

NOTICE OF CLOSED COVES

Otter Lake Water Commission is cooperating with the Illinois Natural History Survey to conduct a bass recruitment study. You may notice two separate coves on Otter Lake that have been closed with barriers. No fishing or boating is allowed beyond the barriers. These areas will be closed for three years.

In addition the Illinois Natural History Survey has been coordinating a largemouth bass stocking research with the Department of Natural Resources and the Otter Lake Water Commission. Stocking of approximately 14,000 four inch fingerlings per year has been done since 2007.



June 24, 2010

Illinois Natural History Survey research at Otter Lake

Matthew Diana and David Wahl

Largemouth bass populations can experience poor recruitment and are susceptible to exploitation due to fishing. The Illinois Natural History Survey has been conducting research as part of a State funded project (Federal Aid Project F-135-R) to examine management techniques to address these problems. We began working with Dennis Ross and the Otter Lake Water Commission and Jeffery Pontnack of the Illinois Department of Natural Resources on two projects at Otter Lake. One goal of this study is to examine refuges as a potential management tool for largemouth bass populations. We are examining the potential of refuges that are closed to fishing in increasing natural recruitment of largemouth bass. A similar study of a refuge on Clinton Lake has shown increases in both the number of young-of year fish and adult largemouth bass in the refuge since the closure. In Otter Lake, we plan to close two coves to fishing beginning in spring 2010. Buoy lines will be stretched across two coves, restricting access of anglers. By closing these two coves we allow largemouth bass to spawn uninterrupted by angling and potentially increase the recruitment in the entire lake. We have been monitoring the largemouth bass populations for three years through electrofishing and seine transect both inside the proposed refuges and in control transects dispersed throughout the lake. We plan to monitor changes in the largemouth bass population in Otter Lake for the next few years.

We have also been coordinating a largemouth bass stocking research project with the Department of Natural Resources and the Otter Lake Water Commission. We have documented low survival of stocked largemouth bass throughout the state and have been conducting research to increase the success of stocking events. In 2007 we began stocking largemouth bass in Otter Lake (along with 3 additional lakes) with an experimental release method. Stockings are typically done by releasing all the fish at the boat ramp and allowing them to disperse from there. There is high mortality both due to crowding and predation on these newly stocked fish. To reduce this mortality we hypothesized that fish distributed throughout the lake and stocked into habitat such as vegetation or submerged wood, may have increased survival. In order to examine this approach in Otter Lake, we have been stocking 7,650 four inch largemouth bass each year at the boat ramp with a right pelvic clip and an additional 7,650 four inch fingerlings with a left pelvic fin clip are loaded onto 3 release boats and distributed by netting them into vegetation or woody habitat. We have been collecting all largemouth bass through spring and fall electrofishing and examining them for clips to evaluate the long-term growth and survival of the largemouth bass from the two different stocking techniques. Preliminary results have shown slightly higher survival of the dispersed stocked fish, but more stockings are needed to verify this initial trend. Any questions regarding these projects can be directed to the lead research biologist on the project, Matt Diana at 217-728-4851 or matt@dillinois.edu.