

GOLD COAST ESTUARIES REVIEW JUNE 2025

INFORMATION RATING



Key species: Dusky Flathead, Yellowfin Bream, Mangrove Jack

Fish timeframe: 2016-June 2025

Fisher timeframe: 2021-June 2025

The Gold Coast has extensive waterways both natural and man-made canals. It includes the Broadwater, Coomera River, Nerang River, numerous lakes and canals, Currumbin Creek and south to the Queensland border.

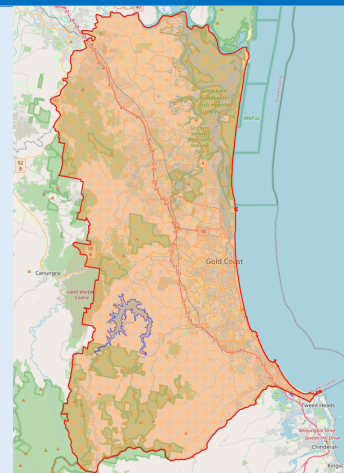
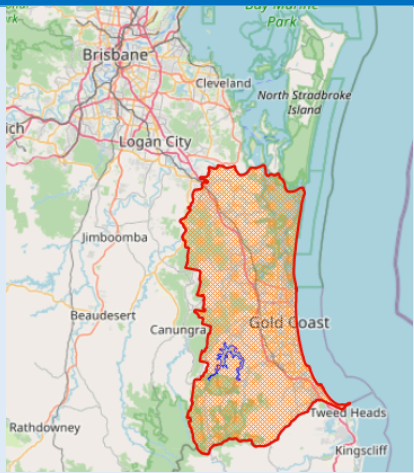
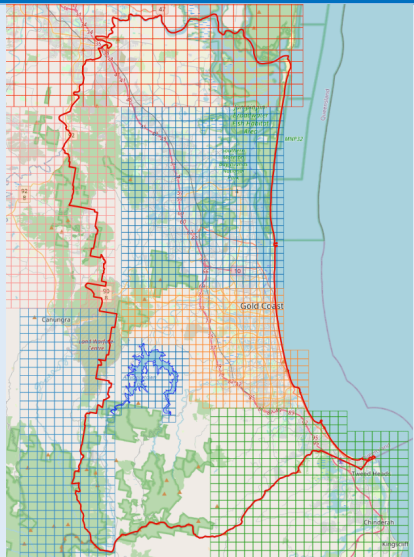
The Gold Coast is mostly fished by locals and some fishers coming from the Brisbane area catching mainly Flathead, Bream, and Mangrove Jack with those species accounting for 80% of fish tagged. Flathead and Bream are caught by most fishers along with Whiting (not a tagged species) while Mangrove Jack are mainly targeted by specialized fishers that are secretive about their fishing, particularly about their fishing locations. Data on locations presented is generalized and does not identify actual fishing locations.

Tagging effort and recaptures were impacted by high rainfall, flooding in the rivers and Cyclone Alfred in the first half of 2025 and effort is expected to pick up in the second half of the year when conditions are more stable.

The long running Flathead Classic competition is a photo-based event using Trackmyfish with all fish released and is an alternative source of data on Flathead. Catch rates of Flathead in the competition were significantly higher than that for taggers. The number of fish recorded, and the catch rate suggests that the Flathead population on the Gold Coast is in good shape and the species may have benefited from waterway modifications and canal developments. The 2025 Classic will be held again in Sep.

The recapture rate for Flathead was 5.6%, for Bream was 1.3% and for Mangrove Jack was 18.3%. Even though Mangrove Jack are mostly targeted by more skilled fishers the recapture rate suggests a high level of fishing effort for the species.

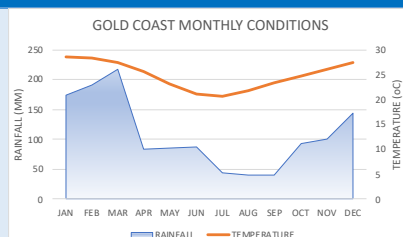
Taggers generally release all tagged fish they recapture including legal fish. For legal fish recaptured by recreational fishers (ex-taggers) 39% of Flathead were kept, 54% of Bream were kept, and for Mangrove Jack 50% were kept. With a recapture rate of 18.3% for Mangrove Jack the pressure on stocks is very high however is reduced a little by the retention rate.

GOLD COAST CITY AREA		LOCATION
	<p>Coomera 27.85°S 153.34°E</p> <p>Coolangatta 28.17°S 153.54°E</p>	
WATERWAYS	ACTUAL	GRAPH or MAP
<p>Gold Coast City area</p> <p>Grid maps</p> <p>Coomera River GC22</p> <p>Nerang River GC23</p> <p>Moreton Bay MB03 (part)</p> <p>Tweed River TWR (part)</p> <p>Beaudesert LAB (part)</p> <p>Canungra CAN (part)</p> <p>Lake Advancetown ADV</p>	<p>Logan River</p> <p>Albert River</p> <p>Jumpinpin</p> <p>Broadwater</p> <p>Coomera River</p> <p>Nerang River</p> <p>Gold Coast canals and lakes</p> <p>Tallebudgera Creek</p> <p>Currumbin Creek</p> <p>Lake Advancetown (see separate dashboard)</p>	

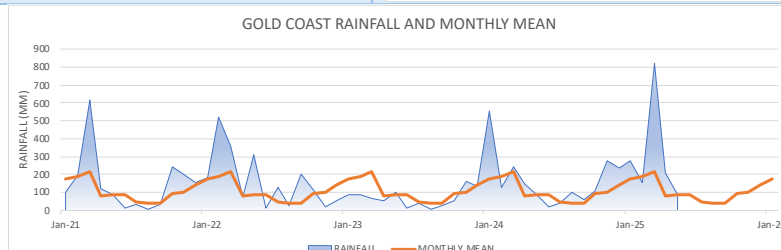
ENVIRONMENTAL

Gold Coast
Mean monthly rainfall (mm)
Mean monthly temperature (oC)

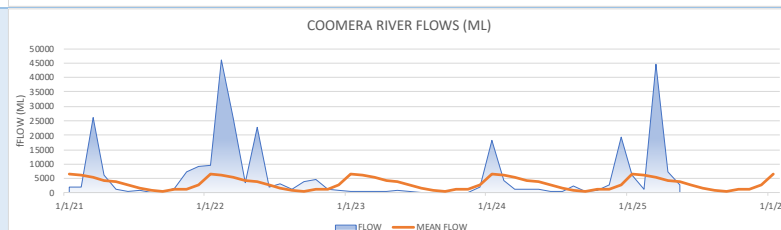
Rainfall	Month	mm
High	Mar	218
Low	Sep	41
Temp	Month	oC
High	Jan	29
Low	Jul	21



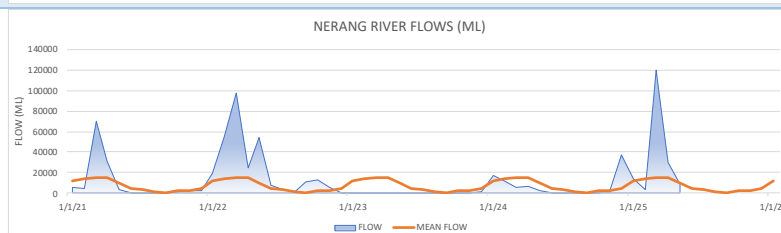
Gold Coast
Monthly rainfall (mm)
Mean monthly rainfall (mm)
2021-2025
2025 (Jan-Jun)



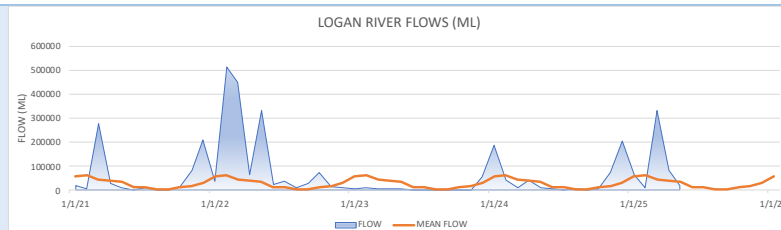
Coomera River flows and mean monthly flows (ML)
2021-2025
2025 (Jan-Jun)



