



Testing Lab:	WADDL - Pullman	Client:	Washington Department of Fish & Wildlife (WDFW) - Wildlife
Case Coordinators:	Gerald Dykstra, DVM, Chrissy Eckstrand, DVM, PhD, DACVP, Ashley Warren, DVM, Patricia Talcott, MS, DVM, PhD, DABVT	Veterinarian:	2315 North Discovery Place Spokane Valley, WA 99216 Dr. Kristin Mansfield
Date Received:	02/20/2024		
Report Date:	03/07/2024		

FINAL REPORT

Animal ID: No Tags Mountain Lion (Cougar) :: NFS / Male

NECROPSY

Test: Bear/ Wild Carnivore Necropsy **Specimen:** Cadaver :: whole body, cadaver **Collection date:** 02/17/2024

Gross Pathology report

Primary Morphologic Diagnoses:

1. Penetrating ballistic thoracic trauma with pulmonary laceration, hemothorax, and presumptive deglutition of acute hemorrhage
2. Gastric foreign body
3. Enteric cestodiasis, moderate

Gross Necropsy Description:

Examined on 2/22/24 is a 34.1 kg male cougar in fair postmortem condition after thawing. The cadaver is received in a bag with a yellow tag that reads "Inc# C24020122, Item #9, Date: 2/17/24, 24PE00092" on one side and "Incident #240201222, Tag # 24PE00092, Officer Pace, Badge #W47" on the opposite side. Body condition is good based on normal skeletal muscle mass and adequate to abundant visceral adipose tissue stores. The crowns of the maxillary canine teeth measure 2.8 cm long. Two to three linear dark patches/bars of fur are present on the medial antebrachii and medial hind limbs.

Thorax: A 1.5 x 1.0 cm cutaneous wound over the left ribs communicates with the thoracic cavity, which contains 200 mL of hemorrhage. A similar penetrating wound on the contralateral thorax measures 1.5 x 1.2 cm and there is underlying subcutaneous hemorrhage. There is crusted hemorrhage in the fur around both wounds. Grumous blood is present in the lumen throughout the length of the trachea. The dorsal cranial lung margins are dark red (hemorrhage) and the left cranial lobe is disrupted by a full-thickness, approximately 4cm x 2 cm ovoid laceration with tattered edges. A similar laceration disrupts the parenchyma of the right dorsal cranial lung lobe. The heart weighs 130 g (0.38% of body weight; upper limit of normal for domestic felids 0.45% of body weight).

Abdomen: The esophagus contains a blood clot roughly equivalent to 10 mL. The stomach contains approximately 5mL of dark red blood mixed with viscous mucus and scant fibrous plant material and small amounts of hair pools between gastric rugae and the gastric mucosa is diffusely dark red. A roughly 0.5 cm diameter hinged silver hoop with a thin, 1 mm diameter post (earring) is within this material. Moderate numbers of tapeworms are within the mid and distal jejunum. Small amounts of formed fecal material are in the colon.



Tissues examined and considered grossly normal include the tongue, thyroid gland, trachea, esophagus, heart, stomach, pancreas, duodenum, jejunum, ileum, colon, liver, gallbladder, adrenal glands, kidneys, ureters, bone marrow, skeletal muscle, eyes, testes, and external brain surface.

Comments:

This animal appears to be in good body condition without readily apparent gross disease or evidence suggestive of negative energy balance. Cestodiasis is moderate, but not considered likely to be of clinical significance. Rabies direct fluorescent antibody testing is negative on fresh brain tissue. Hemorrhage in the esophagus and stomach is considered most likely secondary to swallowing of blood following thoracic gunshot wound. Histopathology is pending.

Client Communication: Dr. Eckstrand emailed Dr. Mansfield with gross findings on 2/23/24.

Resident Pathologist

Ashley Warren, DVM
Resident Pathologist

Authorized by:

Chrissy Eckstrand, DVM, PhD, DACVP
Senior Pathologist

HISTOPATHOLOGY

Test: WADDL Necropsy Histopathology **Specimen:** Cadaver :: whole body, cadaver **Collection date:** 02/17/2024

Report Type

Final Histo Report

Histopathology report

Primary Histologic Diagnoses:

1. Interstitial nephritis, lymphoplasmacytic, multifocal, chronic, mild with mild fibrosis
2. Intracellular nematode, focal (*Trichinella* sp.), diaphragm
3. Intracellular sarcocyst, focal (*Sarcocystis* sp.), diaphragm

Histologic Description:

Kidney: The cortical interstitium is mildly expanded by few aggregates of lymphocytes and plasma cells. Few linear to wedge-shaped segments of tubules comprising less than 10% of the examined cross-sectional area are mildly separated by bands of mature interstitial fibrous tissue.

Diaphragm: One myofiber is focally enlarged to 215 x 235 um with pale eosinophilic, glassy, fibrillar sarcoplasm and multiple, randomly distributed nuclei (nurse cell) that contains four cross sections of an intracellular nematode parasite ranging from 35 x 28 um to 52 x 36 um. The parasite is characterized by a thin, eosinophilic, hyalinized cuticle, coelomyarian musculature, a pseudocoelom with prominent lateral cords, a nucleated stichosome, and a gastrointestinal tract (*Trichinella* sp.). Another myofiber contains an intracytoplasmic, elongate ovoid, 11- x 35 um, thinly membrane-bound cyst enclosing dozens of tightly packed, 2 x 5 um crescent-shaped, basophilic zoites (*Sarcocystis* sp.).



Tissues examined and considered free of histologically significant lesions include the tongue, thyroid gland, trachea, lungs, heart, esophagus, stomach, pancreas, duodenum, jejunum, ileum, cecum, colon, liver, adrenal glands, spleen, lymph nodes, cerebral cortex, hippocampus, thalamus, cerebellum, and pons.

Comments:

Histologic changes of mild chronic nephritis in the kidneys and parasites encysted in the skeletal muscle of the diaphragm are considered incidental in this animal. There are no histologic abnormalities in the brain, including no evidence of inflammation or an infectious process. Trace mineral testing on fresh liver is pending.

Phone Contact: Dr. Warren left a voicemail for Dr. Mansfield with preliminary histologic findings on 3/1/24.

Resident Pathologist Ashley Warren, DVM
 Resident Pathologist

Authorized by: Chrissy Eckstrand, DVM, PhD, DACVP
 Senior Pathologist

TOXICOLOGY

Specimens	Details
No Tags :: Liver	Specimen split from original Cadaver

Test: Tissue Mineral Screen

Animals::Specimens	Collection Date	Referral Test Information
No Tags :: Liver :: Fresh	02/17/2024	Sample(s) were tested at the Analytical Sciences Laboratory (ASL) at the University of Idaho for the requested toxicology testing. Results from ASL are attached.

Authorized by: Dr. Patricia Talcott, MS, DVM, PhD, DABVT
 Section Head



Notice: *This report contains information that is confidential and is intended for the use of the individual or entity named on page 1. If you have received this report in error, please notify WADDL staff immediately.*

Previous versions of this report

We have previously issued interim and/or final reports for this accession with the following names:

preliminary_report_W240510068_2024-02-26_12-42-53.pdf, preliminary_report_W240510068_2024-03-05_08-09-58.pdf