Algal bloom wildlife post-mortem report

Government of South Australia
Department for Environment and Water

Species – Long-nosed fur seal

Date collected – 26 May 2025

Location – Brighton Beach

History relating to the animal

An adult female long-nosed fur seal (LNFS) (*Arctocephalus forsteri*) had hauled out (come to land) at Brighton Beach esplanade, on the pedestrian footpath, during an extreme weather (storm) event on 26 May 2025. This is not a usual haul out location for a LNFS.

Clinical examination

The animal was emaciated (very thin) and unresponsive when veterinary and National Parks and Wildlife Services personnel approached. The left eye was opaque (white). Veterinary assessment recommended anaesthesia, investigation and likely euthanasia, as the animal appeared very unwell. The animal died as it was being anaesthetised.

Necropsy

The necropsy (looking at the whole body) revealed that the animal was in poor body condition and very underweight, with very little fat under the skin or in the abdominal cavity (which is usually abundant in marine mammals for thermoregulation - keeping warm in the water). The epaxial (back) muscles were atrophied (very thin from decreased use and decreased nutrition). This is also very unusual in marine mammals as these muscles are very important for moving around (in water and on land). The animal had round worms and tape worms (gut parasites), which are common in wild LNFSs. There were some changes in the trachea (wind-pipe) and lungs. They were red-to-pink, and this was thought to be due to changes at death (a normal part of the dying process).

Tissues were collected to test for avian influenza (which can infect marine mammals), and for histopathology (looking at tissues under the microscope for more detailed information). Testing for brevetoxins and other algal biotoxins, a possibility due to the algal bloom, was requested. Samples were collected for other testing that might be indicated after these tests were performed.

Histopathology

Samples from every major body system were examined under the microscope. The opaque (left) eye appeared normal when examined (under the microscope). There were mild changes found in multiple body systems. There was some inflammation in the tongue, which was ‘subclinical’, meaning you couldn’t see this if examining the live patient (and therefore very mild). The changes (dead cells and inflammation) in the spleen were likely due to increased stress hormones from long-term weight loss. There was mild hepatitis (liver inflammation), possibly due to a bacterial infection. Inflammation was also found in the kidneys. The

haemorrhages (bleeding) in the brain and lungs were likely normal changes that occur at the time of death. In addition, there was a mild bacterial bronchopneumonia (respiratory infection), but there was no evidence of tuberculosis.

Culture

The bacteria *Clostridium perfringens* was identified and a moderate growth of other mixed organisms. This is not an unusual bacteria and is present in the environment. This bacteria can become dominant and 'take over' in an unwell individual, because the immune system is compromised (weak or overwhelmed). This is likely the case for this LNFS.

Brevetoxins

No samples were above limits of reporting.

Other algal biotoxins

No samples were above limits of reporting.

Avian influenza

Results were negative.

Summary

The animal had hauled out (come to land) at an unusual place during a storm. The animal was very underweight and unwell and died while being anaesthetised. Laboratory examination found signs of long-term inflammation and infection in many body systems, but could not identify the original cause of disease and weight loss. Laboratory testing for tuberculosis and avian influenza was negative and there was no evidence of the presence of brevetoxins or other algal biotoxins.

Outlook

PATH RESULTS: SEAL NEW ZEALAND FUR, (Ma) [redacted]

From [redacted]
Date Wed 13/08/2025 5:00 PM
To [redacted]

[redacted]

Report Addressee:
DEW - MARINE
DEPT OF ENV WATER & NATURAL RE
[redacted]

Tested on 27/05/25
Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**
[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

SUMMARY DIAGNOSIS
No diagnosis for the cause of death or chronic weight loss is concluded

COMMENTS
The gross and histopathological findings have not determined the cause of weakness and chronic weight loss.

Avian influenza infection is excluded based on PCR results. There are no histological findings consistent with disease due to Mycobacterium pinnipedii (part of the Mycobacterium tuberculosis complex). Mycobacterium culture and PCR have not been completed to assess for subclinical carriage of this pathogen.

Tissues have been sent to Analytical Services Tasmania for Biotoxin and brevetoxin assays. Please note there will be a delay for the results because AST is currently trying to identify a physical containment 2 facility to process and test the samples due to the risk of subclinical carriage of Mycobacterium sp. in the tissues.

Brief summary of histological findings
The splenic lymphocytolysis may be due to chronic elevated endogenous

glucocorticoids / malnutrition.

There is a mild hepatitis, suggestive of a bacterial hepatitis.

