# Institute of Veterinary, Animal and Biomedical Sciences Massey University 

## PATHOLOGY REPORT

Status: Pending
Date:
Type: Mortality

| Submitter | Submission Details |  |
| :---: | :---: | :---: |
| Department of Conservation <br> Hokitika | Lab. Case/Spec ID: <br> Submitter's Ref: <br> Date Submitted: <br> Date Received: <br> Previous Case ID: <br> WMD Case/Spec ID: | $\begin{gathered} 47298 \\ H 217 \\ 23 / 02 / 2012 \\ 6690 / 1 \end{gathered}$ |
| Animal Details | Epidemiology |  |
|  | Number Dead: <br> Number at Risk: <br> Number Sick: <br> Number Submitted: | $1$ <br> 1 |

## Growth and Development



| Snout to Origin of Flipper Length | . 325 m | 24/03/2012 |
| :---: | :---: | :---: |
| Total Length | 1.34 m | 24/03/2012 |
| Ventral Blubber Depth | 13 mm | 24/03/2012 |
| Width of Flipper | . 085 m | 24/03/2012 |
| Width of Flukes | . 42 m | 24/03/2012 |
| Weight | kg | 24/03/2012 |

## DIAGNOSIS

Internal haemorrhage

## COMMENTS

Extensive haemorrhage as seen in this case can be due either to widespread damage to blood vessels or to abnormal blood clotting. There was no indication of blunt trauma anywhere on this dolphin's body, and histological examination did not show any evidence of systemic infection, which is one possible cause of widespread damage to blood vessel walls. The pattern of bleeding isn't consistent with seismic/sonarrelated ('gas-bubble') injuries, and this, combined with the fact that sonar-related inuries typically occur in deep-diving species, means that this is not a likely cause. Kidney failure can impair blood clotting and cause bleeding; this dolphin did have kidney lesions, but it isn't possible to definitively diagnose blood clotting abnormalities in dead animals.

## ANIMAL HISTORY

Found beachcast at Hokitika rivermouth.

## GROSS PATHOLOGY

This dolphin was received chilled, and was in a good state of preservation, with scavenging of both eyes and multiple large copepods embedded in the orbital soft tissue. The body condition was good, with rounded epaxial muscle outlines.
A few cestodes were present in the inguinal muscle. There was haemorrhage in the deep aspects of the muscles overlying the cranial aspects of the scapulae ('shoulder' regions), although there was no damage to the overlying skin or blubber, and the more superficial muscle was normal. Within the body cavities there was extensive haemorrhage in the soft tissues alongside the vertebral column, extending from the thoracic inlet to the thoracolumbar area. Extensive haemorrhage was also present in the soft tissues suspending the thoracic and cranial abdominal aorta, surrounding the aortic lymph nodes, in the mediastinum and in the pericardial membrane. The lungs were glistening and slightly heavy, but there was no froth or fluid in the airways. The coronary vessels of the heart had thickened prominent walls, and the arotic intima appeared slightly granular and thickened.
The stomach was full on palpation. The right adrenal gland contained a pale tan spherical mass which compressed the adrenal cortex. The kidneys were mottled, with small (1-2mm) cysts within the cortex. There were linear striations on the uterine body (evidence of previous pregnancies) and multiple corpora on the ovaries. No milk was present in the mammary gland.
On removal of the brain there was haemorrhage into the subdural and subarachnoid spaces at the base of the brain

