

MANUAL for PHOTO-ID SURVEYS

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DIRECTORY

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The Dolphin Project is an all-volunteer, non-profit, research and education organization dedicated to the protection of the estuarine Bottlenose dolphin on the coasts of Georgia and lower South Carolina.

The Dolphin Project contributes to the understanding of marine mammals, expands the public's knowledge and concern for our environment, and protects Bottlenose dolphins through sharing data collected with scientists, government agencies and other interested organizations.

In 1989 coastal research surveys were organized by from the Dolphin Project from Hilton Head Island South Carolina to the Georgia-Florida line. Everyone participating on a TDP survey must be a TDP member and take the training course in order to secure the integrity of our research and our unique government research permit. Training workshops are hosted in Atlanta and Savannah throughout the year. Dates and location directions are posted on TDP's website. Training for groups can be arranged by contacting: info@thedolphinproject.org.

www.thedolphinproject.org

The Dolphin Project website has all the forms needed for membership application and survey registrations. These forms may be downloaded and mailed in with payment. Membership and survey registrations can also be entered online and paid via PayPal.

Photo-ID research surveys are scheduled on one Saturday every month from January through November. These dates are posted on TDP's website. During these surveys we count the dolphins and take pictures of dorsal fins, recording data on the dolphin we see under a special permit from NOAA's National Marine Fisheries Service.

Our teams have three integral components..... Skipper, Team Leader and Photographer. Assistant Team Leaders are often part of the crew depending on the size of the boat. All positions are trained together to promote a cohesive team.

All expenses related to The Dolphin Project surveys are tax-deductible. TDP Fed ID # 58-1914176

REGISTRATION & TEAM NOTIFICATION

Register preferably 5 weeks prior to the survey date. Registration forms accommodate personal preferences of survey locations.

The Survey Logistics Coordinator (SLC) will notify the Teams via email with a list of the team members. The SLC will do their best to provide for preferences.

Skippers will download the designated zone chart from TDP's website and determine the time it will take to reach the zone from their dock.

SURVEYS BEGIN AT 0900 BUT THIS IS NOT THE TIME TO ARRIVE AT THE BOAT...

Skippers and Team Leaders will coordinate the logistics for the boat. The Team Leader will notify the other team members with this information:

Team Leaders will check with photographers regarding the film or digital cards needed.

SKIPPERS

Skippers volunteer their boats and expertise on the water. There are no membership dues or survey fees for Skippers as long as they donate their boats for surveys.

Once the Skipper has been notified by the Survey Logistics Coordinator of the zone and team, download the zone chart from the website. These charts are not to be used for navigation. They are strictly for reference of the area that will be covered during the survey.

Coordinate with the Team Leader the following information:

- Time to arrive at the dock,
- Location of dock
- Lunch arrangements (restaurant or bring lunch),
- Boat accommodations (cooler, restroom/head, canopy, etc.)

Prepare thy boat:

- Make sure the boat and trailer is in good operating order,
- Sufficient fuel and oil,
- Current boat registration,
- Boat safety check by USCG Auxiliary,
- Safety equipment: PDF's for each passenger, GPS, first aid kit, VHF radio, throwable, sounding device, current navigational charts, etc.

Check on the tides and weather.

The Skipper determines if weather will be hazardous – confers with Team Leader – who then notifies the team of cancellation. The Skipper can call off survey during the survey if weather puts team or boat in danger or if there are problems with the boat. We don't go out in bad weather. If another boat is in need of help while you're out on a survey and you can offer assistance, the survey is put on hold to lend aid. Since some team members may be coming in from out of town, the sooner the notice of cancellation, the better.

TEAM LEADERS

Team Leaders pay a \$30.00 refundable deposit on a Team Leader Kit and do not pay survey fees.

After registering and receiving notification of your survey team, contact the Skipper for boat logistics and pass on that information to the others on the team as soon as possible. Those crew members who do not live on the coast will need to make lodging arrangements.

Prepare the Team Leader Kit. Make sure it has the following items:

- TDP flag/burgee,
- Laminated emergency sheets,
- Copy of NOAA/NMFS permit,
- Labels for film canisters,
- NOAA brochures,
- Film and Camera cards,
- 3-4 red fine tip markers,
- 2-3 large rubber bands.
- Download the survey sheets from the website: Event sheets, Pre-survey checklist, MMPA forms, Survey Notes, Evaluation Forms.

Prepare the headings on several Event Sheets with the following information: Date, Zone, Boat, Survey Period and Team members' names.

ASSISTANT TEAM LEADERS

Register and receive information about boat details from the Team Leader and/or Skipper. ATL's assist the crew in searching for dolphins and practice completing the Event Sheet. ATL's may become Team Leaders after completing a minimum of two surveys and feel they are comfortable in accepting the responsibility of the position.

PHOTOGRAPHERS

- Make sure your batteries are charged.
- Clean your lenses. (Minimum of 300mm)
- Have camera protection from sea spray and rain
- Optimize settings for high resolution –JPEG or TIFF
- Remove filters
- Set camera to single shot, not burst or bracketed
- Set images to start with '1' or '0001' and shoot in ascending order.
- Quality not quantity

SURVEY PROTOCOL

Be Prepared for a day on the water -----

Basic common sense comes into play when being out on the water.

- Flip Flops are not safe on boats.
- Please don't wear shoes that scuff. Black-soled sandals and sneakers can wreak havoc on the deck of a boat. We like to keep our skippers happy.
- Protect yourself from the weather. Hats, sunglasses, visors, lightweight jackets, sunscreen, bug spray, etc.
- No alcohol or illegal substances are allowed during a survey.
- Bring and DRINK plenty of water. Being out on the boat –even on a cloudy day- will dehydrate you.

It's Survey Saturday and the crew has arrived at the dock -----

- The Skipper reviews the safety procedures for that boat.
- The Team Leader goes over the Pre-survey checklist, gives the film or camera card to the Photographer and sets up the first Event Sheet for the photographer to shoot. Make sure the photograph is not blurry.

NMFS/NOAA PERMIT Reminder -----

If no crew member on board is listed on the NFWS Permit, then the Team must abide by the MMPA and keep a distance of 50 yards from the dolphin. Keeping with the Marine Mammal Protection Act, a Traditional Survey boat cannot pursue dolphins. So if the dolphins backtrack you must not follow. The sighting is over.

Those persons whose names are on the NOAA permit, may authorize the crew to go within the 50 yard limit and may also cautiously follow the dolphins. If dolphins approach the boat, put the gear in neutral and stay put so as not to harm or scare the dolphins.

ON EFFORT

The boat is in the zone and the team is now actively searching for dolphins. We refer to this as being "On Effort". When cruising the creeks or narrow rivers, you will follow the course of the zone chart. Be careful not to count the same dolphins twice.

When traveling up into a creek, looking for dolphins – you're 'On Effort'. On the way back out of the creek, you're 'Off Effort'...with two exceptions:

You cruise up the creek and don't see any dolphins. On the way out, you see them – that is a legitimate EVENT – pictures can be taken and an Event Sheet would be completed.

The second exception would be that you saw dolphins going up the creek but were not able to take any good pictures. That is an Event even if no pictures are taken and an Event Sheet is completed. However if on the way out of the creek, the same dolphins were more cooperative for the photographer – take pictures – fill out an Event sheet but boldly indicate on that sheet that this was a continuation of a previous Event and note that Event number on the subsequent Event Sheet. Always keep a safe distance from the dolphin so you don't scare them. Never trap them between the boat and the shore. The boat motor will interfere with their echolocation and confuse the dolphins which could be dangerous for them.

You will get better pictures from a distance of at least 20-30 feet due to the high powered lenses being used.

In large bodies of water like a wide river or a sound, the skipper can make zig-zag passes to look for dolphins.

TDP surveys do not include oceanic waters. It would be impossible to count the dolphins out there.

Skippers need to have accurate charts to help determine water depth since our charts are for reference only. Skippers also need a bit of luck because the depths are constantly changing out there.

SPEED

While you are ON EFFORT – that is: searching for dolphins – boats should travel at about 10-15 mph. and then SLOW DOWN dramatically when a dolphin is sighted. Never approach dolphins with any significant speed...the noise will disorient the dolphin and scare them which could cause them harm. You may also scare them away.

SIGHTING THE DOLPHINS

If a crew member yelled out "DOLPHIN" – no one would know where to look and the Skipper wouldn't know which way to turn the boat....so...Think of the bow- front- of the boat as 12:00... so if the dolphin is off the center of the right side of the boat, you would say: "**dolphin at 3:00**".

The dolphin in this picture is at 1:00 from the boat.

Estimate how far the dolphin is from the boat: "**dolphin 3:00 at 20yards**"

You can also give land reference: **dolphin 3:00 at 20 yards inline with the palm tree on the bluff.**

TWO members must verify the sighting for it to be counted as an event.

SIGHTING the DOLPHIN...

When a dolphin is seen, call out to the Team its location... use the **bow of the boat as 12 'clock**

"Dolphin 3 o'clock" means the dolphin is to the ***right-center*** of the boat.

Estimate the distance from the boat to the dolphin.
If it's near or in-line with land, point out a landmark

The Team Leader should assign each team member to a different quadrant of the boat to search for dolphins. Obviously the Skipper looks ahead at the 12:00 position, so the Photographer could be at 3:00, the Assistant Team Leader at 9:00 and the Team Leader could either help the Skipper or go to the stern at 6:00.

EVENT SHEET

Once a sighting has been verified by at least two people, The Team Leader or Assistant fills in the information about the location of when and where the sighting has taken place:

- The Event Number (upper right hand corner)
- Event Start (use military time)
- Longitude & Latitude
- Tide, Sea State and Weather

Once this initial data has been recorded on the event sheet, then focus on locating and counting the dolphins.

DOLPHIN APPROACH

The boat must **never** cut off a dolphin. It must approach the dolphin at an oblique angle and at a safe distance so not to endanger or scare the dolphin. Then the boat should run parallel with the dolphin.

Cruise at 'dolphin' speed.

With experience, it becomes easier to judge some of the behaviors of these dolphins. It's also easier when they are in creeks as opposed to when they are in open water.

When a dolphin goes under, but you think you might know where the dolphin will surface... you can proceed to that position and wait for the dolphin in hopes of obtaining a good fin shot. Always put the boat in neutral if dolphins are close to the boat.

NEVER, EVER go Between dolphins. This is very dangerous for them. Dolphins will not be able to communicate with each other due to the engine noise and may get hurt.

If the dolphins are agitated, BACK OFF! You may have to cancel the sighting. You'll know it if you've upset them.... When dolphins slap their flukes towards you ...back off.

When you hear dolphins **CHUFFING** – repetitiously blowing air out their blowholes (*chuff chuff chuff*)

TEAM COMMUNICATION -----

The Skipper is essentially in charge of his boat for safety reasons, but the TEAM LEADER and PHOTOGRAPHER need to help direct the Skipper to optimize the best fin photos.

If there is more than one PHOTOGRAPHER onboard, they should focus on different dolphins or take turns doing every other event. Sometimes this depends on the size of the boat and how much room there is for maneuvering to get the shots.

Always take photos of damage on the dolphins... on the dorsal fin AND the body. Take pictures of interesting and unusual behaviors.

FIN PHOTOS -----

Photographers -If you are too far away and all you see in your viewfinder is a spec – don't bother taking the shot. Wait until the dolphin is within 20-40 feet of the boat.

The focus needs to be on the dorsal fin. Fill the frame with the fin with as much of that fin above the water as possible.

The photo needs to be taken FLAT-ON of the dorsal fin. If the fin is at an angle to you, we can't use that shot, so don't bother taking it. If the photo is taken at an angle, it distorts the shape of the fin.

Several pictures of the same fin are always good.

Take shots of the left and the right side of the same fin if you can.

Sharp focus is critical for our database.

If taking pictures of dolphin dorsal fins is new to you – don't be discouraged...it takes time to get the feel of the technique as well as lots of luck! It's not unusual to take a lot of pictures of water without dolphins. They are very fast animals.

The designated survey photographers are required to take pictures of dorsal fins. These photos are cute but not usable for our research.

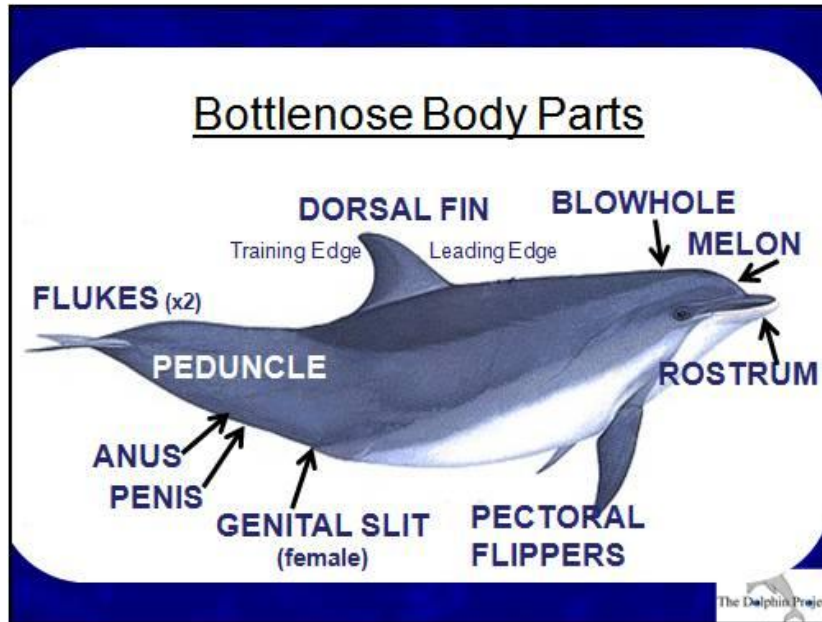
Keep in mind that the survey photographer has priority during a dolphin event – all other team members need to give way to the photographers during a sighting.

When the Photographer has taken as many GOOD shots of the fins as they deem possible, the Team Leader ends the sighting. They will determine this together.

Just a reminder....ALL photographs taken on a Dolphin Project survey are property of The Dolphin Project in accordance with our permit. This keeps the integrity of our research secure. DO NOT DELETE PHOTOS FROM CAMERA CARDS.

EVENT SHEET -----

The Team Leader or the Assistant Team Leader fills out the Event Sheet with the relevant information for the sighting. Each crew member is asked how many dolphins they saw and what sizes they were. The person recording the data on the Event Sheet will take averages and enter those numbers. The more you see dolphins, the more comfortable you'll be in judging their sizes for the Event sheet



This picture will help you identify some of the dolphin body parts.

Note that the belly is lighter in color than the top of the dolphin.

Often offshore dolphins will come into estuarine waters to feed and mate. These dolphins tend to be bigger- up to 12 feet in length, and much darker – almost black in color. They also have smaller flippers.

Our estuarine dolphins are usually medium to pale grey in color with white or pink bellies. Scientist are working on sub-categorizing the Bottlenose dolphins based on these differences and behavior patterns due to the adaptation to their environments.

NEONATE with MOTHER



CALF with MOTHER



JUVENILE with MOTHER



SUBADULT

NEONATE

ADULT

Fill in the ending time for the Event sighting... remember to use military time.

A poll is taken of the crew to determine how many dolphins were seen

If necessary, a poll can be taken of the crew to determine dolphin behavior. The definitions are listed on the Event Sheet.

With experience, this determination will become easier.

To indicate that a dolphin is FEEDING, the fish has to be seen in the dolphin's mouth.

Otherwise, based on your experience, you think that the dolphins are feeding, you would write PROBABLE FEEDING.

You'll know MUDDING when you see it!

To indicate that the dolphin is having SEX, the penis must be visible.

If you assume the dolphins are having sex by the thrashing and rolling together behavior but can't see the penis, you would write PROBABLE SEX.

SPYHOP is recorded when a dolphin is vertical in the water – looks around. Sometimes it may come completely out of the water.

Sometimes a dolphin will come to your boat and appears to be spyhopping but has its mouth open – this is BEGGING. This is bad and should be photographed so it can be reported.

This dolphin is being CURIOUS and it is a natural behavior. It's not trying to be your friend. It's just checking you out...taking a peek.



When a dolphin jumps out of the water and lands on its side –that's called BREACHING.

These dolphins are doing LEAPS or JUMPS

EVENT SHEET

Record the DOLPHIN BEHAVIOR on the Event Sheet according to the definitions. On the bottom of the Event Sheet notes and sketches can be made to further describe interesting or unusual sightings. Manatees and Seaturtles can also be recorded on an Event sheet.

The FRAMES used by the photographer to film the sighting must be recorded on each Event Sheet. Remember that the very first survey picture that was taken was the top of the page so that was number '1'.... Which means that the first frame number used for dolphins was number '2'.

The photographer will tell you the number of the last picture taken for photographing dolphins. Record that number.

The next sequential frame number will be the photograph taken of the **entire Event Sheet**.

Enter that number BEFORE the photographer takes the picture of the Event Sheet.

This picture is a record of that event and also separates the event photos on the roll of film or camera card for the data coordinator.

The photographer takes a picture of EVERY Event Sheet **AFTER EVERY** event –even if dolphins were sighted but no pictures were taken. This gives a record of the count.

Please make sure that the photo of the event sheet is the entire sheet and that it is **IN FOCUS**. If it's not, take another photo.

