GLADSTONE HARBOUR REVIEW JUNE 2025

INFORMATION RATING

Key species: Barramundi, Mangrove Jack, Yellowfin Bream, Pikey Bream, Barred Javelin
Fish timeframe: 2016-2025 June
Fisher timeframe: 2021-2025 June

Gladstone Harbour is mostly a local fishery with 83% of recaptures reported by locals. Visiting fishers mostly come from Rockhampton, Central and SE Qld with low numbers from interstate, mostly from NSW and Victoria. Tagging and recaptures occur throughout the year with increased activity around May-Jun. Fished tagged during the Boyne Tannum Hookup fishing competition result in a boost in recaptured in May-Jun. Around 43% of taggers and those recapturing fish fished on weekends.

While Barramundi are a key species they are not as prolific as further north. Barramundi become a prime target when Lake Awoonga spills releasing fish from the lake. When that happens fishing for the species increases, particularly in the Boyne River. Following the spill in 2017 in the next 2 years fish tagged in the lake were recaptures in the Boyne River up to 10km below the dam with just 1 fish recaptured further away south along the coast. Since then, there have been few Barramundi tagged or recaptured in the Boyne River.

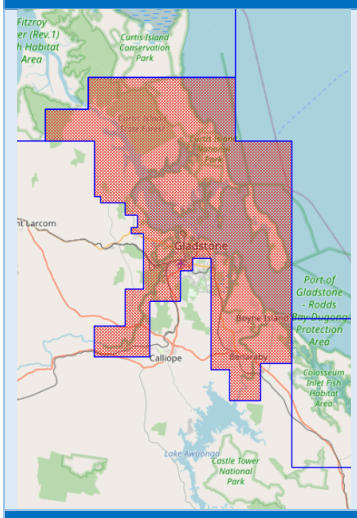
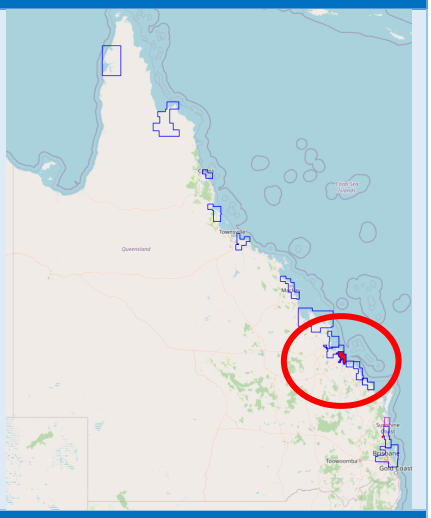
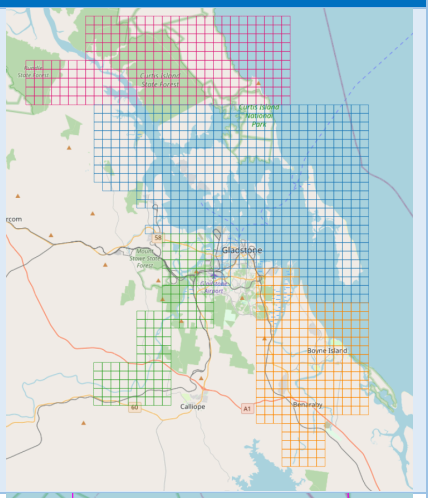
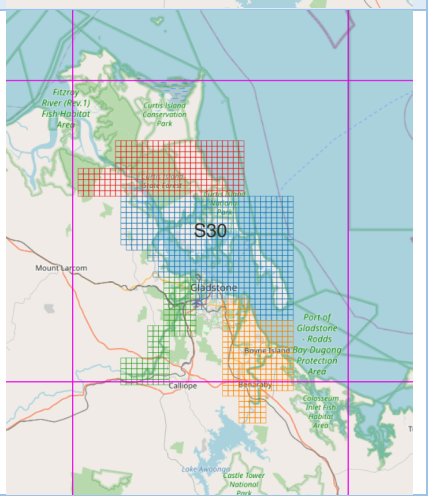
The lake has not spilled since 2017 and there has not been any significant natural recruitment so that Barramundi numbers have gradually fallen to low levels reflected in lower activity, a fall in the numbers tagged, a lower catch rate, and a fall in the commercial catch.

Mangrove Jack and Bream are other key species although in the last few years there has been an increase in the numbers of Barred Javelin (Grunter) tagged. Flathead are another species targeted by taggers but to a lesser extent.

Based on recaptures of legal fish by recreational fishers (other than taggers) the level of harvest of the key species is around 50% for Barramundi, Mangrove Jack and Bream however is higher at around 90% for Barred Javelin (however numbers are low). The area is a mix of a harvest and experiential fishery although there has been an increase in the release rate of legal fish. This is supported by the continuing increase of live fish (all legal) presented at the live weigh-in at the Boyne Tannum Hook Up and boat ramp surveys during the competition up to 2019 which showed a steady decline in the kept fish catch rate.

Product of Infofish Australia

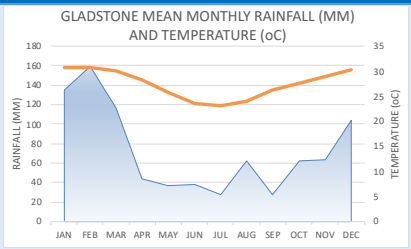
Supported by Suntag, Gladstone Ports Corporation, and Department of Agriculture and Fisheries

GLADSTONE HARBOUR		LOCATION
	Gladstone Harbour Lat S 23.8 Lon E 151.3	
WATERWAYS	**ACTUAL**	**GRAPH or MAP**
Gladstone Harbour and adjoining waterways **Grid maps** **Curtis Gladstone CISG** **Gladstone Harbour GLD** **Calliope River CR02** **Boyne River BRG**	Narrows and creeks Curtis Island Gladstone Harbour Auckland Creek Calliope River South Trees Inlet Boyne River	
Commercial QFISH grid	Grid S30	

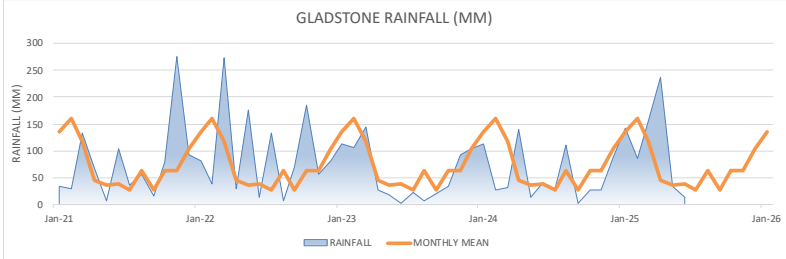
ENVIRONMENTAL

Gladstone Airport monthly means
Rainfall (mm)
Day air temperature (oC)
All years

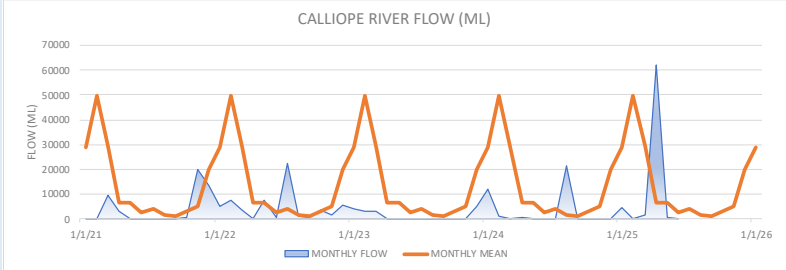
Rainfall	Month	mm
High	Feb	159
Low	Sep	27
Temp	Month	oC
High	Feb	31
Low	Jul	23



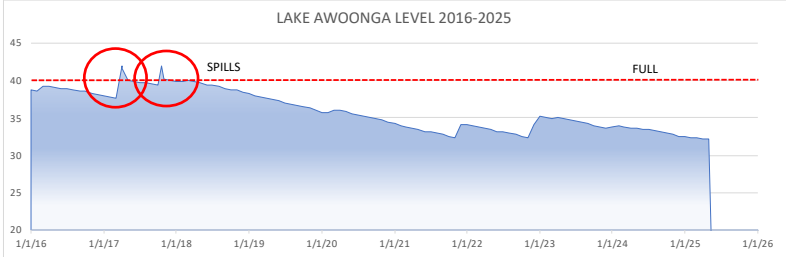
Gladstone Airport
Monthly rainfall (mm)
Monthly mean (mm)
2021-2025



Calliope River
Monthly flow (ML)
Mean monthly flow (ML)
2021-2025

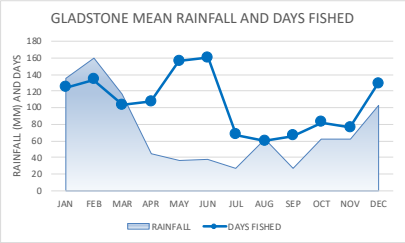
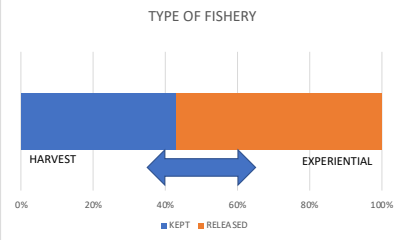
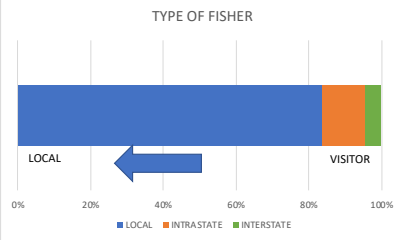
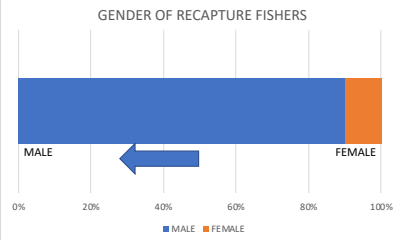


Lake Awoonga
Dam levels
2016-2025
Spills
2017 (Apr and Nov)



FISHERS	ACTUAL	GRAPH or MAP
DATA RELIABILITY		
Sample size (days fished) **Tag days (blue arrow)** **Recaptures (orange arrow)** **Confidence %** **Error %** **2021-2025**		

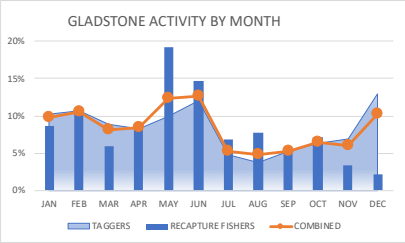
Reliability level	LOW		MODERATE	MODERATE		HIGH
Samples	10	41	68	271	384	664
Confidence	80%	80%	90%	90%	95%	99%
Error	20%	10%	10%	5%	5%	5%

TYPE OF FISHERY		
Seasonality **Mean monthly rainfall** **Days fished combined** **Taggers** **Recapture fishers** **2021-2025** **2025 Jan-Jun**	Months most fished Combined May Jun Feb May-Jun influenced by Boyne Tannum Hookup fishing competition tags	
Harvest or experiential fishery **Release rate of recaptured legal fish of key species** **2021-2025** **2025 Jan-Jun**	Key species legal fish harvested Legal fish 182 Kept 78 (43%) Released 104 (57%)	
Local or visitor fishery **Where recapture fishers live** **2021-2025** **2025 Jan-Jun**	Recapture fishers 337 Local 281 (83%) Visitor 56 (17%)	
Gender of recapture fisher (ex-taggers) **2021-2025** **2025 Jan-Jun**	Recaptures 309 Female 31 (10%) Male 278 (90%)	

ACTIVITY

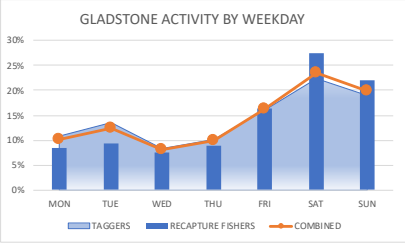
Monthly activity
Days fished
Taggers (942)
Recapture fishers (322)
2021-2025
2025 Jan-Jun

