

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

**PATHOLOGY REPORT**

**Status:** Final  
**Date:** 12/02/2013  
**Type:** Mortality

<p><b>Submitter</b></p> <p style="text-align: center;">Department of Conservation</p>	<p><b>Submission Details</b></p> <p>Lab. Case/Spec ID: <b>49196</b></p> <p>Submitter's Ref:</p> <p>Date Submitted: 08/02/2013</p> <p>Date Received: 08/02/2013</p> <p>Previous Case ID:</p> <p>WMD Case/Spec ID: 6720/1</p>
<p><b>Animal Details</b></p> <p><b>Animal ID:</b></p> <p><b>Animal Name:</b> W13-05Ch</p> <p><b>Species:</b> <i>Cephalorhynchus hectori hectori</i></p> <p><b>Common Name:</b> Hector's Dolphin</p> <p><b>Sex Class:</b> Female</p> <p><b>Age Class:</b> Adult</p> <p><b>Date Died:</b></p>	<p><b>Epidemiology</b></p> <p>Number Dead:</p> <p>Number at Risk:</p> <p>Number Sick:</p> <p>Number Submitted: 1</p>

**Growth and Development**

Parameter	Result Description	Value	Date Measured	Age Group
Depth of Tail Notch		m	09/02/2013	Adult
Dorsal Blubber Depth		20 mm	09/02/2013	Adult
Eye to Blowhole Length		m	09/02/2013	Adult
Eye to Corner of Mouth Length		m	09/02/2013	Adult
Girth at Anus		m	09/02/2013	Adult
Girth at Eye		m	09/02/2013	Adult
Girth at Flippers		.82 m	09/02/2013	Adult
Girth at Navel		m	09/02/2013	Adult
Height of Dorsal Fin		.11 m	09/02/2013	Adult
Lateral Blubber Depth		14 mm	09/02/2013	Adult
Length of Base of Dorsal Fin		m	09/02/2013	Adult
Length of Flipper		m	09/02/2013	Adult
Length of Flukes		m	09/02/2013	Adult
Snout to Anus Length		m	09/02/2013	Adult
Snout to Corner of Mouth Length		m	09/02/2013	Adult
Snout to Genital Slit Length		m	09/02/2013	Adult
Snout to Origin of Dorsal Fin Length		m	09/02/2013	Adult

Snout to Origin of Flipper Length	m	09/02/2013	Adult
Total Length	1.47 m	09/02/2013	Adult
Ventral Blubber Depth	17 mm	09/02/2013	Adult
Width of Flipper	.09 m	09/02/2013	Adult
Width of Flukes	.42 m	09/02/2013	Adult
Weight	63 kg	09/02/2013	Adult

#### DIAGNOSIS

1. Pneumonia
2. Bilateral ovarian tumours
3. Possible kidney dysfunction
- [4. Possible entanglement]

#### COMMENTS

Although there were several encircling marks around the head of this dolphin, the rest of the post mortem findings weren't typical of a dolphin that has drowned in fishing gear. This dolphin is suspected to be the same animal that live-stranded several days earlier and was re-floated, and the empty stomach, slightly thin body condition and lung disease show that this was a chronically ill animal. The ovarian tumours are interesting, but although they would have contributed to the poor condition of the dolphin, they wouldn't have been fatal by themselves. A likely scenario for the death in this dolphin is that she was ill due to a combination of pneumonia, kidney disease and the large ovarian masses, live-stranded, was re-floated, then either died at sea and was washed up or re-stranded and died on the beach.

#### ANIMAL HISTORY

Found beachcast at Taramakau River mouth.

A live-stranded Hector's dolphin was reported in this area earlier in the week, and was re-floated by a member of the public.

#### GROSS PATHOLOGY

This dolphin was very fresh, with no skin sloughing and only minor scavenging around the eyes and anogenital area. There was a slight concavity behind the head (evidence of weight loss), but the blubber layer was adequate. There were several discontinuous linear impressions encircling the head just behind the eye. No bruising was associated with these. A small shallow indentation was present in the left side of the snout. There were two tattoo pox lesions (left shoulder and right flipper), and three short shallow lacerations (left shoulder, right chest and right flank) with no associated haemorrhage. Several well-healed scars were also present on the flanks. The teeth were in good condition with only mild wear. There was extensive superficial ulceration of the caudal half of the tongue.

Flensing revealed a single focus of blubber bruising on the left at the back of the skull. There were low numbers of blubber cestodes in the inguinal region. The mammary gland was distinct but did not exude milk on incision.

There was no froth in the trachea or bronchi, and a small amount of fluid was present in the lower airways. The lungs contained numerous firm to gritty nodules throughout the parenchyma. Several of these were heavily calcified and could not be cut with a knife. The pleural surface had numerous scattered white flecks. Approximately 10ml of red translucent fluid was present in the pericardial sac.

A small amount (< 100ml) of pinkish turbid fluid was present free within the abdominal cavity. The stomach contained no recognisable prey items, and only a few flukes and nematodes. There was a single focus of mucosal proliferation and ulceration in the glandular stomach. The small intestinal contents were bright yellow/green and fluid, and there were multiple areas of mucosal haemorrhage without free blood in the lumen. The liver had a single multiloculated cystic area immediately beneath the capsule, measuring approximately 8 mm in diameter.

Both ovaries were enlarged and nodular, with the left weighing 1.2kg and the right weighing 57g (normal is 2 - 5g). On incision each ovary was lobulated, with individual lobules varying from tan to white to dark red, and varying in consistency from soft to firm. The centre of the left ovary was replaced by a large discrete area of caseous necrosis with multifocal mineralisation. The uterus was enlarged and flaccid, with a 30mm long fetus in the left horn. Intrauterine fluid and fetal membranes appeared normal.

NOTE: Measurements recorded here are from the DOC stranding sheet. All rulers and tape measures were missing from the post mortem room.

#### HISTOPATHOLOGY

Histology summary:

Ovary (right): ovarian tumour (probable adenocarcinoma)

Ovary (left): ovarian dysgerminoma

Lung: chronic non-suppurative bronchopneumonia with intralesional bacteria

Liver: biliary cystadenoma

Thyroid: hyperplasia

Mammary gland: inactive

Kidney: proteinaceous tubular casts with mineralisation

Pathologist: