

# Pathology Report

Submitter Ref.: H294	Date Sent:	Accession No.: 60336
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To: [REDACTED]  
Department of Conservation  
Hokitika

Report Sent: 10/02/2022

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Species: Cetacean	Breed: Hector's Dolphin		
Age: Adult	Sex: Female		
Owner: Department of Conservation			Type: Post Mortem
ID: H294			Prev. Accn.:
Submitted:	At Risk:	Affected:	Dead:

## History

Found 28/11/21 at high tide mark on Awatuna Beach.

## Gross Findings

This adult dolphin was received frozen and was thawed for necropsy. The body was in a poor state of preservation (early code 4). The skin was extensively sloughed, with scavenging of the eyes, peri-orbital and peri-genital tissues. There were myriad small linear to curved partial skin thickness lacerations and cracks covering almost the entire skin surface (likely post mortem damage by scavengers and substrate). The abdomen was gas-distended. Body condition was assessed as poor; blubber depths were 14mm dorsal, 19 mm lateral, 15mm ventral. Total length = 1.4m.

The teeth were moderately worn, with multiple missing teeth. The overlying gingiva was healed over the teeth sockets.

There was no subcutaneous bruising. The lungs were diffusely emphysematous (post mortem gas production) with occasional 1-2mm bullae. The cut surface was mottled white and pink. There was minimal fluid and no froth within airways. Lungworm were not detected.

The stomach contained gritty brown/tan mud-like material and very small fine nematodes. There were no recognisable prey remnants. The mucosa of the glandular compartment was markedly thickened with multifocal ulcerated areas. The squamous compartment was normal. The small intestine contained scant watery material, and the large intestines contained a small amount of watery yellow/brown material.

## Histopathology

Severe chronic myocardial fibrosis.

Moderate chronic glomerulosclerosis with interstitial fibrosis.

Chronic interstitial pulmonary fibrosis

## Diagnosis

Chronic degenerative disease - heart and kidneys

## Comments

This dolphin had marked scarring of her heart muscle (myocardial fibrosis), which would have compromised her heart function. Myocardial fibrosis can be present in aged animals of many species, but there is speculation in the marine mammal literature that some cetacean species are prone to early development of this condition. While tooth analysis would more clearly determine her age, there are some other changes (worn and missing teeth; scarring in the kidneys) that are consistent with her being an older animal.

The most likely scenario for the death of this dolphin is that she was an old animal that was weakened and in poor body condition due to compromised heart, kidney and lung function.

The state of decomposition of her tissues means that it wasn't possible to fully evaluate her for infectious diseases.

Date: 10/02/2022

Pathologists:

Students: