



STOP AQUATIC HITCHHIKERS!

✓ Clean ✓ Drain ✓ Dry

The NYS Parks Watercraft Inspection Steward Program: On the front lines to prevent the spread of aquatic invasive species

Megan Phillips & Patty Wakefield-Brown

New York State Office of Parks, Recreation and Historic Preservation – Environmental Management Bureau

625 Broadway, Albany, NY 12238

Phone: (518) 402-5587 E-mail: Megan.Phillips@parks.ny.gov or Patricia.Wakefield@parks.ny.gov

Introduction

The New York State Office of Parks, Recreation and Historic Preservation (OPRHP) was awarded a Great Lakes Restoration Initiative (GLRI) grant from the Environmental Protection Agency in March 2014 to design and implement a two-year watercraft inspection steward program in the Great Lakes basin of New York State. In the first year of the program (2014), 8 “boat stewards” were hired to provide voluntary watercraft inspection and public education for boaters and anglers visiting 19 different Parks-owned boat launch facilities. The stewards conducted 7,000+ inspections and in 615 cases removed plant or animal material from boats and/or trailers (Figure 1). Additional collected species of interest not shown in the pie chart included Water chestnut (*Trapa natans*) and Variable leaf milfoil (*Myriophyllum heterophyllum*).

The program expanded in its second year (2015) to include several boat launch sites on Lake Champlain and Eastern Lake Ontario. Ten boat stewards were responsible for 23 boat launch sites. The stewards conducted 13,000+ inspections, which is nearly double the number of inspections performed in the first year of the program. Detailed data collected during this season is not currently available as the data set in the process of undergoing quality assurance/quality control measures.

Corps Project: Water Chestnut Harvest at Selkirk Shores State Park

An OPRHP Invasive Species Strike Team reported five water chestnut populations in the Grindstone Marsh at Selkirk Shores State Park in their report at the close of the 2014 season. The map generated for the report indicated that open water coverage of water chestnut plants was nearly 100% in sections 1-WC and 2-WC, as indicated on the map below. The 2015 boat steward cohort partnered with the Agency’s Friends of Recreation, Conservation and Environmental Stewardship (FORCES) crew to remove 240 bags of plant material from the 1-WC population over two days in August, 2015. The wet biomass of the removed material equated to approximately 9,600 pounds. It was estimated that the 1-WC population was reduced by 40%. Additional hand harvest efforts will be carried out in subsequent years. Pursuant to the OPRHP pesticide reduction policy, hand harvesting will be the preferred method of control for the next few years, giving natural resource managers time to assess the efficiency of the project before considering chemical alternatives.

