

# TRACKING 10,000 TARPON SOONER THAN YOU THINK

Word is spreading of the need for anglers to take DNA samples from every tarpon they catch. If participation in the Tarpon Genetic Recapture Study continues to grow among anglers from Florida and throughout the southeast, researchers will reach their goal of tracking more than 10,000 tarpon well ahead of schedule. Awareness of the study is on the rise, as evidenced by the more than 2,000 DNA samples anglers have submitted each of the past two years. This level of sampling, if sustained, can provide unprecedented information which could result in record-breaking numbers of recaptures (tarpon that were caught and previously sampled for DNA).

Using its unique DNA fingerprint, while state-of-the-art, is a simple way for anglers anywhere to genetically tag a tarpon. Genetic tagging allows researchers to track the movements of a fish days or even years later, since its DNA does not change. In the past, researchers and anglers used a different approach that wasn't nearly as effective or long-lasting. The National Oceanic and Atmospheric Administration (NOAA) Fisheries Service hosted an angler-based tagging program from 1960 to 1999 in which volunteer anglers fitted tarpon with plastic anchor tags prior to release. It took NOAA volunteers 40 years using this method to tag 10,000 tarpon, and fewer than 200 of those tagged tarpon have been documented as recaptured.

For the current genetic recapture study, which began as a pilot study in 2005 and went statewide in 2006, it appears that reaching the same target of 10,000 tagged tarpon will happen much faster. Researchers from



Gardinal

the Florida Fish and Wildlife Conservation Commission's (FWC) Fish and Wildlife Research Institute and its partner, the Mote Marine Laboratory, documented more than 6,500 tarpon DNA samples submitted by volunteer anglers through June 2010. By the end of 2009, biologists determined that 37 of those samples came from recaptured fish. The calculated recapture rate at that time was 0.8%, which means roughly one out of 100 genetically tagged tarpon was recaptured. Twenty of those 37 recaptured tarpon spent a relatively short time (between less than one day and three months) at large after they were first caught and sampled. However, other recaptured tarpon were at large as long as one or two years before being caught and sampled again. Processing of samples collected in 2010 is still in progress, so researchers anticipate that the rate of documented recaptures will increase as more samples are processed.

*(continued on next page)*

## SCRAPE – WHEN YOU READ SCRAPE, IT MEANS SCRAPE!

Anglers, please use a little “elbow grease” when scraping the outer, hard surfaces of the tarpon’s jaw to collect your sample. Slime does not provide us with DNA. The goal is to obtain a sample that turns a scrub pad silver or white. Silver or white indicates that adequate DNA has been removed and that scientists will be able to uniquely identify your tarpon. Without a good scrape your sample may not be usable, and we will not be able to determine if you have captured a previously sampled fish. Keep on scraping!



*Use a maroon sponge and scrape until you see silver!*

# TRACKING 10,000 TARPON SOONER THAN YOU THINK

*continued from front page*

Early results indicate that the study will provide information on the range, seasonal movement patterns, and long-term movements of adult tarpon. Researchers are using the volunteer-collected tarpon DNA samples to determine which locations tarpon return to every year. They will also evaluate the data long-term to see if there are links between juvenile tarpon (tarpon smaller than 24 inches or under 25 pounds) found in nursery grounds and the adult tarpon swimming in major Florida fishing grounds. With continued sampling efforts by anglers on all tarpon they catch, biologists may one

day find that a juvenile tarpon sampled in Florida in 2007 is the same fish caught and sampled again as an adult in 2015. The big question is: where do these tarpon come from? Your sampling efforts may show us that some of the juvenile fish actually stay in Florida or return to state waters to become part of the adult fishery. While we don’t know this yet for certain, using DNA to track tarpon of all sizes can lead us to those answers.

This study does not exist without you, the anglers, acting as citizen scientists collecting the data. We have you to thank, so keep on scraping and great job everyone!

