

RODDS HARBOUR REVIEW 2025	
INFORMATION RATING	★ ★ ★
<p>Key species: Dusky Flathead, Mangrove Jack, Barred Javelin</p> <p>Fish timeframe: 2016-2025</p> <p>Fisher timeframe: 2021-2025</p> <p>Scroll through the dashboard to cover all subjects or for information on a specific subject go to:</p> <p>RODDS HARBOUR OVERVIEW</p> <p>RODDS HARBOUR LOCATION</p> <p>TYPE OF FISHERY</p> <p>FISHER ACTIVITY</p> <p>FISHER EFFORT</p> <p>WHERE RECAPTURE FISHERS LIVE</p> <p>KEY SPECIES</p> <p>COMMERCIAL CATCH</p> <p>DUSKY FLATHEAD</p> <p>MANGROVE JACK</p> <p>BARRED JAVELIN</p>	

RODDS HARBOUR OVERVIEW

Summary of 2025

- Rodds harbour is mostly fished by locals and is primarily a harvest fishery.
- Tagging this year has remained at a lower level than prior to the very wet year in 2022.
- Live scope sounders have changed fisher behaviour with increased targeting of Barred Javelin.

There are no rivers that flow into Rodds Harbour. It includes Wild Cattle Creek (part), Colosseum Inlet, Boyne Creek, 7 Mile Creek and Worthington Creek. It also includes Hummock Hill Island and Rodds Peninsula. Turkey Beach is a small town in the area with sparse population elsewhere.

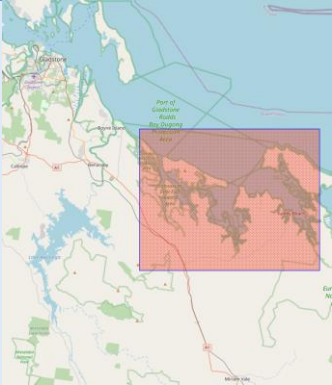
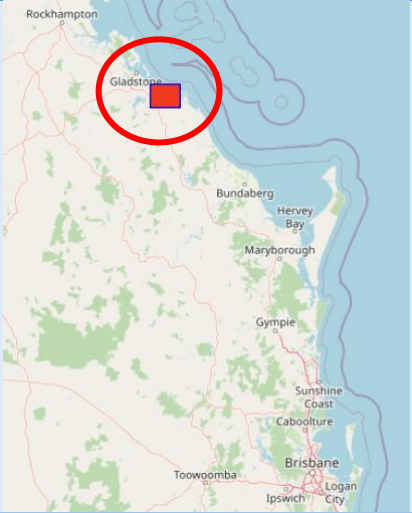

Rodds Harbour is mostly fished by locals from around Rodds Harbour and from the Gladstone area with a smaller group coming from other centres in Central Qld. It also attracts a small number of fishers from further afield in Qld but very limited from interstate.

Key target species for taggers are Dusky Flathead, Mangrove Jack and Barred Javelin accounting for 75% of fish tagged and these would be the main species caught by recreational fishers along with Bream. Tagging effort has shifted from Flathead to Javelin in the last few years. This was mainly due to a change in the taggers fishing the area having different species preferences, Javelin are more visible using the latest live scope sounder technology and are responsive to soft plastic lures. There has been an increase in tagging of legal length Javelin.

A very wet year in 2022 resulted in a fall in both tagging effort and recaptures and that reduction in the effort continued through 2023 and 2024, with a slight increase in 2025.

The retention of tagged fish by recreational fishers (other than taggers) suggests there is a high level of harvest of legal fish, particularly for Javelin and Flathead.

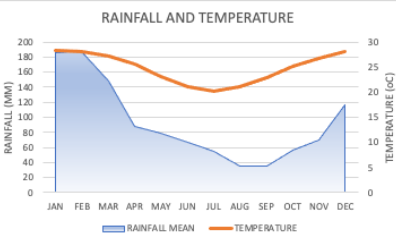
Few tagged fish have been recaptured outside the harbour area except for Mangrove Jack where 3 fish have been recaptured offshore. Mangrove Jack move to offshore reef habitats when they mature.

RODDS HARBOUR LOCATION		
	<p>Turkey Beach 24.1°S 151.65°E</p>	
WATERWAYS		
<p>Map Rodds Harbour RBT</p>	<p>Wild Cattle Creek Colosseum Inlet Boyne Creek 7 Mile Creek Turkey Beach Worthington Creek</p>	

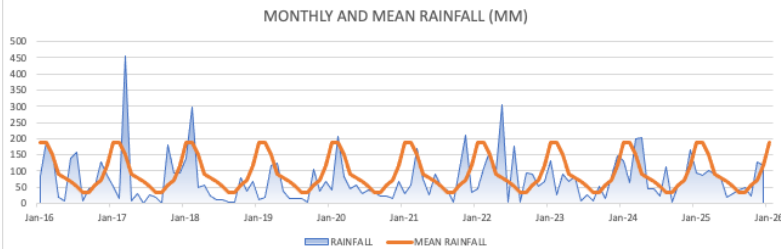
ENVIRONMENTAL CONDITIONS

Rodds Harbour
Mean monthly rainfall
(mm)
Mean monthly max
temperature (°C)

Rainfall	Month	mm
Highest	Feb	188
	Jan	185
Temp	Month	°C
	Dec-Feb	28



Monthly rainfall
Mean monthly rainfall
(mm)
2016-2025



TYPE OF FISHERY		
DATA RELIABILITY		
Sample size (days fished)		
Tag days (blue arrow)		
Recaptures (orange arrow)		
Confidence %		
Error %		
2021-2025		
Fishing conditions	Best fishing key species	
Average rainfall (mm)	Jan-May	
Mean maximum day temperature (°C)	Sep-Dec	
Monthly effort	Most days fished	
Mean monthly rainfall	Combined	Jan
Days fished combined		Dec
Taggers		Apr
Recapture fishers		
2021-2025		
Harvest or experiential fishery	Key species legal fish kept rate	
Release rate of recaptured legal fish of key species (ex-taggers)	Legal fish	52
2016-2025	Kept	44 (85%)
	Released	8 (15%)
Local or visitor fishery	Recapture fishers	65
Where recapture fishers live	Local	49 (75%)
2021-2025	Visitors	14 (25%)
Gender of recapture fishers (ex-taggers)	Recapture fishers	37
2021-2025	Female	3 (8%)
	Male	34 (92%)

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%		

RODD'S HARBOUR FISHING CONDITIONS

200
180
160
140
120
100
80
60
40
20
0

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

BEST FISHING TIMES

BEST FISHING TIMES

RAINFALL (MM)

TEMPERATURE (°C)

RAINFALL

TEMPERATURE

FISHING SEASONALITY

200
180
160
140
120
100
80
60
40
20
0

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

RAINFALL (MM)

TEMP (°C)

