

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

PATHOLOGY REPORT

Status: Pending
Date: 11/11/2009
Type: Mortality

Submitter	Submission Details
Bill Cash Department of Conservation	Lab. Case/Spec ID: 44230 Submitter's Ref: H190 Date Submitted: 09/11/2009 Date Received: 09/11/2009 Previous Case ID: WMD Case/Spec ID: 4944/1
Animal Details	Epidemiology
Animal ID: H190 Animal Name: W09-19Ch Species: <i>Cephalorhynchus hectori hectori</i> Common Name: Hector's Dolphin Sex Class: Male Age Class: Adult Date Died:	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		m	11/11/2009	Adult
		.028		
Dorsal Blubber Depth		15 mm	11/11/2009	Adult
Eye to Blowhole Length		.132 m	11/11/2009	Adult
Eye to Corner of Mouth Length		.035 m	11/11/2009	Adult
Girth at Anus		.432 m	11/11/2009	Adult
Girth at Eye		.53 m	11/11/2009	Adult
Girth at Flippers		.731 m	11/11/2009	Adult
Girth at Navel		.777 m	11/11/2009	Adult
Height of Dorsal Fin		.11 m	11/11/2009	Adult
Lateral Blubber Depth		13 mm	11/11/2009	Adult
Length of Base of Dorsal Fin		.215 m	11/11/2009	Adult
Length of Flipper		.195 m	11/11/2009	Adult
Length of Flukes		.12 m	11/11/2009	Adult
Snout to Anus Length		.915 m	11/11/2009	Adult
Snout to Corner of Mouth Length		.162 m	11/11/2009	Adult
Snout to Genital Slit Length		.78 m	11/11/2009	Adult

Snout to Origin of Dorsal Fin Length	.585 m	11/11/2009	Adult
Snout to Origin of Flipper Length	.282 m	11/11/2009	Adult
Total Length	1.27 m	11/11/2009	Adult
Ventral Blubber Depth	17 mm	11/11/2009	Adult
Width of Flipper	.088 m	11/11/2009	Adult
Width of Flukes	.45 m	11/11/2009	Adult
Weight	30 kg	11/11/2009	Adult

DIAGNOSIS

Open

COMMENTS

There were no lesions in this dolphin that would suggest entanglement as a cause of death. The marks on the skin are likely to have been made by the teeth of other cetaceans, as indicated by their grouping in parallel lines. The pulmonary oedema (fluid in the lungs) was only mild, and can have a large number of causes. Entangled dolphins tend to be in good body condition, with recently ingested food in their stomachs and lymph (fat from ingested food) within their intestinal lymphatics. None of these findings were present in this dolphin.

At present the cause of death is unknown.

GROSS PATHOLOGY

The post mortem condition of this animal was good, with only mild decomposition changes. There were small (approximately 4mm) maggots around the genital orifice, eyes and mouth.

The body condition of the dolphin was moderate, with concavity of the dorsal lumbar muscles and a slightly pronounced neck. There were multiple sets of deep rake marks, including some on the right side of the tail-stock, left ventrum just cranial to the genital slit, and the left side of the dorsum, caudal to the dorsal fin. In each case these marks consisted of curved parallel lines 2-3 mm deep and spaced approximately 3mm apart. There was no associated haemorrhage or bruising. No lacerations or impressions were present on the snout, dorsal fin, pectoral fins or tail.

Within the blubber were a moderate number of cestodes, particularly over the flanks. No bruising of blubber or muscle was evident anywhere on the body. There were small (3-5 mm) petechial haemorrhages within the superficial muscle of the dorsum of the skull.

The pharynx, oesophagus and stomach contain a moderate amount of sand and there were low numbers of gastric nematodes. There were no other stomach contents. The stomach mucosa was slightly reddened, and there were three parasitic cysts projecting from the mucosa of the ampulla. The intestinal lymphatics were empty.

The left lung was dark red (hypostatic congestion). There was no foam in the airways, and a small amount of oedema fluid in the distal airways only. There was a light lungworm burden, and a few 2-4 mm granulomas in the lung parenchyma.