*To receive a free tarpon DNA sampling kit and kit refills, call toll-free: 1-800-367-4461; e-mail: [TarponGenetics@MyFWC.com](mailto:TarponGenetics@MyFWC.com); or visit one of the more than 180 participating locations statewide where you can also drop off your samples.*

*For a listing of tarpon-related information, including distribution and collection center locations, visit <http://research.myfwc.com/tarpon/> and select “Tarpon Genetics.”*

# JUST THE FACTS

*...based on angler data slips and recaptured tarpon*

**5 inches**

*Smallest tarpon sampled*

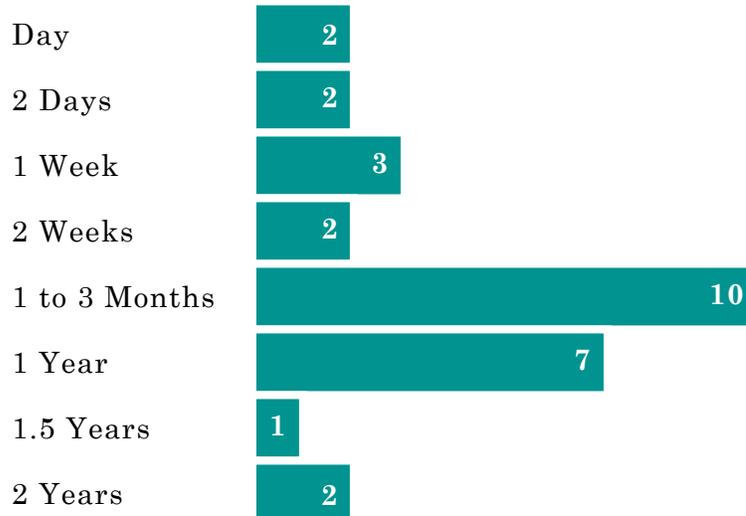
**93.6 inches**

*Longest tarpon sampled (total length {measured})*

**210 pounds**

*Heaviest tarpon sampled (weighed-in during a tournament)*

## Number of tarpon caught and recaptured the following...\*



\*Estimates over a week are approximates

*Longest distance traveled by a tagged tarpon between catches*

**88 miles**

*Shortest distance between catch and recapture location*

**less than one mile**

*Shortest time interval between recaptures*

**less than 24 hours**

**800**

*Most days at large*

**7**

*Most recaptures by one angler*

### **Missing Data Recaptures: 2**

*(It is imperative that a completed data slip is returned with each sample.)*

*Most recaptured tarpon are found within 5 miles of the original release location regardless of the time that passes between captures. All documented recaptures are from Florida.*

*Honest reporting is necessary to gain the best information possible about tarpon.*

# ANGLERS IN THE SPOTLIGHT

## Capt. Ed Walker: One man, many recaptured tarpon

Ed Walker grew up fishing from Indian Rocks Pier in Pinellas County, where he and his “pier rat” fraternity brothers proclaimed tarpon the “greatest fish in the Gulf,” and swore each other to secrecy about the numbers of tarpon in that area. Walker learned about tarpon fishing along the beaches and bay bridges from experienced anglers and well-known guides. Fortunately for him, he was able to apply his honed fishing techniques to other areas of the state like Homosassa. Today, he fishes the beaches, backwater, and offshore areas of Boca Grande and the Florida Keys. When asked why he participates in the study, he replied, “I participate in the DNA sampling study because I have always been fascinated with the continuing mysteries of the silver king.” He hopes that “by sampling as many fish as we can, tarpon anglers can help the researchers unravel these long held secrets.” Walker’s successful angling throughout Florida has paid off, as seven of the 400+ tarpon he has sampled have been involved in recapture events from Key West to Sarasota. Well done, Ed!



J. Walker

## New record tarpon sampled in Homosassa

Mr. Tom Evans Jr., guided by Captain Al Dopirak, broke a new world record for 12-pound tippet in Homosassa on May 10. The tarpon had an official weight of 194 pounds 8 ounces (88.2 kg), a length of 75 inches (190.5 cm) and a girth of 45 inches (114.3 cm). A DNA sample from this Citrus County tarpon was donated to the study. The otoliths, commonly known as “earstones,” were also donated and FWC biologists used them to age this record-breaking tarpon at 33 years.



