

Pathology Report

Submitter Ref.: H337	Date Sent: 24/10/2024	Accession No.: 64182
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To: [REDACTED]
Department of Conservation
Christchurch

Report Sent:
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Species: Cetacean	Breed: Hector's Dolphin	
Age: Adult	Sex: Female	
Owner:		Type: Post Mortem
ID: H337		Prev. Accn.:
Submitted:	At Risk:	Affected: Dead:

History

Found at Spencer Park Beach. Frozen before shipping to Massey.

Gross Findings

This frozen adult female dolphin was received via airfreight. After thawing the body was assessed as being in a poor state of preservation (code 3 bordering on 4) with extensive skin sloughing, early bloating and early liquefaction of the intermandibular blubber. The dolphin was extremely thin, with easily palpable and visible vertebral processes and marked atrophy of the lumbar musculature. The blubber depths were thin: 9mm dorsally, 7mm laterally and 7mm ventrally. The standard length was 1.335m and the dolphin weighed 27.4kg.

The tongue was completely scavenged and there was a large amount of sand in the oral cavity, extending back into the pharynx. There were numerous parallel skin cracks on both sides, with a single laceration on the right. There were no net impressions, and no nicks or lacerations to flippers or fins. The right eye was missing (scavenged). The teeth were worn.

The lungs were bilaterally collapsed and dark red, with rib impressions on both sides. No fluid or froth was present in airways. There were low numbers of gritty foci (lungworm granulomas) in the parenchyma.

There were no gas bubbles in or around the kidneys, and no chyle in the intestinal lymphatics. The stomach contained 1 small pebble, 1 small piece of seaweed and 2 copepods. There were no prey remnants.

The mammary gland was well developed but did not contain milk. The uterus had linear striations on the serosal surface, and the right ovary had multiple follicles while the left was smooth.

Histopathology

Histology comments.

These tissues were extremely difficult to interpret, due to a combination of decomposition and freeze/thaw artefact. There were changes in the lungs that are consistent with pneumonia, but decomposition changes cause loss of cellular detail so it isn't possible to decide what type of pneumonia.

In the liver there was fibrosis and proliferation of bile ductules, suggestive of chronic parasitism.

The heart didn't have the changes that we usually expect to see in old dolphins (i.e. this didn't appear to be an aged female).

Microbiology

Lung culture - no growth on either blood agar or MacConkeys

Provisional Diagnosis

Chronic disease

Comments

This was an extremely thin dolphin. Her teeth were very worn, suggesting that she was old, however the microscopic changes that we usually see in the hearts of older dolphins were absent, so it's hard to be convinced that death was due to age-related degenerative changes. Histological evaluation of the tissues was complicated by a combination of putrefaction and freeze/thaw artefacts, but there were some changes that indicate an inflammatory process, including a possible pneumonia. The degree of tissue decomposition means that we might not be able to make a

definitive diagnosis, but we will carry out testing for infectious diseases such as brucellosis, toxoplasmosis and morbillivirus infection.

Date: 02/12/2024	Pathologists: [REDACTED]
Students:	