

Algal bloom wildlife post-mortem report



Species – Long-nosed fur seal

Date collected – 4 September 2025

Location – Bluff Jetty, Victor Harbor

History relating to the animal

A juvenile female long-nosed fur seal (*Arctocephalus forsteri*) was found near Bluff Jetty, Victor Harbor on 4 September 2025.

Clinical examination

The seal was very thin and had a fishing lure and line in its mouth. The animal was humanely euthanised.

Necropsy

The necropsy (looking at the whole body) revealed that the animal was in poor body condition, weighing 7.9kg and was 80cm in length. The subcutaneous (under the skin) fat was less than 10mm thick on the ventral abdomen (the underside of the body) and over the vertebrae (the spine). There was mild atrophy (wasting) of the muscles along the spine (epaxial) and between the ribs (intercostal). There was minimal autolysis (decomposition of tissues after death).

There was a cut (40cm long and 2cm wide) over the cranial edge (toward the head) of the left pectoral fin (flipper), extending over the upper and lower surfaces of the flipper.

The lungs were both mottled red, and the tissue was slightly depressed (sunken). The stomach contained no food, but several ascarids (roundworms). There was scant food material within the small intestines, and minimal faeces in the rectum.

Tissues were collected for histopathology (looking at tissues under the microscope for more detailed information) and testing for avian influenza, *Mycobacterium tuberculosis* (MTb) complex organisms, and brevetoxins and other algal biotoxins (a possibility due to the algal bloom).

Histopathology

Samples from every major body system were examined under the microscope. Examination of the lung revealed mild, acute (recent) pulmonary haemorrhage (bleeding in the lungs), hyperaemia (increased blood) and pulmonary congestion (lung tissues full of fluid, usually from circulation problems). Pulmonary lungworm (*Parafilaroides sp*) were identified.

There was a moderate, focal (defined area), chronic (long-term), necrotising (causing tissue death), pyogranulomatous (inflammation with pus and nodules) dermatitis (inflammation of the skin) with intralesional (within the abnormal tissue) coccoid (spherical shaped) bacteria on the

Algal bloom wildlife post-mortem report



Government
of South Australia

Department for
Environment and Water

left flipper. There was moderate autolysis (decomposing after death) of the gastrointestinal (gut) sections. There were no other significant findings within the other collected tissues.

Bacteriology

Culture of the lung revealed a moderate growth of *Streptococcus phocae* and a light growth of multiple other organisms (unidentified). No fungi, yeast or *Mycobacterium* species bacteria were seen when the lung tissue was examined using special stains. Polymerase chain reaction (PCR) testing for *MTb* complex organisms was negative.

Virology

Testing results for avian influenza were negative.

Brevetoxins

No samples were above the limits of reporting.

Other algal biotoxins

No samples were above the limits of reporting.

Summary

A very thin young female long-nosed fur seal (*Arctocephalus forsteri*) was euthanised after being found with a fishing lure and line in its mouth. Laboratory examination revealed the seal had a mild lungworm burden, with a concurrent (occurring at the same time) mild bacterial infection of the lungs and upper airways. There was a long-term injury and bacterial infection in the skin of the left flipper. This injury may have decreased this animal's ability to seek food and led to its weight loss.

Testing for avian influenza and tuberculosis (*Mycobacterium tuberculosis* complex organisms) was negative. Brevetoxins and other algal biotoxins were also not detected.

PATH RESULTS: FUR SEAL LONG NOSED, (Ma) [REDACTED]

From [REDACTED]
Date Fri 05/09/2025 2:30 PM
To [REDACTED]

[REDACTED]

Tested on 05/09/25
Reported on 05/09/25 15:00
Referred on 04/09/25 **by:**

[REDACTED]

[REDACTED]

Owner:
FUR SEAL LONG NOSED
BLUFF JETTY
VICTOR HARBOR 5211

Animal/s:
Marine Mammal

DOB: N/A

Collected: 04/09/25 00:25 **Subm.No:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

NECROPSY REPORT

CLINICAL HISTORY

Please refer to the clinical history on the request form. A brief summary of the clinical history;
The long nosed fur seal was severely emaciated. The animal was found on the rocks near the Bluff jetty at Victor Harbor. Fishing lure and line were found in the mouth. The animal was euthanized [REDACTED] by NPWS on 4/9/2025

SAMPLES SUBMITTED

One dead juvenile female long nosed fur seal, *Arctocephalus forsteri*

NECROPSY FINDINGS

The animal is in poor body condition and weighs 7.9 kg and the animal was approximately 80 cm long. The subcutaneous fat over the ventral abdomen is < 10 mm deep and the subcutaneous fat over the vertebrae is 10 mm deep. There is mild atrophy of epaxial muscle and intercostal muscles. There are minimal post mortem autolytic changes.

There is a 5mm hole in the skin over the head. The underlying cranium is extensively fractured, the brain is macerated and there is extensive haemorrhage (consistent with euthanasia [REDACTED]).

There is a laceration approximately 400mm long and 20mm wide over the cranial edge of the left pectoral fin / flipper, extending over the upper and lower surfaces of the flipper.

Multifocally the lungs are bilaterally mottled red and the parenchyma slightly depressed.

There is no ingesta in the stomach. There are low numbers of ascarids, 20-40 mm long in the stomach. There is scant ingesta in the intestines and scant faeces in the rectum.

GROSS SUMMARY

Probable bronchopneumonia

Cutaneous laceration of the left pectoral fin / flipper

SAMPLES COLLECTED & TESTING

Formalin fixed tissues will be processed for histopathology as you requested.



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Owner:
 FUR SEAL LONG NOSED
 BLUFF JETTY
 VICTOR HARBOR 5211

Animal/s:
 Marine Mammal

DOB: N/A

Collected: 04/09/25 00:25 **Subm.No:**  **Lab No.:** 

Samples tested as received

Fresh liver, kidney, spleen, heart, lung, brain, (in 5ml, 70ml and 200ml containers), an oropharyngeal swabs in virus transport medium and a swab from subcutaneous abscess in Ames transport medium are stored.

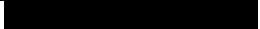
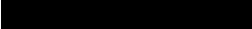
A swab of the skin lesions in Ames transport medium is stored.


COMMENTS


The laceration of the flipper and the fish line and lure (these were removed prior to the animal being submitted to the laboratory), contributed to the animal's poor body condition.

Histopathology is in progress.

In light of the probable bronchopneumonia, the following tests are recommended

- a) Avian influenza testing on liver, lung, spleen, heart, kidney, brain and oropharyngeal swab at  and ACDP
- b) microbiological culture of lung at  for endemic pathogens
- c) Mycobacterium tuberculosis complex testing of lung and liver at ACDP

Does the Chief Veterinary Officer approve Avian influenza testing at  and ACDP and Mycobacterium testing at ACDP ?

Please contact the laboratory if culture of endemic pathogens at  is required; additional charges will apply

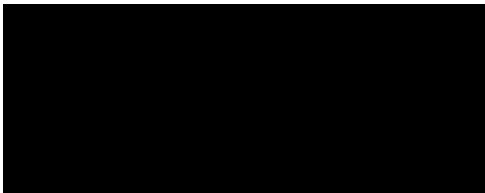
Microbiological culture of the swab of the flipper laceration will unlikely provide useful diagnostic information.

[REDACTED]

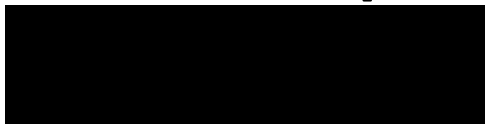
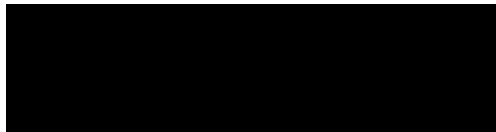
Specialist Veterinary Anatomic Pathologist

[REDACTED]

Validated by [REDACTED]



Tested on 05/09/25
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Referred on 04/09/25 **by:**



Owner:
FUR SEAL LONG NOSED
BLUFF JETTY
VICTOR HARBOR 5211

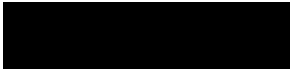
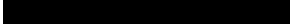
Animal/s:
Marine Mammal

DOB: N/A

Collected: 04/09/25 00:25 **Subm.No:**  **Lab No.:** 

Samples tested as received

CASE MANAGEMENT DETAILS

Case Managed by: 
Case Management Requested by: 
Case Management Requested on: 05/09/25

Case Details: The juvenile long nosed fur seal was found with a fishing line injury at Victor Harbour

