

Algal bloom wildlife post-mortem report



Government
of South Australia

Department for
Environment and Water

Species – Pied cormorant

Date collected – 24 February 2026

Location – West Beach, Adelaide

History relating to the animal

A female pied cormorant (*Phalacrocorax varius*) was found dead at the southern end of West Beach. No dead fish or foam was found near the bird. This bird was found and submitted together with another cormorant (on a separate report) on 24 February 2026.

Clinical examination

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

Necropsy

The necropsy (looking at the whole body) revealed that the bird was in moderate body condition, weighing 1.7 kg. There was marked post-mortem autolytic change (decomposition after death). There were moderate numbers of maggots in the oral cavity (mouth) and coelomic cavity (space containing digestive tract and other organs). The proventriculus (bird's upper gut) and ventriculus (muscular part of gut that grinds food, often containing stones) contained moderate numbers of ascarid worms (gut parasites), and scant brown mucus. There was no brain tissue in the cranium (skull).

Tissues were collected for histopathology (looking at tissues under the microscope for more detailed information), and testing for avian influenza, Newcastle disease, brevetoxins and other algal biotoxins (a possibility due to the algal bloom).

Histopathology

Samples from every major body system were examined under the microscope. There was moderate autolysis (decomposition after death) of all tissues. There were no other significant findings.

Virology

Polymerase chain reaction (PCR) testing for avian influenza and Newcastle disease was negative.

Brevetoxins

No samples were above the limits of reporting.

Other algal biotoxins

No samples were above the limits of reporting.

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Summary

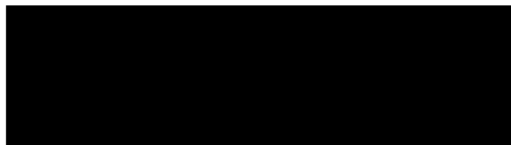
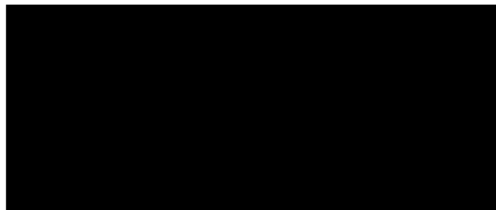
A female pied cormorant was found dead. Another cormorant was submitted with this bird and was examined and reported on separately. The bird was moderately decomposed and laboratory examination could not determine the cause of death for this bird. Parasites were found in the gut, which is a common finding in marine birds. Testing for avian influenza and Newcastle disease was negative. Brevetoxins and other algal biotoxins were not detected.

PATH RESULTS: CORMORANT, (Wi) [REDACTED]

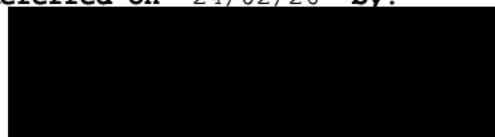
From [REDACTED]

Date Tue 24/02/2026 4:30 PM

To [REDACTED]



Tested on 24/02/26
Reported on 24/02/26 17:00
Referred on 24/02/26 **by:**



Owner:

CORMORANT
SOUTHERN END OF WEST BEAC
WEST BEACH 5024

Animal/s:

Wild Birds

DOB: N/A

Collected: 24/02/26 08:51

Subm.No: [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

NECROPSY REPORT

CLINICAL HISTORY

The dead cormorant was found at the southern end of West Beach. There were no dead fish or foam around the birds

SAMPLES SUBMITTED

2 x dead pied cormorants, *Phalacrocorax varius* are received in one bag. One bird is allocated to this submission number.

NECROPSY FINDINGS

The bird is in moderate body condition and weighs 1.7 kg. There are marked post-mortem autolytic changes. There are moderate numbers of maggots within the oral cavity and coelomic cavity.

Within the ventriculus and proventriculus there are moderate numbers of ascarid worms and scant brown mucus.

There is no brain tissue in the cranium.

