



Assessing the impact of harmful algal blooms on fisheries and fish stocks in Gulf St Vincent and Spencer Gulf – including a roadmap for recovery.

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Department of Primary Industries
and Regions



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Objective

The objective of the Algal Bloom Fisheries Research Program is to **assess impact on fished stocks and fisheries** using diverse methods.



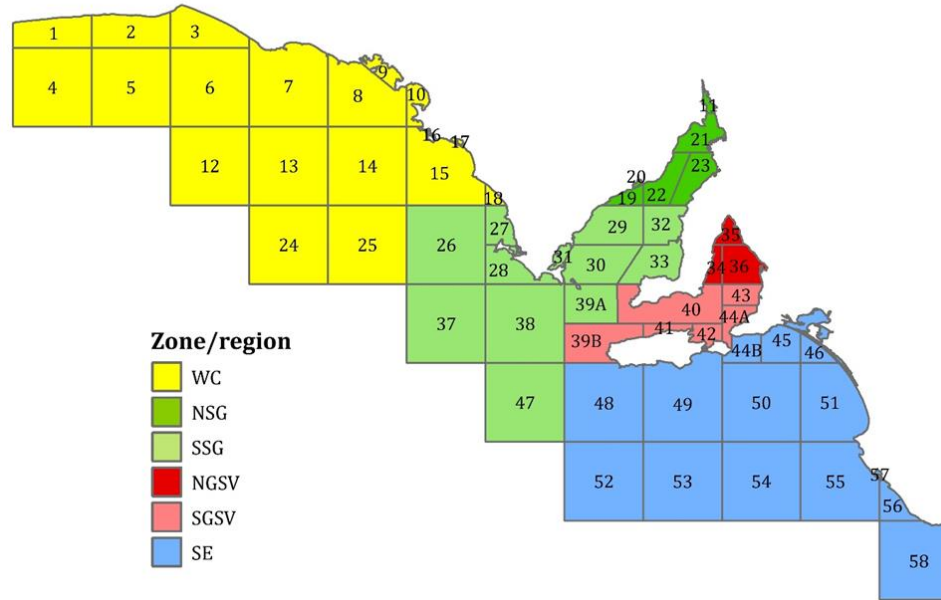
Approach is to optimise funding to get maximum data across species, sectors, regions.

Data are incorporated into fisheries stock assessments to identify the scale of the impact and guide management decisions.



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GULF REGIONS



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Broad Approach

Spatial and temporal analyses

of commercial logbook across all fishing sectors and voluntarily reported recreational data (via the new recreational fishing App)

Fishery-independent surveys

designed to provide comparable data with historical survey programs

Fishery-dependent surveys

where contracted fishers operate within assumed algal bloom-affected areas to provide targeted information (e.g. King George Whiting, Southern Calamari, Southern Garfish, Blue Crab, Western King Prawn)

Bycatch and biological sampling

to collect detailed data on non-target species and biological parameters of key species