Intestinal cestodiasis (possibly Diphyllobothrium sp.) are normal findings in adult NZ fur seals.

The subacute to chronic glossitis is very mild and likely a subclinical

The mild nephritis suggests a historic bacteraemia.

The haemosiderophages within the lymph node and spleen suggest mild intestinal haemorrhage / haemorrhage at other sites.

The mild tracheitis is likely an acute or subacute bacterial process, associated with stress / intercurrent morbidity.

The pulmonary and meningeal haemorrhages are likely agonal processes, at the time of death.

[redacted]

Tested on 27/05/25
Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**
[redacted]

E
[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

There are no gross or histological findings to explain the opacity in the left eye, when the seal was examined at Brighton.

[redacted]
Specialist Veterinary Anatomic Pathologist
[redacted]

[redacted]

Tested on 27/05/25
Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**

[redacted]

E

[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

HISTOPATHOLOGY FROM NECROPSY

REF: 2025/VHI946
ADDITIONAL FINDINGS 12/6/2025
Please refer to the findings below.

CLINICAL HISTORY
This is a summary of the clinical history on the request form.
The seal had hauled itself out onto the Brighton beach. It is very unusual to see a seal on the footpath.
The animal was moribund, emaciated, and showed very little response when approached. The animal was anaesthetized with medetomidine/ketamine/zolazapam but Died on induction. AI ruleout and TB ruleout please.

MACROSCOPY
1A- D = jejunum, ileum, duodenum, colon, mesenteric lymph nodes, stomach
1E = aorta, heart, skeletal muscle, tongue.1F = kidney, liver liver, lung.1G = lymph node, spleen, spinal cord.1H = trachea1I = lumbar spinal cord
1J+ 1K = left eye

2A = cervical spinal cord.2B = cerebellar peduncles.2C = cerebellum.2D = midbrain.2E = occipital cortex.2F = hippocampus.2 G = parietal cortex.2H = basal ganglia.2 I = frontal cortex

MICROSCOPY
There is mild autolysis of the alimentary tract. Aside from this artifact change the following findings are described.

Jejunum: Within a crypt there are cross sections of cestodes (30 micron

diameter with tegument, spongy parenchyma, gravid uteri with oval ova and calcareous corpuscles).

Mesenteric lymph nodes: Diffusely the interfollicular cortical sinuses and medullary sinuses contain low to moderate numbers of haemosiderophages, plasma cells and lymphocytes.

Tongue: Multifocally within the interstitium subjacent to the epithelium there are low numbers of lymphocytes and plasma cells. (Mild,

[redacted]

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E

[redacted]

[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

multifocal, subacute to chronic lymphocytic, plasmacytic, glossitis)

Spleen: Multifocally lymphoid follicles are replaced by lytic necrosis (eosinophilic cellular and karyorrhectic debris; lymphocytolysis) admixed with hyaline extracellular deposits (possibly fibrin). Throughout the red pulp moderate numbers of haemosiderophages surround sinus capillaries. (Mild, multifocal, subacute lymphocytolysis with hyalinized germinal centres)

Liver: Low numbers of plasma cells and small lymphocytes are seen around periportal regions. Diffusely the sinusoids are congested with erythrocytes. Diffusely hepatocytes contain intracytoplasmic fine brown pigment (probably lipofuscin).

Lung: Diffusely the alveolar interstitium is expanded by hyperaemia / congestion. There are low numbers of macrophages and fewer neutrophils within the lumens of bronchi and bronchioles. Multifocally there is mild haemorrhage in to the alveolar spaces (Pulmonary hyperaemia / congestion and mild, multifocal acute pulmonary haemorrhage and Mild, multifocal, subacute bronchopneumonia)

Kidney: There is mild autolysis. Aside from this artifact, multifocally there are low numbers of lymphocytes and plasma cells expanding the cortical interstitium. (Mild multifocal, subacute to chronic lymphocytic, plasmacytic interstitial nephritis)

Trachea: There is moderate autolysis with multifocal areas of epithelial cell sloughing into the lumen. Aside from this artifact there are low numbers of viable and degenerate neutrophils admixed with mucus over the intact mucosal surface. (Mild, focal, acute to subacute neutrophilic tracheitis)

Brain: There is mild autolysis. There is mild focal mild haemorrhage within the meninges. (Mild, focal acute meningeal haemorrhage)

Left eye: The left eye appears normal.

Those tissues not described including skeletal and cardiac muscle, vessel, and spinal cord appear normal.

