



“ON EFFORT”

Newsletter

January 2023

FROM THE HELM...

HAPPY, HEALTHY NEW YEAR!!!

Greetings Crew!

I hope this newsletter finds you well. Unfortunately, many of our members have been in sick bay this past year and some, including myself, are still there. Healing prayers go out to all, including Cindy Benner, Mary Cirincione, Tom Workman, Dodie Koch, Ron & Gerry Sattelle and Charlotte Keenoy and others whose names I have missed. Hoping they are healing by now.

Regrettably, my three surgeries this year have set me back in accomplishing all that was on my list. The list is still growing. The worst part of repairing damaged body parts is the healing and therapy and time away from my boat and friends, from dolphins and fishing. This too shall pass. I'm looking forward to Spring of 2023 when I'll be fixed and back on the water.

In the meantime, life in The Dolphin Project moves forward... **Let's get together!**

We're starting the New Year with a General Meeting. Dodie Koch and Ed Johnson will be hosting this event. Bring your friends, spouses and partners. We'll meet on **January 28th at 5:30PM at the Waterford Landing Clubhouse, 731 Waterford Landing Rd. Richmond Hill** Hors d'oeuvres, beverages and desserts will be served.

It is with some sadness that I announce the retirement and resignation of some of our Board members. Nonetheless, I am deeply honored to have served with them and call them friends. We are most grateful for their support and service to The Dolphin Project Board of Directors. Sandy & Tom Workman and Dodie Koch are looking forward to traveling more now that covid is in the rear view mirror. Linda DeGutis resigned for personal reasons. Mary Cirincione retired due to personal and health issues.

On a happier note we have some new Board members in the wings. Read on for their info.

Additionally, TDP ended 2022 on a joyous note upon the most generous monetary gift from former Board member and Team Leader, Don Bender. Covid left many non-profits with wanting wallets. Don's donation has significantly boosted our budget so we can continue with our Photo-ID research and various education outreach programs. Thank you Don! Best wishes to you and Judy.



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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



2023 Board of Directors...

While extending our gratitude to Board members for their service past and present, we welcome new Board members: **Mark and Jennifer Harrington** who will complete the 2-year terms of resigning members. Come meet them at the General Meeting.



MARK Harrington : Originally from Concord, NC, Mark now lives in downtown Savannah. He has a BA in political science, a MA in international security affairs, and several defense and security-related certifications – including being a current Certified Fraud Examiner. Mark speaks Brazilian Portuguese, and some Spanish and Russian. For 23 years, Mark served as an intelligence office in the United States Air Force, which included experience in fighter jet operations, positions in a variety of domestic and international commands, and a military diplomatic posting to Brazil. Following uniformed service, Mark served several more years as a Department of Defense civilian in the Office of the Inspector General. Then, Mark transitioned to the private sector, working the past five years for two large companies, both based in Chicago. Mark's volunteered with The Dolphin Project for one year, participated in a few surveys, and assisted with the 2021 Christmas parade. Mark enjoys stand-up paddle boarding, playing music, and roughhousing with his three English bulldogs. With his wife, Jennifer, Mark has four grown children, two of whom live in Savannah and two in Fredericksburg, Virginia.



JENNIFER Isaak-Harrington: Originally from Charleston, SC, Jennifer now lives in downtown Savannah. She earned a BA in English and a MS in Public Health. Jennifer speaks Spanish and Brazilian Portuguese. Over the past three decades, Jennifer built extensive experience in a variety of specialties including damage assessment and disaster case work, diplomacy and U.S. consulate operations, social work supporting street homelessness, adult continuing education, mass food distribution, large aquarium water quality, and animal care and rescue. Jennifer's volunteered with The Dolphin Project for over a year and a half, participated in several surveys and assisted with the Christmas parade in 2021. She also encouraged her mom to participate in a survey after completing the full training. Jennifer is an avid English Saddle equestrian, loves to read and travel, and play with her three English bulldogs, Pearl, Sally, and Edie. She, with husband Mark, has four grown children, Mila, Aidan, Tamara, and Alexander.

Welcome Aboard the Board!



PEACH Hubbard



ED Johnson

JENNIFER & BOYD Stanley



Dr. LORI Muskat

VOTE! VOTE! VOTE! VOTE!....