DAYS FISHED

RAINFALL MEAN

TEMPERATURE

DAYS FISHED

FATE OF RECAPTURED LEGAL FISH

HARVEST

EXPERIENTIAL

0% 20% 40% 60% 80% 100%

KEPT

RELEASED

TYPE OF FISHER

LOCAL

VISITOR

0% 20% 40% 60% 80% 100%

LOCAL

INTRASTATE

INTERSTATE

GENDER OF RECAPTURE FISHERS

MALE

FEMALE

0% 20% 40% 60% 80% 100%

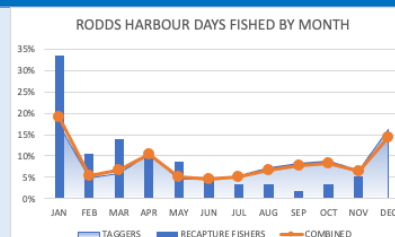
MALE

FEMALE

FISHER ACTIVITY

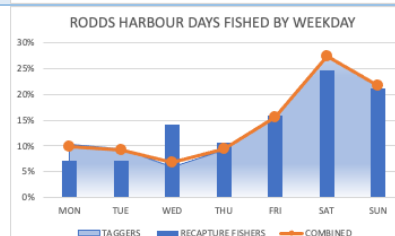
Monthly activity
Days fished combined
Taggers (441)
Recapture fishers (57)
2021-2025

Most days
Month
Jan 19%
Dec 14%



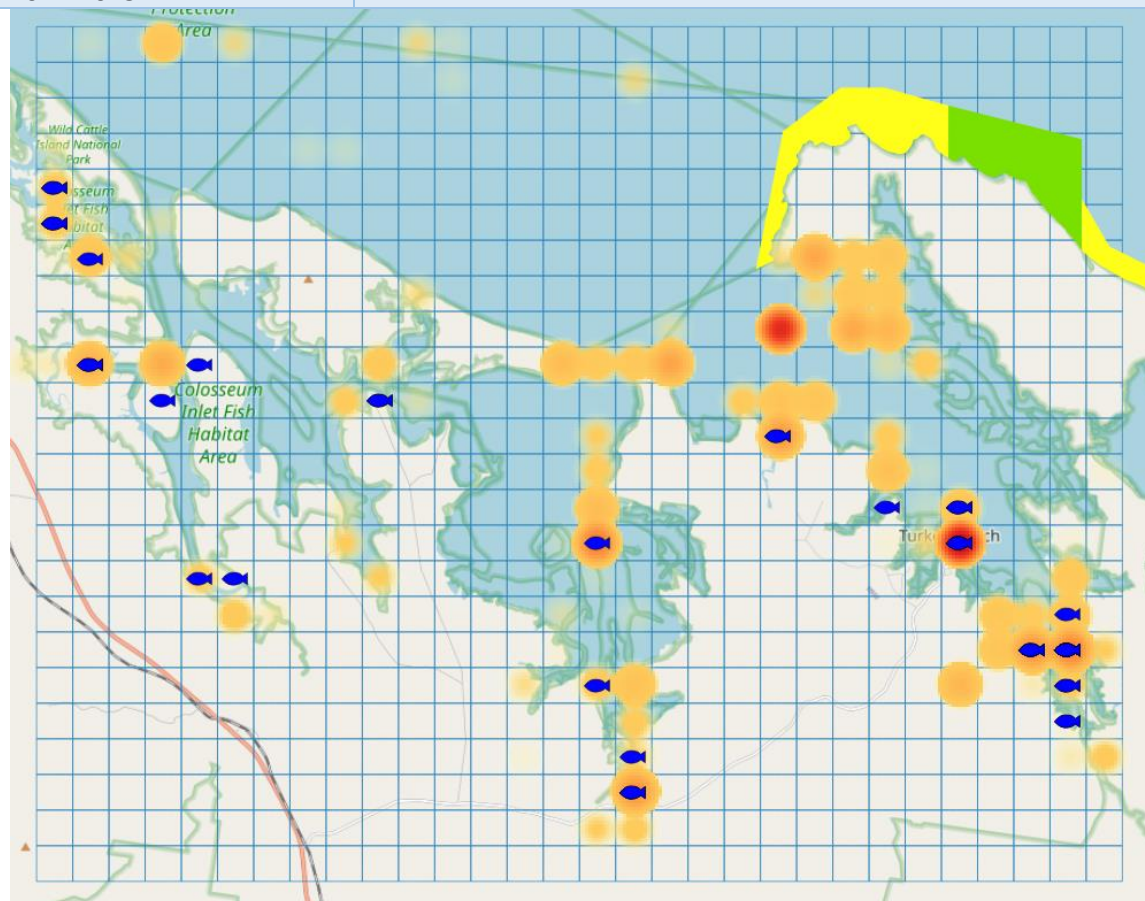
Weekday activity
Days fished combined
Taggers (441)
Recapture fishers (57)
2021-2025