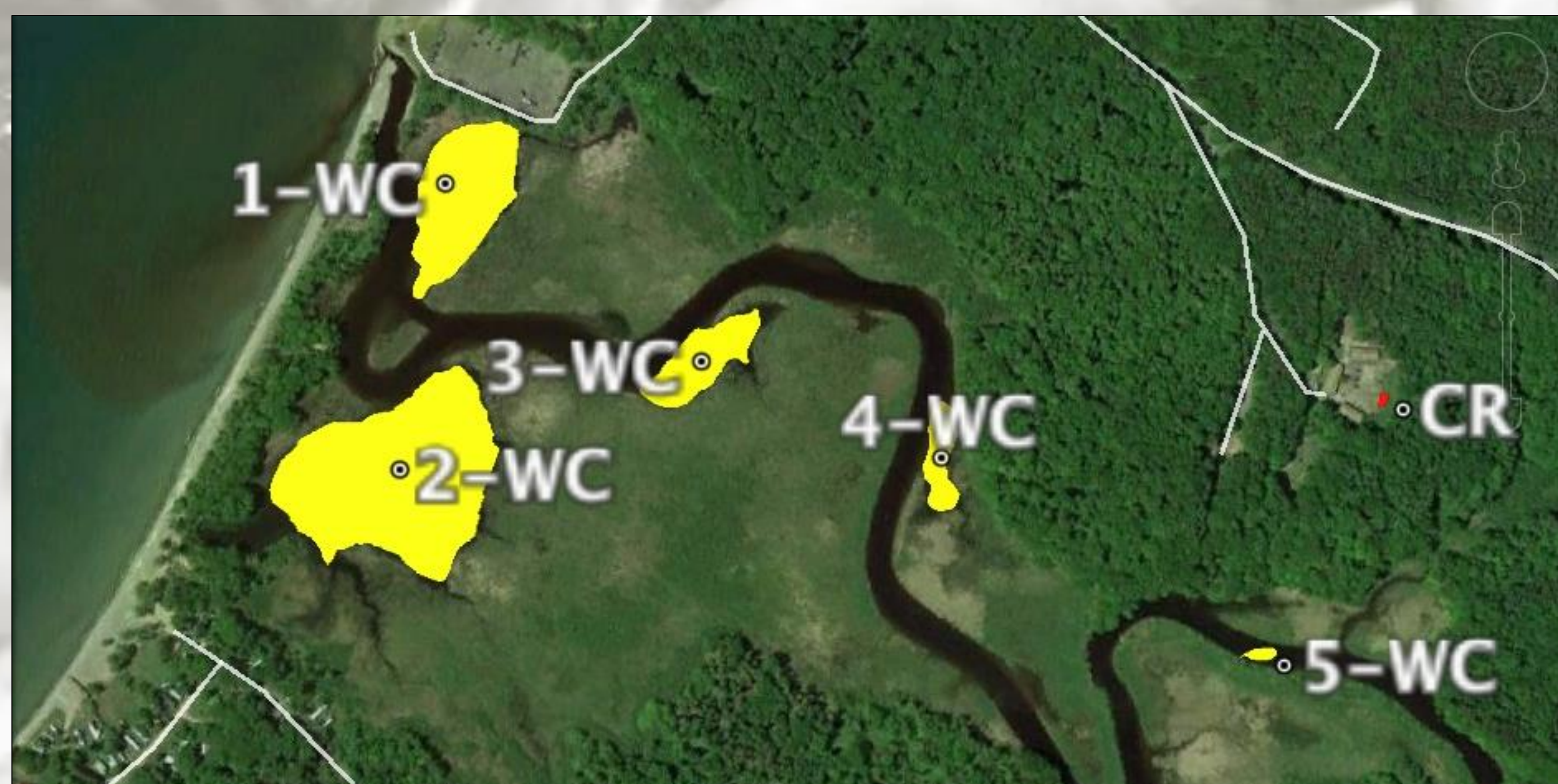


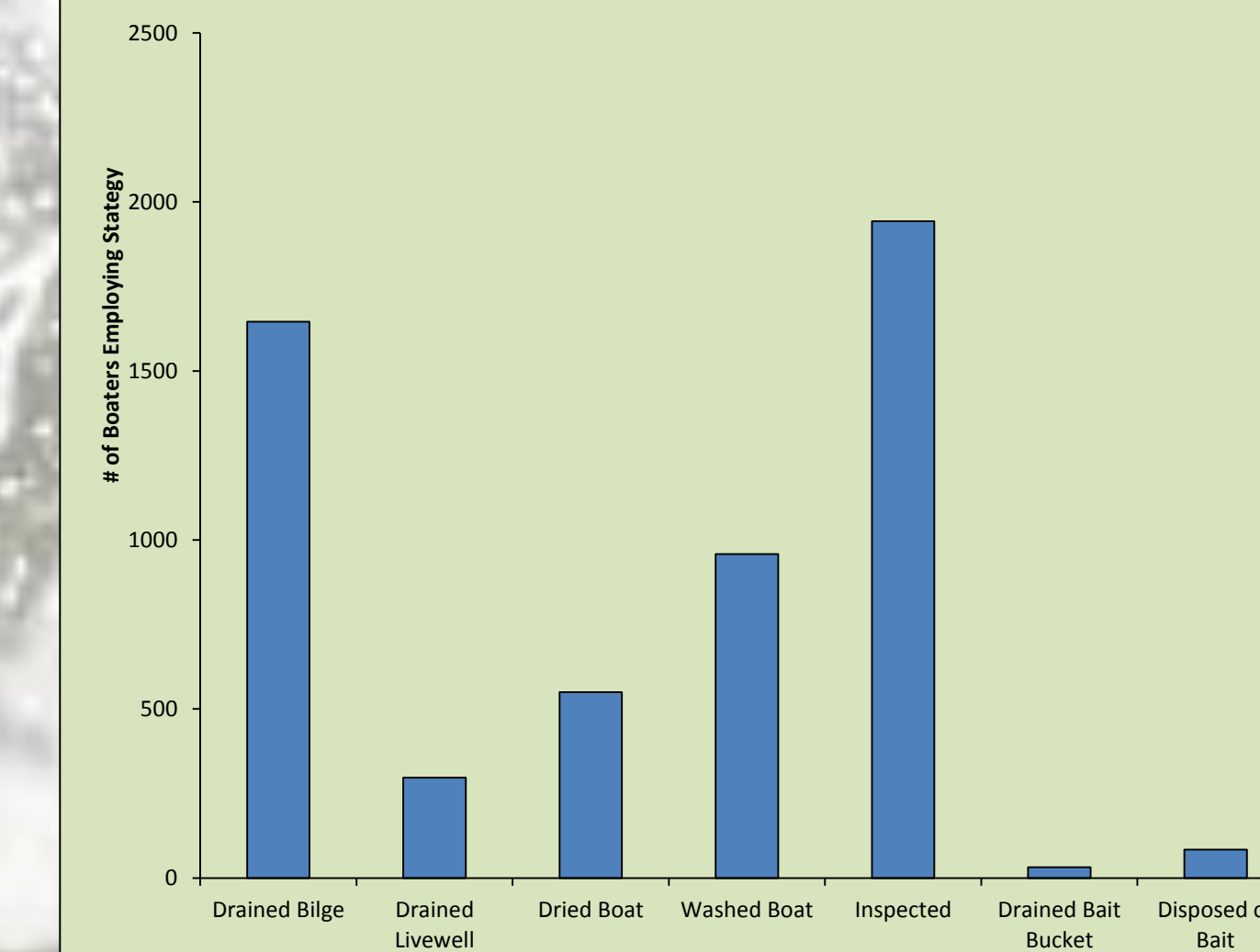
Figure 3. Map of water chestnut populations (WC-#) in the Grindstone Marsh.

2014 Results

The data collected by stewards in 2014 provides insight into boater behavior, the effectiveness of the “clean, drain, dry” message, and where efforts to prevent the spread of aquatic invasive species via overland transport could be augmented.

Motor boats made up 83% of the total watercraft inspected in the 2014 season, followed by jetskis (13%), kayaks (3%), and canoes (1%). The most popular AIS spread prevention method was visual inspection, followed by draining the bilge, washing the boat, and drying the boat (Figure 4). Fewer boaters and anglers reported drained his or her livewell or bait bucket, or disposing of unwanted bait properly. This data points to the need for signage and proper disposal facilities at Parks-owned boat launches to discourage anglers from accidentally introducing round gobies or spiny water fleas via contaminated livewells and/or bait buckets.

Figure 4. Relative Popularity of AIS Spread Prevention BMPs (2014)



Above: Rebecca Reile educates an angler at Buffalo Harbor on proper bait disposal.

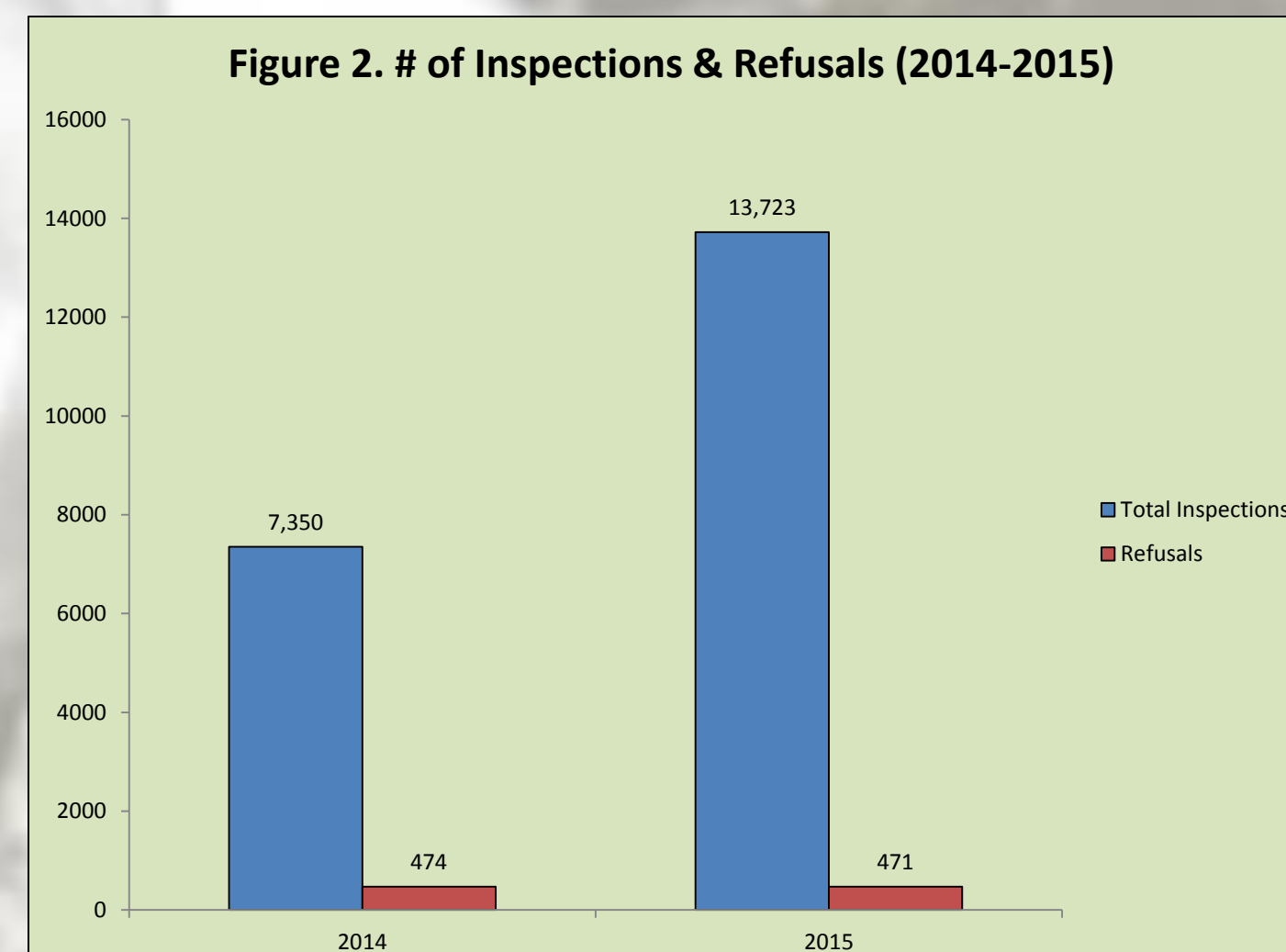
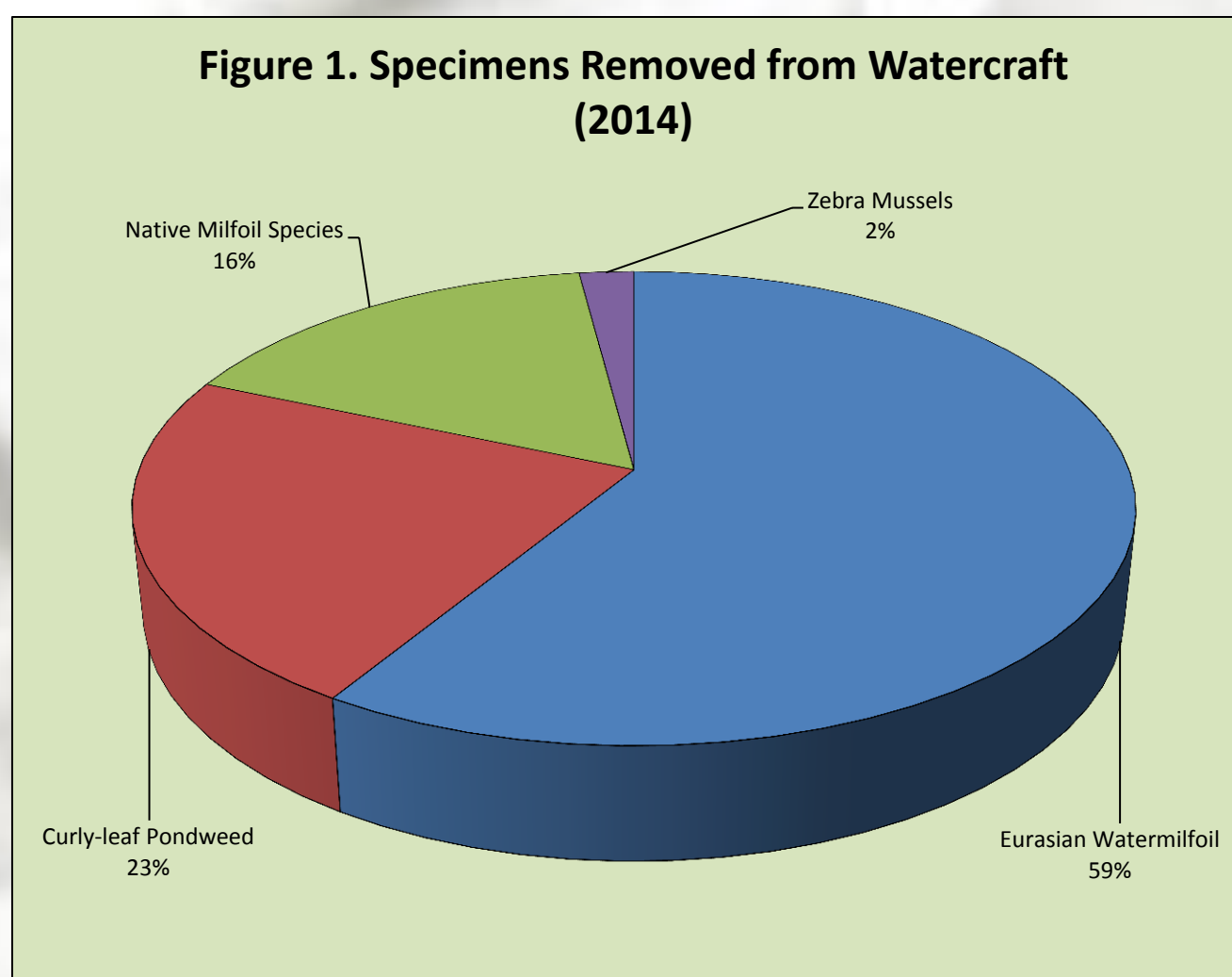
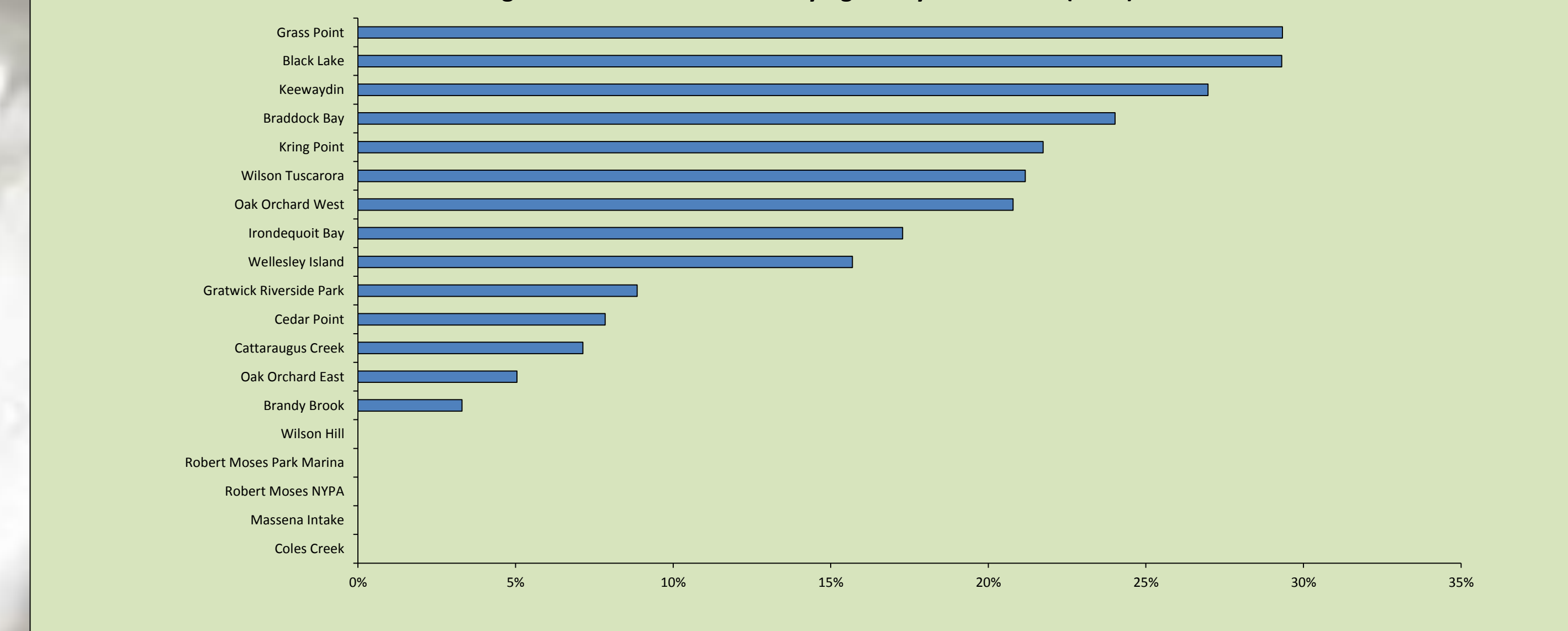


