

Report by OCCA to CRISP

Project Report: Otsego Invasives Intervention and Education

Objectives: Create awareness of high priority aquatic and terrestrial invasive species, including European frog-bit, spotted lanternfly, and others in Otsego County; Train volunteers to recognize and properly survey aquatic and terrestrial areas in Otsego County for AIS, SLF and HWA; engage the public in actively searching for and determining the extent of hemlock woolly adelgid in Otsego County.

Project activities:

Task 1: continue long-term AIS intervention activities aimed at eradicating populations of European frog-bit (*Hydrocharis morus-ranae*) in New Berlin and Springfield.

Activities: During summer, 2022, OCCA carried out the following activities in target areas:

Three European frog-bit surveys/removals in Clarke Pond, Springfield on June 10, July 15, August 19. OCCA personnel were supplemented by community volunteers, CRISP AIS strike team, and stewards from the CRISP Watershed Steward Program. The June search was primarily a shoreline walk concentrating on the western (Route 80) side of the pond. European frog-bit was found scattered widely throughout the cattail marsh but not in more open water. The plants were small and widely dispersed. Less than five pounds total (wet weight) of material was collected and disposed of by composting at Mohican Farm.

The July 15 search included one OCCA staff, 3 CRISP AIS staff, and 2 community volunteers. CRISP AIS team used kayaks, while OCCA staff and volunteers walked the shoreline along the north and northwest edge. Following this search, CRISP AIS staff launched into Cripple Creek and searched between the Clarke Pond dam and Otsego Lake, and additionally searched along the Otsego Lake shore. At the same time, OCCA staff walked the eastern shore of the pond and portions of Cripple Creek where it enters the pond. During this search, just three plants were found, all in one location on the northern shore of the pond.

On August 19, one OCCA staff and one CRISP Watershed Steward searched on foot the left bank of Cripple Creek between the dam and Otsego Lake, and the right bank of Cripple Creek between the dam and a point about halfway to NY Route 80. One small clump of frog-bit was found below the dam (see iMap record 1288243). This clump was small, two rosettes, with small leaves and no flowers. An extensive (~10' across) mat of very well-developed plants was found upstream (iMap record 1288242). It was growing up against a fallen tree. Many of the rosettes had leaves 2-3" in diameter, as well as turions. No flowers were observed. Nearly all plants were removed, though some were out of reach. The weight of the plants was estimated to be in excess of 50 pounds, wet weight (2.5 bags). Plants were deposited on dry ground, well above the water line.

Activities at Silver Lake included combined water chestnut/frog-bit removals on June 18 and July 30. An additional pull was scheduled for 8/27 but was cancelled at the request of the lake owner. The June 18 pull involved OCCA, CRISP AIS, and a community volunteer. Turnout at Silver Lake was particularly disappointing this year, to be honest. We were able to circumnavigate the entirety of the lake, removing a good amount of water chestnut and smaller amounts of European frog-bit (see iMap #1275408 by Sarah Coney).

On June 30, four total participants removed ~100 water chestnut plants and an undisclosed amount of frog-bit. Participants included OCCA Intern, CRISP AIS, and 2 community volunteers. The amount of frog-bit collected was not reported, but was likely negligible. Frog-bit in Silver Lake is extensive and can be found across approximately 3/4 of the lake's shoreline, but is frequently in hard to reach locations and in densities that make pulling difficult.

Task 2: recruit and train volunteers from the Canadarago, Otsego and Goodyear lakes communities to conduct regular surveys of their water bodies in search of select, high priority AIS (list will be determined in consultation with CRISP AIS Manager);

Activities: In an effort to recruit volunteers, OCCA presented to the Canadarago Lake Improvement Association (CLIA) board in January, 2022, and maintained multiple, regular communications with members of the board of directors for CLIA, as well as the Goodyear Lake Association (GLY) and Otsego Lake Association (OLA). OCCA sent notices of events and activities, as well as updates of our findings, to contacts among these organizations, and contributed newsletter articles to CLIA and OLA. OCCA also serves on CLIA's newly-formed invasive species subcommittee. OCCA also participated in CLIA's annual picnic, bringing displays and materials related to aquatic and terrestrial AIS and attempting to recruit volunteers for the Zone Patrol. Unfortunately, recruiting efforts did not result in formation of any teams for this year. While some community volunteers turned out for certain events, for this year, interest in Zone Patrols was non-existent. We will look at how to approach this better for 2023.

