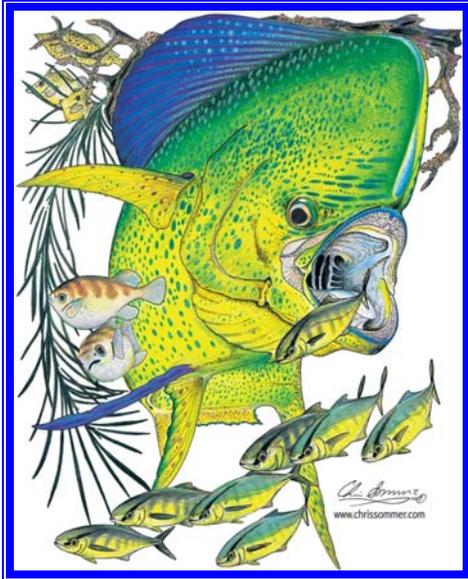


Cooperative Science Services, LLC Dolphinfish Research Program

Made possible by a grant from Marine Ventures Foundation

June 2010



Go West. West Indies, that is.

A second dolphin from the U.S. East Coast has been recovered in the West Indies of the eastern Caribbean Sea. The first U.S. East Coast fish to be recovered in the West Indies was recaptured off Antigua in February of 2006. The fish had been released off southeast Florida in June 2005, 230 days prior to being recovered.

The second tagged dolphin reported from the West Indies came from the waters off the western side of St. Kitts Island, which lies 60 miles west of Antigua. Todville Peets of Basseterre, St. Kitts, recovered the fish on May 17, 2010, while working as a crew member aboard the commercial fishing vessel *Sea Quest*. The dolphin had been tagged 341 days earlier on June 10, 2009, off Marathon, Florida by the crew of Don Gates' boat *Killin Time*.

The 341 days of liberty allows room for a lot of speculation on what route the fish actually used to reach St. Kitts (see graphic illustration). Probably the shortest route (yellow line) would have taken the fish up the southeast coast of Florida to just north of Ft. Pierce where it could have turned east, looping around the northern tip of the Bahamas Bank. From this point it would have moved east into the Sargasso Sea looking for a southerly counter-current to ride to the tropics. It could enter the Caribbean Sea by passing between the Virgin Islands and St. Maarten which would set up a short southeasterly trek to St. Kitts. This route would have entailed a distance of more than 1,600 miles, which would have required the fish to travel an average of 4.8 miles per day (mpd).

Historical movements of fish released off Florida have indicated northerly movements by the majority of the recoveries. Based on this information, if the dolphin had traveled to Cape Hatteras, North Carolina, (white line) before beginning its travel to the tropics, it would have covered a total of 2,400 miles requiring a speed of 7.0 mpd. Had the fish gone to the area of Atlantis Canyon off New York (red line) before turning south, it would involve a trip of more than 3,000 miles and an average travel rate of 8.8 mpd. Keep in mind that a travel rate of 8.8 mpd corresponds to a speed of only 0.37 mile per hour.

When the fish was tagged, Don Gates measured the fish at 18 inches fork length, which would be about two pounds. After 341 days Todville Peets reported the fish measured 42 inches in fork length and weighed 17.28 pounds. This indicates the fish had grown 24 inches in length and gained more than 15 pounds.

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Possible Routes to the West Indies from U.S. Atlantic Coast



Six Mile Creek, LLC

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There are several other interesting facts about this recovery. Since the first recovery in the West Indies occurred in February and this one in May, it suggests a broad range of time that dolphin from the U.S. East Coast pass through the area. Also, this fish was one of 51 dolphin the crew of *Killin Time* tagged in this school. Four other of its school mates have been recovered. Two fish were recovered the day following their release off Islamorada, Florida. Three days after being tagged a third school member was recovered off Miami, Florida. No other school members were recovered until April 10, 2010, when the fourth school member was recovered off the eastern side of Long Island, Bahamas.

