

SUDBURY-ASSABET-CONCORD RIVERS WATERSHED COOPERATIVE INVASIVE SPECIES MANAGEMENT AREA 2014

*Laura Mattei, Chair
SuAsCo Cisma Steering Committee*

Wild and Scenic River Stewardship Council (RSC) funding continues to stimulate invasive plant education and control projects. This past year, we had a record number of applicants for the Cisma small grants program (funded by RSC). In response to this upsurge of good activity the Steering Committee fine-tuned the grant guidelines and award criteria. This past year funding went to:

*Concord Land Conservation Trust (Phragmites Control) \$500
Sudbury Valley Trustees (Britton's Violet) \$1,000
Westford (Mile-A-Minute) \$250
Southborough Open Land Foundation (Early successional habitat) \$1,000
ED/Outreach subcommittee (Speaker Series) \$1,250
Cisma administrative subcommittee (web site maintenance) \$500*

We hope that all of our members will consider applying this spring.

The Cisma continues to implement key components of the Nyanza Superfund Site Natural Resources Restoration Plan. Cisma partners OARS and MassAudubon have continued to make great strides with water chestnut harvesting and purple loosestrife biocontrol. Other partners have benefited by receiving small grants to raise beetles for the loosestrife biocontrol (OARS, Town of Chelmsford, Town of Lincoln, Lincoln Land Conservation Trust, Mass Audubon, New England Wild Flower Society).

The Cisma has been able to set up a new Rapid Response emergency fund that will allow us to take quick action upon discovering new invasive plants in a high priority habitat area. This fund was initiated with funds from the River Stewardship Council. The Rapid Response Sub-committee developed criteria for the use of these funds for emergency projects.

You can see by all of the accomplishments above, that the Cisma is fulfilling its mission. Our cooperative efforts have allowed us to learn from each other, to increase our ability to acquire funding and to make significant progress in improving natural habitats in our region.

THANK YOU 2014 Steering Committee Members:

*Barbara Volke- Friends of the Assabet River NWR
Dave McKinnon- Town of Lincoln
Dave Williams- Middlesex Conservation District
Jeff Collins- Mass Audubon (Treasurer)
M John Dwyer- Town of Maynard
Laura Mattei- Sudbury Valley Trustees (Chair)
Lee Steppacher- National Park Service
Libby Herland- U.S. Fish and Wildlife Service
Lynn Knight- Carlisle Conservation Foundation
Alison Field-Juma- OARS: For the Assabet, Sudbury, and Concord Rivers (Vice-Chair)
Amanda Weise- New England Wild Flower Society (co-secretary)
Kathy Sferra- Town of Stow (co-secretary)*

WELCOME 2015 Steering Committee Members:

*Barbara Volke- Friends of the Assabet River NWR
Dave McKinnon- Town of Lincoln
Delia Kaye- Town of Concord (co-secretary)
Jeff Collins- Mass Audubon (Treasurer)
M John Dwyer- Town of Maynard
Laura Mattei- Sudbury Valley Trustees (co-secretary)
Jamie Fosburgh- National Park Service
Libby Herland- U.S. Fish and Wildlife Service
Ron Gemma- Town of Westford
Alison Field-Juma- OARS: For the Assabet, Sudbury, and Concord Rivers (Chair)
Amanda Weise- New England Wild Flower Society (vice-Chair)
Kathy Sferra- Town of Stow*

GOODBYE FRIENDS!

Lee Steppacher from National Park Service and Lynn Knight from the Carlisle Conservation Foundation have both left their involvement with Cisma. They were both integral members of our organization from the beginning and are certainly missed!

NYANZA

As Part of the Nyanza Resource Damages site settlement, the SuAsCo CISMA is managing and utilizing \$1,047,500 in Tier 1 funding to control aquatic weeds in the Sudbury River Watershed. This funding will support mapping, monitoring, and bio-control of purple loosestrife (*Lythrum salicaria*) and water chestnut (*Trapa natans*) in the Sudbury, Assabet, and Concord Rivers and 130 acres in the Hop Brook Watershed, as well as focused efforts on the main stem of the Sudbury River.