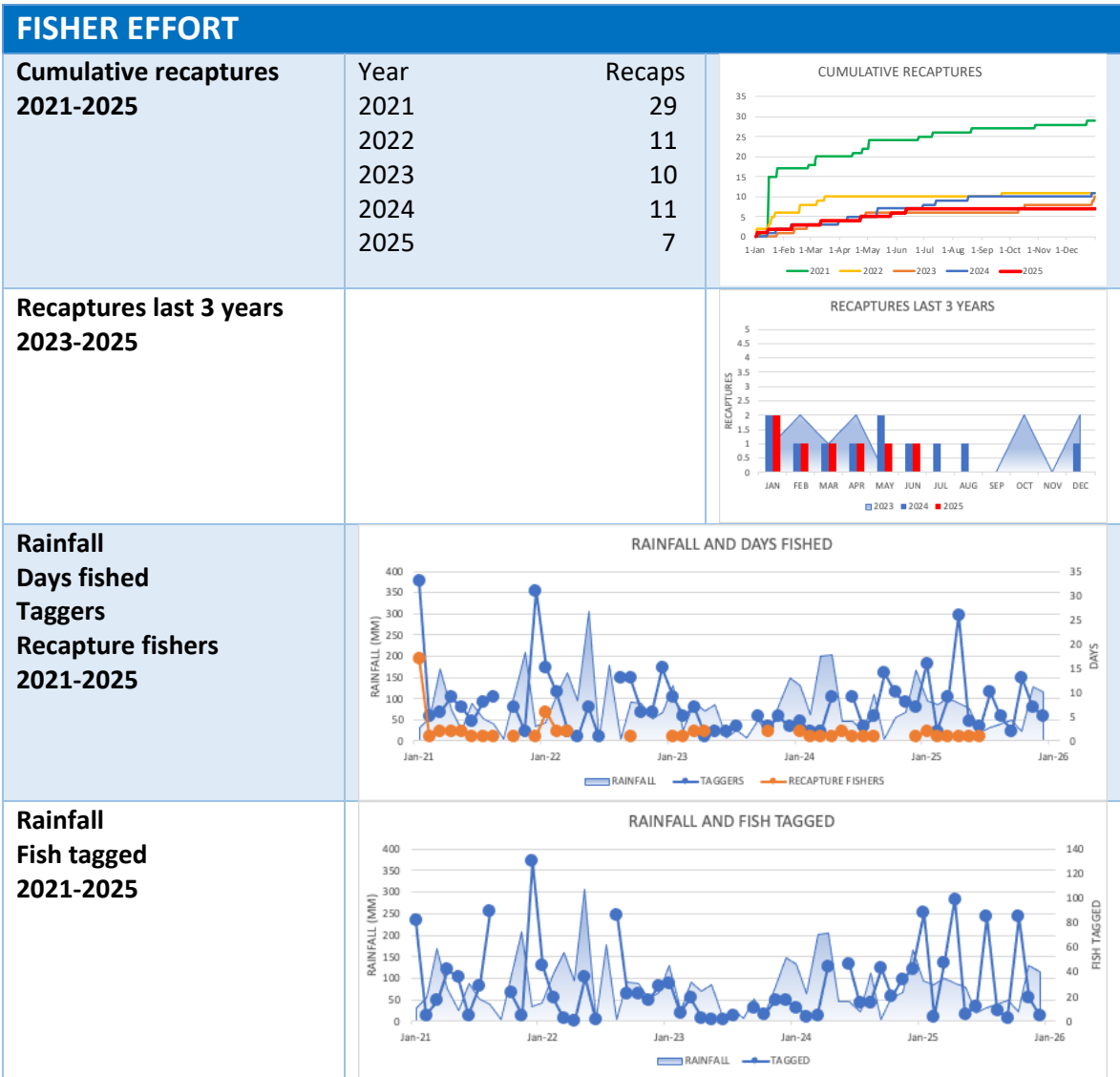
Most
Day
Weekend 49%
Weekdays 51%

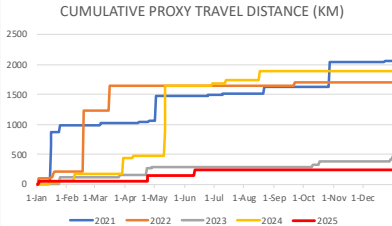
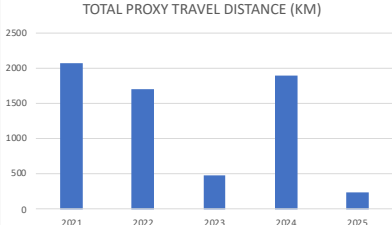
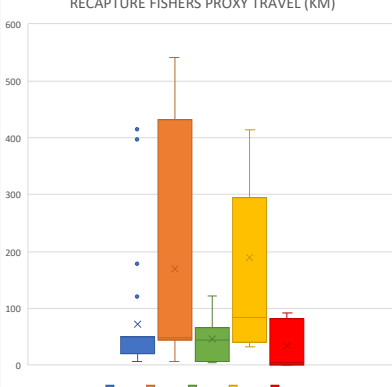
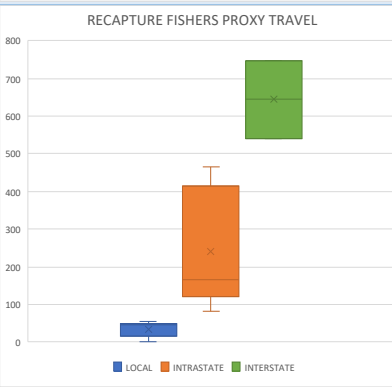
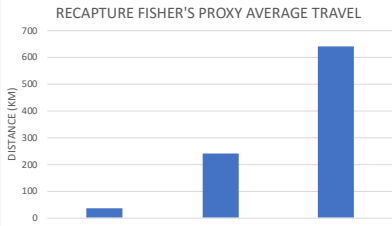


Location activity
Taggers (red-orange heat map)
Recapture fishers (blue fish)
2021-2025

Tagged 1658
Recaptured 68



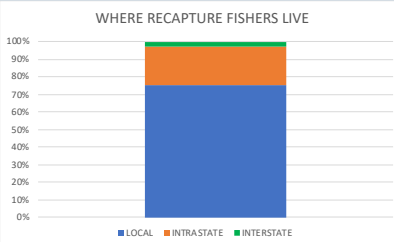


FISHER TRAVEL		
Cumulative distance (km) home to recapture location 2021-2025		
Total distance (km) home to recapture location 2021-2025	Year 2021 2022 2023 2024 2025	Km 2060 1702 472 1888 237 
Distance (km) home to recapture location Bars show distance range Dots show outliers 2021-2025		
Distance (km) home to recapture location Bars show distance range Dots show outliers 2021-2025	Local Intrastate Interstate	Range (km) 1-54 82-465 540-748 
Average distance (km) From home to recapture location 2021-2025	Local Intrastate Interstate	Av distance (km) 34 240 644 

