

# Pathology Report

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To: [REDACTED]  
Department of Conservation  
Christchurch

Report Sent: 11/02/2026

Copy To:

Email: [REDACTED]

|                   |                         |           |                   |
|-------------------|-------------------------|-----------|-------------------|
| Species: Cetacean | Breed: Hector's Dolphin |           |                   |
| Age: Adult        | Sex: Male               |           |                   |
| Owner:            |                         |           | Type: Post Mortem |
| ID: H350          |                         |           | Prev. Accn.:      |
| Submitted:        | At Risk:                | Affected: | Dead:             |

## History

Beachcast

## Gross Findings

This adult male dolphin was received chilled. The body was in a good state of post mortem preservation, with minimal skin slippage and only mild scavenging. The body condition was assessed as slightly below average, with a slight concavity to the neck; blubber thickness was 13mm dorsally, 12mm laterally and 14mm ventrally. The dolphin weighed 33.0kg and measured 1180mm. The summed testicular mass (with epididymis) was 564g.

On external examination, there was minimal scavenger damage to the left side of the chin only. There were two superficial straight, relatively shallow lacerations on the lower right flank, one measuring 2cm in length and the other 5cm. There were full thickness skin separation lesions on the tip of the lower mandibles and the upper right lip, both leaving attached skin flaps with red underlying connective tissue. A similar lesion with attached skin flap was present on the leading edge of the left tail fluke. This lesion had a scalloped outline. When viewed from the dorsal surface, there were bilaterally symmetrical 'bulges' to the dolphin's outline behind the last ribs. Affected tissue felt slightly spongy on palpation, and flensing revealed swollen, friable, haemorrhagic and lacerated lumbar muscles. Deep dissection revealed complex fractures of the underlying vertebrae, with complete separation of several lateral vertebral processes and extensive haemorrhage into the retroperitoneal cavity and suspensory ligaments. Associated bruising or thin blood films were present in or on the testicular and urinary bladder suspensory ligaments, diaphragm, caudal lung lobes and peri-renal space.

The trachea contained a large amount of sand and fluid, which extended the full length of one mainstem bronchus and into the bronchioles of that lobe. The stomach was empty.

## Microbiology

Histology summary. Multiple organs have subcapsular haemorrhages. There are areas of cell damage in the liver that could represent either terminal hypoxia (lack of oxygen) or pre-existing damage from a pathogen. The lungs contain fluid and inflammatory cells (likely due to fluid buildup (oedema) as the dolphin was dying). Sections of skeletal muscle show severe acute damage to muscle cells. Histology of the testes is consistent with a sexually mature adult male that was not actively producing spermatozoa at the time of death.

## Diagnosis

1. Severe blunt trauma with vertebral fracture.
2. Aspiration of sand.

## Comments

The most likely sequence of events in the death of this dolphin is that he was hit on the side by a large object which fractured his spine. The necropsy and histology findings suggest that he survived for at least a few hours after the impact, but died after live-stranding on sand in shallow water (as evidenced by the fact that he had breathed sand far down into the small airways on one side of his lungs).

Boat strike is a plausible cause for the blunt trauma. Orca are also known to use blunt force trauma to stun or kill dolphins during predatory behaviour, and it is possible (but less likely?) that this dolphin could have survived an orca attack.

Date: 11/02/2026

Pathologists:



Students: