Cooperative Science Services, LLC
Dolphinfish Research Program

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A Poster Child for Releasing Small Fish

Sometimes pictures can deliver a very poignant message. A lot of fishermen question the value of releasing small school dolphin, saying that they will either die or be eaten by a larger fish and fishermen will never see them again. While all of the tag recoveries refute this, the tag recovery reported here shows clearly what fishermen have to gain by releasing small dolphin.

This is a story about survival, gluttony, amazing growth and not learning from your mistakes. It begins on July 13, 2010, off Marathon, Florida, when Darryl Williams of Chuluota, Florida, tagged and released a 16-inch dolphin while fishing on Don Gates' boat *Killin Time*. This was one of 53 dolphin they tagged that day. This was presumably the first mistake by the fish: bighting a hook.

For the next seven months the bull dolphin managed to avoid hooks and predators while consuming large quantities of food. Dolphin are known to eat as much as 20 percent of their own body weight each day. That is equivalent to a 150-pound man eating 30 pounds of food per day. The driving force behind this ravenous appetite is a high metabolic rate that fuels the rapid growth that dolphin are famous for.

On February 3, 2011, the bull dolphin repeated its mistake made in July 2010: it bit another hook. This time it met up with Becky Broadbent of Ocala, Florida, who with her husband, James, were out for a day of fishing off Jupiter Inlet, Florida, aboard Capt. John Ingram's boat *Company Time*. The fish was kept this time and was measured to be 38 inches in fork length and estimated at 22 pounds.

The dolphin tagged by the crew of the Killin Time *was actually three inches shorter, 16 inches fork length, than this school fish when it was released off Marathon, Florida, in July 2010.*

During its 205 days of liberty the fish had grown 22 inches in fork length. This represents a growth rate of 0.78 inches in body length per week. This is well below the highest growth rate in the wild of 1.6 inches per week noted in the Caribbean Sea or the amazing 2.7 inches per week recorded for captive fish.

Because the crew of the Killin Time *released this fish seven months before, Becky Broadbent of Ocala, Florida, enjoyed the thrill of catching this nice dolphin.*

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The distance between Marathon and Jupiter is only 202 miles. The fish would have had to swim hard against the Florida Current at rates of two to three miles per hour (equivalent to 48 to 72 miles per day) to travel northward at the rate of less than one mile per day or swim in large circles continuously. Historical tag recoveries for dolphin in this area indicate that neither explanation is likely. This fish most likely traveled northward up the East Coast before turning east and ultimately southward to return to the southern Bahamas or northern Caribbean Islands.

If the fish just circled around the north end of the Bahamas Bank and cut across the bank around the Turks and Caicos Islands it would have traveled more than 1,800 miles, but if it had gone to Cape Hatteras, North Carolina, first, then the distance would have been more than 2,600 miles. These routes would have required the fish to travel at rates of 8.8 and 12.9 miles per day, respectively, which is well within their known travel speeds. At a rate of 20 miles per day, the fish could have traveled more than 4,000 miles, allowing it to travel to the Atlantis Canyon south of Nantucket, Massachusetts, before turning southward.

This is not the first fish to have returned to the U.S. East Coast after being tagged. Fourteen other tag recoveries have exhibited similar movements where the fish were at liberty from 124 to 371 days before recapture along the East Coast. These tag recoveries clearly show that East Coast fishermen would reap the benefit of possibly more and bigger fish by releasing their small fish.

An Internet Myth and the Real Beast

It seems like we are bombarded daily with Internet myths of animals doing outlandish things or of grossly exaggerated sizes thanks to manipulations of digital images. I have learned to examine the photos closely for changes in pixilation or for clues present in the background that give the photo away. So when I received an e-mail from a friend about a pending all-tackle world record dolphin, I was skeptical to say the least.

As the story line went, a fisherman's son's friend's father had caught a 112 pound dolphin over the 2011 New Year's weekend off the Bahamas (unspecified location) that was a pending International Game Fish Association world record. A quick call to IGFA cleared the air that there was no such pending record. However, they had heard about a big dolphin being caught off Panama, but it had not been submitted for record consideration.