Earlier genetics research on dolphinfish raises another question. In one study, a geneticist reported that members of the same school had DNA more closely alike than fish taken from different schools. This suggests school fidelity or that fry from a spawn tend to remain together. So, does this mean that fish from the dolphin school that Capt. Gates' crew tagged, were off Long Island, Bahamas on April 10 and then traveled the 900 miles to reach St. Kitts by May 17? That would mean the fish had to average more than 24 mpd (one mile per hour), a speed commonly documented for the species. It's an interesting thought to ponder.

One other item of note is that the fish was roughly 1,500 miles from its release location with only 24 days until its first anniversary of being tagged. It is doubtful the fish would have been back off Marathon by June 10. This fits with the fact that most animal migrations are not on a precise time schedule. Their time of re-appearance at any location along their migration route might vary by days, weeks or even months.



There are two things that anglers can easily do to improve the survival of school dolphin they tag and increase the chance for the fish to be recovered. First, fishermen should use 7/0 or larger circle hooks; secondly, a dipnet should be used to lift the fish out of the water. These practices reduce damage to the fish and also give better control of the fish in the boat. (Photo by D. Barone)

Dolphin Tagging Progress by Zones, May 31, 2010.

Zone	Area	Southern Limit	Northern Limit	Number Tagged
1	Bahamas	22° N	28° N	25
2	FL Straits	23° N	25° N	93
3	South Florida	25° N	27° N	66
4	Central Florida	27° N	30° N	48
5	North FL & GA	30° N	32° N	14
6	Southern SC	32° N	33° N	18
7	N. SC - S. NC	33° N	35° N	0
8	Northern NC	35° N	36.5° N	0
9	Virginia	36.5° N	38° N	0
10	N. Mid-Atlantic	38° N		0
11	Gulf of Mexico			0
12	W Central Atlantic			45
13	Caribbean Sea			0
	Total			309



Capt. Eric Heiden, tournament chairman, displays the awards for the first Dolphin Spring Fling Tournament sponsored by the Blue Water Fishing Club of Florence, South Carolina. The 12-boat event raised \$1,200 to support the Dolphinfish Research Program.

Help Requested from Tournaments

Sports fishing clubs and other sponsors of offshore big game tournaments in the Western North Atlantic Ocean and Caribbean Sea are being asked to assist the Dolphinfish Research Program. Sponsors of these events could provide a very valuable service to science by simply recording specific data on each dolphinfish entered into their events.

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

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Tournaments are being asked to measure the fork length for each dolphin that is weighed in for their event and to record the length, weight and sex for the fish. Length-weight data such as this is extremely useful in learning about the life history of the animal and to monitor changes in their condition between areas and from year to year. For example, a drop in the average body weight for all lengths could mean that there is a lower abundance of food.

Already the Sebastian Inlet Sportfishing Association of Melbourne, Florida, the Blue Water Fishing Club of Florence, South Carolina, Georgetown Blue Marlin Tournament of Georgetown, South Carolina, and the Florida Coconuts 24th Dolphin Tournament in Key Largo, Florida, have provided this valuable data. Individuals can even get involved. John Ouellette of Miami, Florida, has already provided data on 91 fish. It only takes a minute to measure and record this important information, and it is a simple and easy way for consumers of the resource to assist in learning more about the fish so important to their recreation and enjoyment.

If you, your club or tournament would be willing to assist in collecting length-weight data on dolphinfish, please contact Don Hammond by email or telephone using the contact information at the end of this newsletter.

Financial Support Needed

Contributions to the 2010 Dolphinfish Research Program are lagging behind previous years. The loss of several corporate level sponsors has put a real crimp in program funding. Lacking any federal financial support, this study relies solely on donations from recreational fishermen, organizations and businesses.

Data collected on the movements of dolphinfish over the past eight years has provided a look at what their normal movement is as they travel up the U.S. East Coast. With a strong tagging effort this spring, the program may be able to document any abnormal, avoidance behavior of dolphin trying to avoid the presence of the oil-polluted water mass when it moves up the U.S. East Coast later this year.

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.

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