

Dolphinfish Research Program

Made possible by a grant from the Guy Harvey Ocean Foundation

March 2019



A few dolphin have started to be caught by boats fishing out of NC, SC, and northern Florida signaling the start of the 2019 dolphin season along the U.S. East Coast. In 2-3 more weeks, we suspect large catches will be the norm as fish push northwest from the Antilles Current into the SAB and fill in through the Straits of Florida via the Loop Current. In the eastern Caribbean, the Parguera dolphin tournament landed 5,321 lbs of dolphin with the largest fish being 54 lbs. These results are a little better than average for this tournament. Last year, this tournament only landed 4,255 lbs of dolphin. Does this suggest a better run for dolphin in the Caribbean Sea this year? The Cayman's began to see gaffer dolphin 3 weeks ago, so lets see how the season pans out for them. Lastly, a recent recap off the VIs showcases once again the migratory nature of these fish moving from FL to the US Caribbean Sea in 210 days.

For more info visit: dolphintagging.com

Reported Tagging Progress from 3/1-3/12:

Julien Brossel (Madatet)6
Jesus Duran (Yadimar)1
Eric Metcalf (Yellow Boat)1

Gary Selzer (Final Round)2
Larry Mullis (Kalli Cat)1
Jeremias Santiago (Sweet Marlin)1

Year to 3/12 for Reported Releases:
215 tagged & released for conservation and science

9 Recaptures to date in 2019
1 PSAT Deployment

Reported Recaptures Since 2/15/2019

Colin Butler recaptured a fish tagged and released by **Danielle and Daryl Gustafson**
Walter Palacios recaptured a fish tagged and released by **Kyle Vincent** aboard **Miss Australia**

**The History of Satellite Tracking for the
Dolphinfish Research Program**

The Dolphinfish Research Program's (DRP) satellite tracking program has engaged sport and small-scale commercial fishermen in the quest to acquire detailed descriptions of habitat use, feeding, and migration data on dolphinfish for the past fifteen years. Our satellite tracking program consists of four components: raising funds to purchase pop-up satellite transmitters (PSATs) from our sponsors and private donors, fostering the participation of new fishing teams in different locations to aid in the deployment of PSATs,



*Photo 1 Captain Richard Delizza and the Rock Boat Fishing Team tag a bull dolphin with a PSAT in 2006
Photo: Richard Delizza*

acquiring detailed descriptions of how male and female dolphinfish behave and move, and publishing the results in scientific journals to advance our understanding and management of dolphinfish in order to ensure the future conservation of the species.

Each component presents challenges. First, while the costs of certain models of PSATs have lowered over the years, the most sophisticated tags capable of gathering the greatest amount of data still cost \$5,000 each. Second, recruiting a captain and their fishing team to help offset outing costs along with giving up a trophy dolphin if caught for science also presents challenges. Third, once the tag is



*Photo 2 Mate Irvin Baez dipnets a large bull off Puerto Rico in 2011 working with the Missing Angel Fishing Team
Photo: Manuel Botello*

deployed and the fish is at large, there are a multitude of events that could result in little to no data being collected at all which include, but are not limited to, tag failure, destruction through predation, or damage to the antennae, etc. Finally, acquiring enough data after overcoming the aforementioned challenges to advance our knowledge of this species through science takes years of work. Remarkably, over the past fifteen years, our major corporate and fishing club sponsors, private donors, and network of fishing teams have helped the program acquire over 400 days of satellite tracking data from male and female dolphin along the U.S. East Coast, the Bahamas, Caribbean Sea, and Eastern Tropical Pacific Ocean. These data have already been published in five scientific journals and used to describe the overall daily vertical movement strategy and habitat use of adult male dolphinfish, migration routes and pathways among jurisdictions throughout the western central Atlantic Ocean, differences in movement patterns observed from conventional tagging data, gender specific habitat use and movement differences, behavior near fish aggregating devices (FADs), and more.

Through the years, the DRP's tagging technique also evolved from in-water harpoon tagging to



Photo 3 A female dolphin fit with an XTAG off San Juan, PR, in 2012 working with the Missing Angel Fishing Team. Photo: Wess Merten



*Photo 4 A bull fit with a geolocating PSAT deployed off Charleston, SC, with the My Three Sons Fishing Team in 2014.
Photo: Don Hammond*

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Photo 5 Jessica Harvey, Ryan Logan, and Louisa Gibson pass a bull fitted with a PSAT nestled inside a cradle to be released off southwest, Panama, in 2018. Photo: Wess Merten

an on-board thread-through method developed by Don Hammond. While the DRP has not published a scientific paper on the difference between tagging techniques, observed data indicate more data is acquired and tags achieve their programmed interval more frequently using the new method. By using this technique in combination with a tagging cradle developed in 2018, our goal is to acquire 200 days of

satellite tracking data over the next 12 months working with multiple fishing teams in the Caribbean Sea, Mid-Atlantic Bight, and Eastern Tropical Pacific Ocean. Gathering these data will allow us to better understand the movements and habitat use of this species in areas that completely lack these data yet fishing pressure on the species is high and abundance appears to be lower than in the past. Help us fund the acquisition of detailed data records on this vital fish species. There is no donation too small to help us acquire 200 days of data in the next 12 months. Donate to our satellite tracking program today. [Click here](#) to donate.



Dr. Wessley Merten deploys the 34th PSAT for the DRP.
Photo: Anthony Dooley

Table 1 Satellite transmitter deployment details acquired through the DRP since 2005.

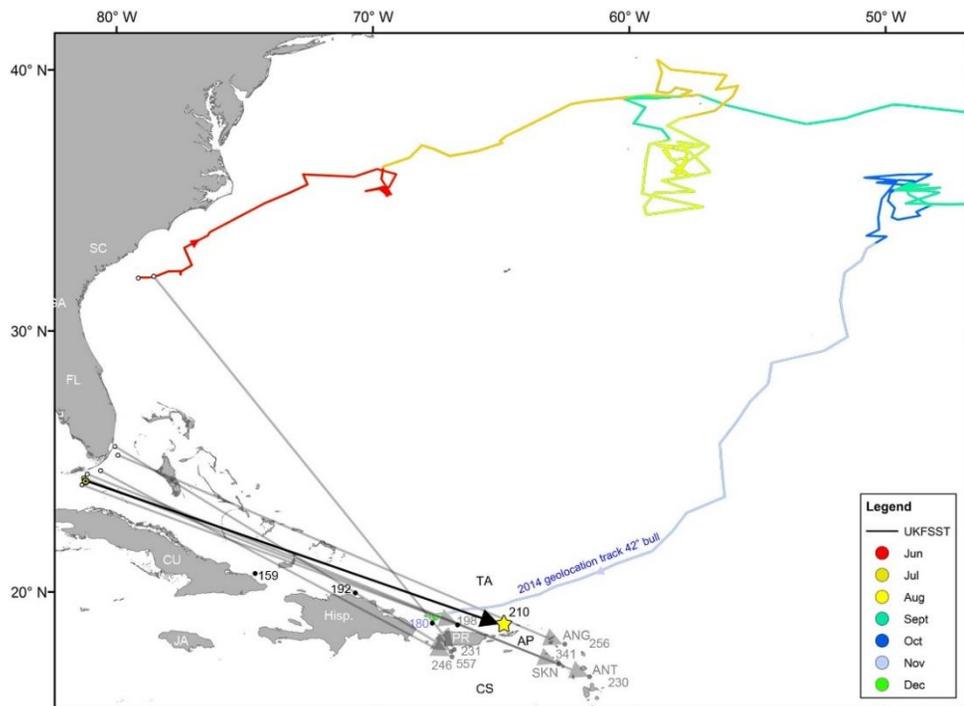
Captain	Vessel	Gender	Date Tagged	Study Objective
Howard Moseley	Tag Team	Male	2005-06-04	Vertical Movements
Richard Delizza	Rock Boat	Male	2006-05-10	Vertical Movements
Richard Delizza	Rock Boat	Male	2006-06-09	Vertical Movements
Bill Middleton	Jenny Lynn	Male	2006-06-21	Vertical Movements
Tom McMurray	Makara	Male	2007-06-06	Vertical Movements
Richard Delizza	Rock Boat	Male	2007-07-21	Vertical Movements
Dave Heil	Caveat Pisces	Male	2008-04-12	Horizontal Movements; Geolocation
Don Hammond	Goin' Catching	Male	2008-04-12	Vertical Movements
Don Hammond	Big Daddy	Female	2008-05-01	Vertical Movements
Terry Winn	Ts Me	Male	2010-04-23	Vertical Movements
Terry Winn	Ts Me	Male	2010-05-07	Vertical Movements
Manuel Botello	Missing Angel	Male	2011-04-02	Vertical Movements
Manuel Botello	Missing Angel	Male	2011-11-17	Vertical Movements
Rit Ritter	Prowess	Male	2012-06-12	Vertical Movements
Manuel Botello	Missing Angel	Female	2012-11-10	Vertical Movements
Milton Carlo	Tiburon	Female	2014-02-21	Vertical Movements
Milton Carlo	Tiburon	Male	2014-01-31	Vertical Movements
Milton Carlo	Tiburon	Female	2014-01-31	Vertical Movements
Michael Mattson	My Three Sons	Male	2014-06-03	Horizontal Movements; Geolocation
Michael Mattson	My Three Sons	Male	2014-06-03	Horizontal Movements; Geolocation
Luis Lagrandier	Makaira	Female	2015-08-29	Fad Fidelity, Attraction
Luis Burgos	CFA	Female	2016-10-26	Fad Fidelity, Attraction
Luis Burgos	CFA	Female	2016-10-28	Fad Fidelity, Attraction
Luis Burgos	CFA	Male	2017-04-22	Fad Fidelity, Attraction, Schooling
Luis Burgos	CFA	Female	2017-04-22	Fad Fidelity, Attraction, Schooling
Marcos Hanke	Light Tackle Paradise	Female	2017-12-11	Fad Fidelity, Attraction
Luis Burgos	CFA	Male	2018-01-23	Fad Fidelity, Attraction, Schooling
Luis Burgos	CFA	Female	2018-01-23	Fad Fidelity, Attraction, Schooling
Hunter Stokes	Painkiller	Female	2018-05-05	Fad Fidelity, Attraction
Hunter Stokes	Painkiller	Female	2018-05-05	Fad Fidelity, Attraction
Colin Butler	Fish Whistle	Female	2018-10-15	Fad Fidelity, Attraction, Schooling
Colin Butler	Fish Whistle	Male	2018-10-15	Fad Fidelity, Attraction, Schooling
Walter Palacios	South Africa	Male	2018-11-25	Horizontal Movements
Jesus Duran	Yadimar	Male	2019-03-05	Horizontal Movements

