



MACKAY REGION REVIEW JUNE 2025

INFORMATION RATING



Key species: Barramundi, Dusky Flathead, Goldspotted and Blackspotted Rockcod, Barred Javelin
Fish timeframe: 2016-2025 Jan-Jun
Fisher timeframe: 2021-2025 Jan-Jun

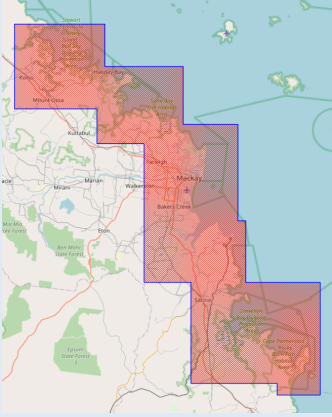
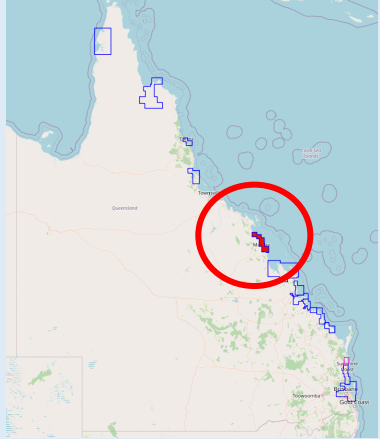
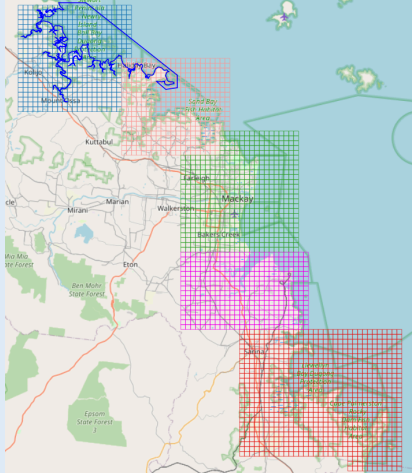
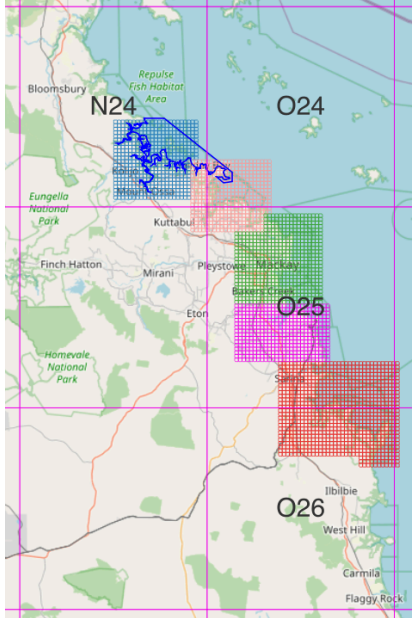
The Mackay fishing region goes from St Helens Bay in the north to Cape Palmerston in the south cover around 120km of the coast. Fishing activity in the region is mostly by local fishers (94% of recaptures) throughout the year with a peak in Feb and Mar at the start of the Barramundi open season and a smaller peak in Oct before the end of the season.

There were just 6% of fishers from intrastate and none from interstate. This could be a reflection of the local impoundments of Lake Kinchant, Teemburra and Eungella being more attractive to visiting fishers than the local estuaries.

The fishery tends to be a harvest fishery with a harvest rate of 68% of legal recaptured fish (ex-taggers) and a harvest rate of 67% for Barramundi. This compares with a harvest rate of 0% in Lakes Kinchant and Teemburra which are almost completely experiential.

Tagging in the Mackay area has been continuous since the 1990s with taggers mostly targeting Barramundi, Flathead, and Javelin to a lesser extent. Goldspotted Rockcod and Blackspotted Rockcod are mostly tagged as an incidental catch.

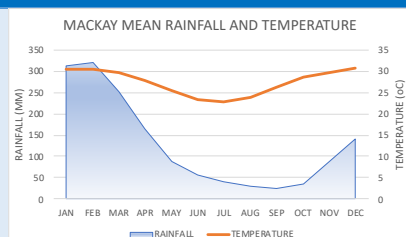
Tagging effort and numbers of fish tagged was low from 100-200 prior to the NFZ but have mostly ranged from 500-1000 since then. The overall recapture rate of 9.1% is above the state average of 7-8%. Taggers appear to have been more active in the NFZ area in the past 5 years than in other parts of the region.

MACKAY ESTUARIES		LOCATION
	St Helens Beach 20.83°S 148.84°E Sarina 21.42°S 149.22°E	
WATERWAYS	ACTUAL	GRAPH or MAP
Mackay estuaries grid maps St Helens Bay (SHB) Cape Hillsborough (CHM) Mackay (MKY) Hay Point (HPM) Sarina (SRN) Net Free Zone (blue outline)	Murray Creek Seaforth Creek Constant Creek Pioneer River Bakers Creek Sandy Creek Alligator Creek Plane Creek Boundary Creek Rocky Dam Creek Cape Creek	
Commercial QFISH grids	Grids N24 (Net Free Zone) O24 O25 O26	

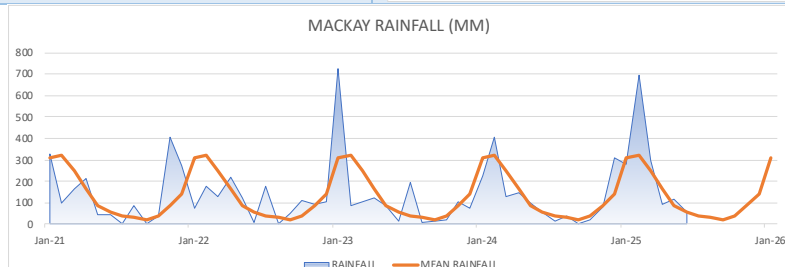
ENVIRONMENTAL

Mackay monthly mean rainfall (mm) and temperature

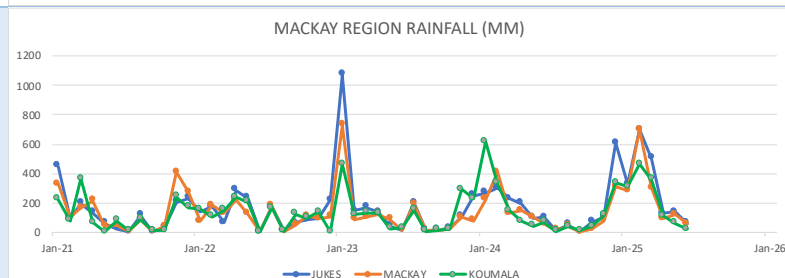
Rainfall	Month	mm
High	Feb	320
	Jan	312
Temp	Month	oC
High	Nov-Mar	30



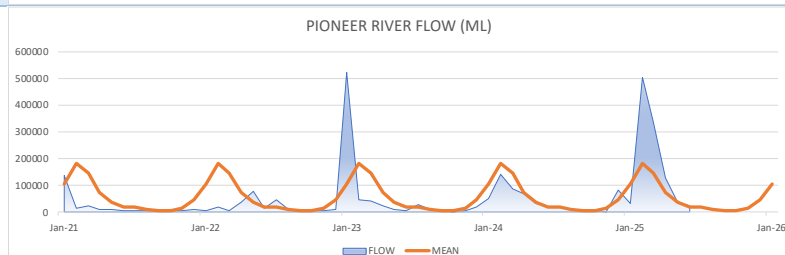
Mackay monthly rainfall
Mean monthly rainfall
Wet season Dec-Mar
2021-2025



Rainfall from north to south
Jukes (blue)
Mackay (orange)
Koumala (green)
2021-2025



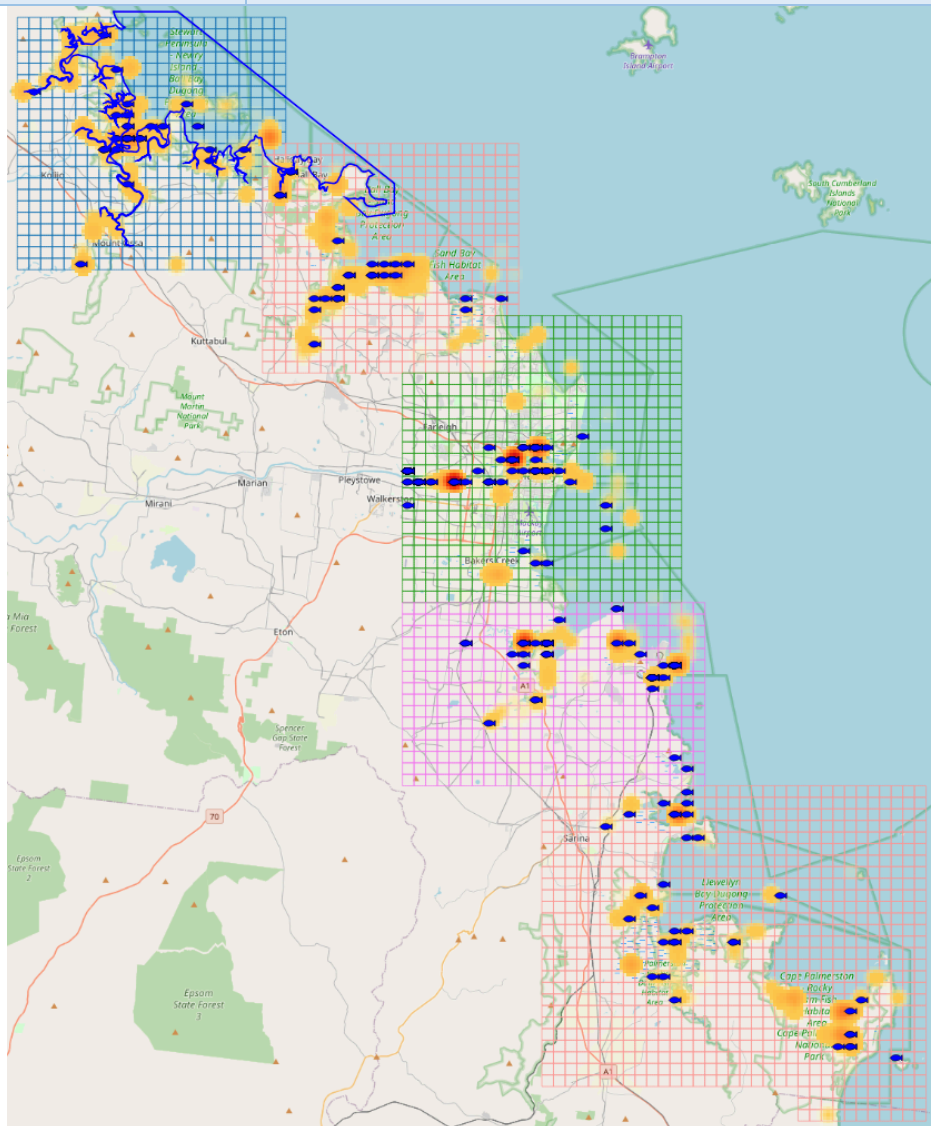
Pioneer River flow (ML)
2021-2025

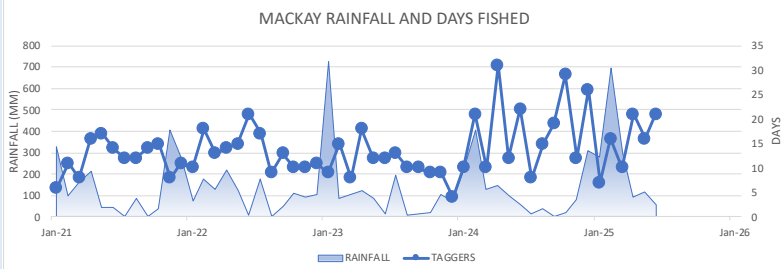
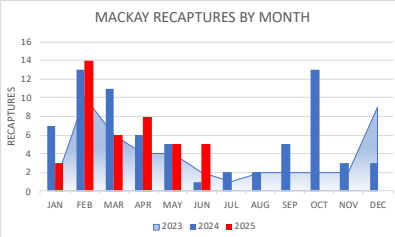


FISHERS																														
DATA RELIABILITY																														
Sample size (days fished) Tag days (blue arrow) Recaptures (orange arrow) Confidence % Error % 2021-2025	<table><tr><td>Reliability level</td><td>LOW</td><td></td><td>MODERATE</td><td>MODERATE</td><td></td><td>HIGH</td></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%	
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%																								
TYPE OF FISHERY	ACTUAL	GRAPH or MAP																												
Seasonality Mean monthly rainfall (mm) Temperature (oC)	Best Barramundi fishing Feb-May Sep-Oct																													
Mean monthly rainfall Days fished combined Taggers Recapture fishers 2021-2025	Months most effort Days fished Feb Apr Jun																													
Harvest or experiential fishery Release rate of recaptured legal fish 2021-2025 2025 Jan-Jun	Legal fish kept rate Legal fish 111 Kept 76 (68%) Released 35 (32%)																													
Local or visitor fishery Where recapture fishers live 2021-2025 2025 Jan-Jun	Recapture fishers 249 Local 235 (94%) Visitor 14 (6%)																													
Gender of recapture fishers (ex-taggers) 2021-2025 2025 Jan-Jun	Recaptures 204 Female 8 (4%) Male 196 (96%)																													

ACTIVITY

Monthly activity Days fished Taggers (839) Recapture fishers (246) 2021-2025 2025 Jan-Jun	Taggers Recaps Month Apr Nov Feb Mar % 12% 12% 22% 13%	MACKAY MONTHLY ACTIVITY <table><thead><tr><th>Month</th><th>Taggers (%)</th><th>Recapture Fishers (%)</th><th>Combined (%)</th></tr></thead><tbody><tr><td>JAN</td><td>4</td><td>4</td><td>5</td></tr><tr><td>FEB</td><td>10</td><td>22</td><td>13</td></tr><tr><td>MAR</td><td>14</td><td>8</td><td>11</td></tr><tr><td>APR</td><td>10</td><td>12</td><td>11</td></tr><tr><td>MAY</td><td>9</td><td>9</td><td>10</td></tr><tr><td>JUN</td><td>6</td><td>10</td><td>8</td></tr><tr><td>JUL</td><td>4</td><td>4</td><td>5</td></tr><tr><td>AUG</td><td>3</td><td>5</td><td>6</td></tr><tr><td>SEP</td><td>4</td><td>8</td><td>8</td></tr><tr><td>OCT</td><td>8</td><td>8</td><td>9</td></tr><tr><td>NOV</td><td>3</td><td>11</td><td>9</td></tr><tr><td>DEC</td><td>4</td><td>7</td><td>8</td></tr></tbody></table>	Month	Taggers (%)	Recapture Fishers (%)	Combined (%)	JAN	4	4	5	FEB	10	22	13	MAR	14	8	11	APR	10	12	11	MAY	9	9	10	JUN	6	10	8	JUL	4	4	5	AUG	3	5	6	SEP	4	8	8	OCT	8	8	9	NOV	3	11	9	DEC	4	7	8
Month	Taggers (%)	Recapture Fishers (%)	Combined (%)																																																			
JAN	4	4	5																																																			
FEB	10	22	13																																																			
MAR	14	8	11																																																			
APR	10	12	11																																																			
MAY	9	9	10																																																			
JUN	6	10	8																																																			
JUL	4	4	5																																																			
AUG	3	5	6																																																			
SEP	4	8	8																																																			
OCT	8	8	9																																																			
NOV	3	11	9																																																			
DEC	4	7	8																																																			
Weekday activity Days fished Taggers (839) Recapture fishers (246) 2021-2025 2025 Jan-Jun	Taggers Recaps Day Weekend Weekdays Weekend Weekdays % 56% 44% 36% 64%	MACKAY WEEKDAY ACTIVITY <table><thead><tr><th>Day</th><th>Taggers (%)</th><th>Recapture Fishers (%)</th><th>Combined (%)</th></tr></thead><tbody><tr><td>MON</td><td>12</td><td>10</td><td>10</td></tr><tr><td>TUE</td><td>10</td><td>8</td><td>9</td></tr><tr><td>WED</td><td>13</td><td>13</td><td>13</td></tr><tr><td>THU</td><td>14</td><td>9</td><td>11</td></tr><tr><td>FRI</td><td>16</td><td>15</td><td>15</td></tr><tr><td>SAT</td><td>18</td><td>24</td><td>24</td></tr><tr><td>SUN</td><td>19</td><td>23</td><td>23</td></tr></tbody></table>	Day	Taggers (%)	Recapture Fishers (%)	Combined (%)	MON	12	10	10	TUE	10	8	9	WED	13	13	13	THU	14	9	11	FRI	16	15	15	SAT	18	24	24	SUN	19	23	23																				
Day	Taggers (%)	Recapture Fishers (%)	Combined (%)																																																			
MON	12	10	10																																																			
TUE	10	8	9																																																			
WED	13	13	13																																																			
THU	14	9	11																																																			
FRI	16	15	15																																																			
SAT	18	24	24																																																			
SUN	19	23	23																																																			
Location activity Taggers (red-orange heat map) Recapture fishers (blue fish)	Tagged (3907) Recaptured (275) 2021-2025 2025 Jan-Jun																																																					



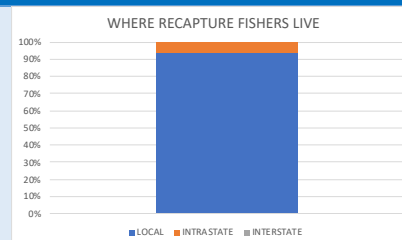
EFFORT		
Fisher effort Mackay rainfall (mm) Days fished Taggers 2021-2025 2025 Jan-Jun	 MACKAY RAINFALL AND DAYS FISHED This chart displays two data series over time from January 2021 to January 2026. The left y-axis represents Rainfall in millimeters (mm), ranging from 0 to 800. The right y-axis represents Days, ranging from 0 to 35. Rainfall is shown as a light blue area chart, and Taggers (days fished) are shown as a dark blue line with circular markers. The x-axis is labeled with dates: Jan-21, Jan-22, Jan-23, Jan-24, Jan-25, and Jan-26. A legend at the bottom indicates 'RAINFALL' and 'TAGGERS'.	
Cumulative recaptures 2021-2025 2025 Jan-Jun	Year 2021 2022 2023 2024 2025 Jan-Jun	Recaps 47 35 45 71 41
Recaptures by month 2023-2025 2025 Jan-Jun	Recaptures peak Feb start of Barra season Oct end of Barra season	 MACKAY RECAPTURES BY MONTH This bar chart shows the number of recaptures per month for the years 2023, 2024, and 2025. The y-axis is labeled 'RECAPTURES' and ranges from 0 to 16. The x-axis lists the months from JAN to DEC. The legend indicates that blue bars represent 2023, dark blue bars represent 2024, and red bars represent 2025. The chart shows a significant peak in February for all years, with 2025 reaching the highest value of 14.