PATH RESULTS: FUR SEAL LONG NOSED, (Ma) [REDACTED]

From [REDACTED]
Date Wed 17/09/2025 12:00 PM
To [REDACTED]

[REDACTED]

Tested on 05/09/25
Reported on 17/09/25 12:30
Referred on 04/09/25 **by:**

[REDACTED]

[REDACTED]

Owner:
FUR SEAL LONG NOSED
BLUFF JETTY
VICTOR HARBOR 5211

Animal/s:
Marine Mammal
DOB: N/A

Collected: 04/09/25 00:25 **Subm.No:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

HISTOPATHOLOGY FROM NECROPSY

REF: [REDACTED]

ADDITIONAL FINDINGS 17/9/2025

CLINICAL HISTORY

Please refer to the clinical history on the request form. A brief summary of the clinical history;

The long nosed fur seal was severely emaciated. The animal was found on the rocks near the Bluff jetty at Victor Harbor. Fishing lure and line were found in the mouth. The animal was euthanized [REDACTED] by NPWS on 4/9/2025

One dead juvenile female long nosed fur seal, *Arctocephalus forsteri*

MACROSCOPY

- Brain
- A: medulla
- No cassette B
- C: thalamus and parietal cortex
- D: basal ganglia

E: frontal cortex
F: kidney, heart, adrenal gland, spleen
G: liver, kidney, pancreas
H: lung
I: stomach, duodenum, jejunum, ileum, caecum, colon
J: left flipper ulcer; Ae GK

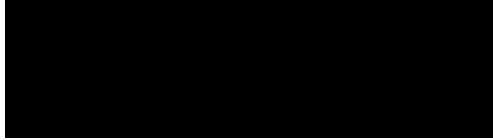
MICROSCOPY

Lung: Diffusely there is hyperaemia / congestion expanding the alveolar interstitium and multifocal haemorrhage within alveolar spaces. Multifocally within low numbers of alveolar spaces are alveolar macrophages and neutrophils. (Mild multifocal acute pulmonary haemorrhage and pulmonary hyperaemia / congestion)
Within bronchoalveolar junctions are cross sections of filarid nematodes, 30 micron across (with smooth cuticle, pseudocoelom, platymerian musculature, lateral cords and alimentary tract lined by monolayer of cuboidal epithelium. (Pulmonary lungworm (filaridiasis), Parafilaroides sp)

Left flipper: Focally there is effacement and replacement of the epidermis by abundant viable and degenerate neutrophils, eosinophilic deposits, colonies of coccoid bacteria. The inflammation (neutrophils,



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Animal/s:
 Marine Mammal

DOB: N/A

Collected: 04/09/25 00:25 **Subm.No:**  **Lab No.:** 

Samples tested as received

macrophages, lymphocytes, plasma cells) extends into and effaces the dermis and is admixed with fibrosis. (Moderate, focal, chronic necrotizing pyogranulomatous dermatitis with intralesional coccoid bacteria)

There is moderate autolysis of the alimentary sections. Aside from this artifact there are no other significant findings.

Those tissues not described are unremarkable.

DIAGNOSIS

Lung: Mild multifocal acute pulmonary haemorrhage and pulmonary hyperaemia / congestion and Pulmonary lungworm (filariasis), Parafilaroides sp

Left flipper: Moderate, focal, chronic necrotizing pyogranulomatous dermatitis with intralesional coccoid bacteria

COMMENTS

There is mild haemorrhage and congestion in the lungs. Possible causes for the mild haemorrhage include Influenza A (Avian influenza), brevetoxins or the acute haemorrhage could be an agonal process. Tissues are stored if biotoxin and brevetoxin testing are required. Influenza A (Avian influenza) testing is in progress.

The lung worm contributed to the bronchopneumonia. There is a very mild inflammatory response and special stains will be done to look for bacteria (including Mycobacterium sp.) and fungi. Mycobacterium sp. testing is in progress at Aust. Centre for Disease Preparedness.

There is chronic bacterial dermatitis over the left flipper. Could this

have been due to a laceration from a fishing line ? The seal had a fishing lure and line in its mouth.

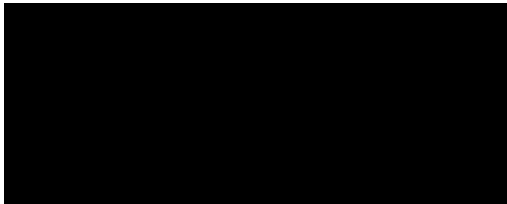
The chronic injury to the skin on the flipper may have decreased this animal's ability to seek food and led to weight loss.

