Background

The Eastern Lake Ontario – Upper Watershed AIS Response Team was established in September 2010 as a landscape level aquatic invasive species Early Detection / Rapid Response (EDRR) team with funding through the Great Lakes Restoration Initiative. The EDRR team works within the Great Lakes portion of the Adirondack Park and performs EDRR using two teams, an Early Detection (ED) team surveyed lakes and a Rapid Response (RR) team performed eradication.

Early Detection

The ED team performed whole lake aquatic plant surveys using a combination of visual surveys and rake tossing. The team surveyed the entire littoral zone of each lake in a serpentine search pattern and mapped the location, species composition, and species abundance of all aquatic plant beds. Bed perimeters were mapped with a handheld GPS unit and field data were recorded on a datasheet. This visual surveys were supplemented by periodic rake tossing using a consistent protocol. All field data were entered into ArcGIS to create aquatic plant maps for each lake. When AIS were encountered, separate maps that showed the locations and abundance of the AIS were created. When deployed, the ED team worked in two person crews under the supervision of a crew chief (Photo 1). The surveys were generally done by canoe (Photos 1, 2, and 4), but a motor boat was used when possible in larger water bodies (Photo 3). Each crew was equipped with a bathymetric map of the lake, portable depth sounder, handheld GPS unit, two-sided rake, and a digital camera. Depths were checked periodically while surveying to ensure that the far shore edge of the littoral zone was covered. Photos were taken of new species and any AIS encountered.
Photo 1. Early detection survey team shown with the canoes used for most surveys. From left to right they are Josh Fitzgerald, Virginia Brink, Kimberly Forrest, and Josh Pierce (crew chief).
Photo 2. Kim Forrest and Josh Pierce identify and map species of aquatic plants in Barnum Pond from a canoe.
Photo 3. Josh Fitzgerald conducts a surface survey of Stillwater Reservoir. When possible large lakes are surveyed using a combination of canoes and motorboats.
Photo 4. Josh Pierce identifies a species of aquatic plant after performing a rake toss in Lake Meacham.