

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

PATHOLOGY REPORT

Status: Preliminary

Date: 05/10/2010

Type: Mortality

Submitter	Submission Details
Alan McDonald Department of Conservation Rangiora	Lab. Case/Spec ID: 45494 Submitter's Ref: Date Submitted: 03/10/2010 Date Received: Previous Case ID: WMD Case/Spec ID: 6133/1
Animal Details	Epidemiology
Animal ID: Animal Name: Species: <i>Cephalorhynchus hectori hectori</i> Common Name: Hector's Dolphin Sex Class: Female 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		.02 m	03/10/2010	Adult
Dorsal Blubber Depth		35 mm	03/10/2010	Adult
Eye to Blowhole Length		.145 m	03/10/2010	Adult
Eye to Corner of Mouth Length		.026 m	03/10/2010	Adult
Girth at Anus		.5 m	03/10/2010	Adult
Girth at Eye		.35 m	03/10/2010	Adult
Girth at Flippers		.815 m	03/10/2010	Adult
Girth at Navel		.885 m	03/10/2010	Adult
Height of Dorsal Fin		.09 m	03/10/2010	Adult
Lateral Blubber Depth		30 mm	03/10/2010	Adult
Length of Base of Dorsal Fin		.2 m	03/10/2010	Adult
Length of Flipper		.19 m	03/10/2010	Adult
Length of Flukes		.115 m	03/10/2010	Adult
Snout to Anus Length		.97 m	03/10/2010	Adult
Snout to Corner of Mouth Length		.165 m	03/10/2010	Adult
Snout to Genital Slit Length		.96 m	03/10/2010	Adult

Snout to Origin of Dorsal Fin Length	.7 m	03/10/2010	Adult
Snout to Origin of Flipper Length	.35 m	03/10/2010	Adult
Total Length	1.355 m	03/10/2010	Adult
Ventral Blubber Depth	25 mm	03/10/2010	Adult
Width of Flipper	.085 m	03/10/2010	Adult
Width of Flukes	.425 m	03/10/2010	Adult
Weight	38.9 kg	03/10/2010	Adult

DIAGNOSIS

1. Pneumonia - Intersitial 2. Bronchitis-Fungal 3. Metritis

COMMENTS

The likely cause of death is interstitial pneumonia, the cause of which is unclear at this stage. The animal also appears to have a metritis, possibly secondary to a recent abortion given the haemorrhage/bruising around the cervix and the presence of a corpus luteum. The metritis may have weakened the animal enough to predispose to the pneumonia. The fungal bronchitis is reasonably mild, but likely also related to the animal's weakened condition.

Histopathology will be performed on multiple tissues and this will guide us to what other diagnostics should be performed.

ANIMAL HISTORY

The dolphin was found by a member of the public on a beach at the lowtide mark and was subsequently pulled to the high tide mark and DoC was called. It was a sunny calm day, with little to no swell, sandy beach, no rocks.

GROSS PATHOLOGY

The Hector's dolphin weighed 38.9kg and with a standard length of 135.5cm. The blubber reserves were adequate 3.5cm dorsally, 3cm laterally and 2.5cm ventrally. The muscle mass was relatively low. There were no abnormalities detected externally. The carcass was in a good state of preservation.

Approximately 100ml of clear sero-sanguinous fluid was present in the abdomen, a further 30ml was found in the thoracic cavity. The liver weighed 1.286kg.

The lungs were diffusely and moderately congested, palpated firmer than usual and were rather meaty on cut surface. The lung tissue floated in formalin. The mucosa of the left mainstem bronchus had two, discrete, oval (30x 20mm) cream coloured, slightly raised plaques present. Three lungworm were found after examination of multiple bronchi.

The entire gastrointestinal tract was relatively empty apart from a small amount of dull orange tacky material scattered throughout. There were approximately 15 oval (~12 x 10 x 10mm) shaped fluke-larvae firmly attached to the mucosa of the second and third gastric chambers. The third chamber of the stomach was streaked with bright green bile staining.

The uterine horns appeared enlarged (likely involuting) but flaccid and the walls thicker than usual. The uterine mucosa was diffusely and moderately congested but smooth and glistening, although a small amount of viscous green fluid was present. There was a 20mm in diameter corpus luteum present on the right ovary. There were coalescing haemorrhages present on the mucosa at the junction of the uterine body and the cervix. No mammary gland tissue was noted.

There were no other abnormalities detected on gross post mortem.

Pathologist:

Assistant(s):