

# “ON EFFORT”

## Newsletter

### 2017

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**THE DOLPHIN PROJECT**  
**P.O. Box 60753**  
**Savannah, Georgia 31420**  
**thedolphinproject@gmail.com**  
**www.thedolphinproject.org**

**912-657-3927**

The Dolphin Project is an all-volunteer, non-profit research, conservation and education organization, founded in 1989, dedicated to the protection of wild estuarine Bottlenose dolphins and our shared environment. Tax ID# 58-1914176

#### FROM THE HELM...

Greetings Crew!

2017 has been a crazy year for many of us.

Recovering from 2016's Hurricane Matthew took longer than expected for some of us. Hub and I had our share of property reconstruction last year and this year thanks to Hurricane Irma and tropical storms. Add to that my personal reconstruction with 3 major surgeries, their complications and rehabilitations. I still have some minor issues but hoping to be 'fixed' by the end of this year so I can deal with the ever growing 'pile' on my desk.

TDP is still fighting alongside other environmental groups against seismic testing and offshore drilling. Articles within this newsletter will give updates and guide you in ways you can help.

There are numerous interesting articles within and links to fascinating videos. Some of the articles may seem specific to the Gulf of Mexico. But after the BP oil disaster, the Gulf area still suffers. If offshore drilling is allowed on our coast, the consequences will be far worse. The Gulf has tides averaging 18 inches. Our coast has 6 to 10 foot tides. Gulf oil is still 'leaking'!

We welcome new members, member renewals and new board members. We're ever grateful for all of our volunteers who step up to help with education outreach and research surveys. With your support TDP is entering its 29th year!!!

Checkout the schedules for surveys, trainings and events. They are also posted on our website.

May you have a Blessed Holiday Season, Merry Christmas and Happy Hanukkah Y'all !!!

*Peach*

## 2018 SURVEY DATES

Thanks to Frank Sitera for helping to coordinate the 2017 survey dates.

Mark your calendars and sign up ASAP for 2017 surveys. You can register online or download the forms and mail to **TDP survey, 155 Bent Tree Way, Richmond Hill, GA 31324.**

January 13	April 14	July 14	October 13
February 10	May 19	August 18	November 3
March 10	June 9	September 8	

## TDP TRAINING WORKSHOPS

**Love Dolphins?** Learn about the local Bottlenose and be amazed. Learn how to participate in dolphin research. Tell your friends. There is No Charge for program or training workshop.

Interested in participating in dolphin research on the coasts of Georgia and lower South Carolina? Learn how we work together as Photo-ID research teams. The Dolphin Project has been conducting Bottlenose dolphin research on the estuarine waters of lower South Carolina and Georgia since 1989, authorized by NMFS/NOAA .

If you are already a team member and haven't been through training in a few years, we urge you to retrain to learn the latest scientific information. Bring your friends!

For more information: [thedolphinproject@gmail.com](mailto:thedolphinproject@gmail.com) or [www.thedolphinproject.org](http://www.thedolphinproject.org)

**Saturday, January 20, 2018 10:00-12:30**

Richmond Hill Library, 9607 Ford Avenue, Richmond Hill, GA 31324.

**Sunday, February 11, 2018 1:00-3:30**

Richmond Hill History Museum, 11460 Ford Avenue, Richmond Hill GA

More dates & venues TBA. If you know of an event facility that could be available for TDP raining workshops in the Bluffton, Hilton Head, Savannah, St.Simons or Brunswick area, please email Peach at [thedolphinproject@gmail.com](mailto:thedolphinproject@gmail.com)

## TDP is the BEST!!!

*The Dolphin Project* was voted the **BEST on the Coast Non-Profit Organization** by a survey taken in **SOUTHERN TIDES** magazine\*!~\*!~\*!~\*!~\*!~\*!~\*!~\*!~\*!~\*!~\*!~\*!

## 2017 SERENDIPITIES!

The Dolphin Project is most grateful for the generous gifts made by Joni Chastain, Susan Hall, the Jolly Foundation, Dr. Rosenman, Bill Duncan, Ron & Gerry Sattelle, Tom & Sandy Workman and the Shipyard Women's Club.

## 2017 TDP Socials....

On August 2017, Dr. Kim Andrews spoke about how we connect to our environment and wildlife in August 2017



Dr. Damon Gannon shared his research about fish and dolphin acoustics in February 2017

## 2018 TDP Socials....

Join us on **February 10th** to hear **Dr. Jay Brandes**, with the Skidaway Institute of Oceanography, speak about his on-going research on **microplastics** in our water. You'll be in for a surprise!!!

On **April 14th**, **Kris Williams Carroll**, Director of the Caretta Research Project on Wassaw Island, will give us updates on the **sea turtles** in our area.

We'll have either heavy hors d'oeuvres or a stew and soft beverages for \$10pp. The public is invited. 6:00pm. Venue: Richmond Hill History Museum, 11460 Ford Avenue, Richmond Hill GA

RSVP: [thedolphinproject@gmail.com](mailto:thedolphinproject@gmail.com)

## TDP website: [thedolphinproject.org](http://thedolphinproject.org)

Hopefully you all are enjoying the new and improved TDP website. It has a new look and best of all—it WORKS! And the credit for that goes to Skipper MIKE GOULD. Mike is our tech guru who hunkers down on the Kilkenny River during hurricane season on his 42ft. sailboat "Cirdan". While here he helps TDP with our website and skippers for surveys, but also does his own dolphin research in the area and Eastern US coast. He shares his research with TDP and Savannah State U. Marine Lab. The rest of the year he's sailing over in the Bahamas helping researchers study dolphins, and to the Abacos and Andros Islands to study whales. (*I'm so jealous!*) His underwater videos of these fabulous animals are amazing! He shared some with us at the recent holiday party. We look forward to new videos at the 2018 holiday party.

Thank you Mike for all your hard work "fixing" our website!

## Researchers study dolphins in the Gulf of Mexico after Hurricane Harvey



GALVESTON, Texas (AP) - Kristi Fazioli first spotted the pair of dolphins swimming behind a shrimp trawler near Morgan's Point, eager to get a mouthful of breakfast.

The Houston Chronicle reports they appeared healthy as they popped in and out of the choppy waters typical for a November day on Galveston Bay. But a second glance showed the truth: Their skin was mottled and blotchy, covered in a patchwork of white lesions that stood in stark contrast to the gray coloring characteristic of bottlenose dolphins.

Where some might have winced at the dolphins' sickly appearance, Fazioli, a research associate at the University of Houston/Clear Lake's Environmental Institute of Houston, calmly snapped photos of the lesions, documenting the time, date and place of the sighting.

This is the post-Hurricane Harvey reality for the popular bay dolphins, known to swim alongside boats and ferries throughout Galveston Bay. Nearly three months after the storm's destruction, the more than 500 dolphins she's documented in Upper Galveston Bay still are struggling to recover.

After the storm, some dolphins turned up with excessive skin lesions. Others were skinny and malnourished. Still others vacated the bay and have not returned for the season.

These changes in dolphin health and behavior have been observed in other areas after hurricanes, but Fazioli said little is known about the short- and long-term impacts of such an event.

So now she's expanded her research on dolphins - conducted in partnership with the Galveston Bay Foundation - to include the impacts from Harvey. "We have a lot of questions . so we're trying to look at these things more closely," said Vanessa Mintzer, a research and conservation fellow with the foundation. Fazioli couldn't take her mind off the dolphins as she watched feet of rain and unforgiving wind batter the Texas coast in late August. Were they getting enough food? Were they leaving the bay? How many survived?

She fretted over these questions for almost two weeks, waiting for the go-ahead to scour the bay for the animals she'd been closely studying since 2013. "My goal was to get out there as soon we could," said Fazioli, whose research has focused on documenting dolphin behavior in the upper portion of the bay. On Sept. 5, she got her chance. But the upper bay - where Fazioli had previously documented more than 500 dolphins - was almost completely devoid of the playful marine animals.

The salt content of the water was unusually low, so she traveled to the Houston Ship Channel, where she knew the water would be saltier. There, she found her some of her dolphins. But she could tell something wasn't right. The animals were skinny and lethargic. They weren't socializing or swimming in the bow waves of the ships. And, of course, they were covered in skin lesions. The lesions are nothing new to Fazioli and her colleagues. Dolphins suffered from them after major flood events in both 2015 and 2016.

Scientists often attribute the lesions to extended exposure to freshwater - an inevitability when 51 inches of rain plummets from the sky as it did during Harvey. "This pulse of freshwater received by the Gulf of Mexico and its coastlines exceeded the volume of water of the entire Chesapeake Bay," according to the Galveston Bay Foundation. "Because the brunt of the rainfall took place on the Texas coast, including the Galveston Bay watershed, Galveston Bay has received an unprecedented volume of freshwater."

But others also believe pollution could be the cause. During Harvey, about 149 million gallons of raw sewage and industrial discharges poured into neighboring communities and waterways. About 100 companies, including Valero Energy, ExxonMobil and Arkema, reported spilling chemicals, some of which undoubtedly reached the bay.

Fazioli can't yet pinpoint the exact number of dolphins she's found with skin lesions, but that analysis will be part of data she hopes to publish in the next year about the impact of Harvey. She'll specifically focus on skin lesions, she said, because so little is known about them.

Dolphin departure from their habitat has been observed after other hurricanes as well, and scientists have attributed it to a change in water quality and salinity, as well as the displacement of their prey, which need saltier water to survive.

Lesions also were reported on dolphins after Hurricane Katrina in 2005. A U.S. Navy news release that year noted that a young bottlenose dolphin found stranded in a river was covered in lesions. "The dolphin had suffered skin lesions after being out of its natural saltwater habitat for an extended period," the news release stated. "Had it remained in fresh water much longer, the lesions and eye problems could have endangered its life, experts said."

A 2012 University of Southern Mississippi study, examining an unusually high number of perinatal dolphin strandings in the northern Gulf of Mexico the year prior, noted that "bottlenose dolphins in colder, low-salinity waters may be prone to severe skin lesions and physiological stress that make them more susceptible to infection or illness from natural or anthropogenic factors."

Maddalena Bearzi, who wrote about her study of dolphins off the coast of Los Angeles in National

Geographic in 2014, noted that almost 80 percent of the dolphins photographed had some type of dermal lesion. Though she noted salinity and sea temperature contribute to these lesions, "bacterial, viral and fungal infections are also at the top of the list, possibly correlated to bad water quality or contaminated prey."

Research conducted outside of California, Bearzi wrote, suggests "these issues could be human-induced, likely in relation to poor water quality." Pollution's role in these lesions also had been noted by the National Park Service, which found that about one-third of the dolphins near the Indian River Lagoon System at Canaveral National Seashore in Florida had lesions scientists believed were attributed to pollution.

Questions about the cause and lasting effects of the lesions still remain, Fazioli said. "They are caused by an electrolyte imbalance, and it can affect body condition," she said. "Some of them looked skinny, and that can affect their overall condition, which can affect things like reproduction and calf survival, these types of things."

Fazioli's well-trained eyes scanned the horizon as the 25-foot Boston Whaler sliced through the choppy waters off the coast of the Kemah Boardwalk. Her research is essentially an expert form of "Where's Waldo," but instead of looking for a man in red and white stripes, she's looking for dolphins nearly the same color as the murky bay waters.

A faint splash drew Fazioli's attention. "Eleven o'clock," she shouted, as the boat's driver brought them to a halt. Fazioli and a graduate student pulled out their cameras and started shooting photo after photo, as a smaller dolphin popped up alongside the larger one. "It's good to see a mom and her calf," Fazioli said through a grin.

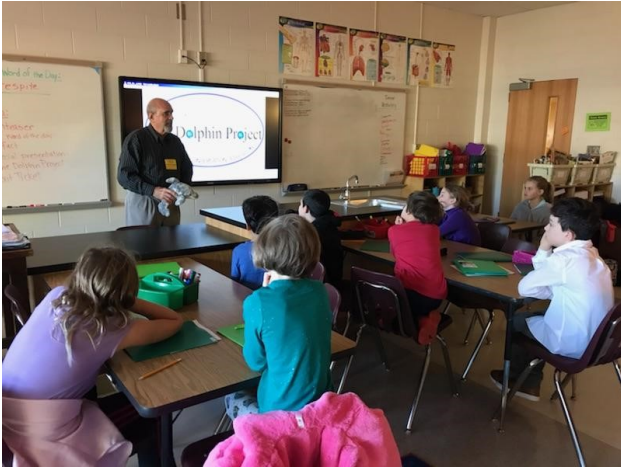
The blustery, mid-November day marked the first time since Harvey she'd seen a mom and her baby so close to the shore. The dolphins began returning to the area in October, when the bay returned to its brackish state. But the babies were inexplicably absent. The sighting was further proof that things may be returning to normal.

With a smile on her face, Fazioli urged the boat's driver onward into the bay, her eyes again trained on the horizon for signs of that tell-tale fin.

By Alex Stuckey—Associated Press

# 2017 TDP EVENTS

TDP thanks our hard working volunteers for their help with education events. The events wouldn't be successful without their help.



NINE! (9) Trainings Workshops  
 Shipyard Women's Club/HHI  
 Heard Elementary STEAM Night  
 Country Club of Hilton Head  
 Mary Lin Elementary/Atlanta  
 Sun City Boat & RV Club  
 Gould Elementary STEAM Night  
 Tennessee Teachers on Sapelo Island  
 Richmond Hill Home School Group  
 Moss Creek Boat Club /HHI  
 Skidaway Institute of Oceanography Marine Science Day  
 Great Ogeechee Seafood Festival—3 days  
 CoastFest at GA-DNR HQ  
 [7700 people attended]



Greg Ansley  
 Jennifer Beaulieu  
 Don Bender  
 Donna Calendine  
 Mary Cirinione  
 Linda Degutis  
 Mike Gould  
 Susan Hall  
 Peach & Hub Hubbard  
 Ed Johnson  
 Charlotte Keenoy  
 Kat Kelsven  
 Dodie & Gary Koch & Lily  
 Tracey & Chase Marquez  
 Ron & Gerry Sattelle  
 John Scanlon  
 Boyd & Jennifer Stanley  
 Cheryl Tilton  
 Dan & Belinda Walters  
 Kristi & Harley White  
 Tom & Sandy Workman



# 2017 Christmas Parade

The theme of the 2017 Richmond Hill Christmas Parade was "Storybook Christmas" so TDP's float promoted Hans Christian Andersen's "Little Mermaid". We added dolphins and a bubble machine. Kristi White was the Little Mermaid, Mike Gould was the MerKing and Peach Hubbard was the Sea Witch. Thanks to all who helped decorate and walk the route, handing out "Protect Wild Dolphin" stickers to the kids.



# Atlantic Offshore Drilling Threatens National Security Operations

## *New Oceana Maps Highlight Areas of Conflict off Virginia and Georgia*

Wednesday, November 1, 2017

Today, Oceana released new maps highlighting concerns from the Department of Defense (DOD) over expanded offshore drilling activities and infrastructure in the Atlantic Ocean. According to DOD, the Outer Continental Shelf (OCS) hosts a wide variety of training and testing activities critical to military readiness and our national security.

Oceana's new maps provide a visual representation of conflicts between Trump administration proposals for expanded offshore drilling activities and current military operation needs identified by DOD, such as undersea warfare training and air-to-surface bombing. Oceana's analysis determined that DOD has classified an estimated 94 percent of the waters off Virginia's coast and an estimated 78 percent of the waters off Georgia's coast as largely incompatible with offshore drilling due to longstanding military operations.

"The Department of Defense could not be more clear – offshore drilling in the Atlantic is a threat to national security," said Diane Hoskins, campaign director at Oceana. "With an oil surplus and historically low fuel prices, it makes absolutely no sense to put East Coast communities, state economies and national security at risk, all for less than five months worth of oil."

Although the Atlantic Ocean was removed from the proposed five-year plan for offshore leasing in March 2016 and all pending permits for seismic airgun blasting in the Atlantic were denied in January 2017, both are now back on the table (as well as new areas in the eastern Gulf of Mexico, and Pacific and Arctic oceans), following an executive order from the Trump administration in April.

