



LAKE TEEMBURRA REVIEW JUNE 2025

INFORMATION RATING



Stocking group: Mackay Area Fish Stocking Association

Species stocked: Barramundi

Stocking timeframe: 2013-2024

Fish timeframe: 2016-2025

Fisher timeframe: 2021-2025

DAF link: <https://www.daf.qld.gov.au/rsa/sips-dams-and-weirs/profile?dam=teemburra-dam>

MAFSA Facebook link: <https://www.facebook.com/@MackayAreaFishStockingAssociation/>

The data reliability for Lake Teemburra is low so should be treated with caution. However, there are still some useful indicators on the status of fish and its use by fishers.

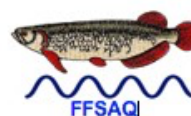
Lake Teemburra has been regularly stocked with Barramundi. In Oct 2022 and Jan 2023 MAFSA released 375 tagged Barramundi from approximately 200-350mm. Those releases are providing useful information and will continue to do so over the next few years. Initial annual growth from the recapture of the batch released fish has been high at an average of 271mm/year for fish released in 2022 and 353mm/year for those released in 2023.

Teemburra is mostly fished by locals recapturing 82% of tagged fish. However, along with fish in Lake Kinchant, it is likely that this will attract a growing number of intrastate and interstate fishers over the next few years as more fish grow to trophy size.

ABT competitions over the past 4 years provide additional information on fish sizes and catch rates.

