

New York Sea Grant 2013 Launch Steward Program Final Report



Local fisherman points to area on his trailer where AIS are commonly found. Photo by: NYSG Brittney Rogers

Table of Contents:

New York Sea Grant & Aquatic Invasive Species introduction	Pg. 2
Launch Steward Program Introduction	Pg. 2
Staff Introduction	Pg. 4
Summer 2013 Highlights	Pg. 6
Background Training	Pg. 6
Increasing Aquatic Invasive Species Awareness	Pg. 7
Habitat Monitoring & AIS Control	Pg. 11
Launch Steward Publications	Pg. 12
Watercraft Inspection Results	Pg. 13
Summary & Recommendations	Pg. 17

Abstract:

The main goal of this program is to prevent/slow down the spread of aquatic hitchhikers as well as educate boaters and the general public about aquatic invasive species and the detrimental effects they have on the ecosystems they are introduced to. The seven launch steward's worked at boat launches in Wayne, Oswego, Jefferson, Oneida and Madison counties. The season began May 20th and ended around September 11th. The highest trafficking seen was during July and August as the temperatures are ideal for boating. Optional surveys were performed at the launches with boaters, collecting data on

subjects including but not limited to invasive species awareness, previous water bodies and preventative methods. The data collected is used to help determine awareness of invasive species and this program. It is also used to determine how the invasive species are currently being spread. The Launch Stewards also attended eight additional background training events and contributed to 18 outreach events.

New York Sea Grant & Aquatic Invasive Species Introduction:

New York Sea Grant is a federal and state funded research and extension network dedicated to maintaining the environmental quality of coastal and aquatic ecosystems by providing university-based scientific research, education and community outreach programs. New York Sea Grant with Great Lakes and marine district offices, is among the largest of 33 university programs stemmed from the National Oceanic and Atmospheric Administration's National Sea Grant College Program— with a range reaching to every U.S. coastal and Great Lakes state, Guam and Puerto Rico. New York Sea Grant is a cooperative program through the State University of New York (SUNY) and Cornell University. Currently, New York Sea Grant is funding 20 research and outreach projects focused on preserving New York State's aquatic natural resources. The New York Sea Grant supports research projects that focus on important environmental issues that affect aquatic ecosystems. Unbiased scientific techniques and peer-reviewed processes are used to conduct research through the New York Sea Grant.

Aquatic invasive species are species that are introduced into a new environment where they can establish large populations partially due to a lack of predators. Many aquatic invasive species were introduced into the Great Lakes through the opening of the St. Lawrence Seaway and canal system, which allowed oceanic ships to travel into the Great Lakes. To maintain navigational stability, these large ships fill and release their ballast tanks with millions of gallons of water, known as ballast water. The United States Environmental Protection Agency identifies ballast water as a significant source of the aquatic invasive species introduction into the Great Lakes. As the ships released their ballast, they released species into the waters, most did not survive, but some established populations. Once aquatic invasive species were introduced into the Great Lakes, some had the ability to spread quickly by hitchhiking on watercrafts, in bilge and live well water, fishing and diving gear, and through animal activities. More than 180 different aquatic invasive species have been introduced to the Great Lakes. Since these species are highly competitive and have the potential to cause environmental and economic problems, they have become a targeted focus of the New York Sea Grant Launch Steward Program's outreach efforts.

Launch Steward Program Introduction:

To increase boaters' awareness, the New York Sea Grant (NYSG) Launch Stewards are stationed at boat launches along the southern and eastern sections of Lake Ontario, and along the southern shore of Oneida Lake. Launch stewards offer boaters the voluntary opportunity to learn how to conduct watercraft inspections by looking for, removing, and disposing of aquatic invasive species (AIS) and other aquatic hitchhiking debris that may have attached to boats, trailers, and other equipment. By reaching out to the boating community and teaching people how to stop the spread of AIS, launch stewards encourage the public to do their part to protect New York's valuable waters. As part of AIS prevention, the NYSG Launch Steward Program has adopted the national Stop Aquatic Hitchhikers campaign by explaining how important it is to "Clean, Drain and Dry" motorized and non-motorized watercrafts and other equipment before leaving and entering water bodies. This is a simple message that will inform boat owners about how they can stop the spread of AIS and improve aquatic ecosystems. Educational outreach programs, such as this, help community members understand the

delicate balance that exists within an ecosystem and how human activities can help or destroy that balance.

The goal of the inspections and public education programs offered throughout the boating season by the NYSG Launch Stewards is to empower boaters to help prevent and slow the spread of aquatic invasive species. The program was funded to employ seven employees at 15 launch sites for the summer of 2013. The summer steward program has expanded from Jefferson and Oswego counties to include waterfront sites in Madison, Oneida, Onondaga, and Wayne counties and covering the eastern Lake Ontario shoreline from Sodus Bay to Henderson, the Oswego River, Little Salmon River, Sandy Creek, Stony Creek, and the Oneida Lake.

The NYSG Launch Steward Program is the product of valuable partnerships. The program is one of the projects included in the New York State Department of Environmental Conservation's (NYSDEC) Aquatic Nuisance Species (ANS) Management Plan that currently receives U.S. Fish and Wildlife Service (USFWS) Great Lakes Restoration Initiative (GLRI) funds. Finger Lakes Lake Ontario Watershed Protection Alliance (FLOWPA) administers this and other contracts associated with the ANS Management Plan. NYSG's stewards are at launch sites providing public access. These sites are owned and managed by: NYSDEC, New York State Parks, Onondaga County Parks, the City of Oswego and the Towns of Sodus, Scriba and Henderson. Coverage area spans two PRISM's (Partnership for Regional Invasive Species Management) SLELO and FL (St. Lawrence Eastern Lake Ontario and Finger Lakes).

Additional partnerships make other outreach activities possible. Some examples include the Oswego County Soil and Water Conservation District leading European water chestnut hand pulls on the Salmon River and hand-pulls on Oneida Lake led by Oneida Lake Rotary and Salt City Bassmasters, AIS identification and watercraft inspection training (Save our Sodus).

Orientation and training was initiated on May 20, 2013 and was ongoing throughout the season. Stewards began boat launch duties on May 25, this continued through late August and early September.



Above: NYSG Launch Steward Brittney Rogers shakes hands with boater after showing him how to inspect his boat for aquatic hitchhikers. Photo by: Megan Pistolese, NYSG Launch

2013 Launch Steward Profiles



Mary Penney (left) is New York Sea Grant's Coastal Community Development Specialist and Launch Steward Program Coordinator.

Contact Information:

NY Sea Grant
SUNY Oswego
Penfield 4
Oswego, NY 13126
P: 315-312-3021
Email: mp357@cornell.edu

Heather Dunham (right) of Hornell, NY, will be a senior zoology major in the fall. The educational aspect of the Launch Steward programs fits her interest in becoming an educator at a zoo. Heather is one of the primary Launch Stewards assigned to the Oswego Cluster.



Sophia Oliveira (left) of New Milford, CT, is a 2013 biology graduate of the Rochester Institute of Technology. She plans to continue her education with graduate studies focused on conservation and wildlife biology in the fall. Sophia is the primary Launch Steward assigned to the Sodus Cluster.

Brittney Rogers (right) of Mexico, NY, is a 2013 zoology graduate of SUNY Oswego and is interested in environmental science and conservation. Her goal is to pursue a career in environmental conservation or wildlife rehabilitation. Brittney is one of the primary Launch Stewards assigned to the Henderson Cluster.





Megan Pistolese (left) of Watertown, NY, will be a senior environmental science major with Empire State College. She is interested in participating in public educational efforts to preserve local waterfront environments. Megan is one of the primary Launch Stewards assigned to the Henderson Cluster.

Nick Spera (right) of Brewerton, NY, the 2013 Chief Steward. He is a graduate of Nazareth College with a degree in Environmental Science and Psychology. Nick is currently pursuing a career as a scuba instructor. Nick is one of the primary Launch Stewards assigned to the Oneida cluster.



Ryan Thompson (left) of Savona, NY, is a SUNY Oswego graduate with a biology degree and an interest in environmental health and biosecurity career opportunities. Ryan is one of the primary Launch Stewards assigned to the Oswego Cluster.

Clinton A. Whittaker, Jr. (right) of Manchester, NY, a senior biology major at SUNY Oswego in the fall. He is pursuing multidisciplinary interests in the field of ecology. Clint is one of the primary Launch Stewards assigned to the Oneida cluster.



Summer Highlights:

During the summer months the Launch Stewards are busy at work. Training is very important for the stewards to spread as much awareness as possible, they attended eight events to further their education in five months. This season alone the Launch stewards conducted 2,166 inspections. Aquatic invasive species were documented to be on 202 separate boats. The launch stewards also contributed to 18 outreach events, some of which included operating many different informational booths at local events and participating in European Water Chestnut hand pulls.

Background training for AIS Resource Educators/Watercraft Inspectors:

Launch Steward Orientation: May 21, 2013: Seven Launch Stewards received instructional information and training materials. SUNY Oswego; seven attendees, new Launch stewards learned position expectation, inspection protocol, and background information on launch sites.

iMapInvasive Om-line Database Training: May 23rd, 2013: Seven Launch Stewards attended a training seminar to become registered and familiar with the iMapInvasives database. The event was hosted by SLELO at the Jefferson County Cornell Cooperative Extension Office in Watertown, NY. The event began with an introduction to SLELO and updates on their upcoming season. The training that followed included the beginner level up to the master level, training was performed by Heidi Krahling from iMapInvasives.



Above: NYSG Launch Stewards learn AIS identification at AIS training. Photo By: NYSG Launch Steward Brittney Rogers

Lake Ontario Dune Forum: June 12, 2013: Seven Launch Stewards attended the Dune Coalition meeting at the Sandy Pond Sportsman's Association followed by the Dune Forum which was open to the general public. The forum provided landowners and other attendees updates on topics regarding resource management and activities along the shore. Six organizations presented different topics.

AIS Identification Education: June 27, 2013: Seven Launch Stewards received help with the identification of aquatic invasive plant species at Shackelton Point on Oneida Lake. Stewards learned hands on differences between native and invasive plant species that are commonly misidentified. The stewards were also able to collect samples to be saved for pressing and laminating.

Sodus Bay Weed Harvester: July 16, 2013: Seven Launch Stewards were introduced to a few members of Wayne County Soil and Water Conservation District including, Lindsey Gerstenslager. Lindsey educated the stewards on problems that Wayne County faces from different AIS that were problematic in the area. Stewards were able to each operate and ride on the harvesters as they were removing invasive plants and were shown how the process works and takes place. The stewards identified all the plants that were removed and were able to identify and describe the plants that were invasive and native to the area.

International Joint Commissions Public Hearing Series: July 16, 2013: Seven NYSG Launch Stewards attended one of the IJC public hearings, in Williamson, NY, about the lake management plan being considered. Stewards gained information and knowledge that will help to better prepare them for conversations at launch sites related to lake level management.

Lake Ontario Lake Wide Management Plan: August 15/22, 2013: Five Launch Stewards attended the forums held in the Port of Rochester and SUNY Oswego. US EPA, NYSDEC and NYSG organized two forums targeting the general public. At these events attendees learned about on-going research as related to lake wide management goals. Much of this was related to water quality and invasive species. Stewards gained knowledge to better prepare them for conversations with boaters at launch sites. Attendees were updated on current research efforts from various organizations and local government.

Tippling Points for Action: October 8, 2013: Two Launch stewards attended the 5th Annual Invasive Species Workshop held at Alverna Heights in Fayetteville, NY. Presentations were given on six different topics, Impacts of Invasive Species on American Heart's Tongue Fern, White-tailed Deer and Their Impacts to Forest Ecosystems and the Spread of Invasive Species, The Kettle Lakes of Cortland and Onondaga Counties Anthropogenic Influences on Aquatic Invasions, Legislative Action for Addressing Impacts from Invasive Species in NYS, Perspectives of Climate Change on Invasives, Shifting Ecologies of Vector-borne Diseases: Noel Emergence, Recent Resurgence, and the Usual Suspects. Attendees had the opportunity to get up to date with differing topics of several invasive species from various organizations and local government

Increasing Aquatic Invasive Species Awareness:

Throughout the 2013 Launch Steward Program the stewards held and attended many different workshops, community events and educational programs to help raise awareness of the aquatic invasive species and the damages they are causing in the Great Lakes. These were held in many different locations across New York from Fort Drum's Environmental Days in Jefferson County, Empire Farm Days in Seneca Falls to Save Our Sodus events in Wayne County.

Dune Fest: Southwick Beach State Park: Pulaski, NY: May 30th: NYSG Launch Stewards educated 7th graders on aquatic food webs and impacts of AIS on aquatic food web. Students (100) and educators (13) from Belleville-Henderson and Sandy Creek middle schools attended, AIS impacts on aquatic food web, hands-on delivery method (laminated species photos (role playing) and string to connect the web).

Tri-Oswego Triathlon: Wrights Landing: Oswego, NY: June 15th: Launch steward Ryan Thompson attended the third annual Tri-Oswego Triathlon and manned an informational display of invasive species and the NYSG program at the finish line of the event at Wrights Landing. At least 46 people spent time learning about invasive species and the NYSG program while many of those who did not stop to talk at the table looked around and collected some publications that were on the table.

Sodus Bay Day: Sodus Bay Yacht Club: Sodus Bay, NY: June 22nd: Launch Stewards participated in the Citizen Science Expo held by Save Our Sodus at the Sodus Bay Yacht club by displaying and discussing the issues with AIS and what citizens can do to help. At the event, Launch Stewards set up a display with informational literature, resin critters, pickled critters, and some watch cards/giveaways. Attendees (40) became familiar with the importance of maintaining a stable ecosystem and the important native and invasive species involved in the Lake Ontario aquatic system.

Oswego County Fair: Oswego County Fairgrounds: Sandy Creek, NY: July 5th-7th: Launch steward Brittney Rogers held a booth in the tourism and promotion building and educated the general public about aquatic invasive species in the Great Lakes region and answered questions presented. Pamphlets and other information were handed out and collected by those who were interested. On July 5th, there were 95 visitors, 14 of which stopped at the NYSG table and asked for more information on AIS, six people were seen at the Clean and Safe Boat. Saturday July 6th, there were 124 visitors in the tourism and promotion building, 29 of which stopped at the NYSG table and asked for more information on AIS, 8 people were seen at the Clean and Safe Boat. Sunday July 7th, there were 52 visitors in the tourism and promotion building, seven of which stopped at the NYSG table and asked for more information on AIS, four people were seen at the Clean and Safe Boat. We received a participation award on the third day. Next year the representatives of the Oswego County fair would like to do a theme based on the idea of "Go Fishing".

NYSG Clean and Safe Boat at the Oswego County Fair in Sandy Creek, NY.

Photo By: NYSG Launch Steward Brittney Rogers



Lake Guardian Tour: Oswego County, NY: July 11th: For the first time in five years, the Lake Guardian research vessel was in Lake Ontario, 15 educators received a hands-on training from NYSG specialists and funded researchers on some key freshwater issues, including invasive species, harmful algal blooms, dunes and wetlands preservation/restoration and sport fishing. Mary Penney and three Launch Stewards traveled around with the 15 educators from across the Great Lakes States who were doing research on the Lake Guardian vessel. The Launch Stewards and Mary Penney brought the educators to various regions of Eastern Lake Ontario to show some important features of this area of the Great Lakes. Mary educated the teachers on the Black Pond ecosystem and the invasive species in that specific area. Following the Black Pond tour the educators were brought to the Salmon River Fish Hatchery for lunch and a tour. Throughout the trip the Launch Stewards informed the teachers of the NYSG program as well as AIS and the Launch Steward Program.



