Cooperative Science Services, LLC Dolphinfish Research Program

June 2014



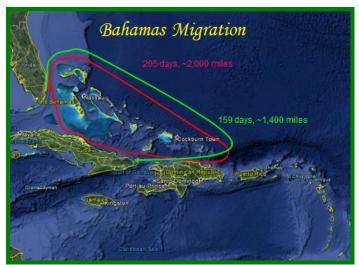
More Amazing Tag Recoveries

The 2014 tag recoveries are starting off with a bang. The first four recaptures of tagged dolphinfish in 2014 have each provided significant insight into the movements of dolphin in the western North Atlantic. Three of the fish were long-distance travelers at liberty from 5 to more than 10 months. The fourth fish, while traveling a relatively short distance for a dolphin, exhibited what might be a seasonal variation in a movement pattern.

The fish involved in the first two recoveries were tagged by the *Thomas Flyer* off Miami, Florida, a charter boat operated by Capt. Jimbo Thomas and his brother Rick. The first fish, tagged August 2, 2013, and shown as the green line in the following figure, was recovered 159 days later off the northeastern tip of Cuba, establishing the third connection between dolphin off Cuba's north shore and those found off the U.S. Atlantic coast. For a detailed discussion about this recovery see the March 2014 issue of this newsletter.

The second fish, tagged August 24, 2013, was recovered 205 days later and just 40 miles north of where it was released (the red line in the following figure). Recovered by Capt. Jed Dooner off Pompano Beach, Florida, fishing aboard the charter boat *Intoxication*, the fish had grown an estimated 16 inches in fork length and put on nine pounds in weight. It is likely that during its nearly seven months of liberty, it had also made a 2,000-mile circumnavigation of Bahamas Bank, returning to the U.S. Atlantic coast for a second visit. This route would have required it to average traveling 9.8 miles per day or just 0.4 mile per hour. If we attribute a faster rate of travel of 17.6 miles per day, of which they have been shown to be capable, it could

have traveled 3,600 miles through the Sargasso Sea by way of New York before returning to Florida.



Many dolphin tagged off Florida's Atlantic coast return in three to seven months, which is less time than would be expected for a migration around the Sargasso Sea, suggesting that a shorter route, probably around the Bahamas Bank, was used.

The third recovery involved a fish tagged by the crew of Don Gates' boat *Killin Time II* and is the twelfth recapture of fish they tagged in 2013 off Cudjoe Key, Florida. Released on June 10, 2013, the fish was at liberty for 309 days before it was recaptured off Rum Cay, Bahamas, on April 25, 2014, by Brian MacKay.

The crew of the *Killin Time II* had released an 18-inch, 2.25-pound schoolie but when recovered, Mr. MacKay reported the fish had grown into an impressive 53-inch, 40-pound cow dolphin. Judging by the length of time the fish was at liberty, it is likely that the fish traveled up the U.S. East Coast possibly as far as New York before heading east and later south through the Sargasso Sea. (See the following figure.) This would have taken her

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Brian MacKay (left) displays the tagged 53-inch cow dolphin that he caught off Rum Cay, Bahamas. He reported the fish weighed 40 pounds. This fish was probably three to four months old when it was tagged, which means that it grew to 40 pounds by the age of 13 to 14 months.

over a distance of about 3,900 miles, which would have required her to travel at the rate of 14.6 miles per day -- well within the speeds observed for their movements.



Dolphin tagged off the U.S. East Coast and in the Bahamas have been recovered southeast of George's Bank and off the Azores Islands, suggesting the use of a Sargasso Sea migration route by dolphin in the U.S. Atlantic territorial waters.

The fourth recovery offers the first evidence of a two-way flow of dolphin through passages between Caribbean Islands. This important recovery has its start off San Juan, Puerto Rico, when the crew of Manuel Botello's boat *Missing Angel* tagged a 35-inch cow dolphin on January 18, 2014. The fish was recaptured 73

days later 14 miles northwest of Mona Island in the passage between Puerto Rico and the Dominican Republic. (See the figure below.) Capt. Alexis Lopez of San Antonio, Puerto Rico, recovered the fish on April 1, 2014, 118 miles from where it was released, following a 73-day liberty.

This movement shows the dolphin moving southward toward the Caribbean Sea during April. In 2013 a dolphin tagged off St. Johns, U.S. Virgin Islands, in February 2013 was recovered off the northeast corner of the Dominican Republic in June. This 2013 recovery indicates the fish was traveling northward out of the Caribbean into the Atlantic waters of the Old Bahamas Chanel. These two recaptures indicate that dolphin will move both ways through the Mona Passage, which raises the question of whether dolphin will travel against the current in certain locations. The direction of the current flow in the Mona Passage is known to switch directions from north to south. These two recoveries occurred in different months and years, so the question becomes whether the fish were riding the prevailing currents at that time on their travel through the passage.



The passages between the islands bordering the Caribbean Sea may see the flow of dolphin both in and out of the Caribbean depending on the direction of the ocean current flow.

Financial Support Needed

The Dolphinfish Research Program is a research effort by fishermen for fishermen. The program has been amazingly successful in revealing new information on dolphin in the Atlantic, Caribbean and Gulf of Mexico. Fishermen as well as fishery management personnel who have heard talks on the results of the study are impressed by the success of the program. It has revealed important facets of the dolphin life history never before known.

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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This program needs your help to continue. It does not receive any government funding, relying on private donations for its financial well-being. This year many of the long-term sponsors have reduced their contributions and it is vital that new donors step forward. Private fishermen, fishing organizations, and businesses have provided the funding to allow this research to continue. The DRP works in concert with the Hilton Head Reef Foundation, a registered 501 (c) (3) organization, which allows donations to be fully tax-deductible.

If you have enjoyed reading about the amazing findings by this research effort and are not satisfied with waiting on government to begin studying dolphin, please consider making a donation to keep this important and highly successful research program operating. The dolphinfish stock is too important to the U.S. recreational fishery to wait until the stock is over-fished to begin collecting needed information. Checks should be made out to Reef Foundation/Dolphin Study and sent to the DRP office at the address shown at the end of this newsletter.

The future of this research effort rests with your support.

Your donations to the Dolphin Study are Fully Tax-Deductible

Make checks out to:

HH Reef Foundation/Dolphin Study
Mail checks to the address below.

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For More Information, Contact Don Hammond

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