

Instructions for Rake Toss Sampling

1. If possible, identify sampling points in advance, using an overlay GIS grid map or hand drawn map. Otherwise assign sampling sites (“stations”) in well defined intervals (every 100 meters) in parallel or perpendicular lines to shore
2. Navigate to first station, toss rake line as far as possible, and slowly bring back into boat.
3. Estimate overall plant abundance using USACE/Cornell abundance scale:
 - “Zero” = no plants on rake
 - “Trace” = fingerful of plants on rake
 - “Sparse” = handful of plants on rake
 - “Medium” = most to all tines on rake covered with plants
 - “Dense” = difficult to bring into boat.
4. Remove plants from rake tines and separate into individual piles for each plant type (species), based on unique physical attributes.
5. Estimate plant abundance for each plant type/species using USACE/Cornell abundance scale or percentage abundance, and identify each plant type/species on form by plant species name or assigned number (“Water chestnut”, “Unknown #1”, etc.).
6. Take one specimen from the pile corresponding to “Unknown 1” (or the first named plant), place in a clean light colored tub with lake or tap water to refloat the plant, and take a digital photograph of the plant. Repeat this with a specimen for each plant. Record digital image number on survey form to link with assigned plant species number.
7. Collect voucher specimen for any unknown, suspected exotic or protected plant (based on comparison to laminated “cheat sheet”), and place in a labeled ziplock bag. Each plant should be placed in a separate bag, labeled with the species name/number. Collect only one specimen for each assigned plant number.
8. Identify next sampling point from GPS coordinates, pre-determined sampling grid, or visual observation, and repeat steps 2-7.
9. After all sites have been sampled, remove first collected plant from bag, shake water off, and place on newspaper, attempting to spread out the plant leaves (newspaper with plant can be submerged in tray to refloat, and paper can be slowly withdrawn while holding plant to set “spread” plant in place). Allow newspaper to dry and cover with second newspaper to help blot excessive water. Repeat with all collected plants on separate paper. Label each plant with name or number of plant, lake name, and date. Keep plants in case specimens are needed by NYSDEC for confirmation and archiving.
10. Send digital images to stephanie.june@dec.ny.gov