Nerang River flows and mean monthly flows (ML)
2021-2025
2025 (Jan-Jun)

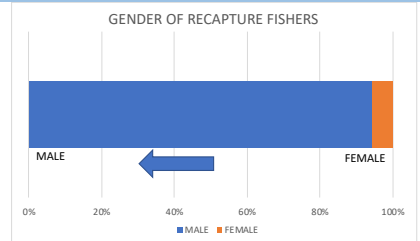
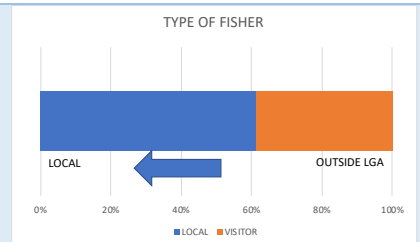
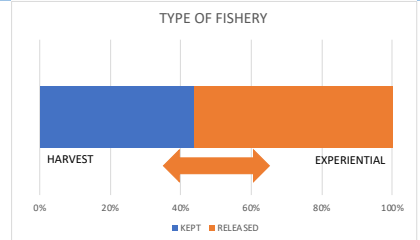
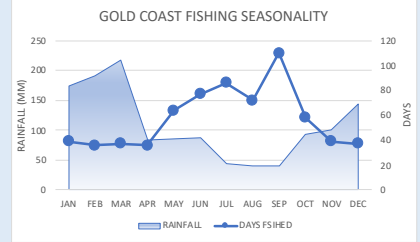


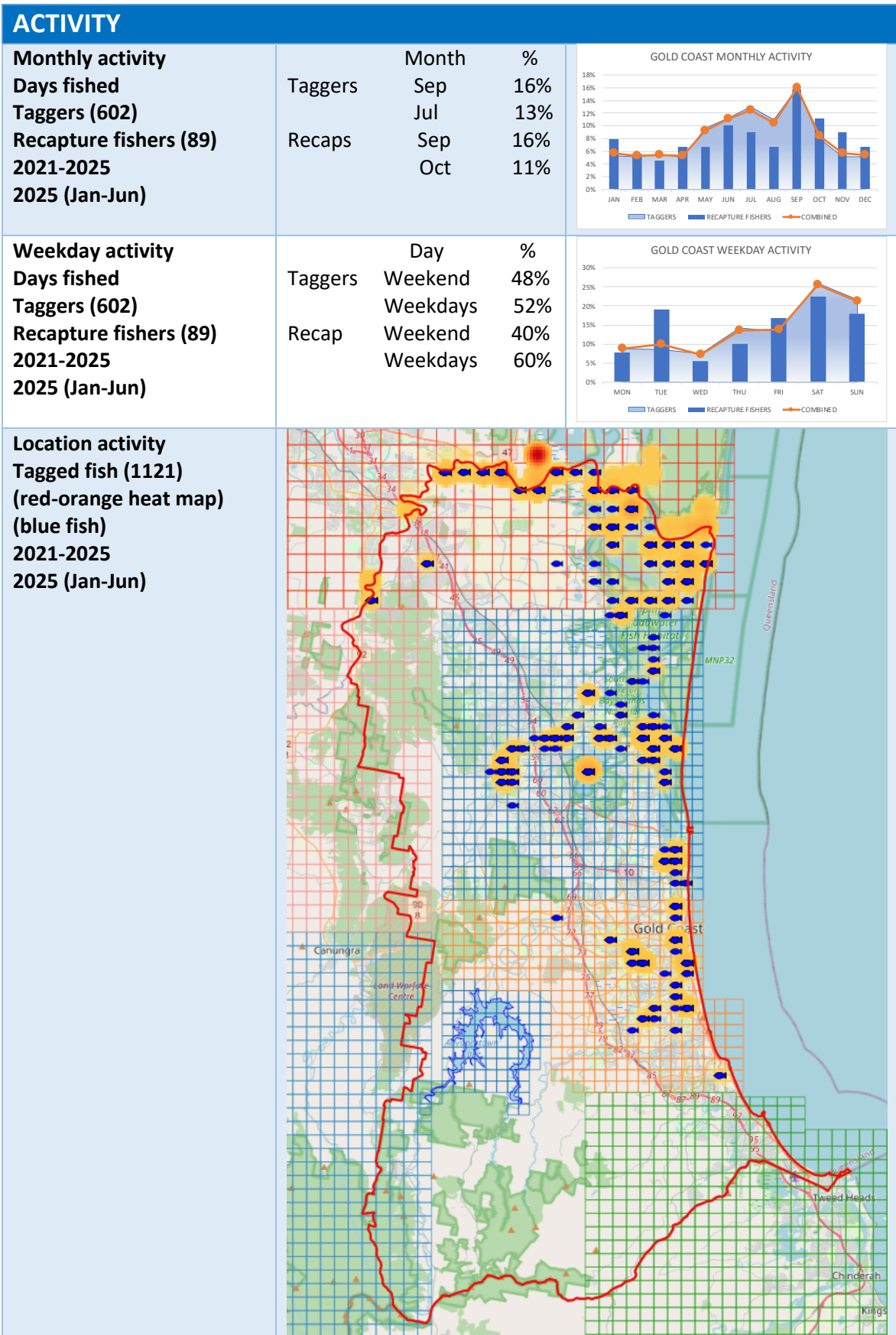
Logan River flows and mean monthly flows (ML)
2021-2025
2025 (Jan-Jun)



FISHERS	ACTUAL				GRAPH or MAP		
DATA RELIABILITY							
Sample size (days fished)	Reliability level	LOW	MODERATE		MODERATE	HIGH	
Tag days (blue arrow)	Samples	10	41	68	271	384	664
Recaptures (orange arrow)	Confidence	80%	80%	90%	90%	95%	99%
Confidence %	Error	20%	10%	10%	5%	5%	5%
Error %							
2020-2024							

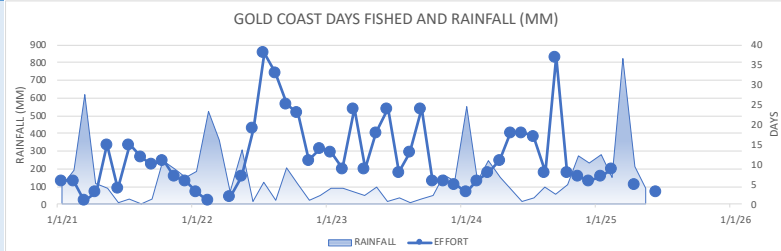
TYPE OF FISHERY		
Seasonality	Days fished	691
Mean monthly rainfall	Months most fished	Sep
Days fished combined	Fishers combined	Jul
Taggers		
Recapture fishers		
2021-2025		
2025 (Jan-Jun)		
Harvest or experiential	Key species legal fish kept rate	
Release rate of recaptured legal fish of key species (ex-taggers)	Legal fish	96
Flathead/Bream/M Jack	Kept	42 (44%)
2016-2025	Released	54 (56%)
2025 (Jan-Jun)		
Local or visitor fishery	Recapture fishers	80
Where recapture fishers live	Local (in LGA)	49 (61%)
2021-2025	Visitor	31 (39%)
2025 (Jan-Jun)		
Fisher gender	Recapture fishers	88
Gender of recapture fishers (ex-taggers)	Male	83 (94%)
2021-2025	Female	5 (6%)
2025 (Jan-Jun)		