TRAVEL		
Cumulative distance (km) where fishers live to recapture location 2021-2025 2025 Jan-Jun	Year	Km
	2021	1561
	2022	1535
	2023	1200
	2024	2257
	2025 Jan-Jun	1291
Cumulative distance (km) where fishers live to recapture location 2021-2025 2025 Jan-Jun	Distance <500km	
Average travel proxy distance (km) home to recapture location 2021-2025 2025 Jan-Jun	Av distance (km)	
	Local	16
	Intrastate	336
	Interstate	0
Distance (km) home to recapture location Local Intrastate Interstate 2021-2025 2025 Jan-Jun	Range (km)	
	Local	1-56
	Intrastate	69-810
	Interstate	0

WHERE RECAPTURE FISHERS LIVE

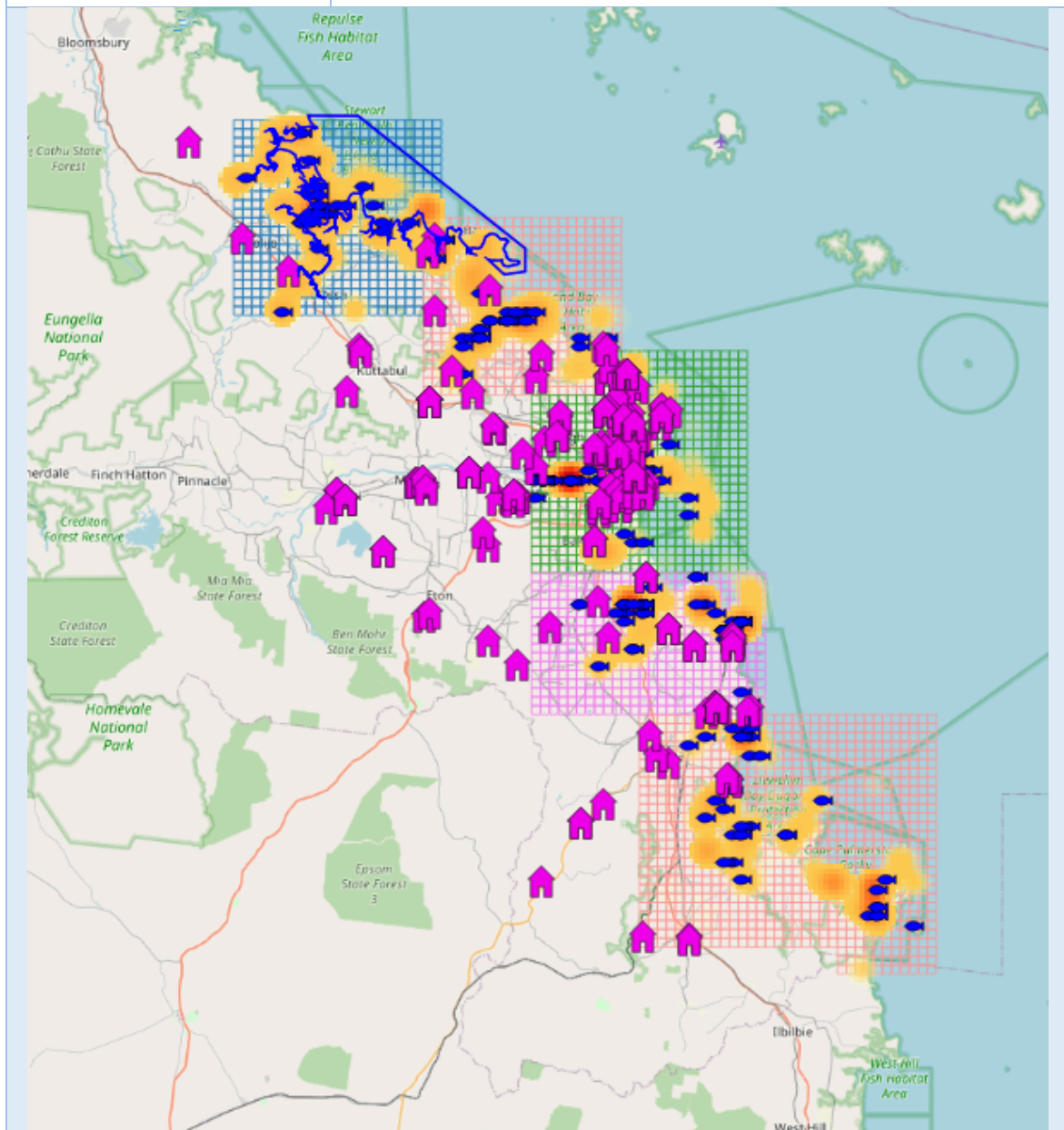
Where recapture fishers live
2021-2025
2025 Jan-Jun

Recapture fishers 249
 Local 235 (94%)
 Intrastate 14 (6%)
 Interstate 0 (0%)



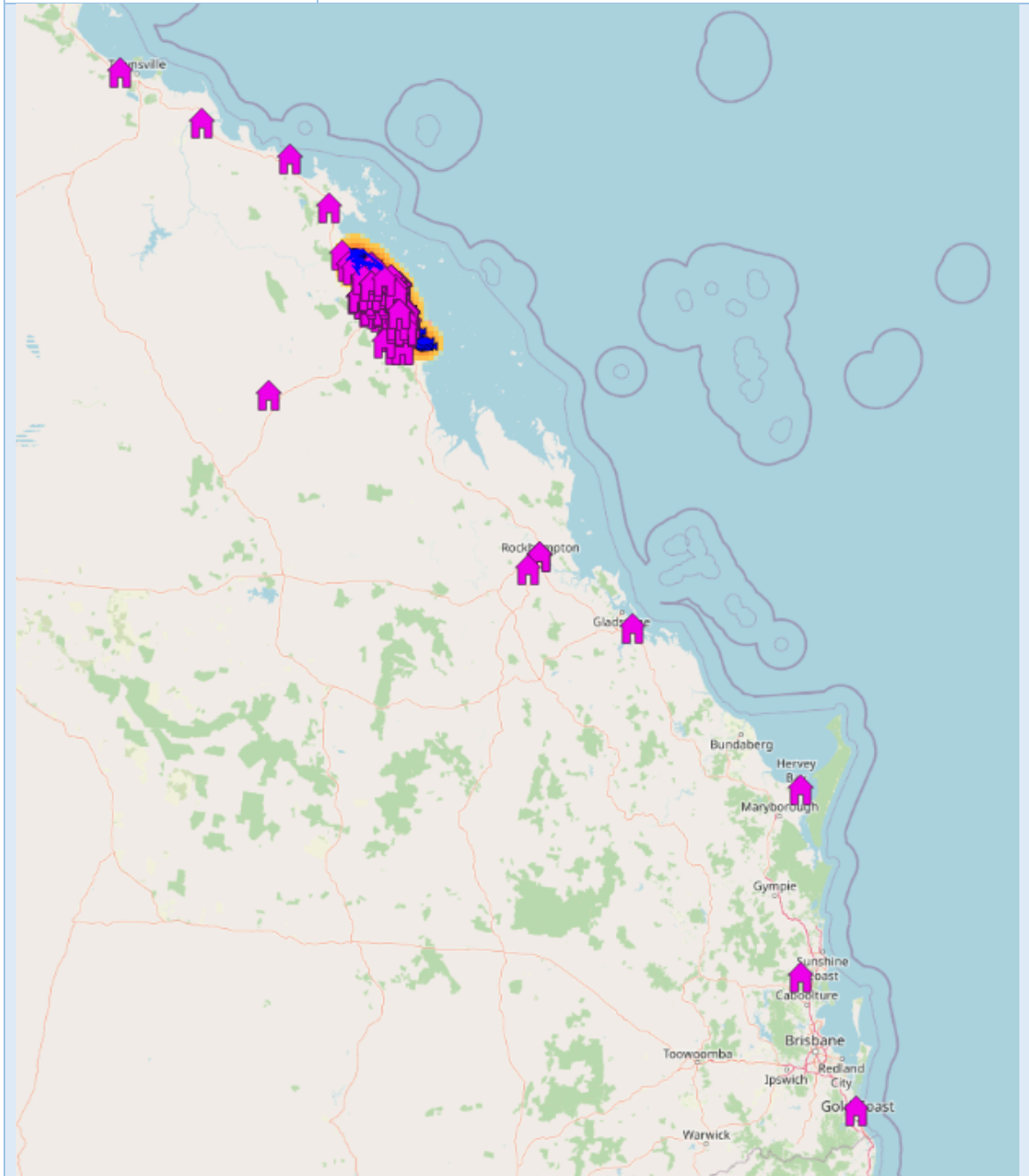
Where fishers recapturing fish live (pink houses)
Local
2021-2025
2025 Jan-Jun

