

LAKE MOOGERAH REVIEW JUNE 2025

INFORMATION RATING



Stocking group: Maroon-Moogerah Fish Management Association

Species stocked: Australian Bass, Golden Perch, Silver Perch, Southern Saratoga, Mary River Cod

Stocking timeframe: 2014-2023

Fish timeframe: 2016-2025

Fisher timeframe: 2021-2025

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

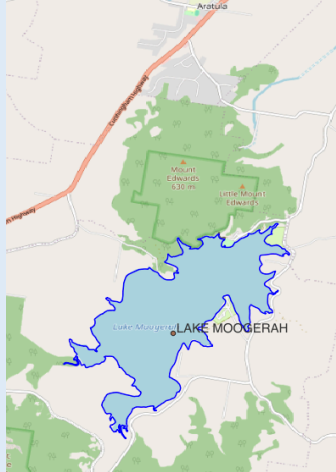

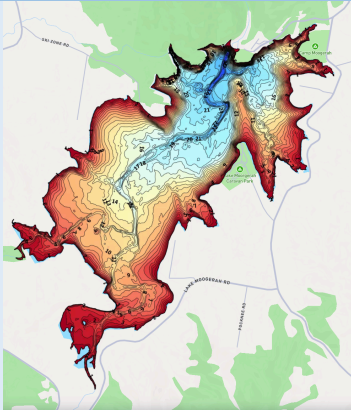
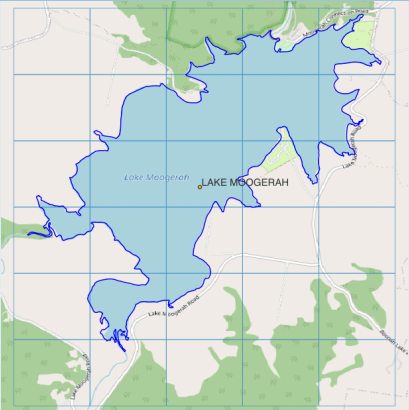
Lake Moogerah is fished all year-round with a peak in Jan and also in May-Jun. It is mainly an experiential fishery with a low harvest rate of 14% of legal Bass by recapture fishers (ex-taggers) in the last 5 years. Most recaptures occur on the weekend with 48% occurring then. However taggers prefer the weekdays with 76% of fish tagged then. Avoiding the busier times on the weekends could be influencing this.

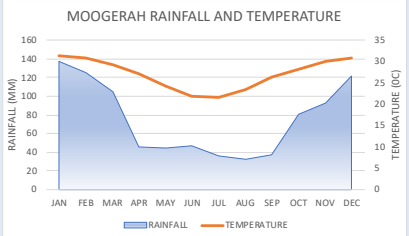
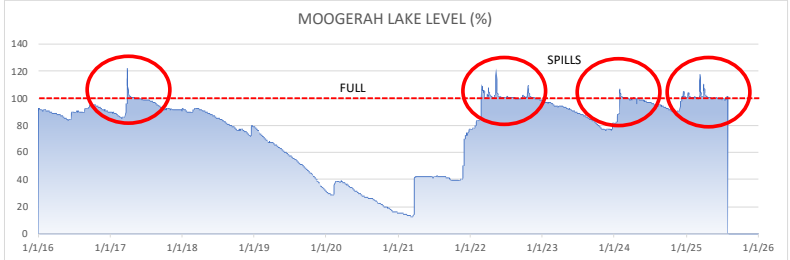
Fishers recapturing fish are a mix of local and visitors mostly living less than 100km from the lake coming from Ipswich, Brisbane, and the Scenic Rim.

The tag rate for Bass has averaged 13.0 fish/day and is 14.5 so far this year, however that figure has been influenced by some taggers using bait and catching large numbers of fish per day. The high tag rate has seen an increase in tagging effort while there has been a corresponding decline in tagging effort in Lake Maroon where the catch rate is much lower.

Since the 2022 spill there have been 16 recaptures below the dam. Of these 14 were recaptured in the first few kms below the dam wall while 2 fish have been recaptured in the Bremer River at Ipswich. The dam has spilled again in Dec 2024 through to Apr 2025.

The longest time out for a Bass after tagging is mostly around 12 years however 1 fish was recaptured after 26 years. This was a fish tagged in 1994 and recaptured in 2020 in Tingalpa Creek and is the longest time between tagging and recapture for a freshwater fish anywhere.

LAKE MOGERAH		LOCATION
	Lake Moogerah 28.05°S 152.54°E	
IMPOUNDMENT	ACTUAL	GRAPH or MAP
Grid map Lake Moogerah LMH Surface area 8.3km ² Bathymetry		

ENVIRONMENTAL			
Mean monthly rainfall (mm) Mean monthly air temperature (oC)	Rainfall Max Temp Max	Month Jan Feb Month Dec-Feb	mm 138 126 oC 31
			
Lake level 2015-2024 Spilled 2017 2022 2024 Jan (106%) Feb Mar 2024 Dec (105%) 2025 Jan Feb Mar (118%) Apr (107%)			

FISHERS		ACTUAL		GRAPH or MAP					
DATA RELIABILITY									
Sample size (days fished)		Reliability level		MODERATE		MODERATE		HIGH	
Tag days (blue arrow)		Samples		10		41		68	
Recaptures (orange arrow)		Confidence		80%		80%		90%	
Confidence %		Error		20%		10%		10%	
Error %									
2021-2025									
TYPE OF FISHERY									
Seasonality		Fisher days		334					
Mean rainfall (mm)		Months most effort		Jan					
temperature (oC)				Jun					
Days fished combined				May					
Taggers									
Recapture fishers									
2021-2025									
Harvest or experiential fishery		Bass legal fish kept rate							
Release rate of recaptured legal Bass		Legal fish		181					
2021-2025		Kept		26 (14%)					
2025 Jan-Jun		Released		155 (86%)					
Local or visitor fishery		Recapture fishers		239					
Where recapture fishers live		Local		146 (61%)					
2021-2025		Visitor		93 (39%)					
2025 Jan-Jun									
Gender of recapture fisher (ex-taggers)		Fishers		188					
2021-2025		Male		173 (92%)					
2025 Jan-Jun		Female		15 (8%)					

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ACTIVITY				
Monthly activity Days fished Taggers (129) Recapture fishers (205) 2021-2025 2025 Jan-Jun	Taggers	Month	%	
		Jan	18%	
		Jun	14%	
	Recaps	May	13%	
		Jun	11%	
		Jan	11%	
Monthly activity Recaptures 2023-2025 2025 Jan-Jun	2025	Month	Recaps	
	Most recaps	Jan	25	
Weekday activity Days fished Taggers (129) Recapture fishers (205) 2021-2025 2025 Jan-Jun	Taggers	Day	%	
		Weekend	24%	
		Weekdays	76%	
	Recaps	Weekend	48%	
		Weekdays	52%	
Location activity Tagged fish (red-orange heat map) Recaptures (blue dots) 2021-2025 2025 Jan-Jun	Tagged		1839	
	Tagged fish (red-orange heat map)			
	Recaptures (blue dots)			
	2021-2025			
	2025 Jan-Jun			

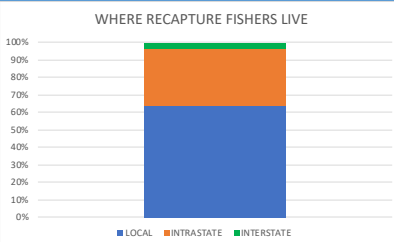
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TRAVEL		
Cumulative distance (km) home to recapture location 2021-2025 2025 Jan-Jun	Year	Km
	2021	1659
	2022	567
	2023	2755
	2024	4375
	2025 Jan-Jun	2956
Distance (km) home to recapture Local Intrastate 2021-2025 2025 Jan-Jun		
Distance (km) home to recapture location Local Intrastate Interstate 2021-2025 2025 Jan-Jun	Trips	239
	Range (km)	
	Local	9-59
	Intrastate	60-145
	Interstate	124-1388* *not shown on graph
Average distance (km) home to recapture location Local Intrastate Interstate 2021-2025 2025 Jan-Jun	Trips	239
	Average distance (km)	
	Local	37
	Intrastate	73
	Interstate	314