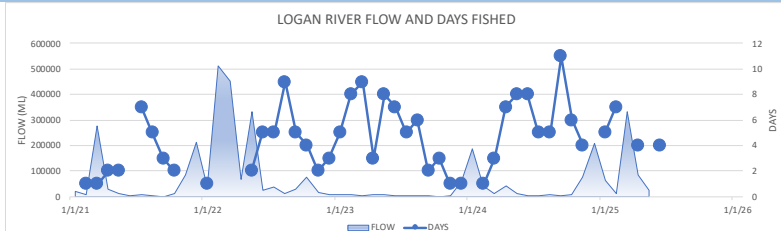


EFFORT

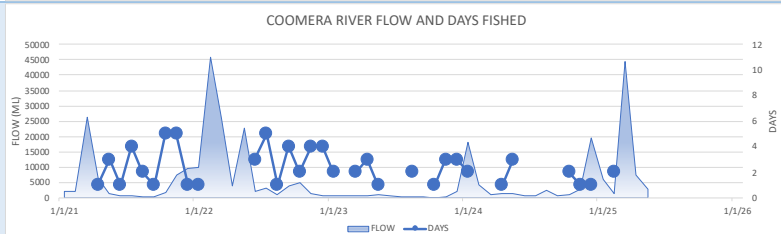
Tagger effort
Gold Coast (all locations)
Rainfall (mm)
Days fished (blue dots)
2021-2025
2025 (Jan-Jun)



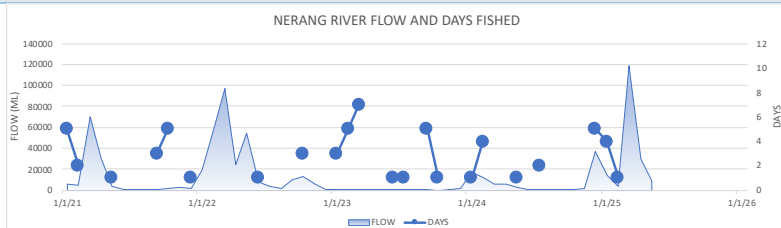
Tagger effort
Logan River flow (ML)
Days fished (blue dots)
2021-2025
2025 (Jan-Jun)



Tagger effort
Coomera River flow (ML)
Days fished (blue dots)
2021-2025
2025 (Jan-Jun)

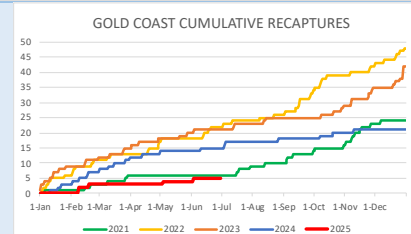


Tagger effort
Nerang River and canals
Nerang River flow (ML)
Days fished (blue dots)
2021-2025
2025 (Jan-Jun)



Cumulative recaptures
Gold Coast
2021-2025
2025 (Jan-Jun)

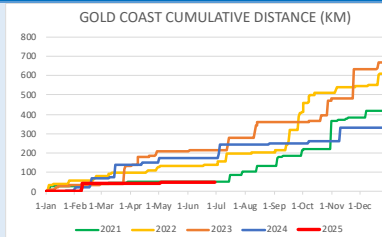
Year	Recaps
2021	24
2022	48
2023	42
2024	21
2025 Jan-Jun	5



TRAVEL

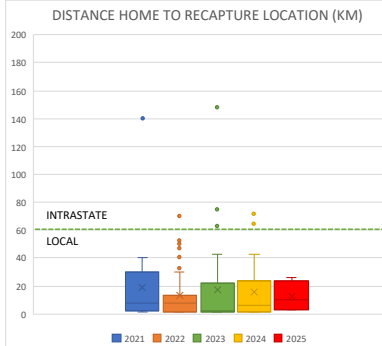
**Cumulative distance (km)
home to recapture
location
2021-2025
2025 (Jan-Jun)**

Year	Km
2021	416
2022	617
2023	732
2024	331
2025 Jan-Jun	49



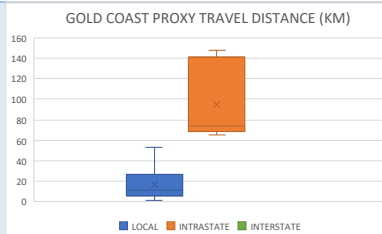
**Distance (km) home to
recapture location
Local (<60km)
Intrastate (>=60km Qld)
Interstate (Other states)
2021-2025
2025 (Jan-Jun)**

	Recaptures
Local	87
Intrastate	6
Interstate	-



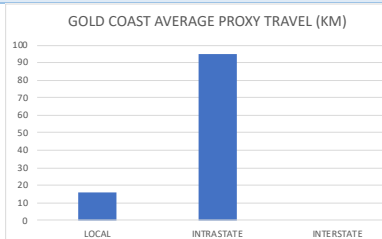
**Distance (km) home to
recapture location
Bars show distance range
Dots show outliers
2021-2025
2025 (Jan-Jun)**

	Range (km)
Local	1-53
Intrastate	65-148
Interstate	-



**Average distance (km)
from home to recapture
location
2021-2025
2025 (Jan-Jun)**

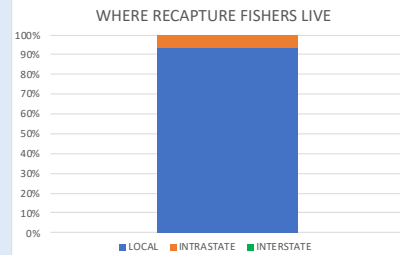
	Av distance (km)
Local	16
Intrastate	95
Interstate	-



WHERE RECAPTURE FISHERS LIVE

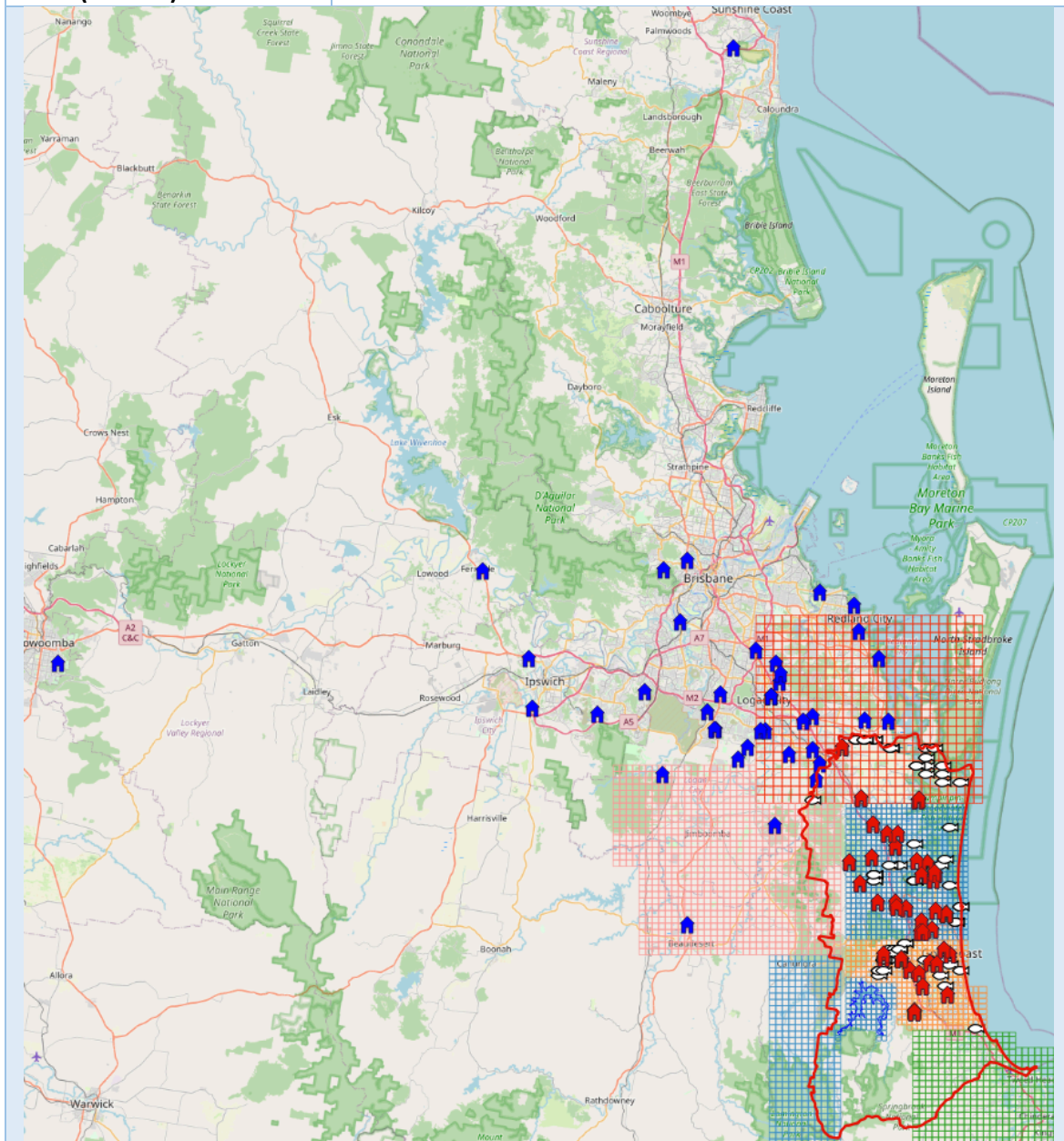
Where recapture fishers live by distance
Local (<60km)
Intrastate (>=60km Qld)
Interstate (Other states)
2021-2025
2025 (Jan-Jun)