	Month	%
Taggers	Dec	13%
	Jun	12%
Recaps	May	19%
	Jun	15%



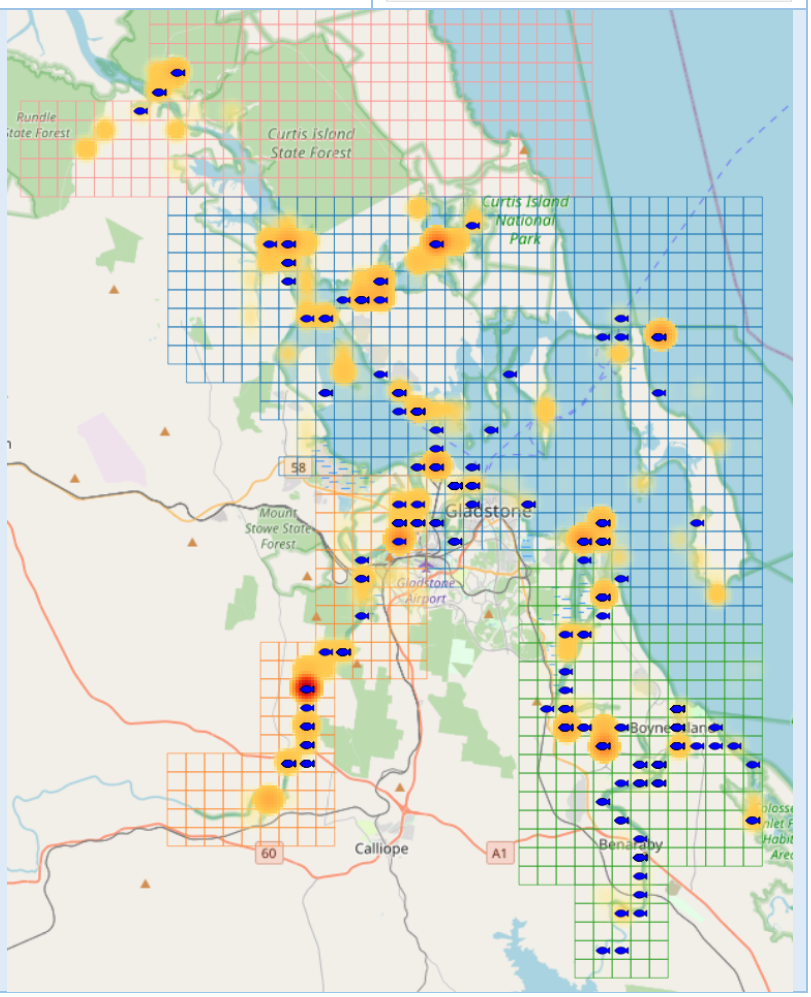
Weekday activity
Days fished
Taggers (942)
Recapture fishers (322)
2021-2025
2025 Jan-Jun

	Day	%
Taggers	Weekend	41%
	Weekdays	59%
Recaps	Weekend	49%
	Weekdays	51%



Location activity
Taggers (3,253 fish tagged) (red-orange heat map)
Recapture fishers (346 fish recaptured) (blue fish)
2021-2025
2025 Jan-Jun

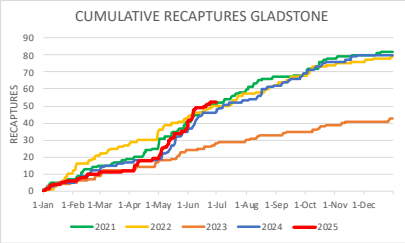
(ex-fish tagged during Boyne Tannum Hook Up fishing competition)



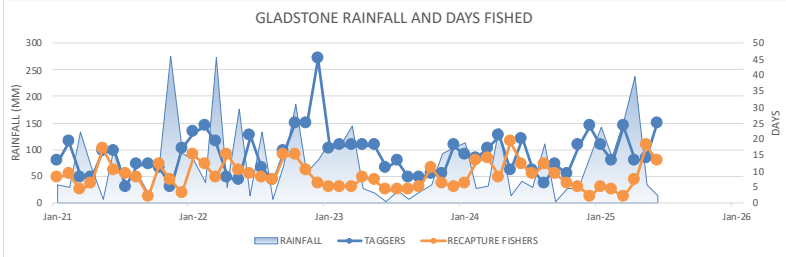
EFFORT

Cumulative recaptures
2021-2025
2025 Jan-Jun

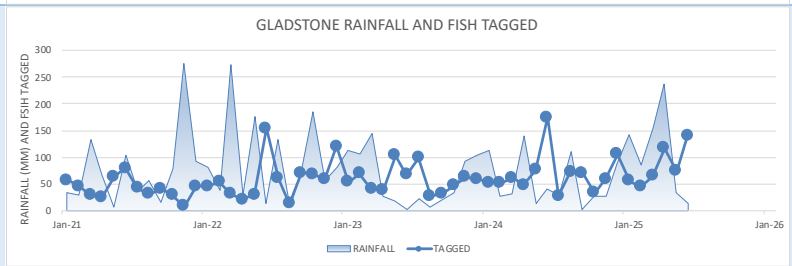
Year	Recaps
2021	82
2022	79
2023	43
2024	80
2025 Jan-Jun	52



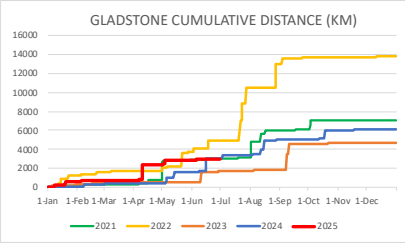
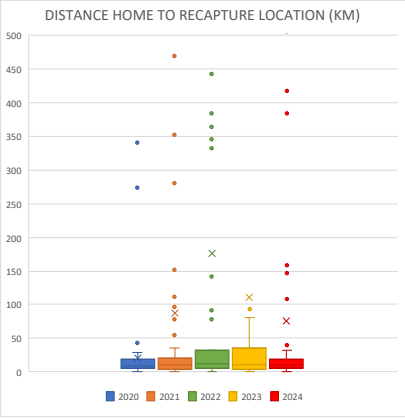
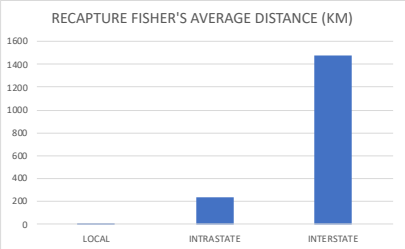
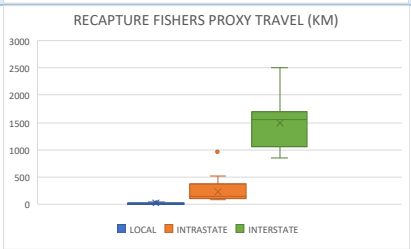
Rainfall (mm)
Days fished
Taggers
Recapture fishers
2021-2025
2025 Jan-Jun



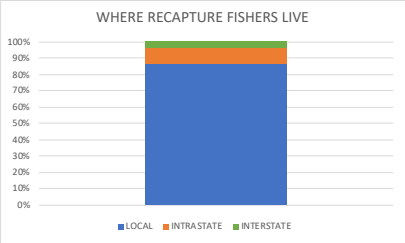
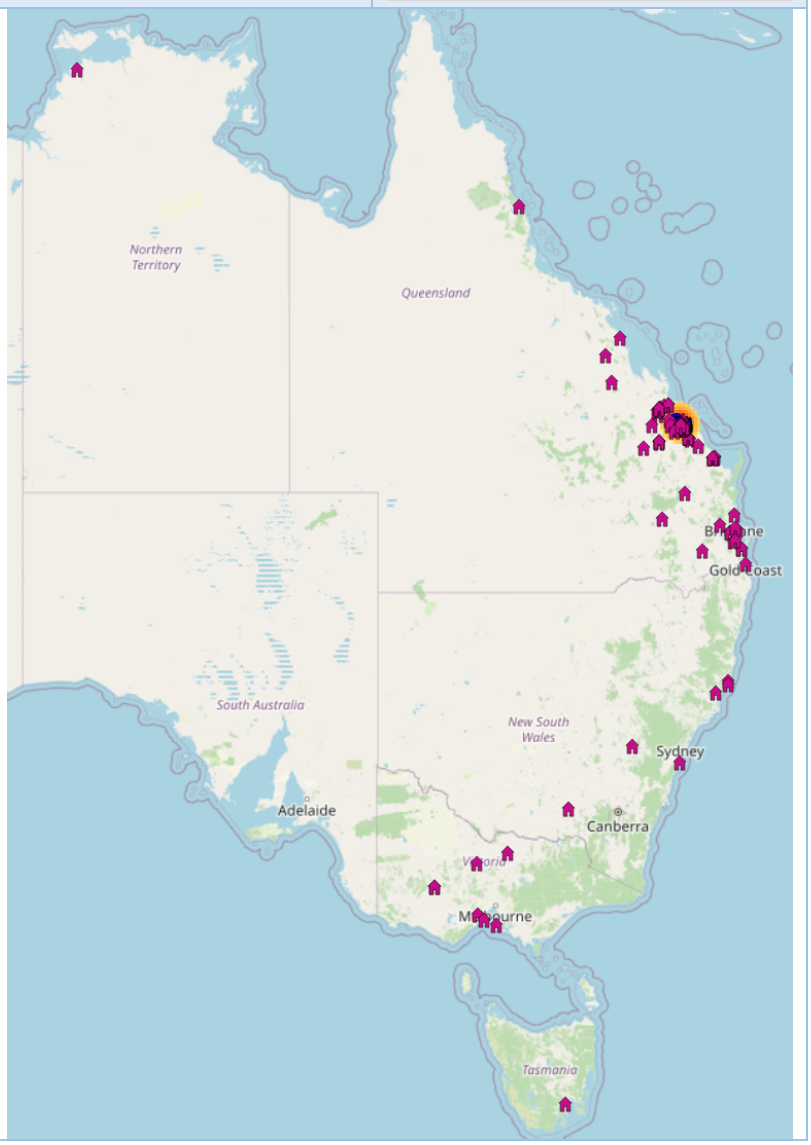
Rainfall (mm)
Fish tagged
2021-2025
2025 Jan-Jun



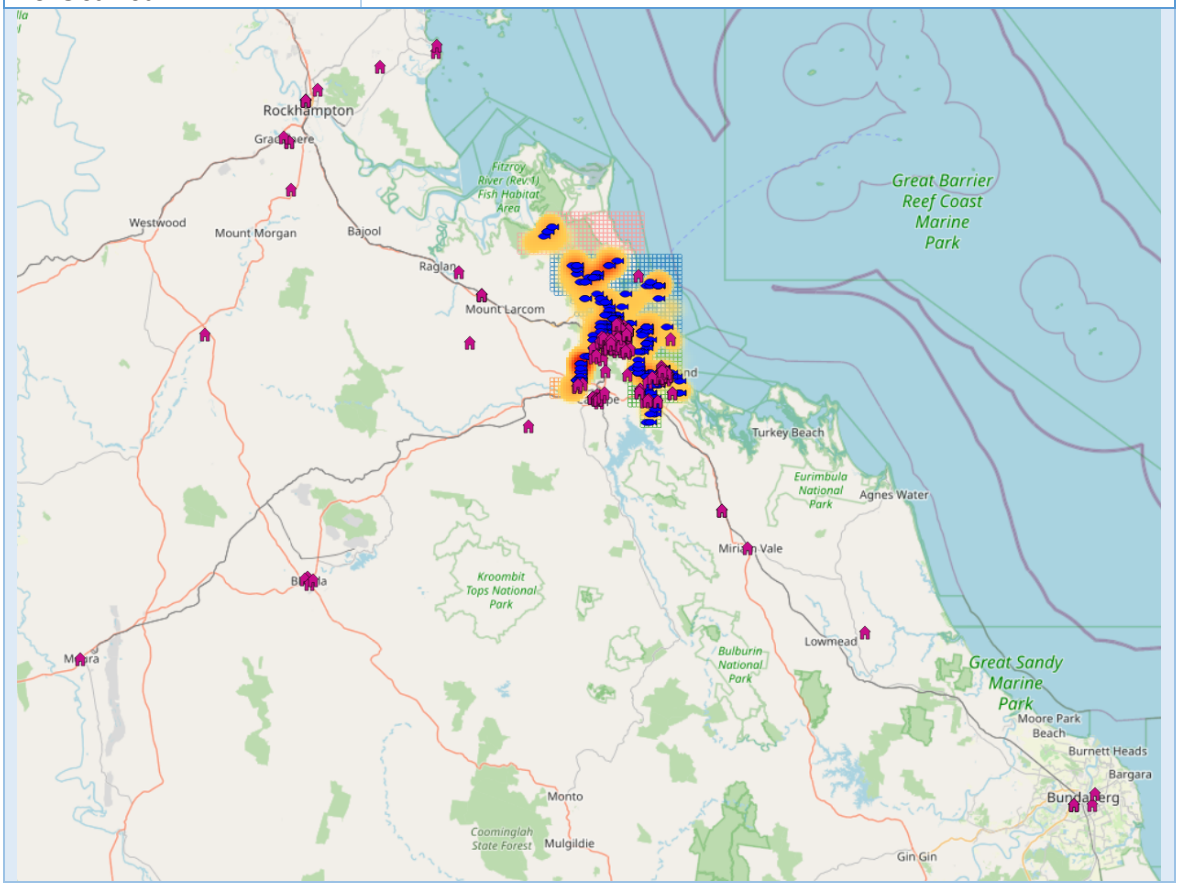
TRAVEL

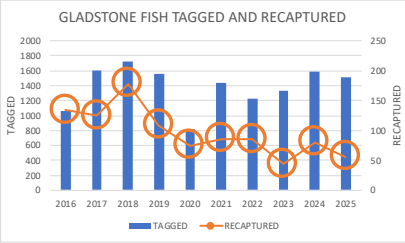
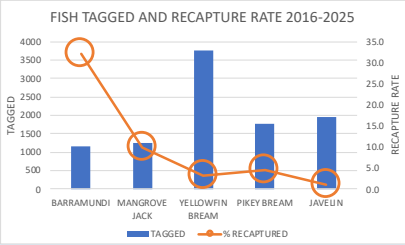
Cumulative distance (km) **Fisher home to recapture location** **2021-2025** **2025 Jan-Jun**	Year / Km 2021 / 7078 2022 / 13785 2023 / 4670 2024 / 6101 2025 Jan-Jun / 2978	
Distance from fisher home to recapture location **2021-2025** **2025 Jan-Jun**		
Average distance (km) from home to recapture location **2021-2025** **2025 Jan-Jun**	Av distance (km) Local / 10 Intrastate / 232 Interstate / 1481	
Distance (km) address to recapture location **Bars show distance range** **Dots show outliers** **2021-2025** **2025 Jan-Jun**	Range (km) Local / 1-55 Intrastate / 75-955 Interstate / 855-2503	

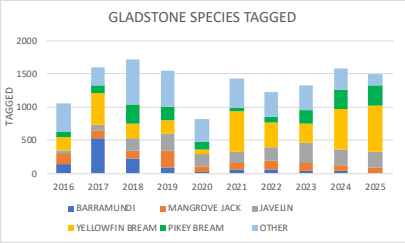
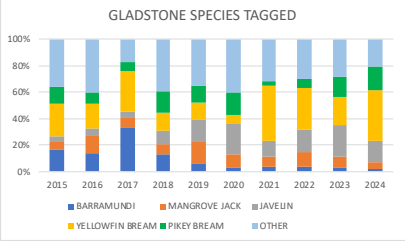
WHERE RECAPTURE FISHERS LIVE

Where recapture fishers live **Local** **Intrastate** **Interstate** **2021-2025** **2025 Jan-Jun**	Recapture fishers 337 Local 281 (83%) Intrastate 41 (12%) Interstate 15 (4%)	
Gladstone Harbour where fishers recapturing fish live (purple houses) **Local** **Intrastate** **Interstate** **2021-2025** **2025 Jan-Jun**		

Gladstone Harbour where fishers recapturing fish live (purple houses) Local and Central Qld 2021-2025 2025 Jan-Jun



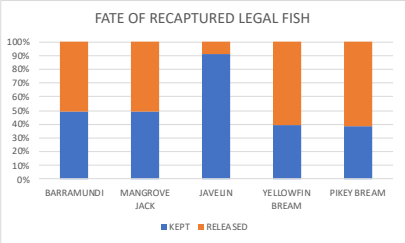
FISH	ACTUAL	GRAPH or MAP
BARRAMUNDI	**MANGROVE JACK**	**BARRED JAVELIN**
YELLOWFIN BREAM	**PIKEY BREAM**	
TAGGED		
All fish **Tagged (13830)** **Recaptured (972)** **2021-2025** **2025 Jan-Jun**	High Low Now Fish tagged 2018 2020 2025 1716 819 1505 Recaptured 2018 2023 2025 178 44 56	
Fish tagged and recapture rate **2021-2025** **2025 Jan-Jun**	Recapture rate All fish 7.0% Barramundi 32.2% Mangrove Jack 9.9% Yellowfin Bream 3.3% Pikey Bream 4.6% Barred Javelin 1.1%	

SPECIES		
Species composition **Numbers tagged** **2021-2025** **2025 Jan-Jun**	Species Tagged Barramundi 1165 Mangrove Jack 1249 Barred Javelin 1941 Yellowfin Bream 3753 Pikey Bream 1758 All fish 13830	
Species composition **Percentage tagged** **2021-2025** **2025 Jan-Jun**	Species %Tagged Barramundi 8% Mangrove Jack 9% Barred Javelin 14% Yellowfin Bream 27% Pikey Bream 13% Other species 29%	

FATE

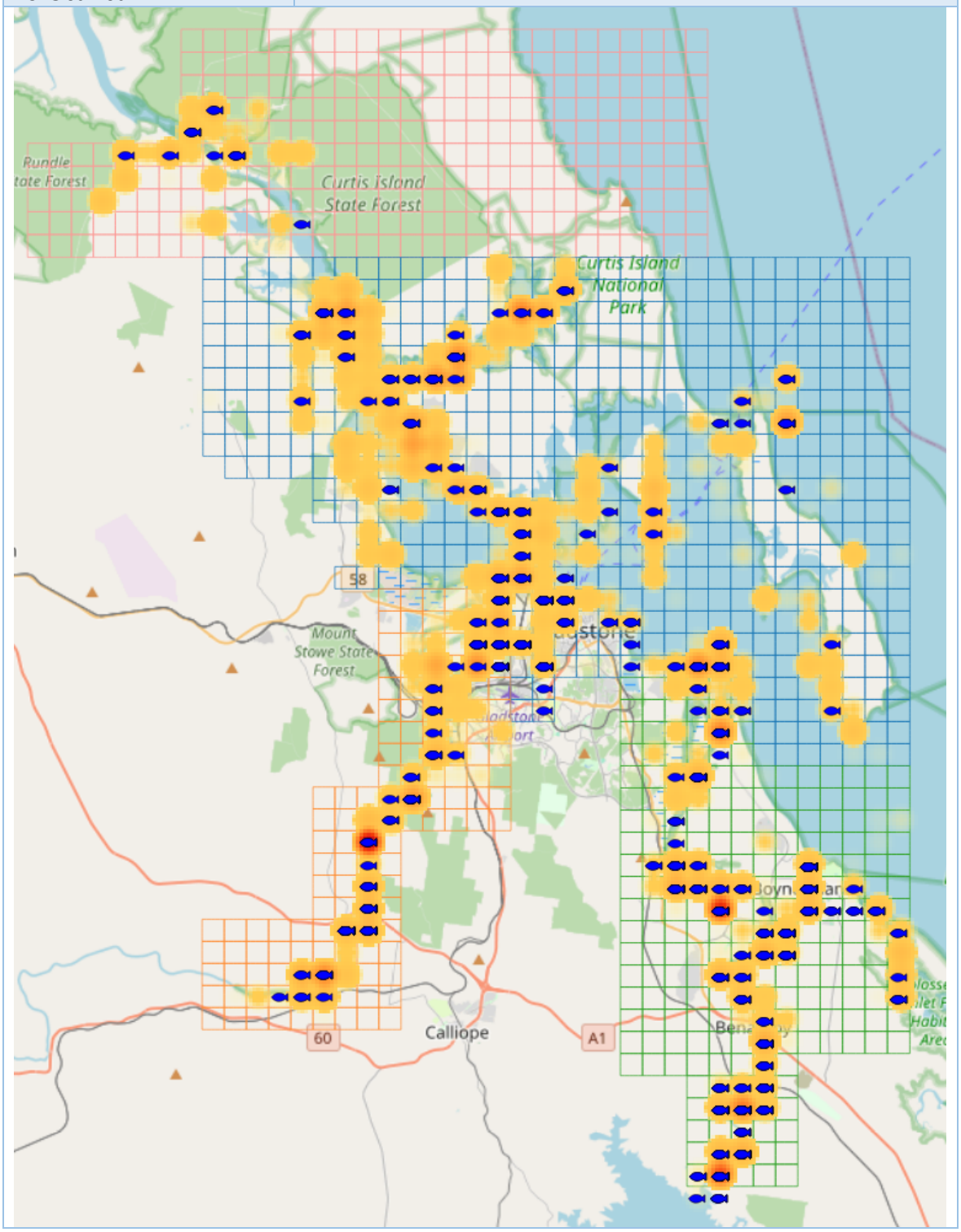
Legal fish recaptured by recreational fishers (ex-taggers)
Barramundi during open season only
2021-2025
2025 Jan-Jun

	Kept
Barramundi	96 (49%)
Mangrove Jack	43 (49%)
Barred Javelin	10 (91%)
Yellowfin Bream	39 (39%)
Pikey Bream	24 (39%)



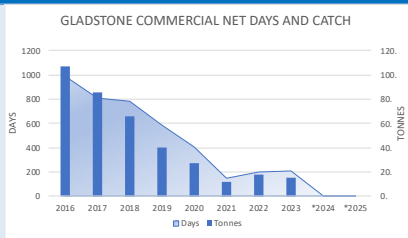
LOCATIONS

Fisher activity **Fish tagged (red-orange heat map)** **Recaptures (blue fish)** **2021-2025** **2025 Jan-Jun**	Tagged excludes fish tagged during Boyne Tannum Hook Up Fish tagged (8068) Recaptures (967)

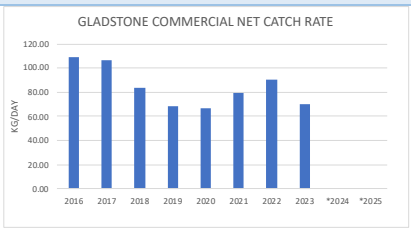


COMMERCIAL CATCH

Commercial catch	High	Low	Now
All species	Catch (t)		
Qfish grid S30	2015	2021	2025
Days fished	118.1	11.9	NA
Catch tonnes	Days		
2016-2025	2015	2021	2025
***2024 *2025 incomplete**	323	83	NA



Commercial catch	High	Low	Now
Qfish grid S30	Catch rate (kg/day)		
Catch rate (kg/day)	2015	2020	2025
2016-2025	142.9	66.8	NA
***2024 *2025 incomplete**			

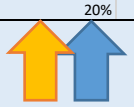


BARRAMUNDI	ACTUAL	GRAPH or MAP

DATA RELIABILITY

Sample size (fish/year)
Tagged (blue arrow)
Recaptured (orange arrow)
Confidence %
Error %
2020-2024

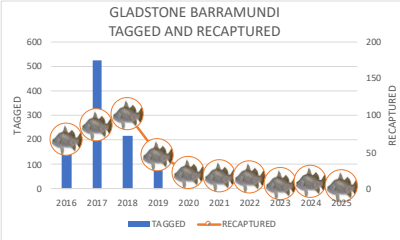
Reliability level	LOW		MODERATE	MODERATE		HIGH
Samples	10	41	68	271	384	664
Confidence	80%	80%	90%	90%	95%	99%
Error	20%	10%	10%	5%	5%	5%



TAGGED AND TAG RATE

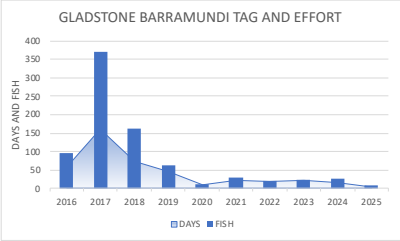
Barramundi
Tagged (1426)
Recaptured (457)
2016-2025
2025 Jan-Jun

	High	Low	Now
	Fish tagged		
	2017	2020	2025
	525	23	9
	Recaptured (32.2%)		
	2018	2023	2025
	102	6	4



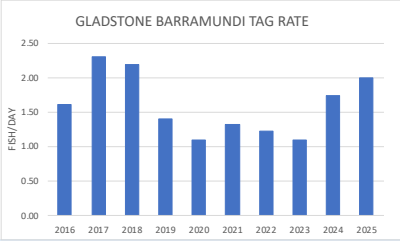
Taggers
Days fished
Tagged fish
(Feb-Oct open season)
2016-2025
2025 Feb-Jun

	High	Low	Now
	Fisher days		
	2017	2020	2025
	160	10	4
	Catch		
	2017	2020	2025
	369	11	8



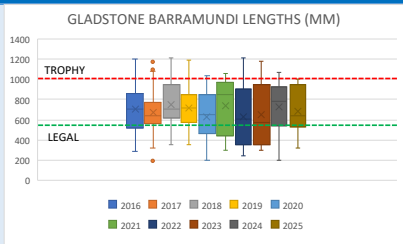
Tag rates
Fish/day
(Feb-Oct open season)
2016-2025
2025 Feb-Jun