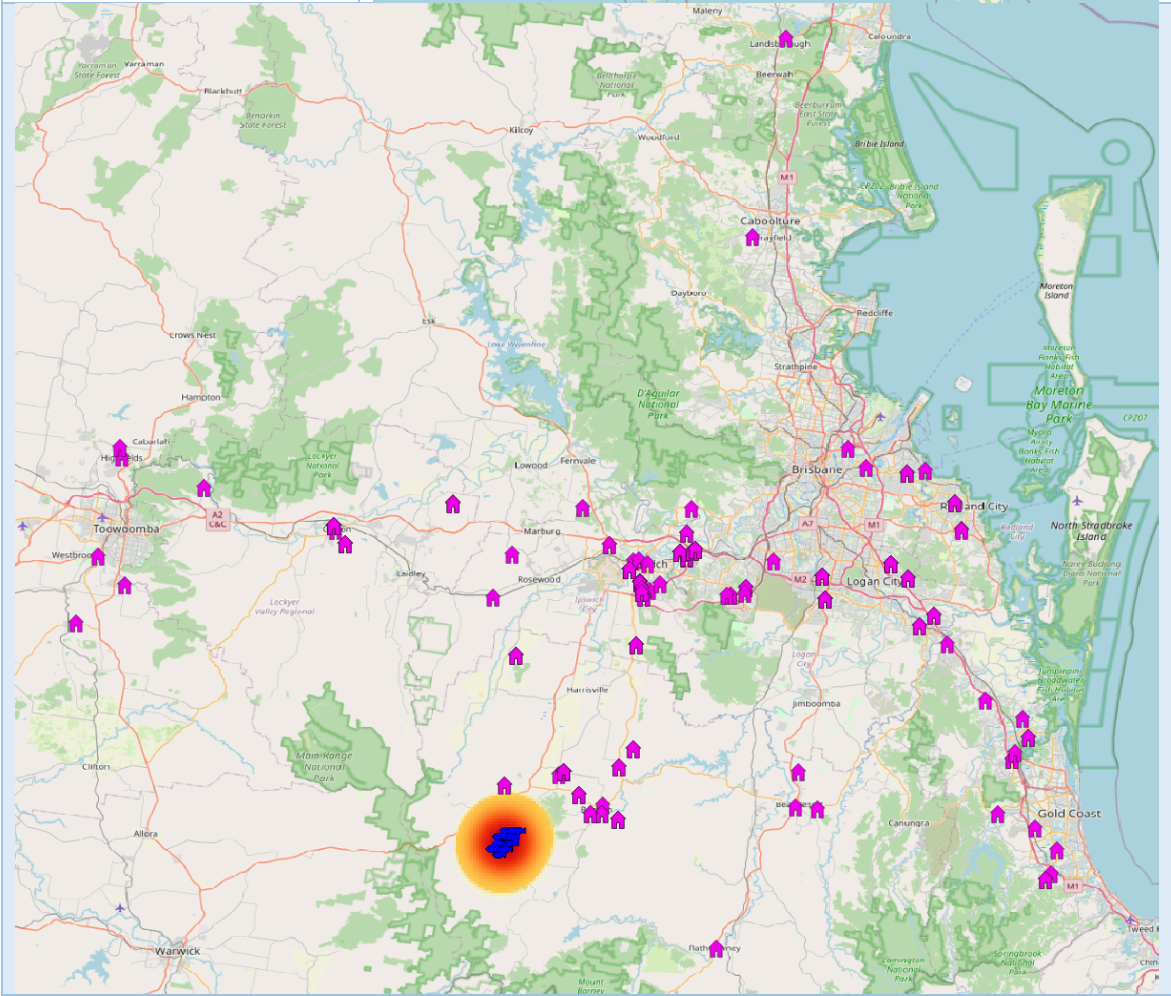
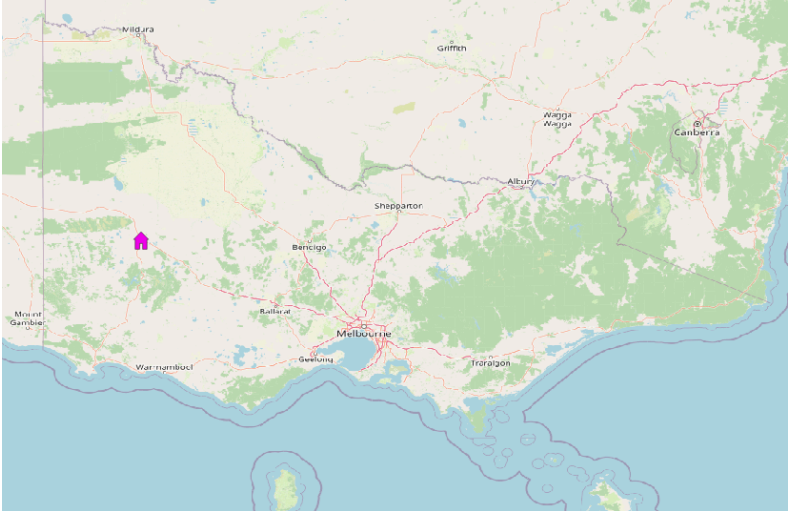
WHERE RECAPTURE FISHERS LIVE




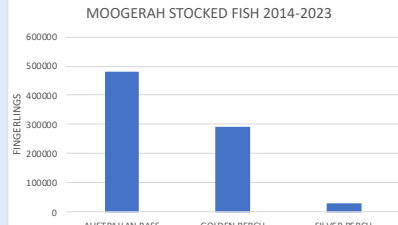
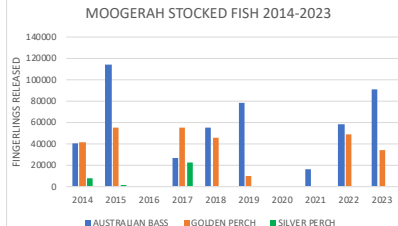
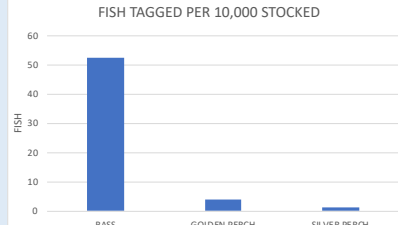
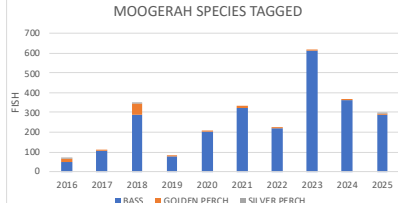
Where recapture fishers live
2021-2025
2025 Jan-Jun


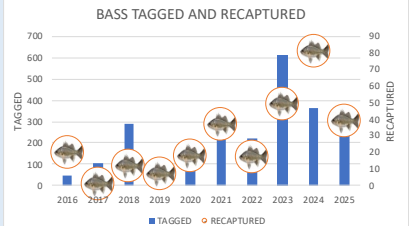
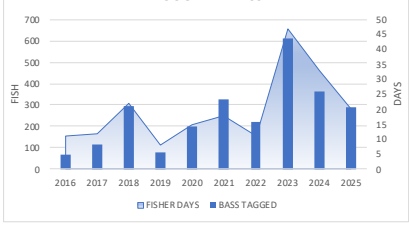
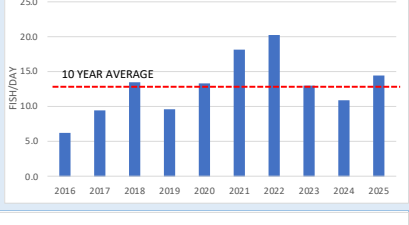
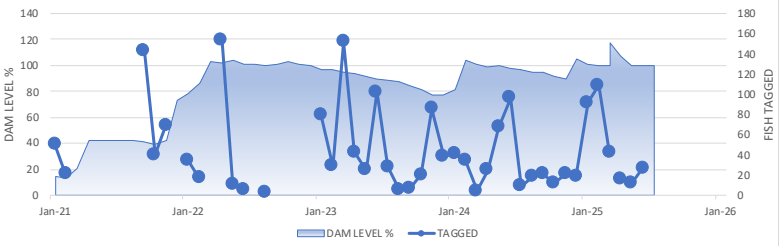
Fishers	198
Local	124 (63%)
Intrastate	67 (34%)
Interstate	7 (3%)