NYANZA: Beetle Rearing 2014

Town of Chelmsford

The Town of Chelmsford had the opportunity to participate in the SuAsCo CISMA's 2014 *Galerucella* beetle rearing project. Though it was difficult finding volunteers to assist with the project, the Town was able to contribute approximately 70,000 adult galerucella beetles to combat invasive purple loosestrife within the watershed. The project began in early spring, when 57 purple loosestrife plants were dug up and replanted in pots with fertilizer to quickly grow into large, robust plants. Though seemingly counterintuitive, hearty purple loosestrife plants are necessary for this project to succeed. Instead of harvesting adult beetles from the wild, the Town chose to purchase the beetles from the New Jersey Department of Agriculture. Beetles arrived early in June and the project roared into gear.

Once beetles arrive, the plants must be checked with more regularity to make sure that the water levels are acceptable, the beetles have enough food (for small beetles, they really chow down on the purple loosestrife plants!), and that no predators have made it into the nets protecting the beetles. Once introduced to the plants, the 10-15 beetles placed on each plant will mate and lay eggs, eggs will hatch, larvae will pupate, and the new adult beetles will emerge – all within a matter of weeks! By the time the project is done, the once hearty overgrown potted purple loosestrife is decimated and the original 10-15 beetles on each plant have created 1,000 – 1,500 new adult beetles.



© Town of Chelmsford

New England Wild Flower Society (NEWFS)

As a plant conservation organization, a primary role is to help manage the spread of invasive plant species, so it seemed a natural fit for NEWFS to raise *Galerucella* beetles to fight purple loosestrife (*Lythrum salicaria*) along the Sudbury River. Raising the plants, and in turn, the beetles, proved to be fairly easy.

Rather than growing plants in kiddie pools, they opted to retrofit a cold frame to create one big wetland pool. The original cold frame is a rectangular structure built with 2"x12" pressure-treated lumber that we typically use as a growing pad for nursery stock. Its dimensions are about 6'x20'; it was modified it to hold water by using a pond liner bought at Cavicchio Greenhouses in Sudbury. They kept the frame filled with about 2" of water, and occasionally flushed stagnant water out by running a hose for a few hours, allowing water to pour over the sides. They were able to comfortably fit about 70 plants in 3-gallon containers into the space and successfully raised at least 50,000 beetles.



© NEWFS

NYANZA: Water Chestnut 2014

Mapping

OARS conducted a second summer of water chestnut mapping in the Sudbury, Assabet, and Concord River system. Water chestnut was found in sections of all three rivers throughout the system, in a distribution similar to that documented in 2013.

A comparison of the total number of acres covered with water chestnut showed an increase of about 45 acres between 2013 and 2014 (only some of which can be attributed to an increase in the area surveyed). Small infestations were found further upstream than had been previously observed: in the A1 Impoundment of

the Assabet River and in the Sudbury River Reservoir upstream of the Myrtle Street dam in Ashland. Analysis of the data by river section showed the population of water chestnut in the Hudson Impoundment of the Assabet River has spread from several isolated patches to many patches distributed throughout the impoundment. The population of water chestnut in Heard Pond, currently being managed by hand-pulling, increased in 2014 despite management.

This mapping suggests that water chestnut continues to spread in the river system, with many small infestations (418 acres of “light density” in 2014 compared with 325 acres in 2013) that are likely to rapidly increase in size and density unless efforts are made to bring them under control. These emerging areas are best suited to hand-pulling and efforts should be made by river/reservoir managers, non-profits, and others to organize and, where necessary seek funding, to put control efforts in place. Priority should be on areas with emerging populations and upstream of river sections.

Assabet Pulling Together

During the winter of 2013-2014 a new subgroup of Friends of the Assabet River National Wildlife Refuge, Assabet Pulling Together (APT) was formed. APT is committed to strategic invasive-species removal in sensitive areas on the Refuge through carefully planned programs coordinated by volunteers with oversight by FWS biologists.