Service Level Agreement stock assessment surveys

e.g. Southern Rock Lobster, Western King Prawn, Blue Crab and Abalone

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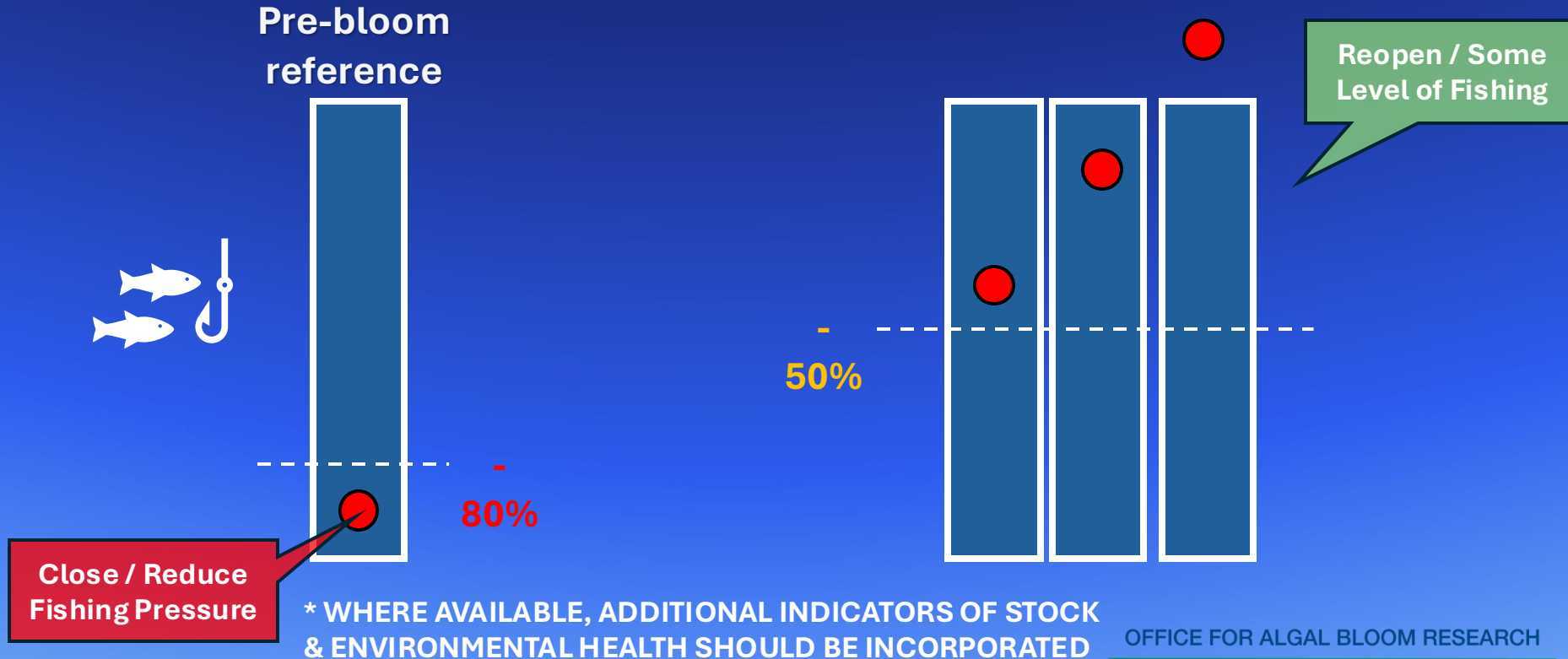
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Multiple Species and Sampling Methods



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Decision Rules – CPUE (abundance)



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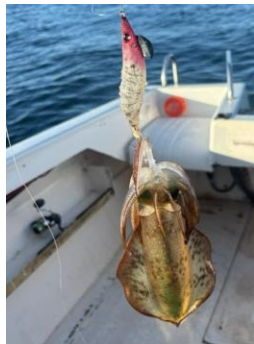
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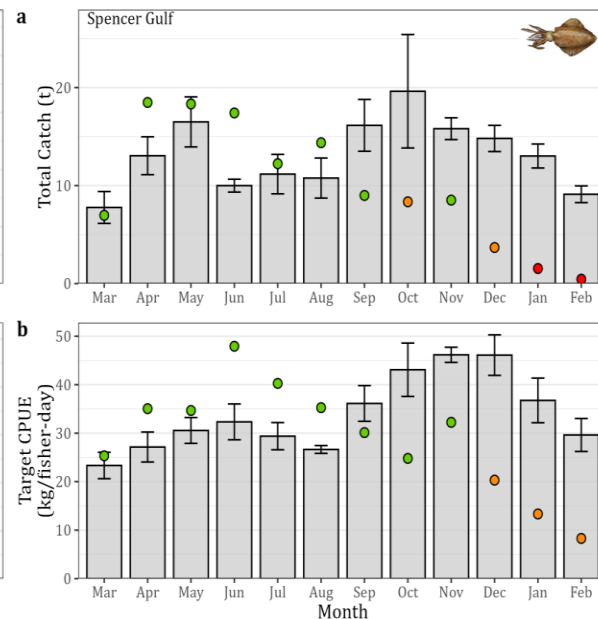
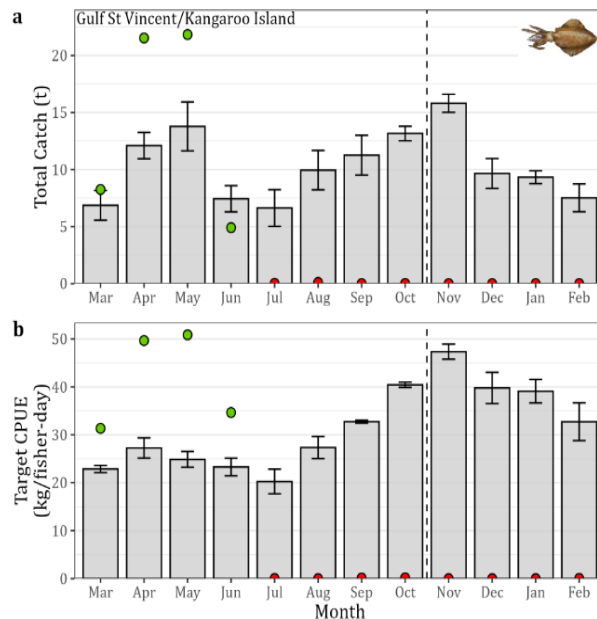


