

Rare & Precious

Find will help scientists learn more about elusive fish

BY GARETH MCGRATH

Staff Writer

Tom Lankford Jr and Mike Williams struggled to lift the frozen remains of the huge prehistoric fish recovered from the Cape Fear River late last week onto the examination table at the Center for Marine Science.

"It's tragic that this happened," said Dr. Lankford, a marine biologist at the University of North Carolina at Wilmington, inspecting the clean cut that carved off the rear third of the estimated 7 1/2-foot-long female Atlantic sturgeon. "But what a golden opportunity."

Although the largest fish found in the Cape Fear River, the sturgeon is one of the rarest visitors – an aquatic wanderer encountered so infrequently that scientists know little about it.

But for the first time, researchers at UNCW now have a mature sturgeon specimen they hope will help them answer some of those scientific mysteries. During the past six years, researchers conducting fish surveys as part of the Lower Cape Fear River



STAFF PHOTO | KEN BLEVINS

Mike Williams (left) and Dr. Tom Lankford Jr. hold an Atlantic sturgeon Wednesday

Program have been able to examine – but not take away – sturgeon, finding an average of 20 to 25 a year.

"These fish are too precious, too valuable to be outright killed for scientific purposes," said Mr. Williams, a research technician, adding that the species is listed as threatened by both the federal and state governments and off limits to fishermen.

But what scientists know about the local sturgeon population is vastly outweighed by what they don't.

"This is probably one of the least-well known fish on the East Coast," Dr. Lankford said as he examined the sturgeon's vacuum-like, toothless mouth that the big fish uses to suck crustaceans and other organisms off the river bottom.

The question at the top of scientists' list is how many sturgeon are left in the watershed.

Although Atlantic sturgeon are found in most major river basins along the Eastern Seaboard, each local population is considered unique because of the fish's propensity to return to certain watersheds to spawn.

That characteristic has resulted in genetic traits unique to each sub-population, Dr. Lankford said.

Lose the fish and you lose those traits.

"Due to the independent nature of these fish, we can't automatically assume our local population is doing well even if sturgeon populations are doing well, or relatively well, in other rivers," Dr. Lankford said.

"But it's safe to say that based upon past research they're not abundant."

Mr. Williams said researchers know that sturgeon return from the ocean to freshwater habitats to spawn, but they don't know how successful the fish are in navigating the dams along the Cape Fear River to reach historical breeding grounds well inland.

He said officials have high hopes that a fish bypass channel the Army Corps of Engineers intends to build at Lock and Dam No. 1 in Bladen County will help restore upstream fisheries.

Dr. Lankford said the sturgeon, which was found by another researcher conducting water quality sampling near the mouth of the Cape Fear River, was probably killed by a cargo ship propeller or a bucket dredge as the fish was returning to the sea after spawning.

Along with proving that at least a few big ones still trawl the river's murky bottoms, Mr. Williams said researchers hope to use tissue, blood and organ samples from the sturgeon to gauge its health before it was killed.

That could help officials determine how water quality issues affect the large fish.

Dr. Lankford said species like the sturgeon, which have remained basically unchanged for 70 million years, are a good gauge of how well – or badly – we are preserving the river.

"It would be a shame for them to disappear because of our actions," he said. "When we lose these long-living species, that's a sign that we're not doing something right."



STAFF PHOTO | KEN BLEVINS

Tom Lankford Jr. examines an Atlantic sturgeon Wednesday afternoon at the University of North Carolina at Wilmington Center for Marine Science.



ATLANTIC STURGEON

Cape Fear population: Unknown

Length: Maximum of about 14 feet.

Weight: Up to 800 pounds.

Age: Can live more than 60 years.

Breeding: Returns to freshwater rivers to spawn every 3-6 years. Females release up to 4 million eggs at a time.

Status: Listed as threatened by both the federal and state governments.

Commercial value: Historically fished for its eggs (caviar), skin for leather products, and meat. First local fisheries established before the Civil War. Fishing ban enacted in 1998.

STAFF ART | STEVEN PIPES