DIAGNOSIS

[redacted]

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[redacted]

[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

Jejunum: Intestinal cestodiasis

Tongue: Mild, multifocal, subacute to chronic lymphocytic, plasmacytic, glossitis

Spleen: Mild, multifocal, subacute lymphocytolysis with hyalinized germinal centres

Liver: Mild, multifocal, subacute to chronic lymphocytic, plasmacytic hepatitis

Lung: Pulmonary hyperaemia / congestion and mild, multifocal acute pulmonary haemorrhage and mild, multifocal, subacute bronchopneumonia

Kidney: Mild multifocal, subacute to chronic lymphocytic, plasmacytic interstitial nephritis

Trachea: Mild, focal, acute to subacute neutrophilic tracheitis

Brain: Mild, focal acute meningeal haemorrhage

COMMENTS
The gross and histopathological findings have not determined the cause of weakness and chronic weight loss.

The splenic lymphocytolysis may be due to chronic elevated endogenous glucocorticoids / malnutrition.

There are multiple, generally minor and likely subclinical processes.

There is a mild hepatitis, suggestive of a bacterial hepatitis. You may consider culture of the liver. Please contact the laboratory within the next 1-2 weeks if culture is required. Additional charges will apply.

Intestinal cestodiasis (possibly Diphyllobothrium sp.) are normal findings in adult NZ fur seals.

The subacute to chronic glossitis is very mild and likely a subclinical process.

The mild nephritis suggests a historic bacteraemia.

[redacted]

Tested on 27/05/25
Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**
[redacted]

[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

The haemosiderophages within the lymph node and spleen suggest mild intestinal haemorrhage / haemorrhage at other sites.

The mild tracheitis and bronchopneumonia are likely subacute bacterial processes, associated with stress / intercurrent morbidity.

The pulmonary and meningeal haemorrhages are likely agonal processes, at the time of death.

There are no gross or histological findings to explain the opacity in the left eye, when the seal was examined at Brighton.

Report completed by
[redacted] Resident anatomic veterinary pathology

and

[redacted]
Specialist Veterinary Anatomic Pathologist
[redacted]

MICROSCOPY 12/6/2025
Lung: Gram negative short rod and bacilli bacteria are seen in the lumen of bronchioles and rare alveolar spaces admixed with alveolar macrophages and neutrophils. Microorganisms are not seen on PAS stains (no yeast or fungi) or Ziehl Neelsen stains (Acid fast bacilli such as Mycobacterium sp. are not seen).

Liver and kidney: Microorganisms are not seen on Gram, PAS or Ziehl Neelsen stains (Acid fast bacilli such as Mycobacteirum sp. are not seen).

DIAGNOSIS
Lung: Bacterial bronchopneumonia

COMMENTS
The bronchopneumonia due to mixed bacterial sp. is mild and likely secondary to chronic stress. Bacterial culture of the lung will likely

[redacted]

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Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**

[redacted]

[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

produced a mixed bacterial growth with no dominant pathogen, based on these microscopic findings. However, if you would like to investigate for a dominant bacterial pathogen please contact the laboratory to request lung culture within the next 1-2 weeks, if possible.

There are no histological findings consistent with disease due to Mycobacterium pinnipedii (part of the Mycobacterium tuberculosis complex). Mycobacterium culture and PCR have not been completed to assess for subclinical carriage of this pathogen.

As requested by Dept Environment and Water SA, fresh brain, kidney, lung and liver are sent to Analytical Services Tasmania for biotoxin and brevetoxin testing.

[redacted]

Specialist Veterinary Anatomic Pathologist

[redacted]

[redacted]

[redacted]

Tested on 27/05/25
Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**

E

[redacted]

[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

EMERGENCY DISEASE REFERRED TEST

Disease: AVIAN INFLUENZA VIRUS
Method: H5 - TaqMan Assay
H7 (CODA Kit) - TaqMan Assay
H9 - TaqMan Assay - (Modified)
subtype H5 Australian lineage - TaqMan Assay

Specimen type: Liver, Lung, Heart, Brain, Kidney, Spleen, Oropharyngeal swab

RESULT: All 7 samples Negative for all 4 assays

[redacted]

Validated by [redacted] Laboratory Scientist.

[redacted]

Tested on 27/05/25
Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**

[redacted]

[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

MOLECULAR DIAGNOSTICS

Influenza Type A - TaqMan Assay

Species : Fur seal Number of specimens: 7
Specimen type : Oropharyngeal swab & Tissue

SAMPLE ID	TEST RESULT
LIVER	Negative
LUNG	Negative
HEART	Negative
BRAIN	Negative
KIDNEY	Negative
SPLEEN	Negative
OP SWAB	Negative

[redacted]

Validated by [redacted] Laboratory Scientist.