High	Low	Now
Catch rate		
2017	2023	2025
2.3	1.1	2.0

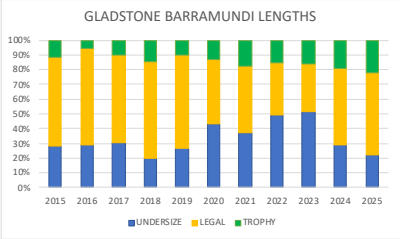


LENGTHS

Lengths (mm)	High	Low	Now
Tagged fish	Average length (mm)		
Bars show length range	2018	2022	2025
Dots show outliers	751	629	687
2016-2025	Max length (mm)		
2025 Jan-Jun	2016	2020	2025
	1200	1040	1010

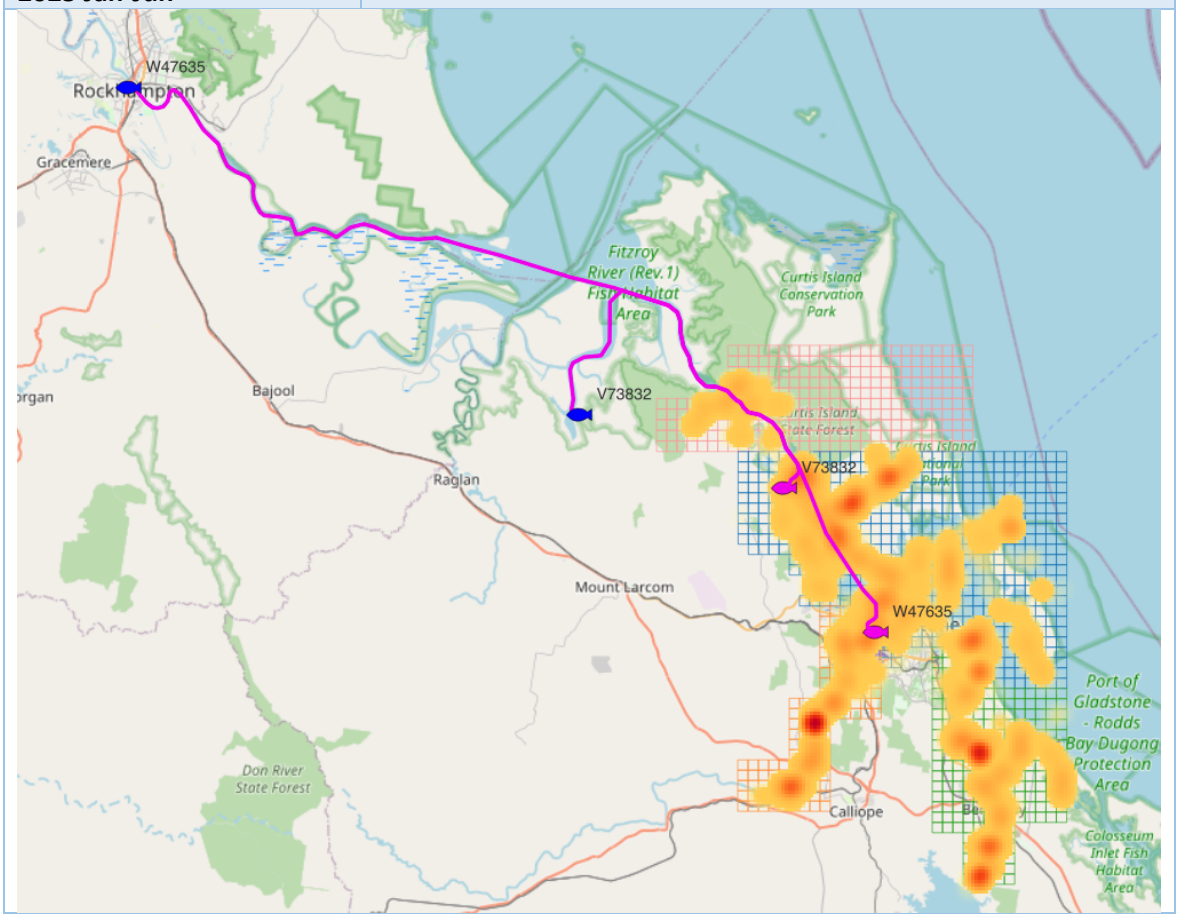


All fish lengths percentage	High	Low	Now
Undersize <580mm	Legal-trophy		
Legal 580-1000mm	2018	2022	2025
Trophy 1000+mm	66%	36%	56%
2016-2025	Trophy		
2025 Jan-Jun	2023	2016	2025
	16%	6%	22%



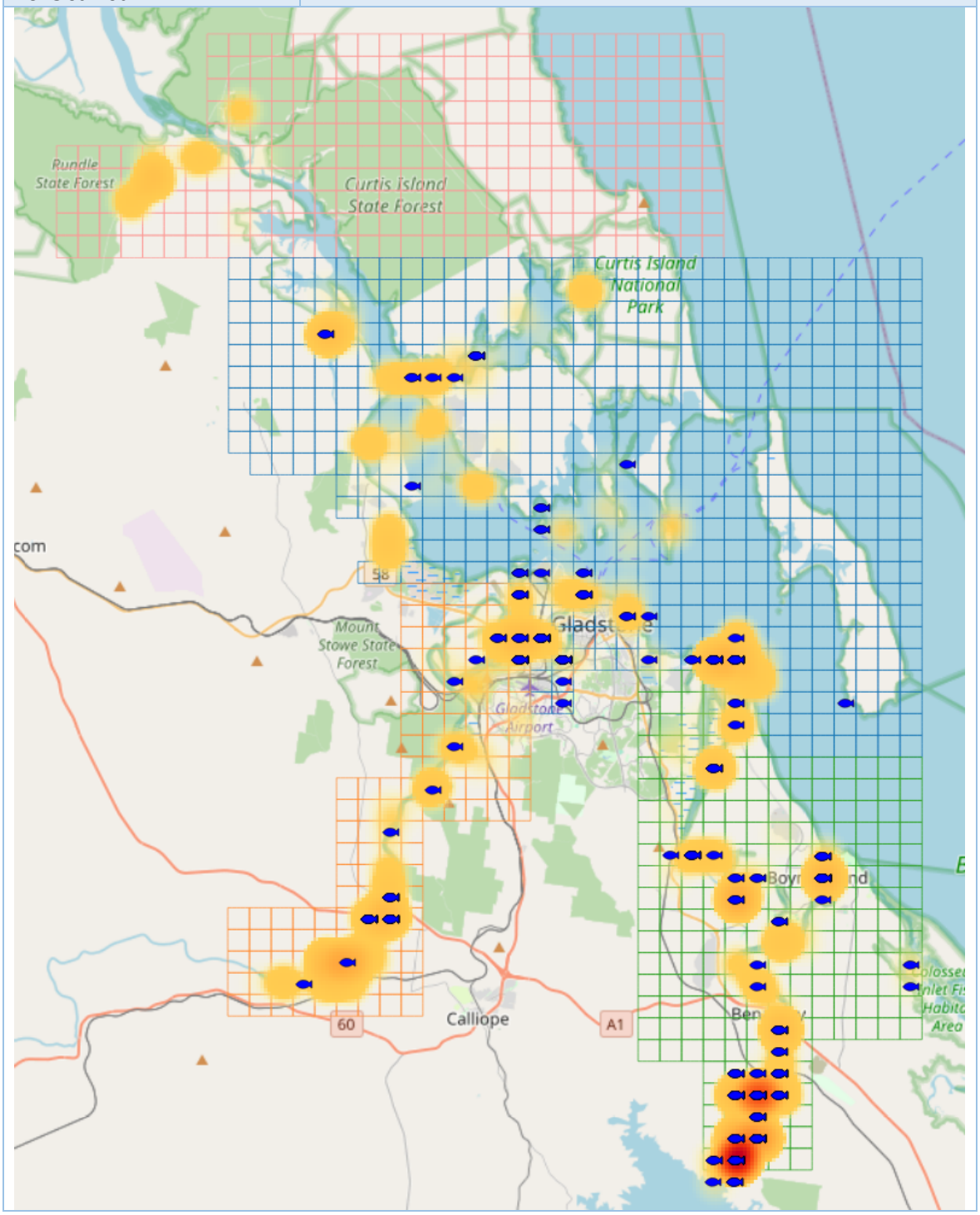
MOVEMENT

Barramundi tagged (pink fish) recaptures outside Gladstone maps (blue fish)
2016-2025
2025 Jan-Jun



LOCATIONS

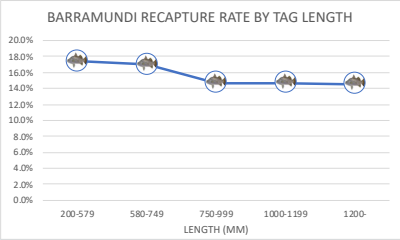
Barramundi **Tagged (red-orange heat map)** **Recaptured (blue fish)** **2016-2025** **2025 Jan-Jun**	Tagged (1164) Recaptured (375)



RECAPTURE RATE

Recapture rate by tag length (mm)
All years

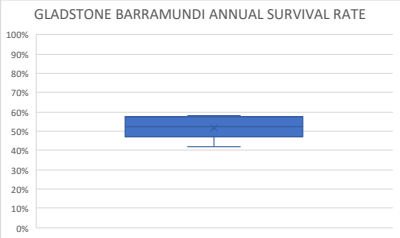
Length (mm)	Recap rate
200-579	17.4%
580-749	17.0%
750-999	14.7%
1000-1199	14.7%
1200-	14.5%
All	16.3%



SURVIVAL

Annual survival rate
Percentage recaptures each year
All years

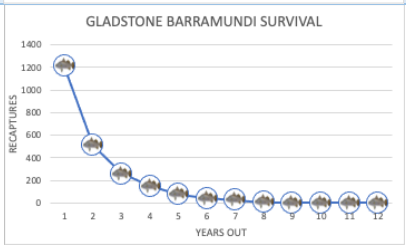
Annual survival rate 52%



Years survival after tagging
All years

Survival by years out

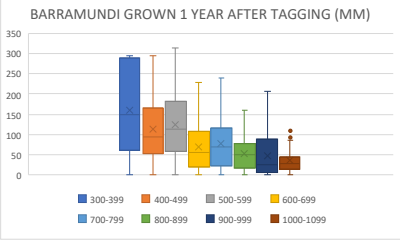
Year	Recaptures
1	1210
2	510
5	73
8	6
9.4 (max)	1



GROWTH

Barramundi growth by length in first year after tagging (mm/year)
All years

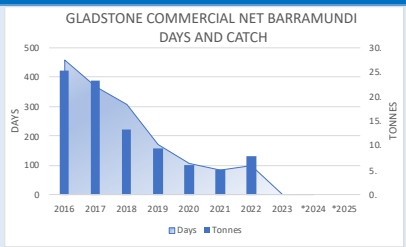
Tag length 400-499
112mm/year
Tag length 700-799
76mm/year
Tag length 1000-1099
35mm/year



COMMERCIAL CATCH

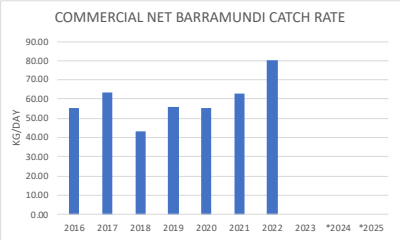
Commercial catch
Qfish grid S30
Days fished
Catch tonnes
2016-2025
***2024 *2025 incomplete**

High	Low	Now
Catch (t)		
2015	2021	2025
30.3	5.2	NA
Days		
2015	2021	2025
323	83	NA



Commercial catch
Qfish grid S30
Catch rate (kg/day)
2015-2024
***2024 incomplete**

High	Low	Now
Catch rate (kg/day)		
2015	2018	2025
93.7	43.0	NA



MANGROVE JACK	ACTUAL	GRAPH or MAP

DATA RELIABILITY

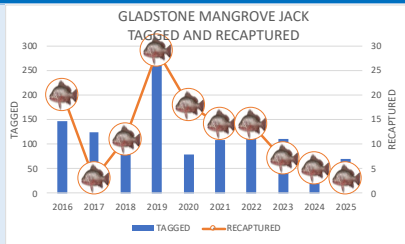
Sample size (fish/year)
Tagged (blue arrow)
Recaptured (orange arrow)
Confidence %
Error %
2021-2025

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%

TAGGED AND TAG RATE

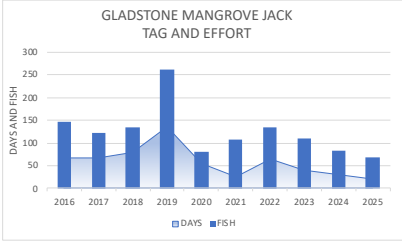
Mangrove Jack
Tagged (1249)
Recaptured (124)
2016-2025
2025 Jan-Jun

