

# Pathology Report

Submitter Ref.: H334	Date Sent:	Accession No.: 63572
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To: [REDACTED]  
Department of Conservation  
Geraldine

Report Sent: 03/07/2024

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Species: Cetacean	Breed: Hector's Dolphin		
Age: Adult	Sex: Male		
Owner:			Type: Post Mortem
ID: H334			Prev. Accn.:
Submitted:	At Risk:	Affected:	Dead:

## History

Known bycaught animal; caught in trawl net. Teeth and skin samples collected, then body frozen. Freight by air to Massey for necropsy.

## Gross Findings

This adult male dolphin presented frozen and was thawed for necropsy. The body was in a good state of preservation (code 2), with early skin slippage particularly around the tail stock and early dark purple discolouration of the intermandibular soft tissue. The standard length was 1.185m, and the dolphin weighed 33.2kg. The body condition was assessed as moderate/poor, with a slight concavity at the neck, flattening of the lumbar muscle profile and prominence of the lateral processes of the vertebrae. The blubber depths were reduced: 9mm dorsal; 8mm lateral and 8mm ventral.

There were multiple superficial rake marks, particularly around the tip of the snout. There were also a moderate number of shallow (<2mm) linear to finely wavy skin lacerations over the chin, throat, dorsum, trunk and flanks, with occasional straight lacerations extending full skin thickness. A 15mm long nick was present in the leading (dorsal-most aspect) edge of the dorsal fin.

The trailing edge of the left tail fluke was distorted by a series of partially healed wounds. There were 5 incision-type wounds of varying length arranged perpendicular to the fluke edge, all of which had healed at the distal edge, giving the tail margin a deeply scalloped profile. The longer of these wounds had healthy pink granulation tissue at the base. A strip of pink granulation tissue was present along the curvature of the left tip of the fluke. The skin margins formed a thickened ridge bordering the granulation tissue (evidence of healing). There was no exudate associated with these wounds, and no evidence of necrosis or infection.

In addition, there were a number of skin wounds that had occurred after death, as evidenced by the absence of bruising/haemorrhage:

- a v-shaped defect in the tail fluke (site of skin sample collection).
- a rectangular slab of tissue missing from the right upper lip (assumed to have been removed on-site for access to mandibular teeth).
- a smaller v-shaped section of tissue missing from the right lower lip, midway along the mandibular arcade (interpreted as above).
- a laceration on the lateral surface of the right pectoral fin, exposing the underlying carpal bone. There was an associated post-mortem fracture through the articular cartilage of the carpal bone.

Flensing did not reveal any blubber or muscle bruising. The oesophagus contained numerous fish bones, including an almost complete vertebral column, as well as fragments of fish flesh.

The lungs were pink and well aerated, with rib impressions present on both sides. The lung parenchyma was mottled pink/red on cut surface, and scattered tiny gritty foci (lungworm granulomas) were palpable throughout the lung fields. There was no foam and minimal fluid in the airways.

The squamous compartment of the stomach contained an extremely large number of nematodes which were intertangled with fish bones and small amounts of fish flesh. Removal of the mass of worms revealed several

2-3mm round non-perforating deep punctate ulcers as well as an extensive 8mm x 200mm oval ulcer. The mucosal compartment of the stomach contained an intact squid hood and a single beak. The intestinal lacteals did not contain obvious chyle. There were no gas bubbles in or around the kidneys.

The bladder was partly full of urine. The summed testicular mass was 128g.

## Diagnosis

Known bycatch

## Comments

The necropsy findings in this dolphin were consistent with death due to drowning in a fishing net: nicks and lacerations on the skin, along with presence of recently ingested prey in the stomach.

The wound on the tail fluke had been present for some time (likely in the order of weeks) evidenced by the extent of wound healing: the rounded, ridge-like margins of skin and the pink proliferative soft tissue (granulation tissue) in the deeper areas. The cause of the wound is difficult to assess, although the shape suggests a shark bite or possibly a propellor injury.

The comparatively poor body condition of the dolphin suggests that it may have been less efficient at capturing prey for a while due to the tail injury, although it had eaten very recently (the undigested squid hood) as well as within the last hours/day or so (the fish bones), indicating that at the time of death it had been able to forage. The tail wound was healing with no evidence of infection, which further suggests that the dolphin was recovering well.

Date: 03/07/2024	Pathologists: [REDACTED]
Students:	