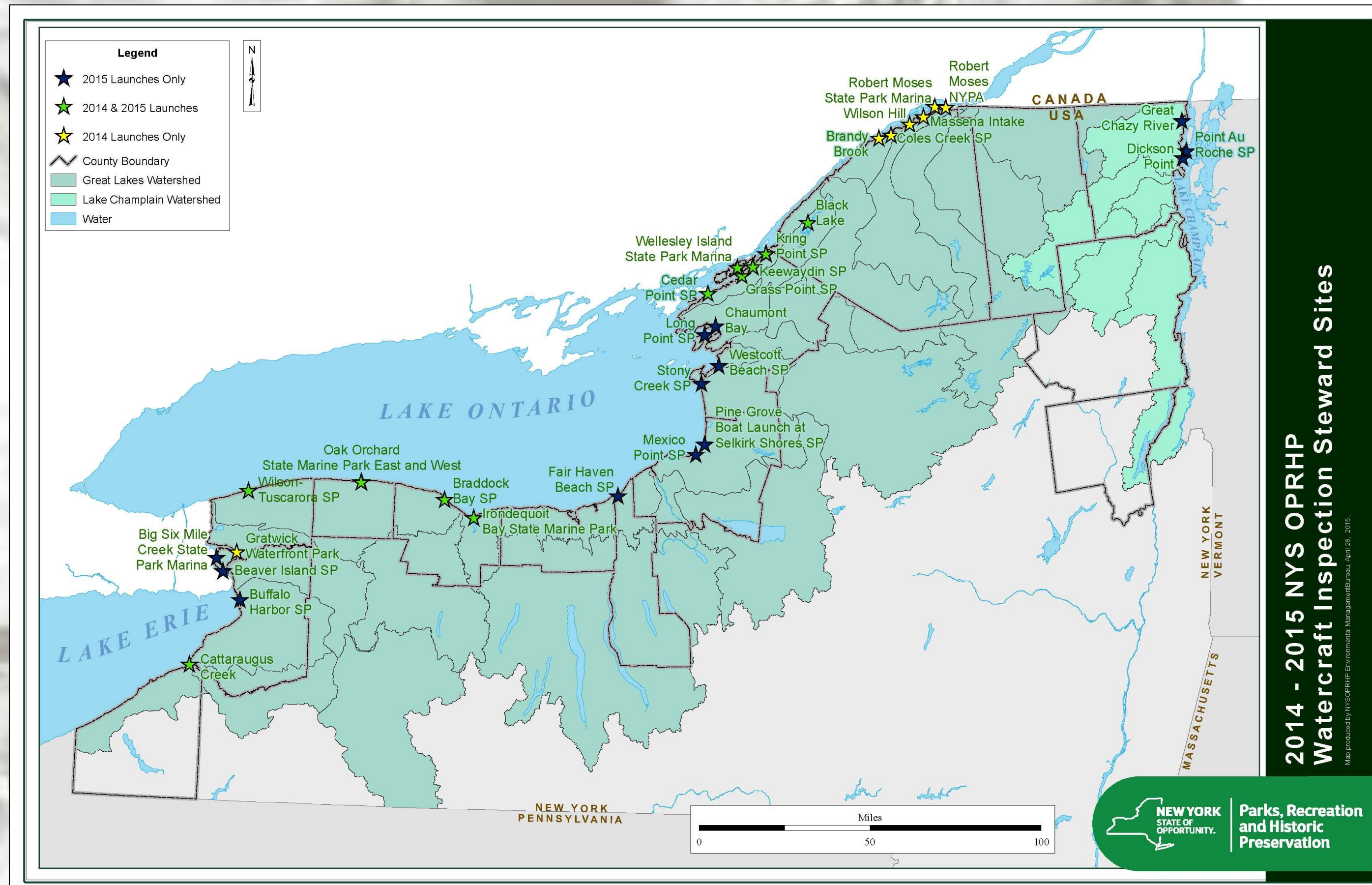
Figure 5. % of Watercraft Carrying AIS by Launch Site (2014)