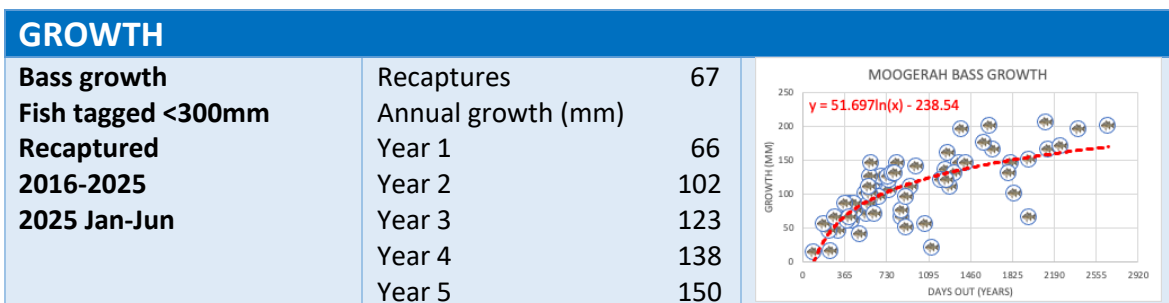
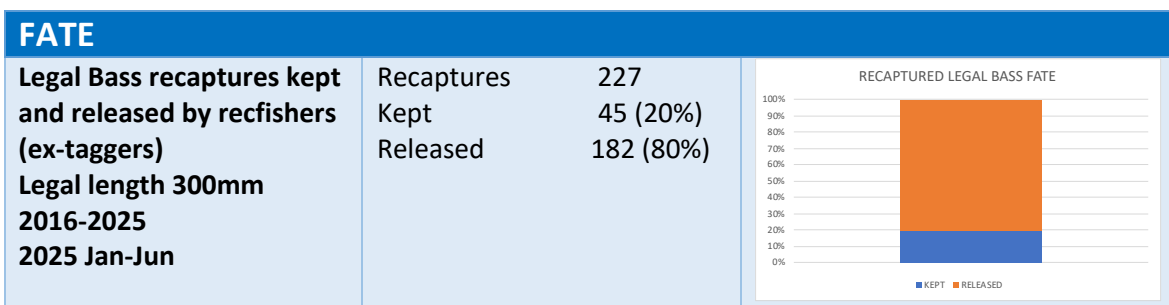
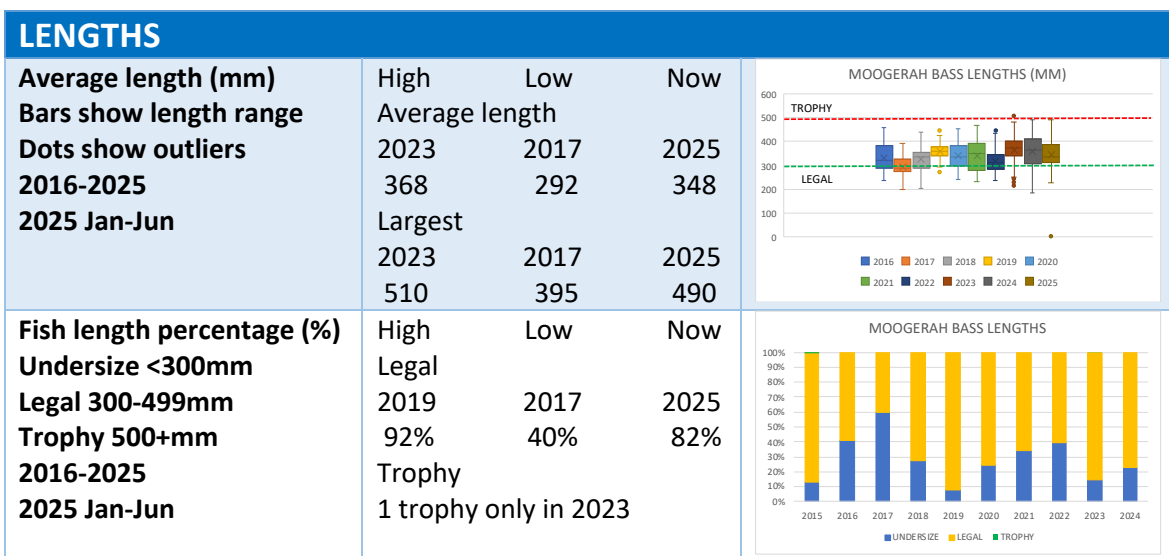


