Algal bloom wildlife post-mortem report

Government of South Australia
Department for Environment and Water

Species – Shy albatross

Date collected – 20 June 2025

Location – Kangaroo Island

History relating to the animal

One adult male shy albatross (*Thalassarche cauta*) was found severely unwell on Kangaroo Island on 20 June 2025. The albatross was assessed by a veterinarian and subsequently euthanised and submitted for laboratory examination.

Clinical examination

The albatross was in moderate body condition, weighing 3.3kg. No external injuries were noted.

Necropsy

The necropsy (looking at the whole body) revealed that the shy albatross was in moderate body condition, weighing 3.3kg. There was moderate atrophy (decreased size) of the pectoral muscles (large muscles used for flight), with no fat within the coelomic cavity (space containing digestive tract and other organs).

There was a small amount of food in the proventriculus (the top part of a bird's gut). The liver was atrophied (decreased in size) and the gall bladder was distended (swollen or full). The animal was suffering from chronic (long-term) weight loss; however, no cause for this was able to be determined on necropsy.

Samples were collected to test for avian influenza and Newcastle disease. Tissue samples were collected and tested for brevetoxins and other algal biotoxins (a possibility due to the algal bloom).

Virology

Testing results for avian influenza and Newcastle disease were negative.

Brevetoxins

No samples were above the limits of reporting.

Other algal biotoxins

There was insufficient sample for many of the tests. The testing completed showed no samples were above the limits of reporting.

Algal bloom wildlife post-mortem report

Government of South Australia
Department for Environment and Water

Summary

An adult male shy albatross was found severely unwell and subsequently euthanised. Laboratory examination found the albatross was suffering from chronic weight loss; the cause of weight loss and death could not be determined. Testing for avian influenza and Newcastle disease was negative. Brevetoxins and other algal biotoxins were also not detected.

Outlook

PATH RESULTS: ALBATROSS, (Wi) [redacted]

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

[redacted]

[redacted]

Tested on 20/06/25
Reported on 13/08/25 17:30
Referred on 20/06/25 **by:** [redacted]

Owner:
ALBATROSS

KINGSCOTE 5223

Animal/s:
Wild Birds

DOB: N/A

Collected: 20/06/25 10:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

SUMMARY DIAGNOSIS
No diagnosis is concluded

SUMMARY COMMENTS

There are no gross findings to explain the cause of morbidity and chronic weight loss.

[redacted]
Specialist Veterinary Anatomic Pathologist
[redacted]

Validated by [redacted]

Number of samples 7

[redacted]

[redacted]

Tested on 20/06/25
Reported on 13/08/25 17:30
Referred on 20/06/25 **by:** [redacted]

Owner:
ALBATROSS

KINGSCOTE 5223

Animal/s:
Wild Birds

DOB: N/A

Collected: 20/06/25 10:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

NECROPSY REPORT

CLINICAL HISTORY
Please refer to the clinical history on the request form. A brief summary of the clinical history;
The albatross was severely unwell. The albatross was rescued by the Kangaroo Island wildlife network. The bird was taken to the Kangaroo Island veterinary clinic and humanely euthanized.

SAMPLES SUBMITTED
One dead adult male shy albatross, Thalassarche cauta

NECROPSY FINDINGS
The bird is in moderate body condition, weighs 3.3 kg, the pectoral muscles are moderately atrophied and there is no intra coelomic adipose tissue evident grossly.

There are rare beaks from cuttlefish within the proventriculus. The liver appears atrophied and the gallbladder is distended.

GROSS SUMMARY
Chronic weight loss

SAMPLES COLLECTED & TESTING
Cloacal and tracheal swabs in virus transport media will be tested for avian influenza and Newcastle disease virus by PCR.

Formalin fixed liver, spleen, heart, lung, kidney, brain, trachea, oesophagus, pro ventriculus, duodenum, pancreas, jejunum, ileum, caecae,

skeletal muscle and fresh liver (10g), kidney (4g), lung (8g), brain (500 mg) (these fresh tissues for possible biotoxin testing) and fresh liver, spleen, heart lung kidney, brain are stored. The fresh tissue is stored at -80 degrees C.
The samples are stored for 1 month , in line with the laboratory quality assurance procedures and will be discarded after one month if no further testing is requested.

COMMENTS
There are no gross findings to explain the cause of morbidity and chronic weight loss.

[redacted]

Tested on 20/06/25
Reported on 13/08/25 17:30
Referred on 20/06/25 **by:**

[redacted]

[redacted]

Owner:
ALBATROSS

KINGSCOTE 5223

Animal/s:
Wild Birds

DOB: N/A

Collected: 20/06/25 10:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

[redacted]
Specialist Veterinary Anatomic Pathologist
[redacted]

Validated by [redacted]

MOLECULAR DIAGNOSTICS

NEWCASTLE DISEASE VIRUS RNA PCR (REAL TIME REVERSE TRANSCRIPTASE)

Specimen type: Tracheal + cloacal swabs in VTM Number of specimens: 1

SPECIMEN ID	F Gene	M Gene	L Gene
WILD	Not detected	Not detected	Not detected

Sample ID: Wild albatross
Validated by [redacted] Laboratory Scientist.

[redacted]

[redacted]

Tested on 20/06/25
Reported on 13/08/25 17:30
Referred on 20/06/25 **by:**
[redacted]

Owner:
ALBATROSS

KINGSCOTE 5223

Animal/s:
Wild Birds

DOB: N/A

Collected: 20/06/25 10:00 **Subm.No:** [redacted] **Lab No.:** [redacted]

Samples tested as received All Tests Complete

MOLECULAR DIAGNOSTICS

INFLUENZA A RNA PCR (REAL TIME REVERSE TRANSCRIPTASE)

Specimen type: Tracheal + cloacal swabs in VTM

SPECIMEN ID	Type A	H5	H7
WILD	Not detected		

Sample ID: Wild albatross
Validated by [redacted] Laboratory Scientist.

