



# KISSIMMEE CHAIN OF LAKES HIGHLIGHTS

FLORIDA FISH AND WILDLIFE CONSERVATION  
COMMISSION

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## 2004 Lake Tohopekaliga Extreme Drawdown & Habitat Enhancement Project Has Concluded

Prior to flood control in the mid 1960's, aquatic vegetation and organic material did not accumulate along the shoreline due to a natural cleansing process that occurred during flood and drought events. For the past 17 years, stabilized water levels on Lake Tohopekaliga have resulted in a build-up of aquatic vegetation along the shorelines. Over time, the aquatic vegetation died and decomposed which contributed to the build-up of muck along the shorelines. Once the muck accumulates, more aquatic and terrestrial vegetation becomes rooted on top of the muck. This process leads to less available open water in the lake and sometimes results in the formation of floating islands known as tussocks. These tussocks can cause serious problems as navigational hazards for boaters, diminish desirable fish and wildlife habitat and threaten water control structures. To set-back lake succession, the extreme drawdown and muck removal project was planned. In November 2003, with all permits and plans in place, the South Florida Water Management District (SFWMD) began to lower Lake Tohopekaliga's water level from 55 ft National Geodetic Vertical Datum (NGVD) down to 49 ft NGVD. With the water level down, prescribed burning was initiated in densely vegetated areas of the lake. Meanwhile, heavy equipment including bulldozers, front-end loaders, track-hoes and dump trucks carried the undesirable vegetation and muck out of the lake or to designated in-lake disposal islands. In June 2004, the water control structure at the south end of the lake was lowered and the lake began refilling to summer pool 53.5 ft NGVD. The current water level is 52 ft NGVD. The heavy equipment that was operating on Lake Tohopekaliga's lake bottom is now gone and with that **7, 971,770 yds<sup>3</sup> of muck were removed** at an average cost of \$0.84/yd<sup>3</sup> for a total cost of \$6,448,926.78. Material removed during the project was placed in upland disposal sites and 29 in-lake disposal islands. The in-lake disposal islands were created where upland disposal sites were not available. A total of 3,339 acres of lake shoreline were scraped free of muck, thus providing improved fish and wildlife habitat. Finally, the FWC wants to thank anglers, fish camps, local businesses, recreational users, lakefront homeowners, community leaders and the general public for their support of this important project. Any questions regarding the 2004 Lake Tohopekaliga Extreme Drawdown and Habitat Enhancement Project should be directed to Mr. Marty Mann (407) 846-5300 with the FWC Aquatic Habitat Conservation & Restoration Section.

RESTORED LAKE BOTTOM AND IN-LAKE DISPOSAL ISLAND @ LANIER POINT,  
LAKE TOHOPEKALIGA, OSCEOLA COUNTY



## Temporary Catch and Release Regulation On Lake Tohopekaliga Has Been Removed.

The temporary catch and release regulation on Lake Tohopekaliga's largemouth bass was lifted on August 13, 2004, because the lake reached 52 ft NGVD (low pool) on August 9. Originally, biologists had anticipated the lake reaching low pool stage by September 1, 2004, but the lake reached low pool earlier than expected due to an abundance of summer rainfall. The catch and release regulation has been rescinded, and the **14-inch minimum regulation** is back in place. Remember that the bag limit is **5 black bass per person per day, of which only 1 can exceed 22 inches.**

## “Tidy up Toho” A Community Effort To Clean Up Lake Tohopekaliga

On Saturday, May 22<sup>nd</sup>, 2004, **338 volunteers removed 8.6 tons of trash** from Lake Tohopekaliga's shoreline and lake bottom. Some of the trash and debris that were picked up included television sets, computers, chairs, bicycles, duck blinds, trolling motors, car tires, old fishing rods, and countless types of plastic. Planning this effort was a joint venture by the following organizations: FWC, Kissimmee/St. Cloud Convention & Visitors Bureau, City of Kissimmee, Osceola Co., SWFMD and Boggy Creek Airboat Rides. Sponsors for the event included OmniWaste, Jordan Norris Inc., Toho Water Authority, Alligator Lake Homeowners Association, Toho Yacht Club, Big Toho Enterprises, Bass Pro Shops, Boggy Creek Airboat Rides, SWFMD, FWC, Osceola Co., and the City of Kissimmee. Special groups that devoted their time for the cause included Osceola Airboat Assoc., and Boy Scouts of Osceola Co. FWC would like to thank all the volunteers that came out to clean up Lake Tohopekaliga's Shorelines.