MICROSCOPY 17/9/2025

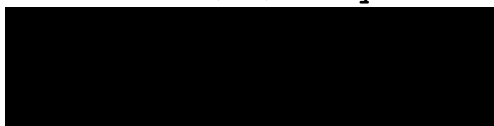
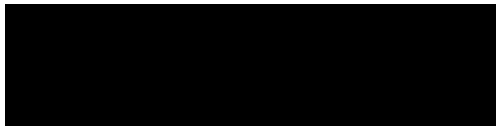
Lung: Gram positive cocci are seen within the inflammation.

Microorganisms are not seen on PAS (no fungi or yeast) and Ziehl Neelsen stains (no acid-fast bacteria such as *Mycobacterium* sp.)

DIAGNOSIS



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Referred on 04/09/25 by:



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VICTOR HARBOR 5211

Animal/s:
Marine Mammal

DOB: N/A

Collected: 04/09/25 00:25 **Subm.No.:**  **Lab No.:** 

Samples tested as received

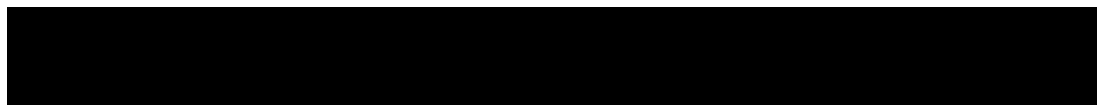
Lung: Mild multifocal acute pulmonary haemorrhage and pulmonary hyperaemia / congestion
Pulmonary lungworm (filariasis), Parafilaroides sp
Very mild Streptococcus phocae bronchopneumonia

Left flipper: Moderate, focal, chronic necrotizing pyogranulomatous dermatitis with intralesional coccoid bacteria

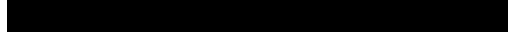
COMMENTS

The long nosed fur seal had mild Parafilaroides sp. (lung worm) burden and intercurrent Streptococcal bronchopneumonia.

There are no gross or histological findings consistent with disease due to Mycobacterium sp. (such as Mycobacterium pinnipedii).



Specialist Veterinary Anatomic Pathologist



Validated by 

PATH RESULTS: FUR SEAL LONG NOSED, (Ma) [REDACTED]

From [REDACTED]

Date Sat 13/09/2025 12:30 PM

To [REDACTED]

[REDACTED]

Tested on 05/09/25
Reported on 13/09/25 13:00
Referred on 04/09/25 **by:**

[REDACTED]

[REDACTED]

Owner:
FUR SEAL LONG NOSED
BLUFF JETTY
VICTOR HARBOR 5211

Animal/s:
Marine Mammal

DOB: N/A

Collected: 04/09/25 00:25 **Subm.No:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

MICROBIOLOGY

SPECIMEN: Lung
ANIMAL ID:Long-nosed fur seal

MICROSCOPY

A small number of gram negative bacilli. A small number of gram positive cocci. A small number of leucocytes.

CULTURE

1. Moderate growth of Streptococcus phocae
2. Light growth of Mixed organisms

COMMENT: Anaerobes NOT isolated.
No Salmonella or Listeria spp. isolated.

| Antibiotic | Organism 1 | Organism 2 | Organism 3 |
|-----------------|------------|------------|------------|
| Erythromycin | S | | |
| Amoxycillin | S | | |
| Oxytetracycline | S | | S |
| Trim/Sulpha | | | S |
| Amp/Amoxycillin | | | S |
| Chloramphenicol | S | | S |

Legend:

S = Sensitive

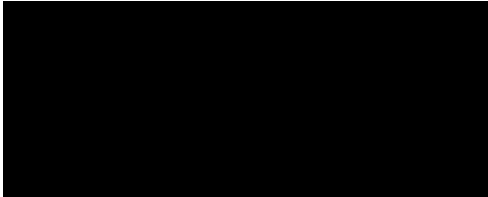
I = Intermediate susceptibility

R = Resistant

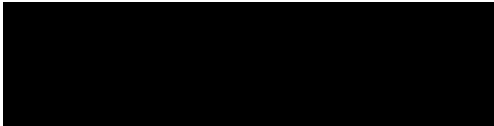
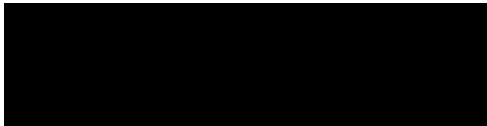
Due to the antimicrobial resistance characteristics of certain bacteria some organism/antibiotic combinations are not validated by the CLSI method.