*NYSG Launch Steward Nick Spera and SLELO's Shelby Degato remove water chestnuts from a canoe to be weighed at the Water Chestnut Hand Pull held at Pine Grove Boat Launch.
Photo by: NYSG Launch Steward Brittney Rogers*

Water Quality Gatherings: Arney's Marina:

Sodus Bay, NY: July 11th: Launch Stewards, Maxine and other Save Our Sodus representatives along with local citizens of Sodus met at Arney's Marina near the Sodus Bay public boat launch. The meeting held discussed what the launch stewards do, how they interact with boaters, launch stewards demonstrated a boat inspection, and collaborated ideas for improving water quality in the bay. With the discussions, they were able to promote enough outreach to get in the works of placing an AIS disposal station at the public launch. The eight meeting participants were also able to come forth with any complaints and/or praise that from performing the inspections. While going through the mock inspection, curly leaf pondweed and Eurasian water milfoil were found on the water craft.

NOAA's Bay Watershed Education and Training: Lake Ontario, Lake Oneida: July

22nd-25th: 15 educators from across New York State spent a week learning about the ecology of Lake Ontario. These teachers were part of

the Great Lakes Field Experiences Lake Ontario Workshop for watershed educators led by New York Sea Grant Coastal Education Specialist Helen Domske. This workshop helps the coastal areas by providing educators with information and knowledge they can share with their students. The 4-day workshop included sessions at SUNY Oswego, the Salmon River Fish Hatchery, the Lake Ontario dunes and wetlands, the U.S. Geological Survey Lake Ontario Biological Field Station, and the Cornell University Biological Field Station in Bridgeport.

Wear It Event: Wrights Landing: Oswego, NY: July 29th: NYSG Launch Steward Heather Dunham was posted at the Lake Ontario Wright's Landing launch site in Oswego and gave at least 35 local boaters information pertaining to aquatic invasive species and the importance of having the proper safety gear on board boats. Boaters were informed and educated on the importance of safety while boating and were educated on keeping their local waters safe and were taught on the impact of invasive species in the environment and the role they play. Free Wear It gear (including T-shirts, air fresheners, bumper stickers, etc.) as well as Stop Aquatic Hitchhikers and Sea Grant gear were handed out to those members of the community who were interested in learning more about both programs.

Empire Farm Days: Rodman Lott and Son Farms: Seneca Falls, NY: August 6th-8th: Launch Steward Megan Pistolese manned an informational display of invasive species at the Empire Farm Days. Empire Farm days is a three day event with all the latest information on technologies and other excitement in northeastern agriculture. People from across the state visited the event to learn about new agricultural technologies. Visitors that walked past the display table were able to view pickled aquatic invasive species along with models of other various AIS. Viewers learned about the origin and environmental

impact of each species as well as how the spread of AIS can be stopped through the “Clean, Drain, Dry” campaign, on trailers and other water equipment. The display was placed in a heavy traffic area and many people stopped to look and listen to what New York Sea Grant Launch Stewards had to say and offer educationally. Pamphlets, brochures and published articles were also handed out at the informational display.

New York State Fair: New York State Fairgrounds: Syracuse, NY: August 31st-September 2nd: NYSG Launch Stewards Brittney Rogers and Megan Pistolese educated the general public about Aquatic Invasive Species in the Great Lakes and answered any questions presented at the informational display in the 4-H youth building. Pamphlets, brochures, published articles and other information were handed out and collected by those who were interested. Fair goers were able to learn about the different aquatic invasive species in Lake Ontario and surrounding areas. Information about AIS origin, impacts and control methods were presented as well. There were visitors to the table non-stop the entire day on Monday (Labor Day). Many of the people come up with questions about specific species, events, or situations, other people had no idea what invasive species were and they just came up to get some information. Many table visitors exclaimed how they felt that the table was very informative and beneficial. Approximately 3000 people visited the building where the display was located.

Aquatic Invasive Species display: Penfield Library: Oswego, NY: September 6th-27th: New York Sea Grant Launch Stewards Megan Pistolese, Brittney Rogers and Clinton Whittaker set up a display in the Oswego State Penfield Library showing the processes of inspections given by the Launch Stewards throughout the season. Some of the display items included photographs of inspections, resin critters and laminated AIS. An estimate of 500 visitors of SUNY Oswego’s Penfield Library were exposed to the NYSG Launch Steward Program, AIS identification, impacts of AIS, tips to prevent the spread of AIS, and how to learn more about the program.

Conservation Field Days: Selkirk Shores State Park: Pulaski, NY: September 19th: NYSG Launch Stewards Brittney Rogers and Sophia Oliveria attended the annual Conservation Field Days hosted by Oswego County Soil and Water Conservation District. The Launch Stewards educated 125 fifth graders on aquatic food webs and impacts of AIS on aquatic food web. Students and educators from many different surrounding schools (i.e., Pulaski, Volney) attended the event. Students had the opportunity to spend twenty minutes each at five different stations. The method of delivering information during this event was through a hands-on delivery method using laminated species photos (role playing) and string representing the connections of the food web.

Environmental Days: Fort Drum: Jefferson County, NY: September 24th-25th: Launch Stewards attended the Environmental Days organized by Jefferson County Cornell Cooperative Extension which educated sixth graders from local schools about the environment. The Launch Stewards educated the students about AIS through the engaging food web activity. Over the course of two days, 600 students were exposed to a variety of environmental topics. During the New York Sea Grant Launch Steward station the affects that AIS have on the food web were discussed as well as biodiversity while playing the hands-on game.

Salmon River Fish Hatchery Open House: Altmar, NY: September 28th: The Salmon River Fish Hatchery held a one day open house on National Hunting and Fishing Day. Launch Stewards Brittney Rogers and Megan Pistolese manned a three table display to talk to visitors about AIS and their impacts on the environment. Estimates of over 2,500 visitors attended the open house. The Launch Stewards handed out fact sheets, brochures, published articles, watch cards and other information about AIS. The booth

also contained the laminated, pickled and resin critters. The visitors to the booth had a variety of knowledge about AIS, some presented questions they had others just learned new information. Many of the visitors had previous experiences with Launch Stewards while boating and fishing in the area.

Greater Niagara Outdoor and Fishing Expo: Niagara Falls Convention Center: January 25-26th, 2014: NYSG Launch Steward Brittney Rogers staffed a display booth at the expo in coordination with Helen Domske. More than 750 visitors from New York, Canada and surrounding regions stopped at the booth and gained knowledge by collecting information or asking questions about AIS.

CNY Boat Show: New York State Fairgrounds Syracuse, NY: February 12-14, 2014: NYSG Launch Steward Brittney Rogers staffed a display booth at the CNY Boat Show, educating the attendees about aquatic invasive species in the Great Lakes region. Also, Brittney assisted with the in water life jacket demonstrations by providing the attending audiences with surveys about previous and gained knowledge of life jackets. Knowledge of AIS was increased at the booth for nearly 1,000 people who browsed, collected brochures and asked questions. Many people attended the in-water life jacket demonstrations performed by NYSG Dave White.

Habitat Monitoring & AIS Control:

Water Chestnut Hand Pull: Pine Grove Boat Launch: Port Ontario, NY: July 13th: In partnership with Oswego County Soil & Water Conservation, St. Lawrence Eastern Lake Ontario Partnership for Regional Invasive Species Management, and the Oswego County Guides' Association, the NYSG Launch Steward Program assisted in educating participants in AIS prevention and helped control efforts. Approximately 38 participants were in attendance; 530 pounds of European water chestnut were removed from the Salmon River during this event.

Water Chestnut Hand Pull: Emerald Point: Sodus Bay, NY: July 27th: Three Launch Stewards participated in a classic water chestnut hand pull at the edge of Emerald Point on kayaks/canoes and sent all collections to a weed harvester as needed. There were over 22 participants that were removing the AIS water chestnut from the Emerald point area. Following the hand pull all participants were invited to a Save Our Sodus Picnic. The Launch Stewards worked with SOS and other members of the community to help get rid of the water chestnuts which are found in high density and have been for the previous 25 years at the site.

Water Chestnut Hand Pull: Oneida Lake: Brewerton, NY: August 9th: Two NYSG Launch Stewards as well as 15 people attended the Oneida Lake weed pull held by the Oneida Lake Association (OLA), which took place on the north side of Oneida Lake. The pull included areas of invasion from the Big Bay area down to Three-Mile Bay. The waters were checked from bay to bay and all shoreline in-between. Invasive species that were found were bagged and removed from the areas. Water chestnuts were only found in the Big Bay region, and Frog-Bit was found in the Three-Mile Bay region.

Habitat Monitoring Program: Eastern Lake Ontario Dunes: October 15th: Launch Steward Brittney Rogers traveled to four different sites along the east coast of Lake Ontario collecting photographs at specific GPS locations. All photographs were printed out and placed into photo books for specific sites. Updated photo books allow the changes in the environment of the dune systems to be tracked over time.

Launch Steward Publications:***A Glance at the Aquatic Profile of Sodus Bay: NYSG Launch Steward Sophia Oliveira***

The New York Sea Grant Launch Steward Program has expanded to include Sodus Bay, the largest sheltered bay on Lake Ontario. A popular recreational and tourism area, Sodus Bay is an excellent place for the New York Sea Grant Launch Steward Program to be educating the public about the importance of preventing and slowing the spread of harmful aquatic hitchhikers. Summer bass fishing, ice fishing for perch, and spring bullhead fishing are popular angling activities.

Can We Stop Aquatic Hitchhikers? Here's How: NYSG Launch Steward Clinton Whittaker

Different types of AIS control include prevention, physical, mechanical, chemical, and biological means. While it may be possible to contain, suppress, and, in some rare cases, eradicate AIS infestations, management takes time and money. Because some control methods can be expensive and labor intensive, education methods, such as the NYSG Launch Steward Program, are important as cost-effective ways of engaging the public in helping to prevent and slow the spread of AIS.