We still have a few openings on the Board. TDP By-Laws permit 10 Board members which includes the liaison with NOAA-NMFS] Currently we have two members willing to volunteer to serve on the Board of Directors: Joni Chastain and Nicole Neininger. We need your vote to approve their positions on our Board.

Please send your 'Yays' or 'Nays' for Joni and Nicole to thedolphinproject@gmail.com

If you don't already know them, you can meet them at the General Meeting on January 28th

JONI Chastain I am an Atlanta native and Georgia Tech alumna. I love to travel and I love being on the water. In addition to my participation in The Dolphin Project, I was a volunteer for 15 years with the Council of Juvenile Court Judges in DeKalb County, Ga and am currently a Red Cross Disaster Services volunteer. In 2022, I retired after 23 years in technical support with Aspect Software.

I joined The Dolphin Project in October of 1998 after spotting a tiny, two line ad in the AJC. In the beginning, citizen science wasn't as prevalent as it has become and it was novel and exciting to be a part of a research study. I started out as a data recorder, followed by team leader. In the early years, I manned Data Review to collect and verify paperwork as teams checked in after abundance surveys. When asked, I have filled interim terms as Secretary and Vice President. I also enjoy representing TDP at coastal and science events. More recently, I have been one of the Co-Investigators on the NMFS permit that allows for the close interaction required for photo surveys. My involvement with TDP has allowed me to meet many interesting and diverse people through our common curiosity about dolphins and to forge lasting friendships. I am grateful for the work of many and proud that our "project" has persevered. And while I remain invested in collecting population identity data and educating the public, I have been with The Dolphin Project for all these years because I never get over



NICOLE Neininger has lived in Georgia since 2017 and recently moved from Pooler to Richmond Hill. Currently Nicole is an X-Ray technologist, team lead and medical assistant at Primary Care Savannah since 2020. She triages patients for their appointments and works closely with the doctor for injections and other medical procedures.

Nicole is originally from a city in the Southern California desert, called Victorville. However Nicole loves the ocean but could not afford California prices to be near the water. She moved to Georgia and joined The Dolphin Project in 2021. She has participated in many surveys as a photographer. Her passion for marine life drives her to learn more about it and help protect our waterways. She's always eager to lend a hand and help out at festivals, science fairs and Christmas parades

Please vote for Joni and Nicole by January 25th.

Email: thedolphinproject@gmail.com

The Board of Directors has one position open. If you are interested in serving, please contact Peach at gadolphin@comcast.net for details.

2023 CALENDAR...

JANUARY

07 Research **SURVEY**
28 ZOOM **Training Workshop**
28 **General Meeting/Social**

FEBRUARY

11 Research **SURVEY**
11 ZOOM **Training Workshop**

MARCH

11 ZOOM **Training Workshop**
11 Research **SURVEY**
17-19 **SEAMAMMS*** in Mobile

AL

APRIL

01 ZOOM **Training Workshop**
22 Research **SURVEY**
22 GA-DNR Coastfest. Brunswick
22 Research **SURVEY**

MAY

06 ZOOM **Training Workshop**
20 Research **SURVEY**

JUNE

10 ZOOM **Training Workshop**
24 Research **SURVEY**

JULY

15 ZOOM **Training Workshop**
22 Research **SURVEY**

AUGUST

12 ZOOM **Training Workshop**
19 Research **SURVEY**

SEPTEMBER

16 Research **SURVEY**
23 ZOOM **Training Workshop**

OCTOBER

07 COASTFEST?
14 SkIO Marine Science Day
20-21 Great Ogeechee Seafood Festival
21 Research **SURVEY**
TBA ZOOM **Training Workshop**

NOVEMBER

04 ZOOM **Training Workshop**
18 Research **SURVEY**

DECEMBER

02 Richmond Hill Christmas Parade/Market

Please mark your calendars with these dates so you don't forget them. They are also posted on our website.

As soon as you know you might be available for a survey, please sign up; especially skippers! If something comes up, you can always cancel. TDP can't conduct Photo-ID research without boats and crews on the water.

Invite your friends to attend a ZOOM Workshop! It offers a wealth of information about the local Bottlenose and our coastal environment. We're always looking for research crews. Like any volunteer organization, there is a turn-over in membership. People retire, move away or have health issues. We always welcome new members who care about their coastal environment and are interested in meeting like-minded folks.

