

Welcome to The Dolphin Project
 We are an all-volunteer, non-profit research, conservation and education organization that conducts long-term studies of wild Bottlenose dolphins in the estuarine waters of Georgia and southern South Carolina.
 We offer this brochure as an information overview about who we are and what we do.

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FROM THE HELM

If you're looking for a great way to get involved with nature... meet energetic people from across the United States... help protect wild dolphins and our fragile coastal ecology... and have opportunities to be out on beautiful estuarine waters – The Dolphin Project is for YOU!

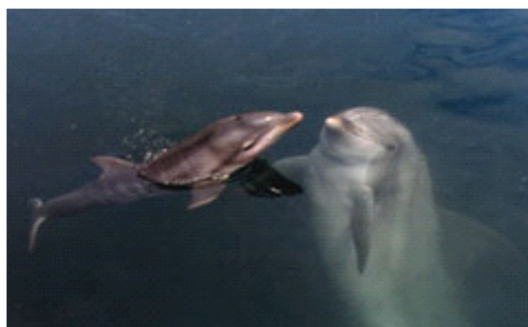
While our mission involves serious research, we certainly have a lot of fun too. We celebrated our 25th anniversary in 2014! Come aboard and join us for a wonderful adventure!

Peach Hubbard, TDP President

SURVEYS

Surveys are scheduled for one Saturday each month from January through November. Members are not obligated to participate in every survey. TDP requests that members sign up for 2-3 surveys per year and welcome as many surveys as your time permits. TDP tries to accommodate every member who registers to participate in a survey. Occasionally there may be more applicants than positions or boats available; or there may be a lack of a required position such that a full team cannot be completed. Cross-training allows for more flexibility for last minute changes or complications.

After mailing in your registration, you will receive an email with your survey zone and contact information about your team members. You will then be contacted by your Team Leader to coordinate the details of your survey day. If you reside out of the area, you will need to make lodging arrangements for Friday night so that you'll be ready for an early morning survey departure on Saturday. Often coastal members open their homes for survey team participants.



Surveys begin on the specified zone at 0900 (9:00 a.m.) the Skipper and Team Leader (TL) will coordinate what time the team needs to meet at the dock in order to make it to the start of the zone by 0900. The TL will then notify the team. The morning period begins at 0900 and ends about 1200. Dolphin sightings are recorded by the Team Leader and Assistant Team Leader and fin photographs are taken by the Photographer(s). There is a break for lunch of about one hour which may take place on the boat, a beach, a park or a marina, depending on the zone. At 1300 the survey resumes until about 1600.

THE DOLPHIN PROJECT

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SURVEYS - Boats

Powerboats ranging from 17 to 35 feet are used for surveys and they require skippers. (see "Skippers" p.) Each vessel is required to be legally registered, be annually inspected by the United States Power Squadron or Us Coast Guard Auxiliary and have all the legally required safety features on board.

The Dolphin Project encourages canoeists and kayakers to participate in surveys. Methodology is currently under review to accommodate canoes and kayaks. In the meantime, participation is encouraged on powerboat surveys to gain TDP experience.



TRAINING

There are Orientation-Education-Training Sessions held throughout the year in Savannah, Atlanta and Hilton Head check website for dates. As needed, training sessions may be arranged for other areas and at other times. Anyone may attend training sessions and there is never a fee for attendance. You may train as a Skipper, Team Leader and/or a Photographer. TDP trains all members for all team positions at the same time so that team members know what to expect of each other. TDP encourages cross-training to ensure the validity of the survey, should there be a cancellation of a main team member. At the training session, attendees may join TDP. Membership and training is

required for participation in research surveys. However, training and survey participation is not mandatory to become a member. We do have 'landlubber' members!

After training, members can register to participate in a survey. You must participate within four months to avoid re-training. This assures quality and up-to-date training for all team members. We encourage members to retrain every couple years due to new information and format changes.

MEMBERSHIP

Membership is open to all ages. Membership is required for survey participation.
Dues are renewed annually: \$30 Individual \$50 Family \$20 Student \$250 Life (one time fee)

SURVEY FEES

Skippers do not pay membership or survey fees and are offered a 3-year membership with survey participation. Team Leaders, Assistant Team Leaders and Photographers donate a survey fee of \$25 for each survey. This money goes into a fund to offer fuel stipends to skippers. Team Leaders pay a one-time refundable deposit of \$30 for a Team Leader Kit

TEAMS

Members must be 16* years of age to participate on a TDP survey (in compliance with the NMFS Permit) There are four main positions that comprise a basic survey team: Skipper, Team Leader, Photographer(s), Assistant Team Leaders. Each position requires training. After training for one or more positions, an individual can register for a survey. From this pool of registrants, assignments are allocated based on first come-first serve for available space. Larger boats may accommodate additional team members. The Survey Logistics Coordinator does his/her best to accommodate all who register.

All Team Members are dolphin observers and assist in the search for dolphins. At times there may be last minute re-assignment of team members due to illness, equipment failure or other reasons.

*16 year old survey participants must go through training with a parent and the parent must sign a waiver for the child.

TDP membership must be up to date to participate in research surveys.



SKIPPERS

donate their boats and expertise which allows the teams to complete their assigned tasks. As with all vessels, the safety of the crew is paramount for each skipper. Each vessel must be maintained for safety and annually inspected by the US Power Squadron or US Coast Guard Auxiliary. Skipper zone charts and safety checklists are available online for downloading. Skippers do not pay membership or survey fees.

A seamanship course is recommended for all skippers but not mandatory. Skippers are expected to know the weather, tides and currents of their zone areas to ensure the safety of the survey teams and their vessels.

A letter from TDP can be provided for tax purposes for donated survey expenses (fuel, boat lift fee). A stipend for fuel is offered to skippers who do not deduct their contribution on their taxes at \$2 per foot (boat length) per engine.



TEAM LEADERS



© The Dolphin Project Krystal Goodwin—Team Leader

ASSISTANT TEAM LEADERS..... go through Team Leader training. On the survey they serve as observers and assist the Team Leader and other team members. They practice completing the event sheets. After participating in two surveys, they can become Team Leaders. Survey donation is \$25 towards the skipper fuel fund.

TRADITIONAL TEAM LEADERS..... coordinate the Team's logistics and make the initial contact with the Team members. TL's keep the Team in accordance with TDP rules and State and Federal regulations. They guide the Team according to the MMPA (Marine Mammal Protection Act) - keeping an approach distance of 50 yards from the dolphins when possible. The Team Leader records the dolphin sighting data on the Event Sheet. TL's donate a survey fee of \$25 and they pay a one-time refundable deposit of \$30 on a Team Leader kit which consists of a camera cards, clipboard box, markers, laminated instruction and emergency pages, film, flag, brochures and miscellaneous other items for the survey. After the survey, the TL coordinates the data and film and submits (mails) it to the appropriate committees.

Team Leaders are responsible for maintaining the integrity of the data collected as well as the Dolphin Project itself. After serving 24 hours (four surveys) as a Traditional Team Leader,