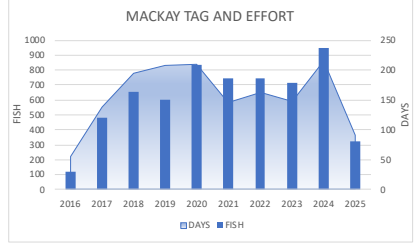
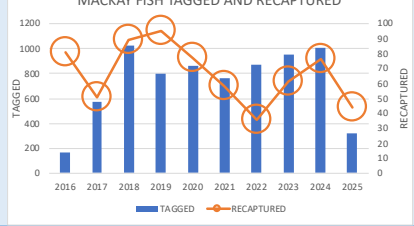
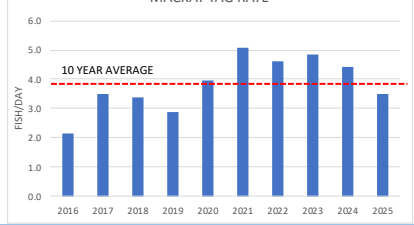
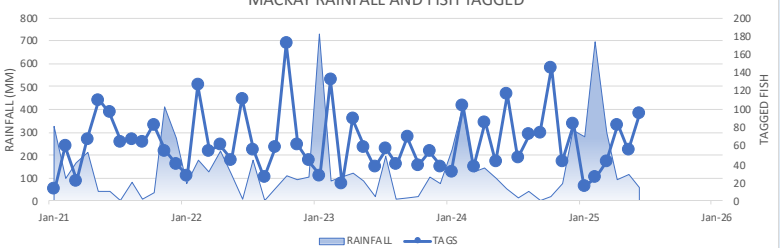
Local (235)

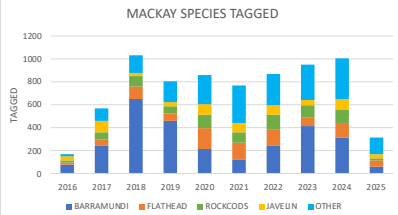
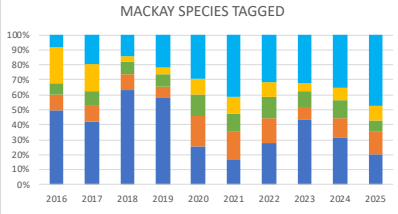


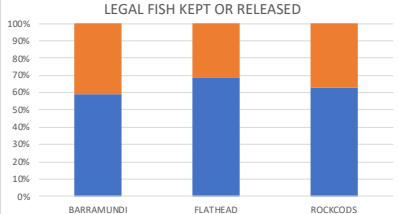
**Where fishers recapturing
fish live (pink houses)**
Intrastate
Interstate
2021-2025
2025 Jan-Jun

Intrastate (12)
Interstate (0)



FISH	ACTUAL			GRAPH or MAP
BARRAMUNDI	DUSKY FLATHEAD			BARRED JAVELIN
				
GOLDSPOTTED ROCKCOD and BLACKSPOTTED ROCKCOD				
				
TAGGED AND TAG RATE				
Catch and effort taggers number of tagged fish tag days 2016-2025 2025 Jan-Jun	High	Low	Now	
	Tagged			
	2020	2016	2025	
	835	120	320	
	Days fished			
2020	2016	2025		
	210	56	91	
Fish tagged and recaptured 2016-2025 2025 Jan-Jun	Tagged	Recaptured		
	7336	668		
	Recapture rate			
	9.1%			
Tag rate Fish/day 2016-2025 2025 Jan-Jun	High	Low	Now	
	Tag rate			
	2021	2016	2025	
	5.1	2.1	3.5	
	10 year average			
		3.9		
Mackay rainfall and fish tagged 2016-2025 2025 Jan-Jun				

SPECIES			
Species composition Numbers tagged 2016-2025 2025 Jan-Jun	Barramundi	2824	
	Flathead	960	
	Rockcods	806	
	Javelin	635	
	Other	2111	
Species composition Percentage tagged 2016-2025 2025 Jan-Jun	Barramundi	38%	
	Flathead	13%	
	Rockcods	11%	
	Javelin	9%	
	Combined	71%	

FATE			
Recapture fisher's (ex-taggers) legal fish kept or released 2016-2025 2025 Jan-Jun	Recaptures	Legal	Kept
	Barramundi	231	137 (59%)
	Flathead	16	11 (69%)
	Rockcod	19	12 (63%)
			

COMMERCIAL

Commercial effort and catch Net fishery (all) Grids N24, O24, O25, O26 Days Catch (tonnes) 2021-2025	Year	Days	Catch
	2021	619	88.47
	2022	592	77.24
	2023	526	84.9
	2024*	155	23.09
	2025*	NA	NA
*incomplete			

COMMERCIAL NET DAYS AND CATCH

Year	Days	Catch (tonnes)
2021	619	88.47
2022	592	77.24
2023	526	84.9
2024 incomplete	155	23.09
2025 incomplete	NA	NA

Commercial catch rate Net fishery (all) Grids N24, O24, O25, O26 Kg/day 2021-2025	Year	Kg/day
	2021	142.9
	2022	130.5
	2023	161.4
	2024*	149.0
	2025*	NA
*incomplete		

COMMERCIAL NET CATCH RATE

Year	Kg/day
2021	142.9
2022	130.5
2023	161.4
2024 incomplete	149.0

LOCATIONS

Fisher location activity
Taggers (red-orange heat map)

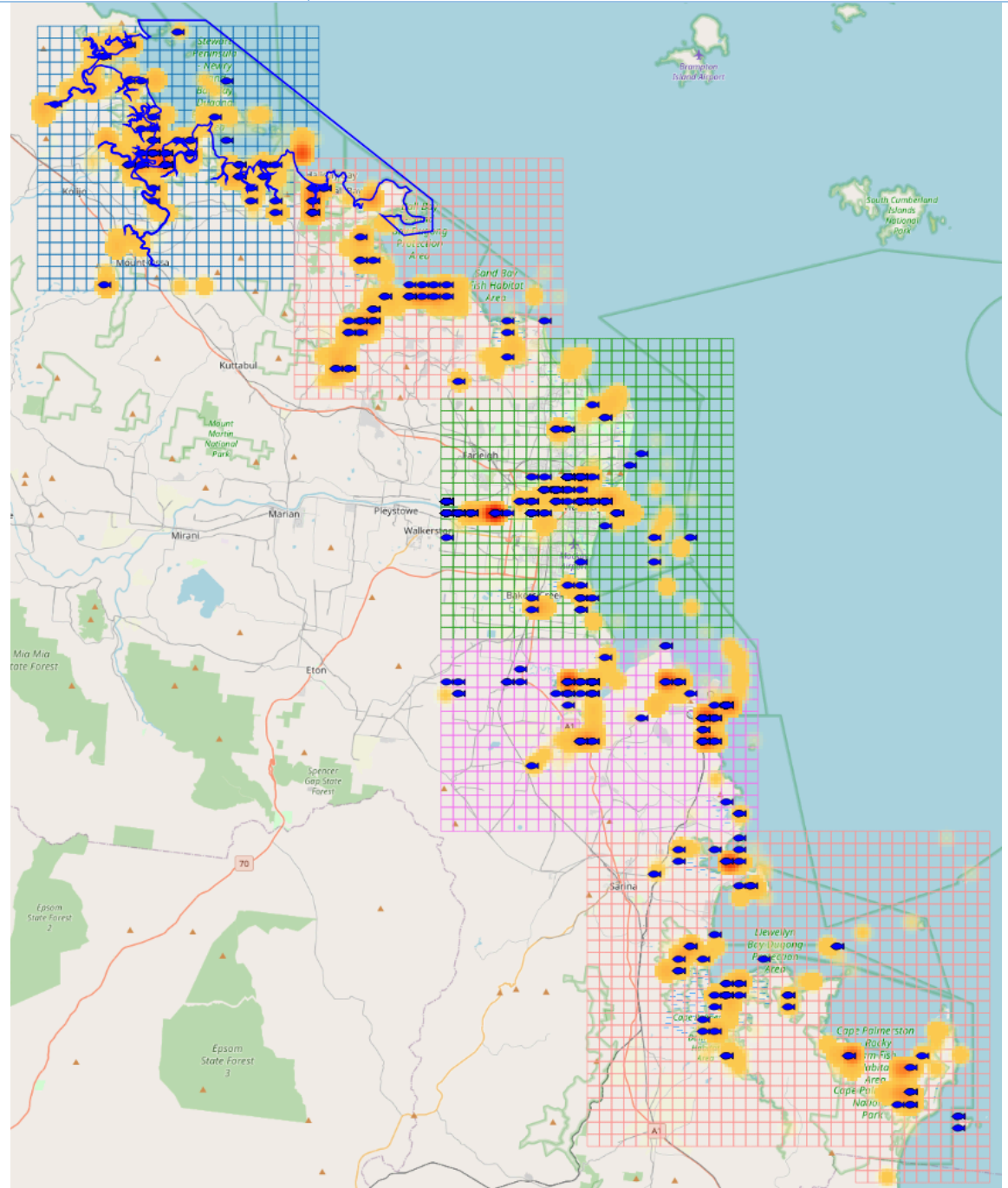
Recapture fishers (blue fish)