Throughout the 2014 season four members of the APT steering committee helped with scheduling, organizing, and documenting weekly work sessions. The success of this effort was possible due to planning and organization of the steering committee which included botanical experts. A core group of about 10 volunteers made up the work parties with a typical attendance of 5 per session. During the 2014 season APT volunteers contributed approximately 1,500 person-hours of time toward the invasives-removal project. Over 30 truckloads of plant material were transported to a dump site on the refuge. Species removed include garlic mustard, glossy buckthorn, Japanese knotweed, black swallow-wort, tree of heaven, spotted knapweed, autumn olive, Japanese hops, wild parsnips, bladder senna, purple loosestrife, coltsfoot, Japanese stiltgrass, rusty willow and Oriental bittersweet.

APT is ready to expand its scope with an intern to coordinate more intensive removal and educational efforts to show visitors the benefits of clearing invasive species and encouraging native plants to maintain healthy biological diversity on the Refuge. Grant applications have been submitted to fund an intern and a presentation by Doug Tallamy, author of “Bringing Nature Home.”



© OARS



© Assabet Pulling Together

SuAsCo CISMA is Hiring Interns!

The SuAsCo CISMA is hiring seasonal interns for the 2015 field season to hand-pull water chestnut along-side the harvester in areas along the Sudbury River. Please pass along the following links to anyone you think would be interested! Please contact the Coordinator with any questions! acarr@massaudubon.org

<http://www.massaudubon.org/jobs/invasive-plant-crew-leader-40-hours-week-seasonal-12-weeks-early-june-late-august>

<http://www.massaudubon.org/jobs/invasive-plant-assistant-crew-leader-40-hours-week-seasonal-8-weeks-mid-june-mid-august>

<http://www.massaudubon.org/jobs/invasive-plant-crew-member-40-hours-week-seasonal-8-weeks-mid-june-mid-august>



© Alpha Boats

RSC FUNDED CISMA SMALL GRANTS PROGRAM

The CISMA received \$4,500 from the Sudbury-Assabet-Concord Wild and Scenic River Stewardship Council (RSC), which allowed us to continue our small grants program. The grant enabled the following projects:

Concord Land Conservation Trust's Project controlled Phragmites in the Sudbury River, near Route 2, for a second year with support of RSC funds in the 2014 field season. JMP Environmental was contracted to continue their method of herbicide application and cutting Phragmites stems at the treatment site. The treatment site is one acre in size and the current restrictions limit use to 2 gallons of herbicide/acre. Due to these restrictions the contractor was unable to treat the entire site with herbicide and needed to perform brush cutting for some of the area. Concord Land Conservation Trust plans to treat for a third year at the site with herbicide.

Sudbury Valley Trustees treated glossy buckthorn near a population of Britton's Violet (*Viola brittoniana*). They used the RSC funds to hire The New England Wild Flower Society to write a management plan for the site and conduct treatment using herbicide. Mowing was conducted for several months following herbicide treatment. Sudbury Valley Trustees spent an additional \$723 above the funds they received from RSC.

Westford continued their fourth year of treatment for mile-a-minute with the RSC funds. Mile-a-minute is an early detection species recognized as being highly prolific and aggressive. They had over 13 pulls and 37 volunteers participate in the field season. In addition to invasive removal parties they attended events where they manned a booth and provided educational materials to the public. They also provided plant walks, distributed plant ID fact sheets to local community members and provided invasive plant management advice when requested. They consider their program successful based on finding 75% less plant material this year even though their removal efforts and target control area size increased from previous years. They estimate they are able to pull 90% of the vines before they reach fruiting stage. Westford spent an additional \$90 above the funds they received from RSC. They estimate 962 volunteer hours were spent on the project during the 2014 field season.

Southborough's Open Land Foundation treated invasive plant species at the Beals Preserve to create early successional habitat. They hired Polatin Ecological Services to treat a 6 acre area for 2 days. The main species treated were glossy buckthorn, multiflora rose, oriental bittersweet, bush honeysuckle, and Japanese barberry. They plan to monitor the treated area in the spring of 2015 to determine if follow up treatments are needed with herbicide or volunteer efforts.

The SuAsCo CISMA's Education/Outreach Sub-committee started working with Bartlett Interactive to make necessary updates to the website. We were having communication issues with housing photos on our flickr site and having them be successfully displayed on our CISMA website. The work has begun and will hopefully have these issues resolved soon.



© Westford Conservation Trust