## Aquatic Plant Management Activities

Efforts to maintain previously enhanced shorelines will continue on the Kissimmee Chain of Lakes including Lake Tohopekaliga. Aggressive herbicidal application is needed to prevent the shorelines from reverting back to undesirable plant communities and excessive muck accumulation in the future. Aquatic plant management activities (aerial herbicide treatments) were conducted on Lake Tohopekaliga during April & May on 1,840 acres of smartweed in exposed littoral areas of the lake. One-month, post treatment results indicated >90% control of targeted plants. Funding for herbicide treatments was provided by the Florida Department of Environmental Protection and totaled \$78,525. Herbicide applications will continue on most lakes within the chain during the fall of 2004. Also, 200 acres of enhanced shoreline was planted (disked-in) with knotgrass and maidencane during May. Approximately 4 million donor plants were harvested from Lake Kissimmee and distributed on sites at Lanier Point, adjacent to the Osceola County Park (west shore), north of Shingle Creek, South Steer Beach and South shore, and adjacent to Lake Toho Resort. In addition to herbicide treatments, tussocks will be mechanically removed in an effort to maintain the restored shorelines in the future.

## Largemouth Bass Electrofishing Surveys Reveal Trophy Fish

Largemouth bass were sampled via electrofishing from the Kissimmee Chain of Lakes. Approximately 200 largemouth bass from Lake Tohopekaliga were sacrificed for age and growth analyses. The sacrificed fish will serve to potentially answer questions concerning the long-term responses of sportfish populations as a result of the 2004 Lake Tohopekaliga extreme drawdown. At the present time, age and growth data revealed that female largemouth bass obtain harvestable size (14 inches) at an average of 3 years of age, while males exceed the size limit at about 4 years of age. Generally, relative abundance of largemouth bass in electrofishing samples collected on the Kissimmee Chain of Lakes during the period was similar to occurrences in 2003. Total electrofishing catch rates on lakes Cypress, Tohopekaliga and Hatchineha exceeded 60 fish per hour of sampling. Total catch rates on lakes Alligator, Jackson, Kissimmee and Marian exceeded 40 fish per hour of sampling. Total catch rates of harvestable fish on lakes Cypress, Tohopekaliga and Hatchineha exceeded 20 fish per hour of sampling. Of the lakes sampled, lakes Cypress, Hatchineha, Marian and Lake Tohopekaliga produced the most numbers of trophy ( $\geq 24$  inches) fish. Particularly, **Lake Marian which produced two fish exceeding 12 lbs!!** Data are still being compiled and analyzed.

LAKE HATCHINEHA (11.8 LBS)



**Attention Anglers:** As a result of the low water on Lake Tohopekaliga during the extreme drawdown, anglers reported some outstanding days with several largemouth bass exceeding the **8 pound range**. Many of the local guides boasted on how many fish they had landed above **10 pounds**. The 8 man-made fish attractors provided by the FWC proved to be vital hot spots while the water was low because these attractors were placed in some of the deepest parts of the lake. According to FWC biologists, the data from the spring creel survey on Lake Kissimmee is currently being analyzed, and it appears that the lake produced another incredible harvest of black crappie and catch-rates appear to have increased for largemouth bass. Fall creel survey is currently set to begin on Lake Tohopekaliga in late-August and run until mid-November. So, anglers should be aware of the FWC biologists on the water.