Kilpatrick

## The Florida Keys: It’s tarpon o’clock this year!

Additional outreach efforts along the Florida Keys and the east coast resulted in an increase of DNA samples submitted in 2009. A goal of 3,000 samples was set for 2010, with anticipation of 1,200 coming from the Florida Keys. Kind and gracious individuals such as Florida Keys Fishing Guides Association members, fishing club members, tournament participants, and recreational anglers stepped up to the plate for sampling tarpon DNA. By June 1, 2010, Gary Maconi, with 94, and Paul D’Antoni, with 77, were two Key West anglers who returned large numbers of DNA samples. Carl Ball of Fort Lauderdale was not to be outdone and showed what anglers from southeast Florida can do by returning more than 80 samples during the spring. These gentlemen made it very clear that not all tarpon are caught in May and June, and we suspect their names to be among the top ten samplers for 2010!



Maconi



D’Antoni



Ball

## Fly fishermen step up to the plate

The Florida Council of the Federation of Fly Fishers held its 2010 Expo in Orlando and gave the study a warm welcome. Tarpon team staff presented two, 2-hour sessions on tarpon research at the expo. A table display in the exhibit hall provided an opportunity for more than 80 DNA sampling kits to be distributed to avid fly anglers from around the state. Fly anglers often choose not to land the tarpon they hook; however, based on the enthusiasm at this event, researchers hope that will change.

# CHALLENGES FROM THE PUBLIC

## Markett's madness is Bennett's bounty

For the second straight year, Captain Dave Markett had to deliver a prize in response to his challenge. His rules were simple, as he challenged every tarpon angler in Florida to a contest: who could supply the study with the most completed tarpon DNA samples during May and June. He was confident he would not be outdone. For the second consecutive year, though, Mark Bennett rose to the challenge and turned in 95 DNA samples during the challenge timeframe. That is some serious catching and not just fishing, as he (and others) outdid Markett's 30 samples. Bennett's bounty was provided in liquid form. Such sampling prowess and competition have spurred on anglers to acquire more samples in other areas of the state – for that we are grateful – but Bennett has retained bragging rights at the boat ramp in Charlotte County.



R. Walker



## Coudal's creativity is Winger's reward



Brendan Coudal, an accomplished artist from the Sarasota area, helped the study achieve its goal of sampling more than 3,000 tarpon in 2010 by creating a challenge for anglers who returned a DNA sample between May 1 and August 1. His wife Nicole, the official Tarpon Queen in honor of the 80th Anniversary of the Sarasota Sportfishing Anglers Club Tarpon Tournament, randomly selected the winner of this challenge from eligible samplers. Nick Winger of Apollo Beach was the lucky recipient of Brendan's 16" x 24" Limited Edition, autographed Giclee print of his 'Emerald Water Kings' painting. Nick has been an active participant in tarpon research with the FWC since 2005.

## John Mester, first ever recipient of the Coastal Angler Magazine Challenge



Mester

Roy Bennett's invitation to have a presentation about the study made to the Cape Coral Tarpon Hunter's Club in April was accepted. At the presentation, club member John Mester heard the message loud and clear. To date, John has caught 486 tarpon – all over 50 pounds – and 200 of them were dart tagged for a BoatU.S. program that has since been discontinued. John started fishing for tarpon after moving to Southwest Florida in 1997. He had trained for this in Staten Island, NY, starting in the 1980s when he was catching bluefin tunas close to 800-pounds each. He also did a "little" fish tagging up north on more than 2,000 striped bass from the 1960s to the 1990s. Today,