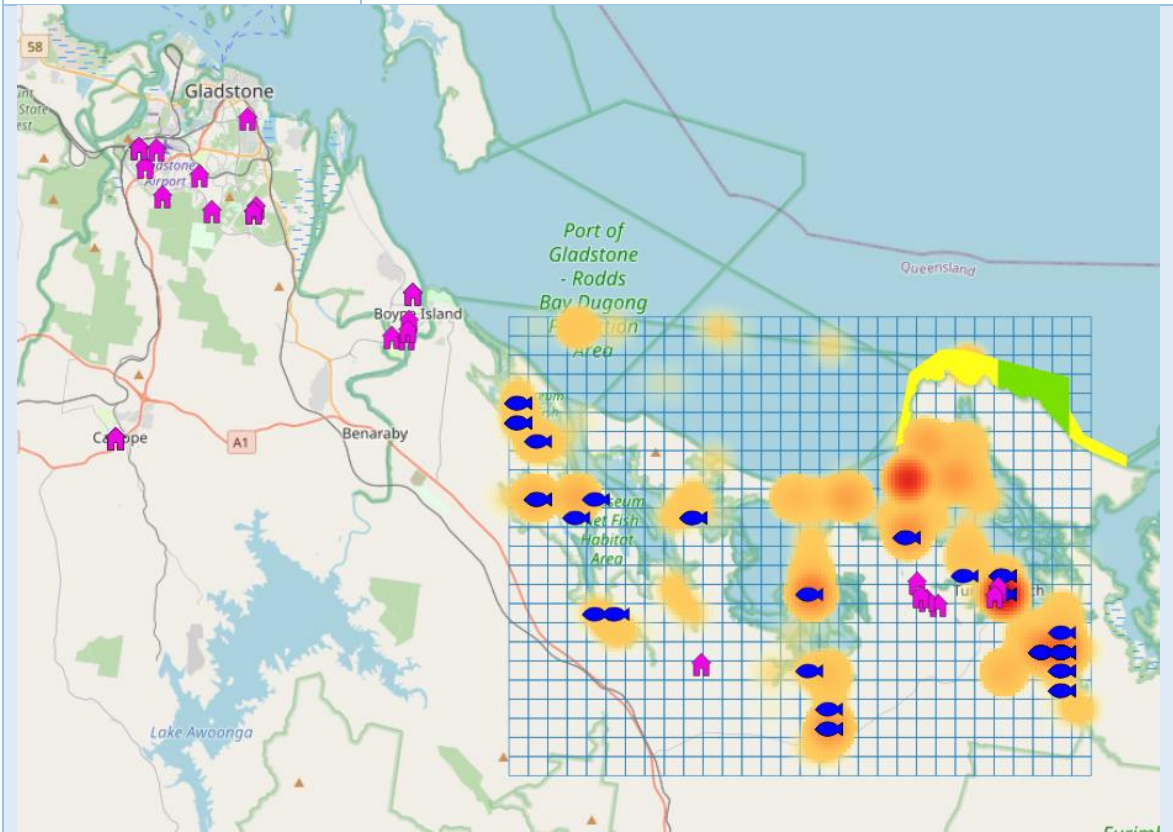
WHERE RECAPTURE FISHERS LIVE

Where fishers recapturing
fish live
2021-2025

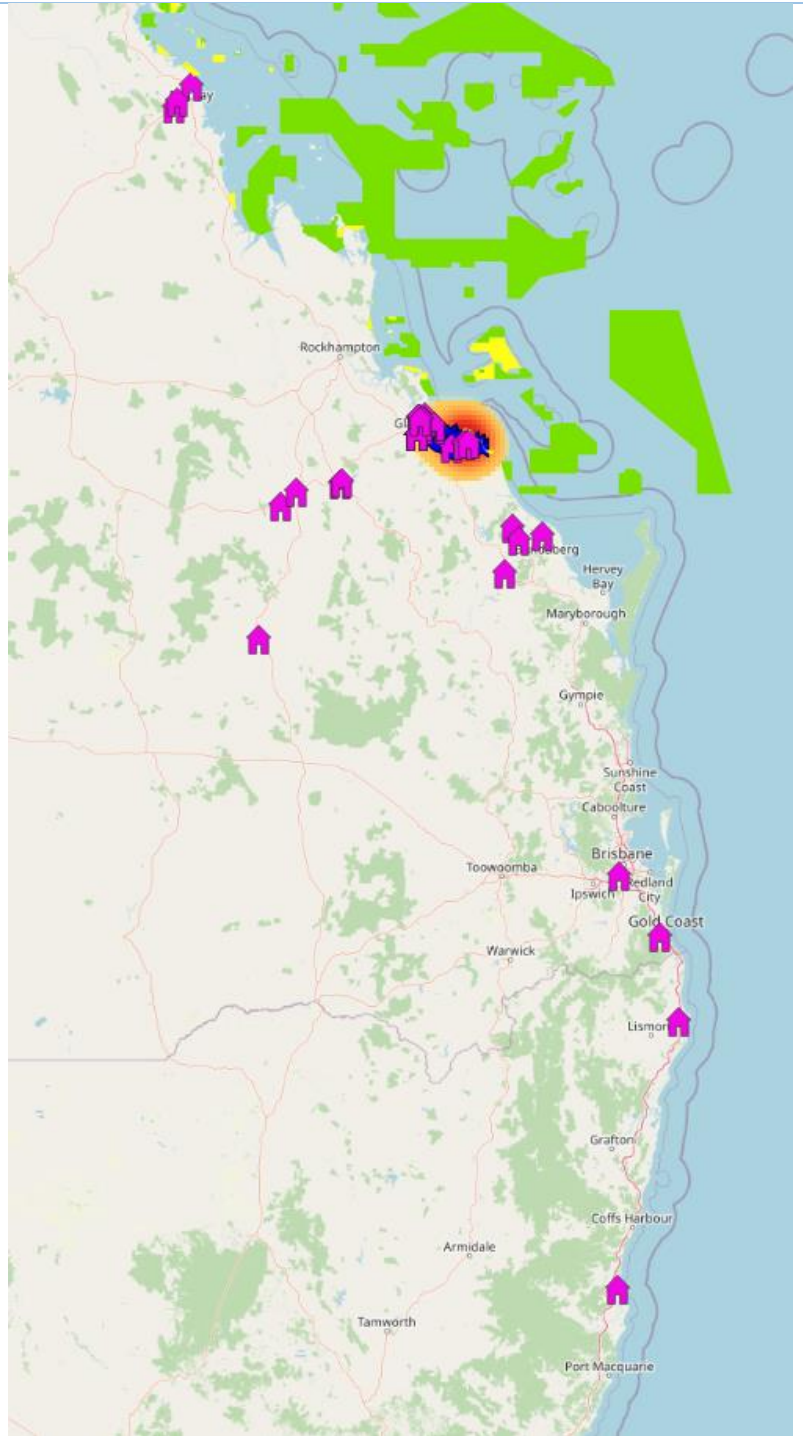
Recapture fishers	
Local	49 (75%)
Intrastate	14 (22%)
Interstate	2 (3%)




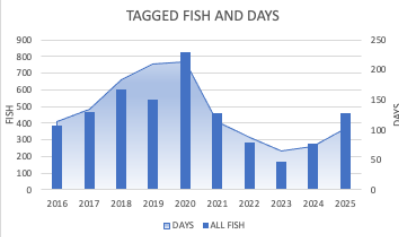
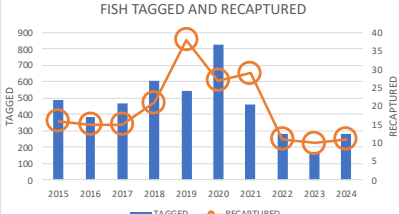
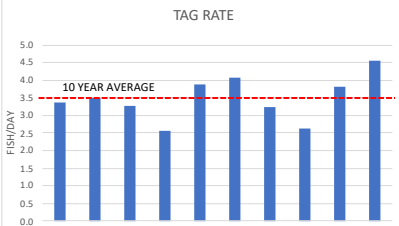


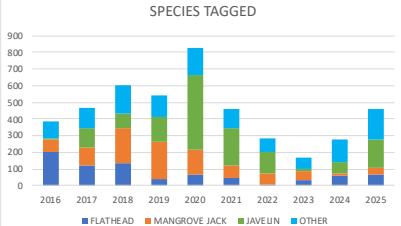
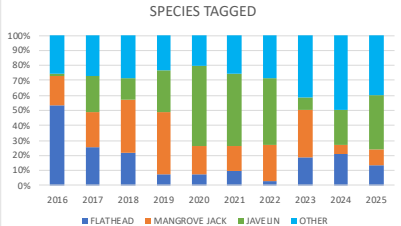
Where fishers recapturing
fish live (pink houses)
Local
2021-2025



Where fishers recapturing
live (pink houses)
Local
Intrastate
Interstate
2021-2025



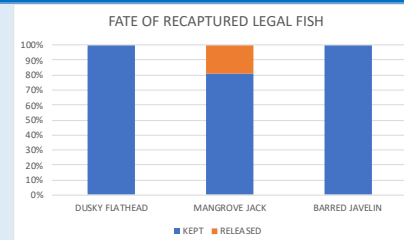
KEY SPECIES				
DUSKY FLATHEAD		MANGROVE JACK		BARRED JAVELIN
				
TAGGED AND TAG RATE				
Taggers catch and effort Tagged fish (4486) Tag days (1296) 2016-2025	High	Low	Now	
	Tagged fish			
	2020	2023	2025	
	829	168	463	
	Days			
	2020	2023	2025	
	213	64	102	
Fish tagged Recaptured 2016-2025	Tagged	4486		
	Recaptured	184		
	Recapture rate	4.1%		
	Tagged 2025	463		
Tag rate All tagged fish Fish/day 2016-2025	High	Low	Now	
	Tag rate			
	2021	2023	2025	
	4.1	2.6	4.5	
	10 year average		3.5	
<div><div><div><div>TAGGED FISH AND DAYS</div></div><div><div>FISH TAGGED AND RECAPTURED</div></div><div><div>TAG RATE</div></div></div></div>				

SPECIES			
Species composition Numbers tagged 2016-2025	Dusky Flathead Mangrove Jack Barred Javelin Other	Tagged 770 1042 1392 1282	
Species composition Percentage tagged 2016-2025	Dusky Flathead Mangrove Jack Barred Javelin Combined	% 17% 23% 31% 71%	