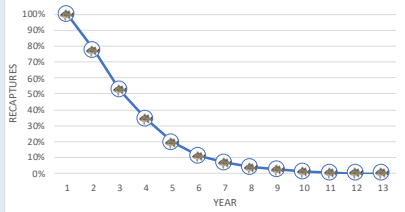
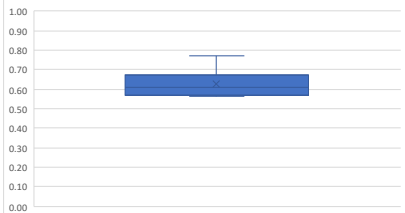
Lake Moogerah
Where fishers recapturing fish live (pink houses)
Local
Intrastate
Interstate
Victoria (1)
2021-2025
2025 Jan-Jun



STOCKING		
AUSTRALIAN BASS	GOLDEN PERCH	SILVER PERCH
		
Fingerlings stocked 2014-2023	Bass 481,687 Golden Perch 290,713 Silver perch 31,768	
Fingerlings stocked by year 2014-2023	Able to be tagged from 2016-2025	
Fish tagged 2016-2025 per 10,000 fish stocked 2014-2023	Tagged/10,000 fingerlings Bass 52 Golden Perch 4 Silver Perch 1.3	
Species tagged 2016-2025 2025 Jan-Jun	Bass 2432 Golden Perch 109 Silver Perch 2	

AUSTRALIAN BASS		ACTUAL		GRAPH or MAP																									
																													
DATA RELIABILITY																													
Sample size (fish/year)	<table><tr><td>Reliability level</td><td>LOW</td><td colspan="2">MODERATE</td><td>MODERATE</td><td>HIGH</td></tr><tr><td>Samples</td><td>10</td><td>41</td><td>68</td><td>271</td><td>664</td></tr><tr><td>Confidence</td><td>80%</td><td>80%</td><td>90%</td><td>90%</td><td>95%</td></tr><tr><td>Error</td><td>20%</td><td>10%</td><td>10%</td><td>5%</td><td>5%</td></tr></table>					Reliability level	LOW	MODERATE		MODERATE	HIGH	Samples	10	41	68	271	664	Confidence	80%	80%	90%	90%	95%	Error	20%	10%	10%	5%	5%
Reliability level	LOW	MODERATE		MODERATE	HIGH																								
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Tagged (blue arrow)																													
Recaptures (orange arrow)																													
Confidence %																													
Error %																													
2021-2025																													
TAGGED AND TAG RATE																													
Bass	Tagged	Recaptured																											
Tagged	2527	281																											
Recaptured	Recapture rate	11.1%																											
2016-2025	Tagged 2025	289																											
2025 Jan-Jun																													
Tag and effort	High	Low	Now																										
Taggers	Catch																												
Days fished	2023	2016	2025																										
Fish tagged	610	68	289																										
2016-2025	Effort																												
2025 Jan-Jun	2023	2019	2025																										
Tag rate	47	8	20																										
Fish/day	High	Low	Now																										
2016-2025	Tag rate																												
2025 Jan-Jun	2022	2016	2025																										
	20.2	6.2	14.5																										
	10 year average		13.0																										
Lake level (%)																													
Tagger effort																													
Fish tagged																													
2016-2025																													
2025 Jan-Jun																													