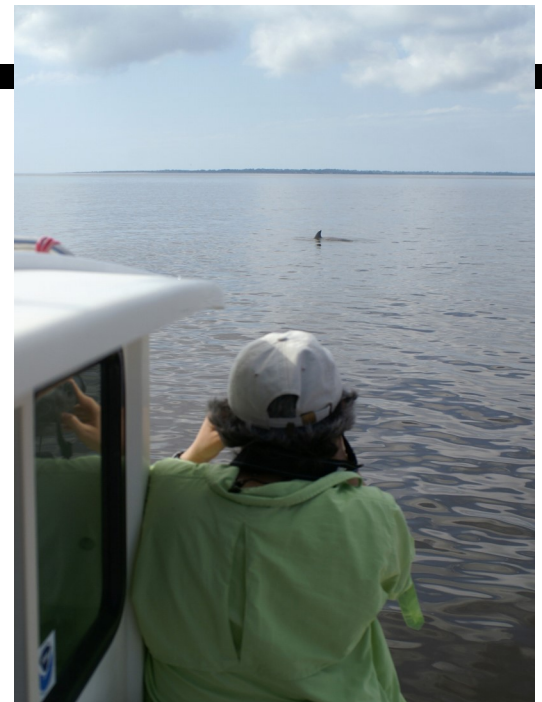
PHOTOGRAPHERS

are self-equipped with a camera with a minimum of a 300 mm lens to photograph the dolphin's dorsal fin. The Photographer's job has the most challenges because dolphins do not hold still! Timing, lighting, distance and boat movement also present difficulties in obtaining viable fin shots. Film and digital memory cards are provided by the Dolphin Project, as well as the development of the film. Photographers donate a \$25 survey fee for the skipper fuel fund.

Occasionally there may be two photographers assigned to one boat. When dolphins are sighted, then each photographer should focus on different dolphins. If the boat size or configuration restricts movability by the photographers, then they could take turns photographing different sightings.

ALL photographs taken on the survey are the property of The Dolphin Project in accordance with the NMFS Permit. Using these images without authorization could result in the removal of the NMFS Permit.

Personal photographs may only be taken on the dock, at lunch and when not "ON EFFORT" (searching for dolphins)



Lori Muskat—Photographer

NMFS Permit

In April 1995, the Dolphin Project received an authorization to do photographic identification under General Authorization 6 of the National Marine Fisheries Service. This 5-year renewable authorization continues to the present time and allows TDP to engage in Class B 'Harassment'. Simply stated, our Photo-ID boats may approach dolphins closer than 50 yards and carefully follow dolphins for the purpose of photographic identification by still photography and behavioral studies through use of video and notes. The General Authorization does not apply to boats under the guidance of a Traditional Team Leader or to any TDP member at any time except those selected for a specific boat

during a scheduled Photo-ID Survey with proper notification to the Southeastern Regional Director of NMFS. The Dolphin Project must also follow defined rules and give notification to the NMFS in advance. The names and qualifications of Photo-ID Co-investigators are provided to NMFS. The restrictions imposed by the NMFS must not be violated by TDP or its members so that the integrity of TDP remains intact. **Only boats with NMFS authorized crew members may go within the 50 yard limit.**

MMPA



The Marine Mammal Protection Act (MMPA) prohibits the 'taking' of marine mammals. The term 'taking' means to harass, hunt, capture, kill or feed or attempt any of these activities. The National Marine Fisheries Service (NMFS) encourages the public to keep a distance of 50 yards from wild dolphins.

The Dolphin Project adheres to this law and reports any violations. On several instances, there have been observations of wild dolphin abuse and TDP teams were able to document the violations and report it to NMFS and NOAA.

TDP distributes brochures to the public that explain the proper procedures for viewing marine mammals safely and legally.



FIN PHOTOS & RESEARCH DATA

Our own TDP Photo Identification Catalog contains over 800 identifiable individuals. Dolphin dorsal fins are as unique as human fingerprints. New dorsal images are issued an identifying number and digitally scanned. Digital images are labeled with an ID number, date of sighting, latitude, longitude and TDP copyright.



Jim Buchanan, Photo Review

We have learned a great deal about the movement and residency patterns of Bottlenose dolphins along the east coast. By identifying individual animals using photo-identification methods, we are able to track dolphins over time and document their movement patterns. We have learned that the

population structure of dolphins in the southeastern U.S. is much more complicated than we thought 20 years ago. Our improved understanding is the result of information from long-term datasets collaboration among different research efforts. In many areas, such as the estuarine waters of Georgia, Bottlenose dolphins are

resident and have small home ranges. It is still not clear how much mixing occurs between the resident dolphins that spend most of their time in the estuarine waters, with dolphins that spend most of their time in the offshore waters.

TDP contributes to the NMFS Unified Coastal ID catalog entitled the Mid-Atlantic Bottlenose Dolphin Catalog (MABDC). Our data is also included in the OBIS/SEAMAP (Ocean Biogeographic Information System Spatial Ecological Analysis of Megavertebrate Populations, (<http://seamap.env.duke.edu/datasets/detail/304>) which is based at Duke University.

