

Anglers help get local tarpon DNA

Scientists explore life stages and recapture rates

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Jon Mallory of Merritt Island makes a habit of fly fishing for tarpon. He seldom misses a weekday morning seeking what he calls "ditch tarpon," mostly juveniles and young adults living in small canals and drainage ditches around Brevard County.

At the same time, Capt. Mike Badarack, an inshore and shallow water guide from Satellite Beach, is targeting larger tarpon with his clients in the Indian and Banana rivers and oceanside along the beaches.

Both are principal players in an important tarpon research program that uses DNA "fingerprinting" to track the movements and habits of tarpon in coastal Florida.

Called the Tarpon Genetic Recapture Program, scientists from the Florida Fish and Wildlife Conservation Commission's Fish and Wildlife Research Institute and from Mote Marine Laboratory are learning new and important facts about the gamefish.

"In 2005, when this program started, only 178 tarpon were sampled in the state," said Badarack, the East Coast coordinator for the program that includes all of Florida and eight other Southeastern states. "In 2009, we sampled 2,251 tarpon and to date we have 5,271 samples in the database.

"We're seeing great cooperation from anglers who are getting involved. They get their free testing kits, go out and catch some tarpon, and then send in the samples. There's no telling how far the program can go and how much we can learn."

Mallory, a trout fisherman from Rochester, N.Y., who moved to Merritt Island after retirement and developed a passion for fly fishing, didn't begin sampling until last year when he learned of the program at a meeting of his fishing club, the Florida Fly Fishing Association.

Mallory wasted no time. He started sampling in

multiple and for 2009 was recognized by the program managers as the second-highest sampler in Florida when he sent in 137 vials of DNA. His actual count for the calendar year was 215 samples, all on fly tackle and all taken from shore.

"I really believe in this program," said Mallory, who ties special flies less than an inch in length for the smaller tarpon. "For example, little is known about how tarpon as small as 3 inches get into the estuarine system after they're spawned in the ocean. I've seen tarpon that small, and I've caught them as small as 4 1/4 inches."

Unlike embedded tag studies, a tarpon doesn't have to be removed from the water for the DNA sampling. Each kit includes a small sponge-like scrub pad, which is rubbed against the jaw or other bony surface. The pad collects skin cells with the necessary DNA and it is stored in a small vial. Information also is requested, including date, time, length, fight time and location. The kits are mailed or delivered to drop points.

"As the data base builds, we'll learn more about the distribution of tarpon, be able to identify critical habitats for various life stages, and establish recapture rates," Badarack explained.

"When a tarpon is recaptured, the angler won't know it until the results of the genetic profile come back and shows it's the same fish."

Interesting enough, none of Mallory's 215 samples

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last year showed any recaptures.

Last year, Badarack landed 12 tarpon exceeding 100 pounds in the Indian River, and a client, Art McPherson of Viera, took an estimated 140-pounder in Sebastian River. All were sampled.

"Our best tarpon months are May through August," Badarack said. "When we get the combination of rain, a rise in water temperature over 78 degrees, and baitfish, we see the tarpon."

Capt. Gary Giles of Palm Bay, who is involved in several tarpon studies including the DNA program, thinks tarpon start moving into backwater creeks and canal systems during the summer rainy season because of the abundance of natural bait being pulled by runoff and the cooler water temperatures of the runoff.

Contact Bill Sargent atsargentwb@gmail.com.



Purchase this Photo
Capt. Mike Badarack is shown reviving the estimated 140-pound tarpon landed in August in the Sebastian River. Badarack took a DNA sample of the fish before allowing it to swim away. (Art McPherson, for FLORIDA TODAY)

New climate change website

The Florida Fish and Wildlife Conservation Commission has published a new website, <http://MyFWC.com/ClimateChange>.

The website is dedicated to educating the public about the effects of climate change to the state's fish and wildlife resources and how the agency is addressing those impacts.

Florida is in a unique position for experiencing the

effects of climate change.

Where to get tarpon sampling kits

- Harry Goode's Outdoor Shop, Melbourne.
- Man Overboard, Indian Harbour Beach.
- Fisherman's World, Port Canaveral.
- The Fly Fisherman, Titusville.
- Call (800) 367-4461.
- E-mail: tarpongenetics@myfwc.com

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