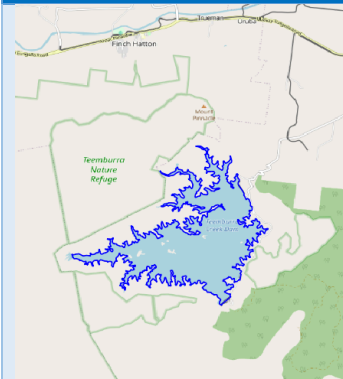


Product of Infotech Australia



Supported by Suntag, FFSAQ and MAFSA

LAKE TEEMBURRA



Lake Teemburra
21.204°S
148.658°E

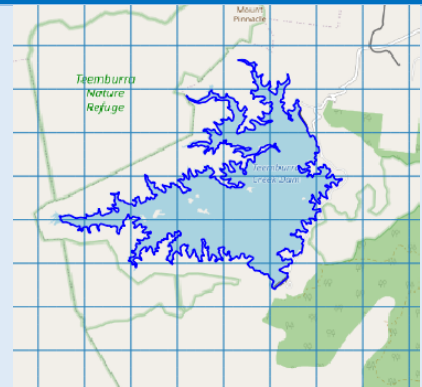
LOCATION



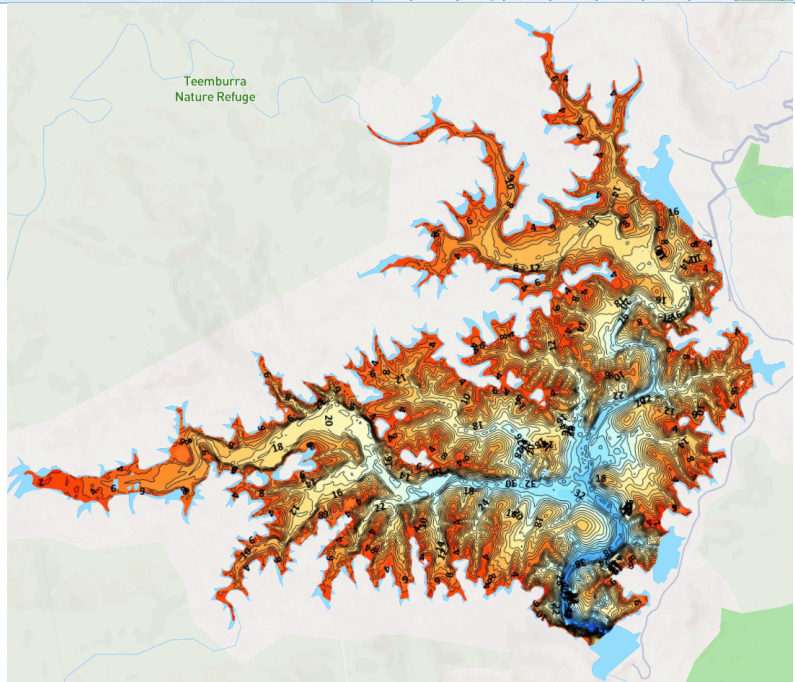
LAKE

Lake Teemburra
Grid map
Pioneer River PRM
Surface area

Surface area 10.4km² at Full
Surface Level



Lake Teemburra
Bathymetry

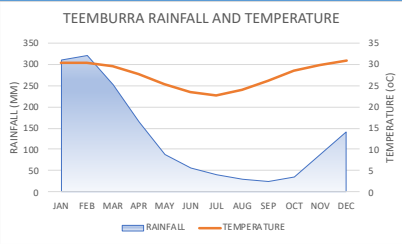


ENVIRONMENTAL

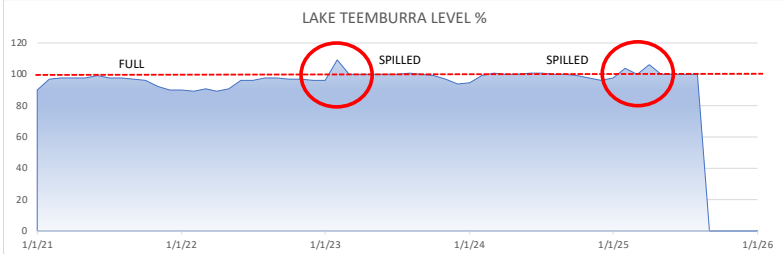
Mean monthly rainfall
(mm)

Mean monthly air
temperature (oC)

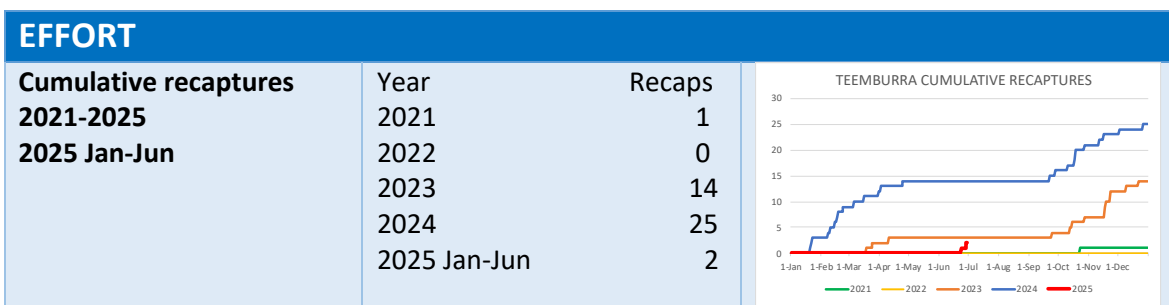
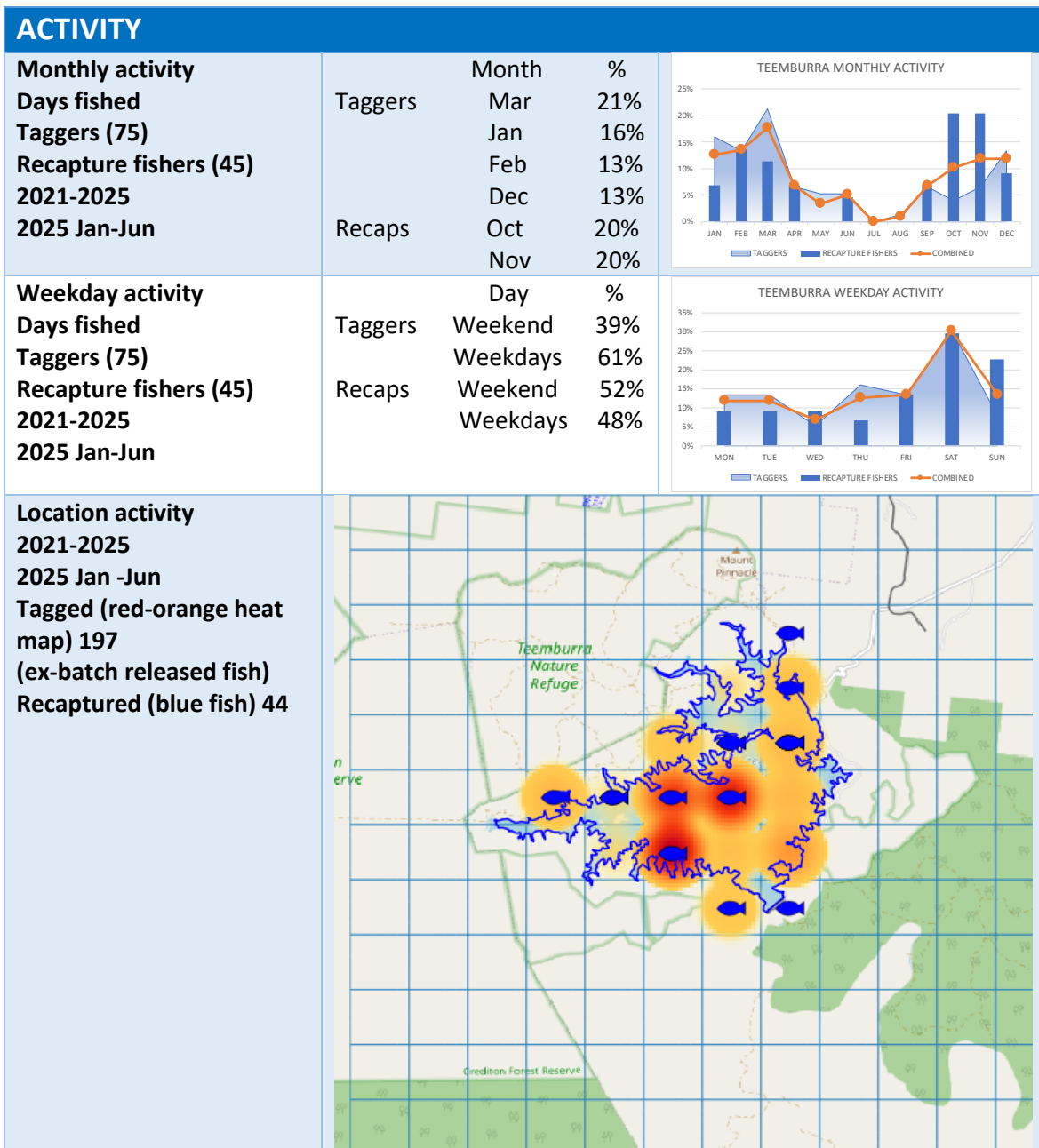
Rainfall	Month	mm
Max	Feb	320
	Jan	309
Temp	Month	oC
Max	Dec	31
	Jan-Mar	30



