SuAsCo CISMA
COOPERATIVE INVASIVE SPECIES MANAGEMENT AREA

Highlights 2012

SuAsCo Cooperative Invasive Species Management Area
2012 Activities

It is with a sense of gratitude that I write this for the 3rd issue of SUASCO CISMA Highlights*. Since the formation of the group in 2009, the CISMA has grown from 22 to 41 partner organizations. This year, our newest partners include the U.S. Department of Agriculture, Natural Resources Conservation Sciences, and the Natick Garden Club. I am grateful that so many partners are not only doing a lot of important work in their own towns and jurisdictions, but also are firmly committed to this group, sharing information and collaborating to maximize the effectiveness of their efforts. In my home town of Carlisle, I have witnessed a huge increase in awareness and interest in invasive species control over the past 3 years. I hope that is the case for other partners as well.*

In terms of CISMA administrative news, in January, OARS was elected as the newest member of the Steering Committee. The New England Wild Flower Society, the Friends of the Assabet River NWR, and Mass Audubon were re-elected to their 3-year terms. And, after over 3 years of leading the CISMA, Libby Herland chose to step down, and as Vice Chair, I was elected to the Chair position. A huge thank you to Libby for leading us so competently through our early years. Laura Mattei of the Sudbury Valley Trustees, a crucial founding member of the CISMA, took my place as Vice Chair. Jeff Collins of Mass Audubon will remain as Treasurer, and Lee Steppacher of the Wild and Scenic River Stewardship Council and Libby Herland will serve as Co-Secretaries.

This newsletter highlights a few of the initiatives of the CISMA and its members. If you weren't able to contribute an article for the hardcopy version of Highlights*, please consider sending Amber a summary of your projects for the version that we will post on the Web site.*

Thanks to all for your continued interest!

Lynn Knight, Chair
SuAsCo CISMA Steering Committee

USFWS Conducts Beetles Rearing Project

Beginning in late March 2012, the Eastern MA NWR Complex partnered with a Student Conservation Association/National Park Service Fellow to raise *Galerucella* beetles for the members of the SuAsCo CISMA.

Galerucella beetle adults are collected to begin the cultivation of control populations.

The rearing facility was housed at the Assabet River National Wildlife Refuge visitor center, where 37 loosestrife plants were raised. Existing protocols recommend placing 10-15 beetles on each loosestrife plant, so approximately 450 wild beetles from the Concord Impoundment property on the Great Meadows NWR were collected and distributed among our potted plants. *Galerucella* beetles lay eggs over a three to five week window, which results in a significant overlap in their life stages. We observed the concurrent presence of mating, eggs, and larvae. Based upon the *Galerucella* life stage timeline, it is extremely likely that larvae were also pupating in the soil at time of release, out of sight. Their sheer numbers alone make an accurate final count of new adults practically impossible. With the additional complication of overlapping life stages and unseen pupae, we have to estimate of new adults to raise. Conservatively, we estimate that each plant produced 500-1000 adults.

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RSC Small Grants Program

The CISMA received $4,900 from the RSC to fund a small grants program during the 2013 field season. The CISMA was able to fund six projects with these funds. Details of each on the last page!

The SuAsCo CISMA Highlights are written and collected by members of the Administrative Subcommittee, and designed by the Walden Woods Project

Beetle nurseries produced 33,000 beetles at Assabet River NWR.

USFWS Conducts Beetles Rearing Project (cont.)

In total, this project resulted in rearing between 17,000 and 33,000 beetles.

Beetle-laden plants were distributed to a number of SuAsCo CISMA members: the Sudbury Valley Trustees, the town of Marlborough Conservation Department, the Concord Land Conservation Trust, and the Lincoln Land Conservation Trust. The project was a great success and there are plans to expand it to engage local high school students in the future. If you are interested in more information about the project, check out the blog here: http://www.suascorivers.blogspot.com

Nyanza Restoration Work

As part of the Nyanza Natural Resource Damages Superfund site settlement, the Nyanza Trustees have asked the SUASCO CISMA to manage and utilize $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*) in the Sudbury River from Ashland to Concord. It also will support mapping and monitoring of water chestnut (*Trapa natans*) in the Sudbury, Assabet and Concord Rivers, and in 130 acres of ponds in the Hop Brook Watershed, as well as focused control efforts on the main stem of the Sudbury River. If directed by the Trustees, there is potential for the CISMA to conduct additional work utilizing $395,000 in Tier 2 funding in the 3- to 5-year timeframe to expand control efforts of water chestnut to include the Assabet and Concord Rivers.

