

**Institute of Veterinary, Animal and Biomedical Sciences  
Massey University**

**PATHOLOGY REPORT**

**Status:** Final  
**Date:** 26/01/2009  
**Type:** Mortality

Submitter	Submission Details
Department of Conservation  Otago	Lab. Case/Spec ID: <b>42749</b>  Date Submitted: 22/01/2009 Date Received: 22/01/2009 Previous Case ID: WMD Case/Spec ID: 4676/1
Animal Details	Epidemiology
<b>Animal ID:</b> W09-01Ch <b>Animal Name:</b> <b>Species:</b> <i>Cephalorhynchus hectori hectori</i> <b>Common Name:</b> Hector's Dolphin <b>Sex Class:</b> Female <b>Age Class:</b> Adult <b>Date Died:</b>	Number Dead: 1 Number at Risk: Number Sick: Number Submitted: 1

**Growth and Development**

Parameter	Result Description	Value	Date Measured	Age Group
Depth of Tail Notch	25	.025 m	22/01/2009	Adult
Dorsal Blubber Depth		10 mm	22/01/2009	Adult
Eye to Blowhole Length		.14 m	22/01/2009	Adult
Eye to Corner of Mouth Length		.32 m	22/01/2009	Adult
Girth at Anus		.385 m	22/01/2009	Adult
Girth at Eye		.55 m	22/01/2009	Adult
Girth at Flippers		.715 m	22/01/2009	Adult
Girth at Navel		.76 m	22/01/2009	Adult
Height of Dorsal Fin		.1 m	22/01/2009	Adult
Lateral Blubber Depth		10 mm	22/01/2009	Adult
Length of Base of Dorsal Fin		.23 m	22/01/2009	Adult
Length of Flipper		.212 m	22/01/2009	Adult
Length of Flukes		.115 m	22/01/2009	Adult
Snout to Anus Length		m	22/01/2009	Adult
Snout to Corner of Mouth Length		.162 m	22/01/2009	Adult
Snout to Origin of Dorsal Fin Length		.65 m	22/01/2009	Adult
Snout to Origin of Flipper Length		.31 m	22/01/2009	Adult

Standard Length	1.37 m	22/01/2009	Adult
Ventral Blubber Depth	12 mm	22/01/2009	Adult
Width of Flipper	.088 m	22/01/2009	Adult
Width of Flukes	.38 m	22/01/2009	Adult
Weight	32 kg	22/01/2009	Adult

## DIAGNOSIS

1. Unknown cause of death
2. Human intervention - incised wound in abdomen

## COMMENTS

The sharp, straight margins of the wound in the abdomen of this dolphin indicate that it is likely to have been caused by a knife cut. The absence of bleeding into the surrounding muscle indicates that the wound was inflicted after death. There is evidence from northern hemisphere studies that some incidentally caught dolphins have knife wounds into the abdominal cavity, presumably in an attempt to make the carcass sink after it has been recovered from a fishing net. It is not known whether this is common practice in other regions.

Although it is well recognised that there is no definitive way of determining whether or not a dolphin that has washed up on the beach has in fact died due to incidental capture in a net, there are several features that are suggestive of this. Most bycaught animals have evidence of recent feeding, are in good body condition, have no other evidence of disease, and have froth and oedema fluid in the lungs. Many also have identifiable net marks on the head, fins and flippers. This particular dolphin did not show any of these signs: it was in low body condition, had not recently eaten and had only tiny amounts of oedema fluid and froth in the airways. As a result, I could not confidently say that this dolphin was bycaught.

## ANIMAL HISTORY

Found washed up in intertidal zone on Keepers Beach (south side of Katiki Point), North Otago. Moved to beach. 'Medium' decomposition, not bloated but some skin sloughing and a bit wrinkly. Fly eggs present in mouth, on right side and some inside wound/genital slit. Flicked off as many as possible. Eyes missing.

## GROSS PATHOLOGY

The body was mildly decomposed. Both eyes had been entirely scavenged, and there was slippage of large pieces of skin on both sides. The dolphin was in moderate to poor body condition, with prominent lateral and dorsal spinous processes and an obvious neck.

There was a 248mm incised wound in the ventral midline, extending caudally and cranially from the genital slit. The incision entered the abdominal cavity cranially, and caudally it extended up to the muscles and tendons of the sublumbar region. There was no haemorrhage of the tissue margins (ie wound was inflicted after death). The uterine body, oviducts and ovaries were missing. Small (3-4mm) fly larvae (maggots) were present around the wound and within the abdominal cavity.

There were moderate numbers of blubber cestodes in the inguinal region. The mammary glands were well developed and milk could be expressed with manual pressure on incised gland sections.

The right parotid lymph node had several indistinct reddened areas in the cortex.

There were numerous live nematodes in the oesophagus (gastric nematodes). The stomach was tied off and removed, then incised in two places for gross examination of contents and mucosa. It did not contain any fresh/undigested prey items, and contents were normal in colour. No ulcers were detected in visible sections of mucosa.

The lungs were patchily aerated and moderately congested (heavy and dark red). There was scant foam in the terminal airways, and minimal oedema. Several pulmonary nematodes were recovered from bronchioles, and there were several small (<5mm) calcified granulomas. There were also approximately 5 cream, firm, well circumscribed pale lesions, 5-10mm diameter, in the parenchyma, and one 20 x 40 mm mass containing purulent material. A cross section through the heart taken at the mid-point of the papillary muscles showed two pale irregular lesions approximately 5mm across within the left ventricular myocardium.

Both kidneys had multiple 2-12mm diameter cysts. The larger cysts had thin walls. Individual renules were pale and swollen.

