

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

**PATHOLOGY REPORT**

**Status:** Pending  
**Date:** 19/12/2013  
**Type:** Mortality

Submitter	Submission Details
Department of Conservation  Picton	Lab. Case/Spec ID: <b>50404</b>  Submitter's Ref: H248 Date Submitted: 16/12/2013 Date Received: 17/12/2013 Previous Case ID: WMD Case/Spec ID: 7284/1
Animal Details	Epidemiology
<b>Animal ID:</b> H248 <b>Animal Name:</b> W13-20Ch <b>Species:</b> <i>Cephalorhynchus hectori hectori</i> <b>Common Name:</b> Hector's Dolphin <b>Sex Class:</b> Male <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		.03 m	19/12/2013	Adult
Dorsal Blubber Depth		14 mm	19/12/2013	Adult
Eye to Blowhole Length		.145 m	19/12/2013	Adult
Eye to Corner of Mouth Length		.035 m	19/12/2013	Adult
Girth at Anus		.45 m	19/12/2013	Adult
Girth at Eye		.5 m	19/12/2013	Adult
Girth at Flippers		.685 m	19/12/2013	Adult
Girth at Navel		.74 m	19/12/2013	Adult
Height of Dorsal Fin		.095 m	19/12/2013	Adult
Lateral Blubber Depth		11 mm	19/12/2013	Adult
Length of Base of Dorsal Fin		.23 m	19/12/2013	Adult
Length of Flipper		.215 m	19/12/2013	Adult
Length of Flukes		.12 m	19/12/2013	Adult
Snout to Anus Length		.94 m	19/12/2013	Adult
Snout to Corner of Mouth Length		.175 m	19/12/2013	Adult
Snout to Genital Slit Length		.805 m	19/12/2013	Adult
Snout to Origin of Dorsal Fin Length		.61 m	19/12/2013	Adult

Snout to Origin of Flipper Length	.335 m	19/12/2013	Adult
Total Length	1.3 m	19/12/2013	Adult
Ventral Blubber Depth	11 mm	19/12/2013	Adult
Width of Flipper	.085 m	19/12/2013	Adult
Width of Flukes	.43 m	19/12/2013	Adult
Weight	30.5 kg	19/12/2013	Adult

#### DIAGNOSIS

1. Severe pulmonary parasitism
2. Gastric ulceration
3. Emaciation

#### COMMENTS

This dolphin had no evidence of trauma, so presumably the abnormal swimming that was observed was due to severe weakness. The lungworm burden present was the largest I have seen, and would have contributed to the animal's illness. Heavy parasite infestations in adult dolphins are often associated with underlying disease, and histological examination of tissues is underway to further investigate this.

#### ANIMAL HISTORY

Found at Chrissy' Bay. Dolphin apparently paralysed and not swimming normally prior to death.

#### GROSS PATHOLOGY

This dolphin was in a fresh state of preservation. The body condition was poor, with concavity of the dorsal muscles, a prominent neck, and a thin blubber layer. There were multiple shallow linear wounds over the body, but none suggesting entanglement. There was no bruising to any body area, and no haemorrhage from or around the skin wounds.

The lungs contained extremely large numbers of nematodes (lungworm), with numerous small (2 - 3 mm diameter) parasite granulomas scattered throughout the lungfields. There were extremely large numbers of small (2-6 mm) ulcers in the squamous stomach compartment, and several larger ulcers (approximately 15 mm) in the glandular mucosa. There was no ingesta. The liver was slightly firmer than usual.

The testes were large (274g (left) and 273g (right) without epididymi) and full of semen (active reproductive phase).