High	Low	Now
Fish tagged		
2019	2020	2025
262	80	69
Recaptured (9.9%)		
2019	2024	2025
29	5	3



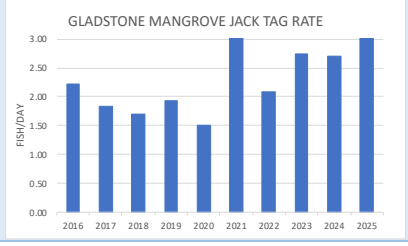
Taggers
Days fished
Tagged fish
2016-2025
2025 Jan-Jun

High	Low	Now
Fisher days		
2019	2021	2025
136	26	20
Catch		
2019	2020	2025
262	81	69

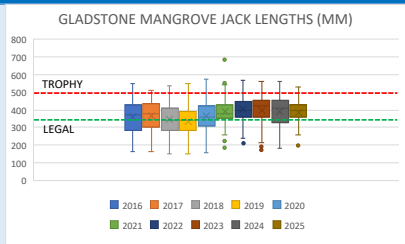
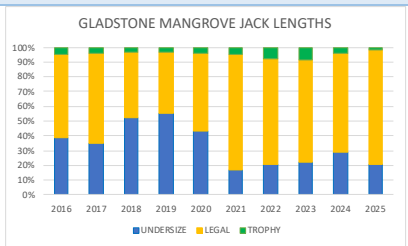


Tag rate
Fish/day
2016-2025
2025 Jan-Jun

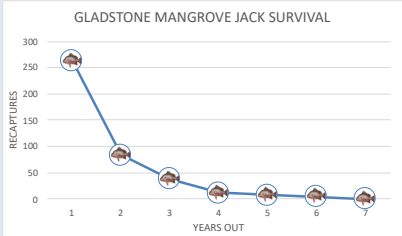
High	Low	Now
Catch rate		
2021	2017	2025
4.2	1.8	3.5



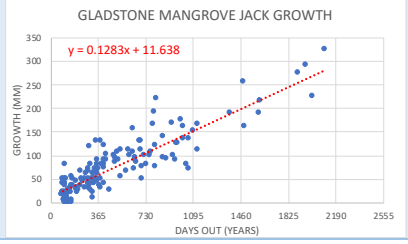
LENGTHS

Tag lengths of fish (mm) **Bars show length range** **Dots show outliers** **2016-2025** **2025 Jan-Jun**	High Low Now Average length (mm) 2022 2019 2025 400 336 385 Max length (mm) 2021 2017 2025 685 510 530	
Percentage **Undersize <350mm** **Legal 350-500mm** **Trophy 500+mm** **2016-2025** **2025 Jan-Jun**	High Low Now Legal-trophy 2021 2019 2025 79% 42% 78% Trophy 2023 2019 2025 9% 3% 1%	

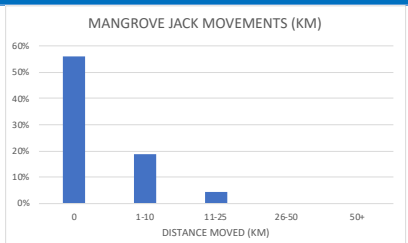
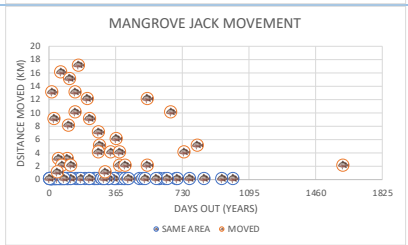
SURVIVAL

Years survival after tagging **All years**	Survival rate by years out Year Recaptures 1 264 2 84 5 8 5.8 (max) 1	

GROWTH

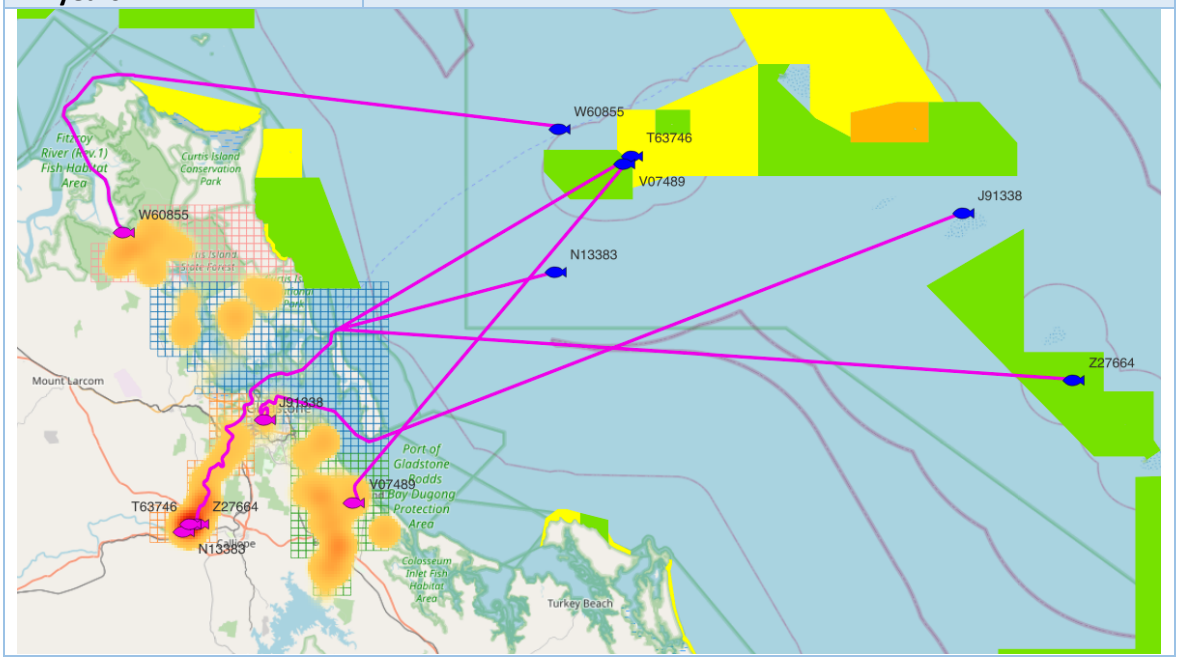
Growth (mm/year) **All years**	Growth at end of year (mm) Year 1 58 Year 2 105 Year 3 152 Year 4 199	

MOVEMENT

Mangrove Jack distance moved (km) **2016-2025** **2025 Jan-Jun**	Recaptures 93 Same area 65 (56%) 1-10km 22 (19%) 11-25km 5 (4%) >25km 1 (1%)	
Mangrove Jack movement over time **Distance (km)** **Time (days)** **2016-2025** **2025 Jan-Jun**	Furthest moved 108km Days out 796	

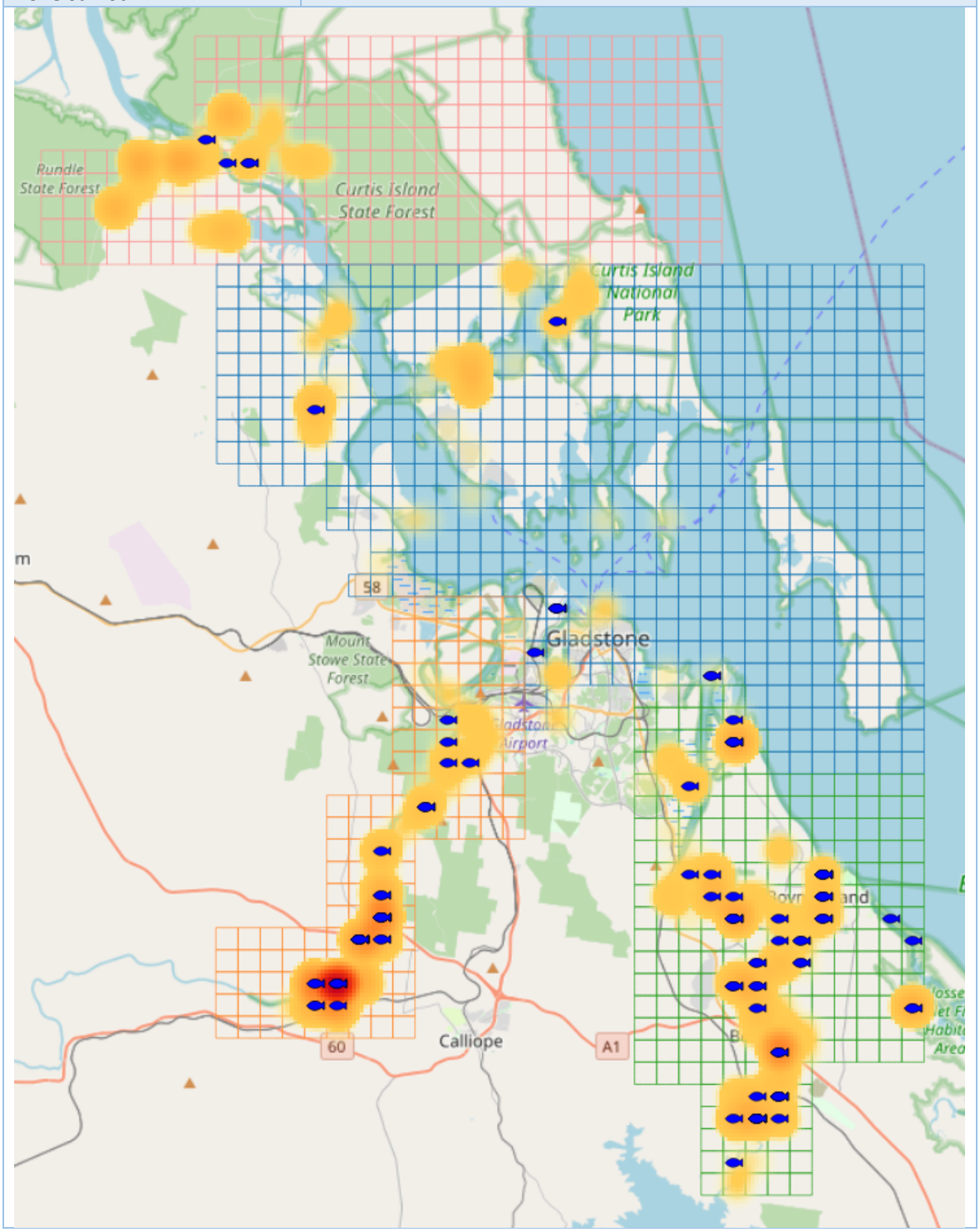
OFFSHORE MOVEMENT

Mangrove Jack **Offshore recaptures** **Tagged (pink fish)** **Recaptured (blue fish)** **All years**	Z27664 recaptured prior to GBRMPA zoning as green zone



LOCATIONS

Mangrove Jack **Tagged (972)** **(red-orange heat map)** **Recaptured (129)** **(blue dots)** **2016-2025** **2025 Jan-Jun**	Tagged excludes fish tagged during Boyne Tannum Hook Up



YELLOWFIN BREAM	ACTUAL	GRAPH or MAP

DATA RELIABILITY

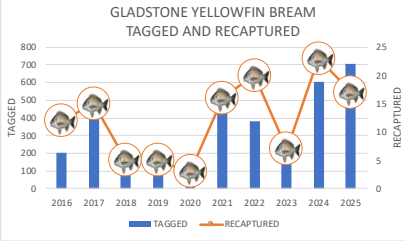
Sample size (fish/year)
Tagged (blue arrow)
Recaptures (orange arrow)
Confidence %
Error %
2021-2025

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%

TAGGED

Yellowfin Bream
Tagged (3753)
Recaptured (123)
2016-2025
2025 Jan-Jun

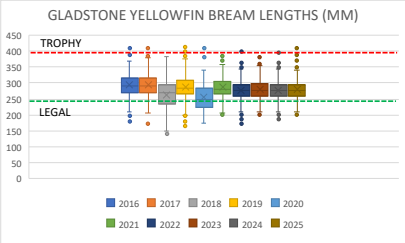
High	Low	Now
Fish tagged		
2021	2020	2025
605	61	706
Recaptured (3.5%)		
2022	2020	2025
20	3	17



LENGTHS

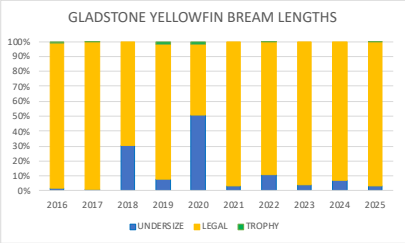
Lengths of fish (mm)
Bars show length range
Dots show outliers
2016-2025
2025 Jan-Jun

High	Low	Now
Average length		
2017	2020	2025
294	256	282
Max length		
2019	2018	2025
415	385	410



