# **SARDI** Report

## **Shark Dissection Report Summary**

## **Sample Details**

Date collected - 30 May 2025

Species - White Shark (Carcharodon carcharias)

Location - Stansbury, Gulf St Vincent

Reference code - CCST300525

## **Sample History**

Commercial oyster farmer reported a deceased white shark at Stansbury Spit on 30 May 2025 to PIRSA Fisheries Compliance Staff. PIRSA Fisheries Compliance Officers were escorted to carcass in the afternoon of 30 May 2025. The large shark carcass was heavily decomposed, recovery of the whole carcass was not possible due to location and carcass condition. PIRSA Fisheries Compliance Officers dissected the shark in-situ. Biological samples and morphometric data were collected and transported to SARDI/PIRSA West Beach and then stored frozen until future analysis.

Samples were assessed by SARDI research scientists on 25 June 2025 at SARDI Aquatic Sciences West Beach.

#### **Dissection interpretation**

The shark was identified as a large female white shark. The shark was in a heavily decomposed physical state as a result of prolonged submersion for several days post-mortem. A dissection was not conducted as the carcass was not retrieved. The sharks head, section of vertebrae, liver and muscle tissue were collected from the carcass.

#### **Biological Information**

Length metrics (mm)					
Total Fork		Precaudal	Clasper Uterus wid		
4200	NA	NA	NA	NA	

Maturity information				
Maturity Sex status		Maturity Indicator		
Female	NA	NA		





Weights (kg)					
Total	Liver	Heart	Gonad	Stomach whole	Stomach empty
400*	NA	NA	NA	NA	NA

Prey items	Item weights (kg)

<sup>\*</sup> approximate

## **Histology**

Histology was not conducted due to the heavily decomposed state of the samples precluding the effectiveness of histological examination of tissues.

## **Toxicology**

Liver tissues (only) were sent for toxicological analysis, results received on 5 August 2025 from Analytical Services Tasmania. Liver tissue contained low concentrations of brevetoxin 3, while brevetoxin 2 was not recorded above the reporting limit.

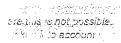
Tissue	Biotoxin	Concentration	Units	
Liver	Brevetoxin 2	<0.01*	mg/kg WMB	
Liver	Brevetoxin 3	0.02	mg/kg WMB	
Gill	Brevetoxin 2	NA	mg/kg WMB	
Gill	Brevetoxin 3	NA	mg/kg WMB	
* below reporting limit				

#### Summary

The cause of mortality of this female white shark could not be definitively concluded. This shark was not able to be retrieved from its stranding location and was dissected in water. As a result, a comprehensive dissection was not conducted. Low concentrations of a brevetoxin were identified in the liver. It is unknown if the presence or concentration of the brevetoxin resulted or contributed to the mortality of this shark.

### **Appendix**

Analytical Services Tasmania brevetoxin results (received 5 August 2025).





#### ANALYTICAL SERVICES TASMANIA

3 18 St Johns Avenue New Town 7008 TAS

**4** 03 6165 3300

enquiries@ast tas.gov.au

www.analyticalservices.tas.gov.au

Submission Number: Report Number: Issue Date: Status: 4/08/2025 Final

## **CERTIFICATE OF ANALYSIS**

Customer:

Department of Primary Industries and Regions

Address: Contact: Department of Thinary industries and Negrots

Submission Description:

Sample Received Date:

Biotoxins 30/07/2025

Contract Number:

Client Order Number: Program/Quote Reference:

ce: P2

P22500011 - Biotoxins

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.

 ${\it Holding time information can be found on the AST website } {\it https://analyticalservices.tas.gov.au/our-services/containers-samples-and-submissions} \ .$ 

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

3411A

Test Description

Brevetoxins in Biota by LC-MS/MS

Date Commenced:

01-08-2025

#### ANALYTICAL SERVICES TASMANIA

Submission Number: Report Number:



Chemistry Test Results (Biota - Food)		Sample Description	CCST300525-L	CCPB270625-L	CCPB270625 G	CCPT150725 L	CCPT150725 G
		Sampled Date/ Time	04/04/25 0:00	05/05/25 0:00	27/06/25 0:00	15/07/25 0:00	15/07/25 0:00
Method ID	Analyte	Units	328475	328476	328477	328478	328479
3411A	Brevetoxin 2	mg/kg WMB	<0.01*	<0.01*	0.02*	<0.01*	<0.01*
	Brevetoxin 3	mg/kg WMB	0.02*	<0.01*	0.01*	<0.01*	<0.01*

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<sup>\*</sup> NATA accreditation does not cover this result