Lake level
2021-2025



FISHERS		
DATA RELIABILITY		
Sample size (days fished)	Reliability level	LOW
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 %		
2021-2025		
TYPE OF FISHERY		
Seasonality	Best months	
Best fishing conditions	Jan-Apr	
Mean monthly rainfall (mm)	Sep-Dec	
Mean monthly day temperature (oC)		
Months fished	Most days fished	
Rainfall	Mar	
Temperature	Feb	
Monthly days fished (taggers and recapture fishers combined)		
2021-2025		
Harvest or experiential fishery	Barramundi legal fish kept rate	
Release rate of recaptured legal Barramundi	Legal fish	
2021-2025	Kept	
2025 Jan-Jun	Released	
Local or visitor fishery	Recapture fishers	
Where recapture fishers live	Local	
2021-2025	Visitor	
2025 Jan-Jun		
Gender of recapture fishers (ex-taggers)	Recapture fishers	
2021-2025	Male	
2025 Jan-Jun	Female	

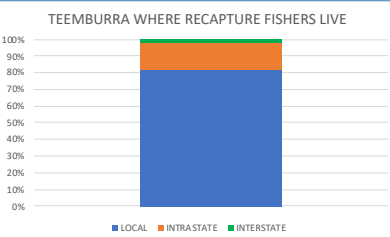


TRAVEL			
Cumulative proxy travel distance (km) home to recapture location 2021-2025 2025 Jan-Jun	Year	Kms	
	2021	55	
	2022	0	
	2023	3659	
	2024	1792	
	2025 Jan-Jun	104	
Distance (km) home to recapture location Bars show distance range Dots show outliers 2021-2025 2025 Jan-Jun			
Proxy average travel distance (km) home to recapture 2021-2025 2025 Jan-Jun	Trips Local Intrastate Interstate	44 Kms 42 338 1821	
Proxy travel distance (km) home to recapture location 2021-2025 2025 Jan-Jun	Trips Local Intrastate Interstate	44 Range (km) 6-58 63-820 1821	