FATE

Legal recaptures kept or released by recfishers (ex-taggers)
2016-2025

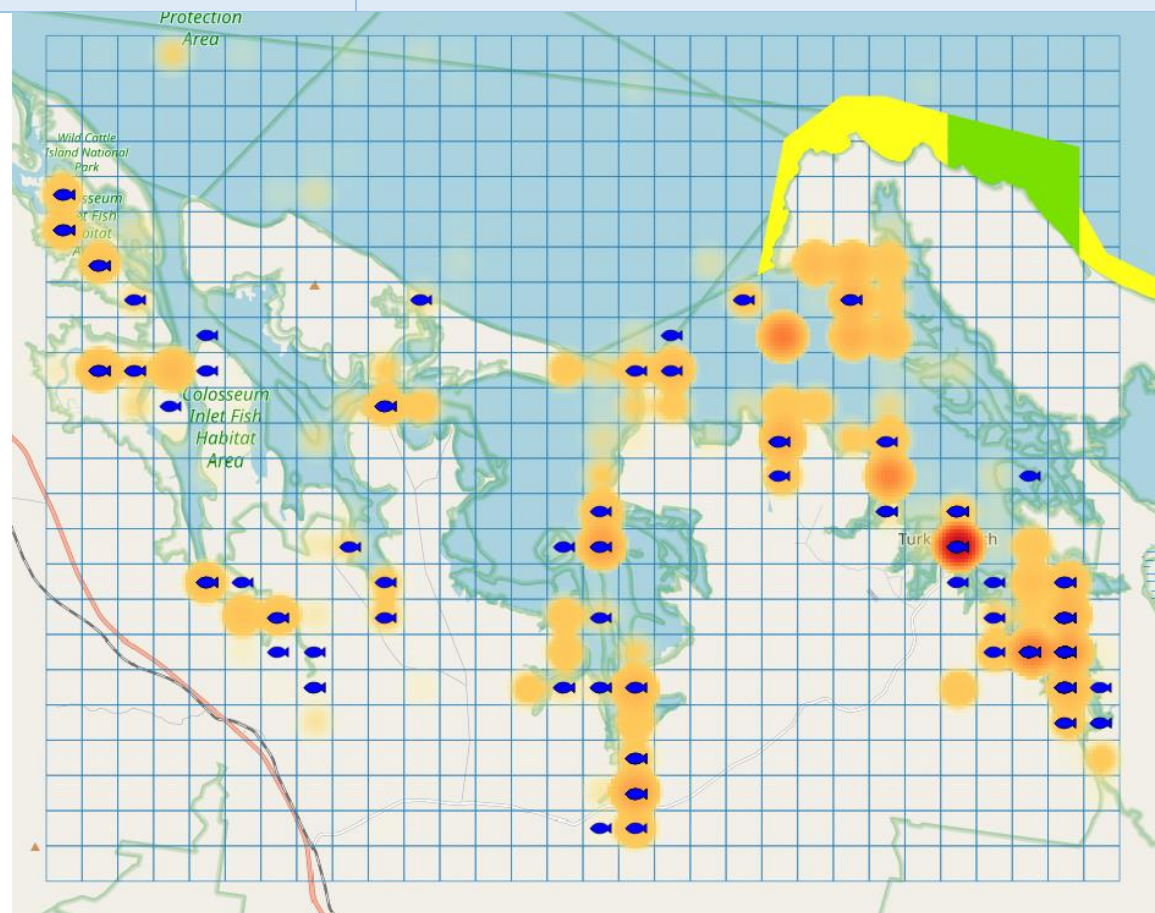
	Legal	Kept
Flathead	4	4 (100%)
Mangrove Jack	42	34 (81%)
Javelin	6	6 (100%)

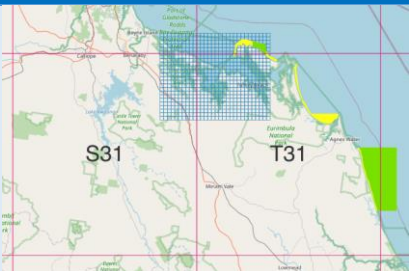
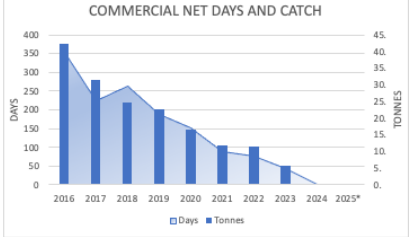
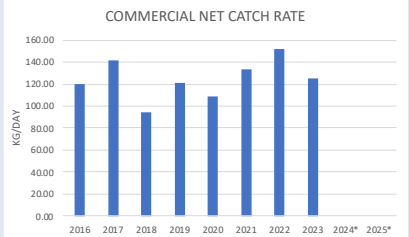


LOCATIONS

All fish tagged (red-orange heat map)
Recaptured (blue fish)
2016-2025

Tagged	4486
Recaptured	184



COMMERCIAL CATCH																																					
QFish Commercial grids	Commercial grids		S31 T31																																		
Commercial catch All species Qfish grids S31, T31 Days fished Catch tonnes 2016-2025 2025* incomplete	High Catch (t) 2016 119.9 Days 2016 353	Low 2023 5.6 2023 45	Now 2025 NA 2025 NA	 <table><caption>COMMERCIAL NET DAYS AND CATCH</caption><thead><tr><th>Year</th><th>Days</th><th>Tonnes</th></tr></thead><tbody><tr><td>2016</td><td>353</td><td>45.0</td></tr><tr><td>2017</td><td>280</td><td>35.0</td></tr><tr><td>2018</td><td>250</td><td>30.0</td></tr><tr><td>2019</td><td>200</td><td>25.0</td></tr><tr><td>2020</td><td>180</td><td>20.0</td></tr><tr><td>2021</td><td>150</td><td>15.0</td></tr><tr><td>2022</td><td>120</td><td>10.0</td></tr><tr><td>2023</td><td>100</td><td>5.6</td></tr><tr><td>2024</td><td>80</td><td>5.0</td></tr><tr><td>2025*</td><td>60</td><td>5.0</td></tr></tbody></table>	Year	Days	Tonnes	2016	353	45.0	2017	280	35.0	2018	250	30.0	2019	200	25.0	2020	180	20.0	2021	150	15.0	2022	120	10.0	2023	100	5.6	2024	80	5.0	2025*	60	5.0
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Commercial catch Qfish grids S31, T31 Catch rate (kg/day) 2016-2025 2025* incomplete	High Catch rate (kg/day) 2022 152.4	Low 2018 94.5	Now 2025 NA	 <table><caption>COMMERCIAL NET CATCH RATE</caption><thead><tr><th>Year</th><th>kg/day</th></tr></thead><tbody><tr><td>2016</td><td>120.00</td></tr><tr><td>2017</td><td>140.00</td></tr><tr><td>2018</td><td>94.50</td></tr><tr><td>2019</td><td>120.00</td></tr><tr><td>2020</td><td>110.00</td></tr><tr><td>2021</td><td>130.00</td></tr><tr><td>2022</td><td>152.40</td></tr><tr><td>2023</td><td>120.00</td></tr><tr><td>2024*</td><td>120.00</td></tr><tr><td>2025*</td><td>120.00</td></tr></tbody></table>	Year	kg/day	2016	120.00	2017	140.00	2018	94.50	2019	120.00	2020	110.00	2021	130.00	2022	152.40	2023	120.00	2024*	120.00	2025*	120.00											
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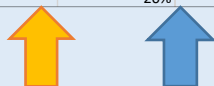
DUSKY FLATHEAD



DATA RELIABILITY

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

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



TAGGED AND TAG RATE

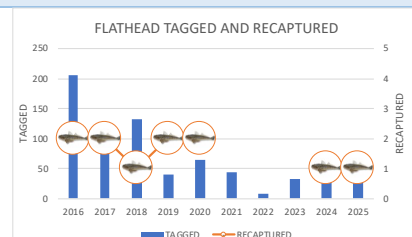
Taggers catch and effort
Tagged fish (770)
Tag days (1296)
2016-2025

High	Low	Now
Tagged fish		
2016	2022	2025
205	8	64
Days		
2020	2023	2025
213	64	102



