

Cooperative Science Services, LLC Dolphinfish Research Program

Made possible by a grant from Marine Ventures Foundation

June 2009



Recaptures Support Theories

Reports of tagged dolphin recoveries have poured in during May and June. Two recent tag recoveries provide additional support for theories on East Coast dolphinfish movements set forth by this study. The first involves the movement of south Florida dolphin to the eastern side of the Gulf Stream as they leave south Florida, while the second recapture relates to dolphin movements from the eastern side of the Bahamas Bank.

A dolphin tagged off Miami, Florida, on May 19 by Capt. Bouncer Smith aboard his charter boat *Bouncer's Dusky*, was recovered by Capt. Bill McIntyre on the commercial fishing vessel *Shady Lady* on May 27. Capt. McIntyre was fishing 80 miles southeast of Charleston, South Carolina, when he recovered the fish. During its eight days of liberty, the fish had traveled 427 miles north from its release site which is an average daily movement of 53 miles.

The recovery site lies 107 miles east of Savannah, Georgia, but is considered South Carolina fishing grounds by most anglers because it sports fishing vessels from the Palmetto State that frequent the area. This site lies on the eastern fringe of the normal recreational fishing grounds, which is also near the average central axis of the Gulf Stream.

This is the first dolphin tagged off Florida to be recovered off South Carolina. More than 6,500 dolphin have been tagged off eastern Florida during the seven years of the study with 88 of these fish being recovered from North Carolina northward along the East Coast, just never off South Carolina, until now.

The absence of recoveries of Florida tags off South Carolina has been a puzzle over the course of this study. Other studies have shown that pelagic fish will respond to heavy fishing pressure in an area by moving out of the area. This could explain the absence of Florida tags in South Carolina creels. The high level of fishing pressure exerted on dolphinfish off eastern Florida, especially from Key Largo up to Stuart, would remove the fish that would readily bite a hook while pushing the more wary individuals toward the east side of the Gulf Stream where lower levels of fishing effort exist.

A footnote to this story is that this is the third tagged dolphin reported recovered by this commercial vessel and Capt. McIntyre has now joined in the effort to tag small dolphin for science.

The absence of Florida tags showing up on the western side of the Gulf Stream off South Carolina raises a bigger question. If dolphin caught off the Palmetto State do not come from south Florida, then where do they originate?

The answer to this question began to materialize in 2005 when a dolphin tagged off the eastern side of Eleuthera Island, Bahamas, was recovered off Georgia. Then in 2007 two fish tagged in the Tongue of the Ocean, a deep canyon that originates on the eastern side of the Bahamas Bank, were recovered along the eastern seaboard, off Georgia and North Carolina.

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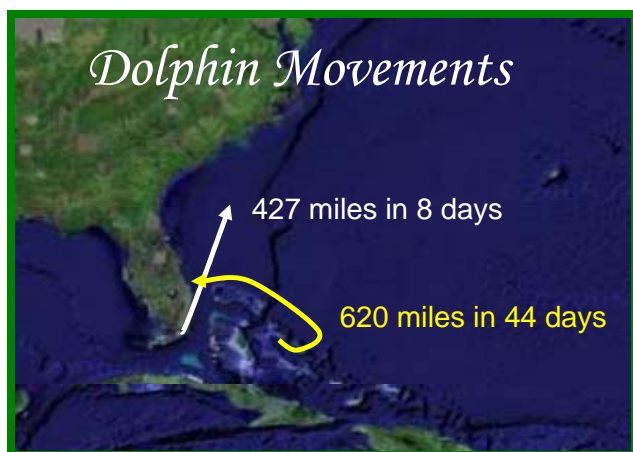


Six Mile Creek, LLC

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Theoretical travel for a dolphinfish tagged off south Florida (white) and one tagged in Exuma Sound, Bahamas (yellow).

