

SILVER KINGS RECAPTURED!

The Tarpon Genetic Recapture Program has been gathering valuable information since it began in 2005. Scientists from the Florida Fish and Wildlife Conservation Commission's Fish and Wildlife Research Institute (FWRI) have partnered with scientists from Mote Marine Laboratory to use DNA "fingerprints" to track the movements and habits of tarpon in the coastal waters of Florida.

During the first two years of the study, only four DNA samples submitted by anglers were matched to tarpon already in the database. As the program expanded through 2008 and more anglers submitted their DNA samples, biologists documented the recapture of 13 additional tarpon from across the state, including the waters off Miami, the Florida Keys, Ft. Myers, Boca Grande, Sarasota, St. Petersburg, and the Indian River Lagoon. In 2009, the total number of recaptures more than doubled and now stands at 36 tarpon.

Fewer than one third of the recaptured fish were juvenile or sub-adult tarpon. Recaptures usually occurred within a month or two of the initial sampling and most of the fish did not move beyond a few miles. One juvenile tarpon was at-large for 800 days between captures in the Loxahatchee River. Another juvenile reeled in by a vacationing FWRI staff member in Key West was caught again 249 days later by a well-known guide in the same vicinity.

Tarpon spawn in the summer and most of the fishing effort occurs during this time. Eleven adult tarpon were sampled twice within a single spawning season, more or less in the same location. One tarpon caught near Tampa Bay's Skyway Bridge was recaptured six days later approximately 20 miles to the south along a coastal beach. This movement occurred during the new moon in early June 2009. Three fish sampled during spawning season were recaptured later in the fall as they headed back toward their off-season habitats.

So far, six adult tarpon have been recaptured in southwest Florida after extended periods (greater than 300 days) and their movements have been interesting (Figure 1). The recaptured tarpon with the greatest movement was caught along the beaches off Long Boat Key, 88 miles north of its initial location, after 313 days at large. Another tarpon made a similar movement, confirming that some exchange takes place between the Tampa Bay and Charlotte Harbor regions. The adult tarpon at large for the longest time period (722 days) was caught both times in the same place – Boca Grande Pass.

Tarpon anglers (recreational and professional) are the citizen scientists in this study. Without the dedicated assistance of anglers who are helping to teach us about this magnificent species, this program cannot continue. Our goal for 2010 is 3,000 tarpon, including 1,200 fish from the Florida Keys and East Coast. So please, keep the DNA samples coming!

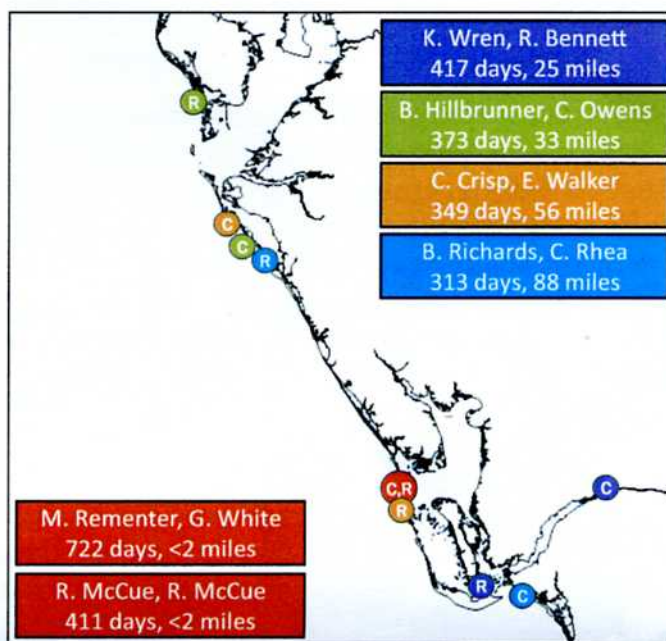


Figure 1. Locations of the capture (C) and recapture (R) for six adult tarpon in central west Florida waters. Boxes are color-coded to match capture and/or recapture locations of each. Boxes contain the names of the sampling anglers, days-at-large for the fish, and distances between sampling events.