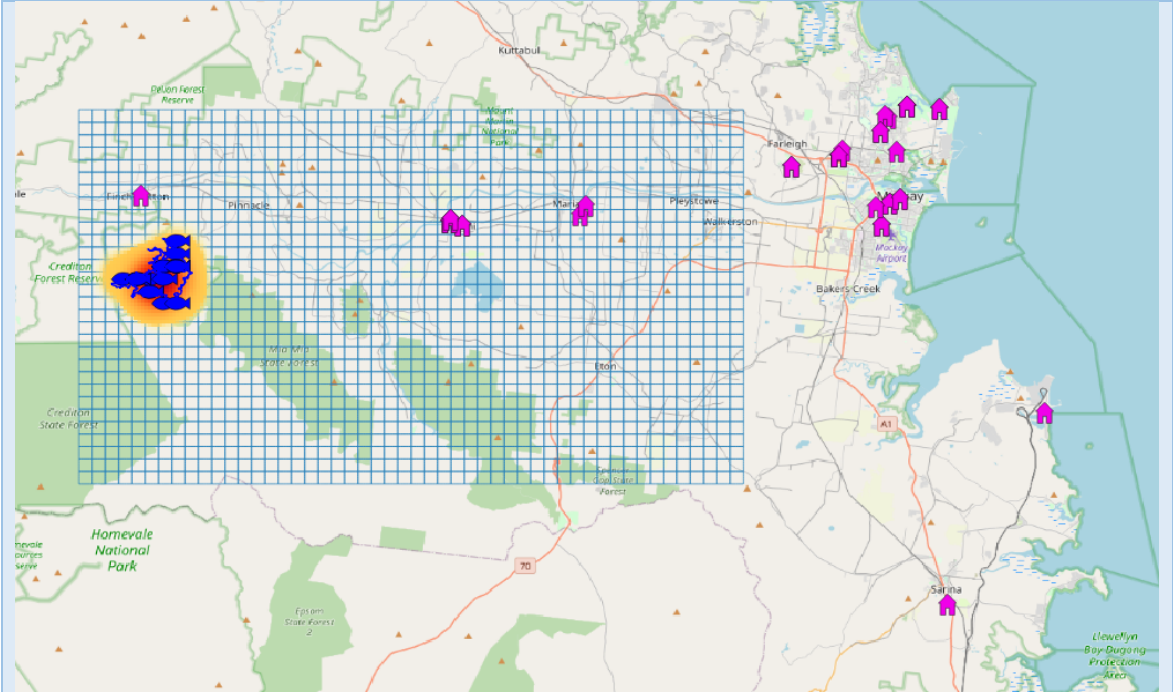
WHERE RECAPTURE FISHERS LIVE

Where recapture fishers live
2021-2025
2025 Jan-Jun

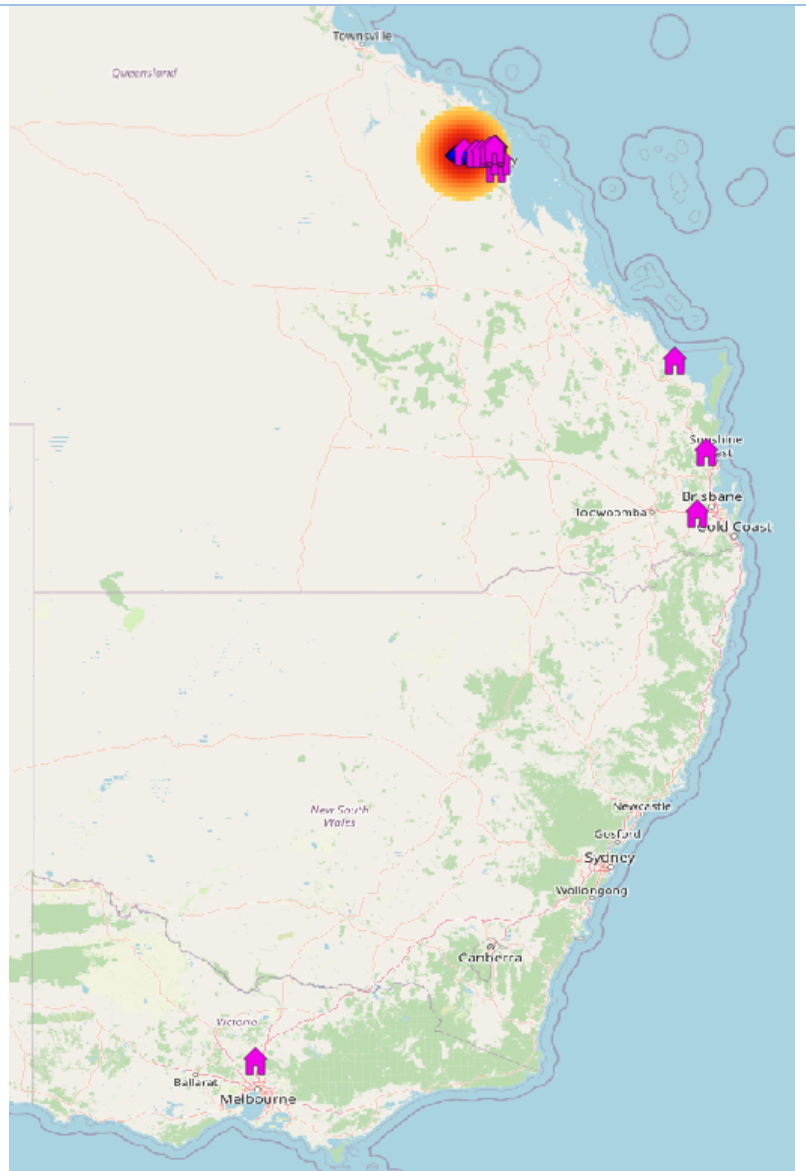
Fishers	44
Local	36 (82%)
Intrastate	7 (16%)
Interstate	1 (2%)

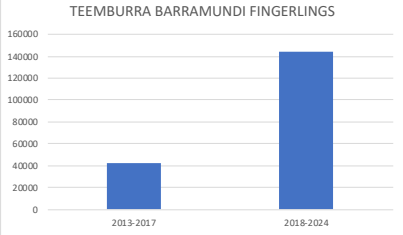
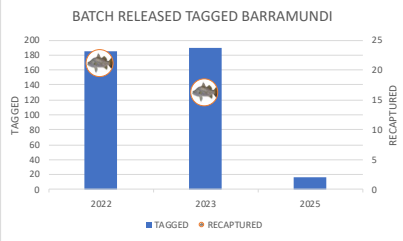
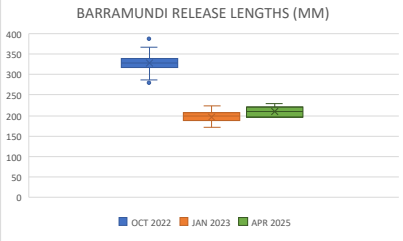