On June 6 James Childs was fishing aboard his boat, *Childs Play*, off Ft. Pierce when he landed a nice 43-inch dolphin that sported an orange tag. The fish had been tagged on April 23 in the northern end of Exuma Sound off the west side of Eleuthera Island by Mark Mitchell while fishing aboard Capt. Tony Zara's boat, *Reel Gator*. (Note: a picture of members of this crew appeared in last month's newsletter.) The crew of the *Reel Gator* tagged 22 dolphin during its Bahamas visit.

This dolphin was at liberty for 44 days and traveled a minimum of 620 miles before its recovery. To get to the waters off Ft. Pierce, Florida, the fish would most probably have traveled south down Exuma Sound to enter the Atlantic Ocean off Cat Island and then turned north to northwest following the eastern edge of the Bahamas Bank. Reaching the northern tip of the Bahamas Bank, it proceeded to travel west, crossing 55 miles of the Gulf Stream before being caught 17 miles off Ft. Pierce Inlet, Florida.

These two recoveries provide additional support for two theories put forth by this study. First, the fishing pressure exerted along the east coast of south Florida pushes the surviving dolphin to the eastern side of the Gulf Stream where they remain as they travel northward keeping them east of the recreational fishing grounds until they reach North Carolina. Secondly, a major supply, if not *the* supply, of dolphin for northeastern Florida, Georgia and South Carolina as well as a supplemental source for those caught off North Carolina and the mid-Atlantic Bight come from the east side of the Bahamas.

Dolphin Tagging Progress by Zones, June 1, 2009.

Zone	Area	Southern Limit	Northern Limit	Number Tagged
1	Bahamas	22N	28N	135
2	FL Straits	23N	25N	54
3	South Florida	25N	27N	85
4	Central Florida	27N	30N	6
5	North FL & GA	30N	32N	8
6	Southern SC	32N	33N	25
7	N. SC - S. NC	33N	35N	2
8	Northern NC	35N	36.5N	0
9	Virginia	36.5N	38N	0
10	N. Mid-Atlantic	38N		0
11	Gulf of Mexico			0
12	W Central Atlantic			15
13	Caribbean Sea			5
	Total			335

Tagging Large Dolphin in the Water

This year has seen what is reportedly an unusually high percentage of large 10 to 20-pound dolphin being caught by recreational anglers. Anglers have reported that they have quickly filled their fish boxes in the morning and were releasing but not tagging large dolphin the rest of the day because they were too big to bring into the boat. It is a shame to be releasing these dolphin without at least tagging them for science.

For those anglers who are interested in tagging the larger fish in the water, there is a tagging pole that can be constructed for under \$5. The tag pole is constructed out of PVC pipe and a stainless steel bolt with the handheld tag applicator provided by this study serving as the tag insertion instrument.

Creating this adaptive-tagging pole was highlighted in the May 2008 issue of the program's newsletter. The article also provides guidance on how to safely and properly tag dolphin in the water.

To learn how to make your own tagging pole visit the Dolphinfish Research Program's Web site at WWW.DOLPHINTAGGING.COM, go to the "Newsletter Archive" page and click on the May 2008 issue of the newsletter.

**Your donations to the Dolphin Study are
Fully Tax-Deductible
Make checks out to:
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Dolphin are an important component of the blue water offshore sports fishery. This fish is often the first catch for novice offshore anglers. Its brilliant colors, sizzling runs and aerial acrobatics coupled with providing the finest seafood make the dolphin the fish that hooks more fishermen on offshore big game fishing than any other species.

Financial Support Needed

Donations to the Dolphinfish Research Program are suffering under the current economy. The sluggish economy is affecting the contributions to the research program. Financial donations in the first half of the year typically result in collection of the entire budget but this year the donations have fallen \$7,000 short of the programs anticipated expenditures for 2009.

The outstanding accomplishments of the research program have been possible only because of the generosity of conservation-minded foundations, recreational fishermen, their organizations, and members of the sport fishing industry. The future of this research program rests with the recreational fishing industry and the fishermen who enjoy the excitement and thrill of offshore big game fishing. Consider investing in the future of your fishing enjoyment.

Donations are fully tax-deductible. Checks should be made out to Reef Foundation/ Dolphin Research Program and mailed to the program's headquarters at the address shown below.

For More Information, Contact

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