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Southern Calamari

Gulf St Vincent:
Major decline
from July
Spencer Gulf:
Relatively stable
until August then
declining from
September
onwards



Green = <50%, orange = 50-80%, red = >80% of 3-year monthly average

February 2022 – February 2025; Gray bars

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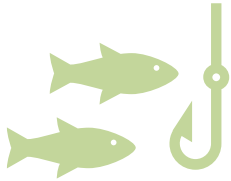
Southern Calamari – GSV/KI (CPUE)

ZONE	REGION	OCT	NOV	DEC	JAN	FEB
GULF ST VINCENT	GSV/KI	-100%	-100%	-100%	-100%	-100%
	NGSV	-100%	-100%	-100%	-100%	-100%
	SGSV	-100%	-100%	-100%	-100%	-100%
	KI	-94%	NA	-100%	NA	-100%

EGG SURVEY				
REGION	NOV 2005	NOV 2006	NOV 2025	DEC 2025
MARINO/SEACLIFF	2,833	10,544	0	0
MYPONGA/SELICKS	18,335	11,541	0	0

BYCATCH	AUG 2025	SEP 2025	OCT 2025	NOV 2025	DEC 2025
	0	0	0	0	0

SECTOR	MANAGEMENT	CHANGE?
COMMERCIAL	CLOSED	NO
RECREATIONAL	50% REDUCTION	YES (CLOSED)



Southern Calamari – SG (Catch+CPUE)



ZONE	REGION	OCT	NOV	DEC	JAN	FEB
SPENCER GULF (Catch)	SG	-57%	-46%	-75%	-88%	-95%
	NSG	-12%	-57%	-89%	-95%	-98%
	SSG	-64%	-45%	-73%	-88%	-94%



ZONE	REGION	OCT	NOV	DEC	JAN	FEB
SPENCER GULF (CPUE)	SG	-42%	-30%	-56%	-64%	-72%
	NSG	-33%	-39%	-80%	-89%	-99%
	SSG	-38%	-24%	-54%	-62%	-70%



