## **Excess rains should boost fish populations**

By SHANNON TOMPKINS Houston Chronicle July 19, 2007

This past week, the water level of Lake Buchanan on the Colorado River in central Texas climbed to within an inch or two of its designated full mark.

It was far from full earlier this year.

"I was at Buchanan back in February at a meeting and stopped at one of the boat ramps," said Phil Durocher, director of inland fisheries for Texas Parks and Wildlife Department. "The lake was so low that from where the boat ramp ended, the nearest water was at least 500 yards away."

Buchanan was not an isolated case. The other five tip-to-tail Colorado River reservoirs most call the Highland Lakes were as desiccated as Buchanan, the top link. And they mirrored lakes across much of Texas.

Two years of a drought that began slowly in 2005 and peaked late in 2006 withered Texas rivers to trickles and shrank the reservoirs they fed.

In July 2006, only five of the 77 reservoirs the Texas Water Development Board monitors were at 100 percent of normal storage capacity — full in common language. Most reservoirs across the state had seen their water levels drop at least several feet. Some fell to record lows.

And while such drops in reservoir water levels are fairly regular in western Texas, where dry conditions are the norm, the shrinking lakes were a shock in the eastern third of the state. Dozens of lakes in north-central and eastern Texas saw their water levels fall to their lowest mark in at least a decade.

The dwindling water proved a major problem for many inland anglers, but, as it turns out, not particularly negative for the fish.

And the low-water conditions of much of the past year actually will prove a great benefit for inland fisheries, as it set the stage for what should be a tremendous surge of fish populations now that water has returned — in a big way — to Texas.

"The drought didn't impact fisheries much, if any," said Durocher. "What it did impact was angler access."

"Access — the ability of people to get on the lakes — was the biggest problem in a lot of East Texas," agreed Dave Terre, Tyler-based TPWD regional inland fisheries manager. "Water levels were so low, a lot of boat ramps were unusable."

But fish populations in most lakes and rivers did just fine through the low-water stretch, said fisheries managers.

And they are going to do even better in the coming months, now that Texas is awash in rainfall, and lakes and rivers are swelled or overflowing.

Over the past four months or so, heavy rains have fallen over most of Texas, flooding rivers and filling (often overfilling) reservoirs that had stood several feet low for more than a year.

That slug of water promises to trigger a series of events that will boost the fortunes of fish and anglers over the next many months.

As lake levels slowly retreated over the past couple of years, thick stands of terrestrial vegetation grew in the rich soil of the exposed lake beds.

All that cover — grasses, shrubs and even young trees — are now drowned beneath the rising lake waters. And those drowned plants will be a super-charger for the aquatic food chain.

As the plants decompose, their stored nutrients are released into the water.

"That big slug of nutrients kicks the food chain into high gear," Durocher said.

Zooplankton and phytoplankton populations go through the roof as the tiny organisms gorge on that surfeit of nutrients released by decomposing vegetation.

Threadfin and gizzard shad, two of the main forage fish species in most reservoirs, gorge on the plankton, and their populations expand greatly.

Shad also are aided by all the detritus floated and covered by the rising waters. When shad spawn, their adhesive eggs attach to structures — rocks, plants, piers, bulkheads, floating chunks of wood — where they remain until the fry hatch. Rising waters make more of this crucial substrate available, boosting even higher the number of shad produced.

The increased availability of forage means predatory species such as largemouth bass, sunfish, striped bass, catfish and others have plenty to eat.

The flooded vegetation also provides crucial habitat for young fish.

Young fish — fry and fingerlings — need cover to protect themselves from predation. And the rising waters in Texas lakes are providing plenty of it.

"They've got all that new habitat to hide in," said Todd Driscoll, TPWD inland fisheries biologist headquartered in Jasper. "That greatly increases the number of young fish that survive their first year. And if they can make it through that first year, their chances go way up."

The rise in lake levels over the past couple of months came at just about the perfect time, said Dave Terre. Most popular game fish spawned in spring and early summer, and the rising lakes are giving those fingerlings an abundance of cover.

"We should have a tremendous year-class of fish this year," Terre said.

The rising waters also might provide additional benefits to the state's inland fisheries by knocking back problem plants, Durocher noted.

Big jumps in water levels could, on some lakes, reduce stands of noxious submerged aquatic such as hydrilla by covering the plants with enough turbid water that it prevents photosynthesis, killing the weeds.

And the floods surging down the Brazos River system might be a solution to the nagging problem of fish kills caused by blooms of toxin-producing golden algae. Over the dry stretch, several blooms of golden algae in the Brazos and some of the lakes astride it triggered large-scale fish kills.

Fisheries managers have not been able to pinpoint the cause for the golden algae problems, but low water levels and reduced river flows are suspected to be factors.

"We don't know what effect (the flood flushing the Brazos system) is going to have on golden algae, but we're sure going to find out now," Durocher said.

While the rising water's impact on the golden algae issue in the Brazos River remains uncertain, it's overall consequences for the state's inland fisheries is clear.

"Right now, we're in the best shape we've been in for years," Durocher said. "It's amazing what water does for fish," he added with a laugh.

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