"Since January, opposition to offshore drilling activities in the Atlantic has continued to grow and become even more diverse," said Hoskins. "Offshore drilling on its own is a dirty and dangerous business. When you add the extremely

loud process of searching for buried oil and gas deposits, the extensive infrastructure required to pump, move and process it, and the increasing frequency of extreme weather events like hurricanes Harvey, Irma and Maria, you set the East Coast up for a future of disasters."

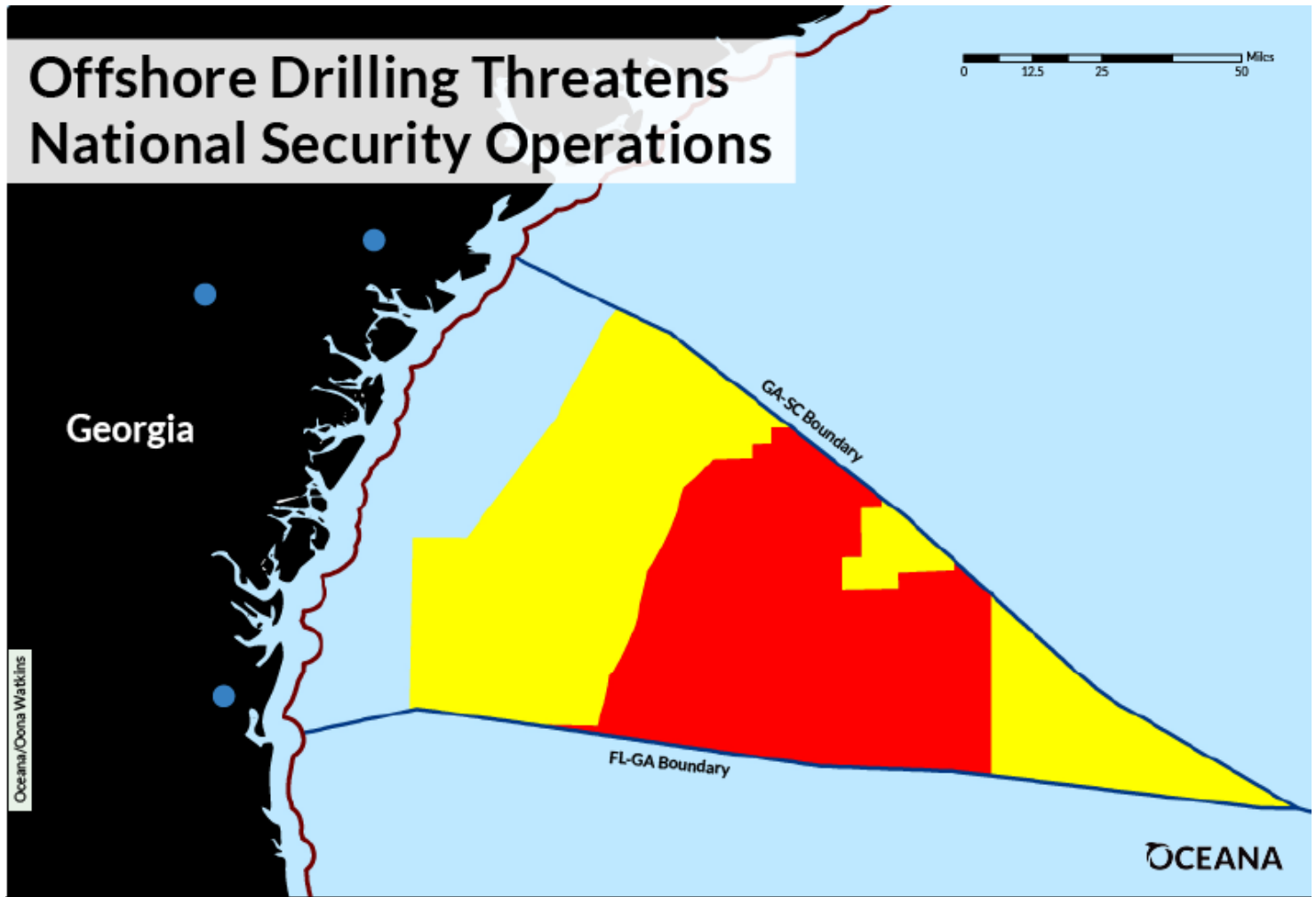
Along the Atlantic coast, nearly 1.4 million jobs and over \$95 billion in gross domestic product rely on healthy ocean ecosystems, mainly through fishing, tourism and recreation. Additionally, DOD spending amounted to \$53 billion in Virginia and \$12.6 billion in Georgia in 2015 alone.

"Changes to areas used for military readiness operations could upend these massive contributions to Virginia and Georgia's economies," said Hoskins. "It's time for Washington to listen to those that have the most to lose from expanding offshore drilling."

As of today, opposition and concern over seismic airgun blasting and/or offshore drilling includes:

- Governors of New Jersey, Delaware, Maryland, Virginia, North Carolina and South Carolina
- More than 140 East Coast municipalities, including Beaufort and Hilton Head in SC; Savannah, Tybee Island, Hinesville, Kingsland, Porterdale and St. Marys
- Nearly 1,200 local, state and federal bipartisan elected officials
- An alliance representing over 41,000 businesses and 500,000 fishing families from Florida to Maine
- The North, South and Mid-Atlantic fishery management councils
- Commercial and recreational fishing interests such as the Southeastern Fisheries Association, Fisheries Survival Fund, Southern Shrimp Alliance, The Billfish Foundation and the International Game Fish Association
- NASA, DOD and the Florida Defense Support Task Force





An estimated 78% of Georgia’s Outer Continental Shelf (OCS) has longstanding Department of Defense (DOD) operations critical to national security and military readiness.

**DOD Areas of Concern**

- No Oil/Gas Activity
- No Permanent Oil/Gas Surface Structures
- Site Specific Oil/Gas Stipulations

**Other**

- Atlantic Planning Area Boundary
- Atlantic Administrative Boundaries
- Major Military Bases in Georgia

\*Data from 2010 and 2015 DOD Reports were merged to account for information excluded by the 50 mile buffer in the 2015 Report. The percentage of areas with incompatibility is a best estimate based on the combined data sources.

Sources: BOEM; 2015 DOD Mission Compatibility Planning Assessment; BOEM 2017-2022 OCS O&G Leasing DPP; 2010 Report on Compatibility of DOD activities with O&G Resource Development on the OCS

**WHAT YOU CAN DO**

Businesses should voice opposition. Join the [Business Alliance to Protect the Atlantic Coast](#).

Contact Georgia’s U.S. Congressmen and Governor. Let them know how much Georgians value our marine life and nature-based economies:

[Congressman Jody Hice](#) U.S. House of Natural Resources Georgia subcommittee member (202) 225-4101

[Congressman Buddy Carter](#) representing (?) all the coastal Georgia communities (202) 225-5831

[Senator Johnny Isakson](#) (202) 224-364

[Senator David Perdue](#) (202) 224-3521

[Governor Nathan Deal](#) (404)657-7332

Watch these videos about the recent research on coastal marshes and dolphins in Louisiana post 2010 BP oil disaster ....

**Marshes: Good News and Bad News.**

Professor Ed Overton and his team from LSU are monitoring the condition of Louisiana's coastal marshes. These marshes are nursery grounds for the northern Gulf of Mexico fisheries. Oil from the Deepwater Horizon spill flowed down into crab burrows and stayed buried along the beaches. It's slowly leaking back into the bays and may be contributing to the health problems of the Barataria dolphins. (pub.11/1/2017)

<https://www.youtube.com/watch?v=RAOdoA30NMk>

**The Dolphins of Barataria Bay, Louisiana, Part 1**

Barataria Bay's salt marshes and mangroves are fertile nesting grounds and nurseries for birds and fish. And despite being hit hard by the 2010 Deepwater Horizon event, these waters teem with hundreds of species of marine animals. It's also the permanent home for 1,300 bottlenose dolphins. Unfortunately, they are still suffering health effects from the oil spill. Scientists are trying to understand the full impact — and their journey starts thousands of miles away with a healthy control group. (pub.10/17/2017)