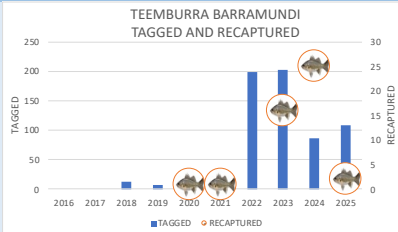
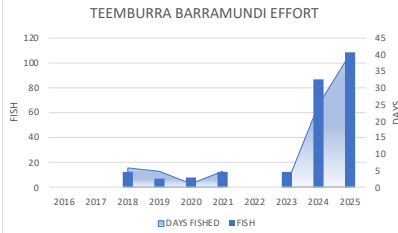
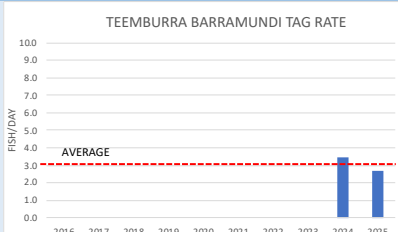
Where fishers recapturing fish live (pink houses)
Local
2021-2025
2025 Jan-Jun



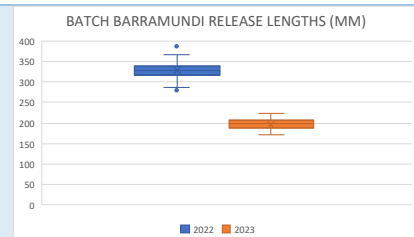
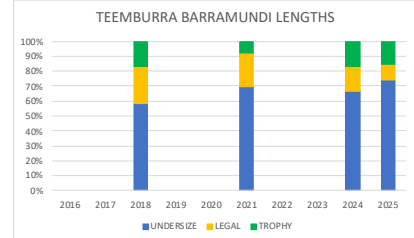
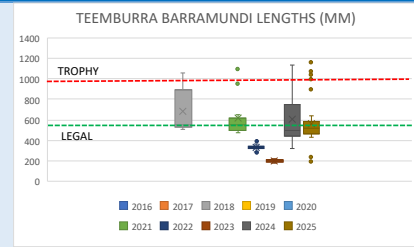
**Where fishers recapturing
fish live (pink houses)**
Intrastate
Interstate
2021-2025
2025 Jan-Jun



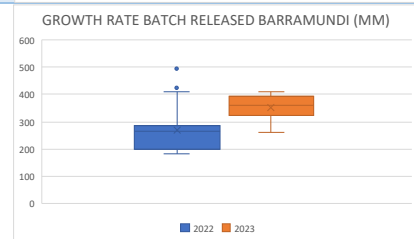
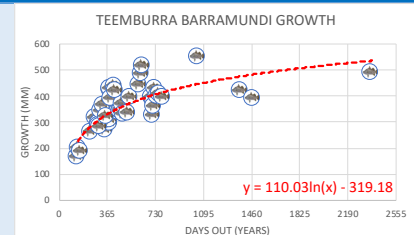
STOCKING		
BARRAMUNDI		
		
STOCKING		
Barramundi fingerlings stocked by year 2013-2024	2013-2017 42,800 2018-2024 144,100	Fingerlings 42,800 144,100
		
BATCH RELEASES		
Batch released Barramundi Oct 2022 Jan 2023 Apr 2025	2022 Tagged 185 Recaptured 21 (11.4%) 2023 Tagged 190 Recaptured 16 (8.4%) 2025 Tagged 16 Recaptured 0 (0%)	
Batch released Barramundi Lengths (mm) Oct 2022 Jan 2023 Apr 2025	2022 Av length 328 Range 279-387 2023 Av length 197 Range 171-224 2025 Av length 209 Range 195-230	

BARRAMUNDI								
								
DATA RELIABILITY								
Sample size (av fish/year)	Reliability level	LOW	MODERATE	MODERATE	HIGH			
Tagged (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 %								
2021-2025								
TAGGED AND TAG RATE								
Barramundi	Tagged	639						
Tagged	Recaptured	45						
Recaptured	Recapture rate	7.0%						
2016-2025	Tagged 2025 Jan-Jun	108						
2025 Jan-Jun								
Tag and effort	High	Low	Now					
Fish tagged	Tagged							
Days fished	2024	2022	2025					
2016-2025	87	0	108					
2025 Jan-Jun	Days	2022	2025					
	25	0	40					
Catch rate	High	Low	Now					
Fish/day	Catch rate							
2016-2025	2024		2025					
2025 Jan-Jun	3.5		2.7					
	Average		3.0					