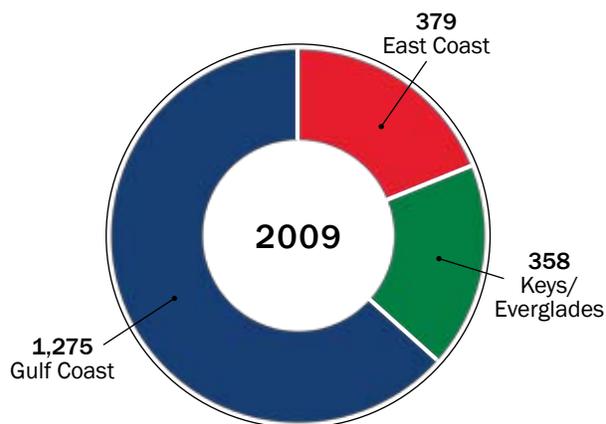
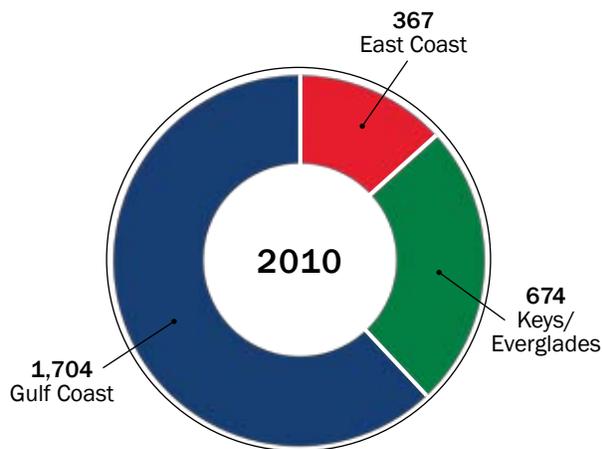
he is tagging tarpon the modern and less-invasive way, using DNA. He reports that he is "pleased to be a part of it." One of the samples he turned in landed him a win in the first Coastal Angler Magazine Challenge. This challenge, put forth by John Radkins, covered the area from Hernando County to Collier County. Keep on sampling everyone – you could be next.

## Top 10 samplers, 2010 raffle winners, and anglers who contributed 5 or more samples: What? No names?

It's true – no names. The study experienced a computer crash in November that required IT staff to recover files. In addition, the departure of our genetics technician left the position vacant until December. Unfortunately, DNA samples are a bit backlogged in processing. However, the tarpon team is committed to providing accurate data to our citizen scientists, so we are cross-checking all of the 2010 data before providing it to you. We will provide a supplemental mailing by March to recognize our great anglers. Thanks so much for your patience and understanding.

# SAMPLES BY COAST

Samples returned from the Florida Keys increased by **88%**  
and from the West Coast by **34%**



**Thanks for the increased effort, anglers!**

## FLORIDA SEA GRANT VIDEO COMING SOON

Florida Sea Grant extension agents came forward with an offer that seemed too good to be true; but it is true! Sea Grant is partnering with the study and will assist with outreach efforts. One of the many benefits of this partnership is that agents are also pursuing the development of an educational video that will show the public why they should participate in this study and how to take a tarpon DNA sample. Filming and production will take place this spring, and the video will be accessible to the public. Thank you Sea Grant.



