-shirts, sweatshirts, and hats.

Come in and check it out!

Volunteer Report: Katharine Cody

by Ken Sturm, Refuge Manager, Missisquoi NWR

The refuge was fortunate this summer to recruit a new volunteer to help with the biological program. Katharine Cody is a University of Vermont (UVM) student entering her Junior Year this fall majoring in Wildlife Biology. Katharine was one of several students from UVM who volunteered through the Wildlife Society to help plant trees on the refuge this spring and through this connection continued to help the refuge over the summer.

Katharine volunteered three days a week beginning in June and ending in August. Her main projects included surveying a section of the Missisquoi River for Japanese knotweed (an aggressive invasive species), extracting and analyzing waterfowl

banding data to create interpretive materials, entering wood duck nest box and waterfowl hunt information into databases, and helping with refuge acoustic bat surveys. She even got to revisit the planting site this summer to evaluate the success of the trees she helped to plant in April.

With so much to do and the specter of continually declining budgets, it is refreshing to have the help of interested and dedicated volunteers like Katharine. It is also refreshing to be able to provide experiences for the next generation of wildlife professionals who will be inheriting the responsibilities of wildlife and habitat conservation in the future. We thank Katharine for all of her hard work this summer and hope to see her back again!

FRIENDS OF MISSISQUOI NATIONAL WILDLIFE REFUGE

Bi-monthly Board Meeting

Wednesday, September 11, 2013 at 6:30 pm

At the Refuge Headquarters

Members are always welcome to attend.

Come and see what the board is planning and contribute your ideas.

Next meeting: Wednesday, November 13, 2013 at 6:30 pm

A G E N D A : *Draft*

1. Minutes of Board Meeting of July 10, 2013

2. Treasurer's Report

3. Refuge Manager's Report: Ken S

- including discussion about Refuge plans/projects for the coming year
- including discussion about Friends projects to support the Refuge plan

4. Committee Reports

- Newsletter: Ken C
- Membership: Bob
- Store Update: Paul M

- Monthly bird walks: Ken C

- Photography/Nature walks: Bob and Mark

5. Fall Open House to be on Sept. 21: Final planning

6. Upcoming activities on the Refuge

7. Other

8. Next Meeting: Wednesday, Nov. 13, 2013

9. Adjournment