

SC Dolphin Tagging Study

March 2006

Miami, Florida to Antigua, West Indies

In February 2005, a Spanish longliner linked dolphin in the eastern Atlantic, south of the Azores Islands, with our east coast dolphin stock by the recovery of a fish from South Carolina. Then, in April 2005, sports fishermen recovered another east coast dolphin in the western Caribbean Sea near the border of Mexico and Belize. Now another Caribbean link has been revealed.

On February 4, 2006, Captain Brian Nunes of St. Johns, Antigua, captured a tagged dolphin while fishing 10 miles south of the island. The fish registered 24.75 pounds when weighed and was estimated to be 41 inches in fork length.

Captain Bob Stull of Hollywood, FL, originally tagged the fish on June 19, 2005 off Hollywood Beach, FL during a fishing trip aboard his boat *Hammerhead*. He estimated the fish to be 22 inches when released. This was one of 33 dolphin he tagged for the study in the last two years. It represents the first of his tags to be recovered.

Since the fish was a bull dolphin, it probably weighed roughly 4 pounds at release. Subsequently, the fish grew more than 20 pounds during its 7 3/4 months of freedom.

This fish was at liberty for 230 days during which it traveled a minimum of 1,494 miles. Traveling an average 6.5 miles per day, the fish's speed of travel was slower than the Azores recovery (10.3 miles /day) but faster than the Mexico recapture (3.7 miles/day). This distance does not give any consideration to lateral or vertical movement in the water column due to feeding or regulation of body temperature. Neither does it consider the fish may have traveled north up the US east coast before turning south as other recoveries have done. Considering these variables, it is conceivable that the fish traveled twice the distance shown.



Traveling from Miami, Florida to Antigua, West Indies in 230 days, this tagged dolphin provided the first solid link between fish found off the US east coast and dolphin found in the eastern Caribbean Sea.



Tagged fish recoveries have shown links between dolphin in widely separated geographic regions of the northern Atlantic Ocean. Four tag recoveries in this study along with three tag recoveries from the National Marine Fisheries Service's Gamefish Tagging Investigations have shown that some individuals will move vast distances.

Dolphin tagged off the US east coast in May and June have now been found in February, south of the Azores Islands and off Antigua. In April, these fish have been found off the border of Belize/Mexico. A fish marked in April off the southeastern Bahamas was recovered in May off Georgia. Another dolphin marked off the eastern Bahamas in May was recovered 14 months later off the southwestern tip of the Dominican Republic. Other recoveries have shown dolphin marked in Mexican waters off Cozumel in May and June to move to the northeastern Gulf of Mexico and to the southeastern Florida coast.

International recoveries have made up 2.5% of the reported tag recoveries in this study. While these recoveries capture our attention and serve to spark our imagination, they represent just a small fraction of the observed movements. Subsequently, few conclusions can be drawn. One fact these recoveries do show is the intermixing of fish from widely separated geographic areas in the Atlantic. If the wandering fish reproduced with members of the local stock, this would blend their genetic heritage and lead toward homogeneity between dolphin in the two areas.

Additional international tag recoveries are needed over multiple years to distinguish regular movement patterns from just anomalous behavior of a few fish.

***Do you want to see this study continue?
You can help. See page 2.***

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Page 2

Future of the Dolphin Study

According to a national survey of recreational saltwater anglers conducted by the National Marine Fisheries Service (NMFS), the dolphinfish is the most frequently harvested bluewater pelagic gamefish caught by recreational fishermen off the United States' Gulf and southeastern coasts. It is a mainstay of both the offshore private boat and charter boat segments of the fishery.

This fish is recognized by the South Atlantic Fisheries Management Council (SAFMC), which is responsible for the management of dolphinfish along the US Atlantic coast as an economically important recreational species. Currently the species is not considered to be overfished in US waters. However, recreational fishermen are very concerned that this could change very quickly.

Because the species is not considered to be in trouble, coupled with a congressional cut in funds made available for marine fisheries research, studies focused on this species are not given priority. Even though the SAFMC, NOAA Fishery scientists and state fishery managers strongly support this tagging study on dolphin fish, NMFS chose not to fund this study for 2006. With so many important marine fish stocks in decline and so much work needed to resolve fishery problems dealing with overfishing, no funds are available for the luxury of proactive research on healthy stocks of fish.

Information yielded by this study has astounded fishery managers and is rewriting the book on dolphin. Results from this research are very likely to contribute to a better understanding of the complex movements of other highly migratory fish, such as billfish and sharks.

As the principle investigator for the SCDNR dolphinfish study, I have learned just how important this fishery is to offshore recreational anglers by the concerns they have expressed and their desire to see the study continue. State funding of the initial study was a very rare case...a case that stemmed from a major effort by the state's offshore anglers desiring to protect dolphin stocks from overfishing. With so many issues needing research in state waters today, state agencies do not have money for research on federally managed species.

During my career with the Marine Resources Division of the SCDNR, I came to see the need for a proactive approach to fisheries management. More research is needed on economically important species that may currently have healthy stocks in order to provide fishery managers with the tools they need to sustain healthy fisheries. It is this approach that will provide a sustained healthy recreational dolphin fishery for the next generation.

Read the first results of the Tagging Study in January/February Issue of *The Big Game Fishing Journal* on your news stand now.

This has always been a research effort by everyday offshore anglers. They have been the ones who spent the time to tag fish and record the necessary data. These same anglers recover the tagged fish and make the effort to report the recapture. Now fishermen and the associated industries will decide if this study is important enough to continue.

A sum of \$12,000 in firm commitments is needed by mid-March to provide for the immediate startup costs of the project in 2006. An additional \$45,000 would be needed to support the project for the remainder of the year. As fisheries research studies go, this is a very low budget for a project of this magnitude.

The study would be conducted through Cooperative Science Services, LLC (CSS, LLC) of Charleston, SC, a research and consulting business. The new dolphin study would be operated in the same manners that it has been for the last four years, except without government involvement. This would truly make it a research effort by anglers.

The Hilton Head Reef Foundation of Hilton Head Island, SC, a 501 (c) 3 organization, has committed to helping fund this research effort. They will receive donations from individuals, companies and foundations and pass them on to the Dolphin Research Study.

If you are interested in seeing this study continue, then your help is needed to secure financial support. Fishing clubs, fishing industry representatives or individuals who are interested in supporting the study should contact CSS at 961 Anchor Rd., Charleston, SC 29412 (843) 795-5630.

Financial Support for 2006 Dolphin Study Solid Commitments

Georgetown Landing Marina, Georgetown, SC
Marine Ventures Foundation, Jackson Hole, WY
SC Saltwater Sportfishing Association, Charleston, SC
Hilton Head Reef Foundation, Hilton Head, SC
Anonymous, Charleston, SC

Tentative Financial Commitments

Central Florida Offshore Anglers, Orlando, FL
Greenville Saltwater Sportfishing Club, Greenville, SC
SC Chapter, Coastal Conservation Association, Columbia
Mr. Bailey Smith, Great Exuma, Bahamas

New Web Address

For more information on the project, visit
<http://www.dolphintagging.com> or contact

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