TDP's collaboration with many dolphin research projects along the Atlantic coast and the NMFS is a vital link to better understanding the nature of Atlantic Bottlenose dolphin. Now scientists can look at the residency and migration patterns if the Atlantic Bottlenose Dolphin population on a much larger scale. The degree of cooperation among the diverse public and private research groups is relatively unique. The photo catalog is one of our major projects along with abundance and behavioral data.



DATE PERIOD EVENT#

ZONE Period START

BOAT Period END CONTINUOUS

PRINT CLEARLY & USE MILITARY TIME

PERMIT Survey Traditional Survey

Write: first initial, last name

Team Leader	<input type="text"/>	Assistant TL	<input type="text"/>
Skipper	<input type="text"/>	Assistant TL	<input type="text"/>
Photographer-A	<input type="text"/>	Assistant TL	<input type="text"/>
Photographer-B	<input type="text"/>		<input type="text"/>
Assistant TL	<input type="text"/>		<input type="text"/>

Event START	Event END	LONGITUDE	LATITUDE
<input type="text"/>	<input type="text"/>	8	<input type="text"/>

TIDE	TIDE	SEA	SEA STATE	WEATHER	Weather
OH - Outgoing High OM - Outgoing Mid OL - Outgoing Low	IH - Incoming High IM - Incoming Mid IL - Incoming Low		0 = Glassy 1 = <1ft 2 = 1-2 ft 3 = 2-3ft 4 = >3ft		C = Clear F = Fog P = Partly Cloudy D = Drizzle O = Overcast R = Rain

TEMPERATURE DEPTH FEET METERS SALINITY

ADULT: over 6' / **SUB-ADULT:** 3-6', Stays w/similar size / **JUVENILE:** 4-3'; Stays w/ mother or similar size / **CALE:** 3-4'; Stays w/ mother
NEONATE: 3' or less; Dark skin; Light fetal folds; Soft fins.

Total # Adults Sub-Adult Juveniles Calves Neonates

- | | |
|--|--|
| <input type="checkbox"/> MILLING: non-directional movement | <input type="checkbox"/> FEEDING: fish in mouth |
| <input type="checkbox"/> TRAVELING: heading in general direction | <input type="checkbox"/> PROBABLE FEED: fish splashing near dolphin, birds nearby, repetitive deep dives |
| <input type="checkbox"/> BREACH: leap out of water/land on side | <input type="checkbox"/> MUDDING-STRAND FEEDING: part or totally out of water-on mud bank - with fish |
| <input type="checkbox"/> LEAP: jump out of water | <input type="checkbox"/> HERDING/HARDSTOP: rushing fish parallel to mudbank, abrupt stop & turn |
| <input type="checkbox"/> SEX: Erect penis | <input type="checkbox"/> CIRCLING: Dolphins circling to corral fish in center |
| <input type="checkbox"/> PROBABLE SEX: Rolling together | <input type="checkbox"/> KERPLUCKING/WHACKING: slapping tail to stun fish |
| <input type="checkbox"/> SPYHOP: pops up to look around | <input type="checkbox"/> BOAT INTERACTION: riding alongside; bow riding |
| <input type="checkbox"/> BEGGING: head out of water, mouth open, approaches boat | |

DOLPHIN DISTRESS: If seen, STOP sighting, LEAVE DOLPHINS Tailslap Chuffing Jaw Clap

Photographer-A		Photographer-B	
Start of Survey - Event Sheet Frame # >		Start of Survey - Event Sheet Frame # >	
Frames # - #	Event Sheet#	Frames # - #	Event Sheet#
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

