

**MYRTLE LAKE BIOASSESSMENT/INSPECTION**  
**March to April 2015**

Greetings, Lake Myrtle Residents!

Please find the latest bioassessment report for your lake below. Key highlights of this update include:

- Herbicide treatment status
- Submersed aquatic vegetation (SAV)
- Emergent vegetation
- Restoration event updates
- Recommendations for you and your waterbody
- **Aquatic Plant of the Month- Factsheet Attached (may or may not be present in your waterbody)**

On **March 11th, 2015**, Seminole County Lake Management Program staff Thomas Calhoun and Sophia Pengra surveyed **Lake Myrtle's** south pool.

**Photo: Native cordgrass**



Invasive species present during the inspection included alligatorweed and torpedo grass, which was targeted during the treatment that took place March 31<sup>st</sup>. Some dead dog fennel and broom grass can be seen from winter dieback. Native species present included: canna, yellow cow lily, maidencane, pickerelweed, duck potato, fire flag and cord grass. The native vegetation was found to be in good condition and expanding along the shores of the wildlife spoil islands. No submersed aquatic vegetation (SAV) was observed. The invasive apple snail was present during the inspection.

**Photo: Invasive alligatorweed.**



**Photo: Dead broom grass at entrance to canal.**



Seminole County's SERV (Seminole Education Restoration Volunteer) program has scheduled a volunteer planting event for Lake Myrtle on April 4<sup>th</sup>, 2015. During this event volunteers will plant native species for the purpose of up-taking excess nutrients and competing with invasive species. For more information on the SERV program and its events, please go to [http://csbweb.seminolecountyfl.gov/pw/roadstorm/SERV\\_lakerestproject.aspx](http://csbweb.seminolecountyfl.gov/pw/roadstorm/SERV_lakerestproject.aspx)

**Photo: Invasive apple snail shell (left) and eggs (right).**



Water quality samples are collected quarterly by Seminole County Water Quality section staff. The results of these collections and much more information can be found on the Seminole County Watershed Atlas:

<http://www.seminole.wateratlas.usf.edu/lake/waterquality.asp?wbodyid=7624&wbodyatlas=lake>

During the survey the water level was very high at 46.91 feet above sea level. A Secchi disk (water clarity) reading was not taken during this inspection. No triploid grass carp fish were observed during this inspection.

**4-15-2015**

On **April 15th, 2015**, Seminole County Lake Management Program staff Thomas Calhoun and Sophia Pengra surveyed **Lake Myrtle's** south pool.

**Photo: Crowder Canal**



Invasive species present during the inspection included alligator weed and torpedo grass, which showed signs of recent treatment in the corridors and near the islands. Native species present included: canna, yellow cow lily, maidencane, soft rush, buttonbush, pennywort, pickerelweed, duck potato, fire flag and cord grass. The native vegetation was found to be in good condition and expanding along the shores of the wildlife spoil islands. No submersed aquatic vegetation (SAV) was observed. An algal bloom was observed during the inspection. The invasive apple snail was also present during the inspection.

**Photo: Algal bloom**



**Photo: Treated shoreline**



**Photo: Invasive apple snail shell (left) and eggs (right).**



Seminole County's SERV (Seminole Education Restoration Volunteer) program held a volunteer planting event for Lake Myrtle on April 4<sup>th</sup>, 2015. During this event, 89 volunteers, including residents, planted 4,100 native shoreline plants for the purpose of up-taking excess nutrients and competing with invasive species. For more information on the SERV program and its events, please go to

[http://csbweb.seminolecountyfl.gov/pw/roadstorm/SERV\\_lakerestproject.aspx](http://csbweb.seminolecountyfl.gov/pw/roadstorm/SERV_lakerestproject.aspx)

**Photos: SERV restoration event**





Water quality samples are collected quarterly by Seminole County Water Quality section staff. The results of these collections and much more information can be found on the Seminole County Watershed Atlas:

<http://www.seminole.wateratlas.usf.edu/lake/waterquality.asp?wbodyid=7624&wbodyatlas=lake>

During the survey the water level was high at 46.49 feet above sea level. A Secchi disk (water clarity) reading was not taken during this inspection. No triploid grass carp were observed during this inspection.

