

Florida Fish Busters  
August 2007

Weather extremes—fishing fortunes

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In late May, 31 percent of Florida was undergoing an extreme drought, according to the National Drought Mitigation Center. On May 31, Lake Okeechobee was at a record low of 8.89 feet whereas the water schedule called for it to be at 13.23 feet. “USA Today” was carrying the story on its front page and highlighting that local fishing-related businesses were earning only half what they normally would. Low water further threatened drinking and irrigation supplies.

The next day, June 1 was the opening of hurricane season, and the second Atlantic named storm of this year’s hurricane season formed in the Gulf of Mexico. Tropical Storm Barry reached peak winds of 60 miles per hour before weakening and making landfall near Tampa Bay as a tropical depression, bringing with it some much-needed rain. In the intervening months South Florida has begun to receive some respite from the parching conditions, with only 2 percent of the state still experiencing an extreme drought as of June 24.

As of this writing, Florida hasn’t been exposed to a major hurricane in nearly two years, however, the extreme effects of hurricanes Katrina, Dennis, Rita and Wilma from 2005 are still with us. So how do these weather extremes affect freshwater fish and fisheries management?

The natural and dynamic cycle of floods and droughts that Florida experiences represent the weather conditions to which our native fishes adapted. Short-term droughts expose lake bottoms, allowing the muck that has accumulated to dry out. Desirable vegetation expands into deepwater portions of lakes and rivers, and seeds germinate on exposed lake bottoms. When the rains return and water levels increase, lush aquatic vegetation forms a garden for feasting insects and invertebrates that in turn are consumed

by insectivores (insect-eating), such as mosquitofish and bluegill. The food web then kicks into full gear and attracts larger piscivorous (fish-eating) black bass and other sport fish that are so sought after by the 'ultimate' predator -- man.

Droughts provide opportunities to repair boat ramps, docks, seawalls and other structures, although special permits may be required, and to conduct habitat enhancement projects. For example, on Lake Okeechobee the South Florida Water Management District and Florida Fish and Wildlife Conservation Commission (FWC) are scraping away almost 2 million cubic yards of muck. If water levels gradually return to 13 feet so native plants can expand and provide nursery habitat for baby fish and help prevent winds from stirring up the bottom, it will greatly help the fishery to recover from past travails. Natural fish reproduction and fast growth, based on the expanding vegetation and food base, will greatly benefit the lake's fishery. What must be avoided, says Don Fox, the FWC fisheries expert on Lake Okeechobee, is sustained high water levels of 15-18 feet that drown out that vegetation, or another hurricane that uproots the plants before they get a chance to take hold.

Droughts also provide an opportunity for anglers. Fish tend to be concentrated in the remaining deeper waters of rivers, canals, lakes and reservoirs leading to some outstanding catch rates. However, anticipating the water levels to return, the FWC encourages anglers to release not only any fish that they cannot legally keep, but also any that they don't plan to eat, to provide abundance for the future.

At the extreme though, lakes such as Lake Jackson, a 4,000-acre lake that has been nationally known for its largemouth bass fishery in Leon County, can virtually disappear when the lake drains into the aquifer through a natural sinkhole. This too is a naturally occurring and cyclic event. When the rains return and recharge the underlying aquifer the lake will refill and FWC will be prepared to help the fishery recover as quickly as possible.

Floods too can be very beneficial in the natural cycle of Florida waters. When lakes and rivers rise gradually, they enable fish to expand into the nutrient-rich flood plain growing rapidly, and if the timing is right, can provide additional shelter and food for young fish. Floods also help carry away excess nutrients and flush lake and river systems. Man's intervention of



*Lake Jackson at a recent low due to the sink hole opening and full following a hurricane with a healthy plant community.*

building structures to maintain water levels within strict confines by eliminating the natural low and high water has created one of the most disruptive impacts on natural aquatic ecosystems, which is one reason why lake restoration projects frequently incorporate draw downs and revegetation programs.

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