OBSERVATIONS/NOTES/SKETCH

ADOPT~A~DOLPHIN

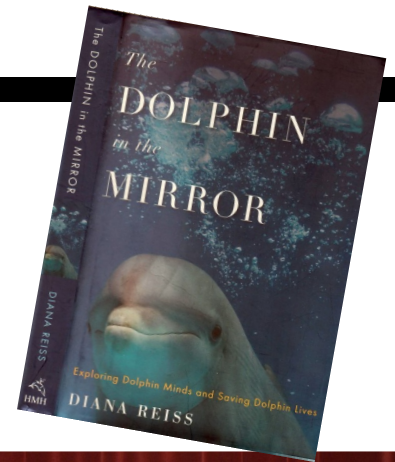
The Dolphin Project offers the opportunity to help our local dolphins with its Adopt A Dolphin program. Know a dolphin-lover? Adopt A Dolphin makes a great gift for birthdays, holidays or even non-occasions! For \$30, an Adopt A Dolphin package will be sent with information about a wild dolphin. You

can pick yours from a gallery of fin photos. A personalized certificate, Bottlenose dolphin information, chart of the dolphin's location, and a dolphin bookmark are included in the adoption kit. Check our website for more details.

BOTTLENOSE BOUTIQUE



The Dolphin Project offers T-shirts, polo shirts, and books for sale. The TDP logo is monogrammed on the shirts and hats. Kids' dolphin shirts are available in a variety of vibrant colors. These items and many more are available at training workshops, special events and at the dessert-socials. Our Boutique sales raise funds for our education outreach programs and research.



SOCIALS

The Dolphin Project hosts several evening dessert-socials after specified survey Saturdays. These dates are posted on our website, in emails, newspapers and other media. The socials are held at various venues in the greater Savannah area in order to be convenient to as many survey teams as possible.

In addition to enjoying scrumptious desserts and beverages, a speaker specializing in marine mammal or environmental science will present a program. These dessert-socials are a great way to learn more about dolphin research and meet other team members and hear all their fascinating dolphin stories. TDP merchandise is also available at these events.



Kevin Carroll with Karen & Tom Stack. (Kevin is designer of prosthetic tail for 'Winter' the dolphin / "Dolphin Tale" movie)

EDUCATION OUTREACH



The Dolphin Project has developed a Powerpoint/DVD program featuring dolphin sounds and videos to educate the public about the Georgia coastal environment, Georgia's wild Bottlenose dolphins and the dangers threatening both. TDP volunteers bring this program to schools, clubs and organizations across the State. The program is formatted to the age group and grade level. Reference materials are distributed at the end of the program. A small stipend is appreciated which helps cover equipment, travel and production costs.

If you know of an organization that needs a speaker, check the website for the Education Outreach contact information or email thedolphinproject@gmail.com

www.thedolphinproject.org holds a wealth of information for members and the general public. All the registration and membership applications, survey forms, zone charts and checklists are all available online for you to download and print. The calendar has dates for surveys, Board meetings, dessert-socials and special events. Contact information is also listed.

PayPal is available for your online survey and membership payments.

VOLUNTEERS

As with any organization, TDP needs active participants. We are ALL volunteers! No member is compensated for their work with TDP. Every dollar is spent on the organization. The beauty of the Dolphin Project is that every member has a talent to offer. You need not be a research biologist or scientist to participate at any level. Your input is always welcome and appreciated. Each Board of Directors member and VIP staff member is available via email or a phone call.

Volunteers are always needed to help man the TDP booths at events like Tall Ships Festival, Earth Day and Bluffton Art Festival. Volunteers offer dolphin programs at schools, clubs and organizations across Georgia and lower South Carolina.

Artists, grant writers, merchandisers, desktop publishers, lecturers, data entry, social organizers, and computer whizzes are but a few of the skills needed. Professional positive media exposure is always necessary. The more we can spread out the work – the easier it is for everyone. TDP can only be successful if every member takes an active role – no matter how large or small. Volunteering is another way of getting to know the members who may not be on your boat. And it's fun working together!



Cheryl Tilton hosts the Fin-Match Game



Peach Hubbard at Midway Middle School

Joni Chastain at Chattahoochee Nature Center Earth Day Festival

HISTORY

In late 1988, a stranding event of Bottlenose Dolphins began on the eastern seaboard of the United States. The event was covered by Atlanta Journal Constitution journalist, Beau Cutts. To his dismay, he discovered that there was little knowledge of Georgia's inshore dolphins. He organized Marine scientists and volunteers and setup The Dolphin Project to conduct long-term scientific studies of the Bottlenose Dolphins in the estuarine waters of Georgia and lower South Carolina. Surveys began in 1989. The Dolphin Project was meant to be a ten year research study but we

celebrated our 25th anniversary in 2014.