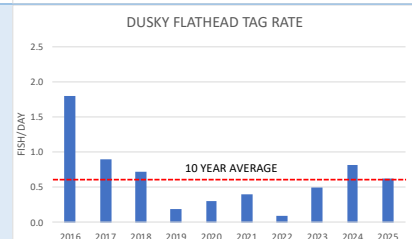
Flathead
Tagged
Recaptured
2016-2025

Tagged	770
Recaptured	11
Recapture rate	1.4%
Tagged 2025	64



Tag rate
Flathead
Fish/day
2016-2025

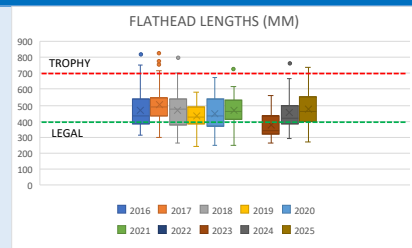
High	Low	Now
Tag rate		
2016	2022	2025
1.8	0.1	0.6
10 year average		0.6



LENGTHS

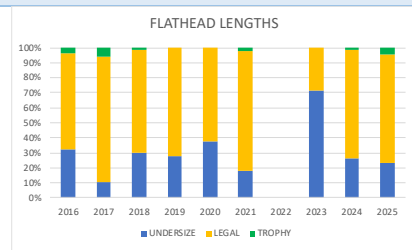
Average length (mm)
Bars show length range
Dots show outliers
2016-2025

High	Low	Now
Average length		
2017	2023	2025
501	373	478
Largest		
2017	2023	2025
825	560	740



Fish lengths percentage
Undersize <400mm
Legal 400-700mm
Trophy 700+mm
2016-2025

High	Low	Now
Legal-trophy		
2017	2023	2025
83%	29%	72%
Trophy		
2017	2023	2025
6%	0%	5%

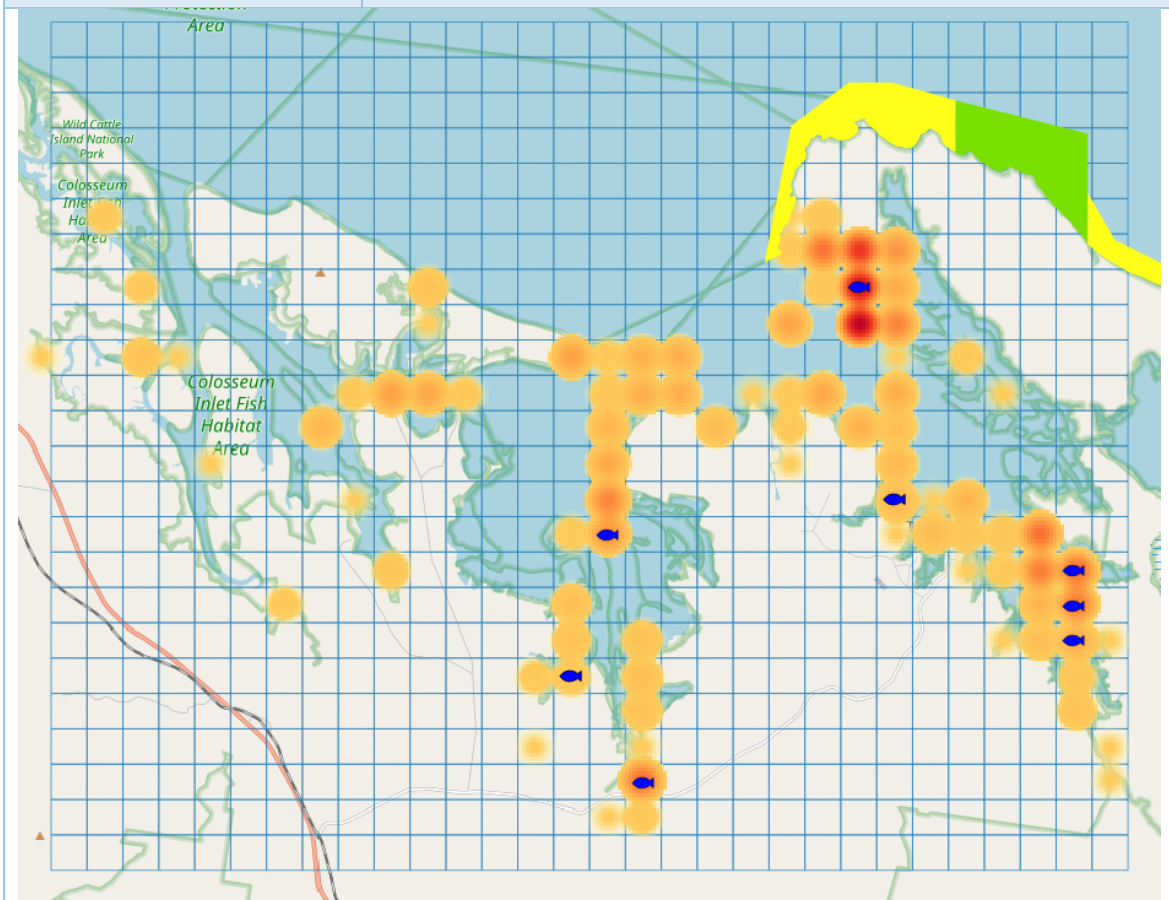





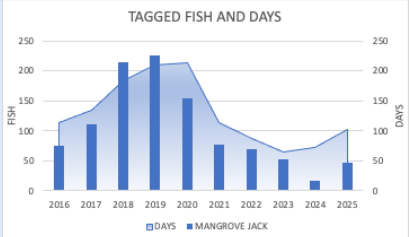
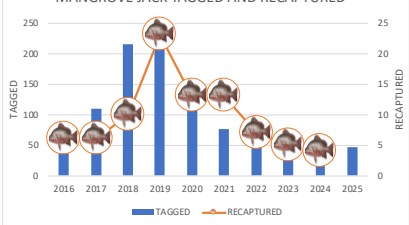
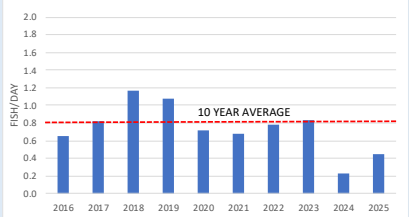
MOVEMENT

Flathead movement Distance moved (km) 2016-2025	Recaptures	9	
	Same area	7 (78%)	
	Max movement (km)	5	
Flathead movement Distance moved (km) 2016-2025	Recaptures	9	
	Same area	7 (78%)	
	Moved	2 (22%)	

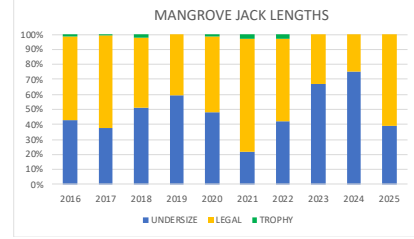
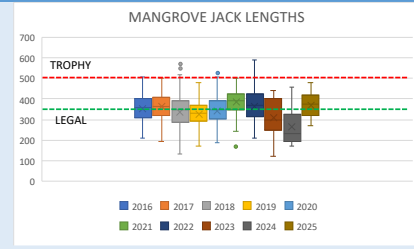
LOCATIONS

Flathead Tagged (red-orange heat map) Recaptured (blue fish) 2016-2025	Tagged	770
	Recaptured	11

