

## Chapter 12 Marine Mammal Biological Data Form

### Introduction

The **Marine Mammal Biological Data** form is used to record the biological data from any pinnipeds (seals) and cetaceans (whales & dolphins) incidentally caught during fishing operations. The information obtained is used to develop baseline data on marine mammal species for which little information is available. These data can be used to estimate age at sexual maturity, birth rates, feeding habits, life span and sex ratios. This data together with mortality and population abundance data can be used to ascertain whether changes in population abundance are due to fishing activities in the Pacific.

This marine mammal biological data is designed for volume specimen processing in the field, allowing the observer to write a minimum of information by checking off blocks in the upper "field" section of the form. The shaded blocks and lower portion of the form are for lab personnel use.

### General Instructions

Complete a Marine Mammal Biological Data form for every marine mammal observed caught (including entangled individuals). If a marine mammal is observed caught, but it is not landed, complete as much of the form as possible. Try to get an estimated length of the animal.

Complete only the "**In Field**" portion of the form. Do not mark the shaded boxes.

### Data Elements

**Observer ID:** In the upper right corner of the form, fill in the spaces with the Observer ID number assigned to you during training.

**Trip Number:** The unique six-digit number assigned by the Operations Coordinator. In the first two blocks, record **LL** for longline. After the second block, enter the four digit sequential number.

**Set Number:** Record the set number from the Catch Event Log.

**Species Code:** Record the two-letter code from the Species Code list of the marine mammal captured.

**Associated Log Forms:** Place a checkmark or X in the box to indicate which additional log forms contain data associated with this marine mammal. If you mark a log form box, make sure to complete the information on the indicated log. If you catch a marine mammal at the very minimum you should have photos, sketch, and comments.

**Catch Form Page Number:** Record the page number from the appropriate Catch Event Log form.

**Catch From Line Number:** Record the line number from the Catch Event Log that contains information on the capture of this particular marine mammal.

### **Capture Information Block**

**Date of Capture:** The date the marine mammal came up. Use the standard date format (*e.g.* 24 JUL 2003).

**\*Time of Capture :** Record the time the marine mammal came up. Use the 24-hour format.

#### **\*Position of Capture :**

**Latitude:** Record the degrees and minutes of latitude of the vessel at the time the animal came up on a hook. Record **N/S** in the last blank.

**Longitude:** Record the degrees and minutes of longitude of the vessel at the time the animal came up on a hook. Record **E/W** in the last blank.

**Landed:** Place a checkmark or X in the box to indicate that the marine mammal was landed. Landed means the animal was brought on board the vessel. Leave blank if the animal was not landed. **Describe the landing of the animal in the Comments Section.**

**Tags Present:** Record a Y, N or U to indicate whether tags were present on the marine mammal at the time of capture.

### **Release Information Block**

**Date of Release:** The date the animal was released. Use the standard date format (*e.g.* 24 JUL 2003).

**\*Time of Release :** Record the time the animal was released. Use the 24-hour format.

#### **\*Position of Release :**

**Latitude:** Record the degrees and minutes of latitude of the vessel at the time the animal was released. Record **N** or **S** in the last blank to indicate the hemisphere.

**Longitude:** Record the degrees and minutes of longitude of the vessel at the time the animal was released. Record **E** or **W** in the last blank to indicate which hemisphere.

**Disposition Code:** Record the code corresponding to the fate of the marine mammal. In the comments section on the back, record specific notes about any damage to the marine mammal. Describe the behavior of the animal when it was released. **Note:** If the initial condition of the marine mammal changes, then the final condition should be recorded. Record complete notes of the change.

\* Sometimes an animal may be observed caught and then quickly released from the gear during hauling operations. In such cases, the Positions of Capture and Release can be the same. Just make sure the Times of Capture and Release are different.

### **Disposition Code List**

**Previously Dead [01]:** The marine mammal was already dead when it was captured/taken. This does not include animals that appear to have died as a result of fishing operations.

**Note:** A **previously dead** marine mammal will usually have rotten tissue, and it may be bloated and foul smelling.

**Released Unharmed [02]:** You observed the marine mammal get away from the gear on its own accord; in this instance it was probably not hooked and was not yet entangled in the gear .

**Released Injured [03]:** The marine mammal was injured as a result of fishing operations, or by vessel personnel. "Injured" applies to animals removed from the gear with obvious physical injury or with gear attached. Marine mammals that are hooked are considered injured. Marine mammals that are entangled should be considered injured too.

**Died [04]:** The marine mammal died due to injuries incurred during fishing operations.

**Escaped [05]:** You observed the marine mammal leaving the gear unaided after capture or entanglement, with no apparent injuries.

**Treated as Catch [06]:** The marine mammal was not previously dead and was sacrificed for market, table, or other use.

**Other [07]:** The final fate of the marine mammal is different from the above codes. Describe in Comments.

**Unknown [08]:** The final fate of the marine mammal was not observed. Explain in detail in the comments section why this was not observed.

**Tags Removed & Tags Applied:** Record a checkmark or X in the box to indicate if

tags were removed from or applied to the marine mammal. Tags should only be removed if they are unreadable or in danger of falling off. Salvage any tags you remove for return to port.

### **Hooking / Entanglement Block**

**Hook/Entangled:** Answer each question Y, N, or U. A marine mammal can be both hooked and entangled.

**Hook/Entanglement Location:** Select the code that indicates which part of the animal the line was hooked & wrapped on. If more than one part is hooked or entangled, use the code indicating the part that had the most or most severe connection. Photograph the hook/entangled area, if possible and describe in the comments section.

**Gear Removal Code:** Choose the code that best indicates how the animal was removed from the longline gear.

**Remaining Gear:** Select the letter code indicating what type of fishing gear, if any, was not removed from the marine mammal. On the lines below, describe what type and amount (length) of gear left on the animal.

### **Female Block**

**Lactating:** Is there any indication of lactation? Place a check in the box if you observe this. If the specimen is a male, leave this box blank.

**Fetus Gender:** Put an M or F in the box indicating the sex of any fetus. 25-cm.

**Fetus Length:** Record in centimeters and tenths the length of any fetus. 25-cm.

**Curvilinear:** If the length of the fetus was determined by a curvilinear measurement place a check in the box; if not then leave blank.

### **Measurements Block**

**Length:** For cetaceans, record to the nearest centimeter, the length from the tip of the upper jaw to the notch of the tail fluke. For pinnipeds, record to the nearest centimeter, the length from the tip of the snout to the end of the tail.

**Note:** If the animal cannot be straightened out due to rigor mortis, record the curvilinear length along the animal's backbone.

**Curvilinear:** If the length of the animal was determined by a curvilinear measurement place a check in the box; if not then leave blank.

**Girth:** For cetaceans, record to the nearest centimeter the girth measured just anterior

to the leading edge of the dorsal fin. For N. right whale dolphins (*Lissodelphis borealis*) and pinnipeds, measure girth at the axilla, just posterior to the insertion of the flippers.

**Flipper Length:** For PINNIPEDS, record the distance in centimeters from the anterior insertion of the right rear flipper to the tip of the first toe.

**Note:** If the animal cannot be straightened out due to rigor mortis, record the curvilinear length along the animal's backbone.

### Light Device

Complete these elements only if devices were used on this set, and the device type has been indicated on the Gear Configuration form.

**Color Code:** Record the code that best indicates the color of the light emitted by the device.

**Code 8** ( Mixed) is not a valid choice for this element.

**Proximity Code:** Select the code that shows how far away the next light device is from the branchline the marine mammal was on.

### **Identification:**

**Diagnostic Characteristics:** Try to list five of the diagnostic characteristics you used to identify this animal in the comments section.

**Sketch:** Sketch the features you saw and used to identify this animal on the sketch log.

**ADDITIONAL COMMENTS:** Describe in as much detail as possible all tag information; tag type, number, address, color, and location on the animal. Also record any other facts that you think are important.

## Cetacean Skin Biopsy Collection Protocol

### Equipment:

Included in your sampling kit are:

- (1) stainless steel coring tips (to be mounted on the pole)
- (2) plastic vials containing DMSO (Dimethyl Sulfoxide) and NaCl solution.
- (3) sample labels
- (4) strips of Parafilm®
- (5) a Sharpie® permanent marker
- (6) pencil.

### Preservative:

The preservative in the vials is 20% salt saturated solution of 20% DMSO. Avoid getting DMSO on your skin.