GROSS SUMMARY

Unremarkable gross findings

Gastric ascaridiasis

SAMPLES COLLECTED & TESTING

Formalin fixed tissues will be processed for histopathology.

Biotoxin and brevetoxin testing on liver, spleen, heart, lung, kidney will be done.

Fresh liver, spleen, heart, lung, kidney and cloacal and tracheal swabs in virus transport medium are stored.

COMMENTS

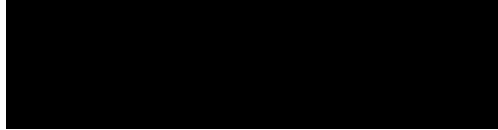
The marked post-mortem autolytic changes have limited the assessment of gross findings. Nevertheless, there are no remarkable gross findings to explain the cause of death.

Gastric ascaridiasis (possibly *Contracaecum* sp. or *Anisakis* sp.) are a normal finding in cormorants.

[REDACTED]



Tested on 24/02/26
Reported on 24/02/26 17:00
Referred on 24/02/26 by:



Owner:
CORMORANT
SOUTHERN END OF WEST BEAC
WEST BEACH 5024

Animal/s:
Wild Birds

DOB: N/A

Collected: 24/02/26 08:51 **Subm.No:**  **Lab No.:** 

Samples tested as received



Specialist Veterinary Anatomic Pathologist


Validated by 

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PATH RESULTS: CORMORANT, (Wi) {BIRD 1} [REDACTED]

From [REDACTED]

Date Sat 28/02/2026 7:30 PM

To [REDACTED]

[REDACTED]

Tested on 24/02/26
Reported on 28/02/26 20:00
Referred on 24/02/26 **by:** [REDACTED]

[REDACTED]

Owner:
CORMORANT
SOUTHERN END OF WEST BEAC
WEST BEACH 5024

Animal/s: BIRD 1
Wild Birds

DOB: N/A

Collected: 24/02/26 08:51

Subm.No: [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

HISTOPATHOLOGY FROM NECROPSY

REF: [REDACTED]
CLINICAL HISTORY

The dead cormorant was found at the southern end of West Beach. There were no dead fish or foam around the birds

SAMPLES SUBMITTED

2 x dead pied cormorants, *Phalacrocorax varius* are received in one bag. One bird, a female pied cormorant, is allocated to this submission number.

MACROSCOPY

Slides contain the following tissues

A: heart, liver spleen

B: lung, skeletal muscle

C: kidney, ovary

D: proventriculus, ventriculus, duodenum, jejunum, ileum, caecum and

heart; Ae EW

MICROSCOPY

There is moderate autolysis of all tissues. Aside from this artifact there are no other findings.

DIAGNOSIS

No remarkable histological findings

COMMENTS

There are no remarkable gross or histological findings to explain the cause of death.

[REDACTED]

Specialist Veterinary Anatomic Pathologist

[REDACTED]

Validated by [REDACTED]

[REDACTED]

Tested on 24/02/26
Reported on 28/02/26 20:00
Referred on 24/02/26 **by:** [REDACTED]

[REDACTED]

Owner:
CORMORANT
SOUTHERN END OF WEST BEAC
WEST BEACH 5024

Animal/s: BIRD 1
Wild Birds

DOB: N/A

Collected: 24/02/26 08:51

Subm.No: [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

SUMMARY DIAGNOSIS

No diagnosis is concluded

SUMMARY COMMENTS

The cause of death is not found based on gross and histopathological findings. AI and NDV PCR results are negative.

You will be sent a quote for biotoxin and brevetoxin testing at AST for approval.

