

Made possible by a grant from Marine Ventures Foundation March 2010



Which Way Did He Go?

On February 28, 2010, Todd Boring was out for a day of fishing off Miami, Florida, aboard his boat *Connie Marie* when he captured a nice 20-pound dolphin. Todd Morrow, captain of the boat, estimated the fish to be 40inches in fork length (FL) and said that it was one of the fattest bull dolphin that he has seen (see photo on page 2). It was not until they arrived back at the marina that they realized that it was tagged.

The fish was originally caught and tagged in June 2009 off Marathon, Florida, by Don Gates fishing aboard his boat *Killin Time*. The then 17-inch schoolie was one of seven fish tagged that day by the crew of the *Killin Time*.

The fish had been at liberty for 260 days before it was recovered. Surprisingly, the recovery site was only 89 miles northeast of where it was released. That would



mean the fish had averaged traveling northward at 0.3 miles per day, if it had remained between these points. This would require the fish to survive exposure to the highest fishing pressure placed on dolphin anywhere off the U.S. East Coast for more than eight months. I doubt that a dolphin with its voracious appetite would be able to avoid a baited hook for that long in the Florida Straits.

It is far more likely that the fish had traveled elsewhere and was making a return pass northward along the south Florida coast. This hypothesis is supported by the fact that more than 95 percent of all dolphin tagged in the Florida Keys, and later recovered, traveled northward at rates of more than 15 to 20 miles per day.

A conservative speculation on the possible route the fish traveled would take it north along south Florida, east around the northern tip of the Bahamas Bank and then southeast down to a point where it could cut through the Bahamas Bank such as at San Salvador Island. Then it would enter the deep trench separating the Bahamas and the Caribbean Islands where it traveled westward back to the Straits of Florida. This route would require the fish to travel a minimum of 1,300 miles during its liberty. This route would mean the dolphin needed to average covering five miles of this route per day. This is a very modest speed for these oceanic travelers.

Another very plausible route for this fish to have traveled, based on past tag recoveries, would take the fish north along the East Coast to Cape Hatteras, North Carolina, before turning southeast out into the Atlantic Ocean to begin its travel southward. While it could have cut through the Bahamas Bank at San Salvador Island to



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enter the Bahamas/Caribbean trench, it could have just as likely traveled to San Juan, Puerto Rico, to begin its westward travel in the Bahamas/Caribbean trench. This route would carry it a minimum of 3,400 miles, requiring the fish to travel an average of just over 13 miles per day. This rate of travel is still on the low end of the speed known for dolphin undergoing extended travel. Even if we pushed the hypothetical route to encompass 6,200 miles, which could allow the fish to enter the eastern Atlantic, it would only need to travel at an average rate of one mile per hour or 24 miles per day. Remember the Gulf Stream is commonly moving at more than four miles per hour.

It is most unfortunate this fish was not physically measured since we have a close approximation for the age of the fish. Being tagged when it was 17 inches in fork length would mean the fish was most likely between three and five months of age when it was released. Having been at liberty for eight and one half months, this fish was between 11.5 and 13.5 months of age. This also indicates this fish was spawned somewhere in the Western Atlantic, possibly off the southern Bahamas or eastward to off the northern Caribbean islands where the juveniles could reach the Florida Straits in three to five month.

This is an important recovery that has added much to our knowledge of this great game fish and it was all made possible by recreational fishermen who cared enough to get involved with the Dolphin Tagging Study.



Kevin Favata holds the 20-pound bull dolphin caught aboard the Connie Marie that 260 days earlier had been a 17-inch schoolie in the hands of Don Gates who tagged and released it. Photo provided by Todd Morrow.

The Dolphinfish Research Program needs your financial support. No federal funds support this important research. This program exists because of private donations.

Dolphin Tagging Progress by Zones, Feb. 28, 2010.

Dolphin Tugging Trogress by Zones, Teb. 20, 2010.				
_		Southern	Northern	Number
Zone	Area	Limit	Limit	Tagged
1	Bahamas	22 ^o N	28 ^o N	0
2	FL Straits	23 ^o N	25 ^o N	2
3	South Florida	25 ^o N	27 ^o N	18
4	Central Florida	27 ^o N	30 ^o N	0
5	North FL & GA	30 ^o N	32 ^o N	2
6	Southern SC	32 ^o N	33 ^o N	0
7	N. SC - S. NC	33 ^o N	35 ^o N	0
8	Northern NC	35 ^o N	36.5 ^o N	0
9	Virginia	36.5 ^o N	38 ^o N	0
10	N. Mid-Atlantic	38 ^o N		0
11	Gulf of Mexico			0
12	W Central Atlantic			45
13	Caribbean Sea			0
	Total			67



Haddrell's Point Tackle Sponsors Awards

Thanks to Haddrell's Point Tackle and Supply, the Dolphin Tagging Study will be able to continue offering year-end awards for the anglers and boats tagging the most dolphinfish. Mike Able, owner of the Charleston area's premier fishing tackle supply with stores in Mt. Pleasant and Charleston, South Carolina, said that he was happy to assist this important research program and felt that as a member of the recreational fishing industry, he should have been more active in past years.

The four rod and reel combinations given out at year end have become an important motivator to many of the participating anglers. While these awards do not serve as the primary reason why anglers tag dolphin, they do provide a little added inspiration to go that extra mile for the study. Case in point: In 2009 two Miami, Florida, charter boats went into November tied for the award. The possibility of winning the rod inspired a flurry of lateseason tagging by the two vessels, which led to the highest number of fish being tagged during the month of December and the recovery of four of these fall fish.

All anglers and boat owners participating in the 2010 Dolphin Tagging Study will be eligible to receive one of the Shimano TLD 30 reels on a standup trolling rod. A rod and reel will be given to the individual angler, private boat and charter boat tagging the most dolphin in 2010. A fourth rod and reel will be awarded to the boat tagging the most dolphin in areas other than off Florida's east coast.

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Anglers who provide five or more fish for tagging and boat captains whose vessel tags ten or more fish in a year, along with people who report tagged fish recoveries will receive a free DRP T-shirt. These shirts cannot be purchased, so when you see someone wearing one you know he (or she) earned it by tagging fish or reporting a tag recovery.

2009 Tagging Participants

Each year boat owners and anglers tagging dolphin for the study are curious as to how their tagging efforts compared to those of friends and other participants. Last year saw 76 boats and 161 anglers participate in tagging dolphinfish.

Florida, the top consumer of recreationally caught dolphin, had the most boats (45) involved in tagging dolphin. South Carolina had the second-highest number of boats tagging fish (12). The number of boats participating from each state/country were: Bahamas 1, China 1, Colorado 1, Delaware 1, Florida (east) 45, Mexico 1, North Carolina 5, New York 3, Puerto Rico 3, South Carolina 12, Texas 1, and Virginia 1.

Anglers donating their fish for science hailed from 21 states, one territory and five foreign nations. Florida provided the most anglers (61), with South Carolina having the second-largest number of anglers involved (25). Oddly enough, Ohio, Virginia, and Puerto Rico each had more anglers involved in tagging than North Carolina.

A list of all the boats and anglers tagging dolphin for the 2009 study has been posted on the Web site at http://dolphintagging.homestead.com/Results.html.

Your donations to the Dolphin Study are Fully Tax-Deductible Make checks out to: HH Reef Foundation/Dolphin Study

2010 Financial Supporters

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Dolphinfish Research is Independent

As important as dolphin are to the U.S. and world's recreational fisheries, they have been neglected in the basic research of their life histories and harvest needed for management. Data currently available on dolphin in U.S. waters cannot determine if the stock is healthy or in decline. Before the Dolphin Tagging Study, hard data did not exist to confirm the south-to-north spring/summer migration along the East Coast. No information is available on movements in other areas of the Atlantic and Caribbean other than what has been generated by this study.

The Dolphin Tagging Study is part of the Dolphinfish Research Program conducted by Cooperative Science Services, LLC, a private research company based in Charleston, South Carolina. The purpose behind the Dolphinfish Research Program is to carry out needed research on dolphinfish to ensure the future health of the stock.

Every angler who fishes for dolphin, every offshore fishing organization, and every business involved in offshore fishing should be supporting this study either by tagging fish or providing financial support. Donations do not have to be at the \$500 or \$1,000 level. Contributions of \$20, \$50 or \$100 do help. Please consider donating.



For More Information, Contact Don Hammond Cooperative Science Services, LLC 961 Anchor Rd., Charleston, SC 29412-4902 Telephone – FAX (843) 795-7524 Email <u>CSSLLC@bellsouth.net</u> Web site <u>www.dolphintagging.com</u>