CASE MANAGEMENT DETAILS

Case Managed by:
Case Management Requested by: [redacted]
Case Management Requested on: 20/06/25

Case Details: Moribund albatross found on Kangaroo Island.

Tasmanian Government

ANALYTICAL SERVICES TASMANIA

18 St Johns Avenue New Town 7008 TAS
03 6165 3300
enquiries@ast.tas.gov.au
www.analyticalservices.tas.gov.au

Submission Number: [redacted]
Report Number:
Issue Date: 2/02/2026
Status: Final

CERTIFICATE OF ANALYSIS

Customer: [redacted]
Address:

Submission Description: Albatross Tissue
Sample Received Date: 11/12/2025
Contract Number:
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*	*Name*	*Position*
[redacted]	**Chemist**	[redacted]	**Section Head - Organic Chemistry**

Test Information:

Method ID	*Test Description*	*Date Commenced:*
3411	Lipophilic Toxins in Shellfish by LC-MS/MS	N/A
3411A	Brevetoxins in Shellfish by LC-MS/MS	29-01-2026
3416	PST in Biota by LC-MS/MS (Boundy Method)	28-01-2026

Chemistry Test Results (Biota - Food)

		Sample Description	Lung	Heart	Spleen	Liver	Brain	Kidney
		Sampled Date/ Time	20/06/25 0:00	20/06/25 0:00	20/06/25 0:00	20/06/25 0:00	20/06/25 0:00	20/06/25 0:00
Method ID	Analyte	Units	391265	391266	391267	391268	391269	391270
3411	AZA1	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	AZA2	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	AZA3	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	Domoic Acid	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	DTX1 Free	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	DTX1 Total	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	DTX2 Free	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	DTX2 Total	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	GYM	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	Homo-YTX	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	OA Free	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	OA Total	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	PnTx-G	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	PTX2	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	SPX1	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	Total DST	OA eq. mg/kg	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
	YTX	mg/kg WMB	*IS*	*IS*	*IS*	*IS*	*IS*	*IS*
3411A	Brevetoxin 1	mg/kg WMB	<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*
	Brevetoxin 3	mg/kg WMB	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
3416	C1	STX.2HCl eq. mg/kg	*IS*	<0.01	*IS*	*IS*	*IS*	*IS*
	C2	STX.2HCl eq. mg/kg	*IS*	<0.02	*IS*	*IS*	*IS*	*IS*
	C3	STX.2HCl eq. mg/kg	*IS*	<0.02	*IS*	*IS*	*IS*	*IS*
	C4	STX.2HCl eq. mg/kg	*IS*	<0.02	*IS*	*IS*	*IS*	*IS*
	dcGTX1	STX.2HCl eq. mg/kg	*IS*	<0.02*	*IS*	*IS*	*IS*	*IS*
	dcGTX2	STX.2HCl eq. mg/kg	*IS*	<0.02	*IS*	*IS*	*IS*	*IS*
	dcGTX3	STX.2HCl eq. mg/kg	*IS*	<0.02	*IS*	*IS*	*IS*	*IS*
	dcGTX4	STX.2HCl eq. mg/kg	*IS*	<0.02*	*IS*	*IS*	*IS*	*IS*

IS- Insufficient Sample

* NATA accreditation does not cover this result

Chemistry Test Results (Biota - Food)

		Sample Description	Lung	Heart	Spleen	Liver	Brain	Kidney
		Sampled Date/ Time	20/06/25 0:00	20/06/25 0:00	20/06/25 0:00	20/06/25 0:00	20/06/25 0:00	20/06/25 0:00
Method ID	Analyte	Units	391265	391266	391267	391268	391269	391270
3416	dcNEO	STX.2HCl eq. mg/kg	*IS*	<0.02	*IS*	*IS*	*IS*	*IS*
	dcSTX	STX.2HCl eq. mg/kg	*IS*	<0.01	*IS*	*IS*	*IS*	*IS*
	doSTX	STX.2HCl eq. mg/kg	*IS*	<0.01*	*IS*	*IS*	*IS*	*IS*
	GTX1	STX.2HCl eq. mg/kg	*IS*	<0.01	*IS*	*IS*	*IS*	*IS*
	GTX2	STX.2HCl eq. mg/kg	*IS*	<0.01	*IS*	*IS*	*IS*	*IS*
	GTX3	STX.2HCl eq. mg/kg	*IS*	<0.01	*IS*	*IS*	*IS*	*IS*
	GTX4	STX.2HCl eq. mg/kg	*IS*	<0.01	*IS*	*IS*	*IS*	*IS*
	GTX5	STX.2HCl eq. mg/kg	*IS*	<0.02	*IS*	*IS*	*IS*	*IS*
	GTX6	STX.2HCl eq. mg/kg	*IS*	<0.02	*IS*	*IS*	*IS*	*IS*
	NEO	STX.2HCl eq. mg/kg	*IS*	<0.02	*IS*	*IS*	*IS*	*IS*
	STX	STX.2HCl eq. mg/kg	*IS*	<0.01	*IS*	*IS*	*IS*	*IS*
	Total PST	STX.2HCl eq. mg/kg	*IS*	<0.10	*IS*	*IS*	*IS*	*IS*

IS- Insufficient Sample

* NATA accreditation does not cover this result