Fish lengths percentage
Undersize <250mm
Legal 250-400mm
Trophy 400+mm
2016-2025
2025 Jan-Jun

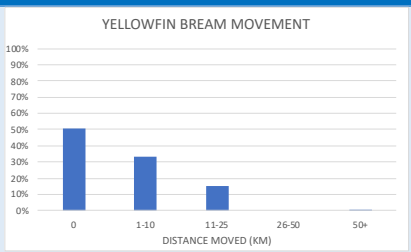
High	Low	Now
Legal-trophy		
2017	2020	2025
98%	48%	96%
Trophy		
2020	21-24	2025
2%	0%	0%



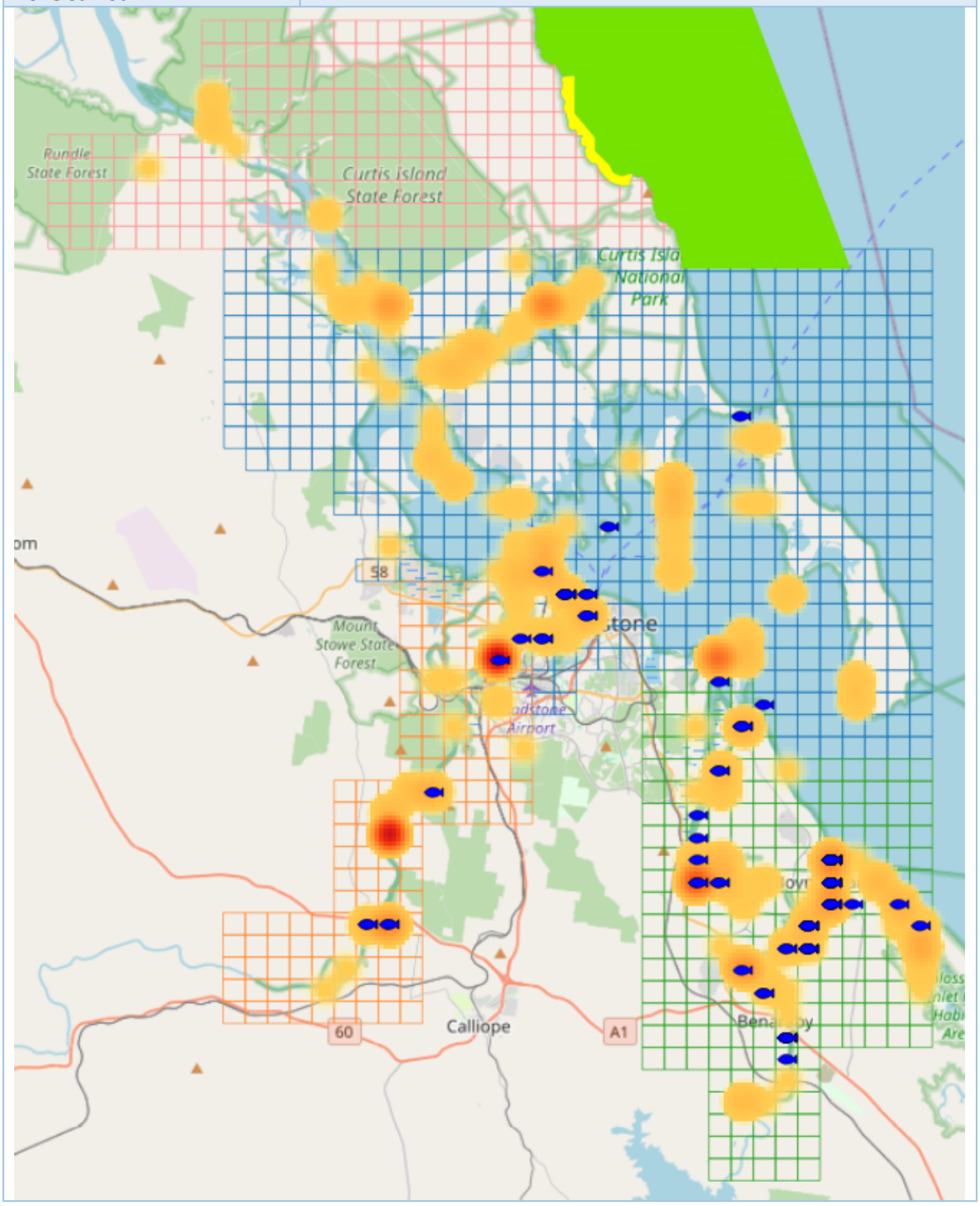
MOVEMENT

Yellowfin Bream
movement (km)
2016-2025
2025 Jan-Jun

Recaptures	118
Same area	60 (51%)
1-10km	39 (33%)
11-25km	18 (15%)
Over 25km	1 (1%)

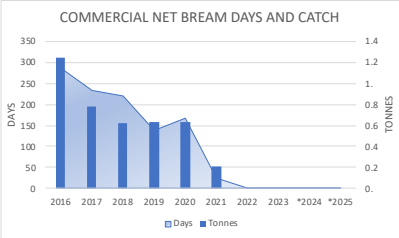


LOCATIONS		
Yellowfin Bream **Tagged (red-orange heat map)** **Recaptured (blue fish)** **2016-2025** **2025 Jan-Jun**	Tagged (533) Recaptured (119) Tagged excludes fish tagged during Boyne Tannum Hook Up	

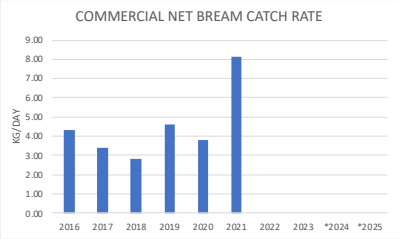


COMMERCIAL CATCH

Commercial catch Bream (Yellowfin and Pikey) Qfish grid S30 Days fished Catch tonnes 2016-2025 *2024 *2025 incomplete	High	Low	Now
	Catch (t)		
	2016	2021	2025
	3.8	0.3	NA
	Days		
	2016	2021	2025
	195	34	NA



Commercial catch Bream (Yellowfin and Pikey) Qfish grid S30 Catch rate (kg/day) 2016-2025 *2024 *2025 incomplete	High	Low	Now
	Catch rate (kg/day)		
	2014	2021	2025
	43.5	10.0	NA



PIKEY BREAM	ACTUAL	GRAPH or MAP

DATA RELIABILITY

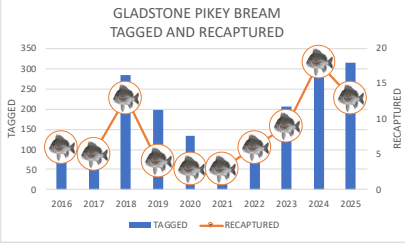
Sample size (fish/year)
Tagged (blue arrow)
Recaptures (orange arrow)
Confidence %
Error %
2021-2025

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%

TAGGED

Pikey Bream
Tagged (1758)
Recaptured (80)
2016-2025
2025 Jan-Jun

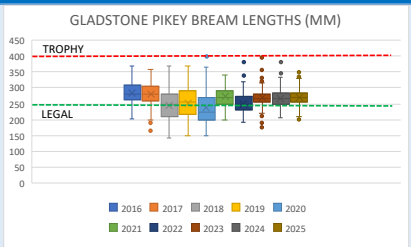
High	Low	Now
Fish tagged		
2018	2021	2025
284	51	313
Recaptured (4.6%)		
2018	2021	2025
13	3	13



LENGTHS

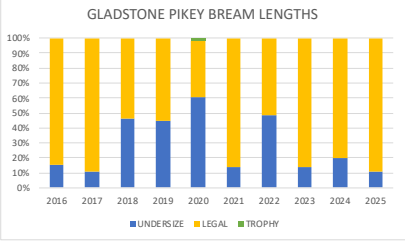
Lengths of fish (mm)
Bars show length range
Dots show outliers
2016-2025
2025 Jan-Jun

High	Low	Now
Average length		
2016	2020	2025
284	239	269
Max length		
2020	2021	2025
400	340	360



Fish lengths percentage
Undersize <400mm
Legal 400-600mm
Trophy 600+mm
2016-2025
2025 Jan-Jun

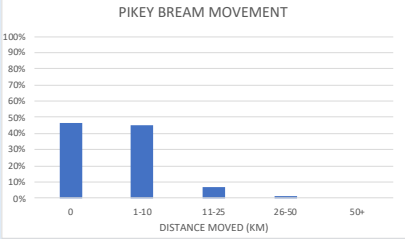
High	Low	Now
Legal-trophy		
2017	2020	2025
89%	38%	89%
Trophy		
No trophy fish any year except 2020		



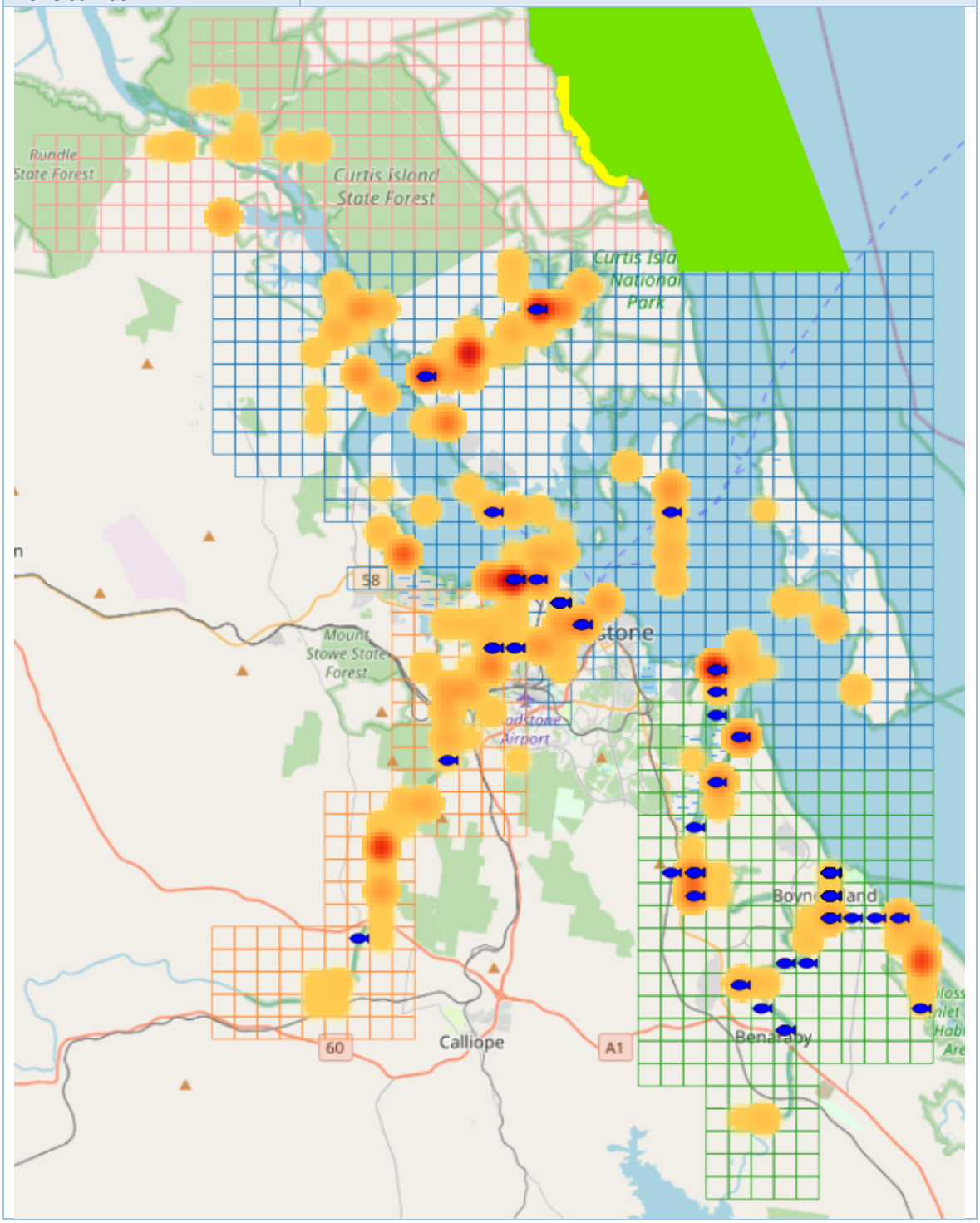
MOVEMENT

Pikey Bream movement (km)
2016-2025
2025 Jan-Jun

Recaptures	71
Same area	33 (46%)
1-10km	32 (45%)
11-25km	5 (7%)
Over 25km	1 (1%)



LOCATIONS	
Pikey Bream **Tagged (red-orange heat map)** **Recaptured (blue fish)** **2016-2025** **2025 Jan-Jun**	Tagged (773) Recaptured (80) Tagged excludes fish tagged in Boyne Tannum Hook Up



BARRED JAVELIN | ACTUAL | GRAPH or MAP

Change in size composition in 2024 due to Javelin no longer included in live fish weigh-in at BTHU. In previous years legal fish were included in live weigh-in.