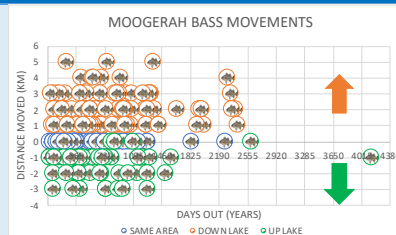


SURVIVAL																																										
Bass survival based on recaptures by years out after tagging (1153) All years	Survival rate by years out																																									
	Year	Recaptures																																								
	1	1153																																								
	5	225																																								
	10	12																																								
	13	1																																								
	Longest time out (years)																																									
	26	1																																								
Survival rates each year after tagging All years	Average survival each year																																									
	0.63 (63%)																																									
	Range																																									
	0-56-0.77																																									
<div><div>MOOGERAL BASS SURVIVAL</div><table><caption>Moogerah Bass Survival Data</caption><thead><tr><th>Year</th><th>Recaptures (%)</th></tr></thead><tbody><tr><td>1</td><td>100</td></tr><tr><td>2</td><td>85</td></tr><tr><td>3</td><td>65</td></tr><tr><td>4</td><td>45</td></tr><tr><td>5</td><td>30</td></tr><tr><td>6</td><td>15</td></tr><tr><td>7</td><td>10</td></tr><tr><td>8</td><td>8</td></tr><tr><td>9</td><td>7</td></tr><tr><td>10</td><td>6</td></tr><tr><td>11</td><td>5</td></tr><tr><td>12</td><td>5</td></tr><tr><td>13</td><td>5</td></tr></tbody></table></div> <div><div>MOOGERAH BASS SURVIVAL</div><table><caption>Moogerah Bass Survival Distribution</caption><thead><tr><th>Statistic</th><th>Value</th></tr></thead><tbody><tr><td>Minimum</td><td>0.00</td></tr><tr><td>Q1</td><td>0.56</td></tr><tr><td>Median</td><td>0.63</td></tr><tr><td>Q3</td><td>0.77</td></tr><tr><td>Maximum</td><td>0.77</td></tr></tbody></table></div>			Year	Recaptures (%)	1	100	2	85	3	65	4	45	5	30	6	15	7	10	8	8	9	7	10	6	11	5	12	5	13	5	Statistic	Value	Minimum	0.00	Q1	0.56	Median	0.63	Q3	0.77	Maximum	0.77
Year	Recaptures (%)																																									
1	100																																									
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MOVEMENT

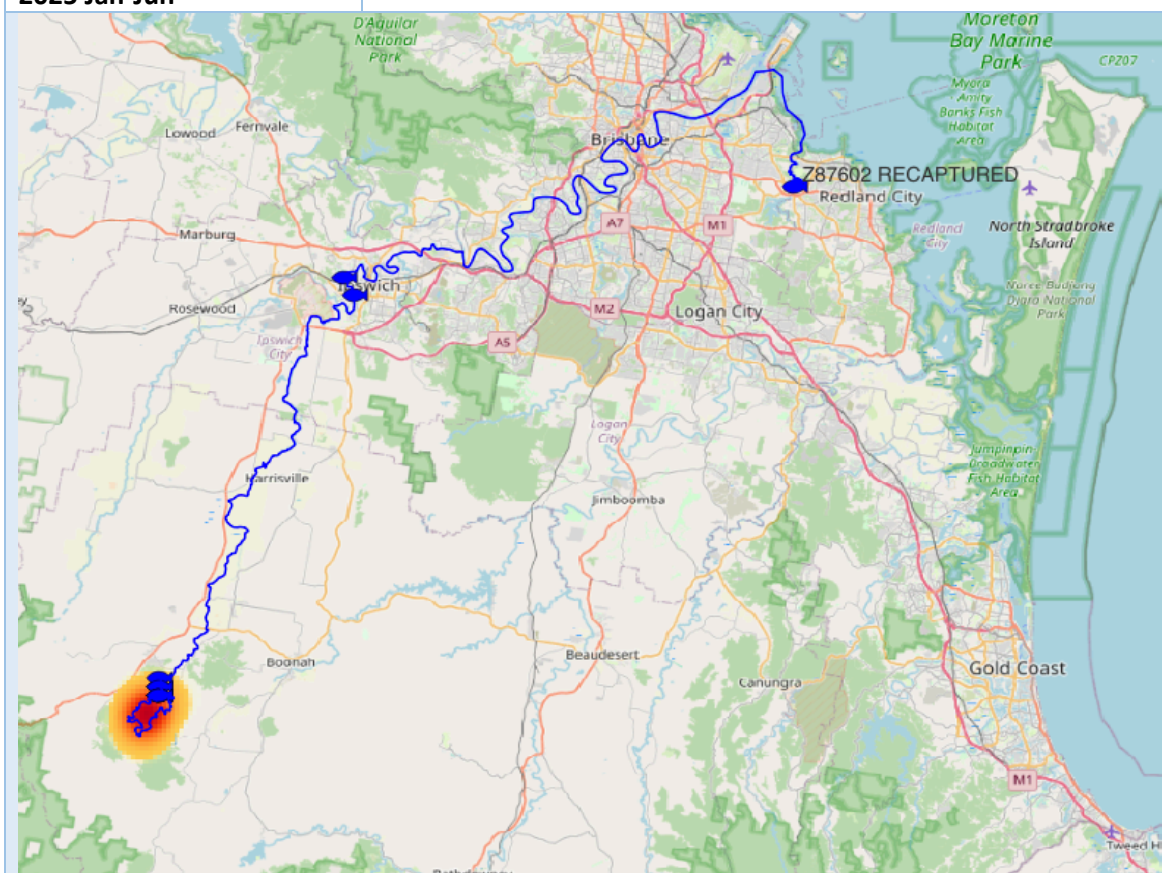
Bass movement
In lake
Below lake
2016-2025
2025 Jan-Jun