Recapture fishers 93
 Local 87 (94%)
 Intrastate 6 (6%)
 Interstate 0 (0%)

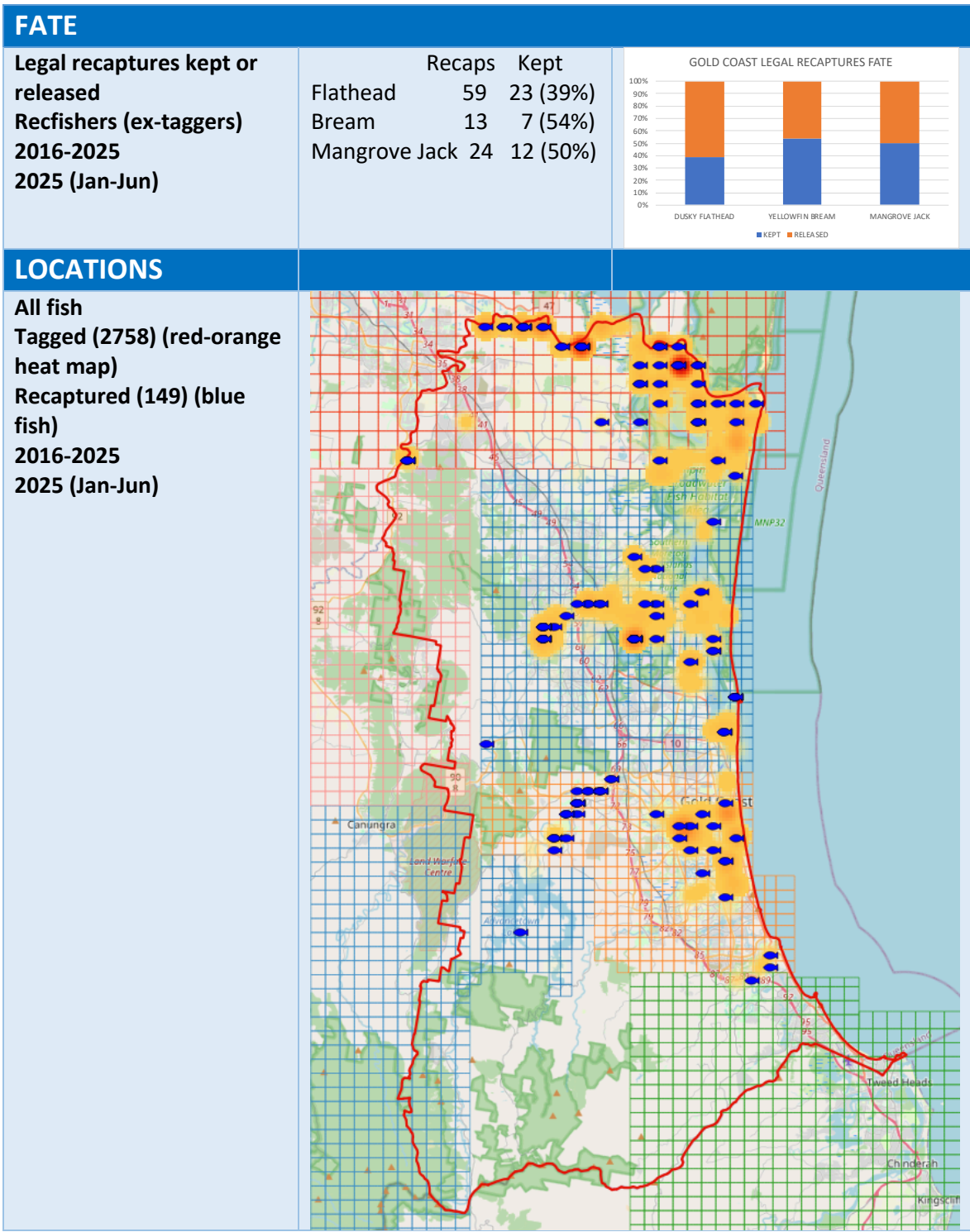





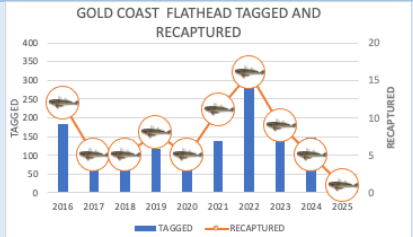
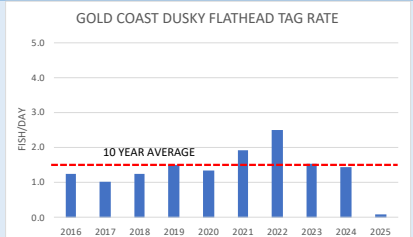
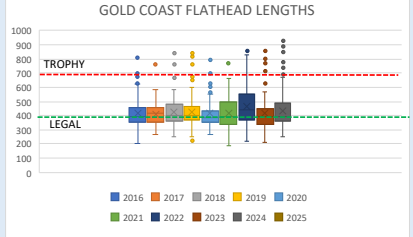
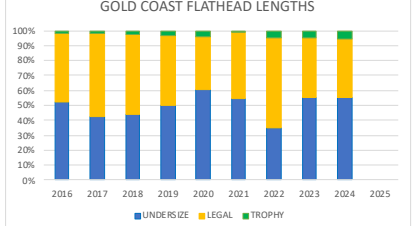
Where fishers recapturing fish live
Local
Intrastate
2021-2025
2025 (Jan-Jun)

Recaptured fish (white fish) 80
 Local recapture fishers in LGA (red houses) 49 (61%)
 Visitor recapture fishers outside LGA (blue houses) 31 (39%)



FISH	ACTUAL	GRAPH or MAP	
DUSKY FLATHEAD	YELLOWFIN BREAM	MANGROVE JACK	
			
EFFORT			
Tag and effort taggers	High	Low	Now
Tagged fish	Tagged fish		
Days fished	2016	2017	2025
2016-2025	562	251	76
2025 (Jan-Jun)	Days		
	2016	2017	2025
	187	86	23
Fish tagged and recaptured	Tagged	Recaptured	
2016-2025	360	177	
2025 (Jan-Jun)	Recapture rate	4.9%	
TAG RATE			
Tag rate	High	Low	Now
All tagged fish	Tag rate		
Fish/day	2020	2023	2025
2016-2025	3.5	2.4	3.3
2025 (Jan-Jun)	10 year average	3.0	
SPECIES			
Species composition	Dusky Flathead	1383	
Numbers tagged	Yellowfin Bream	1345	
2016-2025	Mangrove Jack	153	
2025 (Jan-Jun)	Other species	719	
Species composition	Dusky Flathead	38%	
Percentage tagged	Yellowfin Bream	37%	
2016-2025	Mangrove Jack	4%	
2025 (Jan-Jun)	Combined	80%	

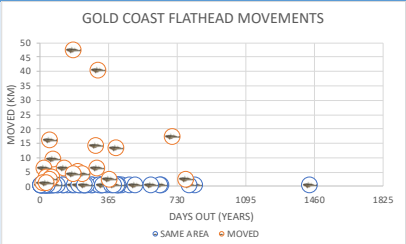


FLATHEAD	ACTUAL			GRAPH or MAP																				
																								
DATA RELIABILITY																								
Sample size (av fish/year) Tagged (blue arrow) Recaptures (orange arrow) Confidence % Error % 2021-2025	<table border="1"> <thead> <tr> <th>Reliability level</th><th>LOW</th><th>MODERATE</th><th>MODERATE</th><th>HIGH</th></tr> </thead> <tbody> <tr> <td>Samples</td><td>10</td><td>41</td><td>68</td><td>271</td></tr> <tr> <td>Confidence</td><td>80%</td><td>80%</td><td>90%</td><td>95%</td></tr> <tr> <td>Error</td><td>20%</td><td>10%</td><td>5%</td><td>5%</td></tr> </tbody> </table> <div>   </div>			Reliability level	LOW	MODERATE	MODERATE	HIGH	Samples	10	41	68	271	Confidence	80%	80%	90%	95%	Error	20%	10%	5%	5%	
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Error	20%	10%	5%	5%																				
TAGGED																								
Flathead tagged and recaptured each year 2016-2025 2025 (Jan-Jun)	High Tagged 2016 184 Total 1383	Low 2017 68 Recaps 77 (5.6%)	Now 2025 1																					
TAG RATE																								
Tag rate Flathead Fish/day 2016-2025 2025 (Jan-Jun)	High Tag rate 2022 2.5 10 year average	Low 2017 1.0	Now 2025 NA 1.5																					
LENGTHS																								
Average length (mm) Bars show length range Dots show outliers 2016-2025 2025 (Jan-Jun)	High Average length 2022 465 Max 2023 865	Low 2017 413 2017 760	Now 2025 NA 2025 NA																					
Fish lengths percentage Undersize <400mm Legal 400-700mm Trophy 700+mm 2016-2025 2025 (Jan-Jun)	High Legal-Trophy 2022 60% Trophy 2023 5%	Low 2020 35% 2021 1%	Now 2025 NA 2024 NA																					

MOVEMENT

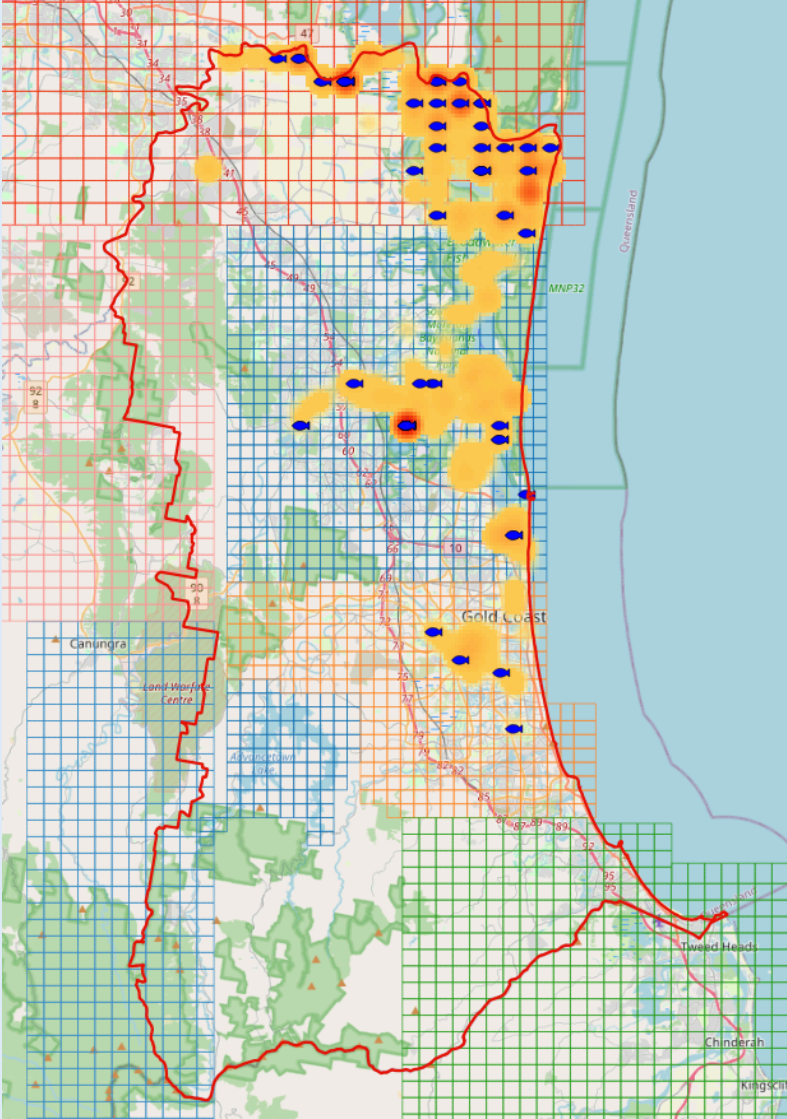
Flathead movement
Distance moved (km)
2016-2025
2025 (Jan-Jun)


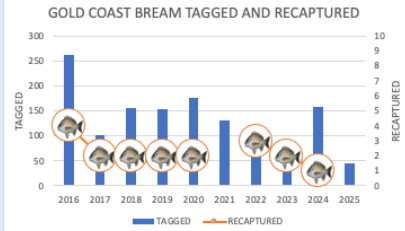
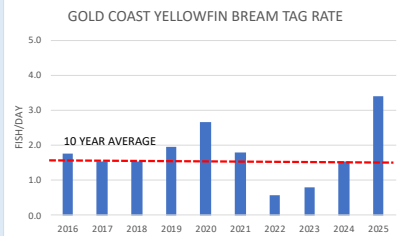
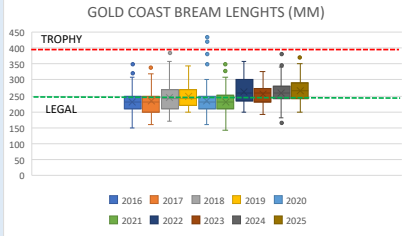
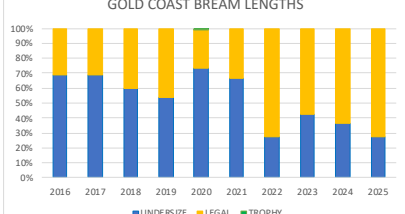
Recaptures	85
Same area	65 (76%)
Moved	20 (24%)
Max moved	47km



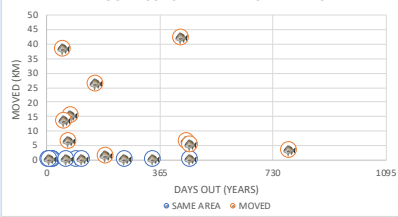
LOCATIONS

Flathead
Tagged (red-orange heat map) (1073)
Recaptured (blue fish) (60)
2016-2025
2025 (Jan-Jun)