<https://www.youtube.com/watch?v=KKL0IFzqpN0>

**The Dolphins of Barataria Bay, Louisiana, Part 2**

A team of NMMF and NOAA veterinarians, biologists, and wildlife epidemiologists participate in a 10-day mission to evaluate the health of Barataria Bay's bottlenose dolphins. Their goal is to discover any chronic health issues linked to oil exposure. And because dolphins are mammals and breathe through their blowholes, monitoring their respiration will help the veterinarians decide whether their lungs are healthy or diseased. (pub.10/24/2017)

<https://www.youtube.com/watch?v=06BtrAUwH1U>



## Post BP Oil Disaster.... it wasn't a 'SPILL'

### Mardi Gras, Jazz and Oysters—Part 1

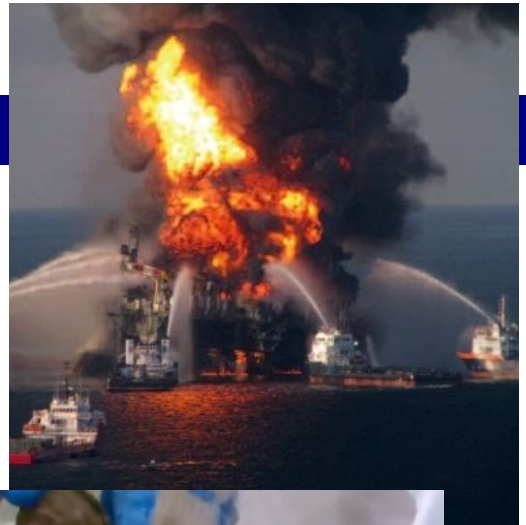
New Orleans is a city defined by Mardi Gras, jazz, and oysters – lots of oysters. For more than 150 years, Louisiana was the nation's largest source of the shellfish. Thanks to a perfect combination of brackish and warm water, each day thousands of tons of oysters were harvested and imported around the country. By 2010, the state supplied nearly 42 percent of the nation's oysters. But then the Deepwater Horizon blowout happened. (pub. 11/8/2017)

<https://www.youtube.com/watch?v=09BJdSoesRY>

### Mardi Gras, Jazz and Oysters—Part 2

Sean Powers is chairman of Marine Sciences at the University of South Alabama. He and his colleague, Meagan Schrandt, are studying oyster reefs along the Gulf coast. One of their key missions is to discover why Louisiana oyster reefs haven't recovered since the 2010 Deepwater Horizon oil spill. (pub 11/8/2017)

<https://www.youtube.com/watch?v=OJ7GKCaqIHc>



### Holy Cow! Moments

Before the Deepwater Horizon oil spill, Professor Mandy Joye (UGA) made numerous dives to the floor of the Gulf of Mexico. Each trip was filled with wonderment and “holy cow” moments as she witnessed an underwater world teeming with amazing life. Since 2010, she has made 17 dives and the happy “holy cow” moments have been replaced by disheartening ones as she observes the oil killing or crippling sea life. (pub. 6/22/2016)

<https://www.youtube.com/watch?v=SwMPb0YrwXg>

**NOTE: The Gulf of Mexico has an average tide of 18 inches. The Georgia coast has a tide of 6 to 9 FEET! If our coast were to have an oil rig blow, imagine how far that oil would go.....**

## SURVEY VOLUNTEERS

We treasure all of our crew members—**Skippers** who provide their vessels and keep us safe on the water...**Team Leaders**, who record the dolphin data and keep the team in compliance with TDP and NMFS/NOAA rules and regulations ... **Photographers**, who have the hardest job photographing those dorsal fins ... **Assistant Team Leaders** who help the team and continue on-the-water training under the supervision of the TL...and our **Co-Investigators** who permit our survey vessels to go within the 50yard limit, turn and follow dolphins-with caution

We had several teens joining our crews this year and our first service dog, Sophie, Jim's companion! All were great team members.

Sincere gratitude to all of you who enhance our research through your time and efforts.  
**THANK YOU!**

Ron Sattelle  
Daniel Walters  
Tom Workman  
Peter Asmuth  
Ed Johnson  
Peach Hubbard  
Steve Bozovich  
Nick Gosdin  
Carter Harvey  
Mike Gould  
Anthony D'Aguillo  
David Mauk  
Dodie Koch  
Susan Hall  
Charlotte Keenoy  
Naomi Gosdin  
Joni Chastain  
Nathaniel Gosdin  
Cheryl Youman Kenton  
Kate Young



## SURVEY VOLUNTEERS



- Maureen Bozovich
- John Scanlon
- Gerry Sattelle
- Mary Cirincione
- Maureen Morales
- Jack Walsh
- Patty Gosdin
- Martha Cox
- Leslie Weichsel
- Belinda Walters
- Peri Fowler
- Jennifer Stanley
- Linda Degutis
- James Godron & Sophie
- Sandy Workman
- Loree Scherck
- Whitney Saunders
- Taylor Guilford
- Joyce Albrecht
- Amy Wagner
- Kathy Harvey
- Arlene D'Aguillo
- Jennifer Beaulieu
- Clayton French
- Krystle Stewart
- Elaine Ceccacci
- Kristi White
- Tove King
- Boyd Stanley
- Kat Kelsven

## Sperm Whale strands on Oak Island



### Biologists say prognosis not good as scene draws hundreds of onlookers

Holland Star News, November 2, 2017

OAK ISLAND, NC — Prospects are not good for a sperm whale that beached itself near Oak Island Thursday morning, a University of North Carolina Wilmington marine biologist said. “Sperm whales are not supposed to be here, so its prospects are not good” for survival, said UNCW marine biologist Bill McLellan. “They’re supposed to be 100 miles off shore.” According to McLellan, the sperm whale is young and weighs between 25,000 and 30,000 pounds. The whale is emaciated, not a healthy whale and “not doing well,” McLellan said. According to the biologist, the whale’s skin has been cut and it has lost significant amounts of blood. McLellan said the animal’s size and the distance from where it should be means “we don’t have the ability to just

pick it up and move it. It’s a tough situation.”

The whale beached itself in the surf just north of the Oak Island Pier Thursday morning. John Hall of the N.C. Marine Patrol, said the beached whale was reported about 9:30 a.m. Thursday.

Oak Island spokesman Kyle Thomas said members of the UNCW Marine Mammal Stranding Program tried to help it back out to sea but ultimately had to euthanize the massive creature about 3 p.m., some six hours after it was first spotted just north of the Oak Island Pier.

Betsy Herron, who lives on Oak Island, swam out to the whale at one point. She said “It may seem crazy, but I wanted it to know that it wasn’t alone and there’s hope.”



## Computer program picked out the noises from underwater recordings of 52 million echolocation signals.

By Maria Temming, Science News.Org 12/17

A new computer program has an ear for dolphin chatter.

The algorithm uncovered six previously unknown types of dolphin echolocation clicks in underwater recordings from the Gulf of Mexico, researchers report online December 7 in *PLOS Computational Biology*. Identifying which species produce the [newly discovered click varieties](#) (1) could help scientists better keep tabs on wild dolphin populations and movements.

Dolphin tracking is traditionally done with boats or planes, but that's expensive, says study coauthor Kaitlin Frasier, an oceanographer at the Scripps Institution of Oceanography in La Jolla, Calif. A cheaper alternative is to sift through seafloor recordings — which pick up the echolocation clicks that dolphins make to navigate, find food and socialize. By comparing different click types to recordings at the surface — where researchers can see which animals are making the noise — scientists can learn what different species sound like, and use those clicks to map the animals' movements deep underwater.

But even experts have trouble sorting recorded clicks, because the distinguishing features of these signals are so subtle. “When you have analysts manually going through a dataset, then there's a lot of bias introduced just from the human perception,” says Simone Baumann-Pickering, a biologist at the Scripps Institution of Oceanography not involved in the work. “Person A may see things differently than person B.” So far, scientists have only determined the distinct sounds of a few species.

To sort clicks faster and more precisely, Frasier and her colleagues outsourced the job to a computer. They fed an algorithm 52 million clicks recorded over two years by near-seafloor sound sensors

across the Gulf of Mexico. The algorithm grouped echolocation clicks based on similarities in speed and pitch — the same criteria human experts use to classify clicks. “We don't tell it how many click types to find,” Frasier says. “We just kind of say, ‘What's in here?’”

