College of Veterinary Medicine
Veterinary Diagnostic Laboratory

Accession Number: (b) (6), (b) (4)
Account Number: (b) (6), (b) (4)

Testing Lab:	Zoological Pathology Program	**Client:**	IFAW
Date Received:	02/09/2026		Marine Mammal Rescue, 290 Summer St
Report Date:	03/02/2026		Yarmouth Port, MA 02675
		Veterinarian:	(b) (6)

FINAL REPORT

Animal ID:	IFAW25-275Pm Cetacean :: Sperm Whale		
Specimen:	Tissue :: Formalin fixed	**Collection Date:**	02/09/2026

ZOOLOGICAL PATHOLOGY PROGRAM | ZOOLOGICAL PATHOLOGY PROGRAM

Test: Histopathology 6

Report

ZOOLOGICAL PATHOLOGY PROGRAM
CETACEAN NECROPSY REPORT

Field ID: IFAW25-275Pm
Additional Identifier:
ZPP Accession Number: (b) (6), (b) (4)
Strand date: 21 November 2025
Species: Sperm whale; *Physter macrocephalus*
Sex: Male
Age class: Adult
Necropsy Date: 21 November 2025
Condition code: 3
Total Length: 1415 cm
Weight: 31,012 kg
Blubber Depth:
Body Condition: good

Gross Necropsy: Gross report on file.

Slides/Tissues Received: Multiple formalin fixed tissues.

Microscopic Findings:
Slide 1:
Lung: No significant findings (NSF)

Slide 2:
Unknown tissue: NSF – marked autolysis

Bronchus: NSF

Mucosa: NSF

Slide 3:
Skeletal muscle (v3): Myofibers are regionally disassociated.

Unknown tissue X 2: NSF – marked autolysis

Slide 4:
Lung: NSF – marked autolysis

Slide 5:
Intestine: NSF

Labelled axillary lymph node ?: Dense connective tissue

Slide 6:
Chest wall/lung: NSF

Left ventral pectoral insertion: NSF

Slide 7:
Lesion 4 muscle: There is regional myofiber disassociation and fragmentation with affected myofibers surrounded by moderate numbers of red blood cells.

Lesion 3 superficial muscle: Within adjacent connective tissue adipocytes are fragmented and separated by moderate amounts of pale eosinophilic flocculent fluid and portion of presumed fragmented muscle fibers. This material is mixed with few intact red blood cells (presumed hemorrhage).

Waxy muscle: Connective tissue is widely separated by colorless space containing a few cells that are expanded by foamy cytoplasm.

Slide 8:
Pylorus: NSF

Intestine: NSF

Lesion 3 muscle: Regionally within connective tissue adipocytes are fragmented, ruptured, collapsed and or replaced or separated by small amounts of pale eosinophilic flocculent fluid (edema). Within this area are few large cells (presumed macrophages) with foamy cytoplasm. In another section connective tissue fibers are multifocally separated by pale eosinophilic fluid. In some areas there are colorless clefted spaces (possible cholesterol clefts or artifact).

Slide 9:
Intestine with lymph node: NSF

Forestomach: NSF

Mesenteric lymph node: NSF

Slide 10:
Left ventral pectoral caudal lesion: Myofibers are multifocally rounded, swollen, fragmented and or disassociated. Within adjacent connective tissue adipocytes are fragmented or ruptured and within the remaining spaces are small numbers of scattered, variably sized vacuolated cells.

Intestinal lesion: NSF

Slide 11:
Lesion 1A: The dermis contains small numbers of lymphocytes, plasma cells, macrophages, and a few hemosiderin laden macrophages.

Pallet mucosa: The mucosa is undulating with superficial curved inward depressions of the superficial mucosa corresponding to areas of mild hyperplasia.

Slide 12:
Lesion 1C: There is mild to moderate epidermal hyperplasia and marked dermal fibrosis.

Slide 13:
Lesion 1D: There is mild epidermal hyperplasia and marked dermal fibrosis.

Slide 14:
Lesion 1E: There is mild epidermal hyperplasia and marked dermal fibrosis.

Slide 15:
Lesion 4 Blubber: There is mild edema at the deepest aspect of the blubber.

Slide 16:
Ventral blubber (v3): NSF

Slide 17:
Skin: NSF

Slide 18:
Trachea: NSF

Slide 19:
Aorta: NSF

Skeletal muscle: There are a few small areas in which myofibers are multifocally rounded, swollen, fragmented and/or disassociated.

Final Diagnoses:

1. Skin lesion 1, entanglement scar: Epidermal hyperplasia and dermal fibrosis (scar)
2. Lesion 3 and 4 muscle: Moderate myofiber disassociation, fragmentation, and presumed hemorrhage
3. Lesion 3 and 4 connective tissue: Adipocyte rupture, necrosis, and edema
4. Left ventral pectoral caudal lesion: Moderate myofiber fragmentation, necrosis and hemorrhage; Moderate adipocyte rupture and necrosis

Comments:

Though autolysis was marked in most tissues and limited viscera was able to be examined, based on the gross and histologic lesions it is possible that this whale may have succumbed due to the chronic effects of previous vessel strike. The skin defect (Lesion 1) was well healed with thick scar formation. There was no evidence of secondary infection in the sections sampled from this lesion. However, the muscle and connective tissue around this lesion (lesions 3 and 4) had evidence of significant damage, necrosis, and hemorrhage. There are several scenarios as to the cause of this lesion. It is possible that some of this muscle damage had been ongoing or residual from the original traumatic event. Another possibility is that contraction of the scar tissue during healing let to reaggravation of muscle damage with swimming motions. A third possibility is that another more acute traumatic event occurred in this whale prior to stranding. Muscle damage at any of these stages may have led to kidney damage and kidney was not able to be collected at the time of necropsy.

In some of the areas of connective tissue adjacent to affected muscle adipocytes between collage fibers were ruptured with only eosinophilic fluid or foamy cells remaining. This was also consistent with traumatic damage to the tissue. It is unclear whether this corresponded to the waxy consistency of the tissue noted grossly.

Authorized by: (b) (6)

Zoological Pathology Program
zpplaboratory@vetmed.illinois.edu
3300 Golf Rd
Brookfield, IL 60513
Phone: (312) 585-9050
Website: http://vetmed.illinois.edu/vdl/zoopath/