### **Lake Recommendations:**

1 Work together to establish a lake association 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 lake management recommendations. Seminole County Lake Management staff would be glad to present findings from this and other surveys to the community. Contact Gloria Eby at (407) 665-2439 if interested.

2 Increase native aquatic plantings along the shoreline (such as pickerelweed, duck potato, and canna). Native shoreline plants help absorb nutrients from rainfall/run-off, improve habitat and water quality, and reduce shoreline erosion which transfers sediments and other organic matter into the lake. Over time, this process will fill the lake, creating more of a wetland-like habitat (formally known as eutrophication). Planting native species now can assist in slowing down this process. In addition, native plantings can reduce your herbicide costs/needs, providing a savings to you!

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 pointless personal pollution by reducing overall fertilizer use, using only phosphorous-free fertilizer, keeping a functional shoreline with beneficial native aquatic plants, and keeping grass clippings out of your stormdrains that lead to the lake. All these activities aid in protecting your waterbody! Contact Seminole County Lake Management Program (407) 665-2439 about the free educational programs available to you.

4 Help spread the word! Obtain email addresses from neighbors not currently on the distribution list, in order to share these reports. Valuable information is contained within these assessments.

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## 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 863-534-7074.



#### Sources:

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

Stitch, L. (n.d.). *Common Bladderwort*. U.S. Forest Service. Retrieved from [http://www.fs.fed.us/wildflowers/plant-of-the-week/utricularia\\_macroloba.shtml](http://www.fs.fed.us/wildflowers/plant-of-the-week/utricularia_macroloba.shtml)

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



## Eelgrass (*Vallisneria americana*): A Florida Native

Eelgrass, also known as tapegrass, is native to the state of Florida.

### Identification

Eelgrass is a submersed, perennial plant that can be found throughout the state in both still and flowing waters. Eelgrass leaves often resemble tape or ribbon. They are about an inch wide with raised veins and rounded tips. The leaves can grow several feet in length and their upper parts can often be found floating along the water surface. Eelgrass produces both male and female flowers, however, the small, white female flowers are most often seen, as their long, corkscrew-like flower stalks reach the surface of the water.

### Wildlife Value

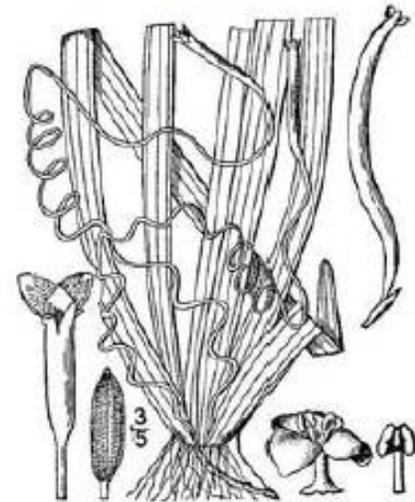
Eelgrass is an important food source for the endangered West Indian manatee (*Trichechus manatus*) and various species of waterfowl. Additionally, eelgrass provides important habitat, protection, and nursery grounds for fish.

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, eelgrass may impede recreational access. For questions concerning control of eelgrass 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:

NOAA. (2012, October 22). *Eelgrass-Habitat of the Month*. Retrieved from <http://www.habitat.noaa.gov/about/habitat/eelgrass.html>

UF/IFAS. (2014). *Eel-grass, tape-grass*. Retrieved from <http://plants.ifas.ufl.edu/node/465>

UF/IFAS. (2014). *Algae*. Retrieved from <http://plants.ifas.ufl.edu/manage/why-manage-plants/algae>

Washington State Department of Ecology. (n.d.). *Vallisneria Americana*. Retrieved from <http://www.ecy.wa.gov/programs/wq/plants/plant2/descriptions/va/naive.html>