

Stocking Florida bass in Texas reservoirs may alter stream systems connected to stocked reservoirs

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A genetic analysis by Baylor University biologists suggests that the stocking of Florida bass in Texas reservoirs impacts bass populations far beyond the actual stocking location.

The native largemouth [bass](#) has a long and nearly continuous stocking history in Texas. However, the Florida bass is widely considered a better sport fish because it grows to a greater size. Subsequently, stocking efforts in Texas [reservoirs](#) have transitioned from largemouth bass to Florida bass.

The Baylor researchers analyzed the [genetic composition](#) of 69 largemouth bass in nonstocked streams of central Texas. These results were compared to DNA from 27 largemouth bass and Florida bass specimens provided by the Texas Parks and Wildlife Department that represent stock lineages as well as wild fish from outside of the sampling region.

Their analyses found the presence of Florida bass DNA in bass at all sampling locations, including sites more than 50 miles upstream from the closest documented stocking location.

"This presence of Florida bass DNA at the sampling locations indicates that the influence of stocking reaches far beyond managed reservoirs," reported Patrick D. Danley, Ph.D., assistant professor in the department

of biology in Baylor's College of Arts and Sciences. "Although the stocking of non-native Florida bass in reservoirs may enhance fishing opportunities, it also has the ability to alter stream systems that are directly connected to stocked reservoirs."

Because of the methods used, the researchers could not determine if Florida bass migrated upstream or if the movement of their DNA was due to hybridization with [native populations](#).

"At this time, we cannot determine whether our samples represent a hybridizing group of largemouth bass and Florida bass or two distinct co-occurring species," Danley said. "Further studies using nuclear markers would be useful for differentiating hybrids from pure lineages of Florida bass and largemouth bass and would shed light on the impacts of Florida bass stocking on native largemouth bass populations in central Texas," he said.

More information: The study was published in a recent issue of *Transactions of the American Fisheries Society*.

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Provided by Baylor University

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