The Dolphin Project Education Outreach Program is available for in-person school programs and club meeting in 2023. If you know of a club or school that would like a dolphin program, contact Peach. We're also available for STEM and STEAM nights and CAREER Days at schools. Contact us now to schedule fall school programs.

**SEAMAMMS stands for 'SouthEast and Mid-Atlantic Marine Mammal Symposium'. It's a regional, scientific marine mammal meeting that is open to all presenters and is very student-oriented. Preference is given to marine mammal research conducted in the mid-Atlantic and southeast US or conducted by students and other researchers from this region. It's a great way to meet marine scientists from coastal universities and government agencies. TDP has been very fortunate over the years to collaborate with many of these scientists and learn from them.*

THANK YOU!

Sandy & Tom Workman



Sandy?



Mary Cirincione

Heartfelt gratitude for retiring and resigning Board members for their dedicated service to TDP and its Board.

Special thanks too for serving as Committee Chairs and Officers.

Forever grateful to Sandy, Tom, Mary, Dodie and her husband, Gary for all their hard work in helping with Education Outreach events over the years. We'll still see you on the water!!!



Dodie Koch



Linda DeGutis

Right Whale calf spotted off GA coast

A right whale named "Smoke" and her newborn calf were spotted by researchers on Dec. 26 off St. Catherines Island in Georgia. It was the fifth calf sighting this season, according to the Florida Fish and Wildlife Conservation Commission. Smoke is at least 27 years old, according to FWC, and this is her fourth calf. Prior to giving birth, Smoke was spotted traveling south with "Caterpillar." The adult females were off the coast of Virginia in November and research teams captured data and drone video of them. It shows the southern migration of the pregnant right whale "Smoke."

North Atlantic Right Whale Tag and Drone Video, 22 November 2022 - Best Viewed in HD or 4K Setting - YouTube :

<https://youtu.be/SWWCO0MZzV4>

This video includes underwater scenes!



A gray whale gave birth as a whale watching tour looked on...

A pregnant gray whale gave birth to off the coast of Dana Point, Calif. The mother, like all gray whales this time of year, is migrating from the Bering and Chukchi Seas near Alaska to the warm water lagoons of Baja California, Mexico.

Looking into blue-green waters just off the coast of Dana Point, Calif., people on the small boat spotted an adult gray whale splashing about. Then a pool of "something orange and red colored" appeared to spread. "Many of us thought it may be a shark or predatory event. But no, instead of the end of life, it was the beginning of a new one!" the tour company wrote in a [statement](#) on YouTube. "This is a first for all of us. We've never actually seen it happen," an excited Capt. Gary Brighthouse can be heard saying in a video taken just moments after the birth.

Whale cuddles, water mammal bonding, and other explanations

Drone and cell phone video show the baby whale lying on its mother and the two nuzzling their faces together. All the while, the 24-foot long inflatable tour boats are dwarfed by size of the mother, which is somewhere between 40 to 50 feet. At one point the mother appears to swim under one of the brightly colored boats and slightly lift it out of the water. "I so wish that I was there," Alisa Schulman-Janiger told NPR, after a day of counting migrating gray whales a little farther north up the coast of California.

Schulman-Janiger runs the Los Angeles chapter of the American Cetacean Society's Gray Whale Census and Behavior Project. From December through much of May, the group keeps track of the massive mammals as they make the journey from their feeding grounds in the Bering and Chukchi Seas near Alaska to the warm water lagoons in Baja California, Mexico. Schulman-Janiger said she has watched the video several times. As a researcher who has studied whales for decades, she said these early moments in the calf's life show how it bonds with its mother. "The mom is holding the calf up, supporting it so the calf can rest and actually helping it be able to take a breath." Part of the reason for that is that gray whale calves are born with soft flukes that take about 24 hours to become rigid. Until then, they can't really swim forward so they need to be guided and helped along. And when the calf swims up toward its mother's face to rub itself against her, Schulman-Janiger said that's typical mammal behavior. "Land mammals smell each other but ocean mammals can't smell so a lot of their skin (is) very sensitive. That's why there's a lot of tactile contact and touching going on."