[redacted]

Tested on 27/05/25
Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**
[redacted]

[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

REFERRED TEST

Disease/Test : Brevetoxins in Biota by LC-MS/MS
Specimen Type: Lung, Kidney, Liver, Spleen, Brain

RESULT : Brevetoxin 2 - All 5 samples <0.01 mg/kg WMB
Brevetoxin 3 - All 5 samples <0.01 mg/kg WMB

Comment : NATA/RCPA accreditation does not cover the performance of this service

This test was performed by: [redacted]

Validated [redacted] Veterinary Pathologist.

CASE MANAGEMENT DETAILS

Case Managed by:
Case Management Requested by:
Case Management Requested on:
[redacted]

Case Details: Seal found at Brighton

[redacted]

Tested on 27/05/25
Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**

[redacted]

[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

REFERRED TEST

Disease/Test : PST in Biota by LC-MS/MS (Boundy Method)
Specimen Type: Lung, Kidney, Liver, Spleen, Brain

RESULT :

C1	- All 5 samples <0.01 STX.2HCI eq. mg/kg
C2	- All 5 samples <0.02 STX.2HCI eq. mg/kg
C3	- All 5 samples <0.02 STX.2HCI eq. mg/kg
C4	- All 5 samples <0.02 STX.2HCI eq. mg/kg
dcGTX1	- All 5 samples <0.02* STX.2HCI eq. mg/kg
dcGTX2	- All 5 samples <0.02 STX.2HCI eq. mg/kg
dcGTX3	- All 5 samples <0.02 STX.2HCI eq. mg/kg
dcGTX4	- All 5 samples <0.02* STX.2HCI eq. mg/kg
dcNEO	- All 5 samples <0.02 STX.2HCI eq. mg/kg
dcSTX	- All 5 samples <0.01 STX.2HCI eq. mg/kg
doSTX	- All 5 samples <0.01* STX.2HCI eq. mg/kg
GTX1	- All 5 samples <0.01 STX.2HCI eq. mg/kg
GTX2	- All 5 samples <0.01 STX.2HCI eq. mg/kg
GTX3	- All 5 samples <0.01 STX.2HCI eq. mg/kg
GTX4	- All 5 samples <0.01 STX.2HCI eq. mg/kg
GTX5	- All 5 samples <0.02 STX.2HCI eq. mg/kg
GTX6	- All 5 samples <0.02 STX.2HCI eq. mg/kg
NEO	- All 5 samples <0.02 STX.2HCI eq. mg/kg
STX	- All 5 samples <0.01 STX.2HCI eq. mg/kg
Total PST	- All 5 samples <0.10 STX.2HCI eq. mg/kg

Comment : * NATA/RCPA accreditation does not cover the performance of this service

This test was performed by: [redacted]

Validated by [redacted] Veterinary Pathologist.

[redacted]

Tested on 27/05/25
Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**

[redacted]

[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

REFERRED TEST

Disease/Test : Lipophililc Toxins in Shellfish by LC-MC/MC
Specimen Type: Lung, Kidney, Liver, Spleen, Brain

RESULT : AZA1 - All 5 samples <0.01 mg/kg WMB
AZA2 - All 5 samples <0.01 mg/kg WMB
AZA3 - All 5 samples <0.01 mg/kg WMB
Domoic Acid - All 5 samples <0.05 mg/kg WMB
DTX1 Free - All 5 samples <0.01 mg/kg WMB
DTX1 Total - All 5 samples <0.01 mg/kg WMB
DTX2 Free - All 5 samples <0.01 mg/kg WMB
DTX2 Total - All 5 samples <0.01 mg/kg WMB
GYM - All 5 samples <0.01 mg/kg WMB
Homo-YTX - All 5 samples <0.02 mg/kg WMB
OA Free - All 5 samples <0.01 mg/kg WMB
OA Total - All 5 samples <0.01 mg/kg WMB
PnTx-G - All 5 samples <0.01 mg/kg WMB
PTX2 - All 5 samples <0.01 mg/kg WMB
SPX1 - All 5 samples <0.01 mg/kg WMB
Total DST - All 5 samples <0.01 OA eq. mg/kg
YTX - All 5 samples <0.01 mg/kg WMB

This test was performed by: [redacted]

Validated by [redacted] Veterinary Pathologist.

Number of samples	9

[redacted]

Tested on 27/05/25
Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**

[redacted]

[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

NECROPSY REPORT
Additional findings 31/5/2025

CLINICAL HISTORY
This is a summary of the clinical history on the request form.