Implementation of the project duties requested will be a true collaboration among CISMA partners. Some elements will have a natural fit with one particular partner, so that, as endorsed by the Steering Committee, funding for that element will be allocated directly to that Partner. For example, USFWS is in the best position to offer long-term storage and maintenance of the aquatic weed harvester, so funds for that purchase will go directly to USFWS. For other elements, the Steering Committee will solicit proposals from the entire CISMA membership so that all Partners have the opportunity to participate. For example, on Nov. 30, 2012, the Administrative Subcommittee issued an RFP to the membership seeking proposals to conduct mapping and monitoring of purple loosestrife and water chestnut. Based on the proposals submitted and the selection made by the Steering Committee, Mass Audubon will conduct the mapping, monitoring, and related tasks for purple loosestrife, and OARS will conduct similar tasks related to water chestnut. The two entities will collaborate and share information on the infestations they each identify. There will be additional RFPs released next year seeking CISMA partners interested in raising *Galerucella* beetles.

Galerucella Beetle Rearing Training Offered

Nyanza will be funding beetle rearing efforts during 2014 and 2015 for the CISMA membership. We would like to set up 10 different rearing facilities within the watershed. The US Fish and Wildlife Service will be hosting a teaching facility for beetle rearing during the 2013 growing season. Any and all CISMA members who are interested in rearing their own beetles in 2014 and 2015 are encouraged to participate and volunteer, so that they may become familiar with operating a rearing facility. A rough time line is below:

Mid-March: Dig purple loosestrife root balls and set up facility with kiddie pools

Early to mid-May: Begin collecting beetles and adding to potted loosestrife

Late May: Larvae hatch

Early to mid-June: Larvae begin pupating

Early to mid-July: Release new adult beetles

For more information or to sign up for this wonderful opportunity, please contact Amber Carr at amber_carr@fws.gov or (978) 443-4661 x 33

National Fish and Wildlife Foundation Grant

In March 2012, the SUASCO CISMA was awarded a $70,100 NFWF grant to reduce the presence of invasive plants at six sites in the watershed. The goal of the grant is to restore early successional habitats, including meadows, shrublands, and pine barrens. The five CISMA partners participating are the Walden Woods Project, Sudbury Valley Trustees, US Fish and Wildlife Service, the Town of Carlisle, and the Carlisle Conservation Foundation.

Work at Ben's Woods with the Carlisle Conservation Foundation (top) and Greenways with SVT. Chuck Walla

At each site, aided by New England Wild Flower Society (NEWFS) experts, a site evaluation was conducted and a detailed control plan was prepared by Amber Carr, the CISMA Coordinator. NEWFS teams, assisted by partner volunteers, treated invasives with herbicide as well as hand pulling during the 2012 field season. Follow-up treatment will be accomplished in 2013.

Bear Garden Hill – The Walden Woods Project's 1.5-acre old field had significant encroachments of honeysuckle, bittersweet, and glossy buckthorn. Bittersweet in the trees on the field edges, as well as a garlic mustard infestation were also targeted.

Sudbury Desert Natural Area – An SVT property containing a pitch pine and scrub oak barren was suffering from an infestation of glossy buckthorn, Oriental bittersweet, and honeysuckle. Prescribed burning will be used in a 10-acre section, and hand pulling and herbicide applications in other areas.

Foss Farm – Carlisle's Foss Farm and the adjacent Great Meadow National Wildlife Refuge are being treated for dense thickets of glossy buckthorn, multiflora rose, Oriental bittersweet, autumn olive, and Japanese knotweed along field edges. Cutting and herbicide applications as well as mechanical removal were used.

Ben's Woods – Also in Carlisle, an old pasture overtaken by porcelain berry and Oriental bittersweet was targeted. In addition, burning bush in the forest immediately surrounding the field was treated.