What is That on My Line & How Do I Report It?: NYSG Launch Steward: Britney Rogers

To limit and, in some cases, prevent the spread of AIS and protect the health of popular fishing spots and recreational waterways, it is important for the public to be able to accurately identify and report AIS. Once AIS have become established in areas, it is more difficult to remove or manage them, which is why tracking their distribution range is vital for early detection and controlling the spread of the unwanted species.

Water Chestnut Control: Start Early and Continue; Pull Set for July 13 at Port Ontario: NYSG Launch Steward Nicholas Spera

Locally, European water chestnut (WC), is an AIS causing problems in Oneida Lake, the Salmon and Oswego Rivers, and some embayment's of Lake Ontario. Without control efforts, WC easily outcompetes native species by overcrowding to dominate waterways and increase the potential for fish die-off. Hand pulls are done with groups of volunteers, with the goal of removing as much of the WC as possible. Suppression and containment are reasonable goals for AIS treatment.

Help Prevent AIS Spread BEFORE We Pay for Their Management: NYSG Launch Steward Ryan Thompson

AIS have a huge economic impact on the Great Lakes region. The economic weight of AIS has been felt locally. In 2011, Hydrilla, an aquatic invasive plant, was discovered in the Cayuga Lake inlet in Ithaca, NY. Efforts to suppress the waterweed have proved to be effective, yet costly.

Blog: New York Sea Grant's Launch Steward Program: STOP AQUATIC HITCHHIKERS!

This blog provides a glimpse into steward activities while providing boaters with tips to help prevent the spread of aquatic invasive species. Articles published by the Launch Stewards are posted as well as updates on outreach events. <http://nysglaunchsteward.blogspot.com/>

Watercraft Inspection Results:

Demographics: Each boater was asked a series of questions during the voluntary inspections. The overall results that were collected by the launch stewards in 2013.

Table 1: Demographics

Launch Name	# Boats inspected	# Days at launch	Total # people reached	Ave. Group Size	% NY Reg.	Ave. boats per day	% Boats with organisms	% Boats using prevent
Fair Haven Beach State Park	246	17	681	2.77	80%	14.47	6.10%	91.87%
Henderson Harbor Boat Launch	312	36	764	2.45	85%	8.67	14.74%	84.62%
Mexico Point Boat Launch	176	13	447	2.54	77%	13.54	2.84%	96.02%
Oneida Shores Boat Launch	58	3	145	2.50	91%	19.33	8.62%	100%
Pine Grove Boat Launch	116	11	288	2.48	68%	10.55	6.03%	93.1%
Port Bay South	39	15	92	2.36	95%	2.60	15.38%	100%
Port Bay West	46	18	104	2.26	91%	2.56	6.52%	100%
Sodus Bay	97	23	227	2.34	99%	4.22	18.56%	100%
S. Shores State Park Boat Launch	651	28	1386	2.13	98%	23.25	9.68%	99.23%
Stony Creek Boat Launch	164	26	413	2.52	83%	6.31	15.24%	90.85%
Sunset Bay Boat Launch	28	5	72	2.57	82%	5.60	10.71%	96.43%
Wrights Landing	233	22	559	2.40	73%	10.59	2.15%	94.85%
Total	2166	217	5178	2.391	1841.1	10.14	210.54	2050
Average	180.50	18.08	431.50	2.44	85%	10.14	9.72%	94.60%

Table 1: Overall Picture of Inspections for the 2013 Launch Steward Season: Overall information collected by stewards such as: the total number of boats inspected at each launch site, how many days stewards were at each launch site, the total number of people reached, the average number of people per group, the percentage of watercrafts that are registered to New York State, the percentage of boats with organisms on them.

FQ Prior Prevention Methods: Each boater was asked how often they used measures to prevent the spread of AIS before this inspection with a launch steward. The boater used a scale to rate the occurrence of preventative methods used from *always* to *never*. The results show how often the boaters took measures to prevent the spread of AIS before this inspection.

Table 2: FQ Prior Prevent Methods

Launch Name	# Boats inspected	Total number people reached	% Always	% Very Often	% Somewhat Often	% Never	% Non-response
Fair Haven Beach State Park	246	681	75.61%	11.38%	4.47%	8.13%	0.41%
Henderson Harbor Boat Launch	312	764	38.46%	22.12%	20.19%	15.38%	3.85%
Mexico Point Boat Launch	176	447	74.43%	13.64%	7.39%	3.98%	0.57%
Oneida Shores Boat Launch	58	145	36.21%	43.10%	18.97%	0.00%	1.72%
Pine Grove Boat Launch	116	288	76.72%	8.62%	6.03%	6.90%	1.72%
Port Bay South	39	92	38.46%	25.64%	23.08%	0.00%	12.82%
Port Bay West	46	104	23.91%	41.30%	23.91%	0.00%	10.87%
Sodus Bay	97	227	41.24%	29.90%	16.49%	0.00%	12.37%
South Shores State Park Boat Launch	651	1386	50.69%	25.81%	22.43%	0.77%	0.31%
Stony Creek Boat Launch	164	413	35.37%	25.61%	25.61%	9.15%	4.27%
Sunset Bay Boat Launch	28	72	50.00%	21.43%	17.86%	3.57%	7.14%
Wrights Landing	233	559	66.52%	16.31%	12.02%	5.15%	0.00%
Average	180.50	431.50	54.02%	21.61%	16.71%	5.36%	2.30%

Table 2: The Frequency of Preventative Methods used prior to Inspections for the 2013 Launch Steward Season.