The seal had hauled itself out onto the Brighton beach. It is very unusual to see a seal on the footpath.
The animal was moribund, emaciated, and showed very little response when approached. The animal was anaesthetized with medetomidine/ketamine/zolazapam but Died on induction. AI ruleout and TB ruleout please.

SAMPLES SUBMITTED
One entire New Zealand fur seal, Arctocephalus forsteri female

NECROPSY FINDINGS
There is minimal autolysis.
The seal has minimal subcutaneous fat, abdominal and retroperitoneal fat. There is atrophy of the epaxial skeletal muscles. The seal weighs 50kg.

The tracheal mucosa is multifocally red (likely congestion).
The lungs are patchy red to pink (presumptive congestion).
The stomach contains approximately 100ml of opaque green fluid with occasional 50-60mm white ascarids (Morphologically consistent with ascarids such as Anisakis / Contracaecum sp.).
The intestines contain brown fluid. Well formed dark green-black faeces are present at the rectum.

The brain and spinal cord appear grossly normal.

GROSS DIAGNOSIS
Gastric ascaridiasis
Chronic weight loss and skeletal muscle atrophy (epaxial muscles)

SAMPLES COLLECTED & TESTING
As you have requested:

[redacted]

Tested on 27/05/25
Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**

[redacted]

[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

Formalin fixed tissues will be processed for histopathology, including examination for microscopic findings characteristic of disease due to Mycobacterium sp. If these are found tissues will be submitted to ACDP for Mycobacterial culture.

Fresh lung, liver, spleen, heart, brain and oropharyngeal swab in Virus Transport Medium will be tested at [redacted] and [redacted] for Avian influenza by qPCR.

We will contact [redacted] for a quote of biotoxin assay testing (including brevetoxin) for fresh brain, lung, liver, spleen, kidney. We will then forward this quote to [redacted] and wait for approval from [redacted] prior to sending samples for biotoxin assay testing.

Fresh tissues liver, spleen, heart, lung, kidney, intestines, stomach, stomach contents, pancreas, faeces, lymph node and brain are stored at -80 Degrees Celsius.

COMMENTS
Grossly there are no findings to explain the animal's morbidity or chronic weight loss.

There are no findings consistent with trauma.

The pulmonary and tracheal congestion are likely agonal changes. Gastric ascaridiasis is a normal finding in healthy fur seals. The low numbers unlikely contributed to chronic weight loss.

GROSS FINDINGS
The left and right eye are both grossly unremarkable. There is bilateral opacity of the corneas which is a common finding post death.
COMMENTS
As you have requested histopathology of the left eye is pending.

Report completed by [redacted] resident anatomic pathology

and

[redacted]
Specialist Veterinary Anatomic Pathologist

[redacted]

Tested on 27/05/25
Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**

[redacted]

[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

[redacted]

Validated by [redacted]

MOLECULAR DIAGNOSTICS

INFLUENZA A RNA PCR (REAL TIME REVERSE TRANSCRIPTASE)

Specimen type: Tissues & swab in VTM

SPECIMEN ID	Type A	H5	H7
1	Not detected		
2	Not detected		
3	Not detected		
4	Not detected		
5	Not detected		
6	Not detected		
7	Not detected		

COMMENT: Sample ID:
1 - Oropharyngeal swab in VTM
2 - Liver
3 - Lung
4 - Kidney

5 - Spleen
6 - Heart
7 - Brain

Validated by [redacted] Laboratory Scientist.

Outlook

PATH RESULTS: SEAL NEW ZEALAND FUR, (Ma) [25-35782533]

From [redacted]
Date Wed 13/08/2025 5:00 PM
To [redacted]

[redacted]

Report Addressee:
DEW - MARINE
DEPT OF ENV WATER & NATURAL RE
[redacted]

Tested on 09/08/25
Reported on 13/08/25 17:30
Referred on 26/05/25 **by:**
[redacted]

Owner:
SEAL NEW ZEALAND FUR

BRIGHTON BEACH

Animal/s:
Marine Mammal

DOB: N/A

Collected: 26/05/25 00:25 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

MICROBIOLOGY

SPECIMEN: Liver
ANIMAL ID:NZ furseal

MICROSCOPY
No bacteria seen.
A small number of leucocytes.

CULTURE
1. Light growth of Clostridium perfringens
2. Moderate growth of Mixed organisms

COMMENT: No Salmonella or Listeria spp. isolated.

Final Report
13/08/25

Validated by [redacted] Laboratory Scientist.