

The next shoreline restoration event for Prairie and Pearl Lakes will be on Saturday, October 1st, 2011. On this date, the Seminole County Lake Management and SERV Programs will bring in volunteers and beautiful FREE aquatic plants to help improve the water quality of your lake. Be sure to contact your liaison Bill Hemphill at brhemphill@earthlink.net or Natalae Almeter (SERV Program) at serv@seminolecountyfl.gov if you are interested in becoming a site location for the next event. We have a few signups already and space is limited!

Lake Observations:

On May 24, 2011, Seminole County Lake Management Program staff Gloria Eby and Thomas Calhoun, joined by county intern Aisha Umar, surveyed the aquatic plants in Prairie Lake. Hydrilla has expanded significantly since last inspection. We are observing hydrilla re-establishing in the inshore area to a depth of 12 feet and within the cove. Hydrilla biomass increases at depths of 8-10 feet with the average plant sample being 4 feet in length. Portions of Prairie Lake contained an algae bloom as result of the hydrilla plant reaching surface where it decomposes and fuels algae growth.

Hydrilla was found competing for space with native SAVs such as eelgrass (*Vallisneria americana*) also found to a maximum depth of 12 feet. Additional native SAV from inshore to depths of 9-10 feet includes the following: stonewort (*Nitella* sp.), southern naiad (*Najas guadalupensis*), bladderwort (*Utricularia radiata* and *U. inflata*), coontail (*Ceratophyllum demersum*) to 4 feet, and pondweed (*Potamogeton illinoensis*) to 5.5 feet. Pondweed was found surfacing at locations from the cove to southwest corner of lake and portions along north shoreline from canal to Pearl Lake blocking some boating access. Once pondweed reaches the surface, the leaf structure changes making it appear as a different plant. This is called leaf dimorphism.



Photo of hydrilla biomass



Photo of algae as result of hydrilla decomposing at surface:



Photo of pondweed and dimorphic leaves:

The dominant emergent aquatic plant continues to be the invasive torpedo grass (*Panicum repens*), which is present on most resident's waterfront. Other invasive plants found around the shoreline include; alligator weed (*Alternanthera philoxeroides*), wild taro (*Colocasia esculenta*), water primrose (*Ludwigia peruviana*) and cattails (*Typha spp.*). Native emergent aquatic plants found include: maidencane grass (*Panicum hemitomon*), lake rush (*Fuirena scirpoida*), duck potato (*Sagittaria lancifolia*) and pickerelweed (*Pontederia cordata*).

Most of the September 11, 2010 Prairie Lake plantings are doing extremely well to where natives are expanding. All these sites do need maintenance, especially to prevent torpedo grass from re-establishing and expanding. The Secchi reading (measurement for water clarity) was 10.5 feet in depths of 18.1 feet as compared to previous measurement of 7.6 feet in 10.5 feet.



Photo of replanted shoreline:

Lake recommendations discussed for Prairie were to proceed with grass carp stocking to impact hydrilla in the deep water of Prairie Lake and to spot treat hydrilla in cluster areas inshore with FWC permit. Locations with concentrated biomass are: cove, cove entry, inflow pipe from Maltbie, inflow pipe south of lake (by exclusion cage) and shallow areas near American Legion hall.