

## HOWELL CREEK BIOASSESSMENTS

MARCH to APRIL 2015

Greetings Howell Creek Residents!

Please find the latest bioassessment report for your creek below. Some of the key highlights from this report include:

- Submersed aquatic vegetation (SAV) update
- Emergent vegetation presence
- Erosion issues and recommendations
- Lake Waumpi vegetation status/update
- **Aquatic Plant of the Month- Factsheet Attached (may or may not be present in your waterbody)**

### **Bioassessment**

On **March 11<sup>th</sup>, 2015**, Thomas Calhoun (Seminole County Lake Management Program) and Sophia Pengra (Seminole County Watershed Management Intern) surveyed the aquatic plants in **Howell Creek and Lake Waumpi**.

Native submersed aquatic vegetation (SAV) species found during the inspection included road-grass and eelgrass, with road-grass being identified as the dominant SAV species. One sprig of invasive hydrilla was observed. A bottom filamentous algal bloom was observed.

**Photo: Road-grass (native).**



Invasive emergent vegetation observed during the inspection included: alligatorweed, wild taro, wedelia, torpedo grass, and water hyacinth. Torpedo grass and alligatorweed growth have increased in comparison to the last survey in December. Only two water hyacinth plants were observed during this survey, which was a reduction from the last survey.

**Photo: Alligatorweed (invasive)**



Native vegetation found during the inspection included pickerelweed and pennywort. Some shorelines along the north bank of the creek had visible erosion issues. It is recommended that native shoreline vegetation be planted to help reduce erosion and stabilize the shoreline. Recommended native species include, but are not limited to: pickerelweed (scientific name: *Pontederia cordata*), duck potato (*Sagittaria lancifolia*), golden canna (*Canna flacida*), fire flag (*Thalia geniculata*), and cord grass (*Spartina bakeri*).

Lake Waumpi was also surveyed during this inspection. Lily pads showed signs of recent treatment and no water hyacinth was observed. Emergent species found on Lake Waumpi include: cattail, yellow cow lily, banana lily, and primrose willow.

**Photo: Lake Waumpi**



The secchi reading (water clarity) in Lake Waumpi was visible on bottom in a depth of 3 feet. One large triploid (sterile) grass carp fish was observed. Lake Watch water quality data for Lake Waumpi can be found on the Seminole County Watershed Atlas at:  
<http://www.seminole.wateratlas.usf.edu/lake/default.asp?wbodyid=151861&wbodyatlas=lake>.

### **Bioassessment**

On **April 15th, 2015**, Thomas Calhoun (Seminole County Lake Management Program) and Sophia Pengra (Seminole County Watershed Management Intern) surveyed the aquatic plants in **Howell Creek and Lake Waumpi**.

Native submersed aquatic vegetation (SAV) species found during the inspection included road-grass, coontail, bladderwort, and eelgrass, with eelgrass being identified as the dominant SAV species, followed by bladderwort. A few sprigs of invasive hydrilla were observed. The bottom filamentous algal bloom appeared to have been slightly reduced.

**Photo: Coontail (native)**



Invasive emergent vegetation observed during the inspection included: alligatorweed, wild taro, torpedo grass, and water hyacinth. Torpedo grass and alligator weed showed signs of recent treatment. Five water hyacinth were observed during this survey, which was an increase from the last survey.

**Photo: Treated Alligatorweed (invasive)**



Native vegetation found during the inspection included pickerelweed and pennywort. Some shorelines along the north bank of the creek had visible erosion issues. It is recommended that native shoreline vegetation be planted to help reduce erosion and stabilize the shoreline. Recommended native species include, but are not limited to: pickerelweed (scientific name: *Pontederia cordata*), duck potato (*Sagittaria lancifolia*), golden canna (*Canna flacida*), fire flag (*Thalia geniculata*), and cord grass (*Spartina bakeri*).

Lake Waumpi was also surveyed during this inspection. Lily pads had been visibly reduced by a recent treatment. Invasive species observed included water hyacinth, alligator weed, and torpedo grass. Emergent species found on Lake Waumpi included cattail, yellow cow lily, banana lily, canna, and primrose willow. Submersed species observed included coontail and southern naiad.

**Photo: Lake Waumpi**



The secchi reading (water clarity) in Lake Waumpi was visible on bottom in an estimated depth of 4 feet. One large triploid (sterile) grass carp fish was observed. Lake Watch water quality data for Lake Waumpi can be found on the Seminole County Watershed Atlas at: <http://www.seminole.wateratlas.usf.edu/lake/default.asp?wbodyid=151861&wbodyatlas=lake>.

**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 will be glad to present our findings from this and other surveys. Continue to increase native aquatic plantings along shorelines (such as pickerelweed, duck potato, and canna).
- 2 Consider increasing street sweeping services during times of peak leaf fall to ensure that this debris does not enter waterways. Leaf debris contains high levels of phosphorous that can negatively impact your lakes.

3 Increase educational outreach programs, i.e. Shoreline Restoration Workshops, Florida Yards and Neighborhoods (FYN), Lake Management Video mail-outs, and reduction of personal pollution by: decreasing fertilizer usage, using only phosphorous free and slow release nitrogen types of fertilizers, keeping a functional shoreline with beneficial native aquatic plants, and by keeping grass clippings out of your lake and the stormdrains that lead to the lake. 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.

4 Help spread the word! Obtain email addresses from neighbors not currently on the distribution list so that these reports can be shared with everyone. 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/alphabetical-index/bladderwort/>

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

