SEA TURTLE NECROPSY DATA SHEET

Elija un elemento.

RESPONSIBLE: _____ **DATE OF FINDING:** _____

LOCATION (Zone/Lat/Lon): _____ **DATE OF NECROPSY:** _____

SPECIES: ☐ Undetermined

_____
Common name

_____
Scientific Name

AGE GROUP:

☐ Juvenile ☐Sub-adult

☐Adult ☐Undetermined

VISUAL MATERIAL:

☐ Photographs

☐Videos

CARCASS CONDITION: ☐ Live ☐Fresh ☐Moderate ☐Advanced ☐Remains

BODY CONDITION: ☐ Good ☐Fair ☐Poor ☐Very poor ☐Undetermined

BIOMETRIC DATA: ☐ Carcass complete ☐Carcass incomplete

Curved Carapace Length (cm): _____ Curved carapace width (cm): _____

Plastron width (cm): _____ Plastron width (cm): _____ Tail length (cm): _____

Tail cloaca length (cm): ____ Head width (mm): _____ Weight (kg): _____

Sexo: ☐ Hembra ☒Macho ☐ND

Observations (Cuts, slots, fresh/healed wounds, etc):

_____

_____

INTERACTION WITH FISHERIES: ☐ Collision ☐Entanglement ☐Hook/Monofilament ☐Other

Describe the finding:

_____

_____

_____

_____

NECROPSY FINDINGS:

☐ Fresh ☐Refrigerated ☐Frozen

Description of organs assessed (color, size, consistency, presence of injures or abnormalities).

ALL ORGANS MUST BE COLLECTED IN SIZE 2X2cm AND PRESERVED IN FORMALIN 10%.

External exam (epibionts, eyes, cloaca, scavenger damage, parasites, nostrils, mouth):

_____

Skeletal muscle: ☐parasites **Description**: _____

_____

Body Cavity (presence of liquids or other odd content, injuries): _____

_____

Trachea: ☐parasites **Description:** _____

_____

_____

Lungs: ☐ parasites **Description:** _____

_____

_____

Heart: ☐ parasites **Description:** _____

_____

Other (blood vessels, lymphonodus, etc): _____

Esophagus: ☐ parasites **Description:**

_____

_____

Stomach: ☐ parasites **Description:**

_____

_____

Liver: ☐ parasites **Description:** _____

_____

Spleen: ☐ parasites **Description:** _____

_____

Pancreas: ☐ parasites **Description:** _____

_____

Gallbladder: ☐ parasites **Description:** _____

Intestines (Small I., Large I.): ☐ parasites **Description:** _____

_____

Otros (lymphonodus, mesentery, etc): _____

_____

Urinary System:

Kidneys: ☐ parasites **Description:** _____

_____

Bladder: ☐ parasites **Description:** _____

_____

Reproductive system (Females: ovaries, uterine horns - Male: testicles): _____

_____

ADDITIONAL OBSERVATONS:

_____

_____

_____

_____

_____

_____

_____

_____

SAMPLE COLLECTION

IMPORTANT: All simples must be labeled with the following information: Zone, date, species, type of sample, storage medium.

HISTOPATHOLOGY (in formaline 10%):

☐Skin ☐Muscle ☐Trachea
☐Lungs ☐Heart ☐Esophagus
☐Stomach ☐Liver ☐Spleen
☐Pancreas ☐Gallbladder ☐Small I.
☐Large I. ☐Kidneys ☐Bladder
☐Ovaries ☐Uterus ☐Testicles
☐Uterine horns

Other: _____

_____

_____

ÓRGANOS CONGELADOS: ☐Sí ☐No

Órganos: Haga clic o pulse aquí para escribir texto.

_____

_____

GENETIC ANALYSIS AND ISOTOPS (in salt or alcohol 96%): ☐Skin

PARASITES (in alcohol 70°)**:**

(Mark the organs where samples come from and label the sample)

☐Skin ☐Muscle ☐ Trachea
☐Lungs ☐Heart ☐ Esophagus
☐Stomach ☐Liver ☐ Spleen
☐Pancreas ☐ Gallbladder ☐ Small I.
☐Large I. ☐ Kidneys ☐ Bladder
☐Ovaries ☐ Uterus ☐ Fat
☐Testicles ☐ Uterine horns

Observations:

_____

_____

_____

ADDITIONAL SAMPLES:

☐Blood:

☐with anticoagulant ☐Without anticoagulant ☐In alcohol ☐In RNAlater
☐Serum

Extraction zone: _____

☐Eyeball

☐Stomach content, stored in:

☐Formaline ☐Alcohol ☐no medium/frozen

_____

☒Type of warts in skin or another organ. Stored in: ☐alcohol 96° ☐ Formaline 10%

_____

☐Viral swab Organs:

_____

☐Bacterial swab Organs:

_____

OTHER (describe type of sample, organ and storage medium): Haga clic o pulse aquí para escribir texto.

_____

_____

GLOSSARY
NECROPSY DATASHEET

1. INFORMATION

- **Responsible:** Person who will perform the necropsy and take samples
- **Date of the finding:** Day the stranded animal was reported and collected.
- **Date of necropsy:** Day the necropsy and sample collection were carried out.

2. CARCASS CONDITION

The animal condition will be estimated according to Geraci & Lounsbury (2005):

- Category 1: animal live stranded/dying
- Category 2: animal recently dead (fresh)
- Category 3: animal in a moderate state of decomposition
- Category 4: animal in an advanced state of decomposition
- Category 5: animal skeletal or mummified

3. BODY CONDITION

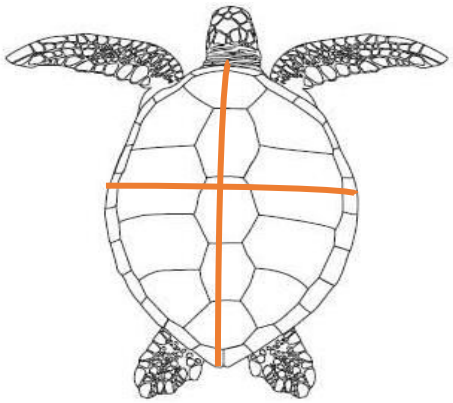
The body condition was classified according to (Flint et al. 2009):

- ***Good:*** with a convex plastron
- ***Moderate:*** with a flat plastron
- ***Poor:*** with a concave plastron
- ***Very Poor*****:** bones can be seen on the plastron

4. BIOMETRIC DATA

Sea turtles:

Curved carapace length and width



Plastron length and width

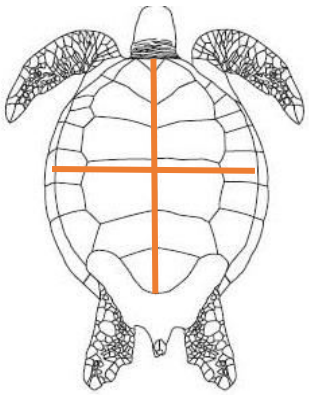


Figure 2. Sea turtle carapace and plastron length.

Table 1. Age group according to the CCL by sea turtle species.

Group age	*Chelonia mydas*	*Lepidochelys olivacea*	*Dermochelys coriacea*	*Eretmochelys imbricata*	*Caretta caretta*
Juvenile	CCL < 69cm		CCL<123cm	CCL<62.2cm	CCL<70cm
Sub-adult	69<CCL<85 cm		123<CCL<144.4cm	62.2<CCL<84.6cm	70<CCL<85cm
Adult	CCL>85cm	CCL>57cm	CCL>144.4	CCL>84.6cm	CCL>85cm

5. FISHERIES INTERACTION

The animal must be observed external and internally (in case of a necropsy), searching for injuries caused by interactions with fisheries. If observed, the finding must be thoroughly described. If a material such as fishing nets, hooks, lines, or other material related to the different fishing gear is observed, photographs of the initial findings should be taken, as well as when samples are extracted. All samples must be collected in properly labeled Ziploc bags. In cases of animals showing skin wounds caused by entanglement with nets, or other fisheries-related injuries, a sample of that skin area should be collected for histopathology (in formalin 10%).

6. NECROPSY FINDINGS

- Fresh: necropsy performed the same day the individual is collected.
- Refrigerated: the individual was refrigerated until necropsy day.
- Frozen: the individual was kept frozen until necropsy day.

When performing a necropsy, is necessary to have a photographic camera to **take diverse shots** of the organs, especially if there is an injury.

Organs must be assessed according to size, consistency, and color, all these characteristics should be described in the necropsy datasheet, even if the organ looks completely normal. In case that an organ has parasites, these will be described including their photographs.

7. SAMPLING COLLECTION

Histopathology: samples of approximately 1cm x 1cm will be collected in bottles. The medium will be 10% formalin. Bottles must be labeled with the animal minimum data. Organs samples collected should be marked on the card. Store at room temperature.

Genetic analysis and isotopes: All samples must be collected twice (one sample for genetic analysis and one for isotopes) and stored in alcohol 96 ° or iodine-free salt. Store frozen.
Sea Turtles: skin from the nape, approximately 0.5cm x 0.5cm.

Frozen organs: a minimum of 150 gr of each organ for freezing should be stored in Ziploc bags, labeled with the animal minimum data, placing a piece of Canson paper with the sample information inside the bag. Priority organs are kidney and liver, to discard pesticides.

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Parasites: the parasites found, should be collected in containers with alcohol 70%, labeled with the animal information as well as the organs where they were found. The finding description must be included in the sheet and the sample collection section. Store at room temperature.

Additional samples:
Blood: Collected in the most sterile way possible, through cardiac or arterial puncture before opening the animal, indicating the preservation medium (mark on the sample collection section). Store at room temperature or refrigerate. If possible, store a small sample (1 or 2 drops) alcohol 96°, and preserve at room temperature.

Stomach content: If stomach content is found, it must be kept frozen and properly labeled.

- Sea Turtles: total content of food found should be placed in properly labeled containers.

Abnormal skin formations: Wart-type or suspicious lesions or abnormal coloring areas in the skin, should be collected. Part of the injury should be preserved in alcohol 96 ° and another part in formaldehyde 10% (as shown for histopathology) Both samples can be stored at room temperature.

Swabs: in case of performing cloacal swabs, the storage tube should be properly labeled, as well as other swabs performed. Bacterial swabs should remain refrigerated or at room temperature as much as possible, and viral swabs should be kept frozen.

Other: any type of sample collected and not previously contemplated should be placed in this section. In case of doubts about storing additional samples, please consult the Top Predator Research Office.

8. REFERENCES

FLINT M, PATTERSON-KANE J, MILLS P & LIMPUS C (2009) A veterinarian's guide for sea turtle postmortem examination and histological investigation. The University of Queensland.

GERACI JR & LOUNSBURY VJ (2005) Marine Mammals Ashore: A Field Guide for Strandings, Second Edition. NOAA-National Aquarium in Baltimore, Baltimore MD. Pg. 176-178.

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