Task 3: carry out emergency intervention activities at waterbodies with newly-discovered infestations of high priority AIS. Intervention activities will engage community volunteers, and OCCA will also work with the Watershed Stewards Program out of SUNY Oneonta BFS for additional personnel.

Activities: OCCA was engaged in multiple pulls at Canadarago Lake (June 2, 22, July 13, August 17). Pulls were arranged in coordination with CLIA and CRISP AIS staff, and included representatives of each group. Close to 300 plants were removed from the south end of the lake and the area near the boat launch during those pulls. Low water hampered our ability to search on 8/17.

OCCA followed up with some emergency removal efforts at Banner Road Pond on 6/16 and 6/29, removing a total of 9 bags of water chestnuts. Following discovery and removal of water chestnut at an oxbow pond off the Susquehanna River in Milford in 2022, a visit this year turned up no plants. Several waterbodies on the east side of the river were visited in August, with only one having water chestnuts. A small number (<1 bag) of water chestnuts were removed.

Shipman Pond was not visited this year due to inability to secure permission to access the property.

Low water conditions as a result of drought hampered our ability to conduct pulls. The northeastern edge of the Goodyear Lake Stump Lot is an area of normally low water with large amounts of emergent vegetation (mostly *Pontedaria* and *Sagittaria*). On June 5, water levels were high enough and it was early enough in the season that there was no interfering emergent vegetation, so we were able to pull a large amount of water chestnuts from that area. As the summer wore on, it became impossible to access this area and we could only attack the edges. Our August 27 pull indicated an extensive amount of mature water chestnut plants in this area. Low water also hindered our ability to get into the Wightman's Cove portion of Goodyear Lake, portions of Oaks Creek, and Larchwood Lake. Possible solution is to concentrate pulls early in the season, when water levels are likely to be higher.

Note that wherever possible, we tried to coordinate our activities with the CRISP AIS program in order to avoid duplicating effort and to leverage collective manpower. We greatly appreciate being able to work with the CRISP AIS Strike Team, and hope that our efforts are a help to them as well.

OCCA staff also did a small-scale removal of water chestnut at an unnamed pond on County Road 35 in the town of Milford following a survey of several ponds on the east side of the Susquehanna River. The result was a small amount of water chestnut, less than one bag.

Task 4: Education. Conduct multiple public education programs on current and emerging terrestrial and aquatic invasives, with programs will be in person and online; distribute materials at public events such as EcoFair, EV car show, SUNY Oneonta Kaufman lecture series and other events on invasives, with particular focus on spotted lanternfly;)

Activities: Public events include tabling/display at Cherry Valley Outdoor Games, June 18-20; Canadarago Lake Day, July 9; tabling at Butternut Valley Alliance's "On the Trail of Art" public show at Basswood Pond State Forest, June 11 and 12; Sharing information with members of the Susquehanna Headwaters Environmental Coalition (SHEC) at summer meeting (note: the Eco-Fair was cancelled); tabling at Hartwick Electric Vehicle show (May 21); Climate Action Youth Summit at SUNY Oneonta, April 1). Upcoming events include Cooperstown Rotary Fall Fling (October 8) and presentation for Susquehanna Chapter Adirondack Mountain Club (November 16). These events include our tabletop invasive species display, developed through a previous CRISP project grant, as well as printed literature and handouts, specimens to look at.