Antimicrobial disk diffusion susceptibility testing is performed according to the methods and standards of the Clinical Laboratories Standards Institute (CLSI).

Organim 3: Growth of *Edwardsiella tarda* from broth culture only.



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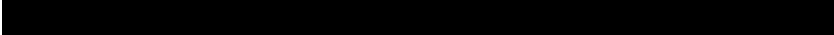
Animal/s:
Marine Mammal

DOB: N/A

Collected: 04/09/25 00:25 **Subm.No.:**  **Lab No.:** 

Samples tested as received

Organism 1: This organism was identified using the MALDI-TOF at



Final Report _____
13/09/25

PATH RESULTS: FUR SEAL LONG NOSED, (Ma) [REDACTED]

From [REDACTED]
Date Wed 12/11/2025 3:00 PM
To [REDACTED]

[REDACTED]

Tested on 05/09/25
Reported on 12/11/25 15:30
Referred on 04/09/25 **by:**

[REDACTED]

[REDACTED]

Owner:
FUR SEAL LONG NOSED
BLUFF JETTY
VICTOR HARBOR 5211

Animal/s:
Marine Mammal

DOB: N/A

Collected: 04/09/25 00:25 **Subm.No:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received All Tests Complete

REFERRED TEST

Disease/Test : Mycobacterium Isolation
Specimen Type: Lung

RESULT : Mycobacterium sp. was not isolated

Comment : NATA accreditation does not cover the performance of this service.
Cultures were incubated for 8 weeks.

This test was performed by: Australian Centre for Disease Preparedness (CSIRO)
NATA accreditation number: 13546

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PATH RESULTS: FUR SEAL LONG NOSED, (Ma) [REDACTED]

From [REDACTED]
Date Wed 17/09/2025 12:30 PM
To [REDACTED]

[REDACTED]

Tested on 05/09/25
Reported on 17/09/25 13:00
Referred on 04/09/25 **by:**

[REDACTED]

[REDACTED]

Owner:
FUR SEAL LONG NOSED
BLUFF JETTY
VICTOR HARBOR 5211

Animal/s:
Marine Mammal

DOB: N/A

Collected: 04/09/25 00:25 **Subm.No:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

REFERRED TEST

Disease/Test : Mycobacterium avium complex Taqman
Specimen Type: Lung

RESULT : Negative

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

This test was performed by: Australian Centre for Disease Preparedness (CSIRO)
NATA accreditation number: 13546

Validated by [REDACTED] Laboratory Scientist.

REFERRED TEST

Disease/Test : Pan-Mycobacterium Taqman

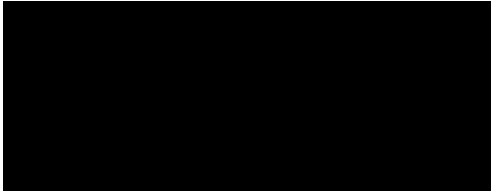
Specimen Type: Lung

RESULT : Negative

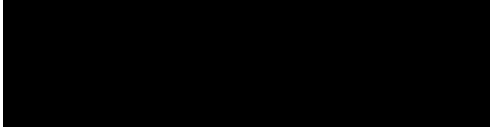
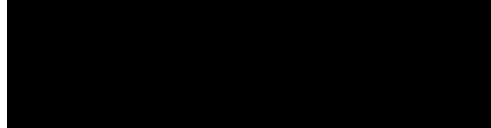
Comment : NATA/RCPA accreditation does not cover the performance of
this service

This test was performed by: Australian Centre for Disease Preparedness
(CSIRO)
NATA accreditation number: 13546

Validated by [REDACTED] Laboratory Scientist.