EGG SURVEY			
REGION	NOV 2005	NOV 2006	NOV 2025
PT RILEY/MYPONIE	NA	NA	154



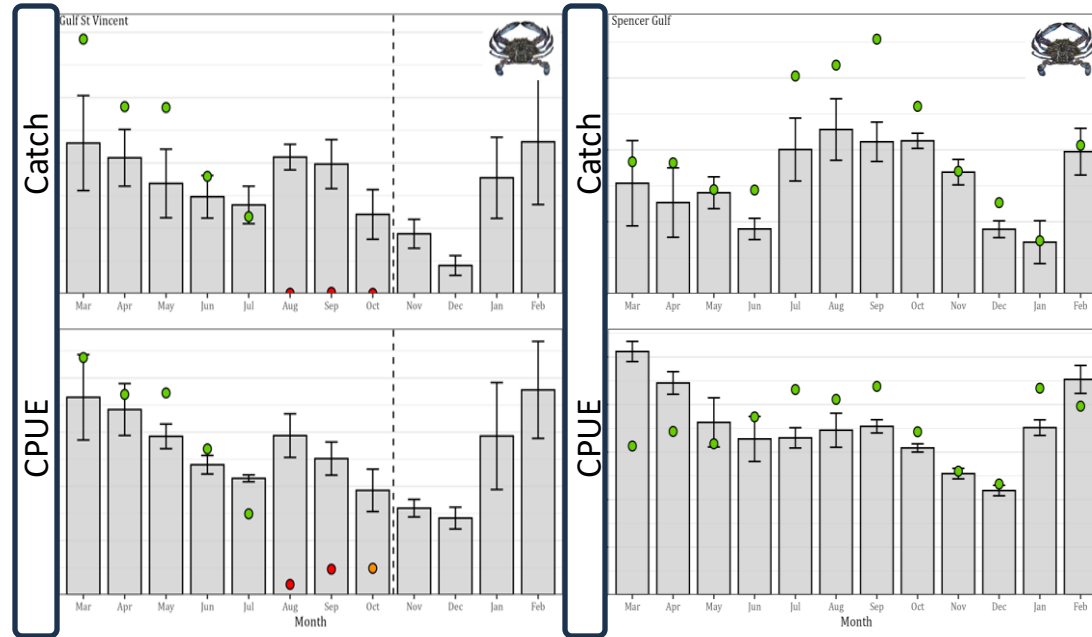
BYCATCH (g.ha ⁻¹)	2022	2023	2024	2025
	227	222	228	107

SECTOR	MANAGEMENT	CHANGE?
COMMERCIAL	OPEN (QUOTA)	YES (CLOSED)
RECREATIONAL	50% REDUCTION	YES (CLOSED)

Blue Swimmer Crab



Gulf St Vincent:
Major decline
Spencer Gulf:
Relatively stable



Green = <50%, orange = 50-80%, red = >80% of 3-year monthly average.

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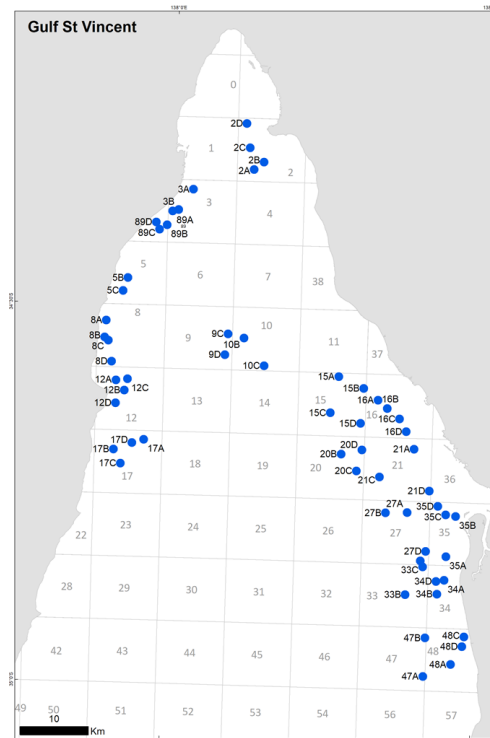
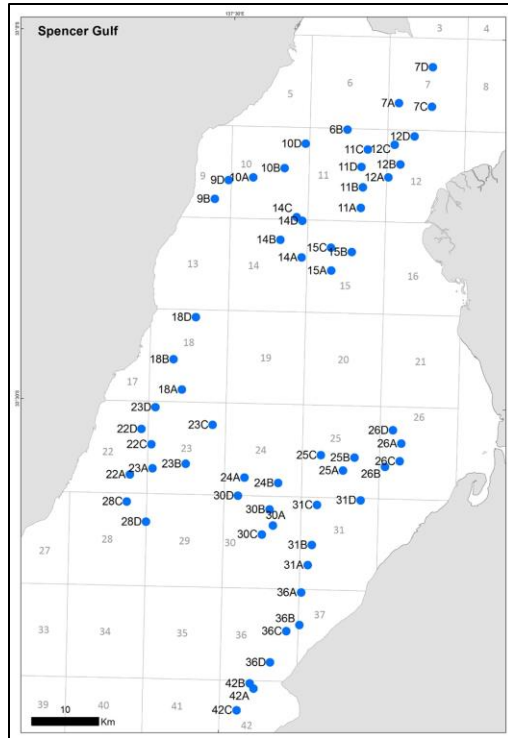


