

Algal bloom wildlife post-mortem report



Government
of South Australia

Department for
Environment and Water

Species – Little penguin

Date collected – 26 January 2026

Location – Berry Bay, Yorke Peninsula

History relating to the animal

An adult little penguin (*Eudyptula minor*) was seen appearing unwell on 25 January 2026 and then found dead and collected the following day (26 January 2026).

Clinical examination

The animal reportedly looked unwell before it was found dead. There was no sign of external trauma (injury) to the body.

Necropsy

The necropsy (looking at the whole body) revealed that the little penguin was in poor body condition, weighing 1 kg, with minimal muscle cover over the keel bone (chest). The stomach contained scant amounts of plant material. There were a number of changes that were all related to marked post-mortem autolysis (decomposition after death). The brain was liquified. The air sacs (part of birds' lung anatomy) and coelomic cavity (space containing intestines and other organs) were stained dark green. The intestines and spleen were combined into a green liquified mass. The lungs were diffusely (throughout the tissue) dark red, likely secondary (subsequent) to post-mortem congestion (blood pooling after death).

Samples were collected to test for brevetoxins and other algal biotoxins (a possibility due to the algal bloom). Further examination by histopathology was not recommended due to the state of decomposition of the animal.

Brevetoxins

No samples were above the limits of reporting.

Other algal biotoxins

No samples were above the limits of reporting.

Summary

An adult little penguin was seen appearing unwell and was found dead the following day. Laboratory examination revealed the bird had poor body condition but was unable to determine the cause of death in this animal due to advanced decomposition. Brevetoxins and other algal biotoxins were also not detected.

Fw: PATH RESULTS: PENGUIN LITTLE, (Wi) [REDACTED]

From [REDACTED]
Date Wed 29/07/2026 10:10 AM
To [REDACTED]

[REDACTED]

Please see below.

[REDACTED]

From: [REDACTED]
Sent: Wednesday, July 29, 2026 9:40 AM
To: [REDACTED]
Subject: PATH RESULTS: PENGUIN LITTLE, (Wi) [REDACTED]

[REDACTED]

Tested on 29/01/26
Reported on 29/07/26 10:10
Referred on 26/01/26 **by:**

[REDACTED]

[REDACTED]

Owner:
PENGUIN LITTLE
BERRY BAY
CORN Y POINT 5575

Animal/s:
Wild Birds

DOB: N/A

Collected: 26/01/26 00:25 **Subm.No:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

All Tests Complete

[REDACTED]

CLINICAL HISTORY

Penguin observed at Berry Bay (Corny Point) looking sick at 25/01/26, and observed dead the next day. Carcass was picked up by MOP at 7:44am then frozen.

SAMPLES SUBMITTED

One dead Little Penguin, weight = 1kg

NECROPSY FINDINGS

The carcass has moderate to marked post-mortem autolytic changes. The bird weighs 1kg.

There are no external signs of trauma. The bird is in poor body condition with minimal muscular coverage over the keel bone.

There is marked post-mortem autolysis.

The brain is liquified. The airsacs and coelomic cavity are stained dark green. The intestines and spleen are combined into a green liquified mass.

The lungs are diffusely dark red (likely secondary to post-mortem congestion).

The stomach contains scant amounts of plant material.

GROSS DIAGNOSIS

Moderate to marked autolysis.

Open diagnosis

SAMPLES COLLECTED & TESTING

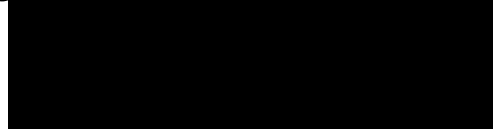
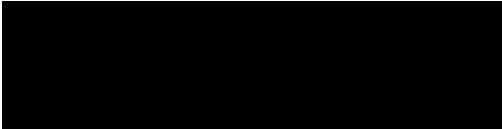
Tracheal and cloacal swabs in VTM - store at molecular lab

Fresh tissues in 50 mL pots (Brain, kidney, liver, lung) - for biotoxin and brevetoxin testing.

All other fresh tissues (liver, heart, lung, kidney, brain, intestinal contents, stomach contents) - Hold -80 degrees celcius for 6 months.