### Methods:

When an entangled or hooked marine mammal comes up, work with the crew to safely get the animal close enough to obtain a biopsy sample. If the animal is agitated and vigorously swimming around, it may be difficult to get the animal within range for sample collection. If there is a significant risk of injury to the crew, the animal, or you, do not attempt to collect the sample. This is especially true in the case of larger whales. **Use your best judgement, and remember, while each sample is valuable to researchers, safety comes first.**

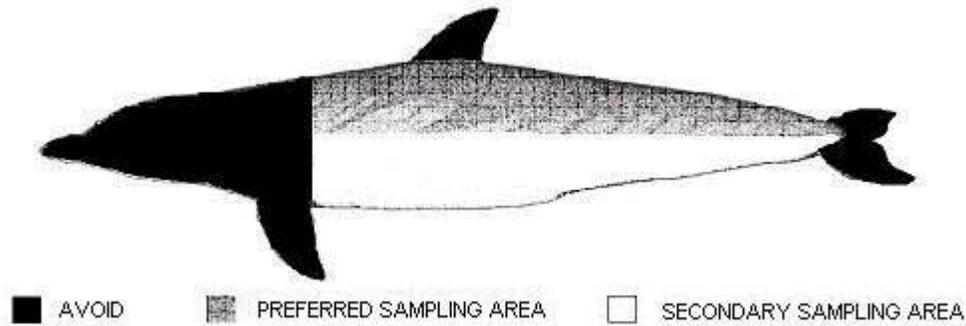
Use your best judgement as to when during the disentanglement / dehooking process to take your sample. For example, you may have ample opportunity to gather a sample from a dead or seriously entangled animal. However, an animal that is just hooked may be very lively, and your opportunities will be limited. You should keep your sampling equipment readily available to you. Make sure that your sampling pole is not tied down during fishing operations and can be retrieved at a moment's notice. Keep your Marine Mammal Sampling Kit on deck with you (preferably, in your bucket).

### Sample Collection:

Attach the stainless steel cutting tip to your sampling pole (turtle). Thrust the cutting tip into the dorsal surface of the animal **away from the blowhole** to collect a skin sample. If the marine mammal is dead, it is okay to use a gaff to maneuver the animal into position to get the sample. If the animal is very large, you can take the sample from the back, side, belly or tail stock.

Skin samples for genetic analyses can be collected from anywhere on the body of the cetacean. Avoid trying to sample from the dorsal fin, pectoral flippers or flukes. These regions are hard and it's difficult to cut the skin. The diagram below illustrates

the best areas to collect your sample from and the areas to avoid.



Once, you've collected the tissue sample, unscrew the tip from the pole and place it in the vial containing the DMSO/salt solution.

**Labeling:**

- 1) On the sample labels (*i.e.*, small pieces of bond paper), **use a pencil** to record the specimen number, species, and date collected. Insert the label into the vial with the sample.
- 2) Label each vial (cap and side of the vial) using the enclosed **Sharpie® Permanent Marker** with the specimen number and species name.
- 3) Tighten the cap securely, and wrap a strip of **Parafilm®** around the cap and the top of the vial. Stretch the **Parafilm®** as you wrap. This will prevent leaking while the sample is in transport.
- 4) Complete a Marine Mammal Life History Data Form with your specimen number, species identification (detail the characteristics used to make the ID), date collected and the position. A sketch or photo showing the entanglement and any obvious wounds would be very useful.

## **Guidelines for Disentangling Cetaceans from Longline Fishing Gear**

**Never enter the water in an attempt to disentangle the animal!**

**CAUTION:** These instructions are provided to give guidance to observers encountering entangled marine mammals at sea, far from support or aid of outside personnel.

**Disentangling marine mammals is a dangerous activity and should be undertaken with the utmost regard to personal safety!**

Should an incident become difficult or dangerous to yourself or other vessel crew after initial attempts, **DO NOT** attempt any further disentanglement efforts; especially when dealing with actively struggling animals. As quickly as you can; document the incident as fully as you are able, collect a skin biopsy; if possible; and cut as much of the gear off the animal as possible.

Even, animals which appear dead or nearly so can suddenly sound (dive) or attempt to swim off, putting great stress on any entangling lines or gear.

Even if you were unable to remove all of the fishing gear from the animal, the information and/or samples you collected will do more good for the species, than risking life or limb to save the individual animal.

**Disentangling marine mammals is a dangerous activity and should be undertaken with the utmost regard to personal safety!**

### **9 Steps to take when disentangling cetaceans from longline gear.**

- 1) Ask the crew to assist you by standing by with two pole gaffs.
- 2) Proceed cautiously and smoothly. Have the captain stop the vessel within close range and gently bring the animal alongside the vessel.
- 3) If there is a tangle, gaff the other side of mainline and attach it to the vessel or float. This is to isolate the vessel and the marine mammal from any tension on the remaining gear in the water. **This may be a good time to take a sample.** If possible, take a photo of the animal showing the entangling gear.