Institute of Veterinary, Animal and Biomedical Sciences
Massey University

PATHOLOGY REPORT

Status: Final
Date:
Type: Mortality

Submitter	Submission Details
Department of Conservation	Lab. Case/Spec ID: **50826** Submitter's Ref: Date Submitted: 02/05/2014 Date Received: 03/05/2014 Previous Case ID: WMD Case/Spec ID: 7367/1

Animal Details		Epidemiology	
Animal ID:			
Animal Name:	S14-10Ph	Number Dead:	
Species:	*Phocarctos hookeri*	Number at Risk:	
Common Name:	New Zealand (Hooker's) Sea Lion	Number Sick:	
Sex Class:	Male	Number Submitted:	1
Age Class:	Adult		
Date Died:			

DIAGNOSIS
Death due to sepsis and malnutrition associated with fractures and infection from gunshot wounds

COMMENTS
This sea lion had been shot twice at the same site between the shoulder blades. Two different kinds of bullet were found in the wounds, but these were likely of the same caliber (.303 or .308) and could have been fired from the same weapon. The sea lion survived for at least 3-4 days after having been shot, and may have been able to move (although this would have been painful and slow) from the site of the shooting.

ANIMAL HISTORY
Found dead on beach in Deadman's area. Packed on ice and dispatched via ferry and Hall's transport to Massey.

GROSS PATHOLOGY
This male sea lion was thin, with increased prominence of the ribs, pelvis and vertebrae, and a thin (15mm) blubber layer for his size. There was an oval, full thickness skin wound approximately 35 x 40 mm in the dorsal midline, at the level of the scapulae (shoulder-blades). Underlying muscle was exposed, but there was no evidence of haemorrhage or bruising. The margins of the wound were hairless, with raised skin edges (indicating early healing). The skin and underlying muscle had been separated on both sides of the wound, forming tracts that passed forward along the thorax. Several pockets of purulent material were present in these tracts, and there was extensive disruption and necrosis of associated muscle. One pocket on the left side contained a copper and lead bullet fragment weighing 6.3g. A similar bullet, weighing 5.8g, was found on the right side. The bullet from the right was shinier and had an inner ring on the copper base. The diameter of the bullets varied from 7.6 - 7.8 mm.
Both scapulae were fractured. The right scapula had a large bone defect in the dorsal body, with numerous fracture fragments embedded in the surrounding muscle. Extending from this bone defect was a full thickness fracture through the body of the scapula, with pronounced displacement of the fractured bone. On the left scapula a fracture ran from the dorsal border toward the articular surface, fanning out into multiple 'crack' fractures toward the neck of the scapula.

The oesophagus contained several fish bones, and the stomach had 7 - 10 fish vertebrae and several rib bones. There was no evidence of recent prey ingestion.
The lungs were mildly congested. No other abnormalities were detected.

HISTOPATHOLOGY
Histology summary.
Sections through muscle from the sinus tracts show extensive necrosis, bacterial colonies and inflammation, with early stages of granulation tissue.

Pathologist: