

# Pathology Report

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To: [REDACTED]  
Department of Conservation  
WCSI

Report Sent: 10/11/2022  
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Species: Cetacean	Breed: Hector's Dolphin		
Age: Subadult	Sex: Male		
Owner:			Type: Post Mortem
ID: H307			Prev. Accn.:
Submitted:	At Risk:	Affected:	Dead:

## Gross Findings

This dolphin was presented frozen and was thawed for necropsy.

The body was in a good state of preservation (code 2) with minimal skin slippage and minimal scavenging other than the right eye which had been completely removed. The body condition was poor, with a pronounced neck, concave hypaxial muscles and very prominent lateral vertebral processes. Blubber depth was reduced (9mm dorsal; 7mm lateral and 8mm ventral). The standard length was 1.2m and the weight was 24.0kg.

There were several healed linear laceration wounds on the sides of the body, as well as a few sets of superficial rake marks. There were 3 sets of paired parallel incisions, also apparently healed, on the dorsal fin (one set on the left side, 1cm long and 5mm apart; one on the right side, with the same measurements; and one set across the dorsal edge of the fin, 4mm apart).

Many of the teeth were worn, either flat across the apical surface, or along the caudal face of the tooth.

There were multiple circular to linear ulcers throughout the oesophagus. The lungs were well inflated, with the serosal surface containing numerous 1-2mm diameter yellow/green cystic structures (parasite granulomas). The stomach compartments were empty other than for a large (2cm long) copepod in the squamous compartment. The glandular mucosa had a moderate number of shallow ulcers, with numerous attached cestodes. The intestinal contents were watery and progressively more yellow towards the large intestine. The large intestinal mucosa appeared wet and thickened (possible oedema/inflammation; difficult to fully interpret due to freeze-thaw artefact). The gastric lymph node was subjectively enlarged.

Testes measurements:

Right = 69g with epididymis; 48g without

Left = 58g with; 48 without

## Histopathology

Freeze-thaw artefact makes accurate interpretation difficult, therefore the histological findings are suggestive rather than diagnostic. The most significant findings are in the lung and intestines.

Lungs: pneumonia, moderate, likely parasitic

Gastrointestinal tract: enteritis, plasmacytic and eosinophilic (possibly parasitic)

## Diagnosis

Open - no detectable cause of death

## Comments

This dolphin was in poor body condition, indicating that he had not been eating well for some time. Freezing damage makes it difficult to accurately interpret the histology, but there were lesions suggestive of marked parasitism in the lungs, and inflammation in the intestinal tract (enteritis) that could also have been due to parasites, although there are other causes of this. Parasitism is not unusual in young dolphins, and can be more severe when they have concurrent diseases, although we could not detect any underlying infectious disease in this dolphin. There was no indication of entanglement being involved in this dolphin's death.

Date: 21/10/2022	Pathologists: [REDACTED]
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Students: