

Pathology Report

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To: [REDACTED]
Department of Conservation
Hokitika

Report Sent: 13/04/2022

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Species: Cetacean	Breed: Hector's Dolphin		
Age: Juvenile	Sex: Male		
Owner: Department of Conservation			Type: Post Mortem
ID: H301			Prev. Accn.:
Submitted:	At Risk:	Affected:	Dead:

History

Found at Okarito mud flats. Dolphin flown to Massey.

Gross Findings

This dolphin was received chilled on 11/3/22.

Standard length = 0.795m

The body was in a reasonably good state of post mortem preservation (code 2), and was in good body condition (weight 10.8kg; blubber depth 17mm dorsal; 16mm lateral; 18mm ventral).

The skin on the right side of the body had multiple linear (in a dorsoventral plane) parallel 'cracks', likely reflecting exposure of that side to the elements after death.

The maxillary teeth were partially erupted and were mobile within their sockets. The mandibular teeth had not yet erupted.

There were no skin lesions suggestive of fishing gear entanglement.

The umbilicus was well healed. The tongue had prominent lateral papillae. There were no fetal whiskers (noting that skin had sloughed from the cranioventral aspect of the lower jaw). The dorsal fin was not folded, and there were no identifiable fetal folds.

There was dark red discolouration subcutaneously over the dorsum of the skull and between the mandibles, extending into the soft tissue of the pharynx (common post mortem artefact).

Both lung lobes were mottled with poorly circumscribed dark red patches, more prominent on the right. There were rib impressions on both sides, also more prominent on the right. Throughout the dorsal lung parenchyma there were multiple firm nodules, often gritty on cut section. There was little fluid and no froth within the airways.

The stomach contained a moderate amount of pink-tinged turbid fluid. The small intestine contained yellow/tan fluid, while the distal large intestine was empty.

Histopathology

Histology summary.

There is marked inflammation in the lung, associated with lungworm.

There is marked fatty infiltration of the liver.

Lymphoid tissue is mildly depleted.

The umbilicus and bladder have mild inflammation.

Umbilical vessels are healed.

Diagnosis

1. Open cause of death
2. Diffuse fatty infiltration of the liver
3. Severe lungworm
4. Mild inflammation of the umbilical tissues and bladder

Comments

This young dolphin did not have an obvious single cause of death, but the changes in the liver indicate that he had

not eaten for some time and was mobilising fat from his blubber stores although he was not yet in poor body condition. He also had lungworm, with a fairly severe inflammatory response (parasitic pneumonia). This is not uncommon in juvenile dolphins, and can have an impact on their health so may have contributed to illness in this young dolphin.

There were also histological changes in his lymphoid tissues, umbilicus and bladder that indicate a mild systemic inflammatory response.

The most likely scenario in this calf is that he was weak due to a combination of lack of food intake and inflammatory disease (particularly the lung disease). The post mortem was unable to determine the ultimate cause of death, although the liver changes can be associated with metabolic disturbances that can sometimes be fatal.

Date: 13/04/2022	Pathologists: [REDACTED]
Students:	