



Senior Biologist Cliff Sager oversees the draining of one of the Florida largemouth bass spawning ponds at the Durant State Fish Hatchery.

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A Different Kind of Fish Fry

Bitty Bass Abound in Short Order



An In-Depth Look at How Genetics From Florida Produce Largemouth Lunkers in Oklahoma

EDITOR’S NOTE: This is the fifth article in a series detailing efforts of the Oklahoma Department of Wildlife Conservation to produce trophy largemouth bass in Oklahoma’s waters.

By Don P. Brown, Information and Education Specialist

Ah springtime – when a young fish’s fancy is focused on becoming a fry factory.

It’s early May, and nature has definitely taken its course in the brooding ponds at the Durant State Fish Hatchery. The 1,100 brooders of the Oklahoma Department of Wildlife Conservation’s Florida Largemouth Bass Program have again produced results – millions of them.

This crop of Florida bass fry represents the next step in the annual process to give anglers in Oklahoma a good chance at landing a true lunker largemouth. And it seems to be working. With the exception of just one native northern bass, every state record largemouth since 1983 has tested positive for Florida bass genes.

Now, the hopes of trophy-seeking anglers are borne by the next generation. By sheer numbers, the goal of producing at



The draining pond water carries the Florida bass fry into a concrete holding basin.

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least some monster bass appears to be a certainty. “If things stay on par, we’ll produce at or just over 2 million fry for the year,” said Cliff Sager, senior fisheries biologist for the Wildlife Department’s South Central Region.

PARENTAL OBLIGATIONS

Now that the brooder bass have done their parental duty, it is time that their offspring leave the nest and strike out on their own. That means 10 ponds’ worth of big brooders and three-fourths-inch bass babies must be separated. And the way that is done is by draining each pond.

The water passes through a fence-like wire screen that is put into place in front of the hatchery pond’s drainage pipe. As the pond water passes out of the pond and into the pipe, the screen holds back the large brooder bass, while the Florida bass fry are carried down the drainpipe and into concrete holding basins.

As the pond’s water level decreases, hatchery workers using rubber dip nets scoop up the brooder bass as quickly as they can and transfer them to a holding tank aboard a hatchery truck. The process often involves three or four employees slog-ging their way through the mud in pursuit of a vigorous escapee.

As the pond’s muddy bottom emerges, several square mats of grass become visible. Durant Hatchery workers recently began using these strips of Bermuda sod to serve as makeshift spawning beds for the brooding bass. This technique is believed to help in producing greater numbers of fry, because it gives the



Fisheries Technician Clayton Porter and Durant Hatchery Assistant Manager Shane Lewis scoop up brooder bass as the spawning pond drains.

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Sager puts Florida bass brooders into a hatchery truck so the fish can be taken to a different pond.





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Close to 2 million Florida largemouth bass fry were collected this past spring.

fish more attractive areas to lay eggs, helps keep the eggs up off the muddy pond bottom which leads to better hatch rates, and it provides protection for the young fry after they hatch, Sager said.

Once all the big brooders have been transferred to the hatchery truck, they are driven away to separate ponds, where they will remain – safe and well-fed – until their services are needed next spring.

BABIES, BABIES EVERYWHERE

The attention now turns to the next generation. Thousands upon thousands of bass fry travel down the drainpipe out of each spawning pond and into a square concrete holding basin. Screens are in place to keep the fish from being lost down the drain. Fresh water is also put into the holding basins from the hatchery's 100-acre supply reservoir, which is maintained by pumping water from the Blue River, which serves as the hatchery's main water supply. But at this stage of the game, the incoming water must be free of contamination or the whole operation could be jeopardized.

"We are growing just one crop," Sager said, and that is Florida bass. If unfiltered river water were allowed into the holding ponds, many unwanted species could show up later. So, to prevent things such as fish eggs, larvae and predator fish from getting into the ponds, personnel install filtering bags with screens as small as 500 microns over the water supply pipes.

When the ponds had drained and all the fry were in the concrete basin, it was time for hatchery technician Bob Wichers to get to work. He had been standing inside the basin along with the baby bass, waiting for his cue to begin putting the squeeze on the fry.

When other personnel were in place, Kildow used a moveable aluminum screen to push the fry into one end of the basin. Small nets were used to scoop up the fry and put them into buckets



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At the time they are collected, the Florida bass fry are about three-fourths of an inch in length.

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Fisheries Technician Roger Kildow, left, helps gather the fry in the holding basin as other technicians scoop the tiny fish into buckets for weighing.

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Based on previously taken samples, the bass fry are put into buckets and weighed to determine how many are being loaded into each pond for producing fingerlings.

that held a measured amount of water. The fry buckets were then weighed, allowing workers to keep track of the number of fry that are being removed and placed into a hatchery truck holding tank.

YOU WANT FRY WITH THAT?

Each one-acre holding pond receives a full order of fry: 80,000 bass babies. And each holding pond was “loaded with groceries,” Sager said, referring to the plankton that the fish will eat. The fry will spend the next few weeks eating and growing, while hatchery personnel monitor each pond to ensure plankton levels can sustain the small fry until they reach fin-

gerling size: about 1.5 inches long.

This year, about 1.1 million Florida bass fry were kept in holding ponds at several Wildlife Department hatcheries to produce fingerlings for stocking. But in all, the Durant Hatchery produced more than 1.8 million Florida bass fry.

“The numbers have been high. It’s the same problem we’ve had for the last couple of years,” Sager said. “But it’s a good problem to have; we’ve got too many bass!”

Too many, that is, for the available pond space to hold. So, about 800,000 “excess” fry that don’t end up in a new hatchery home are instead loaded onto trucks and taken to selected lakes for stocking. Sager said the odds are definitely against these Florida bass fry that are stocked, but at least there is a chance that some of them can grow to trophy size and reproduce along the way.

The extra fry also allows the Department to stock Florida bass into many more lakes than otherwise would be stocked. The lakes that are selected to receive fry have been evaluated for their trophy bass potential and have been given lower-priority status. “We are giving these lakes a chance with our extra production,” Sager said. “It allows us to spread our Florida stockings to places other than our top-tier lakes. Those lakes will receive larger fingerling bass in a few weeks.”

NEXT IN THE SERIES:

The Department’s Florida Largemouth Bass Program comes full circle! The brooders have bred, and the fry are now fingerlings. Let the stocking begin in the next part of our series, “Making Monsters!”

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Fisheries intern Mason Eddings pours buckets of Florida bass fry into a water tank on a hatchery truck before taking them to a pond where they will grow into fingerlings.



About 30,000 Florida bass fry are transferred from the spawning ponds into holding ponds, where they will be raised to fingerling size for stocking later in selected Oklahoma lakes.

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