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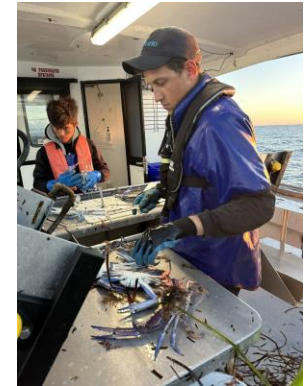


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Blue Crab – Fishery Independent Survey

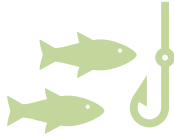


- 540 commercial pots & 60 research pots (standardised small-mesh) sampled in each gulf
- Surveys completed in March 2026
 - SG: 2nd to 7th of March
 - GSV: 17th to 22nd March



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Blue Crab- GSV/KI (CPUE)



ZONE	JUNE	JULY	AUGUST	SEPT.	OCT.
GULF ST VINCENT	12%	-30%	-94%	-81%	-75%

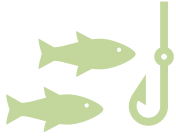


GSV / KI – Routine Fishery Independent Survey - March/April				
		3-yr Avg (23-25)	2026	% DIFF
CPUE	Research pot	3.2 ± 0.73	5.6 ± 0.4	+75.00
legal kg.potlift ⁻¹	Commercial pot	3.6 ± 0.9	5.8 ± 0.1	+61.11



SECTOR	MANAGEMENT	CHANGE?
COMMERCIAL	CLOSED	YES (OPEN)
RECREATIONAL	50% REDUCTION	YES (OPEN)

Blue Crab – SG (CPUE)



ZONE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.
SPENCER GULF	31%	19%	24%	11%	2%	6%	24%	-12%



SG – Routine Fishery Independent Survey - March/April

		3-yr Avg (23-25)	2026	% DIFF
CPUE	Research pot	5.8 ± 1.1	8.1 ± 0.4	+39.66
legal kg.potlift ⁻¹	Commercial pot	5.6 ± 0.8	11.7 ± 0.2	+108.93



SECTOR	MANAGEMENT	CHANGE?
COMMERCIAL	OPEN (QUOTA)	NO
RECREATIONAL	NO REDUCTION	NO

DECISION SUMMARY

GULF	SPECIES	SECTOR	MANAGEMENT	CHANGE
  	KING GEORGE WHITING	COMMERCIAL	CLOSED	NO
		RECREATIONAL	50% REDUCTION	NO (Spawning Closure)
	CALAMARI	COMMERCIAL	CLOSED	NO
		RECREATIONAL	50% REDUCTION	YES (CLOSED)
	GARFISH	COMMERCIAL	CLOSED	NO
		RECREATIONAL	50% REDUCTION	YES (CLOSED)
	BLUE CRAB	COMMERCIAL	CLOSED	YES (OPEN)
		RECREATIONAL	50% REDUCTION	YES (OPEN)
	KING GEORGE WHITING	COMMERCIAL	OPEN (QUOTA)	NO
		RECREATIONAL	50% REDUCTION	YES (OPEN)
	CALAMARI	COMMERCIAL	OPEN (QUOTA)	YES (CLOSED)
		RECREATIONAL	50% REDUCTION	YES (CLOSED)
	GARFISH	COMMERCIAL	OPEN (QUOTA)	NO
		RECREATIONAL	NO REDUCTION	NO
	BLUE CRAB	COMMERCIAL	OPEN (QUOTA)	NO
		RECREATIONAL	NO REDUCTION	NO