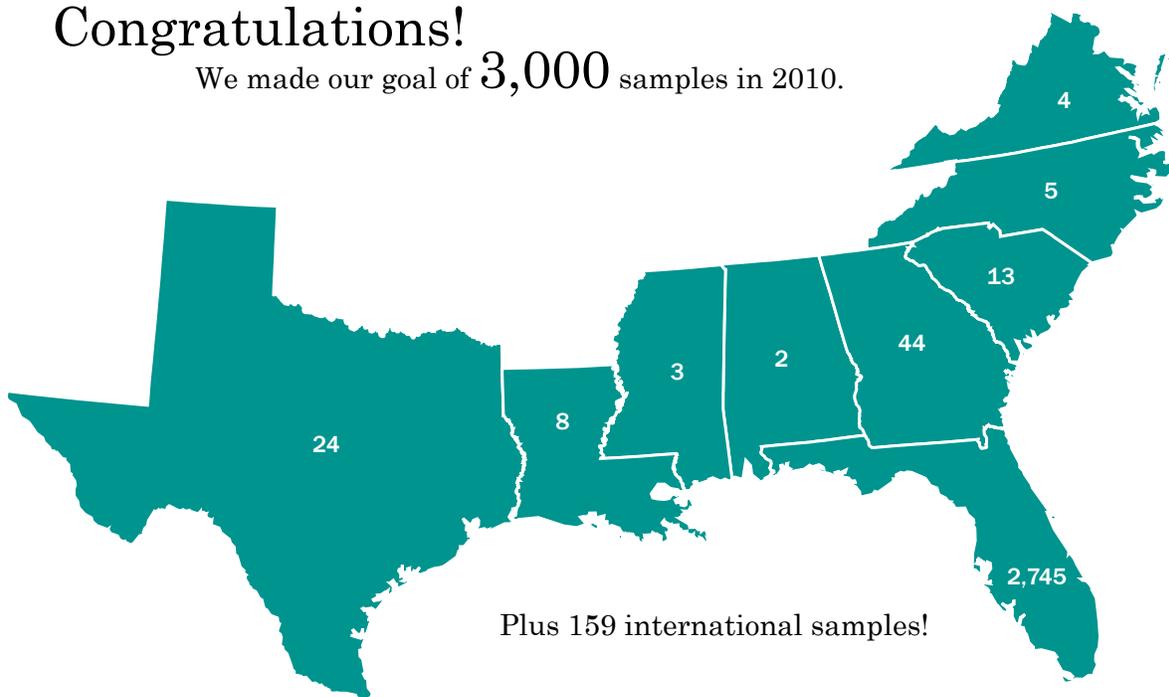
**2010 Sponsors\*:** Blacktip Graftix, Bob's Machine Shop, Brendan Coudal, Bud and Mary's Fishing Marina, Cabela's, CB's Outfitters, Coastal Angler Magazine, Discount Tackle, Economy Tackle, FWC-Fish and Wildlife Research Institute, JL Marine Systems, Inc./ Power Pole, McCabe Productions Inc., Mote Marine Aquarium, Mote Marine Laboratory, Red Zone, Reef Safe, Richard Powers, Salty Dawg, Sugarloaf Marina-Pisces Prints of Key West, Tervis Tumbler, Tropical Seas Inc., and Wildlife From Scratch.

\*Donations were provided by these entities as program support through Mote Marine Laboratory

# SAMPLES BY STATE

Congratulations!

We made our goal of 3,000 samples in 2010.



## Alabama's first DNA sample

Although the Deepwater Horizon oil spill occurred in the Gulf of Mexico, anglers were still catching tarpon in the northern Gulf and submitting DNA samples. In August, the first tarpon DNA sample from Alabama was added to the collection by Ernest Ladd of Mobile, AL. He lost his first fish of the day on a jump, but managed to sample his second fish. After taking the sample, Ernest watched the fish swim away and reported that "she swam off unharmed with the exception of a sore lip and cheek waiting to be sampled again on a future date."

## Welcome Louisiana to the tarpon genetics team!



Louisiana Department of Wildlife and Fisheries officially joins the Florida Fish and Wildlife Conservation Commission and Mote Marine Laboratory

tarpon team as they incorporate the Tarpon Genetic Recapture Study into their state's tarpon research plan. Anglers and organizations in other states continue to participate in this cooperative research effort as well. Welcome aboard Louisiana; Florida tarpon are swimming your way!

**Thank you,** JL Marine Systems, Inc./ Power Pole and artist Richard Powers, for sponsoring the first ever tarpon genetic recapture study t-shirt. Every angler who returned five or more tarpon DNA samples during 2010 will receive the new edition of the shirt in 2011.



TARPON GENETIC



RECAPTURE STUDY

# *2010 Review*

Walker



Florida Fish and Wildlife  
Conservation Commission  
MyFWC.com



Saltwater  
Recreational  
Fishing  
Licenses

Tarpon artwork © Diane Rome Peebles



Florida Fish  
and Wildlife  
Conservation  
Commission  
100 8th Ave. SE  
St. Petersburg, FL  
33701-5020  
MyFWC.com