With a couple of e-mails to prominent fishermen, I learned that the fish in question was caught during the filming of an episode of the television show The Best and Worst of Tred Barta. Following an e-mail inquiry,

Angler Dennis Braid (on left), owner of Braid Fishing Products of Palmdale, California, joins with the boat's mate to hoist his trophy dolphin caught while fishing off the Tropic Star Lodge in Panama. (Photo provided by D. Braid)

Mr. Barta was kind enough to call me to discuss the beast of a dolphin that they had caught. He said that he had caught numerous 60-pound dolphins with a mount of a 67-pounder in his bedroom. He confirmed that the fish in question was caught during the filming of an episode on marlin fishing off the Tropic Star Lodge in August or September 2010. Based on his extensive fishing experience, he estimated that it weighed between 115 to 120 pounds, which would dwarf the current 87-pound all-tackle world record.

Dennis Braid, who was on the rod, reported that he tried to weigh the fish with the scales located on the dock but they were not working and he did not have anything to measure the fish's length. He then became busy completing filming sequences needed for the show which was the purpose of the trip, and the fish was dressed out. Mr. Barta reported that it ate very well.

Mr. Braid's curiosity did lead him to measure the height of the head which he determined to be 18 inches. Utilizing this dimension to calculate the fish's length, it appears the brute was around 69 to 70 inches in fork length.

When I look at this picture, the first feature to strike me is the robustness of the body. This fish is fat along its entire body. While I have never seen a 100-pound dolphin and have found no documentation of other ones, I can not definitively say this is the mythical century-

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

mark beast. However, I will say that it is the biggest dolphin that I have seen in a photo or in person. It is a sad loss for science that we do not have more biological information on this rarest of individuals in the dolphinfish species. I can only wonder how old this fish was.

It is no wonder that such a monster dolphin was caught in the Central Eastern Pacific. The majority of the IGFA line class records, 12 out of 20 categories, are held by fish caught there. This is largely because the nutrient-rich waters of this region hold some of the largest concentrations of baitfish that attract all of the oceanic apex predators to this area of the Pacific Ocean. So if you want to set a dolphin world record, you need to fish the Eastern Pacific off Central America.

Your Financial Support is Needed

The target budget for 2011 is the same as in 2010: $51,000. This budget will provide funding to continue the existing tagging study along with limited expansion into other regions.

- ✓ Continue the intense tagging in the South Atlantic Bight to identify migratory routes and wintering grounds.
- ✓ Attempt to expand the tagging activity in the Gulf of Mexico and Mid-Atlantic Bight.
- ✓ Continue to collect information on the affiliation of dolphin with Sargassum.
- ✓ Continue recruitment of taggers in the Caribbean Sea and western central North Atlantic to identify the routes of dolphinfish entering US Territorial Waters.
- ✓ Conduct a pilot assessment using tagging data to identify East Coast occurrence of dolphinfish, geographic areas of importance to the species and primary recreational fishing grounds for this important game fish.

CSS personnel will also be deploying a pop-off satellite archival tag on a dolphin off the U.S. Atlantic Coast and Caribbean Sea. This cutting-edge research is being conducted to document essential habitat for the species and its use of the vertical water column.

As you can see, the objectives for the 2011 Dolphinfish Research Program are extensive. While the program may be ambitious, it is also a cost-effective research effort. No academic institution or government agency could carry out the same level of work for the same actual cost. This program represents a viable alternative that conservation-minded anglers and organizations have at their disposal for addressing important fisheries issues when government does not respond.

Financial support received in 2009 and 2010 fell 20 percent short of each year's budget. The program managed to stay in the black by cutting back on its overhead expenses and drawing on a small reserve built up during the first three years as a private program. That reserve has been used up. It is important that contributions to the program meet the proposed 2011 budget for the program to continue growing.

Donations to the Dolphin Tagging Study are fully tax-deductible, thanks to the help of the Hilton Head Reef Foundation. An outgrowth from the Hilton Head Sports Fishing Club, the foundation was created as a way to assist in conserving the coastal natural resources. The Hilton Head Reef Foundation is a registered 501 (c) (3) organization.

I hope that you will give positive consideration to donating to the CSS Dolphinfish Research Program to ensure this important work continues in 2011. Donations should be made out to the Hilton Head Reef Foundation (HHR Foundation/Dolphin Study) and sent to the address below.

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