

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

PATHOLOGY REPORT

Status: Pending

Date:

Type: Mortality

Submitter	Submission Details
Department of Conservation	Lab. Case/Spec ID: 51752 Submitter's Ref: H254 Date Submitted: 24/02/2015 Date Received: 26/02/2015 Previous Case ID: WMD Case/Spec ID: 7540/1
Animal Details	Epidemiology
Animal ID: H254 Animal Name: W15-03Ch 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		.02 m	27/02/2015	Adult
Dorsal Blubber Depth		14 mm	27/02/2015	Adult
Eye to Blowhole Length		.15 m	27/02/2015	Adult
Eye to Corner of Mouth Length		.04 m	27/02/2015	Adult
Girth at Anus		.5 m	27/02/2015	Adult
Girth at Eye		.575 m	27/02/2015	Adult
Girth at Flippers		.775 m	27/02/2015	Adult
Girth at Navel		.83 m	27/02/2015	Adult
Height of Dorsal Fin		.125 m	27/02/2015	Adult
Lateral Blubber Depth		14 mm	27/02/2015	Adult
Length of Base of Dorsal Fin		.24 m	27/02/2015	Adult
Length of Flipper		.22 m	27/02/2015	Adult
Length of Flukes		.13 m	27/02/2015	Adult
Snout to Anus Length		1.06 m	27/02/2015	Adult
Snout to Corner of Mouth Length		.17 m	27/02/2015	Adult
Snout to Genital Slit Length		1 m	27/02/2015	Adult
Snout to Origin of Dorsal Fin Length		.7 m	27/02/2015	Adult

Snout to Origin of Flipper Length	.35 m	27/02/2015	Adult
Total Length	1.49 m	27/02/2015	Adult
Ventral Blubber Depth	14 mm	27/02/2015	Adult
Width of Flipper	.88 m	27/02/2015	Adult
Width of Flukes	.505 m	27/02/2015	Adult
Weight	42.3 kg	27/02/2015	Adult

DIAGNOSIS

Scoliosis of the spine

COMMENTS

The spine in this dolphin was severely deviated, and there was degeneration of the intervertebral discs as well as bony fusion of the affected vertebrae. The healed scars present on the skin over the site of spinal damage suggest that this may have been caused by a traumatic injury (predator impact or possibly an impact with a vessel). The dolphin may have been able to cope initially, but as time went by the bones and discs began to degenerate, resulting in atrophy of the tail muscles and likely severely compromised foraging ability. The loose teeth and the ulcerated chin might have been due to the need for this dolphin to modify her foraging behaviour, for example spending increased time foraging on the sea floor.

ANIMAL HISTORY

Found at approximately mean high tide mark on Tihaka beach end of Colac Bay.

GROSS PATHOLOGY

This dolphin was in reasonable post mortem condition and poor body condition. There was a prominent deviation of the caudal spine/tail stock region, with healed scars over the flanks and dorsum at this level. There was severe muscle wasting bilaterally along the back and tail, with a prominent neck (thin body condition). The dorsal spinous processes of the vertebrae at the level of the deviation were deviated to the side. There were numerous healed scars over the body, as well as multiple linear skin wounds along the dorsum and sides of the tail stock and ulcerations of the chin and snout. The skin was easily separated from underlying blubber (early stages of decomposition). None of the wounds were suggestive of entanglement. None had associated bruising. The right eye was completely scavenged, and there were superficial scavenging lesions around all orifices. Many of the teeth were worn and loose. The ovaries contained numerous follicles but no corpora lutea. The uterus had linear indentations (evidence of previous pregnancies). The mammary glands did not contain milk. The stomach contained moderate numbers of nematodes and no soft or hard prey parts. There were a few ulcers in the glandular stomach compartment. The lungs contained moderate numbers of small gritty 2-3mm diameter granulomas (chronic mild lungworm infection). No froth or foam was present in the airways and the lungs were well inflated.

RADIOLOGY

Dorsoventral and lateral radiographs were taken. At least three of the caudal vertebrae showed marked narrowing of the intervertebral space due to degeneration and loss of the nucleus pulposus and spitting and fragmentation of the annulus fibrosis. This was accompanied by sclerosis of the adjacent vertebral end plates. There was also asymmetrical bridging spondylosis of these vertebral bodies. There was no obvious gross impingement on the overlying spinal cord.