

Institute of Veterinary, Animal and Biomedical Sciences

PATHOLOGY REPORT

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TO: Callum Lilley
Department of Conservation
New Plymouth

Species: Cetacean (1)	Sex: Male	Age: Adult	Breed: Hector's Dolphin
ID:	At Risk:	Affected:	Dead: 1
Owner: Department of Conservation	Prev. Accn.:	Type: Post Mortem	

HISTORY

Member of public found the body (25/04/2012) and contacted Department of Conservation. Brought to Massey University for post mortem examination.

GROSS FINDINGS

The animal weighed 30.3kg and was in poor body condition, with reduced blubber and epaxial muscle mass as well as no grossly visible epicardial fat reserves. The animal was in a fairly good state of preservation; although roughly 50% of the epidermis had sloughed, internal organs were still in a good state of preservation. There was moderate post mortem lividity of the skin and blubber of ventral head, neck and thoracic regions. The left eye was absent (likely scavenged).

Weight: 30.3kg

Standard length: 1270mm

Snout to anus: 910mm

Snout to genital slit: 770mm

Snout to origin of dorsal fin: 615mm

Snout to origin of flipper: 300mm

Snout to corner of mouth: 150mm

Corner of mouth to eye: 30mm

Dorsal fin height: 95mm

Dorsal fin length (base) 185mm

Fluke Width: 350mm Length: 90mm Notch: 20mm

Girth Eye: 510mm Flippers: 700mm Navel: 735mm Anus: 450mm

Flipper Width: 80mm Length: 210mm

Eye to blowhole: 135mm

Blubber Dorsal: 10mm Lateral: 8mm Ventral: 10mm

Cranioventral areas of both lungs (approximately 15% of the right lung and 20% of the left lung) were firm, irregularly raised and mottled deep-red to tan. Within these areas small amounts of purulent material was present in bronchi. Scattered throughout both lung lobes, but most prevalent in the caudodorsal lung lobes, were numerous discrete firm to gritty tan foci, up to 10mm in diameter.

Apart from half a dozen nematodes (up to 50mm in length) and small amounts of mucus, all three stomach chambers were devoid of content. A small amount of pasty green faeces was present, otherwise both the small and large intestine were also devoid of content.

At least 50% of the pancreas was slightly but evenly raised, firm and slightly pale compared to the adjacent pancreatic parenchyma.

The liver contained around 10-15 "cyst"-like structures, often in small clusters, the largest measuring 20mm in diameter. Several of the cysts were deep within the liver parenchyma, while the remainder projected from the capsular surface. Larger foci were filled with pale green-milky viscous fluid.

The testis were prominent, each weighing 70 grams (95 grams with epididymis attached) and measuring

140 x 45mm.

In the dorsal region of the mid-part of the right frontal lobe of the brain was a reasonably discrete focus (~15 x 20mm) of pale green purulent material that appeared to connect with the overlying leptomeninges. No other abnormalities were noted on gross post mortem.

PROVISIONAL DIAGNOSIS

Emaciation, moderate to severe
Bilateral bronchopneumonia (subacute, moderate), presumptive
Unilateral brain abscess, presumptive
Multiple liver cysts/abscesses, presumptive

COMMENTS

This was a male subadult/adult dolphin in poor body condition, with markedly reduced blubber, adipose and muscle reserves. In addition this dolphin has not feed for several days as the stomach and intestines were largely devoid of any ingesta/digesta.

Lesions were noted in several organs and these will have all contributed in part to the animal's poor body condition.

Firstly, this dolphin had a bronchopneumonia, likely bacterial, but histology will be needed to confirm this and see if there were any other predisposing factors. The pneumonia appears to be only several days old (i.e. the pneumonia is probably a result of the animal's poor body condition, not necessarily the cause) and alone may not have been enough to kill the animal.

Secondly, there was an abscess (almost 2cm in diameter) in the right cerebral hemisphere of the brain; it is difficult to age this lesion without histology and difficult to say at this stage whether it is related to the pneumonia. It certainly would have contributed to the animal's declining body condition.

Thirdly, there were a number of cystic/purulent lesions in the liver, which again, by themselves would not have been enough to kill the dolphin, but in combination with the other lesions, would of had a cummulitive effect. These "cysts" could be related to previous parasite migration, but again, histology will be needed. In addition, parts of the pancreas appeared firmer than usual, possibly indicating previous damage to this organ; histology will be needed to confirm this.

There was no obvious trauma to this dolphin and nothing to suggest he was caught in fishing nets.

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