

## **Hydrilla Management Lake Istokpoga 2011-2012**

Throughout 2011 the Florida Fish and Wildlife Conservation Commission (FWC) and Highlands County Recreation and Parks Department have been closely monitoring hydrilla on Lake Istokpoga. In September of 2011 the FWC contracted with a private company, Remetrix, LLC to conduct mapping on Lake Istokpoga. Remetrix mapped hydrilla levels using state of the art acoustic sounding and survey data to create maps that will assist lake managers in developing management plans to control hydrilla, a category one exotic invasive. (These maps can be viewed at the Friends of Istokpoga web site.) Recent ReMetrix surveys indicated that over 8000 acres of dense hydrilla is spreading within the lake and there is approximately 14000 acres of range throughout the lake in varying percent biocover. FWC in cooperation with Highlands County conducted further mapping of hydrilla coverage to identify the high priority areas to be treated in the coming months.

The goals of the upcoming treatment are to keep areas near the S68 structure open to prevent any flood control concerns, open areas for navigation in high traffic areas providing recreation and boating opportunities for the users and residents of the lake, minimize biomass within the lake to prevent encroachment onto native aquatic plants that act as habitat, and minimize other ecological impacts that topped out hydrilla can have on the lake system, including changes in pH levels and drops in dissolved oxygen levels that can result in fish kills. The FWC working group consisting of biologists representing various guilds of expertise in wildlife and conservation, provided recommendations for the upcoming hydrilla treatments to create a more comprehensive plan that would incorporate many uses and functions of the water body. The plan includes concerns expressed by United Water Fowlers that would like to see a level of hydrilla on the lake and less spraying during peak hunting season. The working group also considered concerns from the US Fish and Wildlife Service regarding the Endangered Florida Everglades Snail Kite nesting and foraging habitat. The USFWS is also concerned about disturbance around nesting areas by management efforts. Bass and sport fishing concerns were also included such as avoiding treating during bass spawn and providing adequate submersed vegetative cover for fisheries. These topics as well as concerns from various guilds including herpetology, gator habitat, wading birds and other wild life that utilize the water body were all discussed amongst the group and incorporated into the hydrilla management plan.

On October 26<sup>th</sup> 2011 a public meeting was held to discuss hydrilla management on Lake Istokpoga with stakeholders and concerned citizens and an open the floor to discuss their interests and concerns. The public meeting was hosted by Highlands County Recreation and Parks Department and held at the Lake June in Winter H. L. Bishop Park Club house. Through these efforts and input from the public, a comprehensive treatment plan was developed.

The comprehensive hydrilla treatment plan for the Lake includes plans to target approximately 6000 acres of hydrilla in high priority areas. This treatment was designed as a split treatment. The first phase of the treatment was conducted the first and second week of December when there was a break in the duck hunting season. It consisted of 1806 acres of near shore hydrilla. This part of the treatment treated near shore hydrilla in fall before bass spawn, and before snail kite nesting season. The treatment would prevent encroachment of hydrilla onto native submersed aquatic vegetation in these areas. The

treatment plan will also leave areas of littoral zone HVA between and around the islands during hunting season. The second phase of the treatment will be applied the second week of February and consists of approximately 4000 acres. The February treatment will minimize biomass in front of S68 structure, prevent encroachment onto natives between the islands and minimize over all biomass to prevent spread. It will keep the North end of the lake clear of any new infestations, which has been an overall goal for the lake for several years. Navigation and accessibility of public access boat ramps will also be improved by treating navigational trails periodically through the remaining areas of hydrilla.

In addition to these treatment objectives, it was decided amongst the FWC working group that areas of unmanaged hydrilla consisting of 2000 acres would be left to be used by anglers and duck hunters for recreational use. 2000 acres would be left within the South end of the lake in two 1000 acre blocks that would be periodically opened up with navigational trails. Hydrilla management is an adaptive management practice and these areas could be subject to change as conditions and considerations change within the water body. For example Snail Kite activities or logistical constraints may alter placement of treatment plots. Herbicide drift, natural die back from frost could also occur.

The first part of the treatment was conducted November 30 and December 5<sup>th</sup> and 6<sup>th</sup> of 2011. The initial date was postponed due to high winds forecasted that could impact treatment efficacy and at over 15 miles per hour, also raised helicopter safety issues. The treatment was completed on December 6<sup>th</sup> where 42 totes of Aquathol K, a contact type herbicide, was applied by helicopter to 1806 acres at a rate of 2 ppm. The areas targeted were the Eastern shoreline north of the S68 structure, just North of Windy Point to Pruitt's landing, and Windy Point boat ramp and the Eagles Nest areas. The December treatment resulted in effective control for the areas targeted and opened up areas that are heavily used by boaters and sportsmen alike. Some areas at the very Southern part of the block near Windy Point boat ramp did not achieve optimal control. The reasons are not certain. However, FWC and Highlands County will continue to monitor the area and retreat areas if necessary.

The second part of the split treatment will consist of 3944 acres. These areas are scheduled for control the week of February 13<sup>th</sup>. These areas include the East side of Big Island, two plots between the islands, South of Bumble Bee, just out from Windy Point, and in the North end near Istokpoga Park to Cow house road.

After the treatment, further monitoring of the site will be conducted by the FWC Invasive plant management section in cooperation with Dr. Mike Netherland, US Army Corps of Engineers, University of Florida, to document and monitor dispersion rates and efficacy of the herbicide within the water column. FWC IPMS and Highlands County personnel will also survey the area and map the extent of control that was achieved as treatment results progress.

For more information on the management of invasive aquatic plants in Florida please refer to the University of Florida web site at <http://plants.ifas.ufl.edu>. Here you will find a library of more than 70,000 articles and information on aquatic plants as well as information on all facets of aquatic plant management in Florida public waters. In addition, University staff and Florida science teachers are

collaborating to develop classroom curricula that addresses invasive plants and their management in state waters

Erica Van Horn

Regional Biologist Florida Fish and Wildlife Conservation Commission  
Invasive Plant Management Section  
2001 Homeland Garfield Rd.  
Bartow, FL 33830  
863-534-7074  
Erica.vanhorn@myfwc.com