School of Veterinary Science

Pathology Report

Submitter Ref.: H313	Date Sent:	Accession No.: **61548**

To: Craig Alexander
Department of Conservation
Christchurch

Email:

Report Sent: 03/03/2023
Copy To:

Species: Cetacean		Breed: Hector's Dolphin	
Age: Neonate		Sex: Male	
Owner:			Type: Post Mortem
ID:			Prev. Accn.:
Submitted:	At Risk:	Affected:	Dead:

Gross Findings

This dolphin was received frozen and was thawed for necropsy. The body was in a mild to moderate state of decomposition (code 2), with full thickness loss of the skin around the eyes and other orifices. The right eye was missing; the left eye was present but sitting deep within the orbit. The blubber was not liquefied.
Weight = 9.0kg. Standard length = 770cm; Blubber depths = 15 dorsal; 16 lateral; 15 ventral. There was a mildly pronounced concavity at the neck on a lateral view, but overall body condition was assessed as moderate to good. Fetal folds were present. The umbilicus was well healed. No teeth had erupted, and no fetal whiskers were present. Several short sets of rake marks were present on the body, along with a single, healed superficial linear wound on the left flank.
The mandibular blubber and skin were undermined with extensive loss of soft tissue including the tongue, trachea, a portion of the cranial lung lobes and mediastinal tissue, without associated haemorrhage (scavenging). The lungs were inflated and the right lobes congested.
The kidneys and liver were extremely pale. The stomach was empty. The distal large intestine contained watery yellow digesta, with no meconium.

Diagnosis

1. Severe fatty infiltration, liver and kidney
2. Suspected maternal separation

Comments

This young calf had a large amount of fat deposited in the liver and kidneys. This can happen due to a sudden period of starvation (fat from the blubber is mobilised into the bloodstream and then to the organs) or with some inherited abnormalities of fat metabolism. Either way, this reflects a severe metabolic imbalance, which can then lead to death. It is possible that the underlying cause in this case is separation from the mother, which means that the calf has no source of milk and begins to metabolise its body fat stores, although it is unusual to see such marked changes in the kidneys. Abnormal fat metabolism has not been widely reported in marine mammals, so this would be a less likely cause, although there is no way to evaluate this any further in this calf.

Date: 03/03/2023	Pathologists: W D Roe
Students:	