A boon for whale research

The various clips are a tremendous windfall for gray whale researchers, Schulman-Janiger said, marveling that the "astounding" footage was captured at all. "The fact that you can see the blood pool means the calf must have just come out," she said. "That isn't something that is seen very often or documented often. In fact, I don't know if there's any other video footage of something like that." She added: "It's extraordinarily rare and really, really special for people to be able to share in those first few moments of a young whale's life. A whale could get to be 50, 60, 80 years old. And this is just the beginning of that calf life." Another reason it is extraordinary? The gray whale population is in sharp decline. In 2016, NOAA Fisheries, estimated there were nearly 27,000 eastern North Pacific gray whales. But the latest figures tabulated in the winter of 2021/2022 placed the estimated population at 16,650. The drop has been declared an Unusual Mortality Event. Schulman-Janiger said a large percentage of the whales that appear to be dying off are adult females. "And nobody knows why," she said. In all of her years out in the field, Schulman-Janiger admitted she's never witnessed an actual birth. In fact, almost exactly nine years ago to the day, she was lucky enough to spot a wrinkly newborn calf less than an hour old.



© Alisa Schulman-Janiger

© Alisa Schulman-Janiger. The calf raises its ineffective, floppy fluke that is still curled up in the fetal position. As it floundered in the water, its fluke would repeatedly slap the water's surface, doing absolutely nothing to assist the calf in forward momentum. A few times the calf surfaced on its back and looked like it was trying to swim swam upside down; I saw its mom gently roll it over.



© Alisa Schulman-Janiger

© Alisa Schulman-Janiger. The newborn calf pops its head high out of the water to grab a breath. Deep dimples mark hair follicles on its head, and two fetal fold creases are visible behind its double blowholes. A few orange lice cling to its skin, acquired from its mom during or shortly after birth.

Whale Gives Birth And Shows Off Calf to
Whale Watching Boat - YouTube:

<https://youtu.be/umajENuHqaw>

Cold-stunned Sea Turtles rescued in GA



Juvenile green sea turtles saved during frigid temperatures in Golden Isles, Georgia

In the midst of last month's cold front, frigid weather led to five "cold-stunned" sea turtles being found and rescued in the Golden Isles of Georgia. On Monday evening, Dec. 26, one juvenile green sea turtle was found by the Georgia Department of Natural Resources (DNR) after being stranded on St. Simons Island. After being found, the turtle was transferred to the Georgia Sea Turtle Center on Jekyll Island, according to the Georgia Sea Turtle Center – an animal rescue service. "An unusual extreme cold weather system in Coastal Georgia rapidly cooled coastal waters, leading to a juvenile green sea turtle becoming stranded or 'cold stunned' on St. Simons Island, Georgia, and was transferred to the Georgia Sea Turtle Center on Jekyll Island for treatment," Michelle Kaylor, director of the Georgia Sea Turtle Center, Jekyll Island Authority, said in a press release.



Since 2007, the Georgia Sea Turtle Center has reportedly helped more than 1,500 sick, stranded or injured sea turtles. The animal's temperature on arrival was 47 °F, Kaylor said. "Typically, the Center receives cold stunned sea turtles from further north, where water temperatures are regularly colder this time of year. It's unusual for us to receive cold-stunned sea turtles found stranded in the Golden Isles," she wrote. In addition to this turtle, four more juvenile green sea turtles rescued from the coast of Georgia are now in the care of the Georgia Sea Turtle Center due to being cold-stunned.

Cold-stunning can happen when water temperatures drop below 50 degrees where sea turtles are present, according to NOAA Fisheries. Sea turtles become weak and lethargic, which eventually leads to the reptiles being unable to swim. They will then float to the water's surface. "The current of the water and wind will eventually push the turtles ashore, and if temperatures remain cold and the turtles don't receive help, health conditions develop and they can die," according to FOX Weather. Georgia DNR received the call for all the turtles before they were taken to the Georgia Sea Turtle Center for help. Currently, the sex of the turtles are unknown, the Georgia Sea Turtle Center said. These turtles have shown no other obvious injuries. Historically, the media statement noted, the Georgia Sea Turtle Center receives one to two cold-stunned sea turtles from Georgia per year, but they are usually from Cumberland or Little Cumberland.