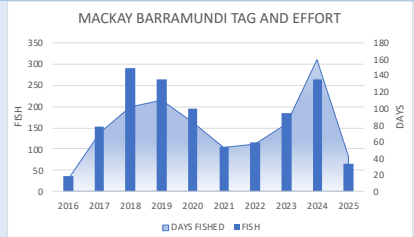
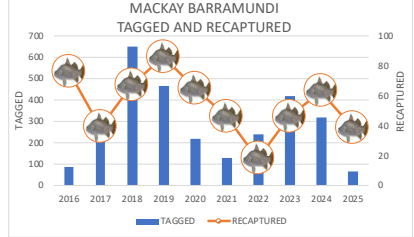
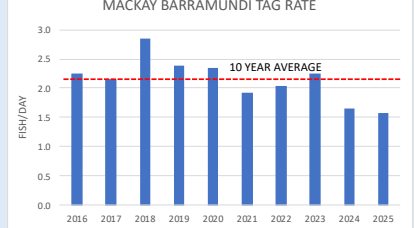
2016-2025

2025 Jan-Jun

Tagged (7336)

Recaptured (668)



BARRAMUNDI		ACTUAL		GRAPH or MAP																					
																									
DATA RELIABILITY																									
Sample size (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></tr><tr><td>Confidence</td><td>80%</td><td>80%</td><td>90%</td><td>90%</td></tr><tr><td>Error</td><td>20%</td><td>10%</td><td>10%</td><td>5%</td></tr></table>		Reliability level	LOW	MODERATE	MODERATE	HIGH	Samples	10	41	68	271	Confidence	80%	80%	90%	90%	Error	20%	10%	10%	5%		
Reliability level	LOW	MODERATE	MODERATE	HIGH																					
Samples	10	41	68	271																					
Confidence	80%	80%	90%	90%																					
Error	20%	10%	10%	5%																					
Tagged (blue arrow)																									
Recaptures (orange arrow)																									
Confidence %																									
Error %																									
2021-2025																									
TAGGED AND TAG RATE																									
Catch and effort taggers number of tagged fish days fished 2016-2025 2025 Jan-Jun		High Tagged 2018 290 Days fished 2019 110	Low 2016 36 2016 16	Now 2025 66 2025 42																					
Fish tagged (all) and recaptured 2016-2025 2025 Jan-Jun		High Tagged 2018 649 Tagged 2824	Low 2016 84 Recaptures 544 (19.3%)	Now 2025 66																					
Tag rate Fish/day 2016-2025 2025 Jan-Jun		High Tag rate 2018 2.8 10 year average	Low 2024 1.7	Now 2025 1.6 2.2																					

LENGTHS			
Average length (mm) Bars show length range Dots show outliers 2016-2025 2025 Jan-Jun	High	Low	Now
	Average length		
	2016	2022	2025
	703	494	608
	Max		
	2019	2022	2025
	1200	800	970
Fish lengths percentage Undersize <580mm Legal 580-1000mm Trophy 1000+mm 2016-2025 2025 Jan-Jun	High	Low	Now
	Legal-Trophy		
	2016	2022	2025
	72%	23%	61%
	Trophy		
	2017	2022	2025
	4%	0%	0%
GROWTH			
Barramundi growth at the end of each year Fish tagged 2016-2025 2025 Jan-Jun	Recaptures		194
	Growth (mm)		
	Year 1		131
	Year 2		204
	Year 3		246
	Year 4		276
	Year 5		299
MOVEMENT			
Barramundi movements Mackay area Distance moved (km) 2016-2025 2025 Jan-Jun	Max		125km
Barramundi movements Mackay area Distance moved (km) 2016-2025 2025 Jan-Jun 2016-2025 2025 Jan-Jun	Recaptured		250
	Same area		159 (64%)
	Moved 1-20km		61 (24%)
	Moved >20km		30 (12%)

COMMERCIAL

Commercial effort and catch	Year	Days	Catch
Net fishery (all)	2021	356	25.18
Grids N24, O24, O25, O26	2022	324	19.43
Days	2023	303	21.59
Catch (tonnes)	2024*	116	9.19
2021-2025	2025*	NA	NA
	*incomplete		

COMMERCIAL BARRAMUNDI DAYS AND CATCH

Year	Days	Catch (tonnes)
2021	356	25.18
2022	324	19.43
2023	303	21.59
2024*	116	9.19
2025*	NA	NA

Commercial catch rate	Year	Kg/day
Net fishery (all)	2021	70.7
Grids N24, O24, O25, O26	2022	60.0
Kg/day	2023	71.2
2021-2025	2024*	79.2
	2025*	NA
	*incomplete	

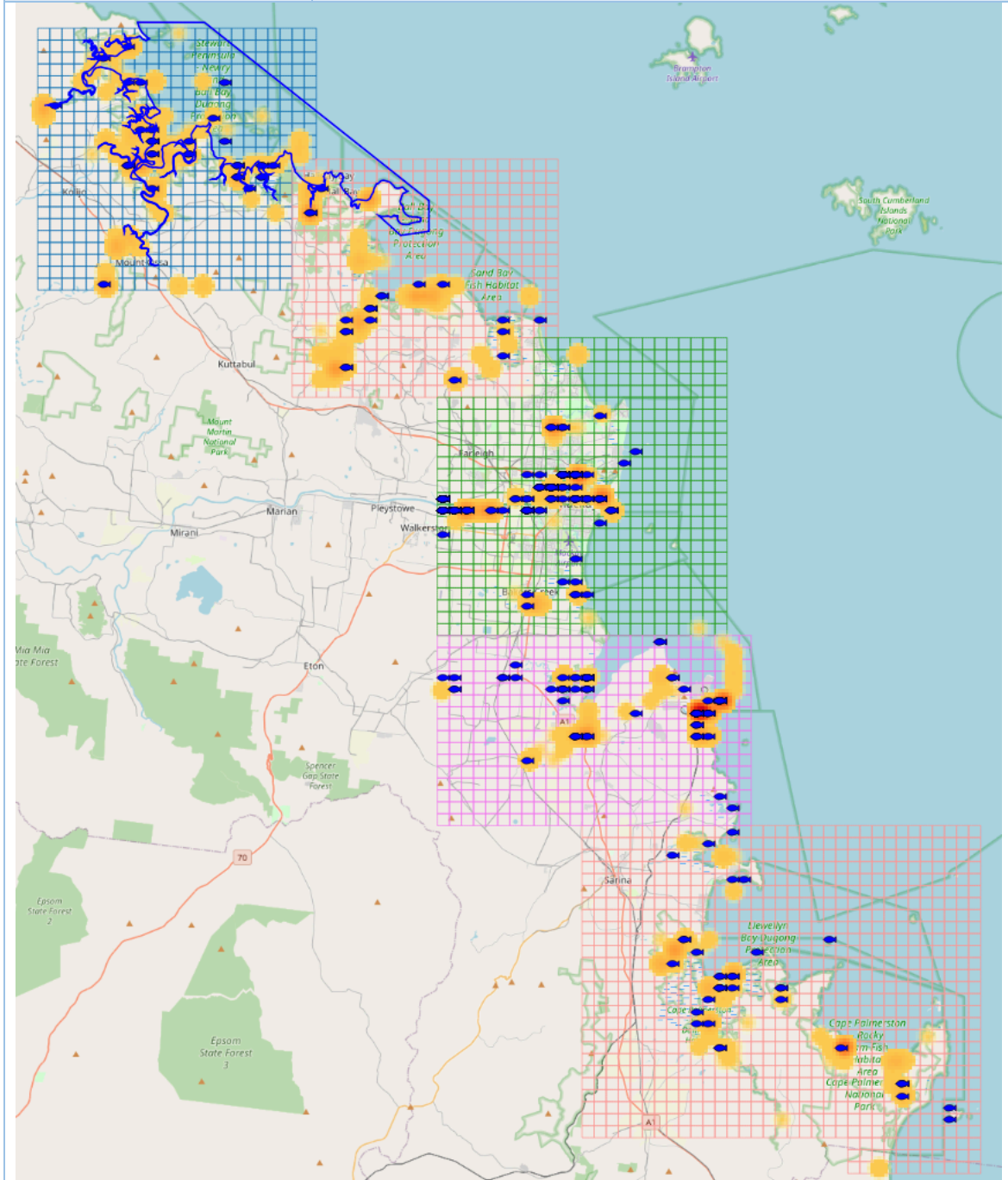
COMMERCIAL BARRAMUNDI CATCH RATE

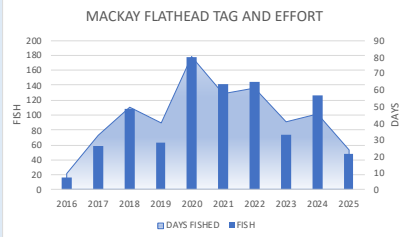
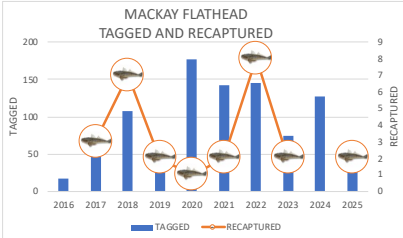
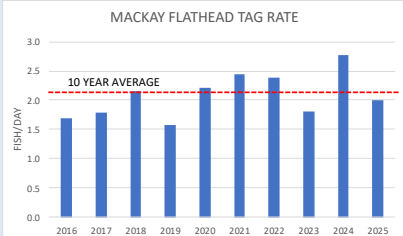
Year	Catch Rate (kg/day)
2021	70.7
2022	60.0
2023	71.2
2024*	79.2
2025*	NA