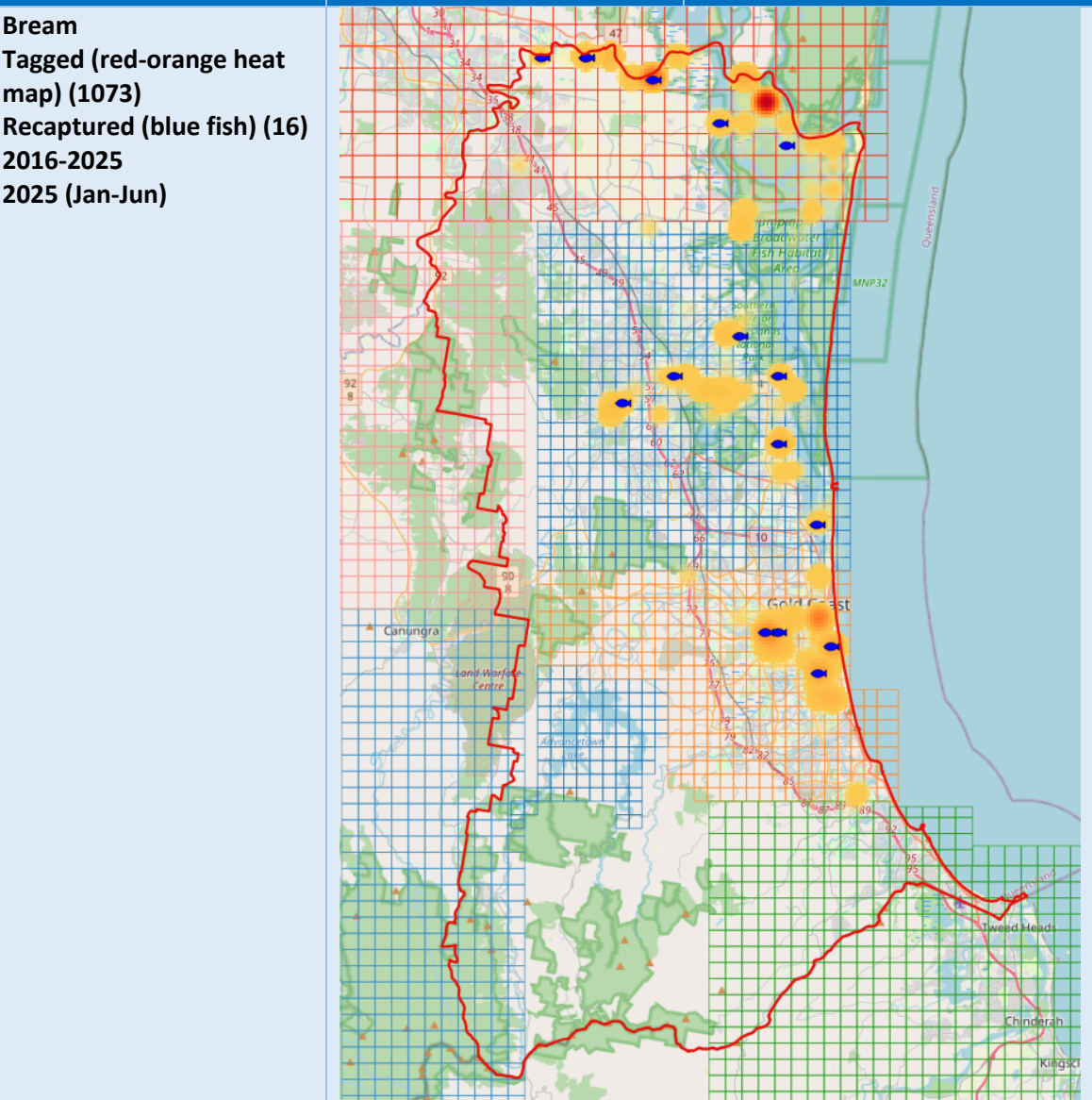




BREAM	ACTUAL			GRAPH or MAP																										
																														
DATA RELIABILITY																														
Sample size (av fish/year)	<table><tr><td>Reliability level</td><td>LOW</td><td>MODERATE</td><td>MODERATE</td><td>HIGH</td></tr><tr><td>Samples</td><td>10</td><td>41</td><td>68</td><td>271</td><td>384</td><td>664</td></tr><tr><td>Confidence</td><td>80%</td><td>80%</td><td>90%</td><td>90%</td><td>95%</td><td>99%</td></tr><tr><td>Error</td><td>20%</td><td>10%</td><td>10%</td><td>5%</td><td>5%</td><td>5%</td></tr></table>				Reliability level	LOW	MODERATE	MODERATE	HIGH	Samples	10	41	68	271	384	664	Confidence	80%	80%	90%	90%	95%	99%	Error	20%	10%	10%	5%	5%	5%
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2021-2025																														
TAGGED																														
Bream tagged and recaptured	High	Low	Now																											
2016-2025	Tagged																													
2025 (Jan-Jun)	2016	2023	2025																											
	261	82	44																											
	Total	Recaps																												
	1345	18 (1.3%)																												
TAG RATE																														
Tag rate	High	Low	Now																											
Bream	Tag rate																													
Fish/day	2020	2023	2025																											
2016-2025	2.7	0.8	3.4																											
2025 (Jan-Jun)	10 year average		1.6																											
LENGTHS																														
Average length (mm)	High	Low	Now																											
Bars show length range	Average length																													
Dots show outliers	2022	2021	2025																											
2016-2025	264	232	268																											
2025 (Jan-Jun)	Max																													
	2020	2023	2025																											
	435	325	370																											
Fish lengths percentage	High	Low	Now																											
Undersize <250mm	Legal-Trophy																													
Legal 250-400mm	2022	2020	2025																											
Trophy 400+mm	72%	25%	73%																											
2016-2025	Trophy																													
2025 (Jan-Jun)	2020 only year with trophy fish																													