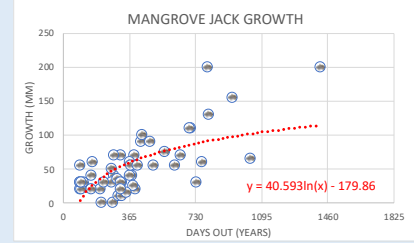


MANGROVE JACK																																							
																																							
DATA RELIABILITY																																							
Sample size (av fish/year)	<table><tr><td>Reliability level</td><td colspan="2">LOW</td><td colspan="2">MODERATE</td><td colspan="2">MODERATE</td><td colspan="2">HIGH</td></tr><tr><td>Samples</td><td>10</td><td>41</td><td>68</td><td>271</td><td>384</td><td>664</td><td></td></tr><tr><td>Confidence</td><td></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></td><td>20%</td><td>10%</td><td>10%</td><td>5%</td><td>5%</td><td>5%</td></tr></table>						Reliability level	LOW		MODERATE		MODERATE		HIGH		Samples	10	41	68	271	384	664		Confidence		80%	80%	90%	90%	95%	99%	Error		20%	10%	10%	5%	5%	5%
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Mangrove Jack	Tagged		1042																																				
Tagged	Recaptured		87																																				
Recaptured	Recapture rate		8.3%																																				
2016-2025	Tagged 2025		46																																				
Tag rate	High	Low	Now																																				
Mangrove Jack	Tag rate																																						
Fish/day	2018	2024	2025																																				
2016-2025	1.8	0.2	0.5																																				
	10 year average		0.8																																				

LENGTHS			
Average length (mm) Bars show length range Dots show outliers 2016-2025	High	Low	Now
	Average length		
	2021	2024	2025
	385	266	370
	Largest		
	2018	2023	2025
	570	440	480
Fish lengths percentage Undersize <350mm Legal 350-500mm Trophy 500+mm 2016-2025	High	Low	Now
	Legal-trophy		
	2021	2024	2025
	75%	25%	61%
	Trophy		
	2022	2024	2025
	2%	0%	0%



GROWTH			
Mangrove Jack growth at the end of each year based on recaptures 2016-2025	Recaptures	51	
	Growth	mm	
	Year 1	60	
	Year 2	88	
	Year 3	104	
	Year 4	116	
	Year 5	125	



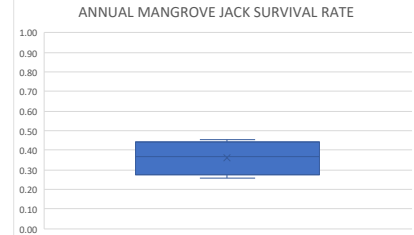
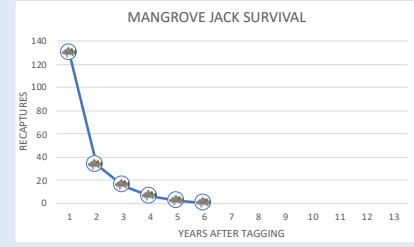
SURVIVAL			
Mangrove Jack survival after tagging based on recaptures from all years	Year	Recaptures	
	1	122	
	3	13	
	5	2	
	Longest time out (years) 5.0 years		
Mangrove Jack annual survival rate	Annual survival rate		
	Average	0.35 (35%)	
	Range	0.26-0.45	

MANGROVE JACK SURVIVAL

Years After Tagging	Recaptures
1	122
2	35
3	13
4	5
5	2
6	2

ANNUAL MANGROVE JACK SURVIVAL RATE

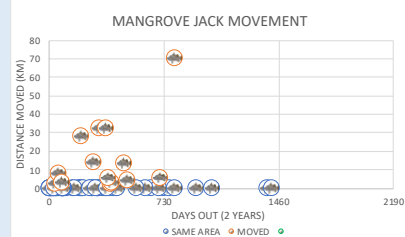
Survival Rate
0.26
0.35
0.45



MOVEMENT

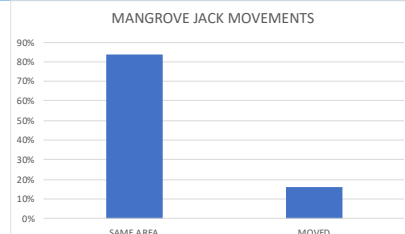
**Mangrove Jack movement
in harbour
Distance moved (km)
2016-2025**

Recaptures 87
Same area 73 (84%)
In harbour 11 (13%)
Outside harbour 3 (3%)



**Mangrove Jack movement
2016-2025**

Movement
Same area 72 (84%)
Moved 14 (16%)



**Mangrove Jack outside
harbour
Tagged (pink fish)
Recaptured (blue fish)
2016-2025**

**Masthead Reef (70km)
Gladstone offshore (28Km)
Pancake Creek (32km)**



LOCATIONS

Mangrove Jack

Tagged

(red-orange heat map)

Recaptured

(blue fish)

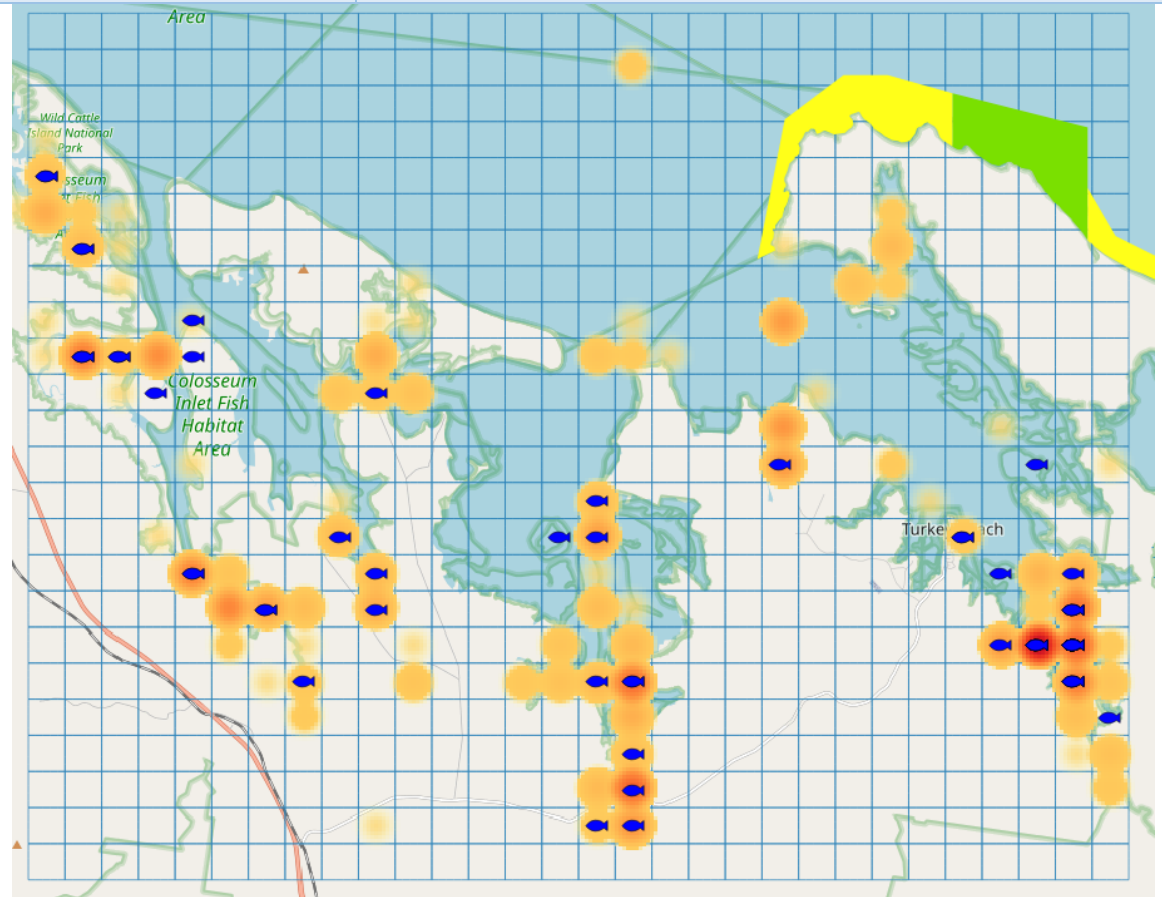
2016-2025

Tagged

1042

Recaptured

87



BARRED JAVELIN



DATA RELIABILITY

Sample size (days fished)
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 AND TAG RATE