FQ Post Prevention Methods: Each boater was asked how often they will use measures to prevent the spread of AIS after this inspection with a launch steward. The boaters used a scale to rate how often they would use preventative methods from *always* to *never*. The results show how often the boaters agreed to take measures to prevent the spread of AIS after this inspection.

Table 3: FQ Post Prevent Methods

Launch Name	# Boats inspected	Total number people reached	% Always	% Very Often	% Somewhat Often	% Never	% Non-response
Fair Haven Beach State Park	246	681	85.37%	11.79%	2.44%	0.41%	0.00%
Henderson Harbor Boat Launch	312	764	66.99%	24.68%	4.17%	0.96%	3.21%
Mexico Point Boat Launch	176	447	86.93%	9.66%	1.70%	1.14%	0.57%
Oneida Shores Boat Launch	58	145	48.28%	37.93%	12.07%	0.00%	1.72%
Pine Grove Boat Launch	116	288	88.79%	6.03%	3.45%	0.00%	1.72%
Port Bay South	39	92	58.97%	30.77%	0.00%	0.00%	10.26%
Port Bay West	46	104	54.35%	39.13%	0.00%	0.00%	6.52%
Sodus Bay	97	227	68.04%	19.59%	0.00%	0.00%	12.37%
South Shores State Park Boat Launch	651	1386	66.97%	20.89%	11.21%	0.61%	0.31%
Stony Creek Boat Launch	164	413	68.29%	22.56%	4.88%	0.61%	3.66%
Sunset Bay Boat Launch	28	72	67.86%	25.00%	3.57%	0.00%	3.57%
Wrights Landing	233	559	78.54%	16.74%	4.72%	0.51%	0.00%
Average	180.50	431.50	72.35%	19.39%	5.82%	0.51%	1.93%

Table 3: The Frequency of Preventative Methods that will be used after the Inspections for the 2013 Launch Steward Season.

Prior AIS Awareness: Each boater was asked how aware they felt they were of AIS before this inspection with a launch steward. The boaters were asked to use a scale from *very aware* to *not at all aware*. The results show how aware the boaters felt they were of AIS before this inspection.

Table 4: Prior AIS Awareness

Launch Name	# Boats inspected	Total number people reached	% Very aware	% Moderately aware	% Somewhat aware	% Not at all aware	% Non-response
Fair Haven Beach State Park	246	681	25.61%	43.90%	21.95%	6.10%	2.44%
Henderson Harbor Boat Launch	312	764	14.42%	39.42%	31.73%	10.58%	3.85%
Mexico Point Boat Launch	176	447	27.84%	40.91%	25.00%	5.68%	0.57%
Oneida Shores Boat Launch	58	145	15.52%	44.83%	31.03%	3.45%	5.17%
Pine Grove Boat Launch	116	288	32.76%	37.93%	27.59%	1.72%	0.00%
Port Bay South	39	92	38.46%	38.46%	10.26%	0.00%	12.82%
Port Bay West	46	104	45.65%	41.30%	2.17%	0.00%	10.87%
Sodus Bay	97	227	46.39%	36.08%	2.06%	0.00%	15.46%
South Shores State Park Boat Launch	651	1386	38.71%	30.88%	27.50%	2.61%	0.31%
Stony Creek Boat Launch	164	413	17.68%	33.54%	35.37%	8.54%	4.88%
Sunset Bay Boat Launch	28	72	46.43%	28.57%	25.00%	0.00%	0.00%
Wrights Landing	233	559	27.47%	42.06%	24.03%	5.58%	0.86%
Average	180.50	431.50	29.69%	37.12%	25.58%	4.89%	2.72%

Table 4: The amount of awareness of AIS prior to Inspections for the 2013 Launch Steward Season.

Extent of Awareness Raised: Each boater was asked how much awareness they felt was raised of AIS after this inspection with a launch steward. The boaters were asked to use a scale from *very aware* to *not at all aware*. The results show how much awareness they felt was raised of AIS this inspection.

Table 5: Extent of Awareness Raised

Launch Name	# Boats inspected	Total number people reached	% Large Amount	% Moderate Amount	% Small Amount	% Not At All	% Non-response
Fair Haven Beach State Park	246	681	27.24%	25.20%	35.37%	9.76%	2.44%
Henderson Harbor Boat Launch	312	764	42.31%	39.10%	9.94%	4.81%	3.85%
Mexico Point Boat Launch	176	447	22.16%	36.36%	29.55%	11.36%	0.57%
Oneida Shores Boat Launch	58	145	27.59%	55.17%	12.07%	0.00%	5.17%
Pine Grove Boat Launch	116	288	21.55%	41.38%	26.72%	9.48%	0.86%
Port Bay South	39	92	53.85%	25.64%	7.69%	0.00%	12.82%
Port Bay West	46	104	52.17%	36.96%	0.00%	0.00%	10.87%
Sodus Bay	97	227	38.14%	37.11%	9.28%	0.00%	15.46%
South Shores State Park Boat Launch	651	1386	45.31%	34.72%	19.66%	0.00%	0.31%
Stony Creek Boat Launch	164	413	34.76%	41.46%	12.80%	6.10%	4.88%
Sunset Bay Boat Launch	28	72	46.43%	39.29%	14.29%	0.00%	0.00%
Wrights Landing	233	559	30.90%	30.90%	31.76%	5.58%	0.86%
Average	180.50	431.50	36.84%	35.46%	20.64%	4.29%	2.77%

Table 5: The amount of awareness of AIS that was raised during Inspections for the 2013 Launch Steward Season.