Greenways Conservation Area – An 8-acre field invaded by glossy buckthorn and multiflora rose has been the target of control efforts by SVT for a few years. Additional control work was conducted under this grant to convert the mixed upland and wetlands field to a native grass hay field.

Assabet River National Wildlife Refuge – On the south side of the Refuge, the focus was an area where spotted knapweed had taken over. After treatment, native little blue stem grasses began to return.

OARS Mapping Project

OARS has an ongoing mapping effort on the Assabet River. Since 2005, they have been able to show that there has been a 50 percent reduction in wet biomass on the river. During the 2012 season, OARS expanded their mapping range and mapped aquatic invasives and water chestnut to track progress and to estimate biomass. They were successful in recruiting volunteers to help survey a large percentage of the river and impoundments.

OARS volunteer harvesting loads of waterchestnut.

When collecting mapping data, OARS employs a grid system overlaid on portions of the river. Using mobile mappers on site allows users to record data by selecting the grid square corresponding to your location and entering information such as number of plants, percent cover, any treatment or removal conducted, and the date. The biomass survey focused on recording the percent cover of duckweed as well as noting all species present, the dominant species present, and identifying any invasive species present.

The CISMA made great use of grants from the River Stewardship Council in the last year. These projects were all supported:

New England Wild Flower Society

In August, 2012, the New England Wild Flower Society held an Early Detection/Rapid Response training session at the New England Wild Flower Society for SuAsCo-CISMA volunteers. A total of fourteen volunteers attended the session. The training session covered 24 invasive species: eleven "common" invasives, and thirteen early detection species. The session also covered invasive plant survey methods, documentation and mapping. Ale Echandi of the MA DCR presented a special session on the identification and control of mile-a-minute vine, and Alexey Zinovjev and Irina Kadis presented an indoor and outdoor session on the identification and ecology of the invasive rusty willow. During the afternoon field trip to Callahan State Park in Framingham, workshop participants also saw a number of other invasive species.

CISMA Speaker Series

SuAsCo CISMA hosted a presentation from Tim Simmons entitled "Taking on Invasives" on January 22nd. With more than 70 attendees the event was a great success. Jess Toro, of Native Habitat Restoration LLC, will be our next speaker in May, 2013. *Keep an eye on the website, www.cisma-suasco.com, for details!*

CISMA Website Development

SuAsCo CISMA is currently in the process of collaborating with our website developer and an EDDmaps designer to incorporate a mapping component on our website. The group plans to meet in February and start implementation by early spring.

Baystate Roads Training:

SuAsCo CISMA, WISP, and Baystate Roads partnered for a second year to provide road crew trainings in the state. Two trainings were funded this year, with support for the training in the SuAsCo watershed provided by the River Stewardship Council. The topic of the trainings was how to keep invasive plant management costs low by using early detection and rapid response. There were 15 attendees at the training, which included a field identification component.

Support for S.W.E.E.T.

S.W.E.E.T. is pleased to report the addition of two new volunteers and several occasional helpers who came forward to help organize the town-wide Garlic Mustard Pull and student control efforts. The total number of bags of plant material collected in 2011-2012 was 1,080. Of these, 714 were Garlic Mustard.

In April 2012, S.W.E.E.T. worked with Lincoln Sudbury High School seniors to remove invasive Japanese honeysuckle at the school. S.W.E.E.T. is included as a preferred organization for the Senior Service Day program. Students have begun to replant native species at the school.

In May, the second "Eat it and Defeat it" town-wide Garlic Mustard Pull was a big hit. Fifty-three residents and seven groups participated, including homeschool students, Boy and Girls Scout troops and employees from Shaw's Grocery of Sudbury. Cooking demonstrations at Duck Soup in Sudbury were featured in the Metro West Daily News. The number of bags of plant material totaled 714. SuAsCo members helped publicize this event.

Westford MAM project

Westford concluded their second year of a five-year management program controlling Mile-A-Minute (MAM). MAM populations were reduced at the two original sites. There was good volunteer participation and they were able to expand their original survey area. More MAM was found in new locations but in small patches which were immediately added to the monitoring program. There is more awareness of the species in town, which mean more eyes are out looking for the plant!