DATA RELIABILITY

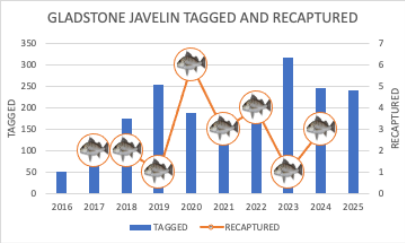
Sample size (fish/year)
Recaptured (blue arrow)
Tagged (orange arrow)
Confidence %
Error %
2021-2025

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%

TAGGED

Javelin
Tagged (1941)
Recaptured (22)
2016-2025
2025 Jan-Jun

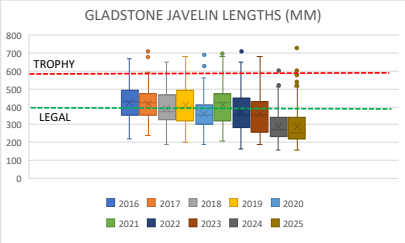
	High	Low	Now
Fish tagged			
	2023	2016	2025
	317	52	240
Recaptured (1.3%)			
	2020	2016	2025
	6	0	0



LENGTHS

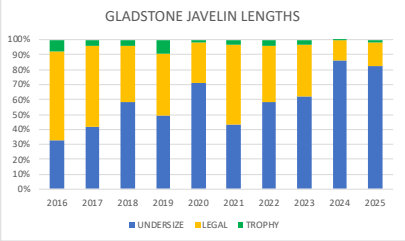
Lengths of fish (mm)
Bars show length range
Dots show outliers
2016-2025
2025 Jan-Jun

	High	Low	Now
Average length			
	2016	2023	2025
	425	359	291
Max length			
	2022	2018	2025
	710	650	730



Fish lengths percentage
Undersize <400mm
Legal 400-600mm
Trophy 600+mm
2016-2025
2025 Jan-Jun

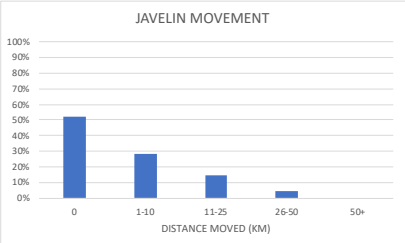
	High	Low	Now
Legal-trophy			
	2016	2020	2025
	60%	27%	16%
Trophy			
	2019	2020	2025
	9%	2%	2%



MOVEMENT

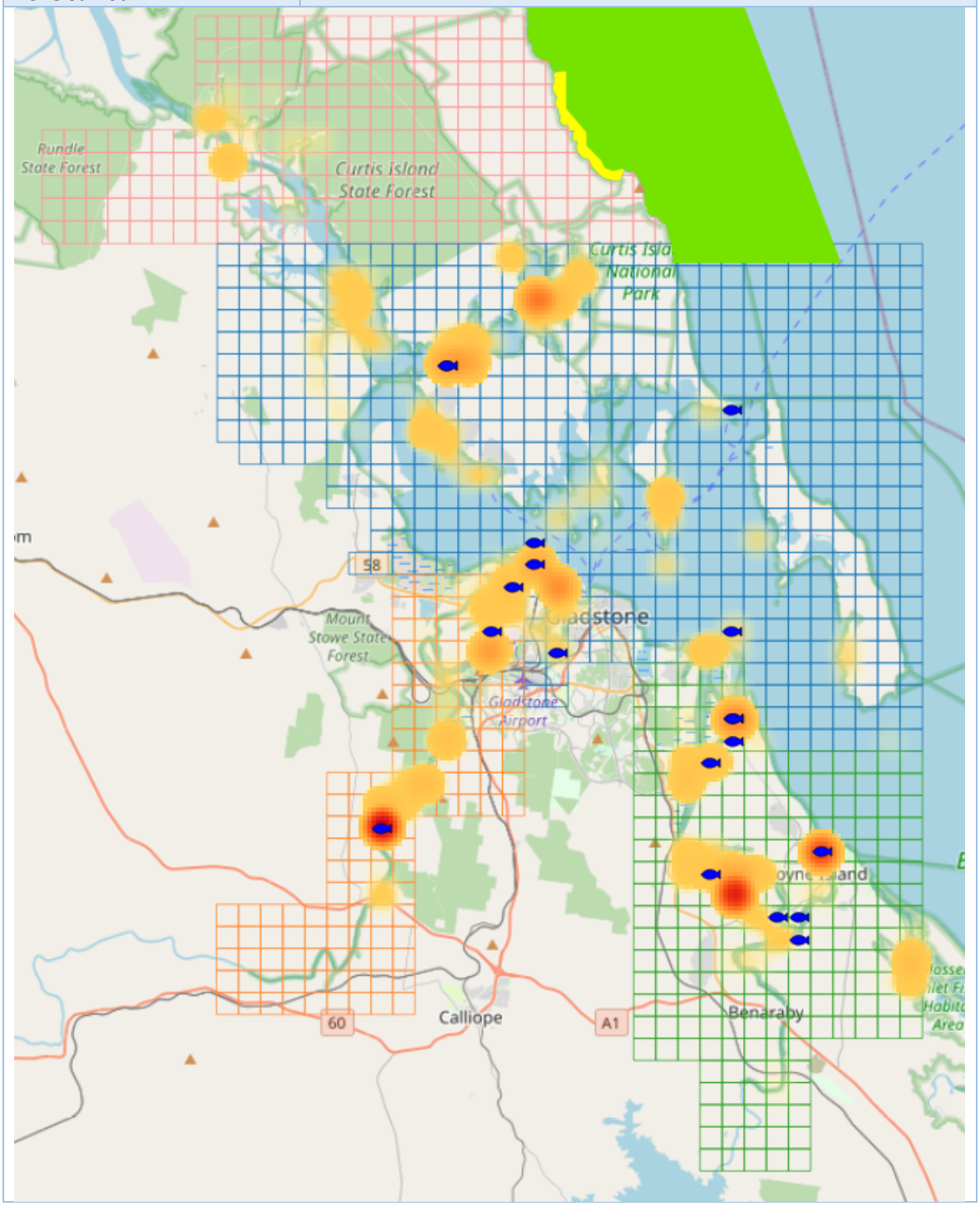
Javelin movement (km)
2016-2025
2025 Jan-Jun

Recaptures	21
Same area	11 (52%)
1-10km	6 (29%)
11-25km	3 (14%)
Over 25km	1 (5%)

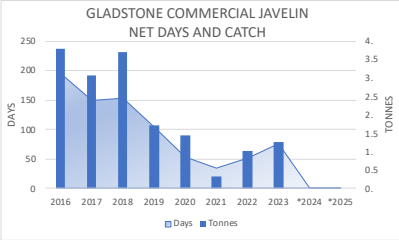
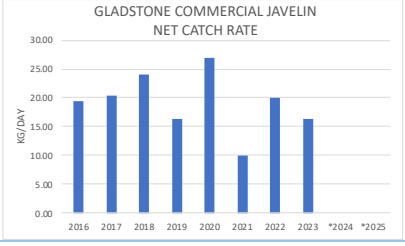


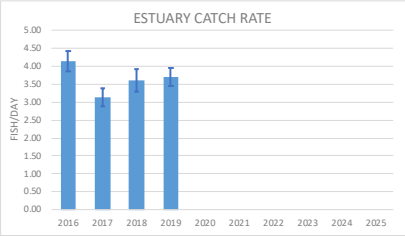
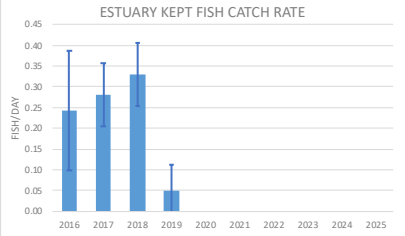
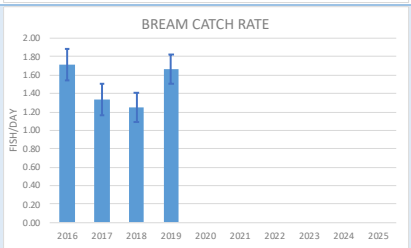
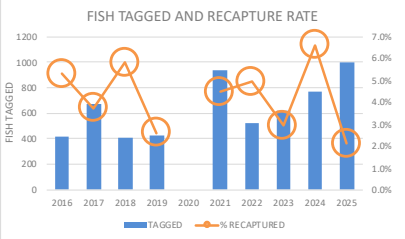
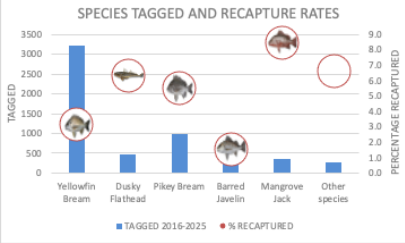
LOCATIONS

Barred Javelin **Tagged (red-orange heat map)** **Recaptured (blue fish)** **2016-2025** **2025 Jan-Jun**	Tagged (1,482) Recaptured (22) Tagged excludes fish tagged at Boyne Tannum Hook Up

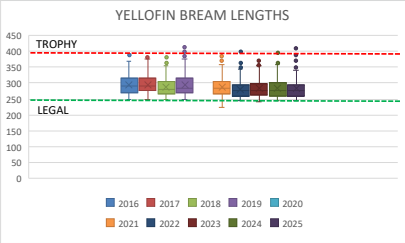
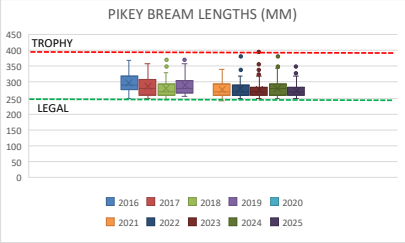
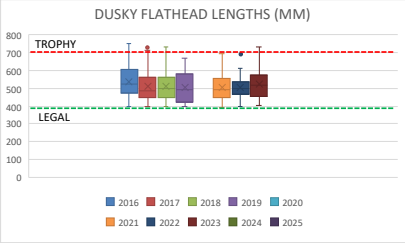
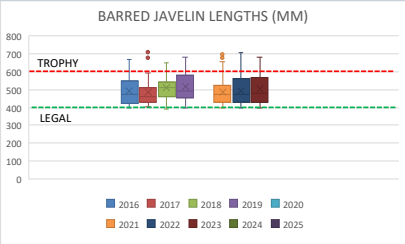
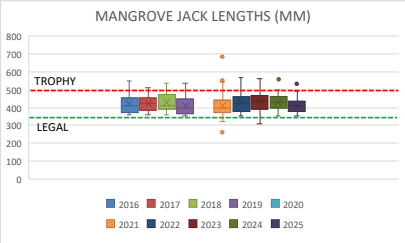


COMMERCIAL CATCH

Commercial catch Javelin	High	Low	Now	
Qfish grid S30	Catch (t)			
Days fished	2016	2021	2025	
Catch tonnes	3.8	0.3	NA	
2016-2025	Days			
***2024 *2025 incomplete**	2016	2021	2025	
	195	34	NA	
Commercial catch	High	Low	Now	
Qfish grid S30	Catch rate (kg/day)			
Catch rate (kg/day)	2014	2021	2025	
2016-2025	43.5	10.0	NA	
***2024 *2025 incomplete**				

COMPETITIONS	ACTUAL	GRAPH or MAP
	Boyne Tannum Hookup 2016-2025 Event cancelled in 2020 due to Covid-19 restrictions	
BOAT RAMP SURVEYS		
Boat ramp surveys **Estuary catch rates** **(fish/day)** **2016-2025** **(no surveys after 2019)**	High Low Now Catch rate 2016 2017 2025 4.2 3.1 NA	
Boat ramp surveys **Estuary catch rates** **(fish kept/day)** **2016-2025** **(no surveys after 2019)**	High Low Now Kept fish catch rate 2018 2019 2025 0.3 0.05 NA	
Boat ramp surveys **Bream catch** **(Yellowfin and Pikey)** **(Fish/day)** **2016-2025** **(no surveys after 2019)**	High Low Now Bream catch rate 2016 2018 2025 1.7 1.3 NA	
TAGGED		
Live weigh-in **Fish tagged** **Recaptures from each year** **2016-2025** **2025* more recaptures to come**	High Low Now Fish tagged 2021 2018 2025 938 412 998 Recaptured (%) 2024 2023 2025* 6.6% 2.9% 2.1%	
Species **Tagged** **Recapture rates (%)** **2016-2025**	Recapture rate Yellowfin Bream 3.1% Dusky Flathead 6.4% Pikey Bream 5.5% Barred Javelin 1.5% Mangrove Jack 8.4%	