The algorithm picked out seven major kinds of clicks, which the researchers think are made by different dolphin species. Frasier's team recognized one class as being made by a species called Risso's dolphin. The scientists suspect that another group of clicks, most common in recordings near the Green Canyon south of Louisiana, was produced by short-finned pilot whales that frequent this region. Another type resembles sounds from the eastern Pacific Ocean that a dolphin called the false killer whale makes.

To confirm the identifications, the researchers now need to compare their computer-generated categories against surface observations of these dolphins, Frasier says.

The algorithm's click classes may not match up with dolphin species one-to-one, says Baumann-Pickering. If that were the case, “we would expect to see a heck of a lot more categories, really, based on the number of species that ought to be in that area,” she says. That absence suggests that some closely related species produce highly similar clicks the algorithm didn't tease apart.

Still, “it would be great to be able to confidently assign certain species to each of the different click types, even if more than one species is assigned to a single click type,” says Lynne Hodge, a marine biologist at Duke University who wasn't involved in the work. More precisely monitoring dolphins with seafloor recordings could provide new insight into how these animals respond to environmental problems such as oil spills and the long-term effects of climate change.

(1) <http://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1005823>

CITATION: K. Frasier *et al.* [Automated classification of dolphin echolocation click types from the Gulf of Mexico](#). *PLOS Computational Biology*. Published online December 7, 2017. doi: 10.1371/journal.pcbi.1005823.

# DOLPHIN HEALTH SURVEY IN GULF

## DOLPHIN CONSERVATION TEAM COMPLETES HEALTH STUDY IN THE GULF OF MEXICO

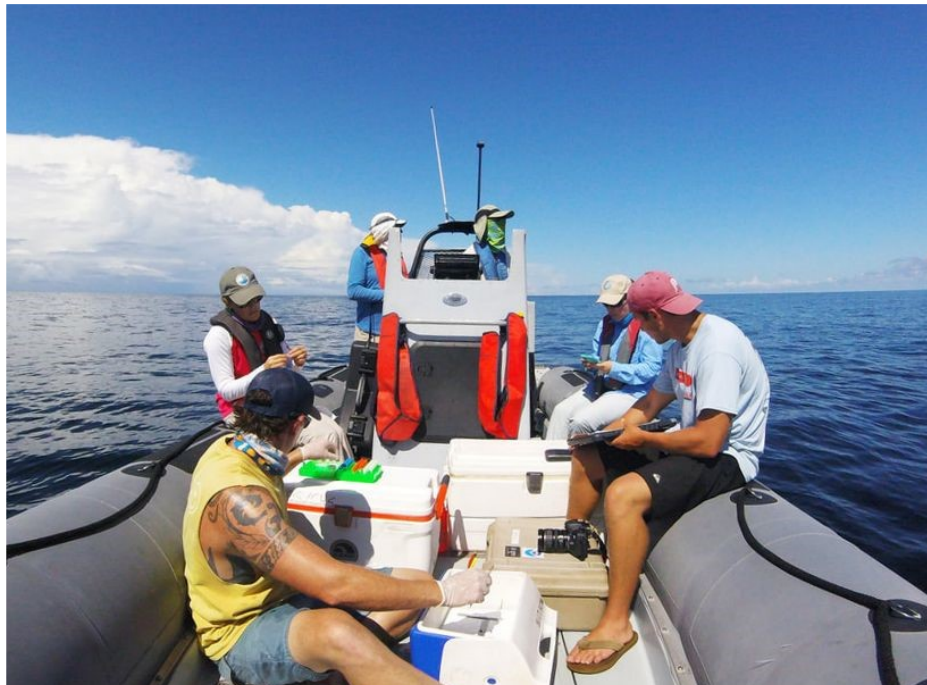
9/22/2017

Dr. Brian Balmer, friend of TDP, is a Scientist with the NMMF Conservation Medicine Team. Brian has 15+ years of experience studying marine mammals, and 40+ peer-reviewed publications pertaining to bottlenose dolphin abundance, contaminants, distribution, habitat use, health, ranging patterns and stock assessments. Brian earned his PhD degree doing the 5-year study of Brunswick dolphins. Several TDP volunteers assisted Brian with his research.

NMMF [National Marine Mammal Foundation] in partnership with the Naval Undersea Warfare Center Division Newport, the Naval Sea Systems Command Environmental Management and Policy Office, and NOAA have just completed a two-week project studying dolphins that live in the coastal waters of the Gulf of Mexico off St. Andrew Bay, FL. The team is interested in determining how many dolphins reside in these waters, how long they stay in this area, and collecting some of the first information on these animals' health. Over the course of this project, the team observed 280 dolphins from two different species (Atlantic spotted dolphins and common bottlenose dolphins).

***During July 2017, our team surveyed over 1,500 km in 12 field days and braved numerous thunderstorms on a daily basis.***

This project is building upon research that our team led during 2015-2016 to identify the resident population of bottlenose dolphins in St. Andrew Bay, FL. The 2017 field work extended into the Gulf of Mexico waters to better understand residency patterns and movements of these



*Field team processing a remote biopsy sample. For each sample numerous analyses are performed including genetics, hormones and pollutants.*

coastal dolphins by conducting small vessel surveys with photographic-identification (i.e. identifying individual dolphins by the nicks and notches on their dorsal fins).

***The team recorded 37 dolphin sightings of which 32 were bottlenose dolphins and five were Atlantic spotted dolphins.***

Little is known about coastal dolphin movements in this region and these data are providing insight to better understand the animals that reside in these waters. In addition to photographic-identification, remote biopsy samples were collected from a subset of individuals to assess pollution levels and other anthropogenic threats that dolphins in the coastal waters of the Gulf of Mexico may be exposed to.

## TRAINING VENUES

If you know of any inexpensive or free venues along the South Carolina and Georgia coasts where we could hold our training workshops on Saturday mornings or Sunday afternoons, please let me know: contact Peach: gadolphin@comcast.net.



## NEW BOARD MEMBERS

We welcome **Kristi White** and **Linda Degutis** aboard TDP's Board of Directors.



**Kristi White** is originally from Eden Prairie, Minnesota. She graduated with a BA in Marketing Communications from Metropolitan State University. Her background consists of more than 16 years of combined Marketing and Administrative specialties. Kristi moved to North Carolina with her husband Harley and their two fur children where she served as an active volunteer for the UNCW Center for Marine Sciences, the North Carolina Coastal Reserve, and Masonboro.org with a commitment to creating environmental awareness and conserving wildlife and their estuarine habitats.

After relocating to Georgia in 2016, Kristi became a dedicated volunteer in the Savannah area community. In her spare time she enjoys spending time with her family, kayaking, hiking, photography, gardening, and writing. Kristi's mission is to promote good stewardship by making a positive impact on the environment.

*PS: Kristi is on her way to being a great Team Leader and she was a gorgeous mermaid on TDP's Christmas float this year!!!*

**Linda Degutis** is a native of Chicago, where she first became interested in marine biology and ecology through her visits to the Museum of Science and Industry, and her father's work on water pollution control through the EPA. After moving to Connecticut, she began to spend time going on whale watches in the area of Stellwagen Banks near Cape Cod, and has been an avid supporter of the Center for Coastal Studies based in Provincetown, MA. She has had the opportunity to observe whale disentanglements, to spend some time on a lobster boat, to sail, and to observe and photograph whales, dolphins and other marine animals in their natural habitats. Currently, she lives in Atlanta, Georgia, and her hobbies include silver smithing, gourmet cooking, dance, photography and travel.

Linda is the Executive Director of Defense Health Horizons, which is a program funded by the Henry M. Jackson Foundation. that is based at the Uniformed Services University in Bethesda, MD, and that works to evaluate and recommend policy options for the military health system. She is an adjunct professor at the Rollins School of Public Health at Emory University and is the Chief Science Officer for The Avielle Foundation.



## THANK YOU CHERYL...



Special thanks to Cheryl Tilton who is retiring from our Board of Directors. Cheryl has been invaluable over the years, not only with her input on the Board but as the Merchandise Chairperson. Her organizational skills at various school events and community festivals are always outstanding. We hope those skills will continue to serve TDP. Cheryl's leadership qualities are also evident with the Tybee Sea Turtle Project. She will be dearly missed at our meetings but we're looking forward to working together on various upcoming projects. THANK YOU CHERYL!

