

PURSUIING POONS

Catching and conserving the Silver King

By DAVID A. BROWN

When the Suncoast Tarpon Roundup - the state's longest running tournament targeting *Megalops atlanticus* - did away with its weight division last year, it not only eliminated a long-standing sore point among conservationists, it embraced a new development with strong connections to the silver king's future.



In fairness, state regulations say that licensed anglers who also purchase "kill tags" can harvest two tarpon a day. Nevertheless, returning these magnificent fish to the sea has been the overwhelming preference - a point that all tarpon tournaments now embrace.

With live release now the statewide standard for tarpon tournaments, all captured poons will get the chance to someday fight again. That's all good, but there's more value to a tarpon release than, well, a released fish. That's where forensic science offers a new tool for tarpon research. According to Kathy Guindon, fisheries biologist with the state's Fish and Wildlife Research Institute in St. Petersburg, sonic transmitters attached to tarpon through 2007 have proven that most tarpon survive catch-and-release. That's encouraging, but stats on recapture frequency and fish movement would be equally valuable - if they weren't so scarce.

To this end, Guindon heads up the Tarpon Genetic Recapture Study, and Mote Marine laboratory in Sarasota. In a nut shell, DNA samples taken from captured tarpon are analyzed to determine basic details that may shed some light on what happens after a release.

"Tarpon are hardy fish and the data shows that they do survive after being released," Guindon said. "The next question was: 'If most of these fish survive, 'How many are caught again and where?' We're now looking at this so we can start to see the recapture rates and movement."

HOW IT WORKS

The study collects tarpon DNA through dorsal fin clippings taken and skin cell samples obtained from abrasive pads rubbed against a poon's bony cheek plates. In the interest of tarpon safety, FWRI scientists prefer to handle the fin clips, but recreational anglers provide most of the DNA "scrubs." In either case, a simple act secures timeless information.

Mote biologist Carole Neidig summarizes: "One (sampling) is enough to know that fish forever." Officially launched in 2006, the FWRI/Mote partnership is steadily building a database of details on individual tarpon catches -location, date, etc. Comparing DNA samples from past and future catches provides a definitive picture of which fish are recaptured. Such information is vital because the tarpon's highly-migratory ways, plus its extremely challenging nature makes it a more difficult species to study than other common inshore -targets like snook, redfish, or spotted sea trout.

Noting the relatively low level of lifestyle data available for tarpon, Guindon said that Florida - the state where tarpon fishing ranks highest - is particularly interested in learning more about the fish's spawning habits. Discovering the species' annual travel schedules may lead to cross border management efforts.

"There are a lot of unknowns about tarpon," Guindon said. "Just because Florida is doing a good job of managing our fisheries, it doesn't mean that other areas in which these fish are caught are being managed properly. For example, we know that tarpon are fished commercially in some Central American waters, so we'd like to know if some of the fish we release in Florida end up getting caught (in those areas)."

CLEAR BENEFITS

The study's self-explanatory slogan "Any Tarpon, Anywhere, Any Size" describes a more inclusive system than conventional dart tagging. Neidig points out that the DNA method opens the study to more fish and, therefore, more data. "Genetic sampling allows you to take DNA from any size tarpon, whereas we wouldn't have used conventional tags for smaller fish. You can go ahead and take that sample and we'll know that fish forever."

No Pain, Big Gain: A tarpon's bony cheek plate has no blood vessels, so scrubbing there is a low impact operation with no risk of infection. "Genetic tagging is less invasive (than conventional dart tagging)," Guindon said. "It's no different than if a tarpon rubbed against a rock or ledge

under water. "If you put a conventional tag in a fish, it can develop a sore, the tag can fallout, or it can become degraded by the environment. For years, that's all we had, but now that this (DNA) technology has developed, it's the wave of the future." Quick and Simple: For anglers in flats and bay boats, taking DNA scrubs requires no more effort than reaching over the side to remove a hook and revive the fish. In boats with more freeboard (higher sides), anglers often attach a scrub pad to a mop handle for longer reaches. Maximizing Resources: Noting that FWRI can work up a tarpon DNA sample for about \$3, Neidig said: "It's a lot more reasonable for us to do this than to purchase tags. It's a very cost-effective method and with the anglers helping us collect the samples, that helps drive the cost down even more."

PARTICIPATION NEEDED

The Suncoast Tarpon Roundup now requires participants to take DNA scrubs as verification of release. Other events like the Pro Tarpon Tournament Series out of Boca Grande and the Fort Myers Silver King Classic encourage participation, but anglers needn't compete in tournaments to contribute samples.

Neidig said recreational anglers of all skill levels have a great opportunity to enhance the impact of their tarpon releases by adding to a body of knowledge that may allow fishery managers to better protect the silver king. "The anglers are playing the part of scientists. There's no way we can cover the entire state by ourselves."

Capt. Bill Miller, a longtime Tampa Bay tarpon tamer and host of Bright House Sports Network's "Hooked On Fishing," described participation in the state's research program as both a duty and an honor. "The data that is collected and the information it yields will help protect the resource and that means more fish for the anglers to enjoy. It's also a chance for the angler to give back and help (manage) the resource. That makes you part of something very meaningful." So far, the Tarpon Genetic Recapture Study has yielded 23 confirmed recaptures, two of which *came* from the Suncoast Tarpon Roundup. Charlie Owens released a tarpon that was originally sampled in Sarasota and

Chris Rhea released another whose DNA was taken during a capture off Ft. Myers. Both fish were recaptured in Tampa Bay.

With the season of silver in full swing, there will be countless opportunities to put one of these amazing fish in the air and then put it back into the sea. From drifting crabs at Egmont Key, to working the bridge shadow lines at night, to soaking shad in Tampa Bay or dropping heavy jigs in Boca Grande Pass, don't miss your chance to tug on a tarpon.

The thrill is undeniable, and when you prevail in this epic battle of wills, take a moment to rub the fish's cheek and submit that sample for DNA analysis. The next tarpon you tackle may be the state's next recapture.

FWRI provides sampling kits with scrub pads, plastic vials with ethanol for preserving the samples, catch data sheets, pencils, and zippered plastic bags for returning the samples to official drop-off sites. No refrigeration is necessary and drop-off sites can also provide additional sample kits.

For information on genetic tagging, call (800) 367-4461 or email TarponGenetics@mYfwc.com.

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