

# Pathology Report

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To: [REDACTED]  
Department of Conservation  
Christchurch

Report Sent: 29/02/2024  
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Email:

|                   |                         |           |                   |
|-------------------|-------------------------|-----------|-------------------|
| Species: Cetacean | Breed: Hector's Dolphin |           |                   |
| Age: Adult        | Sex: Male               |           |                   |
| Owner:            |                         |           | Type: Post Mortem |
| ID: H329          |                         |           | Prev. Accn.:      |
| Submitted:        | At Risk:                | Affected: | Dead:             |

## History

Caught at sea.

## Gross Findings

This dolphin was frozen and air freighted to Palmerston North. Once thawed, it was in a fair to good state of post mortem preservation (code 2-3), with early skin slippage and pink to purple discolouration of the pale ventral skin and subcutaneous tissue of the umbilical, intermandibular and throat region. This discolouration was not present in the frozen carcass, and became more obvious over the 3 day thawing period (post mortem "pseudobruises").

The body condition was assessed as good, with a rounded lumbar profile, although blubber depth was comparatively small (14mm dorsal, 9mm lateral, 10mm ventral). The dolphin measured 1165cm and weighed 30.9kg. The summed testicular mass (with epididymis) was 298g.

There were no recent wounds or lacerations on the flanks or head. One to three short nicks or tears were present on each of: the leading edge of the dorsal fin, caudal insertion of the dorsal fin, leading edge of the right pectoral flipper, and the rostral aspect of the right maxillary lip/tip of the snout. There were linear, partly encircling indentations on the tail stock and right fluke. These deepened to become lacerations at the fluke margins.

The right lung was pale pink and well inflated. The left lung was darker and partially collapsed. Rib impressions were present bilaterally. The volume of blood-tinged fluid present within the abdominal, thoracic and airway spaces was within expected limits for a thawed carcass. There was no foam in the airways. Scattered pale gritty foci were present in the lung parenchyma (lungworm granulomas).

The glandular stomach had herniated into the distal oesophagus, with the herniated portion of the mucosa being dark red/purple. This compartment and the distal oesophagus contained muddy brown fluid and nematodes. Scant content (gritty soft material and rare prey hard parts) was present in the squamous stomach compartment. The intestinal lacteals did not contain obvious chyle. There were no gas bubbles in the peri-renal tissue or subcapsular space. The bladder was partly full of normal-coloured urine. The abdominal contents, particularly the liver, were mildly autolysed.

## Diagnosis

Known bycatch

## Comments

The gross lesions on this dolphin were unremarkable in comparison with other recent bycatch cases we have seen. In previous cases we have consistently seen large numbers of body lacerations and evidence of recent feeding (fresh or partly digested prey in the stomach and white fluid (chyle) in the intestinal lymphatics), and many have also had air bubbles in the tissue surrounding the kidneys as well as presence of stomach contents in the oesophagus and/or airways.

As I've mentioned for the other known bycatch cases we have worked on, the necropsy on this dolphin has been extremely useful for our growing body of knowledge on bycatch diagnosis. The only distinctive lesion in this current

dolphin was the indentations on the tail stock; nothing else from this post mortem would have indicated bycatch as a cause of death if this dolphin had washed up onshore rather than being returned by a fishing vessel. As an aside, this reinforces the importance of taking good quality, on-site photos of beachcast dolphins, since similar marks can be created during packaging and transport (e.g. cable-tie labelling around the tail stock), making post mortem interpretation difficult.

A full set of tissues from this dolphin will be processed for histology, and an addendum report will be sent if there are any significant findings that impact the diagnosis.

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| Date: 29/02/2024 | Pathologists: [REDACTED] |
| Students:        |                          |