Tested on 29/01/26
Reported on 29/07/26 10:10
Referred on 26/01/26 by:



Owner:
PENGUIN LITTLE
BERRY BAY
CORNBY POINT 5575

Animal/s:
Wild Birds

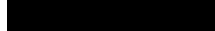
DOB: N/A

Collected: 26/01/26 00:25

Subm.No:



Lab No.:



Samples tested as received

All Tests Complete

COMMENTS

The bird is thin. There is marked post-mortem changes which makes gross assessment difficult. Histopathology is not recommended due to the marked autolysis.



Pathology Diagnostician.

Validated by Veterinary Anatomic
PathologyDiagnostician.

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PATH RESULTS: PENGUIN LITTLE, (Wi) [REDACTED]

From [REDACTED]

Date Fri 20/02/2026 1:00 PM

To [REDACTED]

[REDACTED]

Report Addressee:

Tested on 29/01/26
Reported on 20/02/26 13:30
Referred on 26/01/26 **by:**

Owner:
PENGUIN LITTLE
BERRY BAY
CORNY POINT 5575

Animal/s:
Wild Birds

DOB: N/A

Collected: 26/01/26 00:25

Subm.No: [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

All Tests Complete

SUMMARY DIAGNOSIS

No diagnosis concluded

SUMMARY COMMENTS

No cause of death was determined by gross examination. You will be sent a quote from Analytical Services Tasmania for biotoxin and brevetoxin testing for approval.

[REDACTED]

Specialist Veterinary Anatomic Pathologist

Validated by [REDACTED]

CERTIFICATE OF ANALYSIS

Customer:

Address:

Contact:

Submission Description:

Sample Received Date:

Contract Number:

Client Order Number:

Program/Quote Reference:

Avian

01/05/2026

Biotxin and Brevotoxins

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

Chemist

Test Information:

Method ID

Test Description

Date Commenced:

3411

Lipophilic Toxins in Shellfish by LC-MS/MS

03-06-2026

3411A

Brevetoxins in Shellfish by LC-MS/MS

02-06-2026

3416

PST in Biota by LC-MS/MS (Boundy Method)

03-06-2026

Chemistry Test Results (Biota - Food)

Sample Description			Brain	Kidney	Liver	Lung
Sampled Date/ Time			29/01/26 0:00	29/01/26 0:00	29/01/26 0:00	29/01/26 0:00
Method ID	Analyte	Units	465179	465180	465181	465182
3411	AZA1	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
	AZA2	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
	AZA3	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
	Domoic Acid	mg/kg WMB	*IS*	<0.05	<0.05	<0.05
	DTX1 Free	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
	DTX1 Total	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
	DTX2 Free	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
	DTX2 Total	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
	GYM	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
	Homo-YTX	mg/kg WMB	*IS*	<0.02	<0.02	<0.02
	OA Free	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
	OA Total	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
	PnTx-G	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
	PTX2	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
	SPX1	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
	Total DST	OA eq. mg/kg	*IS*	<0.01	<0.01	<0.01
	YTX	mg/kg WMB	*IS*	<0.01	<0.01	<0.01
3411A	Brevetoxin 1	mg/kg WMB	<0.10*	<0.10*	<0.10*	<0.10*
	Brevetoxin 2	mg/kg WMB	<0.02*	<0.02*	<0.02*	<0.02*
	Brevetoxin 3	mg/kg WMB	<0.02*	<0.02*	<0.02*	<0.02*
3416	C1	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01
	C2	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02
	C3	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02
	C4	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02
	dcGTX1	STX.2HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*
	dcGTX2	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02
	dcGTX3	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02

IS- Insufficient Sample

* NATA accreditation does not cover this result

Chemistry Test Results (Biota - Food)

Sample Description			Brain	Kidney	Liver	Lung
Sampled Date/ Time			29/01/26 0:00	29/01/26 0:00	29/01/26 0:00	29/01/26 0:00
Method ID	Analyte	Units	465179	465180	465181	465182
3416	dcGTX4	STX.2HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*
	dcNEO	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02
	dcSTX	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01
	doSTX	STX.2HCl eq. mg/kg	<0.01*	<0.01*	<0.01*	<0.01*
	GTX1	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01
	GTX2	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01
	GTX3	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01
	GTX4	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01
	GTX5	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02
	GTX6	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02
	NEO	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02
	STX	STX.2HCl eq. mg/kg	<0.01	<0.01	<0.01	<0.01
	Total PST	STX.2HCl eq. mg/kg	<0.10	<0.10	<0.10	<0.10

IS- Insufficient Sample

* NATA accreditation does not cover this result