LOCATIONS

Barramundi
Tagged (red-orange heat map)
Recaptures (blue fish)
NFZ outlined blue
2016-2025
2025 Jan-Jun

Tagged 2824
 Recaptured 544



FLATHEAD	ACTUAL		GRAPH or MAP																				
																							
DATA RELIABILITY																							
Sample size (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></tr><tr><td>Confidence</td><td>80%</td><td>80%</td><td>90%</td><td>90%</td></tr><tr><td>Error</td><td>20%</td><td>10%</td><td>5%</td><td>5%</td></tr></table>			Reliability level	LOW	MODERATE	MODERATE	HIGH	Samples	10	41	68	271	Confidence	80%	80%	90%	90%	Error	20%	10%	5%	5%
Reliability level	LOW	MODERATE	MODERATE	HIGH																			
Samples	10	41	68	271																			
Confidence	80%	80%	90%	90%																			
Error	20%	10%	5%	5%																			
Tagged (blue arrow)																							
Recaptures (orange arrow)																							
Confidence %																							
Error %																							
2021-2025																							
TAGGED AND TAG RATE																							
Catch and effort taggers	High	Low	Now																				
number of tagged fish	Tagged																						
days fished	2020	2016	2025																				
2016-2025	177	17	48																				
2025 Jan-Jun	Days fished																						
	2020	2016	2025																				
	80	10	24																				
Fish tagged and recaptured	High	Low	Now																				
2016-2025	Tagged																						
2025 Jan-Jun	2020	2016	2024																				
	177	17	48																				
	Tagged		Recaptures																				
	960		27 (2.8%)																				
Tag rate	High	Low	Now																				
Fish/day	Tag rate																						
2016-2025	2024	2016	2025																				
2025 Jan-Jun	2.8	1.7	2.0																				
	10 year average		2.2																				
MACKAY FLATHEAD TAG AND EFFORT  MACKAY FLATHEAD TAGGED AND RECAPTURED  MACKAY FLATHEAD TAG RATE 																							

LENGTHS

Average length (mm) Bars show length range Dots show outliers 2016-2025 2025 Jan-Jun	High	Low	Now
	Average length		
	2017	2016	2025
	477	435	481
	Max		
	2020	2016	2025
	807	600	650

MACKAY FLATHEAD LENGTHS (MM)

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
------	------	------	------	------	------	------	------	------	------

Fish lengths percentage Undersize <400mm Legal 400-700mm Trophy 700+mm 2016-2025 2025 Jan-Jun	High	Low	Now
	Legal -Trophy		
	2017	2016	2025
	86%	53%	81%
	Trophy		
	2018	21-22	2025
	4%	0%	0%

MACKAY FLATHEAD LENGTHS

2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
------	------	------	------	------	------	------	------	------	------

UNDERSIZE

LEGAL

TROPHY

MOVEMENT

Flathead movements Mackay area Distance moved (km) 2016-2025 2025 Jan-Jun	Recaptures	24
	Same area	18 (75%)
	Moved	6 (25%)
	Max	12km

MACKAY FLATHEAD MOVEMENT

0	365	730
---	-----	-----

SAME AREA

MOVED

LOCATIONS

Flathead
Tagged (red-orange heat map)

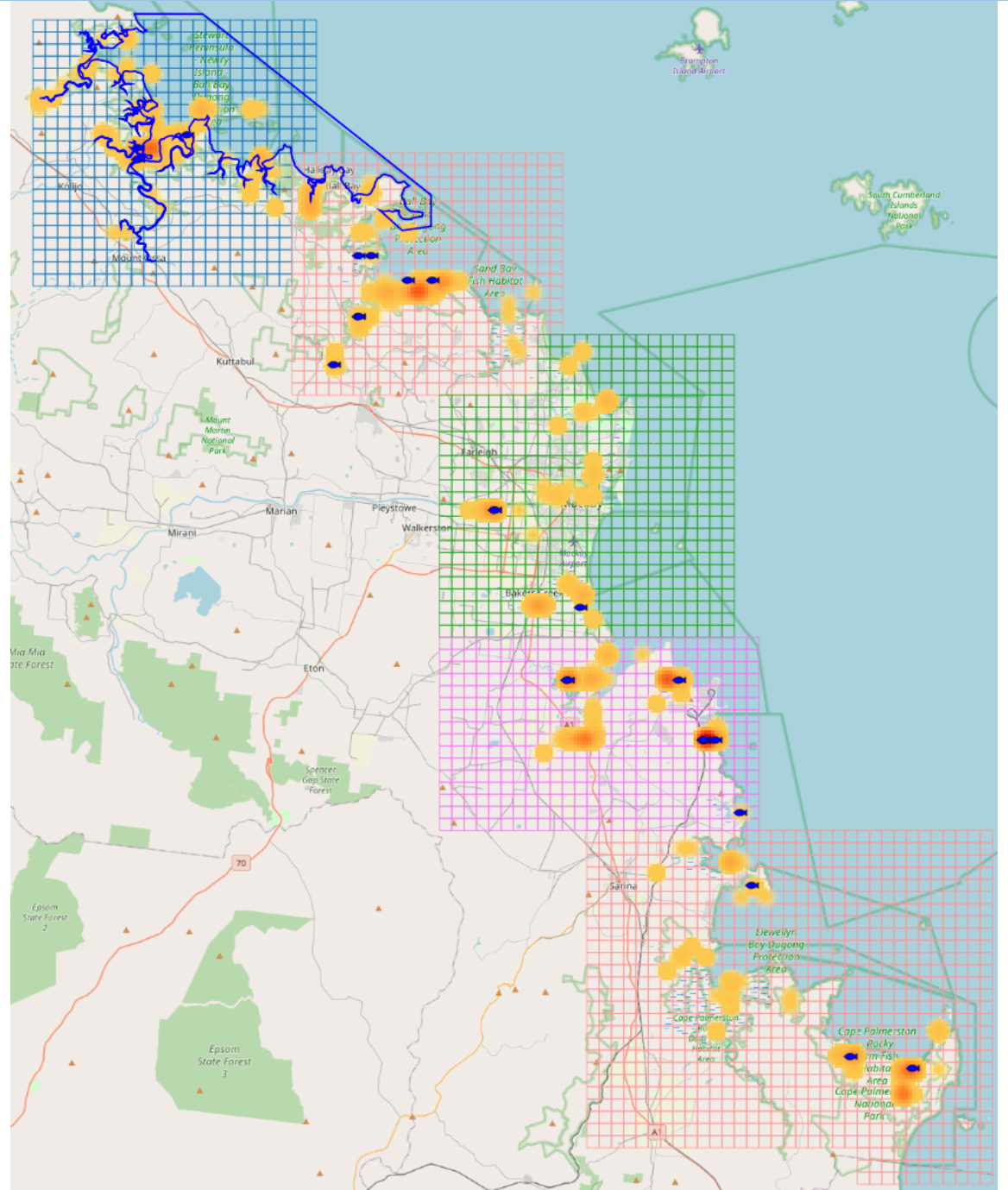
Recaptured (blue fish)

