

# Cooperative Science Services, LLC Dolphinfish Research Program

Made possible by a grant from Marine Ventures Foundation

June 2008



## Dolphin Fishing Slow for Most

Comments from charter captains and anglers fishing from Key West through South Carolina indicate the dolphin fishing has been sporadic and spotty with few exceptions. Big fish over 40 pounds have been more abundant than normal but the majority of the fish being caught have been in the 10 to 20 pound class. The eastern Bahamas and North Carolina have enjoyed the best fishing this year.

The majority of the comments by anglers and captains in the Florida Keys into the first week of June have been "what happened to the dolphin?" They report finding only a few 10 to 40 pound fish. The large schools of small 2 to 5 pound fish that normally sustain the fishery in late spring and summer off the Keys have been all but absent. This is shown by the fact that the three top tagging boats in 2007, which fish in south Florida and the Keys, had tagged from 150 to more than 250 fish by the end of May last year; this year no one has passed 50 tagged dolphin in the same time period.

The run of big dolphin that showed up in mid-April off Cape Canaveral was short-lived, lasting two to three weeks. It coincided with high winds that kept boats in port on most days during this period along the South Atlantic Bight.

With fuel prices over \$4 per gallon, fishermen have already accepted that they will be making fewer trips this year. They do not want to cash-in one of those expensive treats on a rough day. It is bad enough to go out and catch very few fish on a nice day, but it is very painful to suffer slow fishing on a rough day.

Fishermen report that filling the freezer will be the first order of business. Only after this is accomplished will anglers begin tagging dolphin for research.

Subsequently, the overall slow dolphin fishing coupled with the decline in number of trips has resulted in fewer fish being tagged than in previous years.

Dolphin Tagging Progress by Zones, May 31, 2008

Zone	Area	Southern Limit	Northern Limit	Number Tagged
1	Bahamas	22N	28N	86
2	FL Straits	23N	25N	78
3	South Florida	25N	27N	158
4	Central Florida	27N	30N	23
5	North FL & GA	30N	32N	23
6	Southern SC	32N	33N	5
7	N. SC - S. NC	33N	35N	4
8	Northern NC	35N	36.5N	3
9	Virginia	36.5N	38N	0
10	N. Mid-Atlantic	38N		0
11	Gulf of Mexico			0
	Total			380

Fishermen are reminded that every tagged fish counts. Please keep your tagging kit hand on each offshore trip you make, and take the time to tag any small or unwanted dolphin that you catch that is healthy. You never know which fish is going to be the next golden recovery from some distant location.

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Six Mile Creek, LLC

# Dolphinfish Research Newsletter

June 2008

Page 2.



*Dr. Al Fernandez of Miami, Florida, recovered this young bull dolphin during a fishing trip off Miami. Scott Frost tagged the fish 23 days prior and 53 miles north of where it was recovered. Photo provided by A. Fernandez*

## Tag Recoveries Keep Pace with 2007

Surprisingly, reports of tag recoveries have kept pace with last year. A total of 13 tagged fish have been reported recaptured in 2008. Unlike 2007, which saw no recoveries of fish tagged the previous year, 2008 has recorded catches of three dolphin tagged in 2007.

Fish tagged in 2007 and recovered in 2008 ranged from a fish at liberty for 1 day (tagged December 31) in the Bahamas that traveled 4.6 miles to a fish tagged off Charleston, South Carolina that traveled more than 2,000 miles during its 263 days of freedom. The third 2007 fish recovered offered the first hint of evidence that dolphin may move southwesterly off south Florida in the winter. Originally tagged off West Palm Beach, Florida, the dolphin was recovered off Miami 23 days later, 53 miles from where it was released.

Of the remaining tag recoveries six were tagged off the Florida Keys, three off south Florida and one in the Bahamas. These recaptures typify East Coast late winter and early spring recoveries. They were short term, 7 days of liberty or less, and traveled relatively short distances, less than 200 miles. Only two of the tagged fish had moved out of the zone where they were originally tagged.

With just 380 fish tagged this year, the 13 tag recovery reports may seem to be a high recapture rate. Actually, the recovery rate is at a normal level of 2.5% when the three recaptures of fish tagged in 2007 are removed. However, this recovery level is usually reached only after several additional months have passed, allowing for late report of recoveries to filter in. The quick reporting of tag recaptures is likely a result of the high level of public awareness of this program.

## Length Versus Weight for Dolphinfish

Fishermen are constantly asking what a fish that they released or lost would have weighed. Many factors affect the growth and weight at given length for a fish. How well it has been eating, what stage of reproduction it is in and the sex of the fish all have a major impact on its weight. These factors can result in fish caught in one area at a particular time of the year being heavier per length than those from another area.

The following table of average weight per length range was generated from 555 dolphinfish harvested by recreational fishermen in South Carolina. Each fish was weighed whole, had its sex determined and had its fork length measured. This generated length-weight data on 276 males and on 191 females. No fish less than 21 inches in fork length were available so that no weight relationship is presented for these smaller specimens.

### Length-Weight Relationship for Dolphinfish

SIZE RANGE Inches FL	Weight in Pounds	
	Female	Male
21-23	3.8	4.0
23-25	4.4	4.8
25-27	5.4	6.6
27-29	6.6	8.0
29-31	8.4	8.8
31-33	9.3	11.5
33-35	11.1	12.4
35-37	13.5	15.4
37-39	14.6	17.2
39-41	17.3	19.0
41-43	18.5	21.6
43-45	24.3	29.0
45-47		31.9
47-49	37.9	39.1
49-51		43.6
51-53	33.6	50.2
53-55		57.7
55-57		63.5
57-59		69.7
59-61		
61-63		
63-65		73.2

In most species of fish such as blue marlin or largemouth bass, the female of the species grows to the largest size. The table clearly indicates that male dolphin grow larger than females of the species. Females seldom exceed 35 pounds in weight or 48 inches in fork length. Males typically run 10 to 20% heavier than females at a given length.

More length-weight data is needed to fill in the gaps and to enhance the overall accuracy of the relationship.

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

# Dolphinfish Research Newsletter

June 2008

Page 3.

## New How to Tag Page on Web Site

The program's Web page instructing anglers on how to properly tag dolphin for this study has been updated. It now features a comprehensive guide well illustrated with photographs on how to properly tag dolphinfish.

It provides a step-by-step guide to tagging small school dolphin in the boat as well as large dolphin in the water. Information is provided on where and how to implant the tag, along with how to calm a fish in the boat. Data needed for each fish tagged are explained. It explains how the tag needs to be inserted deep enough to lock around the spines rising from the backbone.

Detailed instructions are provided on how to construct a PVC tagging pole that uses the handheld applicator for tagging large fish in the water beside the boat.

Instructions are provided on how to go about tagging a fish in the water and mistakes to avoid.

Visit the new instructional page at

<http://dolphintagging.homestead.com/HowTo.html> .



## Your Financial Support Is Needed

2008 will be the last year funding will be received from the South Carolina Sea Grant Consortium for the use of satellite tags to study dolphinfish behavior and movements. These grants have been the primary financial source making the use of these instruments possible. These high-tech marvels have already changed the way we think about dolphinfish, but if these tools are to continue being used to reveal more unknown facts about this magnificent fish, a large increase in private donations will be required this year. An additional

### Most Recent 2008 Financial Supporters

Charleston Fifty – Fifty Tournament, Charleston, SC  
West Marine Store 1256, Orlando, FL  
Bailey Smith, Great Exuma, Bahamas  
Bill Baugh, Savannah, GA

\$16,000 is needed to purchase three instruments for use next year.

Donations to the Dolphin Tagging Study are fully tax-deductible, thanks to the help of the Hilton Head Reef Foundation. This 501 (c) 3 non-profit organization has agreed to receive donations in support of the Dolphinfish Research Program and then provide them to the project when needed. Contributions should be made out to the Hilton Head Reef Foundation (HHR Foundation/Dolphin Study) and sent to the address below.

### 2008 Financial Supporters

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