Conclusions & Recommendations

The Environmental Management Bureau recommends the following actions to prevent the spread of AIS via overland transport and protect the waterbodies of New York State:

- Identify “hubs” of invasion based on 2014 and 2015 data
- Install and maintain high pressure, hot water boat washing stations at strategic locations based on invasion “hub” data, priority infestations (i.e. hydrilla in Cayuga inlet), and boater traffic patterns
- Augment boat steward coverage at public events such as fishing tournaments, where boaters may be traveling to/from an infested water body to participate
- Develop educational materials and install signage to educate anglers about the importance of draining bait buckets and livewells and the proper disposal of bait
- Expand the capacity of the NYS Parks Boat Steward Program to encompass additional regions across the state
- Work with partners including NY Sea Grant and NYSDEC to standardize watercraft inspection methods and messaging statewide for increased boater cooperation and adoption of best management practices



Project Area

In 2014 and 2015, the program focused on covering boat launch sites that were situated directly on the Great Lakes and hydrologically connected waterbodies. The 2016 program will be expanding to include 4 boat stewards working in the Finger Lakes region (specifically on Cayuga Lake at Allan H. Treman State Marine Park, near the hydrilla infestation), and one steward working at Saratoga Lake, which has been identified by Paul Smiths College as an aquatic invasive species “hub.”



Center: The crew on day one consisted of staff from Parks, FORCES, and the Oswego County Soil & Water Conservation Dept. Bottom left: Ariana London and Sarah Powers pull water chestnut plants from a kayak donated by Oswego Expeditions. Bottom right: Bags of wet biomass were dried and later composted by Parks staff.