Tested on 05/09/25
Reported on 17/09/25 13:00
Referred on 04/09/25 **by:**



Owner:
FUR SEAL LONG NOSED
BLUFF JETTY
VICTOR HARBOR 5211

Animal/s:
Marine Mammal

DOB: N/A

Collected: 04/09/25 00:25 **Subm.No:**  **Lab No.:** 

Samples tested as received


REFERRED TEST

Disease/Test : Mycobacterium tuberculosis complex IS6110
Method : TaqMan Assay
Specimen Type: Lung

RESULT : Negative

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

This test was performed by: Australian Centre for Disease Preparedness (CSIRO)
NATA accreditation number: 13546

Validated by  Laboratory Scientist.

PATH RESULTS: FUR SEAL LONG NOSED, (Ma) [REDACTED]

From [REDACTED]

Date Fri 19/09/2025 4:30 PM

To [REDACTED]

[REDACTED]

Tested on 05/09/25
Reported on 19/09/25 17:00
Referred on 04/09/25 **by:**

[REDACTED]

[REDACTED]

Owner:
FUR SEAL LONG NOSED
BLUFF JETTY
VICTOR HARBOR 5211

Animal/s:
Marine Mammal

DOB: N/A

Collected: 04/09/25 00:25 **Subm.No:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

MOLECULAR DIAGNOSTICS

INFLUENZA A RNA PCR (REAL TIME REVERSE TRANSCRIPTASE)

Specimen type: Tissue & Oropharyngeal swab in VTM (OP SWAB)

| | | | |
|-------------|--------|----|----|
| SPECIMEN ID | Type A | H5 | H7 |
|-------------|--------|----|----|

| | |
|---------|--------------|
| OP SWAB | Not detected |
| LIVER | Not detected |

| | |
|--------|--------------|
| LUNG | Not detected |
| SPLEEN | Not detected |
| HEART | Not detected |
| KIDNEY | Not detected |
| BRAIN | Not detected |

COMMENT: NATA accreditation does not cover the performance of this test for non-avian species.

Validated by [REDACTED] Laboratory Scientist.

CERTIFICATE OF ANALYSIS

| | | | |
|-----------|------------|--------------------------|--|
| Customer: | [REDACTED] | Submission Description: | Biotoxin and Brevetoxins long nosed fur seal |
| Address: | [REDACTED] | Sample Received Date: | 11/12/2025 |
| Contact: | [REDACTED] | Contract Number: | [REDACTED] |
| | | Client Order Number: | [REDACTED] |
| | | Program/Quote Reference: | [REDACTED] Biotoxin and Brevetoxins |

Sample(s) analysed as received. Sampling date and time data supplied by the client. The document shall not be reproduced except in full.
Additional information relating to this submission can be found in the sample receipt notification.
This report supersedes any previous reports with this submission number.
Many tests specify a holding time which gives the recommended timeframe by which a sample should be preserved/extracted and/or analysed after the sample is taken.
Holding time information can be found on the AST website <https://analyticalservices.tas.gov.au/our-services/containers-samples-and-submissions>.
Whilst every effort is made to analyse samples within these timeframes, situations can occur where this is not possible.
Where a test has been conducted outside the recommended sample holding time this should be taken into account when interpreting results.

The results in this report were authorised by:

| Name | Position |
|------------|----------------------------------|
| [REDACTED] | Section Head - Organic Chemistry |

Test Information:

| Method ID | Test Description | Date Commenced: |
|-----------|--|-----------------|
| 3411 | Lipophilic Toxins in Shellfish by LC-MS/MS | 05-02-2026 |
| 3411A | Brevetoxins in Shellfish by LC-MS/MS | 06-02-2026 |
| 3416 | PST in Biota by LC-MS/MS (Boundy Method) | 05-02-2026 |