## WHY KILLER WHALES GET SICK IN CAPTIVITY

July 27, 2017

LIVE SCIENCE Contributed by Tracey Staedter

A 3-month-old orca calf named Kyara died this past weekend, possibly from pneumonia, at SeaWorld San Antonio. This isn't the first occasion of a killer whale dying in captivity.

Dozens of other captive killer whales, including the SeaWorld orca named Tilikum, who was made famous in the documentary "Blackfish," have also died from bacterial infections.

According to SeaWorld's press statement, Kyara's death, which is still being investigated, was not the result of living in captivity. But some experts in marine mammal research say that the living conditions contribute to disease.

"I think pneumonia is a fairly common cause of death because they are living in a constant state of low-level stress," Naomi Rose, a marine mammal scientist at the advocacy organization Animal Welfare Institute in Washington, D.C., told Live Science.

### Stress in captivity

Captive killer whales are held in concrete tanks about 1/10,000th of 1 percent the size of their natural habitat and mothers give birth without their crucial social network — situations that can cause low levels of stress and make them susceptible to disease, she said.

"It's harder to be a mother orca in captivity," Rose told Live Science. In the wild, orca calves are raised by not just the mother, but also by others in the pod. In captivity, killer whales are rarely with other family members. Nursing is also an issue, said Rose. Orca calves don't suckle like other mammals, but rather hold their mouths over the mother's teat while she squirts milk as she swims. The small tank makes swimming and nursing difficult for both mother and calf, said Rose, and that can cause stress. [How Tilikum the Orca Changed the Conversation About Animals in Captivity]

According to Whales and Dolphin Conservation (WDC), which has been tracking captive killer

whale births and deaths for 30 years, at least 164 killer whales have died in captivity worldwide, 46 of those deaths occurring at SeaWorld-owned facilities — a number that doesn't include at least 30 miscarried and still-born calves in captivity.

"Pneumonia, along with septicemia are the two most common causes of death in captive orcas," Rob Lott, policy manager at WDC, told Live Science.

Septicemia is a bacterial infection that enters the bloodstream and can affect the lungs or skin.

In 2015, marine biologist John Jett, a former SeaWorld trainer, who is now a visiting research professor at Stetson University, and Jeff Ventre, a board certified physiatrist, published a paper showing that captive orcas in the United States survived about 12 years.

But there are no specific research studies that say why, said Rose. "There is a paucity of research on cetaceans in captivity."

According to Rose, if scientists at SeaWorld are studying the effects of captivity on killer whales, they are not making the research available for review by other scientists. They also do not allow outside researchers to study why the marine mammals grow ill. "Access to the animals is on guard," she said.

After Kyara's death, SeaWorld said in its press statement that, "pneumonia has been identified as the most common cause of mortality and illness in whales and dolphins, both in the wild and in zoological facilities."

### How wild orcas fare

Whether this is the case for wild orcas is not certain, said Joseph Gaydos, science director of SeaDoc Society in Eastsound, Washington, and a veterinarian at the University of California Davis School of Veterinary Medicine, who studies diseases in wildlife, including orca. Not much is known about the diseases that occur in wild killer whales and



whether or not pneumonia is the most common cause of death, he told Live Science. Few, if any, dead killer whales wash up on shore, he said.

Only about about one in five dead orca from the endangered southern resident killer whales, which live off the coast of Oregon, Washington and Vancouver Island, wash up on shore. Of the northern resident killer whales, which live in the Pacific from mid-Vancouver Island to Southeastern Alaska up through the Queen Charlotte Islands, researchers might find one in a 100 dead bodies.

Scientists are still in the early days of trying to figure out what types of diseases hit wild killer whales and what causes them, Gaydos said. So far, he and his team have found orcas can contract bacteria such as species in the *Brucellagenus* transmitted by ingesting contaminated food; *Edwardsiella tarda*, which can lead to *Edwardsiella* septicemia; cetacean pox virus, a skin disease; salmonella; and pneumonia. Gaydos and his team are currently working on describing research on the prevalence of these diseases in wild orcas.

But there is much more to learn. Scientists do not understand how killer whale health is impacted by

human contaminants, such as plastics or persistent organic pollutants that remain in the marine ecosystem for years.

Gaydos said he is also collaborating with Hendrik Nollens, senior staff veterinarian at SeaWorld San Diego, to better understand the skin diseases found in killer whales and to develop a medical response for any sick killer whales found in the wild.

There are only 78 members left in the southern resident killer whale population and keeping them healthy may require medical interventions in the future.

Kyara was the last killer whale born into captivity, since SeaWorld announced in March 2016, that it would end its captive breeding program.

Of the 61 killer whales in captivity around the world, SeaWorld currently has 22, according to WDC. Kyara's grandmother, Kasatka, was captured from the wild in Iceland on Oct. 26, 1978, at under 2 years of age, and is also being treated for a chronic bacterial respiratory infection, according to SeaWorld.

## ONE HUNDRED MILES HONORS PEACH

ONE HUNDRED MILES is a dedicated conservation groups based in Brunswick. Every year they choose 100 people and/or groups that have made a significant and lasting difference across Georgia's 100-mile coast. Peach will be honored as one of the "100" at the annual leadership conference on January 13th.

## BELUGA SPEAKS DOLPHIN

Belugas are vocal creatures that can speak in squeaks, squawks, cackles and clicks. They can even imitate the animals and people around them. According to *Discovery Magazine*, one beluga even started “speaking dolphin” after she moved into a tank with no other animals but bottlenose dolphins.

The four-year-old captive animal had grown up around other beluga whales, but moved to the Koktebel Dolphinarium in Crimea in 2013. There, she had no other belugas to talk to, only dolphins.

Beluga whales and bottlenose dolphins are related—they are both cetaceans, meaning they are in the whale family with orcas and narwhals. They are highly intelligent, social and vocal. But they typically live with their own kind, make their own calls and have their own specific, cultural behaviors.

A few days after arrival, a researcher brought her into a private tank and recorded the sounds that she was making, which were typical of her species. However, as the only beluga in the group, this transplant was now swimming among foreign-language speakers. Both animals make whistling sounds, but they are audibly different. Two months later, the scientists recorded her calls again, and found that she had changed up her repertoire. She made up new whistles and vowels, she whistled like a dolphin and even imitated signature whistles that individual dolphins in her group made.

Belugas will imitate people, other animals and other sounds they hear. They are sometimes even called “sea canaries” because of how they sing. However, this beluga’s dolphin-like sounds are particularly interesting because there are practical implications for this new language: They might help her fit in with the group. The fact

that she had given up speaking beluga in the absence of other belugas supports this theory.

Scientists at the museum report that the dolphins were originally afraid of their white, bulbous-headed cousin but eventually accepted her. Now, the dolphins like her so much that a newborn dolphin calf likes to swim alongside her.

Belugas are bigger than bottlenose dolphins but smaller than killer whales. They live in the Arctic, and their bulbous head contains an organ called a melon, used for echolocation. They use those sounds to locate holes in the ice so that they can come up and breathe and to hunt in dark waters.



*A Beluga Whale exhales a bubble ring*

Cetaceans, like humans, are social and intelligent and use sounds to communicate with one another. While imitating human and bird sounds might be playful on the part of the beluga, scientists suspect that she is actually trying to communicate with the dolphins, as those are her only options for friendships in the tank.

## COURT UPHOLDS RULE: TRACABILITY FOR AT-RISK SEAFOOD IMPORTS

**WASHINGTON** – On August 28, 2017, a federal court upheld the U.S. government’s Seafood Import Monitoring Program, which will require some imported seafood at risk of illegal, unreported and unregulated (IUU) fishing and seafood fraud to be fully documented and traced from the fishing vessel or farm to the U.S. border.

The Commerce Department program, also known as the Seafood Traceability Rule, takes effect January 2018 and will require seafood importers of species like tuna, grouper, swordfish, red snapper and blue crab to provide specific information before their products can enter the United States, including what kind of fish it is, as well as how and where it was caught or farmed.

“This ruling is a huge win for U.S. fishermen and consumers who are cheated when illegally caught or mislabeled seafood products make their way into our markets,” said **Beth Lowell, senior director for illegal fishing and seafood fraud at Oceana**. “It’s time for imported seafood to be held to the same standards as domestically caught fish. It’s time to level the playing field for U.S. fishers and reduce the risks facing U.S. consumers. All seafood sold in the U.S. should be safe, legally caught and honestly labeled.”

The National Fisheries Institute and eight individual seafood companies filed a lawsuit in January claiming, among other things, that the final Seafood Traceability Rule was signed by “a low-level bureaucrat” without the authority to do so. In June, Secretary of Commerce Wilbur Ross ratified the rule at the request of the judge, resolving that claim.

In May, Oceana (represented by Earthjustice), the Center for Biological Diversity and the Natural Resources Defense Council filed a joint amicus brief in support of the Seafood Traceability Rule. Yesterday’s decision is in response to the remaining claims of the lawsuit.

“This is a major victory against the illegal fishing that’s devastating many fish populations and killing imperiled wildlife like turtles and porpoises around the world,” said **Miyoko Sakashita, oceans program director at the Center for Biological Diversity**. “Massive fishing operations working totally outside the law are rampant on the high seas and in foreign waters. This rule helps ensure that American consumers aren’t supporting such deplorable fishing practices.”

The U.S. currently imports more than 90 percent of its seafood, yet a recent study estimated that between 20-32 percent of wild-caught seafood crossing our borders comes from IUU fishing.

“Illegal fishing and seafood fraud are putting ocean health at risk, and stamping them out is a goal we can all agree on,” said **Molly Masterton, an attorney with the Oceans Program at NRDC**. “Yesterday’s ruling is a major advance, because this rule is a key first step in detecting and thwarting these practices at the border. By shedding a light on these elusive activities and empowering agencies to take enforcement action, the Traceability Rule will protect our oceans, along with U.S. and international fishermen who play by the rules.”

“If you believe that you are what you eat, you need to have confidence in what you’re eating,” said **Steve Mashuda, an attorney at Earthjustice representing Oceana in the case**. “This decision upholding the Seafood Traceability Rule helps provide much-needed assurance that imported seafood does not come with the hidden costs of overfishing, human rights abuses or marine habitat destruction.

### Background

Oceana’s investigations of fish, shrimp, crab cakes and most recently salmon, in retail markets and restaurants found that, on average, about one-third of the seafood examined was mislabeled – the product listed on the label or menu was different than what the buyer thought they had purchased, often a less desirable or lower-priced species. Oceana has observed threatened species being sold as more sustainable, expensive varieties replaced with cheaper alternatives and fish that can cause illness substituted in place of those that are safer to eat.

OCEANA.org August 29, 2017

*NOTE: It pays to ask the origin of any seafood whether it’s frozen or fresh. The “Processing” location is not the same as the Origin. I recently asked the seafood manager where a certain package of seafood originated. After asking in the back, he said “origin unknown”. Buy American.*

# December a peak time for dolphins migrating through Lowcountry

**Island Packet. By Michael Olinger**

In October and November, as winter descends, dolphins begin their journey from the coastal waters off Virginia and North Carolina to the waters off Florida. On their way, they pass right by the Lowcountry.



“Dolphins who migrate during the winter and dolphins who don’t are biologically identical”, McFee said. “Still they are divided by marine biologists into groups called stocks. The migratory stock heads south in the winter while the residential stock stays put. The reasons for this are more behavioral than biological.”

Different stocks of dolphin are not different species or even different breeds. The differences are simply in how they are grouped. McFee analogizes it to people from different countries or continents. There are people from North and South America, from Europe, Asia, Africa and Australia, but they’re all people and coastal dolphins are just dolphins. A stock called the Carolina/Georgia resident stock makes its home along our shores.

## HOW DO YOU IDENTIFY A RESIDENT?

If migratory and resident dolphins are biologically identical, how can you tell them apart?

According to McFee, residential dolphins can be identified using their dorsal fins. “Researchers take pictures of the fins and then compare them”, he said. Dorsal fins are unique to each dolphin and can be used like fingerprints. “Doing that over time you can see certain animals that show up all year long, and those are residents”, McFee said.

## A THIRD STOCK

A third stock of dolphin, known as the estuarine stock, makes their home in the estuary streams and inlets. They are biologically identical to their coastal counterparts.

“They don’t migrate,” McFee said, “but will move closer to warmer waters as their own waters grow cooler.” “It’s likely prey related. So, they’re following prey for the most part, “ McFee said. “In the winter time, fish move out of the creeks into the sounds

That means that if you think you’ve been seeing more of them, you’re right.

November and December are peak months for migrating dolphins to pass through the coastal waters of the Lowcountry, according to Wayne McFee, research wildlife biologist with the National Oceanic and Atmospheric Administration’s National Ocean Service. “South Carolina is a waypoint for migratory animals” McFee said. “Usually around November or December you’re going to start seeing larger numbers of dolphins as those animals start moving south and then again in March and April as they move back back.”

That means that right now you have a better chance of seeing dolphins off the Lowcountry coast.

## THEY DON’T ALL LEAVE

“Not all dolphins migrate”, according to McFee. “A certain segment of the coastal dolphins population stays out year round, looking to eat fish that swim into warmer coastal waters from estuarine systems as those systems grow cooler.”

## December a peak time for dolphins migrating through Lowcountry...cont.

Meanwhile, the number of dolphins that make their home along the coast is somewhere between 14,000 and 15,000”, McFee said. That number includes both migratory and residential dolphins.

### ADAPTING FOR THE WINTER

“Dolphins don’t significantly change during the

winter months”, McFee said. “They don’t hibernate and not all of them migrate”..

The one thing that does happen is a trait that people might identify with, especially around Thanksgiving and Christmas. “In the winter their blubber layer gets thicker, and it tends to slim down in the summer”, McFee said.

## NO-COST WAYS TO HELP TDP



When you shop on Amazon, please use **AMAZON.SMILE** and indicate The Dolphin Project as your favorite non-profit. Amazon donates a small percentage of your purchase to us. Every little bit adds up over time. Thank you!

Please **LIKE** us on **FACEBOOK** and share the posted events and news on TDP’s Facebook page. It’s an easy way to get the word out to the public about The Dolphin Project. Thank you!



## HOLOGRAPHIC WHALE

Check this out. It’s Awesome!!!

[http://websitesboise.com/wp-content/uploads/2017/03/Projectionholographique1.mp4?\\_=1](http://websitesboise.com/wp-content/uploads/2017/03/Projectionholographique1.mp4?_=1)

## 2017 SC DOLPHIN STRANDING REPORT

Species	Male	Female	Unk	Total	Fetus	Neonate	Juv	Subadult	Adult	HI
Tursiops truncatus (Bottlenose dolphins)	18	11	12	41	4	6	13	10	8	9
Kogia sima (Dwarf sperm whale)	0	0	1	1	0	0	0	1	0	0
Kogia breviceps (Pygmy sperm whale)	2	1	0	3	0	0	0	0	3	2

Hilton Head area animals included: 3 crab pot line entanglements, 2 monofilament/hook interactions, 2 with rope wounds, 1 boat strike, 1 mutilation, and 2 Kogia breviceps pushed back to sea.

