

**LAKE OF THE WOODS**  
**BIOASSESSMENT/INSPECTION REPORT**  
**December 2014 and March 2015**

Greetings Lake of the Woods Residents!

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

- Current information about hydrilla & other submersed aquatic vegetation (SAV)
- Expansion of native SAV
- Continued encouragement to remove torpedo grass
- Recommendations for you and your lake
- **Factsheet attached: Aquatic Plant of the Month- Bladderwort (may or may not exist in your waterbody) (attached at the end of this update)**

On **March 3<sup>rd</sup>, 2015**, Seminole County Lake Management Program (SCLMP) staff, Thomas Calhoun and Gloria Eby, surveyed the aquatic plants in **Lake of the Woods**.

**No hydrilla was found during this inspection.** This species will continue to be closely monitored to see if further treatment is needed.

Native SAV was very healthy and was expanding around the lake. Native species found during the inspection included coontail to 9 ft, southern naiad to 3 ft, and eelgrass to 8 ft. Eelgrass blooms were abundant, and in some places appeared like an algae bloom was occurring. The beneficial native coontail has expanded significantly since the previous inspection.

**Photo: Coontail found to a depth of 9 feet.**



**Photo: Eelgrass blooms reaching the surface.**



We found many boat docks with restricted access due to topped out eelgrass. As previously mentioned, if SAV is blocking access to your boat dock you can apply for an aquatic plant removal permit through the Florida Wildlife Conservation Commission

<http://www.myfwc.com/license/aquatic-plants> or contact FWC regional biologist Kris Campbell at [Kristine.Campbell@MyFWC.com](mailto:Kristine.Campbell@MyFWC.com) or 321-246-0682 to obtain your free permit.

Some of the native emergent vegetation including pickerelweed and fire flag was still showing signs of winter die back. It is expected that these species will recover and continue to expand along with duck potato, canna, and maidencane in the coming months. Invasive emergent vegetation observed included: alligatorweed, dwarf papyrus, elephant ear, and torpedo grass. The northern canal was treated for lily pads and was found clear of vegetation. Torpedo grass remains to be minimal throughout the lake.

**Photo: Stand of fire flag showing signs of winter die back.**



**Photo: Treated canal on northern shoreline.**



Secchi disk (measurement for water clarity) reading was 8.2 ft in a depth of 14.5 ft; an increase from last month's reading of 3.8 ft. The lake gauge level was 74.6 ft above sea level. One triploid grass carp fish was observed.

### **Lake of the Woods 12-1-2014**

On **December 1<sup>st</sup>, 2014**, Seminole County Lake Management Program (SCLMP) staff, Thomas Calhoun and Joey Cordell, surveyed the aquatic plants in **Lake of the Woods**.

Three sprigs of hydrilla were found during the inspection. This species will continue to be closely monitored to see if further treatment is needed.

Native SAV was very healthy and was expanding around the lake. This beneficial vegetation continues to compete for space with hydrilla. Native species found during the inspection included coontail to 9 ft, southern naiad to 1 ft, and eelgrass to 8 ft. Algae was present, intermixed with the native coontail. We found many boat docks with restricted access due to topped out eelgrass. As previously mentioned, if SAV is blocking access to your boat dock you can apply for an aquatic plant removal permit through the Florida Wildlife Conservation Commission <http://www.myfwc.com/license/aquatic-plants> or contact FWC regional biologist Kris Campbell at [Kristine.Campbell@MyFWC.com](mailto:Kristine.Campbell@MyFWC.com) or 321-246-0682 to obtain your free permit.

**Photo: Coontail and filamentous algae.**



Native emergent vegetation observed during the survey included: canna, pennywort, yellow cow lily, fragrant water lily, maidencane, pickerelweed, duck potato, Carolina willow, bulrush, fireflag, blue flag iris, and creeping aster. Many native plants can experience a “winter die back” when affected by the colder weather and limited sunlight. Maidencane and pickerelweed both

showed a reduction due to the season. Invasive emergent vegetation observed included: alligatorweed, elephant ear, umbrella grass, primrose, cattail, papyrus, and torpedo grass.

**Photo: Pickerelweed with winter impact.**



A blue-green algae bloom was observed along the southwest shoreline of the lake. Large algae blooms can deplete the lake's dissolved oxygen levels, which can cause a fish kill. Algae blooms are caused by high levels of phosphorus. The most common sources for excess phosphorus are fertilizer runoff and yard clippings. To help prevent algae blooms, residents can reduce overall fertilizer use, only use phosphorus-free slow release nitrogen fertilizer brands when fertilizers are needed, and prevent yard clippings from falling in the lake.

**Photo: Algae bloom along west shore.**



**Photo: Eelgrass blooms reaching the lake's surface.**



Secchi disk (measurement for water clarity) reading was 6.2 ft in a depth of 20.4 ft, a decrease from last month's reading of 5.5 ft. The lake gauge level was 74.88 ft above sea level, and increase since last month's reading of 74.49 ft. No triploid grass carp fish were observed.

### **Recommendations for your waterbody:**

- 1 Work together with other lakefront owners. Have *at least* one annual lake association meeting, invite guest speakers (such as county or state biologists), and discuss lake-specific issues, especially nutrients/lake management recommendations. SCLMP staff would be glad to present findings from this and other surveys. Continue to increase native aquatic plantings along the shoreline (such as pickerelweed, duck potato, and canna).
- 2 Utilize the valuable educational outreach programs that are available, i.e. Shoreline Restoration Workshops, Florida Yards and Neighborhoods (FYN) interactive presentations, and Lake Management Video mail-outs. Implement a media campaign within the community to reduce personal pollution by: decreasing overall fertilizer usage, **using only phosphorous free and slow-release nitrogen fertilizers**, keeping a functional shoreline with beneficial native aquatic plants, and keeping grass clippings out of your lake and the storm drains that lead to the lakes. All of these activities aid in protecting your lake! Contact Seminole County Lake Management Program (407) 665-2439 for more information regarding the free educational programs available.
3. Control of aquatic and wetland plants could require a Florida Fish and Wildlife Conservation Commission (FWC) aquatic plant control permit (such as eelgrass). Contact Kristine Campbell at [Kristine.Campbell@MyFWC.com](mailto:Kristine.Campbell@MyFWC.com) or 321-246-0682 for permit and recommendations.

Have a great day!

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Lake Management website: <http://www.seminole.wateratlas.usf.edu/LakeManagement>

Mosquito Control website: <http://www.seminolecountyfl.gov/pw/mosquito>

[Seminole Education, Restoration & Volunteer \(SERV\) Program](#)



## Bladderwort (*Utricularia species*): A Florida Native

14 Species of Bladderwort exist in Florida, all of which are native.

### Identification

Bladderworts are annual or perennial plants which lack roots and are free floating. The entire free-floating plant is typically 8 inches tall with yellow, purple, or white flowers that rise above the water's surface. Underwater, the plant has fleshy, inflated stems that are filled with air and allow it to float. The leaves are forked and often have a very fine capillary appearance.

This unique carnivorous plant utilizes small oval "bladders" on its underwater leaves to trap and digest small aquatic organisms. Hairs at the edge of the bladder act as a trigger, causing the trap to spring open and draw in water (and organisms) when contacted.

### Wildlife Value

Common bladderwort is used by several insects, waterfowl, and mammals as a food source. The stems also provide shelter and a place for wildlife to lay eggs.

Native submersed aquatic plants provide habitat for several micro- and macroinvertebrate species, which in turn provide a source of food for fish and other aquatic wildlife species including reptiles, amphibians, and waterfowl. Once aquatic plants die, their decomposing parts provide food (referred to as "detritus") for several aquatic invertebrates.

Additionally, native submersed plants play an important role in the aquatic ecosystem by reducing nutrients within the waterbody and by competing with invasive species for space.

### Control

Although native, bladderwort may impede recreational access. For questions concerning control of bladderwort or to apply for a free aquatic plant removal permit, please contact your state agency, the Florida Fish and Wildlife Conservation Commission, online at: <http://myfwc.com/license/aquatic-plants> or by calling 407-858-6170.



#### Sources:

Texas A&M AgriLife Extension. (2015). Bladderwort. Retrieved from <http://aquaplant.tamu.edu/plant-identification/alphabetical/index/bladderwort/>

Strick, L. (n.d.). Common Bladderwort. U.S. Forest Service. Retrieved from [http://www.fs.fed.us/wildflowers/plant-of-the-week/utrularia\\_macrochaeta.shtml](http://www.fs.fed.us/wildflowers/plant-of-the-week/utrularia_macrochaeta.shtml)

Wellendorf, N. (2011, April 27). How to Distinguish the Aquatic Bladderworts [PDF]. Retrieved from <http://www.dep.state.fl.us/water/bioscience/docs/plants/field-id-utrularia-species.pdf>