| Chemistry Test Results (Biota - Food) | | Sample Description | Spleen | Heart | Faeces | Lung | Kidney | Brain | Liver |
|---------------------------------------|--------------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Method ID | Analyte | Units | 05/09/25 0:00 | 05/09/25 0:00 | 05/09/25 0:00 | 05/09/25 0:00 | 05/09/25 0:00 | 05/09/25 0:00 | 05/09/25 0:00 |
| | | | 391803 | 391804 | 391805 | 391806 | 391807 | 391808 | 391809 |
| | AZA1 | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | AZA2 | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | AZA3 | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | Domoic Acid | mg/kg WMB | <0.05* | <0.05* | <0.05* | <0.05* | <0.05* | <0.05* | <0.05* |
| | DTX1 Free | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | DTX1 Total | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | DTX2 Free | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | DTX2 Total | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| 3411 | GYM | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | Homo-YTX | mg/kg WMB | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |
| | OA Free | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | OA Total | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | PnTx-G | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | PTX2 | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | SPX1 | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | Total DST | OA eq. mg/kg | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | YTX | mg/kg WMB | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| 3411A | Brevetoxin 1 | mg/kg WMB | <0.10* | <0.10* | <0.10* | <0.10* | <0.10* | <0.10* | <0.10* |
| | Brevetoxin 2 | mg/kg WMB | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |
| | Brevetoxin 3 | mg/kg WMB | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |
| 3416 | C1 | STX.2HCl eq. mg/kg | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | C2 | STX.2HCl eq. mg/kg | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |
| | C3 | STX.2HCl eq. mg/kg | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |
| | C4 | STX.2HCl eq. mg/kg | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |
| | dcGTX1 | STX.2HCl eq. mg/kg | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |
| | dcGTX2 | STX.2HCl eq. mg/kg | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |
| | dcGTX3 | STX.2HCl eq. mg/kg | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |
| | dcGTX4 | STX.2HCl eq. mg/kg | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |

* NATA accreditation does not cover this result



| Chemistry Test Results (Biota - Food) | | Sample Description | Spleen | Heart | Faeces | Lung | Kidney | Brain | Liver |
|---------------------------------------|-----------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| | | Sampled Date/ Time | 05/09/25 0:00 | 05/09/25 0:00 | 05/09/25 0:00 | 05/09/25 0:00 | 05/09/25 0:00 | 05/09/25 0:00 | 05/09/25 0:00 |
| Method ID | Analyte | Units | 391803 | 391804 | 391805 | 391806 | 391807 | 391808 | 391809 |
| 3416 | dcNEO | STX.2HCl eq. mg/kg | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |
| | dcSTX | STX.2HCl eq. mg/kg | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | doSTX | STX.2HCl eq. mg/kg | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | GTX1 | STX.2HCl eq. mg/kg | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | GTX2 | STX.2HCl eq. mg/kg | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | GTX3 | STX.2HCl eq. mg/kg | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | GTX4 | STX.2HCl eq. mg/kg | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | GTX5 | STX.2HCl eq. mg/kg | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |
| | GTX6 | STX.2HCl eq. mg/kg | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |
| | NEO | STX.2HCl eq. mg/kg | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* | <0.02* |
| | STX | STX.2HCl eq. mg/kg | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* | <0.01* |
| | Total PST | STX.2HCl eq. mg/kg | <0.10* | <0.10* | <0.10* | <0.10* | <0.10* | <0.10* | <0.10* |

* NATA accreditation does not cover this result

PATH RESULTS: FUR SEAL LONG NOSED, (Ma) [REDACTED]

From [REDACTED]

Date Tue 21/10/2025 6:00 PM

To [REDACTED]

[REDACTED]

Tested on 05/09/25
Reported on 21/10/25 18:30
Referred on 04/09/25 **by:**

[REDACTED]

[REDACTED]

Owner:

FUR SEAL LONG NOSED
BLUFF JETTY
VICTOR HARBOR 5211

Animal/s:

Marine Mammal

DOB: N/A

Collected: 04/09/25 00:25

Subm.No: [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

SUMMARY DIAGNOSIS

Lung: Mild multifocal acute pulmonary haemorrhage and pulmonary hyperaemia / congestion
Pulmonary lungworm (filariasis), Parafilaroides sp
Very mild Streptococcus phocae bronchopneumonia

Left flipper: Moderate, focal, chronic necrotizing pyogranulomatous dermatitis with intralesional coccoid bacteria

SUMMARY COMMENTS

There is mild haemorrhage and congestion in the lungs. Influenza A is included as a cause for this finding by PCR testing.

The long nosed fur seal had mild Parafilaroides sp. (lung worm) burden and intercurrent Streptococcal bronchopneumonia.

There is chronic bacterial dermatitis over the left flipper. Could this

have been due to a laceration from a fishing line ? The seal had a fishing lure and line in its mouth.

The chronic injury to the skin on the flipper may have decreased this animal's ability to seek food and led to weight loss.

There are no gross or histological findings consistent with disease due to Mycobacterium sp. (such as Mycobacterium pinnipedii).

[REDACTED]
Specialist Veterinary Anatomic Pathologist
[REDACTED]

Validated by [REDACTED]

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