Another Dolphin Goes the Distance (Again!)

Last month we reported on a major recovery that occurred north of Arecibo, Puerto Rico, in December. You can read a detailed article about that recovery by [clicking here](#). This month we are excited to report that **Danielle** and **Daryl Gustafson** of Big Pine Key, FL, added another major recovery for the DRP, but this time it was north of St. Thomas, USVI. The fish was recaptured by **Eric Estrada** during a charter run by **Captain Colin Butler**, owner of [Fish Whistle Sport Fishing Charters](#). This is the first international recapture from Florida to the north coast of the USVIs for the DRP and the second recovery in the northern portion of the U.S. Caribbean in the past three months for the DRP. Is this a pattern? Two recoveries do not point to a pattern but the recoveries are intriguing for a couple of reasons. First, the most obvious observation is that both fish were tagged off the Florida Keys in nearly the same location (only 20 miles between release locations) and recaptured north of the continental shelf break that separates the USVIs and Puerto Rico from the Caribbean Sea. Secondly, these recoveries are the first for the DRP since the program began in 2002 that moved from the Keys to this area. In the case of the most recent recovery, the fish was at liberty for 210 days and grew 14" or at least .46" per week before being recovered. While the time at large is similar to the December recovery (a difference of 12 days), the

growth rate of the fish involved in the most recent recovery is substantially slower. In the case of the December recovery, the fish weighed 27 pounds when recovered. Looking at thousands of length-at-weight records, a dolphin that weighs 27 pounds is estimated to range between 44" to 47" depending on the gender (which was unknown in the December recovery). Therefore, we estimate the growth of the fish recovered in December to range between .70" to .98" per week, or 35% to 54% faster than the most recent recovery. The biggest caveat with this comparison is the fact that the December growth rate was estimated based off measurements that were estimated. However, even when we compare the growth rate of the fish involved in the most recent recovery to only those recaptures that have occurred throughout the history of the program where sizes were measured upon release and recapture, the growth rate is still substantially slower for this fish. Could this have been a pompono dolphin which are known to be smaller than their common dolphin cousins? The **Gustafsons** did not note that this was a pompono upon release (and they tagged 9 other individuals on that particular day), and when recaptured, **Captain Colin Butler** did not notice anything peculiar about the fish but did note that it was a male (it was noted a male upon release, too). Male pompono also develop a blunt forehead but it is not as pronounced as the common dolphin. Because of this observation, we lean more toward this recovery being a common dolphin, but because a photograph was not taken of the fish before it was re-released with the tag, we are not 100% certain. Take home message: please take photos of fish that are recaptured.

Figure 1 Click to Enlarge



- Released 8.12.2018
Tagged by Captain Daryl & Danielle Gustafson
aboard Weed Seeker
size: 16"
- ★ Recaptured 3.10.2019
Recaptured by Eric Estrada
aboard Fish Whistle Sport Fishing Charters
size: 30"

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U.S. Atlantic Dolphin Fishery Management Plan



The **South Atlantic Fishery Management Council** is pursuing options to change how dolphin is managed along the U.S. East Coast. Some of the changes include

options to redefine optimum yield for dolphin, allow adaptive management of sector annual catch limits, modify authorized gear that may be onboard when possessing dolphin or wahoo, modifying recreational vessel trip limits, and remove the operator card requirement for the fishery. [Click here](#) to learn more and submit comments regarding these matters.

Perry & Neblett P.A., Honored as New Corporate Sponsor

The **Beyond Our Shores Foundation** is excited to honor [Perry & Neblett P.A.](#), with an official Dolphinfish Research Program desktop trophy to signify our appreciation for their support at the Gold sponsorship level for the past two years. [Perry & Neblett P.A.](#), is not only committed to excellence in its legal representation of clients as a general civil trial and appellate practice in state and federal courts, but also in its efforts outside of their practice in that they are very supportive of our work to advance ocean and fisheries conservation. To learn more about **Perry & Neblett P.A.**, which is a full service admiralty and insurance dispute law firm with Florida Bar Board Certified Attorneys, [click here](#). Thank you for your support! Additionally, we would like to thank **Maru Panameno** of **Marine Trophies by Torogoz** for designing the fish and to **David Carrington** of **Digital Fabrication Consultants** for designing and creating the wall mount as well as anchoring the fish and the tag.

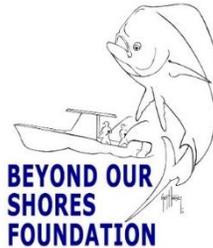


Support the DRP. Buy a Tee.



Help support our research by [purchasing a program tee](#). The logo featured on the shirts was created by [Guy Harvey](#), the renowned marine artist and fisheries scientist. DRP tees come in light blue, white, grey, and black. [Click here](#) to order a t-shirt.

Donations are Needed



2018 was a banner year for dolphin conservation and science for the DRP. Anglers participating in the program have generated new movements results and angler participation has expanded around the western central Atlantic. With the start of the year we are continuing our campaign for support of the program in 2019. Tax deductible donations can be made to the Beyond Our Shores Foundation, a corporation that has received [501\(c\)\(3\) tax-exempt status](#) and is the official nonprofit that manages the DRP. Your support can help fund and power our web-based mapping effort and purchase tags and supplies to assemble tagging kits that are distributed to fishermen throughout the world to engage them in our research. Your funds can also help support our education programs, which teaches anglers young and older about the importance of fisheries and ocean conservation. Your funds can also help purchase computer and office equipment to help write reports, conduct data analysis, and create presentations for outreach and education. There is no donation that is too small. Please donate by [clicking here](#).

To make tax-deductible donation click image below:



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Dolphinfish Research Program 2019

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