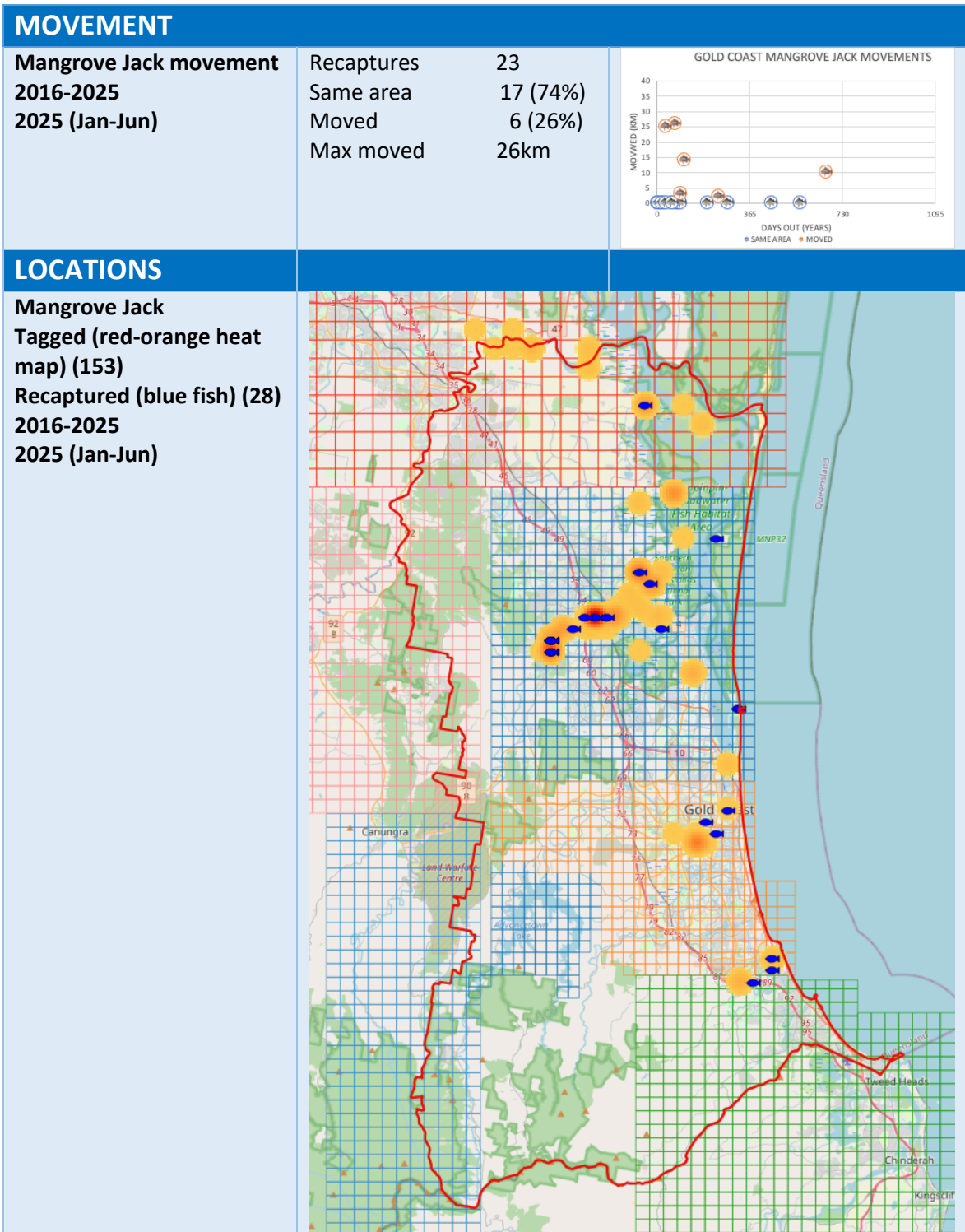
MOVEMENT



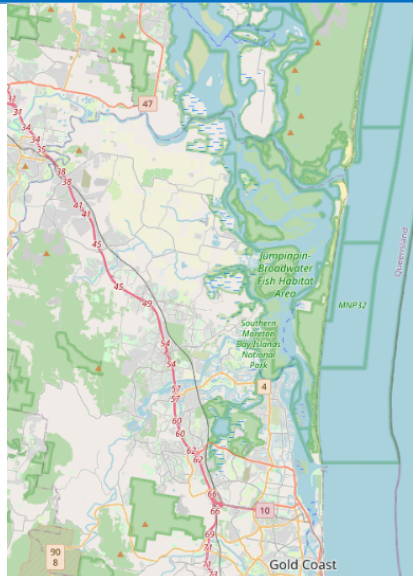
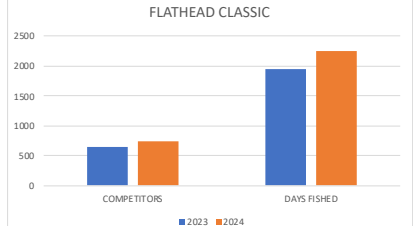
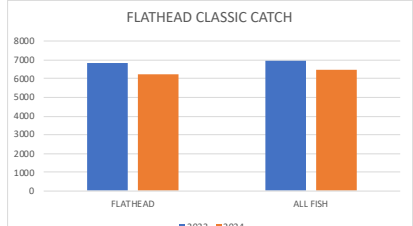
Bream movement	Recaptures	23	<div><p>GOLD COAST BREAM MOVEMENTS</p></div>
Distance moved (km)	Same area	13 (57%)	
2016-2025	Moved	10 (43%)	
2025 (Jan-Jun)	Max moved	42 km	

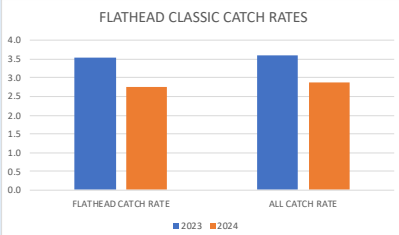
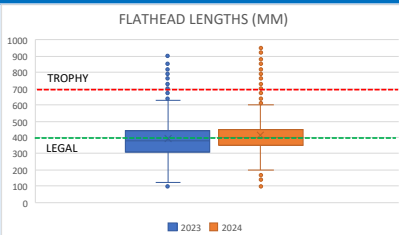
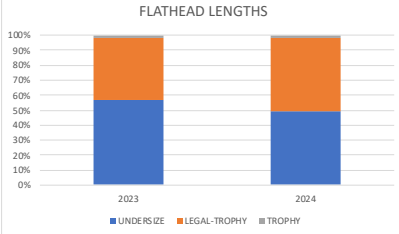
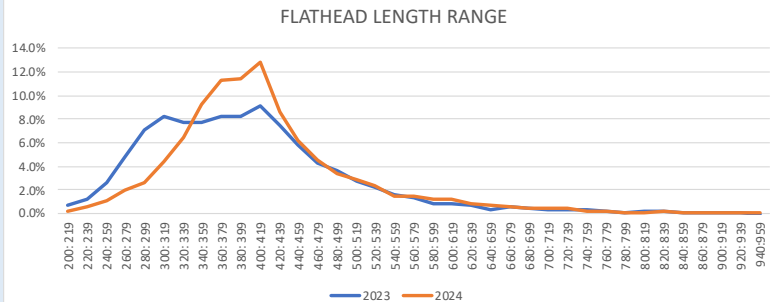
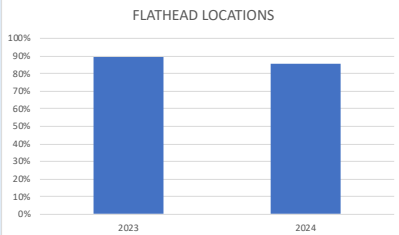
LOCATIONS



MANGROVE JACK		ACTUAL		GRAPH or MAP	
					
DATA RELIABILITY					
Sample size (av fish/year)		Reliability level		MODERATE	
Tagged (blue arrow)		Samples		MODERATE	
Recaptures (orange arrow)		Confidence		HIGH	
Confidence %		Error			
Error %					
2021-2025					
					
TAGGED					
Mangrove Jack		High		Low	
Tagged		Tagged		Now	
Recaptured		2019		2024	
2016-2025		30		7	
2025 (Jan-Jun)		Total		Recaps	
		153		28 (18.3%)	



FLATHEAD CLASSIC		COMPETITION																																						
	Gold Coast Queensland 27.9°S 153.4°E	 																																						
COMPETITIONS		DATES		COMPETITORS																																				
Competitions		Dates		Competitors																																				
2023		27-29/9/2023		2023																																				
2024		25-27/9/2023		2024																																				
2023				646																																				
2024				751																																				
MEASURE		ACTUAL		GRAPH or MAP																																				
DATA RELIABILITY																																								
Sample size		<table><tr><td>Reliability level</td><td colspan="2">LOW</td><td colspan="2">MODERATE</td><td colspan="2">MODERATE</td><td colspan="2">HIGH</td></tr><tr><td>Samples</td><td>10</td><td>41</td><td>68</td><td>271</td><td>384</td><td>664</td><td></td></tr><tr><td>Confidence</td><td colspan="2">80%</td><td colspan="2">80%</td><td colspan="2">90%</td><td colspan="2">95%</td></tr><tr><td>Error</td><td colspan="2">20%</td><td colspan="2">10%</td><td colspan="2">5%</td><td colspan="2">5%</td></tr></table>				Reliability level	LOW		MODERATE		MODERATE		HIGH		Samples	10	41	68	271	384	664		Confidence	80%		80%		90%		95%		Error	20%		10%		5%		5%	
Reliability level	LOW		MODERATE		MODERATE		HIGH																																	
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Confidence	80%		80%		90%		95%																																	
Error	20%		10%		5%		5%																																	
Days fished																																								
Confidence %																																								
Error %																																								
2023-2024																																								
EFFORT																																								
Competitors		Fishers																																						
Days fished		Days																																						
2023		2023																																						
2024		2024																																						
2023		646		1938																																				
2024		751		2253																																				
																																								
CATCH																																								
Flathead		Flathead																																						
Total catch		All																																						
2023		2023																																						
2024		2024																																						
2023		6841		6963																																				
2024		6208		6474																																				
																																								

CATCH RATES				
Catch rates (fish/day)		Flathead	All	
Flathead	2023	3.5	3.6	
Total catch	2024	2.8	2.9	
2023				
2024				
FLATHEAD LENGTHS				
Flathead size range		2023	2024	
Undersize (<400mm)	Under	3798	3067	
Legal-trophy (400-700mm)	Legal	2792	3029	
Trophy (>700mm)	Trophy	119	119	
2023				
2024				
Flathead size range		2023	2024	
Undersize (<400mm)	Under	56%	49%	
Legal-trophy (400-700mm)	Legal	42%	49%	
Trophy (>700mm)	Trophy	2%	2%	
2023				
2024				
Flathead size range				
20mm increments				
2023				
2024				
FLATHEAD LOCATIONS				
Flathead records with locations	Locations	2023 89%	2024 85%	
2023				
2024				