LUNCH

Lunchtime is usually around noon and last about an hour.

If you happen to sight dolphins at 1145, go ahead and complete the event and then take your lunch after that, adjusting the time accordingly.

Fill in the time for the PERIOD END on the last Event Sheet used before going to lunch.

The Skipper will determine in advance what the lunch situation will be and you will be notified by the

Team Leader. In South Carolina where it very populated, you may eat in a restaurant. In Georgia where there the coast is currently less populated and not yet developed you may need to bring your lunch and eat on the boat, a beach, a park or at a marina like this crew.

EVENT SHEET _____

A new survey period begins after lunch. It will be period '2'.

The Event numbers are carried over from the first period. There were 6 events in the first period so the second period would start with number '7' for the next event.

Note that you need to use military time. '1321' is '1:21pm'

Fill in the rest of the Event Sheet as we described earlier. Then have the Photographer take a picture of it.

At the end of the day, fill in the period 'end time' on the last Event Sheet used.

MMPA _____

If Marine Mammal Protection Act Violations are sighted, the Photographer takes pictures of the event and the Team Leader will enter that information on the EVENT SHEET just like a regular dolphin sighting.

At some point during the survey day, the Team Leader also fills out a MMPA Violation Form with as much detail information as possible. This form and the pictures of the violation will be sent to NOAA.

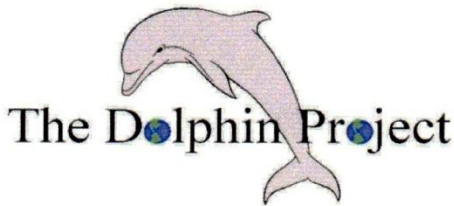
END OF SURVEY _____

It's around 1600 (or 4pm) and the survey has ended.

Either on the way back to the dock or at the dock... each team member completes an evaluation form and returns it to the Team Leader. These forms help us to improve our research surveys The Photographer gives the film or digital cards to the Team Leader.

After the Survey has been completed, The Team Leader then mails in all the paperwork and the film or camera cards to the appropriate committees.

We host quarterly socials with guest speakers in Savannah after the surveys in January, April, July and October. It's a great way to meet other members, learn about new research and purchase Dolphin Project merchandise. You can order off the menu with separate checks. Please RSVP so we know how many people to expect.



DATE **4/25/2009** PERIOD **1** EVENT# **1**
 ZONE **GAO010** Period START **0857**
 BOAT **SaltyDawg** Period END
 USE MILITARY TIME

PERMIT Survey Traditional Survey

Write: first initial, last name

Team Leader	P. Hubbard	Assistant TL	L. Casciato
Skipper	R. Hubbard	Assistant TL	B. Jozefyk
Photographer-A	L. Muskat	Assistant TL	R. Littman
Photographer-B			
Assistant TL	L. Asher		

Event START	Event END	LONGITUDE	LATITUDE
0857	0916	81.07.77	31.51.36

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

ADULT: over 6' **SUB-ADULT:** 5-6', Stays w/similar size **JUVENILE:** 4-5'; Stays w/ mother or similar size less; Dark skin; Light fetal folds; Soft fins. **CALF:** 3-4'; Stays w/ mother **NEONATE:** 3' or less

TOTAL # **6** ADULTS **4** SUB-ADULTS **1** JUVENILE CALF NEONATE **1**

Behavior: **Traveling**

FEEDING: fish in mouth **PROBABLE FEED:** fish splashing around dolphin; birds above water; repetitive deep dives.
TRAVELING: heading in general direction **MILLING:** non-directional movement
MUDDING: part or totally out of water- on mud bank - with fish **SEX:** erect penis **PROBABLE SEX:** rolling together
BEGGING: standing on tail - out of water; mouth open **SPYHOP:** Pops up to look **BOAT INTERACTION:** Bow riding, approach
BREACH: leaps out of water, lands on side **LEAP:** jump out of water
DOLPHIN DISTRESS - STOP EVENT: TAILSLAP: flukes smack surface water **CHUFFING:** repeated blowhole exhales

Photographer-A			Photographer-B		
Roll	Start of Survey - Event Sheet Frame #		Roll	Start of Survey - Event Sheet Frame #	
	Frames # - #	Event Sheet#		Frames # - #	Event Sheet#
A-1	2 - 16	17			

OBSERVATIONS/NOTES/SKETCH

neonate about 30"

adult with chopped dorsal