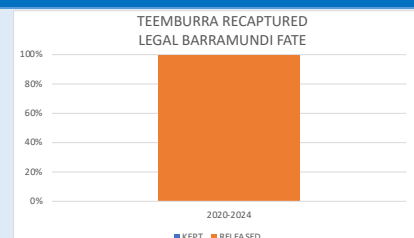
LENGTHS			
Lengths of tagged Barramundi 2016-2025 2025 Jan-Jun	Average		
	High	Low	Now
	2018	2024	2025
	683	611	557
	Max		
	2024	2018	2025
	1140	1065	1160
Fish lengths percentage Undersize <300mm Legal 300-499mm Trophy 500+mm 2016-2025 2025 Jan-Jun	High	Low	Now
	Legal-trophy		
	2018	2024	2025
	25%	16%	10%
	Trophy		
	2024	2021	2025
	17%	8%	16%
Batch Barramundi release lengths 2022 (Oct) 2023 (Jan)	Av length (mm)		
	2022 release		328
	2023 release		197

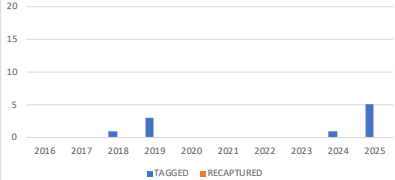


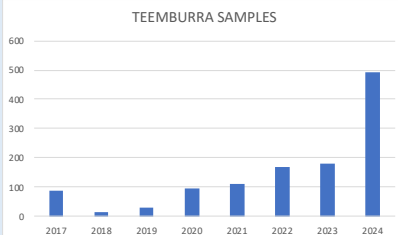
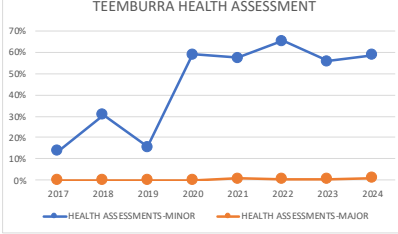
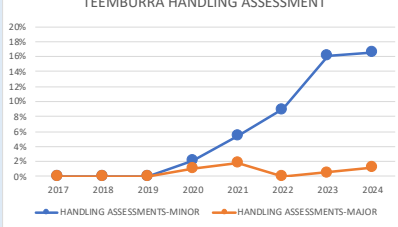
GROWTH			
Barramundi growth Fish tagged <580mm 2016-2025 2025 Jan-Jun	Growth at end of year (mm)		
	Year 1		330
	Year 2		406
	Year 3		451
Annual growth rate Batch released fish 2022 (Oct) 2023 (Jan)	Av growth (mm/year)		
	2022 release		271
	2023 release		353

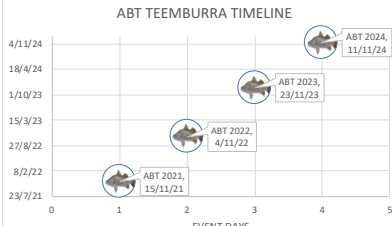
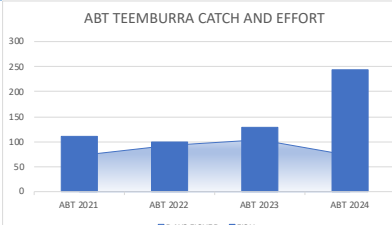
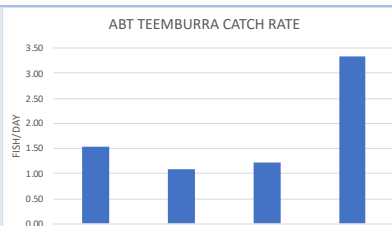
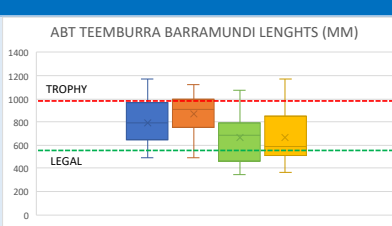


