

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

PATHOLOGY REPORT

Status: Final
Date: 07/11/2014
Type: Mortality

Submitter	Submission Details
Department of Conservation	Lab. Case/Spec ID: 51492 Submitter's Ref: H251 Date Submitted: 01/11/2014 Date Received: 06/11/2014 Previous Case ID: WMD Case/Spec ID: 7473/1
Animal Details	Epidemiology
Animal ID: H251 Animal Name: W14-26Ch Species: <i>Cephalorhynchus hectori hectori</i> Common Name: Hector's Dolphin Sex Class: Female Age Class: Adult Date Died:	Number Dead: Number at Risk: Number Sick: Number Submitted: 1

Growth and Development

Parameter	Result Description	Value	Date Measured	Age Group
Depth of Tail Notch		.022 m	07/11/2014	Adult
Dorsal Blubber Depth		8 mm	07/11/2014	Adult
Eye to Blowhole Length		.145 m	07/11/2014	Adult
Eye to Corner of Mouth Length		m	07/11/2014	Adult
Girth at Anus		m	07/11/2014	Adult
Girth at Eye		m	07/11/2014	Adult
Girth at Flippers		m	07/11/2014	Adult
Girth at Navel		m	07/11/2014	Adult
Height of Dorsal Fin		.105 m	07/11/2014	Adult
Lateral Blubber Depth		9 mm	07/11/2014	Adult
Length of Base of Dorsal Fin		.215 m	07/11/2014	Adult
Length of Flipper		.18 m	07/11/2014	Adult
Length of Flukes		.11 m	07/11/2014	Adult
Snout to Anus Length		.915 m	07/11/2014	Adult
Snout to Corner of Mouth Length		m	07/11/2014	Adult
Snout to Genital Slit Length		.8 m	07/11/2014	Adult
Snout to Origin of Dorsal Fin Length		.57 m	07/11/2014	Adult

Snout to Origin of Flipper Length	.29 m	07/11/2014	Adult
Total Length	1.23 m	07/11/2014	Adult
Ventral Blubber Depth	9 mm	07/11/2014	Adult
Width of Flipper	.085 m	07/11/2014	Adult
Width of Flukes	.46 m	07/11/2014	Adult
Weight	30.3 kg	07/11/2014	Adult

DIAGNOSIS

Severe parasitism

COMMENTS

Unfortunately the decomposition and freezing of this body will make it more difficult to get a definitive diagnosis of cause of death, but the poor body condition of the animal suggests that he had been ill for a while prior to death. Histology is less reliable on frozen tissues, but may still be able to pick up any underlying infectious disease. There was no indication that this death was due to entanglement.

ADDENDUM (final diagnosis with histology)

This dolphin had quite severe lung disease, partly due to a heavy lungworm infection. Toxoplasma testing is pending, to rule out this as a cause of the interstitial pneumonia.

The presence of parasite eggs in the lymph nodes also indicates severe parasitism in this dolphin.

ANIMAL HISTORY

31102014Pakawau

Dolphin found washed up dead and beginning to decay. Was situated at the mid tide mark and collected before the tide came back in at 9.30pm so no photo was taken in situ. Body was brought in to Takaka DOC the next morning.

GROSS PATHOLOGY

The body was received frozen and was thawed before necropsy.

There was moderate to marked decomposition, particularly of the soft tissues of the head. There was a moderate decrease in muscle mass of the epaxial muscles and a slight pronouncement of the neck, indicating some degree of weight loss. The blubber cover was very poor (thin body condition) and there were large numbers of blubber cestodes. Multiple sites along the ventrum and flanks had large areas of skin and blubber missing (scavenger damage). Both eyes were missing.

The internal organs were still partially frozen. The abdomen contained approximately 50ml of dark red fluid (likely due to freeze-thaw damage). Moderate numbers of nematodes were present in the stomach and oesophagus, and the gastric mucosa had multifocal to coalescing chronic ulcers. There were no prey remnants in the stomach.

The lungs contained numerous lungworms and scattered gritty foci (parasite granulomas). The terminal airways contained a scant amount of foam.

HISTOPATHOLOGY

Histology summary:

Lung: Severe multifocal granulomatous pneumonia (severe lungworm) and diffuse interstitial pneumonia

Mesenteric lymph node: Severe granulomatous and fibrosing lymphadenitis with trematode eggs