# 2017 GA DOLPHIN STRANDING REPORT

Field Number	Common Name	1st Reported	Location	Condition at 1st Report	Apparent Cause	Sex	Age Class
GA2017001	Whale, right, North Atlantic	1/5	Atlantic Ocean	Alive	Human Related: Entanglement	M	ADULT
GA2017002	Dolphin, bottlenose	1/13	Blackbeard Is	Mod Decomp	Natural: Illness	F	ADULT
GA2017003	Dolphin, bottlenose	1/13	Blackbeard Is	Adv Decomp	Undetermined: Too Decomposed	U	ADULT
GA2017004	Manatee, Florida	11/22/16	Port Wentworth	Alive	Natural: Trapped At Thermal Effluent	F	U
GA2017005	Manatee, Florida	1/5	Port Wentworth	Alive	Natural: Trapped At Thermal Effluent	F	U
GA2017006	Dolphin, bottlenose	2/2	Midway	Adv Decomp	Undetermined: Too Decomposed	U	ADULT
GA2017007	Manatee, Florida	2/14	Atlantic Ocean	Adv decomp	Undetermined: Not Examined	U	U
GA2017008	Dolphin, bottlenose	2/20	Jekyll Island	Mod Decomp	Natural: Perinatal	U	CALF
GA2017009	Manatee, Florida	2/27	Jekyll Island	Adv decomp	Undetermined: Too Decomposed	M	U
GA2017010	Dolphin, bottlenose	3/10	Jekyll Island	Fresh Dead	Natural: Illness	F	ADULT
GA2017011	Whale, pygmy sperm	3/11	Tybee Island	Mod Decomp	Undetermined: Too Decomposed	M	ADULT
GA2017012	Dolphin, bottlenose	3/25	St Catherines Is	Unknown	Undetermined: Too Decomposed	F	ADULT
GA2017013	Dolphin, bottlenose	4/9	Savannah	Fresh Dead	Natural: Illness	F	ADULT
GA2017014	Manatee, Florida	4/20	Waverly Creek	Mod decomp	Undetermined: Nonspecific	F	ADULT
GA2017015	Whale, pygmy sperm	4/21	St Catherines Is	Alive	Undetermined: Nonspecific	M	ADULT
GA2017016	Manatee, Florida	4/27	Waverly Creek	Adv decomp	Undetermined: Too Decomposed	M	U
GA2017017	Dolphin, bottlenose	4/29	Sapelo Island	Fresh Dead	Undetermined: Nonspecific	M	ADULT
GA2017018	Whale, pilot, short-finned	5/2	Wassaw Island	Fresh Dead	Undetermined: Nonspecific	F	ADULT
GA2017019	Manatee, Florida	5/3	Mackay River	Adv decomp	Undetermined: Too Decomposed	M	ADULT
GA2017020	Dolphin, bottlenose	5/21	St Simons Island	Mod Decomp	Human Related: Entanglement	M	ADULT
GA2017021	Dolphin, bottlenose	5/19	Savannah	Mod Decomp	Human Related: Entanglement	F	SUB
GA2017022	Dolphin, bottlenose	5/30	Jekyll Island	Mod Decomp	Natural: Perinatal	M	CALF
GA2017023	Dolphin, bottlenose	6/9	Tybee Island	Alive	Natural: Perinatal	U	CALF
GA2017024	Dolphin, bottlenose	6/17	St Simons Island	Alive	Human Related: Entanglement	M	ADULT
GA2017025	Dolphin, bottlenose	7/5	Wassaw Island	Alive	Natural: Stranded By Low Tide	U	YEAR
GA2017026	Manatee, Florida	7/20	Savannah	Adv decomp	Human Related: Crushed	F	ADULT
GA2017027	Manatee, Florida	7/20	Savannah	Adv decomp	Human Related: Crushed	M	ADULT
GA2017028	Manatee, Florida	7/29	Brunswick	Adv decomp	Human Related: Watercraft	F	U
GA2017029	Dolphin, bottlenose	7/27	Little Cumberland Is	Mod Decomp	Undetermined: Too Decomposed	F	A
GA2017030	Manatee, Florida	8/17	White Oak Creek	Adv decomp	Undetermined: Not Examined	U	U
GA2017031	Dolphin, bottlenose	8/20	Tybee Island	Fresh Dead	Natural: Perinatal	M	CALF



## 2018 DATES TO REMEMBER ...

Check the calendar on TDP's website for all 2018 events.

January 13	SURVEY
January 12-14	100 Miles Leadership Conf.
January 20	Training at Richmond Hill Library
February 10	SURVEY
February 10	Social with Dr. Jay Brandes
February 18	Training at Richmond Hill History Museum
February 22	Heard Elementary STEAM night
March 1	Conservation Day at the Georgia State Capital
March 4	Training at Richmond Hill History Museum
March 10	SURVEY
March 23-25	SEAMAMMS at Coastal Carolina U., Conway SC

## SEA TURTLE RESCUE?...

On the November survey, the "Just Peachy" crew came upon a small (about 1ft.) green sea turtle covered in barnacles. It shouldn't have been in Ossabaw Sound by Raccoon Key. It should have been out in the ocean. It seemed lethargic and was going in circles on the top of the water. We took pictures and called Clay George, GA-DNR dolphin specialist. Clay put us in contact with Mark Dodd, the DNR Sea Turtle expert..

Mark said to try and capture it and bring it to a marina where a researcher could retrieve it to check it out.

Unfortunately I didn't have my fish net with me but I did have my cast net. Regrettably the sea turtle went under my boat and we lost sight of it. We stayed and transected the area but did not find the little turtle. We went back to the area twice later that day without luck. Bummer.



Kate Young, Whitney Saunders and I felt awful that we couldn't help the little sea turtle.

From now on I'm going to bring my fish net with me on surveys. It might come in handy—even for picking up trash in the water... or fly away hats and burpees!

*Peach*

## Loss of Wetlands Could Cause Temporary Increase in Crab Numbers...but

As the Louisiana coast continues to erode, the loss of wetlands could inspire a short surge of blue crabs but will ultimately have a negative impact on the state's crab populations, according to preliminary findings of an ongoing study.

The study, which is a tag-team effort by the Water Institute of the Gulf and the University of Southern Mississippi, measures how blue crab populations react to the breaking down of marsh land.

Adult blue crabs prefer to stay on the edge of a marsh where they can easily find food and move around, said Zachary Darnell, an associate professor with the University of Southern Mississippi's division of coastal sciences who is working on the study.

As the marsh erodes, it creates more "edges" of marsh for the crabs, which initially attracts the crustaceans with islands and crevices, but as the marsh continues to erode, the crab population will drop as there's less land and plants and more open water.

"In the initial stages of the marsh breaking up, we have some positive impacts, but once it passes some point, which it's already passed in a lot of areas in the southern portions of the Louisiana estuaries, then you start to see the decline," Darnell said.

During the study, researchers collected crabs from three areas of Terrebonne Bay that represented low, intermediate and high marsh breakdown, as well as marsh, submerged aquatic vegetation and bare sediment habitats. Adult and juvenile crabs were collected hundreds of times from 27 sites in the bay over the last two summers, and the analysis of the data will continue through mid-2018.

Tim Carruthers, director of coastal ecology at



*Leland Moss and Tim Caruthers of the Water Institute measure marsh height*

the Water Institute of the Gulf, said these findings could be especially important in making better predictions for coastal change and managing the blue crabs.

Louisiana Wildlife and Fisheries estimated the state's blue crab population at 14.3 million pounds in 2015. The benchmark for "overfished" conditions is when the population falls below 17.1 million pounds. The population estimates for 2016 and 2017 won't be available until next year, but officials still maintain the crabs are overfished, a condition that led officials to implement a ban on commercial fishing of female blue crabs along the Louisiana coast from March 1 to April 30 in 2018 and 2019 in an effort to allow the population to increase.

*By Holly Dutchman, staff writer for Houmatoday.com*



*Sarah Cunningham from the University of Southern Mississippi and Andrea Jerabek with the Water Institute collect juvenile blue crabs from a throw trap*

## 2017 STORMS

### FORT McALLISTER MARINA

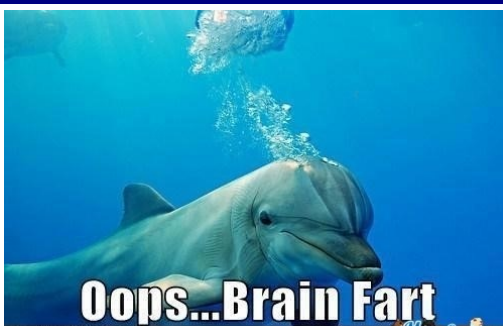
The lift docks and many others are gone. In the photo, note the docks hitting the cruiser bow.....

To watch videos of Fort McAllister Marina during the storm surge, copy this link into your browser:

<https://www.facebook.com/123770657638633/videos/184612388732776/>



The Sattelle family and friends *fishing* in their *really* SALTY water pool on the Kilkenny River, Richmond Hill. The storm surge brought the river water, fish and marsh wrack up to the house!



Apologies if I've neglected to post a name and thank a 2017 TDP volunteer. I tried to keep notes this year but have not been as successful as I would like do to medical issues this year. Consider it an oversight of a fuzzy mind, not the heart.

*Peach*



*Thank you for your support*

*Wishing you a Blessed Holiday*

*Merry Christmas*

*Happy Hanukkah*

*May you have a Happy, Healthy New Year*