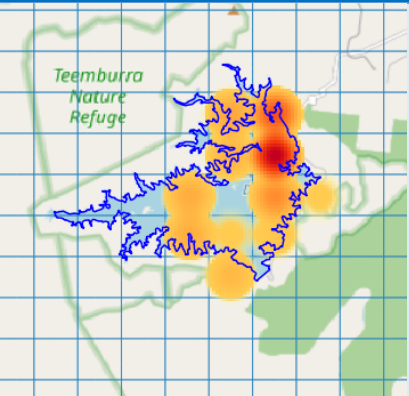
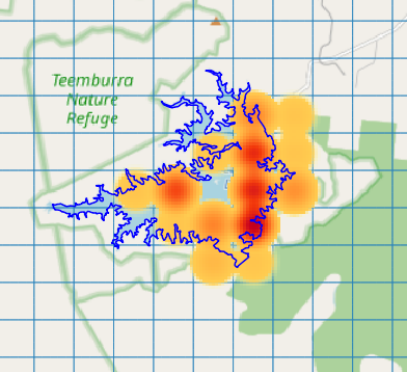
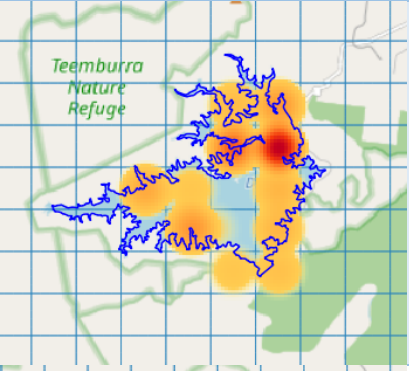
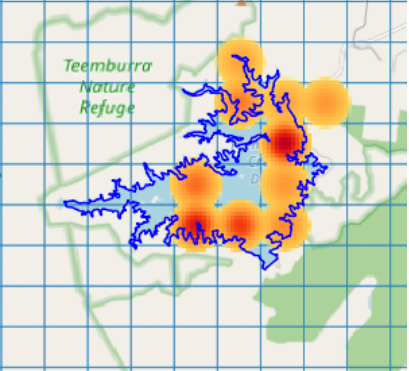
FATE			
Recaptured legal Barramundi fate (ex-taggers) 2016-2025 2025 Jan-Jun	Recaptured		29
	Kept		0 (0%)
	Released		29 (100%)



SOOTY GRUNTER																																			
																																			
TAGGED																																			
Sooty Grunter Tagged Recaptured 2016-2025 2025 Jan-Jun	Tagged	10																																	
	Recaptured	0																																	
	Recapture rate	0%																																	
	Tagged 2025 Jan-Jun	5																																	
		TEEMBURRA SOOTY GRUNTER TAGGED AND RECAPTURED  <table border="1"> <caption>TEEMBURRA SOOTY GRUNTER TAGGED AND RECAPTURED</caption> <thead> <tr> <th>Year</th> <th>Tagged</th> <th>Recaptured</th> </tr> </thead> <tbody> <tr><td>2016</td><td>0</td><td>0</td></tr> <tr><td>2017</td><td>0</td><td>0</td></tr> <tr><td>2018</td><td>1</td><td>0</td></tr> <tr><td>2019</td><td>10</td><td>0</td></tr> <tr><td>2020</td><td>0</td><td>0</td></tr> <tr><td>2021</td><td>0</td><td>0</td></tr> <tr><td>2022</td><td>0</td><td>0</td></tr> <tr><td>2023</td><td>0</td><td>0</td></tr> <tr><td>2024</td><td>1</td><td>0</td></tr> <tr><td>2025</td><td>5</td><td>0</td></tr> </tbody> </table>	Year	Tagged	Recaptured	2016	0	0	2017	0	0	2018	1	0	2019	10	0	2020	0	0	2021	0	0	2022	0	0	2023	0	0	2024	1	0	2025	5	0
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2025	5	0																																	

FISH HEALTH AND HANDLING																															
Fish health from photos Fish images 2017-2024	High	Low	Now	TEEMBURRA SAMPLES  <table><thead><tr><th>Year</th><th>Samples</th></tr></thead><tbody><tr><td>2017</td><td>100</td></tr><tr><td>2018</td><td>20</td></tr><tr><td>2019</td><td>30</td></tr><tr><td>2020</td><td>100</td></tr><tr><td>2021</td><td>120</td></tr><tr><td>2022</td><td>180</td></tr><tr><td>2023</td><td>200</td></tr><tr><td>2024</td><td>494</td></tr></tbody></table>	Year	Samples	2017	100	2018	20	2019	30	2020	100	2021	120	2022	180	2023	200	2024	494									
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Total images 1178																															
Fish health assessment Fins/lesions and skin condition 2017-2024	High	Low	Now	TEEMBURRA HEALTH ASSESSMENT  <table><thead><tr><th>Year</th><th>HEALTH ASSESSMENTS-MINOR</th><th>HEALTH ASSESSMENTS-MAJOR</th></tr></thead><tbody><tr><td>2017</td><td>15%</td><td>0%</td></tr><tr><td>2018</td><td>30%</td><td>0%</td></tr><tr><td>2019</td><td>15%</td><td>0%</td></tr><tr><td>2020</td><td>60%</td><td>0%</td></tr><tr><td>2021</td><td>58%</td><td>0%</td></tr><tr><td>2022</td><td>65%</td><td>0%</td></tr><tr><td>2023</td><td>58%</td><td>0%</td></tr><tr><td>2024</td><td>60%</td><td>0%</td></tr></tbody></table>	Year	HEALTH ASSESSMENTS-MINOR	HEALTH ASSESSMENTS-MAJOR	2017	15%	0%	2018	30%	0%	2019	15%	0%	2020	60%	0%	2021	58%	0%	2022	65%	0%	2023	58%	0%	2024	60%	0%
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65%	14%	59%																													
Major																															
2021	17-20	2024																													
2%	0%	1%																													
Handling assessment Bleeding and scale loss 2017-2024	High	Low	Now	TEEMBURRA HANDLING ASSESSMENT  <table><thead><tr><th>Year</th><th>HANDLING ASSESSMENTS-MINOR</th><th>HANDLING ASSESSMENTS-MAJOR</th></tr></thead><tbody><tr><td>2017</td><td>0%</td><td>0%</td></tr><tr><td>2018</td><td>0%</td><td>0%</td></tr><tr><td>2019</td><td>0%</td><td>0%</td></tr><tr><td>2020</td><td>2%</td><td>0%</td></tr><tr><td>2021</td><td>5%</td><td>0%</td></tr><tr><td>2022</td><td>10%</td><td>0%</td></tr><tr><td>2023</td><td>16%</td><td>0%</td></tr><tr><td>2024</td><td>17%</td><td>0%</td></tr></tbody></table>	Year	HANDLING ASSESSMENTS-MINOR	HANDLING ASSESSMENTS-MAJOR	2017	0%	0%	2018	0%	0%	2019	0%	0%	2020	2%	0%	2021	5%	0%	2022	10%	0%	2023	16%	0%	2024	17%	0%
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Minor																															
2023	17-19	2024																													
16%	0%	17%																													
Major																															
2021	2022	2024																													
1.8%	0%	1.2%																													