Watercraft Type: During each watercraft inspection, the different types of watercrafts inspected at the boat launch sites were recorded.

Table 6: Watercraft Type

Launch Name	# Boats inspected	% Motorboat	% Sailboat	% Personal Watercraft	% Kayaks	% Barge	% Canoe	% Rowboat	% Other
Fair Haven Beach State Park	246	91.06%	1.22%	6.10%	1.22%	0.00%	0.00%	0.00%	0.41%
Henderson Harbor Boat Launch	312	93.59%	1.28%	0.96%	0.96%	2.56%	0.32%	0.32%	0.00%
Mexico Point Boat Launch	176	92.05%	0.57%	3.98%	1.70%	0.00%	1.14%	0.57%	0.00%
Oneida Shores Boat Launch	58	96.55%	0.00%	3.45%	0.00%	0.00%	0.00%	0.00%	0.00%
Pine Grove Boat Launch	116	81.03%	0.86%	3.45%	7.76%	0.00%	4.31%	2.13%	0.86%
Port Bay South	39	76.92%	0.00%	7.69%	12.82%	0.00%	2.56%	0.00%	0.00%
Port Bay West	46	80.43%	0.00%	8.70%	8.70%	0.00%	2.17%	0.00%	0.00%
Sodus Bay	97	94.85%	0.00%	3.09%	1.03%	0.00%	1.03%	0.00%	0.00%
South Shores State Park Boat Launch	651	96.62%	0.00%	2.92%	0.00%	0.00%	0.15%	0.00%	0.31%
Stony Creek Boat Launch	164	94.51%	0.00%	3.05%	0.00%	2.44%	0.00%	0.00%	0.00%
Sunset Bay Boat Launch	28	92.86%	0.00%	0.00%	3.57%	0.00%	3.57%	0.00%	0.00%
Wrights Landing	233	93.13%	1.72%	3.00%	1.72%	0.00%	0.43%	0.00%	0.00%
Average	180.500	92.98%	0.60%	3.32%	1.52%	0.55%	0.65%	0.19%	0.19%

Table 6: Different watercraft types that were recorded being used throughout the 2013 Launch Steward season.

Organisms Present: During each inspection organisms, if present, were identified and removed from the vessel. The results show which species were found and how many of each species were found compared to the total organisms found.

Table 7: Organisms Found: Species

Species	# Organisms	% of total organisms
European Frog-bit <i>Hydrocharis morsus-ranae</i>	1	0.48%
Curly-leaf pondweed <i>Potamogeton crispus</i>	109	52.66%
Eurasian Water-milfoil <i>Myriophyllum spicatum</i>	81	39.13%
Round Goby <i>Neogobius melanostomus</i>	3	1.45%
Spiny Waterflea <i>Bythotrephes longimanus</i>	6	2.90%
Water Chestnut <i>Trapa natans</i>	3	1.45%
Zebra Mussel <i>Dreissena polymorpha</i>	4	1.93%
Total	207	100.00%

Table 7: The different species that were found and removed from the watercrafts during inspections for the 2013 Launch Steward Season.

Summary & Recommendations:

Summary of Inspections

The goal of this program is to prevent/slow the spread of AIS through education and outreach. Seven New York Sea Grant Launch Stewards were stationed at 15 different boat launches for the 2013 program from May 25 until October 13. During that time period stewards covered launches a total of 217 days. The days stewards were on duty and not stationed at launches were because of inclement weather, scheduled training or meetings, or the planning and implementation of educational/outreach activities. The launch stewards led 5,178 people in voluntary watercraft inspections, teaching boaters how to look for, remove, and dispose of aquatic invasive species and other aquatic hitchhiking debris that may have attached to boats, trailers, and other equipment.

Challenges and Potential Opportunities

In 2013 the NYSG Launch Steward coverage area expanded to include launches in northern Cayuga and Wayne counties. This expansion required an increase in staff and funding. In addition this expansion increased the coverage area from five to seven counties. Management changes in 2013 included the use of Cornell University provided webinar to facilitate staff meetings. In the future a chief steward will be hired to act as a “liaison” between the stewards and the program coordinator during the implementation portion of the program. This will allow the coordinator to manage programmatically while the chief steward facilitates the duties and tasks developed by the coordinator. The expansion paired with success from previous stewards has gained attention from local organizations resulting in inquiries for steward participation at various events. These partnership opportunities are exciting for the program.

For more information on protecting native habitats against invasive threats, contact New York Sea Grant at 315-312-3042, SGOswego@cornell.edu. To learn more about the NYSG Launch Steward Program, visit <http://nysglaunchsteward.blogspot.com/>.