

Algal bloom wildlife post-mortem report



Government
of South Australia

Department for
Environment and Water

Species – Little penguin

Date collected – 5 January 2026

Location – Kings Beach, Waitpinga

History relating to the animal

A little penguin (*Eudyptula minor*) was found dead at Kings Beach on 5 January 2026.

Clinical examination

The animal was already dead and so could not be examined prior to death.

Necropsy

The necropsy (looking at the whole body) revealed that the little penguin was in good body condition and weighed 700 g. There were no external signs of trauma (injury). There was moderate post-mortem autolytic change (decomposing after death).

The brain was approximately half liquefied (due to decomposition). The intestines were green and partially liquefied (due to decomposition). The coelomic cavity (space containing digestive tract and other organs) in contact with the intestines was also stained green (due to decomposition). The pancreas was not found and is suspected to have decomposed. The spleen was difficult to visualise due to decomposition. The air sacs were clear. The gizzard (muscular part of gut that grinds food, often containing stones) and intestines were empty. The gizzard contained scant amounts of black liquid material (suspect decomposition change).

Tissues were collected for testing for brevetoxins and other algal biotoxins (a possibility due to the algal bloom).

Histopathology

Due to the level of decomposition, histopathology was not performed.

Brevetoxins

No samples were above the limits of reporting.

Other algal biotoxins

No samples were above the limits of reporting.

Summary

A little penguin was found dead in good body condition with no external signs of injury. Laboratory examination could not determine the cause of death, which may be due to the level of decomposition in this penguin. Brevetoxins and other algal biotoxins were not detected.

PATH RESULTS: LITTLE PENGUIN, (Ma) {KINGS BEACH} [REDACTED]

From [REDACTED]

Date Tue 06/01/2026 3:30 PM

To [REDACTED]

[REDACTED]

Report Addressee:

Tested on 05/01/26
Reported on 06/01/26 16:00
Referred on 05/01/26 **by:**

[REDACTED]

Owner:
LITTLE PENGUIN

WAITPINGA 5211

Animal/s: KINGS BEACH
Marine Mammal

DOB: N/A

Collected: 05/01/26 13:00

Subm.No: [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

[REDACTED]

CLINICAL HISTORY

Collected by department of environment and water from Kings Beach on 5th January 2026 at 1PM first reported by member of public on 5th January 2026 at 11AM as dead.

SAMPLES SUBMITTED

One dead Little Penguin, weight = 700g

NECROPSY FINDINGS

The carcass is moderately autolysed with moderate post-mortem autolytic changes. The bird weighs 700g.

There are no external signs of trauma. The bird is in good condition with adequate coverage over the keel bone.

The brain is approximately half liquefied (autolytic change).

The intestines are diffusely green and partially liquefied (autolytic change). The internal coelomic cavity in contact with the intestines is also stained green (autolytic change). The pancreas cannot be visualised (suspect autolysed). The spleen is difficult to visualise due to autolysis. The air sacs are clear. The gizzard and intestines are empty. The gizzard contains scant amounts of black liquidy material (suspect autolytic change).

Those organs not listed are otherwise grossly unremarkable: Eyes, oesophagus, trachea, heart, lungs, liver, kidney, skin, pectoral skeletal muscle, both tibiotarsal joints.

GROSS DIAGNOSIS

Moderately autolysed

Open diagnosis

SAMPLES COLLECTED & TESTING

Tracheal and cloacal swabs in VTM - hold at molecular lab

Fresh tissues in 70 mL pots (spleen, stomach content, intestinal content, heart) - stored in -80

[REDACTED]

Tested on 05/01/26
Reported on 06/01/26 16:00
Referred on 05/01/26 **by:** [REDACTED]

[REDACTED]

Owner:
LITTLE PENGUIN

Animal/s: KINGS BEACH
Marine Mammal

WAITPINGA 5211

DOB: N/A

Collected: 05/01/26 13:00

Subm.No: [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

Fresh tissue in 5 mL tubes (liver, spleen, heart, kidney, brain, lung) - stored in -80

Fresh liver, lung, kidney, brain - biotoxin/brevetoxin testing.

COMMENTS

There is no suggestion to cause of death here.
The carcass is moderately autolysed and may not be suitable for histology. Please inform the lab if you still wish to proceed with histology.

Samples for biotoxin and brevetoxin are sent for testing, as per submission form instruction.

[REDACTED]
Veterinary Anatomic Pathology Diagnostician

Validated by [REDACTED] Veterinary Anatomic
PathologyDiagnostician.

CERTIFICATE OF ANALYSIS

Customer: [REDACTED]
Address: [REDACTED]
Contact: [REDACTED]

Submission Description: [REDACTED] Little Penguin
Sample Received Date: 11/03/2026
Contract Number: [REDACTED]
Client Order Number: [REDACTED]

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]	Chemist

Test Information:

Method ID	Test Description	Date Commenced:
3411	Lipophilic Toxins in Shellfish by LC-MS/MS	29-04-2026
3411A	Brevetoxins in Shellfish by LC-MS/MS	17-04-2026
3416	PST in Biota by LC-MS/MS (Boundy Method)	29-04-2026

Chemistry Test Results (Biota - Food)		Sample Description	LIVER	KIDNEY	BRAIN	LUNG
		Sampled Date/ Time	05/01/25 0:00	05/01/25 0:00	05/01/25 0:00	05/01/25 0:00
Method ID	Analyte	Units	440113	440114	440115	440116
3411	AZA1	mg/kg WMB	<0.01	<0.01	*IS*	<0.01
	AZA2	mg/kg WMB	<0.01	<0.01	*IS*	<0.01
	AZA3	mg/kg WMB	<0.01	<0.01	*IS*	<0.01
	Domoic Acid	mg/kg WMB	<0.05	<0.05	*IS*	<0.05
	DTX1 Free	mg/kg WMB	<0.01	<0.01	*IS*	<0.01
	DTX1 Total	mg/kg WMB	<0.01	<0.01	*IS*	<0.01
	DTX2 Free	mg/kg WMB	<0.01	<0.01	*IS*	<0.01
	DTX2 Total	mg/kg WMB	<0.01	<0.01	*IS*	<0.01
	GYM	mg/kg WMB	<0.01	<0.01	*IS*	<0.01
	Homo-YTX	mg/kg WMB	<0.02	<0.02	*IS*	<0.02
	OA Free	mg/kg WMB	<0.01	<0.01	*IS*	<0.01
	OA Total	mg/kg WMB	<0.01	<0.01	*IS*	<0.01
	PnTx-G	mg/kg WMB	<0.01	<0.01	*IS*	<0.01
	PTX2	mg/kg WMB	<0.01	<0.01	*IS*	<0.01
	SPX1	mg/kg WMB	<0.01	<0.01	*IS*	<0.01
	Total DST	OA eq. mg/kg	<0.01	<0.01	*IS*	<0.01
	YTX	mg/kg WMB	<0.01	<0.01	*IS*	<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	LIVER	KIDNEY	BRAIN	LUNG
		Sampled Date/ Time	05/01/25 0:00	05/01/25 0:00	05/01/25 0:00	05/01/25 0:00
Method ID	Analyte	Units	440113	440114	440115	440116
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