COMPETITIONS	ACTUAL	GRAPH or MAP
ABT	BARRAMUNDI	
		
ABT COMPETITIONS		
ABT competitions	Date and times	
2021	2021 15/11/21 4pm-1am	
2022	2022 4/11/22 4pm-1am	
2023	2023 23/11/23 2pm-12pm	
2024	2024 11/11/24 4pm-1am	
CATCH RATE		
Fish caught	Event	Days
Days fished	2021	72
2021	2022	93
2022	2023	104
2023	2024	73
2024		Fish
		
Catch rate	Event	Rate
2021	2021	1.5
2022	2022	1.1
2023	2023	1.2
2024	2024	3.3
		
LENGTHS		
Lengths (mm)	Event	Ave
2021	2021	793
2022	2022	872
2023	2023	667
2024	2024	669
	Min	Max
		

LOCATIONS			
Competition locations heatmap 2021	Fish Locations	110 102 (93%)	
Competition locations heatmap 2022	Fish Locations	100 82 (82%)	
Competition locations heatmap 2023	Fish Locations	128 98 (77%)	
Competition locations heatmap 2024	Fish Locations	243 86 (35%)	

Data sources

Data used in the Lake Teemburra Crystal Bowl are:

- Tag records and recapture records for the impoundment at <http://crystalbowl.infofishaustralia.com.au/>.
- Dam level data from Sunwater at <https://www.sunwater.com.au/water-data/historical-dam-capacity/>.
- Stocked fish records from Mackay Area Fish Stocking Association.
- Competition data from ABT competitions from Infofish Trackmyfish app.
- Bathymetry from Infofish survey 2024.
- Rainfall and temperature records from Station 033045 Mackay Aero 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.
- Undersized Barramundi are <580mm, legal-trophy fish are ≥580 and <1000mm and trophy fish are ≥1000mm. Legal fish are 580-1200mm.
- Locations based on Infofish grid map PRM for the impoundment and other grid maps where fish were recaptured outside the impoundment.
- Travel proxy distance is the distance between where the fisher lives (address, suburb, town or postcode) and the recapture location. Local <60km, intrastate Qld elsewhere, interstate other than Qld.
- The following tables were used to assess fins and skin.

Fins		
Variable Condition	Designation	Score
No Active Erosion	0	0
Light Active Erosion	1	10
Moderate Active Erosion with some haemorrhage	2	20
Severe Active Erosion with some haemorrhage	3	30

Skin		
Variable Condition	Designation	Score
Normal no aberrations	0	0
Mild skin aberrations	1	10
Moderate skin aberrations	2	20
Severe skin aberrations	3	30

- The following tables were used to assess fish handling.

Scale loss		
Variable Condition	Designation	Score
No scale loss	0	0
Mild scale loss (individual visible)	1	10
Moderate scale loss (single patch of scales)	2	20
Severe scale loss (multiple patches/complete)	3	30

Bleeding		
Variable Condition	Designation	Score
No bleeding	0	0
Mild bleeding (single wound/single patch of blood)	1	10
Moderate bleeding (more than one wound/blood visible in fish mat/surrounds)	2	20
Severe bleeding (multiple wounds/blood visible in large amounts on fish and mat/surrounds)	3	30