Task 5: create, train and lead a "Hemlock Hunters" volunteer team, which will identify important hemlock stands in the county, survey stands for HWA; report findings both on iMapInvasives and using protocols and reporting forms developed by the New York State Hemlock Initiative

Activities: In response to the sudden discovery of hemlock woolly adelgid in Cooperstown in December, 2021, OCCA and our partner, The Clark Foundation/Mohican Farm worked to put together trainings and carry out surveys of properties. This began with a webinar training by Carri Marschner, of the New York State Hemlock Initiative, followed by a field training led by Steve Kinne, a volunteer from Central New York. Following the 2021-22 field season, OCCA and Mohican Farm held several planning meetings to assess the winter and set the groundwork for fall/winter 2022. Worked with college student from Union College to help them identify sites for developing a risk assessment tool for hemlocks. Set meeting for early September with a group that included local stakeholders, including Mohican Farm, OCCA, Village of Cooperstown, and SUNY Oneonta Biological Field Station. OCCA Program Director, Jeff O'Handley and Mohican Farm Manager, Devin Merkley participated in "Train the Trainer" session with Carri Marschner of the New York State Hemlock Initiative.

Merkley and O'Handley presented/trained on HWA the following dates/venues:

November 16, Susquehanna Chapter Adirondack Mountain Club (~32 attendees; no list available)

November 18 training, SUNY Oneonta Outdoor Club and SUNY Oneonta Environmental Science Club

November 29, field training for Susquehanna Chapter Adirondack Mountain Club

December 10, Clark Sports Center, Cooperstown.

An additional training is occurring on January 14, 2023, in conjunction with Butternut Valley Alliance. BVA is assisting with recruitment and has additionally provided a list of property owners with hemlock stands who are willing to allow access for surveys in 2023. In addition to field surveys carried out between January and April, 2022, OCCA and Mohican Farm surveyed approximately 2/3 of an extensive hemlock hedge at Riverside Cemetery, Oneonta, on December 14, 2022 (iMap record 41702).

Task 6: participate in SLF/ToH program through NY iMapInvasives and conduct a minimum of three surveys each on two grid squares, and report findings to iMapinvasives

Activities: OCCA adopted two grid squares, one centered on Arnold Lake State Forest, the other in Cooperstown. Survey dates included May 14, July 13 and September 22 (Cooperstown); and May 4, August 9 and September 22 (Arnold Lake State Forest). In addition, following a phone call from a concerned citizen, OCCA and CRISP AIS Manager, Sarah Coney surveyed for SLF along the railroad tracks behind the Cooperstown Dreams Park in Hartwick Seminary on September 29. At no point has SLF been found to date.

Participant lists:

Aquatic Invasives

Brandon Guerrero	Mary Keefe	Ed Bugel	Jay Deitchman
Jonathan Deitchman	Amy Wyant	Emrys Odell	Shane Digan
Sierra Stickney*	Jordan Scott	Kevin Musser	Maria Arnot
Sarah Coney*	Linda Equinda	Alexis Equinda	Lucy Equinda
Ruiyu Zhang	Bethany Shaw	Scott Popma	Claire Bandet*
Sinead Comerford	Kate Roefs	Patricia Englert	Bill Hoogterp
Scott Howes	Sandy Howes	Olivia Kuss	Betsy O'Brien
Preston Withington	Ben Popma	Matt Dombrowski	Ryan Fagan

Hemlock Woolly Adelgid (see attached lists for training/program participants; in addition, the following people participated in HWA surveys in 2022:

Marcie Foster	Mike Bauer	Anne Wilfer	Jim Hill
Ed Lentz	Robbin Sawyer	John Chanik	Susan Newman
Pat Thorpe	Bill Ralston	Patricia Seybolt	Lou Priem
Matt Chisdock			

Supporting materials

iMapInvasives Reports related to this work:

1273247, 1288242, 1284688, 1288243, 1273469, 1274834, 1274832, 1274833, 1275408, 1275258, 1279607, 1275246, 1280518, 1275243

41027, 41737, 41738, 41739, 41740; 41741, 41742, 41743

Map of Clark Pond showing areas searched, frog-bit locations for 2022

NOTE: Green outline = searched area, 6/10/22; Blue = 7/15/22; Yellow = 8/19/22