Since sea turtles regulate their body temperature by the water temperatures around them, when turtles find themselves in hypothermic water temperatures that are below 50 °F during the winter, it is a serious threat to the turtle's health, according to the Georgia Sea Turtle Center. A so-called stranded sea turtle that is discovered alive washed ashore or floating is often in a weak state and may be sick or injured. Once the Georgia Sea Turtle Center can safely intervene, these stranded sea turtles can be nursed back to health, according to the center.

As the organization explained, treatment for cold-stunned sea turtles focused on slowly rewarming the turtles to match the water temperature to their body temperature. The turtles will also receive blood work and radiographs to diagnostics and wound management. If a turtle responds well to care and is in good health, it may be released back into the wild. For turtles that require physical therapy and/or regular care, they may be relocated to a long-term care facility where they become educational animals, according to the center.

Right Whale calf spotted 1/5/2023

JUNO BEACH, Fla. — A right whale and her calf that were recently spotted off the Treasure Coast have made their way south to Palm Beach County. The mother, named Pilgrim, and calf were caught on camera near the Juno Beach Pier as Chopper 5 hovered over the scene just after noon Wednesday. The rare sighting brought multiple people to the pier hoping to catch a glimpse. Photographers also lined up to capture a memory. Florida Fish and Wildlife Commission officers were patrolling the coastline all day, keeping watch and making sure everyone kept their distance. North Atlantic right whales have been listed as endangered under the [Endangered Species Act](#) since 1970, according to the National Oceanic and Atmospheric Administration. The latest estimates suggest there are fewer than 350 right whales remaining, with fewer than 100 breeding females. Commercial whalers hunted North Atlantic right whales to the brink of extinction by the early 1890s. Right whales are currently on the move along the east coast, heading south for the winter where they give birth. They advise everyone to give them 500 yards of space and simply leave them alone. Boaters in and around inlet areas are being asked to reduce their speeds to 10 knots or less. NOAA said on their website that researchers so far have identified 11 live calves this calving season.

If you see a right whale in trouble, continue to give the animal space and contact trained responders at 877-WHALE-HELP. If it is safe, take photos and video to share with responders.



Pilgrim and her calf

Microplastics on seafloor have tripled in 20 years

The total amount of microplastics deposited on the bottom of oceans has tripled in the past two decades with a progression that corresponds to the type and volume of consumption of plastic products by society. This is the main conclusion of a study developed by the Institute of Environmental Science and Technology of the Universitat Autònoma de Barcelona (ICTA-UAB) and the Department of the Built Environment of Aalborg University (AAU-BUILD), which provides the first high-resolution reconstruction of microplastic pollution from sediments obtained in the northwestern Mediterranean Sea.

Despite the seafloor being considered the final sink for microplastics floating on the sea surface, the historical evolution of this pollution source in the sediment compartment, and particularly the sequestration and burial rate of smaller microplastics on the ocean floor, is unknown. This new study, published in the journal *Environmental Science and Technology (ES&T)*, shows that microplastics are retained unaltered in marine sediments, and that the microplastic mass sequestered in the seafloor mimics the global plastic production from 1965 to 2016. "Specifically, the results show that, since 2000, the amount of plastic particles deposited on the seafloor has tripled and that, far from decreasing, the accumulation has not stopped growing mimicking the production and global use of these materials," explains ICTA-UAB researcher Laura Simon-Sánchez.

Researchers explain that the sediments analyzed have remained unaltered on the seafloor since they were deposited decades ago. "This has allowed us to see how, since the 1980s, but especially in the past two decades, the accumulation of polyethylene and polypropylene particles from packaging, bottles and food films has increased, as well as polyester from synthetic fibres in clothing fabrics," explains Michael Grelaud, ICTA-UAB researcher. The amount of these three types of particles reaches 1.5mg per kilogram of sediment collected, with polypropylene being the most abundant, followed by polyethylene and polyester. Despite awareness campaigns on the need to reduce single-use plastic, data from annual marine sediment records show that we are still far from achieving this. Policies at the global level in this regard could contribute to improving this serious problem. Although smaller microplastics are very abundant in the environment, constraints in analytical methods have limited robust evidence on the levels of small microplastics in previous studies targeting marine sediment. In this study they were characterized by applying state-of-the-art imaging to quantify particles down to 11 μm^* in size.