Volunteers with boats, cameras and clipboards record the data which is then entered into MABDC and OBIS SEAMAP data systems. This information is then shared with scientists, government and institutional agencies all over the world. By monitoring the health of estuarine dolphins, we can also assess the health of the entire ecosystem. Increased population and pollution pose serious threats to the dolphins, our coast and all life in, on or near it—including our own.

DOLPHIN INFO



MUDDING – This feeding technique is also called ‘strand feeding’. Dolphins create a wave that pushes fish up onto the marsh mud at low tide. The dolphin slides up onto the mud on its right side to grab the fish and then slides back into the water.

CIRCLING – several dolphins will surround a school of fish and then take turns going into the middle of the school to grab and eat a fish.

KERPLUNKING – a dolphin will use its flukes to whack a fish or the water near the fish to stun it; then grabs and eats it.

CRATER FEEDING – the dolphin uses its echolocation to find food buried in the sand or mud floor. It then will use its rostrum to burrow down and grab its prey.

SPY HOP – the dolphin lifts its head out of the water to see what is happening above the water. Dolphins often do this around boats and piers – humans.

When the dolphins have been fed by humans, they will come out of the water vertically with their mouths open in order to look into the boat for food – this is **BEGGING**.



BEGGING DOLPHINS

During normal swimming wild dolphins will lift their heads slightly to the side or turn a bit on their sides to above the water. Dolphins cannot turn their heads like humans.

CHUFFING – dolphins will repeat a series of large, sharp inhalations and exhalations through their blowholes, making chuffing sounds. This is one way dolphins express their annoyance. Leave them be.

TAIL SLAP – another way to express annoyance by dolphins is by slapping their powerful flukes on the water’s surface, making a very loud SMACK! sound. Leave them be!

DORSAL FIN — the fin on the back of the dolphin that is made of dense fibrous tissue and used for balance by the dolphin and identification by researchers..

The **LEADING EDGE** of the Dorsal fin is the edge towards the dolphin’s head; the **TRAILING EDGE** is towards the **FLUKE** (tail fin)

Leading edge scars and cuts are often caused by fishing nets, boat propellers and encounters with marine animals. Trailing edge scars and cuts may be caused by the same reasons but are more often the result of encounters with marine animals.

PECTORAL FLIPPER - two side flippers that aid in maneuvering and balance in the water.

MELON—a large mound on the dolphin’s forehead that is an integral part of its echolocation system. All sounds are projected through the melon—NOT THE MOUTH! The melon is relatively soft and contains mostly fatty tissue.

BLOWHOLE—the opening at the top of the dolphin’s head where the air enters the dolphin and waste gases are expelled.

Bottlenose are in the **FAMILY Delphinidae**. ORCAS are the largest dolphin

Estuarine Bottlenose dolphins gather in **GROUPS** not Pods. They have ‘fission-fusion’ societies, meaning that dolphins come and go out of the group.

The dolphin smile is a natural formation of its jaw in order to let saltwater drain out when grabbing its prey. They do not have smile muscles, so **DOLPHINS DO NOT SMILE**.

Dolphins do not have a nose nor do they have a sense of smell. They received the name **BOTTLENOSE** from sailors on old wooden sailing ships. When looking over the rail, the dolphins looked like a bottle floating by.

The mouth of the dolphin is called the **ROSTRUM**

In their Rostrum, Bottlenose have 80 to 100 very sharp **TEETH** which are all the same size because they do not chew their food, they grab and swallow.

The **MOTHER DOLPHINS** are the teachers and protectors of the young.

Estuarine dolphins travel at an average **SPEED** of 2-3 mph. When they need to sustain a faster speed they can move swim 13 mph. Their maximum quick burst is about 33 mph.