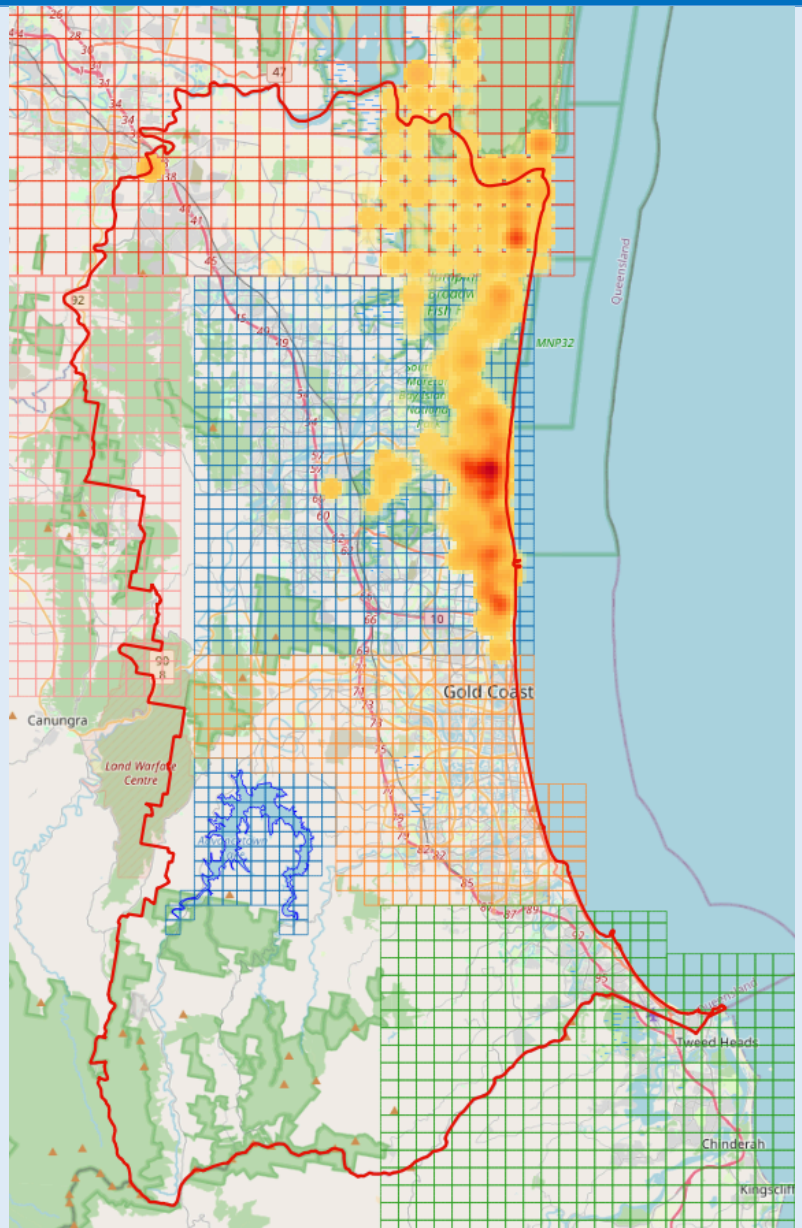
FLATHEAD LOCATIONS

Locations

Flathead (6841)

Heat map (red-orange)

2023



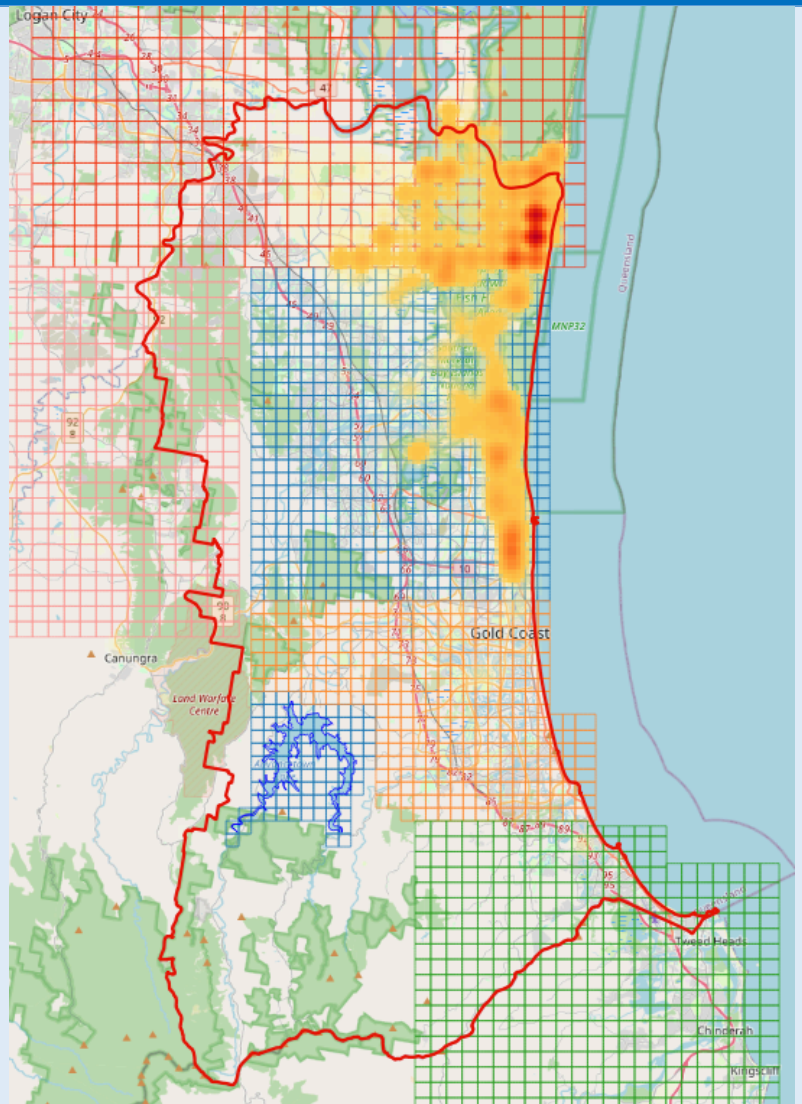
FLATHEAD LOCATIONS

Locations

Flathead (6208)

Heat map (red-orange)

2024



Data sources

Data used in the Gold Coast Crystal Bowl are:

- Tag records and recapture records at <http://crystalbowl.infofishaustralia.com.au/>.
- River flow records for Nerang River from Station 146002B at Glenhurst and for Coomera River from Station 146010A at Army Camp from <https://water-monitoring.information.qld.gov.au/>.
- Fish records from Gold Coast Flathead Classic from Infofish Australia.

Basis for analysis

- Data reliability for fishers based on the sample size over the past 5 years for days fished by taggers and by fishers recapturing fish.
- Data reliability for fish based on average number of fish tagged and recaptured per year over the past 5 years.
- Catch rates calculated as number of fish tagged/day for taggers with a minimum of 12 days (at least 1 per month) to provide an acceptable catch rate.
- For Dusky Flathead undersized fish are <400mm, legal fish are ≥400 and <700mm and trophy fish are ≥700mm.
- For Yellowfin Bream undersized fish are <250mm, legal fish are ≥250mm and <400mm and trophy fish are ≥400mm.
- For Mangrove Jack undersized fish are <350mm, legal fish are ≥350mm and <500 and trophy fish are ≥500mm.
- Locations based on Infofish grid maps GC22, GC23, TWR and LAB for the Gold Coast.
- Movement distance calculated as the shortest distance by water from the tag to the recapture location using Google Earth.
- Distance from fishers' home to recapture location is the straight-line distance between locations based on Google Earth coordinates with Local <60km, Intrastate ≥60km and Qld postcodes, Interstate postcodes other than Qld.