The degradation status of the buried particles was investigated, and it was found that, once trapped in the seafloor, they no longer degrade, either due to lack of erosion, oxygen, or light. "The process of fragmentation takes place mostly in the beach sediments, on the sea surface or in the water column. Once deposited, degradation is minimal, so plastics from the 1960s remain on the seabed, leaving the signature of human pollution there," says Patrizia Ziveri, ICREA professor at ICTA-UAB.

* μm = 1 micron = 0.001 millimeters = 1 millionth of a meter

Stranded dolphins show signs of Alzheimer's in their brains

Scientists have discovered markers of Alzheimer's disease in the brains of three different species of dolphin found deceased, stranded onshore. Evidence of mass cetacean strandings exists from before our own recorded history, yet why dolphins and whales beach themselves in groups is an enduring mystery. While a direct link has been found between naval sonar and some beaked whales, and some individual animals washed up on shore have been clearly unwell, some with a belly full of plastic waste, most mass strandings provide little to no clues.

Toothed whales (Odontocetes) share a number of traits with humans, including (in at least five species that we know of) menopause. Their ability to live well beyond their reproductive years means they have the potential to be susceptible to late-onset diseases as well. Alzheimer's is the most common cause of disability in aging humans, gradually impairing memory, learning, and communication. Now it appears a similar affliction may impact our water-dwelling mammalian relatives too. "I have always been interested in answering the question: do only humans get dementia?" says neurobiologist Frank Gunn-Moore from University of St Andrews in Scotland. "Our findings answer this question as it shows potential dementia associated pathology is indeed not just seen in human patients."

Leiden University biologist Marissa Vacher and colleagues examined the brains of 22 stranded dolphins to search for the biochemical markers present in humans with Alzheimer's. These include amyloid-beta plaques, which while no longer thought to be a direct cause of the disease are still present in elevated numbers in those who have it; and clusters of tau proteins with hyperphosphorylation – when phosphate groups have been added to all possible binding sites on the protein molecule.

They found accumulations of amyloid-beta plaques and hyperphosphorylated tau in three dolphins, each from a different species: the long-finned pilot whale (*Globicephala melas*), the white-beaked dolphin (*Lagenorhynchus albirostris*) and the common bottlenose dolphin (*Tursiops truncatus*). These individuals also had signs of being elderly such as worn or lost teeth and an increase in the ratio of white to grey matter in brain tissues. What's more, the locations of brain lesions found in the dolphins matched with equivalent areas seen in humans with Alzheimer's. While it wasn't possible for the researchers to verify an Alzheimer's diagnosis, as they couldn't test the deceased animals' levels of cognitive impairment, there is no record of accumulations of both proteins in humans without the disease.

"We were fascinated to see brain changes in aged dolphins similar to those in human aging and Alzheimer's disease," says University of Edinburgh neuroscientist Tara Spires-Jones. As dolphins are highly social animals, it's possible they aid fellow pod members who begin to struggle with their brains. This means there's a chance they'd survive for longer, allowing further progression of the disease than in solitary species, the researchers note.

Dolphin strandings are common in one of the species studied, *G. melas*, supporting the 'sick-leader' theory of this mysterious, fatal behavior. "In humans, the first symptoms of AD-associated cognitive decline include confusion of time and place and a poor sense of direction," Vacher and colleagues explain in their paper. "If the leader of a pod of *G. melas* suffered from a similar neurodegenerative-related cognitive decline this could lead to disorientation resulting in leading the pod into shallow water and subsequent stranding." However, "whether these pathological changes contribute to these animals stranding is an interesting and important question for future work," Spires-Jones concludes.

This research was published in the *European Journal of Neuroscience*.

TDP Meeting / Social January 28 Y'all come!!!

Let's get together! We're starting the New Year with a General Meeting. Dodie Koch and Ed Johnson will be hosting this event. Bring your friends, spouses and partners. We'll meet on **January 28th at 5:30PM at the Waterford Landing Clubhouse, 731 Waterford Landing Rd. Richmond Hill** Please RSVP on our website. [Hors d'oeuvres, beverages and desserts will be served.](#)

From I-95 South. Exit 82/ Belfast-Keller Rd., Drive East, through 2 round-a-bouts. Right on Cranston Bluff Rd, Left on Waterford Landing Rd.