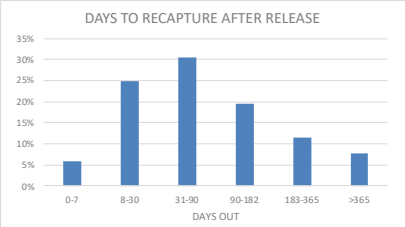
LENGTHS

Lengths of fish (mm) **Yellowfin Bream** **Bars show length range** **Dots show outliers** **2016-2025**	High Average length 2019 296 Max length 2019 415	Low 2022 281 2023 380	Now 2025 282 2025 410	
Lengths of fish (mm) **Pikey Bream** **Bars show length range** **Dots show outliers** **2016-2025**	High Average length 2016 297 Max length 2023 395	Low 2023 277 2021 340	Now 2025 275 2025 360	
Lengths of fish (mm) **Dusky Flathead** **Bars show length range** **Dots show outliers** **2016-2025**	High Average length 2016 538 Max lengt h 2016 750	Low 2022 507 2019 670	Now 2025 NA 2025 NA	
Lengths of fish (mm) **Barred Javelin** **Bars show length range** **Dots show outliers** **2016-2025**	High Average length 2019 512 Max length 2017 710	Low 2013 464 2013 630	Now 2025 NA 2025 NA	
Lengths of fish (mm) **Mangrove Jack** **Bars show length range** **2016-2025**	High Average length 2018 429 Max length 2021 685	Low 2021 408 2017 510	Now 2025 410 2025 530	

MOVEMENT

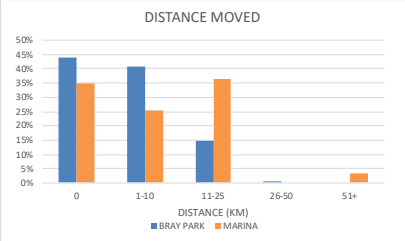
Days to recapture after release
Bray Park
Gladstone Marina
2016-2025

Days out	
0-7	14 (6%)
8-30	60 (25%)
31-90	74 (31%)
91-182	47 (19%)
183-365	28 (12%)
>365	19 (8%)

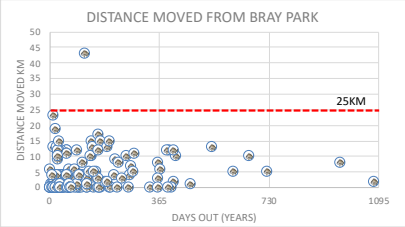


Tagged fish released at Bray Park
Gladstone Marina
Distance moved (km)
2016-2025

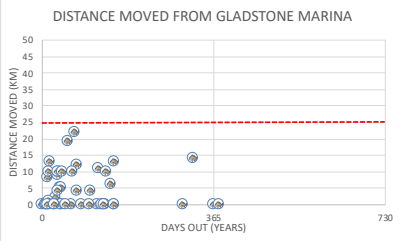
	Bray Park	Marina
Same area	44%	35%
1-10	41%	25%
11-25	15%	37%
Over 25	1%	3%
Max distance	43	135
Recaps	184	63



Distance moved from Bray Park
2016-2025

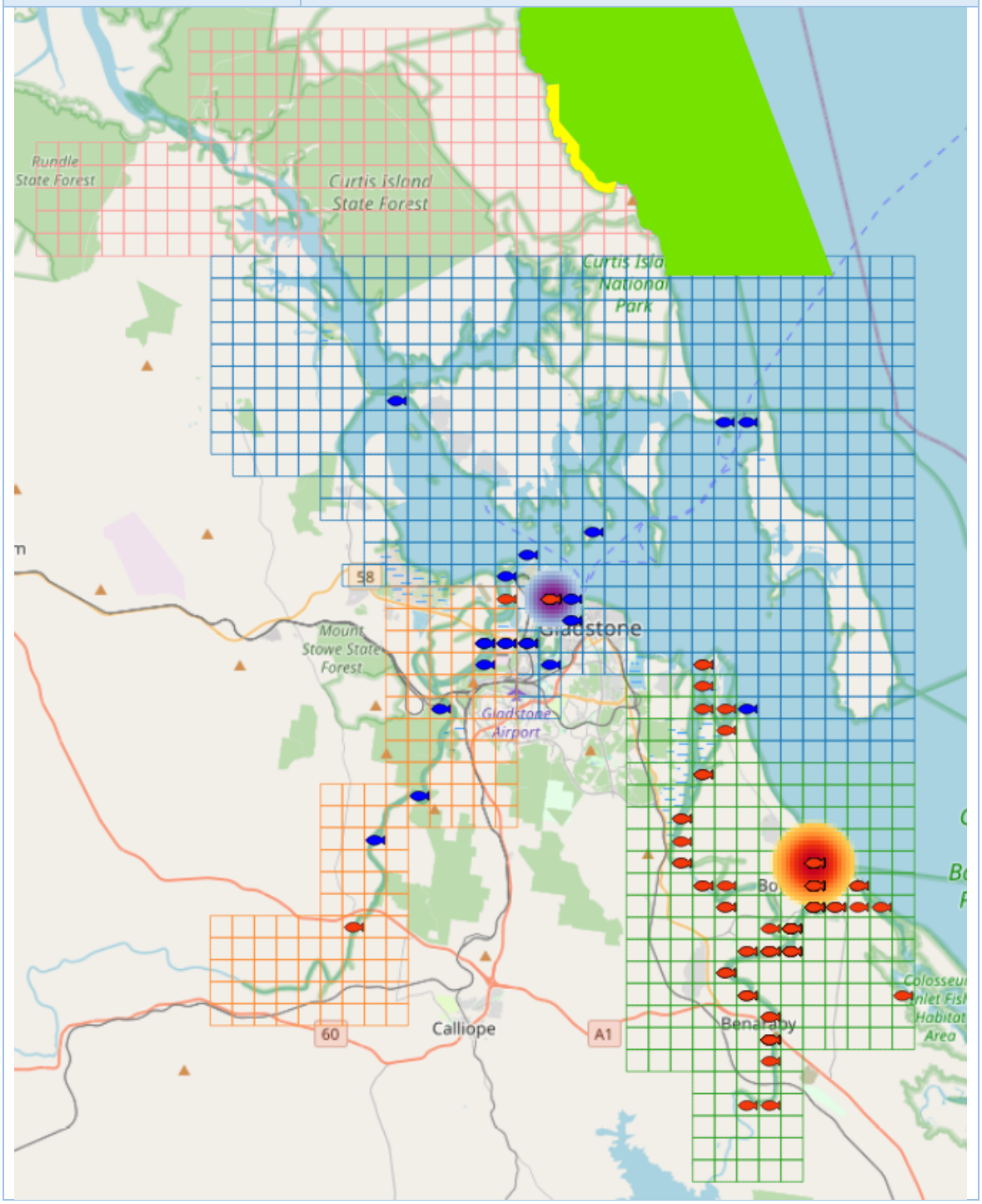


Distance moved from Gladstone Marina
2016-2025

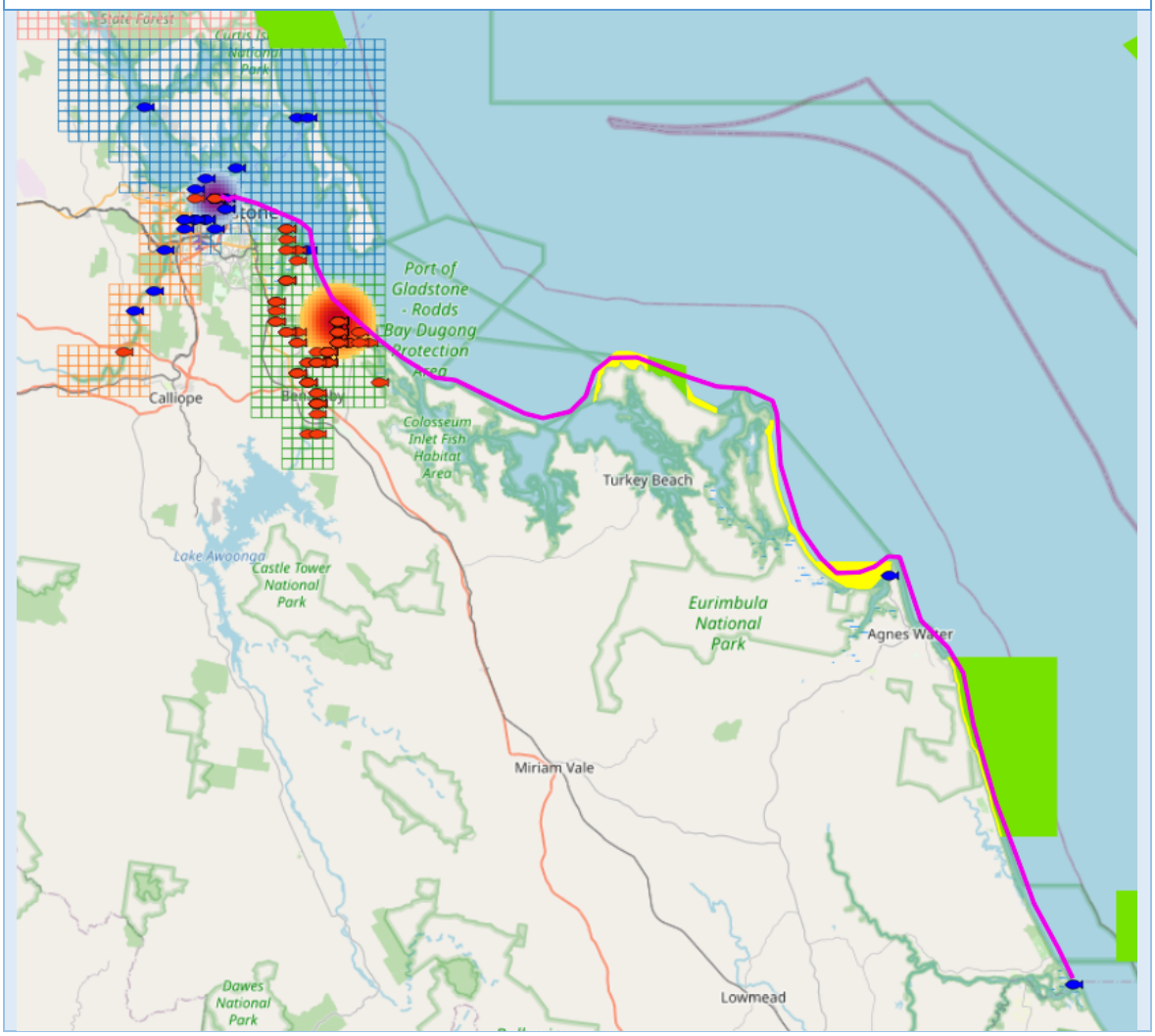


LOCATIONS

Recaptures of BTHU tagged fish **Bray Park** **Gladstone Marina** **2016-2025**	Bray Park tagged (red-orange heat map) recaptures (red fish) Marina (purple-blue heat map) recaptures (blue fish)



Recaptures of Flathead tagged in Boyne Tannum Hook Up moved outside area 2016-2025



Data sources

Data used in the Gladstone Crystal Bowl are:

- Tag records and recapture records at http://crystalbowl.infofishaustralia.com.au/.
- Boyne Tannum Hook Up competition records at http://crystalbowl.infofishaustralia.com.au/.
- Calliope River flows from Castlehope Station 132001A at https://water-monitoring.information.qld.gov.au/.
- Gladstone rainfall from Gladstone Airport station 039326 from http://www.bom.gov.au/climate/data/index.shtml
- Awoonga Dam level data provided by Gladstone Area Water Board.

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 T20 fishers (taggers) with a minimum of 12 fisher days (at least 1 per month) to provide a reliable catch rate.
- Recapture rates relate to fish tagged in a particular year.
- Growth calculated using logarithmic curve from recaptures where fish were out for 90 days or more and had positive growth.
- Survival rates are calculated based on a model that uses the reduction in the numbers of recaptures each year after tagging.
- Movement distances calculated as the shortest distance by water from the tag to recapture location using Google Earth.
- Proxy travel distance from the recapture fisher's home (address, suburb, city or postcode) to the recapture location is the straight-line distance between locations based on Google Earth coordinates with local <60km, intrastate >=60km and Qld postcodes, and interstate postcodes other than Qld.
- Gender based on names of recapture fishers excluding taggers.