NFZ outlined blue

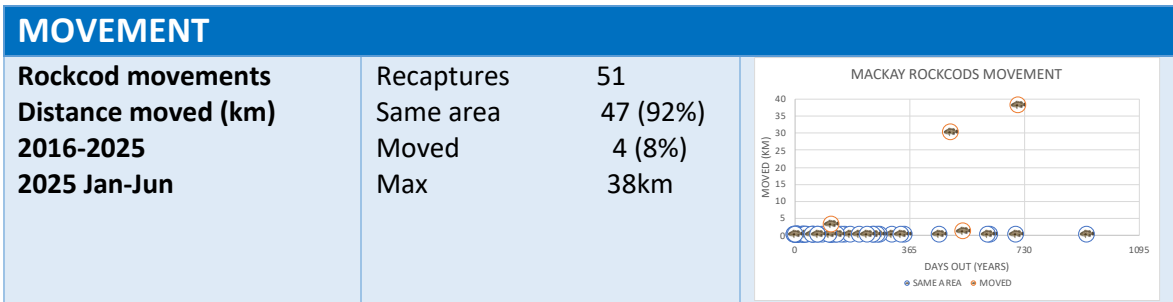
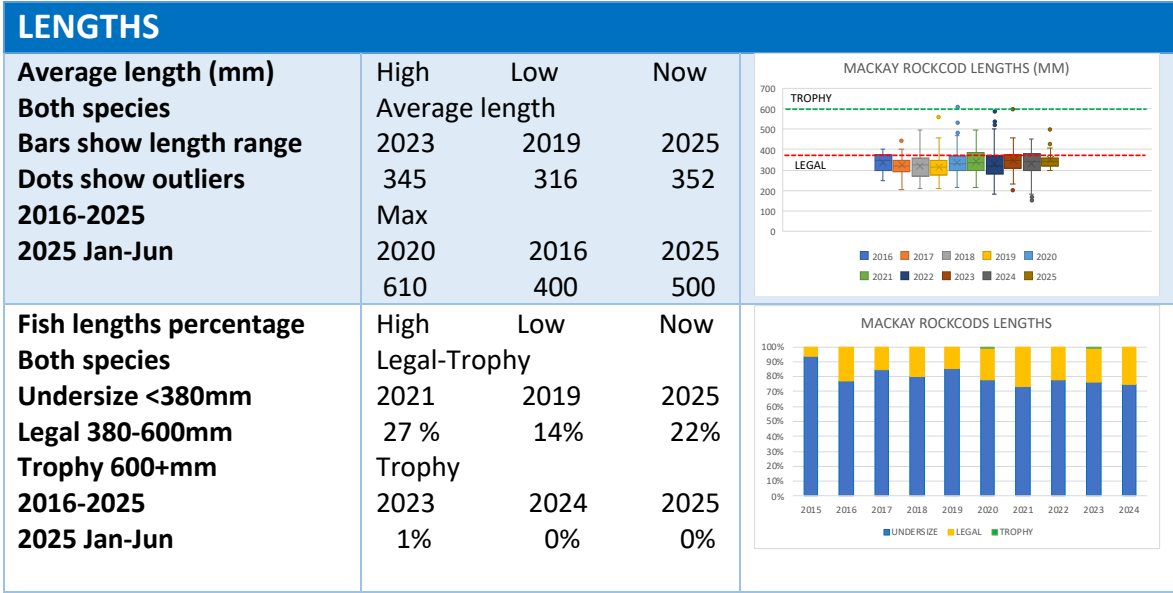
2016-2025

2025 Jan-Jun

Tagged (963)
Recaptured (27)



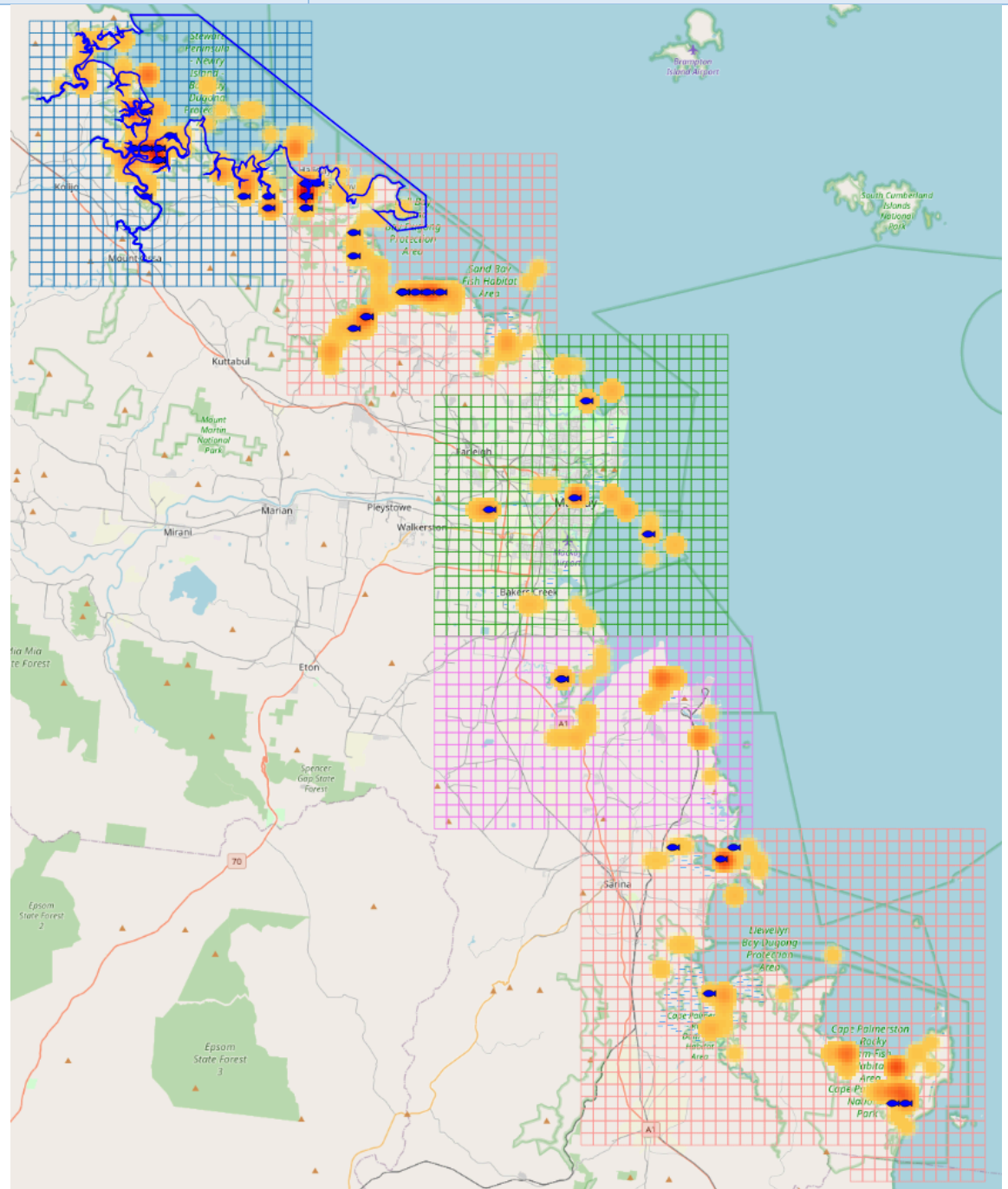
ROCKCODS		ACTUAL		GRAPH or MAP																							
																											
DATA RELIABILITY																											
Sample size (fish/year)		<table><tr><td>Reliability level</td><td>LOW</td><td>MODERATE</td><td>MODERATE</td><td>HIGH</td></tr><tr><td>Samples</td><td>10</td><td>41</td><td>68</td><td>271</td></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>10%</td><td>5%</td></tr></table>		Reliability level	LOW	MODERATE	MODERATE	HIGH	Samples	10	41	68	271	Confidence	80%	80%	90%	95%	Error	20%	10%	10%	5%	<table><tr><td>384</td><td>664</td></tr></table>		384	664
Reliability level	LOW	MODERATE	MODERATE	HIGH																							
Samples	10	41	68	271																							
Confidence	80%	80%	90%	95%																							
Error	20%	10%	10%	5%																							
384	664																										
Tagged (blue arrow)																											
Recaptures (orange arrow)																											
Confidence %																											
Error %																											
2021-2025																											
TAGGED AND TAG RATE																											
Catch and effort taggers		High		Low																							
number of tagged fish		2022		2016																							
days fished		2025		2025																							
2016-2025		127		13																							
2025 Jan-Jun		Days fished		2025																							
		2021		2016																							
		55		7																							
				15																							
Fish tagged and recaptured from year tagged		High		Low																							
2016-2025		Tagged		2025																							
2025 Jan-Jun		2022		2016																							
		127		13																							
		Tagged		Recaptures																							
		806		50 (6.2%)																							
Tag rate		High		Low																							
Fish/fisher day		2022		2019																							
2016-2025		2025		2025																							
2025 Jan-Jun		2.8		1.7																							
		10 year average		2.2																							

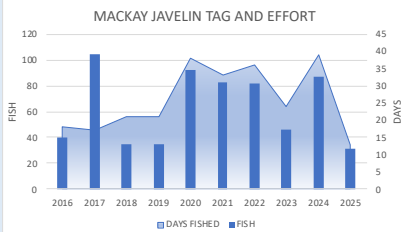
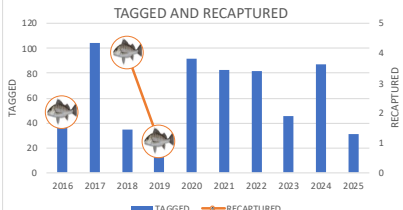
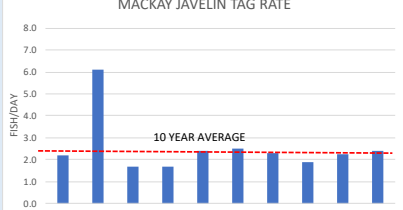


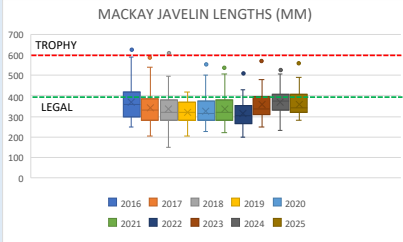
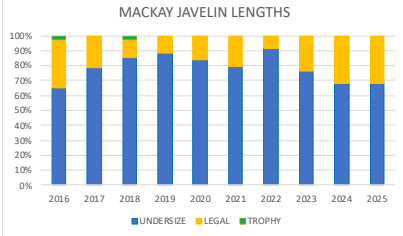
LOCATIONS

