Greetings Mirror Lake Residents,

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

- Hydrilla status
- Expanding lily pads (Fragrant Water Lily Fact Sheet Attached)
- Submersed aquatic vegetation (SAV)
- Native emergent vegetation
- Invasive emergent vegetation
- Recommendations for you and your waterbody

6/22/2016

On **June 22nd, 2016**, Seminole County Lake Management staff, Thomas Calhoun and Joey Cordell, surveyed the aquatic plants in **Mirror Lake.**
Only one sprig of hydrilla was observed during the inspection.
Seven species of native submersed aquatic vegetation (SAV) were found during the inspection. These native species included: lemon bacopa to 3 feet, baby's tears to 5 feet, southern naiad to 5 feet, stonewort to 3 feet, eelgrass to 5 feet, and two species of bladderwort to 7 feet.

Photo: Bladderwort (native).

Native emergent vegetation found during the survey included: golden canna, buttonbush, club-rush, american lotus, spatterdock, fragrant waterlily, banana lily, maidencane, pickerelweed, duck potato, carolina willow, cordgrass, and cattail.

All lily pads have expanded, but the banana lily has been increasing the fastest. The lily pads will be hit hard on the next treatment. Do not be alarmed if lily tubers and mud pockets float to the surface. This is a common occurrence when treating lily pads.

Photo: Lily pad tubers and mud “burp up”.

Photo: American Lotus (native).

Invasive emergent vegetation included: alligator weed, wild taro, water primrose, torpedograss, cuban bur-head sedge, and creeping oxeye.

The water elevation at the time of inspection was 59.24 feet above sea level. The secchi reading (measurement for water clarity) was 9.5 in a depth of 10.3 feet. Two sterile grass carp were observed during this inspection.

7/25/2016

On **July 25th, 2016**, Seminole County Lake Management staff, Thomas Calhoun and Joey Cordell, surveyed the aquatic plants in **Mirror Lake.**
Small amounts of hydrilla were found at several areas of the lake. Single sprigs were present on the west side and the south end, while a small patch was found by the boat ramp.

Photo: Hydrilla (invasive).

Overall there was an increase in all species of submersed aquatic vegetation. Seven species of native (SAV) were found during the inspection. These native species included: lemon bacopa to 8 feet, southern naiad to 4 feet, stonewort to 3 feet, eelgrass to 4 feet, and three species of bladderwort to 8 feet. Eelgrass continues to be the dominant species however bladderwort is the most visible floating on the surface.

Photo: Bladderwort (native) can be seen floating at the surface in up to 6 feet of water.

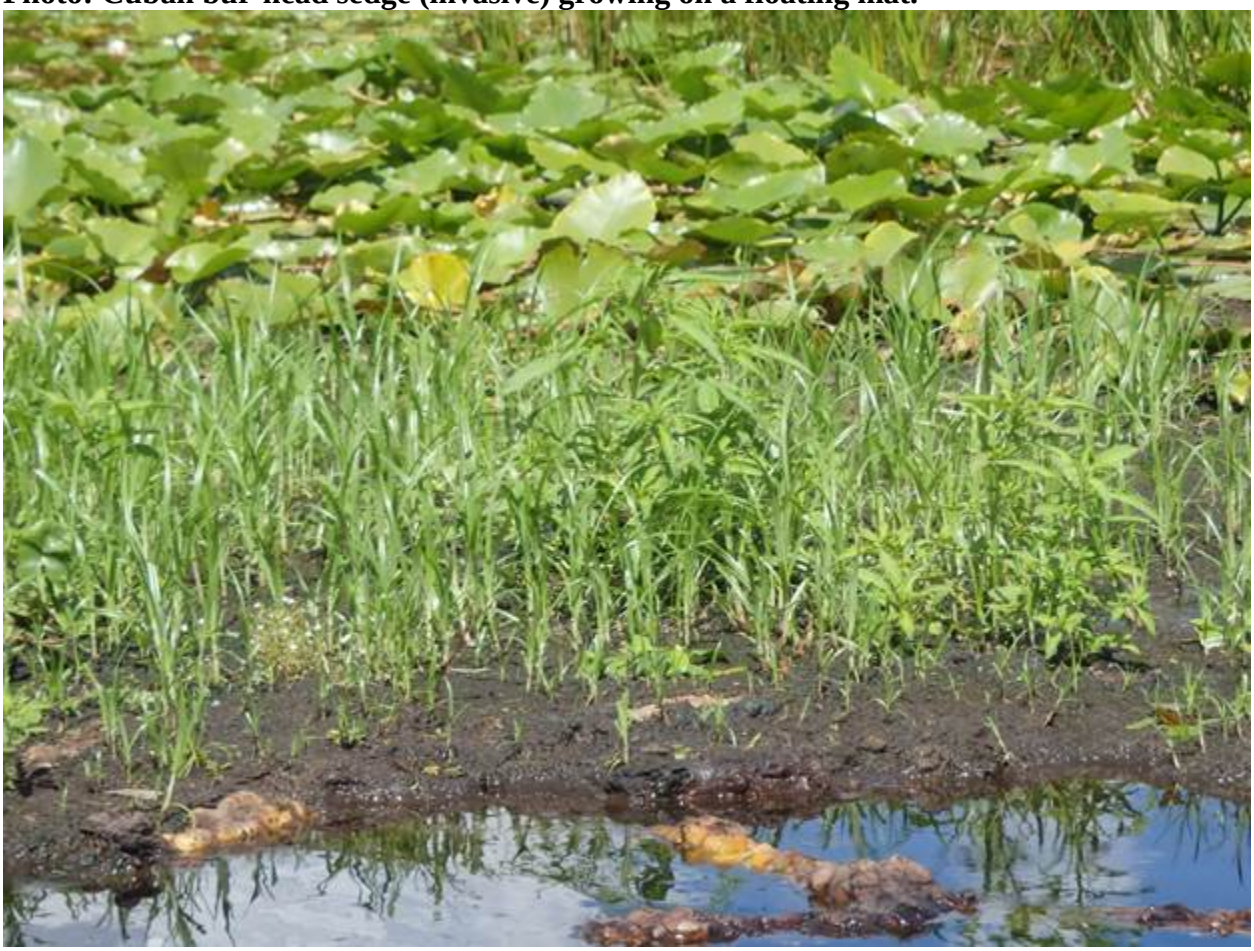
Native emergent vegetation found during the survey included: golden canna, buttonbush, flat sedge, pennywort, american lotus, spatterdock, fragrant water lily, banana lily, maidencane, pickerelweed, duck potato, carolina willow, cordgrass, and cattail.