[REDACTED]

Specialist Veterinary Anatomic Pathologist
[REDACTED]

Validated by [REDACTED]

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PATH RESULTS: CORMORANT, (Wi) {1 2} [REDACTED]

From [REDACTED]

Date Fri 27/02/2026 4:00 PM

To [REDACTED]

[REDACTED]

Tested on 25/02/26
Reported on 27/02/26 16:30
Referred on 24/02/26 **by:**

[REDACTED]

[REDACTED]

Owner:

CORMORANT
SOUTHERN END OF WEST BEAC
WEST BEACH 5024

Animal/s: 1 2

Wild Birds

DOB: N/A

Collected: 24/02/26 08:51

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: Trachea & Cloacal Swabs

SPECIMEN ID Type A H5 H7

POOL 1&2 Not detected

Validated by [REDACTED] Laboratory Scientist.



Tested on 25/02/26
Reported on 27/02/26 16:30
Referred on 24/02/26 by:



Owner:
CORMORANT
SOUTHERN END OF WEST BEAC
WEST BEACH 5024

Animal/s: 1 2
Wild Birds
DOB: N/A

Collected: 24/02/26 08:51 Subm.No: [REDACTED] Lab No.: [REDACTED]

Samples tested as received All Tests Complete

MOLECULAR DIAGNOSTICS

NEWCASTLE DISEASE VIRUS RNA PCR (REAL TIME REVERSE TRANSCRIPTASE)

Specimen type: Trachea & Number of specimens: 1
Cloacal Swabs

SPECIMEN ID	F Gene	M Gene	L Gene
POOL 1&2	Not detected	Not detected	Not detected

Validated by [REDACTED] Laboratory Scientist.

CERTIFICATE OF ANALYSIS

Customer:

Address:

Contact:

Submission Description:

Sample Received Date:

Contract Number:

Client Order Number:

Cormorant

11/03/2026

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

Section Head - Organic
Chemistry

Test Information:

Method ID	Test Description	Date Commenced:
3411	Lipophilic Toxins in Shellfish by LC-MS/MS	07-05-2026
3411A	Brevetoxins in Shellfish by LC-MS/MS	08-05-2026
3416	PST in Biota by LC-MS/MS (Boundy Method)	07-05-2026

Chemistry Test Results (Biota - Food)			LUNG	LIVER	HEART	SPLEEN	KIDNEY
Sample Description							
Sampled Date/ Time			24/02/26 0:00	24/02/26 0:00	24/02/26 0:00	24/02/26 0:00	24/02/26 0:00
Method ID	Analyte	Units	440283	440284	440285	440286	440287
3411	AZA1	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01
	AZA2	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01
	AZA3	mg/kg WMB	<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
	DTX1 Free	mg/kg WMB	<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
	DTX2 Free	mg/kg WMB	<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
	GYM	mg/kg WMB	<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
	OA Free	mg/kg WMB	<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
	PnTx-G	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01
	PTX2	mg/kg WMB	<0.01	<0.01	<0.01	<0.01	<0.01
	SPX1	mg/kg WMB	<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
	YTX	mg/kg WMB	<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*
	Brevetoxin 2	mg/kg WMB	<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*
3416	C1	STX.2HCl eq. mg/kg	<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
	C3	STX.2HCl eq. mg/kg	<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
	dcGTX1	STX.2HCl eq. mg/kg	<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
	dcGTX3	STX.2HCl eq. mg/kg	<0.02	<0.02	<0.02	<0.02	<0.02

* NATA accreditation does not cover this result

Chemistry Test Results (Biota - Food)			LUNG	LIVER	HEART	SPLEEN	KIDNEY
Sample Description							
Sampled Date/ Time			24/02/26 0:00	24/02/26 0:00	24/02/26 0:00	24/02/26 0:00	24/02/26 0:00
Method ID	Analyte	Units	440283	440284	440285	440286	440287
3416	dcGTX4	STX.2HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	dcNEO	STX.2HCl eq. mg/kg	<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
	doSTX	STX.2HCl eq. mg/kg	<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
	GTX2	STX.2HCl eq. mg/kg	<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
	GTX4	STX.2HCl eq. mg/kg	<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
	GTX6	STX.2HCl eq. mg/kg	<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
	STX	STX.2HCl eq. mg/kg	<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

* NATA accreditation does not cover this result