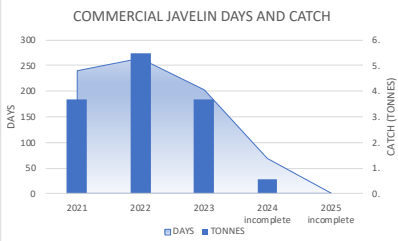
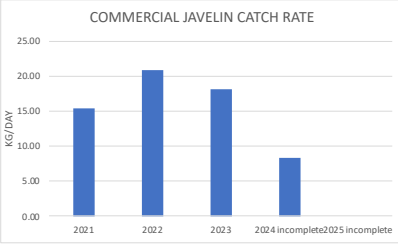
Rockcods tagged and recaptured
Tagged (red-orange heat map)
Recaptures (blue dots)
NFZ outlined blue
2016-2025
2025 Jan-Jun

Tagged (806)
Recaptured (50)



JAVELIN		ACTUAL		GRAPH or MAP	
					
DATA RELIABILITY					
Sample size (fish/year)		Reliability level		MODERATE	
Tagged (blue arrow)		Samples		MODERATE	
Recaptures (orange arrow)		Confidence		HIGH	
Confidence %		Error			
Error %					
2021-2025					
TAGGED AND TAG RATE					
Catch and effort taggers	High	Low	Now		
number of tagged fish	Tagged				
days fished	2017	2019	2025		
2016-2025	105	35	31		
2025 Jan-Jun	Days fished				
	2024	2017	2025		
	39	17	13		
Fish tagged and recaptured	High	Low	Now		
2016-2025	Tagged				
2025 Jan-Jun	2017	2019	2025		
	104	35	87		
	Tagged		Recaptures		
	635		7 (1.1%)		
Tag rate	High	Low	Now		
Fish/fisher day	Tag rate				
2016-2025	2017	2019	2025		
2025 Jan-Jun	6.1	1.7	2.4		
	10 year average		2.4		

LENGTHS				
Average length (mm) Bars show length range 2016-2025 2025 Jan-Jun	High	Low	Now	
	Average length			
	2016	2022	2024	
	371	312	371	
	Max			
	2016	2015	2024	
625	390	535		
Fish lengths percentage Undersize <400mm Legal 400-599mm Trophy 600+mm 2016-2025 2025 Jan-Jun	High	Low	Now	
	Legal-Trophy			
	2016	2022	2024	
	33%	9%	32%	
	Trophy			
	2016	2019-22	2024	
3%	0%	0%		

COMMERCIAL				
Commercial effort and catch Net fishery Grids N24, O24, O25, O26 Days Catch (tonnes) 2021-2025	Year	Days	Catch	
	2021	240	3.69	
	2022	263	5.49	
	2023	203	3.69	
	2024*	69	0.57	
	2025*	NA	NA	
*incomplete				
Commercial catch rate Net fishery (all) Grids N24, O24, O25, O26 Kg/day 2021-2025	Year	Kg/day		
	2021	15.4		
	2022	20.9		
	2023	18.2		
	2024*	8.3		
	2025*	NA		
*incomplete				

LOCATIONS

Barred Javelin
Tagged (red-orange heat map)

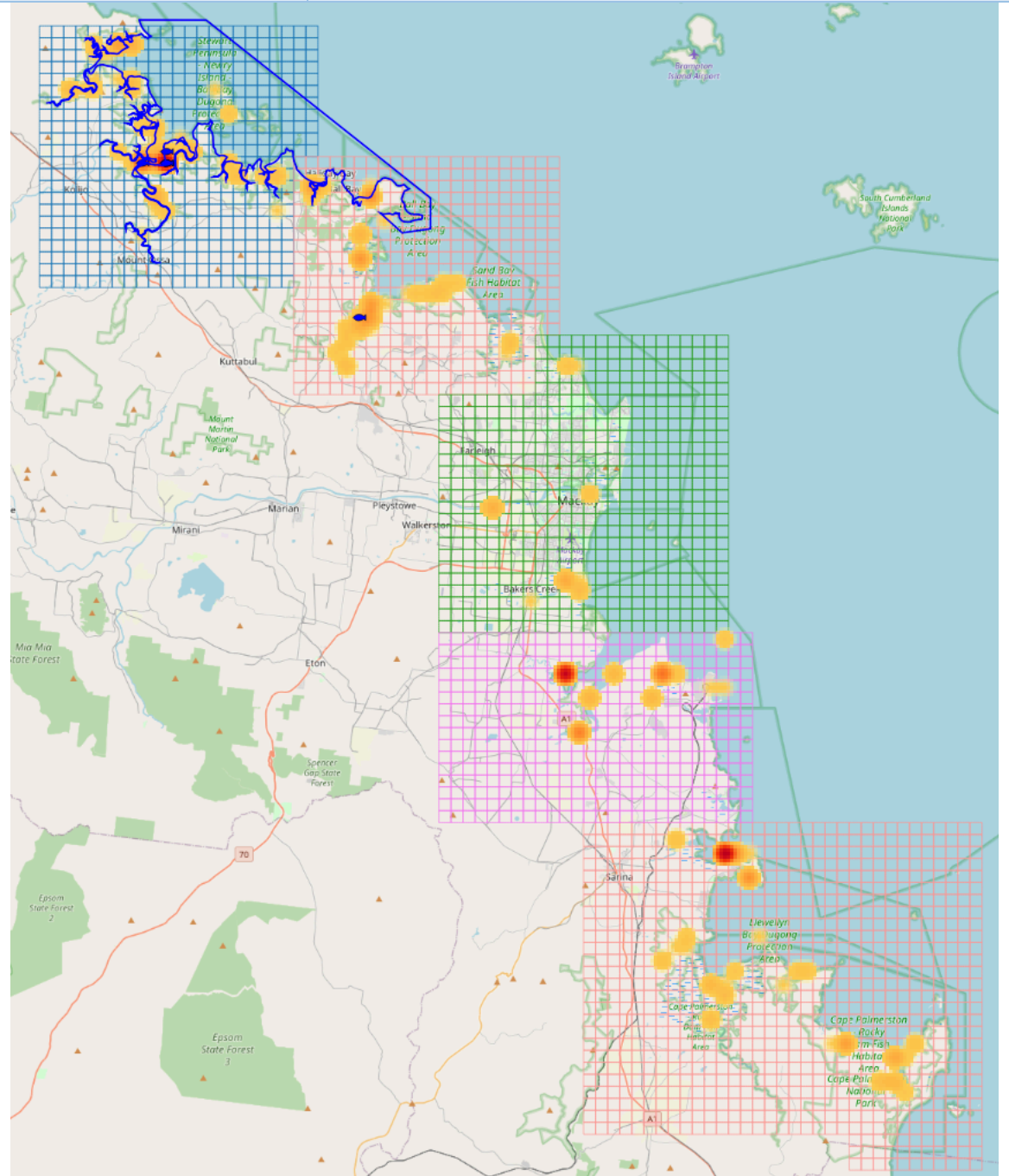
Recaptured (blue fish)

NFZ outlined blue

2016-2025

2025 Jan-Jun

Tagged (635)
Recaptured (7)



Data sources

Data used in the Mackay Crystal Bowl are:

- Tag records and recapture records at <http://crystalbowl.infofishaustralia.com.au/>.
- Rainfall records from Mackay station 033045, Mount Jukes 033053 and Koumala Hatfields Road 033038 from <http://www.bom.gov.au/climate/data>.
- Pioneer River flows at station 125007A at Mirani Weir Tail from <https://water-monitoring.information.qld.gov.au/>.
- Temperature records from Mackay station 033045 from <http://www.bom.gov.au/climate/data>.

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 fisher days (at least 1 per month) to provide a reliable catch rate.
- For Barramundi undersized fish are <580mm, legal fish are ≥580 and <1000mm and trophy fish are ≥1000mm.
- For Dusky Flathead undersized fish are <400mm, legal fish are ≥400 and <700mm and trophy fish are ≥700mm.
- For Rockcod undersized fish are <380mm, legal fish are ≥380 and <600mm and trophy fish are ≥600mm.
- For Barred Javelin undersized fish are <400mm, legal fish are ≥400mm and <600mm and trophy fish are ≥600mm.
- Analysis of Goldspotted Rockcod and Blackspotted Rockcod is based on combined records as the species are closely related, occupy similar habitat and have the same level of catchability.
- Growth calculated using logarithmic curve from recaptures where fish were out for 90 days or more and had positive growth.
- Locations based on Infofish grid maps SRN, HPM, MKY, CHM AND SHB and other grid maps where fish were recaptured outside the area.
- Movement has been calculated as the shortest distance by water from the tag to the recapture location derived from Google Earth.
- Distance from fisher's home to recapture location is the straight-line distance between locations based on Google Earth coordinates with Local <60, Intrastate ≥60 and Qld postcode, Interstate postcode other than Qld.