

HOWELL CREEK BIOASSESSMENTS

NOVEMBER & DECEMBER 2014; MARCH 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
- **Factsheet attached: Aquatic Plant of the Month- Bladderwort (may or may not exist in your waterbody)**

On **March 11th, 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.

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. LakeWatch 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>.

December 15, 2014

On **December 15th, 2014**, Thomas Calhoun (Seminole County Lake Management Program) and Joey Cordell (Seminole County Watershed Management Intern) surveyed the aquatic plants in **Howell Creek and Lake Waumpi**.

Six species of submersed aquatic vegetation (SAV) were found during the inspection. These SAV species included eelgrass, coontail, southern naiad, bladderwort, baby's tears, and hydrilla. There was an increase in southern naiad from the previous inspection.

Photo: Southern naiad (native).



Invasive emergent vegetation observed during the inspection included: alligatorweed, wild taro, salvinia, and water hyacinth. Mats of water hyacinth, alligator weed and burhead sedge have floated down the creek from Lake Waumpi. Torpedo grass was not present in the creek at time of inspection.

Photo: Water hyacinth (invasive)



Native vegetation found during the inspection included yellow cow lily, pickerelweed, and burhead sedge. 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 this 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. There was an abundance of SAV which included coontail, bladderwort, and southern naiad. The lake was recently treated for lily pads and water hyacinth. Emergent species found on Lake Waumpi include: cattail, burhead sedge, yellow cow lily, water hyacinth, and primrose willow.

Photo: Treated lilies, water hyacinth, and cattail.



The secchi reading (water clarity) in Lake Waumpi was visible on bottom in a depth of 3 feet. No triploid (sterile) grass carp fish were observed.

November 17th, 2014

On **November 17th, 2014**, Thomas Calhoun (Seminole County Lake Management Program) and Joey Cordell (Seminole County Watershed Management Intern) surveyed the aquatic plants in **Howell Creek and Lake Waumpi**.

Seven species of submersed aquatic vegetation (SAV) were found during the inspection. These SAV species included road grass, eelgrass, coontail, southern naiad, 2 species of bladderwort, and hydrilla. Because of low water levels, eelgrass and bladderwort are topping out in portions of the creek. Southern naiad and hydrilla have expanded since the last inspection. Spot treatments and grass carp fish are both being considered as means to control the hydrilla.

Photo: Hydrilla (invasive) and southern naiad (native).



Invasive emergent vegetation observed during the inspection included: alligatorweed, wild taro, primrose willow, salvinia, and water hyacinth. All species were found in small quantities. Torpedo grass was not present in the creek at time of inspection.

Photo: Erosion



Native vegetation found during the inspection included yellow cow lily and flat sedge. 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 this 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. The lake has an abundance of SAV. Three quarters of the lake is topped out with southern naiad and bladderwort. Emergent species found on Lake Waumpi include: cattail, burhead sedge, yellow cow lily, water hyacinth, and primrose willow.

Photo: Southern naiad (SAV) topping out around yellow cow lily



The secchi reading (water clarity) in Lake Waumpi was visible on bottom in a depth of 3 feet. No triploid (sterile) grass carp fish were 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 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. Help spread the word! Obtain email addresses from neighbors not currently on the distribution list in order to share this information with others. Valuable information is contained within these reports.

Have a great day!

Gloria Eby
Lake Management & Mosquito Control Program Manager
Seminole County Watershed Management Division
200 W. County Home Road, Sanford, FL 32773
407-665-2439
407-665-5600 (fax)



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



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

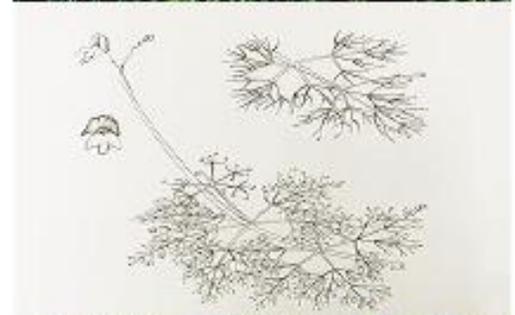
Common bladderwort is used by several insects, waterfowl, and mammals as a food source. The stems also provide shelter and a place for wildlife to lay eggs.

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/>

Strick, L. (n.d.). *Common Bladderwort*. U.S. Forest Service. Retrieved from http://www.fs.fed.us/wildflowers/plant-of-the-week/utrularia_macrobotrys.shtml

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