

GROSS NECROPSY REPORT

SPECIES *T. truncatus* **FIELD NUMBER** BP-2010-LA195 **DATE** 25 June 2010

LOCATION Cocodrie, LA **LAT** 29.204933°N **LONG** -90.6345166°W

GENDER Female **TL** 204.5cm **COND** 3 **WEIGHT** N/E

HISTORY:
Field ID / LDWF: MCT-20100625-LA001

Mandy Tumlin, LDWF Wildlife Division staff arrived on site (13:34) first and tied the carcass off to the boat and then tied up to a piling in the Houma Navigational Channel to hold until Fisheries staff arrived on the scene. Carcass was photographed, and three gauze samples along with skin DNA sample were obtained. Carcass was loaded into a body bag and then loaded onto the vessel to be transported back to LDWF Fisheries Research Lab for vehicle transport to Audubon Aquarium of the Americas. Carcass arrived at the AAC at 10PM and placed in walk-in cooler overnight by Dr. Cara Field. Necropsy commenced at 11:47 the following day.

NECROPSY

EXTERNAL EXAM:

No obvious external evidence of human interaction. Tongue and blowhole were bloated and eyes were bulging.

INTERNAL EXAM:

Both pleural cavities and abdominal cavity contained copious amounts (approx. 1L in pleural cavities) of dark red-brown, flocculent fluid – pleuritis and peritonitis.

BLUBBER: Blubber was dry, tacky and tightly adhered to the underlying muscle layers. Blubber thicknesses (mm) Axilla: 18 (dorsal), 14 (lateral), 13 (ventral) mm; Cranial Insertion of Dorsal Fin: 24 (dorsal), 9 (lateral), 15 (ventral); Anus: 25 (dorsal), 15 (lateral), 20 (ventral)

MUSCULOSKELETON

Axial Muscle: Epaxial muscle was dry and tacky, probably dehydrated.

Pectoral Girdle: L gleno-humeral joint articulating surfaces were smooth, white except for the cranial pole of the pectoral fin that had an approximate 2x3cm region of roughening, discolored dark red. Around base of the entire joint tissue was discolored dark brown-black (decomposition?; swab taken). Sub-scapular surface had moderate emphysema with brick-red hemorrhage / edema associated with emphysema. R gleno-humeral joint NSF.

Axial Skeleton: Three fractured lateral transverse processes of lumbar vertebrae, R side.

Ribs & Sternum: No broken bones of L and R ribs.

Diaphragm: Abdominal aspect of the diaphragm was pale beige in color and thickened.

CIRCULATORY SYSTEM

Heart: Pericardial cavity was gas filled with approximately 20mL of brown-red fluid. Pericardium was opaque with a tinge of red discoloration. Aorta lining stained green-yellow (decomposition). Pulmonary artery NSF. Ventricular wall thicknesses (mm): L = 25, 20, 19; R = 8, 9, 9.

Thoracic Pleural Appendage: N/A

RESPIRATORY SYSTEM

Blowholes: Bloated externally. When swabbed dark brown-black material was present.

Lungs: L lung pleural surface was lumpy to the touch with regions of collapsed tissue and patches of discoloration pale beige - pink. Upon cut surface, intrapulmonary vessels exuded brown mucous substance (decomposition of blood?; collected on swab). Parenchyma tissue was consolidated, congested, dark brick red throughout. Light load of lung worms. R lung pleural surface was similar to that of the L lung. Cut surface was mottled brick red to pink throughout, similar to L lung. Parenchyma tissue of cranio-ventral margin discolored black, probably due to decomposition. Light load of lung worms. Both R and L lung tissue floated in formalin. Cranio-ventral margins of both lungs were thin and under-developed.

DIGESTIVE SYSTEM

Esophagus: Empty. NSF. Epithelium sloughing off.

Omentum: Discolored brown with adherent brown flocculent material. No parasites.

Fore Stomach: Approximately 30mL of light brown fluid, otherwise empty. Mucosa NSF. No parasites nor ulcers observed.

Main Stomach: Scant amount of light brown fluid, otherwise empty. Mucosa autolyzed and discolored brown.

Pyloric Stomach: Mucosa stained yellow. Scant amount of brown-yellow fluid poured out upon cut.

Duodenum: Mucosa mottled pink to yellow black in some regions. Empty.

Intestine: Mesenteric blood vessels slightly engorged with blood. Proximal intestine contained a small amount of yellow-beige fluid, mucosa NSF, no parasites. Mid-intestine empty, no parasites, mucosa NSF. Distal intestine empty, no parasites, mucosa NSF.

Liver: Margins were rounded. Tissue on cut surface was discolored dark brown due to decomposition.

Pancreas: Beige throughout. Pancreatic duct stained yellow from bile. No parasites observed.

URINARY SYSTEM

Kidneys: L kidney cranially was pale tan, while caudal pole was discolored very dark red-brown. R kidney uniformly pale tan.

Adrenals: autolyzed

Urinary Bladder: Approximately 10mL of yellow urine, NSF.

ENDOCRINE & HEMOLYMPHATIC SYSTEMS

Thymus: N/A

Thyroid: autolyzed

Pituitary: did not examine; frozen in head whole

Spleen: Uniformly dark red, almost black in color.

Tonsil: NSF

Lymph Nodes:

Pre-scapular LN unremarkable, NSF.

Caudal mediastinal LN autolyzed

Pulmonary marginal LN uniformly red throughout.

Tracheo-bronchial LN enlarged and discolored uniformly dark red-purple.

Aortic LN discolored uniformly dark red.

Mesenteric LN uniformly beige-yellow throughout.

Colonic LN uniformly beige throughout.

REPRODUCTIVE TRACT: Immature female. L mammary dimensions: 30cm long x 4cm wide x 1cm deep. No milk could be expressed. Light load of nematodes. Surface of L and R ovaries were smooth, no CL, no previous pregnancies. Uterus and uterine horns NSF.

CENRTRAL NERVOUS SYSTEM

Brain: not examined in detail, but severely autolyzed as viewed through the skull fractures (see below); frozen in head whole

Spinal Cord: NSF

HEAD

Caudal R quadrant of calvarium concaved inward. Massive comminuted fractures to the R occipital, temporal, and zygomatic bones of the skull, including fractures to the R ear

11/9/11

and R mandible / pan bone. No hemorrhage around the skull fractures. Bilateral hemorrhage related to rostral mandible / jaw fats also present. Radiographs were taken of the head. Head frozen whole for detailed dissection at a later date.

SENSORY ORGANS

Eyes: L eye NSF

CONCLUSIONS: Immature female. Abundant brown flocculent fluid in abdomen and both pleural cavities - peritonitis and pleuritis. Massive comminuted fractures to the R occipital, temporal, and zygomatic bones of the skull, including fractures to the ear and mandible/ pan bone. Bilateral hemorrhage related to rostral mandible/jaw fats also present. Three fractured lateral transverse processes of lumbar vertebrae, R side.

Carcass Disposition: Frozen at AAC

CAUSE OF DEATH FROM FIELD DETERMINATION: Pleuritis and peritonitis. Suspect blunt force trauma to the head.

This report was generated by: Cara Field, DVM, PhD (AAOA); Craig Harms, DVM, PhD (NCSU); Marina Piscitelli (UNCW)

TISSUES COLLECTED

Frozen (-10°C): Head frozen whole with teeth, brain and pituitary

Histo (10% Buffered Formalin) x2 sets:

- | | |
|----------------------|-----------------------|
| Mid-thoracic blubber | Liver |
| Epaxial muscle | Pancreas |
| Pericardium | Kidney |
| R atrium | L adrenal |
| L atrium | Urinary bladder |
| R ventricle | Spleen |
| L ventricle | Tonsil |
| Aorta | Pre-scapular LN |
| Pulmonary Artery | Aortic LN |
| R lung | Tracheo-bronchial LN |
| L lung | Pulmonary marginal LN |
| Esophagus | Colonic LN |
| Forestomach | Caudal mediastinal LN |
| Main stomach | Mesenteric LN |
| Pyloric stomach | L mammary |
| Duodenum | Uterus |
| Omentum | Ovaries |
| Proximal intestine | Spinal cord |
| Mid-intestine | L eye |
| Distal intestine | |

DMSO: skin x1 vial

Other: Forestomach fluid x1 vial, Spleen for Morbillivirus / Brucella x1, Tracheo-bronchial LN for Morbillivirus / Brucella x1

Hydrocarbon Analysis x2 sets: Mid-thoracic blubber, Epaxial muscle, Proximal intestine, Liver, Urine, Kidney, L lung

Swabs: L intrapulmonary vessel brown substance x1, blowhole swab x1, L gleno-humeral joint swab x1, Epidermis swabs x3

PHOTOS/VIDEO: Yes - photos

ASSOCIATED DATA SHEETS: Level A, Oiled Marine Mammal Necropsy Report, Chain of Custody, Photograph Log

MORPHOMETRICS:

- Total Length = 204.5cm
- Tip of rostrum - blowhole = 25.4cm
- Tip of rostrum - eye = 26.7cm
- Tip of rostrum - ear = 35.6cm
- Tip of rostrum - apex of melon = 8.7cm
- Tip of rostrum - anterior pectoral flipper = 45.7cm
- Tip of rostrum - cranial dorsal fin = 95.3cm
- Tip of rostrum - posterior dorsal fin = 132.1cm
- Tip of rostrum - umbilicus = 111.8cm
- Tip of rostrum - mid genital = 134.6cm
- Tip of rostrum - anus = 139.7cm
- Anus to fluke notch = 61.0cm
- Insertion of flukes to tip = 33.0cm
- Insertion of flukes to notch = 19.7cm
- Fluke tip to tip = 51.4cm
- Pectoral insertion to tip = 35.6cm
- Axilla to tip = 27.3cm
- Pectoral flipper width = 15.9cm
- Dorsal fin height = 19.7cm
- Dorsal fin length at base = 40.6cm

GIRTHS: *carcass slightly bloated

- Center of Eye = 82.6cm
- Nuchal Crest = 87.0cm
- Mid-thorax = 118.0cm
- Axilla = 147.0cm
- Anterior dorsal fin = 119.4cm
- Posterior dorsal fin = 81.3cm
- Mid-keel = 51.0cm
- Fluke insertion = 27.3cm