There are fewer lilies as a result of last month's treatment however the native banana lily continues to expand in several areas of the lake. In some areas where lilies have been treated, mud has floated up with the large lily tubers. This is a normal occurrence and will break down on its own.

Photo: Banana lily (native) has been expanding around Mirror Lake.

Invasive emergent vegetation included: alligator weed, wild taro, water primrose, torpedograss, cuban bur-head sedge, and creeping oxeye. Some cuban bur-head sedge has started growing on some of the floating tuber mats.

Photo: Cuban bur-head sedge (invasive) growing on a floating mat.



The water elevation at the time of inspection was 59.25 feet above sea level. Three sterile grass carp were observed during this inspection.

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. Utilize the valuable educational outreach programs that are available to you: Shoreline Restoration Workshops, Florida Yards and Neighborhoods (FYN) interactive

presentations, and Lake Management Video mail-outs. Implement a media campaign within the community to promote the reduction of personal pollution; encourage residents to decrease their overall fertilizer usage, **use only phosphorous-free and slow-release nitrogen fertilizers**, keep a functional shoreline with beneficial native aquatic plants, and keep grass clippings out of your lake and the storm drains 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.

SEMINOLE COUNTY WATERSHED MANAGEMENT DIVISION

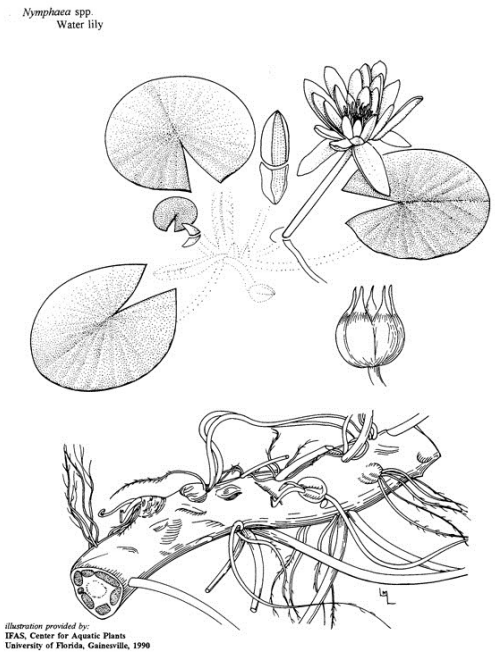
Aquatic Plant of the Month

Fragrant Water Lily (*Nymphaea odorata*): A Florida Native

Fragrant water lily, also known as American white water lily, is native to and found throughout North America, including the state of Florida.

Identification

Fragrant water lily is a perennial aquatic plant that can be found floating on the surface of ponds, lakes, and slow-moving streams. The leaves of fragrant water lily float on the surface of the water while the flowers can be found either floating on or rising above the water. The bright green leaves are 6 to 12 inches in diameter, nearly round in shape, and notched to the center. The highly fragrant flowers, which are brilliant white with a yellow center, open in the morning and close each afternoon.



Wildlife Value

The leaves and roots of fragrant water lily are consumed by several mammals, including deer, the seeds are consumed by waterfowl, and the flowers provide a source of nectar for beneficial pollinators such as bees, butterflies, and hummingbirds.

Submersed portions of native 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 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, fragrant water lily may impede recreational access. For questions concerning control of fragrant water lily 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.

SEMINOLE COUNTY
FLORIDA'S NATURAL CHOICE

Sources:

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