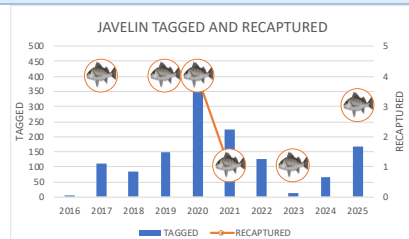
Taggers catch and effort
Tagged fish (1392)
Tag days (1296)
2016-2025

	High	Low	Now
Tagged fish			
2020	2024	2025	
446	14	168	
Days			
2020	2023	2025	
213	64	102	



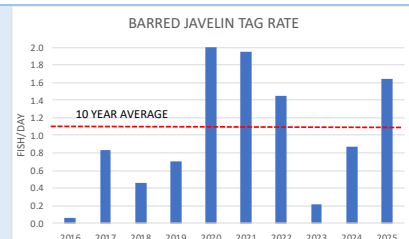
Barred Javelin
Tagged
Recaptured
2016-2025

Tagged	1392
Recaptured	17
Recapture rate	1.2%
Tagged 2025	168



Tag rate
Javelin
Fish/day
2016-2025

	High	Low	Now
Tag rate			
2020	2016	2025	
2.1	0.1	1.6	
10 year average		1.1	



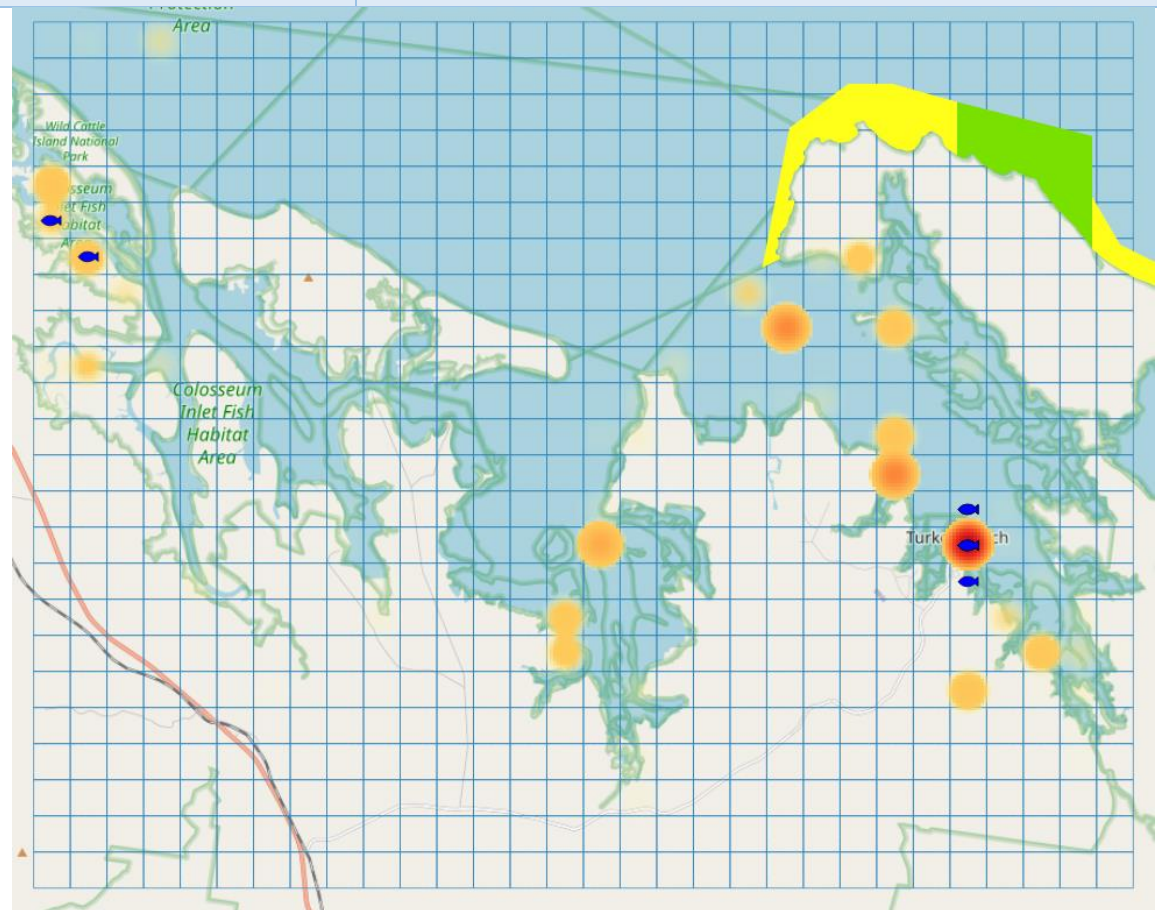
LENGTHS				
Average length (mm) Bars show smallest to largest fish 2016-2025	High	Low	Now	
	Average length			
	2019	2023	2025	
	425	353	447	
	Largest			
	2020	2023	2025	
	710	550	680	
Fish lengths percentage Undersize <400mm Legal 400-600mm Trophy 600+mm 2016-2025	High	Low	Now	
	Legal-trophy			
	2019	2017	2025	
	43%	4%	55%	
	Trophy			
	2019	2023	2025	
	11%	0%	11%	

MOVEMENT				
Javelin movement Distance moved (km) 2016-2025	Recaptures		16	
	Same area		13 (81%)	
	Max distance (km)		3	
Javelin movement Distance moved (km) 2016-2025	Recaptures		16	
	Same area		13 (81%)	
	Moved		3 (19%)	

TAG LOCATIONS

Javelin
Tagged
(red-orange heat map)
(blue fish)
2016-2025

Tagged	1392
Recaptured	17



Data sources

Data used in the Rodds Harbour Crystal Bowl are:

- Tag records and recapture records for Rodds Harbour at <http://crystalbowl.infofishaustralia.com.au/>.
- Rainfall records from Station 39018 Bustard Head Lighthouse and from Station 39261 Turkey Station from <http://www.bom.gov.au/climate/data/index.shtml>.

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 an acceptable catch rate.
- For Dusky Flathead undersized fish are <400mm, legal fish are ≥400 and <700mm and trophy fish are ≥700mm.
- For Mangrove Jack undersized fish are <350mm, legal fish are ≥350mm and <500mm and trophy fish are ≥500mm.
- For Barred Javelin undersized fish are <400mm, legal fish are ≥400mm and <600 and trophy fish are ≥600mm.
- 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 map RBT and other grid maps where fish were recaptured outside the harbour.
- Movement distance calculated as the shortest distance by water from the tag to the recapture location using Google Earth.
- Distance from where recapture fishers live to recapture location is the straight-line distance between locations based on Google Earth coordinates with Local <80km, Intrastate ≥80km and Qld postcode, Interstate postcodes other than Qld.