

Greetings Prairie Lake!

Below please find the latest bioassessment for your lake. Key highlights of this update will include:

- Submersed aquatic vegetation updates- extremely good plant diversity observed
- Some hydrilla observed inshore and in deeper water- recommend spot treating inshore areas
- No additional grass carp fish recommended at this time
- Invasive-exotic plant removal efforts

On **March 20th, 2013**, Seminole County Lake Management Program personnel Gloria Eby and Thomas Calhoun surveyed the aquatic plants in **Prairie Lake** with lake liaison and resident Bill Hemphill. The canal leading to **Pearl Lake** was not accessible due to low water levels therefore no survey was conducted in Pearl Lake.

The secchi reading (measurement for water clarity) was 9.2 ft in a depth of 18.6 ft at the time of inspection. The range of this reading (from 1973-2012; 178 samples) has been 2 to 20 ft. The Trophic State Index (TSI) was 37 (Good) taken 10/3/2012. The water quality range for TSI (170 samples taken from 1995 to 2011) has been 11 (Good) to 52 (Good). All this information is available on the Seminole County Water Atlas website and can be found at:

<http://www.seminole.wateratlas.usf.edu/lake/waterquality.asp?wbodyid=7640&wbodyatlas=lake>

Extremely good plant diversity was observed in Prairie Lake which consisted of 9 species of submersed aquatic vegetation (SAV). This is a very important factor for the health and water quality of your lake as these plants aid in absorbing nutrients from the local watershed keeping Prairie Lake clean and healthy.

The native SAV consisted of: coontail to a depth 4 ft, southern naiad to 7 ft, the macro-algae stonewort to 12 ft, pondweed to 6 ft, 3 bladderwort species (*Utricularia radiata*, *inflata* & *gibba*) to 10 feet, and eelgrass to 10 feet. Stonewort and bladderwort were the dominant SAV plants observed during this inspection. One exotic, hydrilla, was recorded to a depth of 10 ft. Hydrilla was sporadically intermixed with eelgrass inshore however in much less biomass (amount) than in previous inspections. The cove off of Robin Rd. contained the largest amount of hydrilla however was dominantly covered with the native bladderwort. It is recommended that the cove is spot treated for hydrilla with herbicides. The addition of grass carp fish is not recommended at this time. No grass carp fish were observed during this inspection.

Photo: Stonewort and bladderwort; dominant SAV plants for Prairie Lake.



The native SAV pondweed in Prairie Lake can cause reduced access to the lake. To remove or treat these plants you will need to obtain a free aquatic plant permit from the Florida Fish and Wildlife Conservation Commission (FWC) which can be located at <http://www.myfwc.com/license/aquatic-plants> or by contacting your FWC regional biologist, Alicia Knecht, at Alicia.Knecht@myfwc.com or 321-246-0682

Photo: Hydrilla sporadically intermixed with native SAVs.



Photo: Stonewort collected at 12 feet.



The dominant emergent aquatic plant continues to be the invasive-exotic torpedo grass, which was present along most resident's waterfront. Other invasive species found included cattail, primrose, and Carolina willow, although there were many native emergent plants as well. Some of these beneficial native emergent plants included pickerelweed, duck potato, bulrush, maidencane grass, and golden canna.

Recommendations:

- 1 Continue to work together with other lakefront owners to control and if possible, eliminate invasive plants observed during this survey and increase native aquatic plantings along shoreline (such as pickerelweed and duck potato). Have at least one annual lake association meeting, invite guest speakers (such as county or state biologists) and discuss lake specific issues, especially lake management recommendations. Seminole County Lake Management staff would be glad to present our findings from this and other surveys.
- 2 These recommendations could be managed by Seminole County by establishing an MSBU, Municipal Service Benefit Unit, for aquatic weed control/enhancement. For additional information contact Carol Watral at (407) 665-7164 or cwatral@seminolecountyfl.gov or <http://www.seminolecountyfl.gov/fs/msbu/>.
- 3 Increase educational outreach programs i.e. Shoreline Restoration Workshops (planting days), Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and reduction of personal pollution by decreasing fertilizer usage; using only phosphorous free fertilizers; keeping a functional shoreline with beneficial native aquatic plants; keeping grass clippings out of your lake and storm drains leading to the lake. All these activities aid in protecting your waterbody! Contact Seminole County Lake Management Program (407) 665-2439 for free educational programs available.
- 4 Control of aquatic and wetland plants could require a Florida Fish and Wildlife Conservation Commission (FWC) aquatic plant control permit (such as eelgrass). Contact Alicia Knecht at Alicia.Knecht@myfwc.com or 321-246-0682 for permit and recommendations.