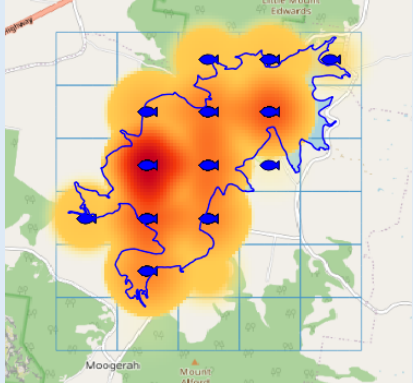
Recaptures 262
Same area 93 (36%)
Down lake 98 (37%)
Up lake 55 (21%)
Below lake 16 (6%)




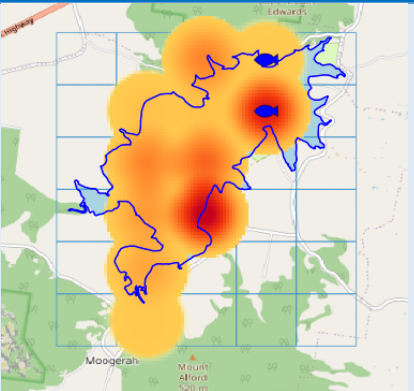
Bass recaptured
Below lake 16
Immediately below 13
Bremer River 2
Tingalpa Creek 1
2016-2025
2025 Jan-Jun


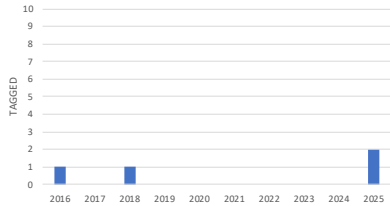
Longest time out for a tagged Bass Z87602
Tagged 29/1/1994 265mm Lake Moogerah
Recaptured 9/2/2020 390mm Tingalpa Creek
Time at liberty 9,507 days (26 years)
Moved 190km



LOCATIONS			
Bass locations	Tagged	2528	
Tagged (red-orange heat map)	Recaptured	288	
Recaptures (blue fish)			
2016-2025			
2025 Jan-Jun			

GOLDEN PERCH		ACTUAL	GRAPH or MAP
			
TAGGED AND TAG RATE			
Golden Perch Tagged Recaptured 2016-2025 2025 Jan-Jun	Tagged 114 Recapture rate 1.8% Tagged 2025 Jan-Jun 7	Recaptured 2	
Catch and effort taggers Number of fish (tagged and untagged) Days fished 2016-2025 2025 Jan-Jun	High Tagged 2018 61 Days 2018 22	Low 2022 2 2019 8	Now 2025 7 2025 20
Catch rate Fish/day 2016-2025 2025 Jan-Jun	High 2016 5.1 10 year average	Low 2023 0.1	Now 2025 0.4 0.8
LENGTHS			
Average length (mm) Bars show length range Dots show outliers 2016-2025 2025 Jan-Jun	Average length 2016 390 Largest 2016 450	2018 389 2018 445	2025 NA 2025 NA
Fish length percentage (%) Undersize <300mm Legal 300-499mm Trophy 500+mm 2016-2025 2025 Jan-Jun	High Legal 2016 100% Trophy 2025 Jan-Jun No trophy fish any year	Low 2018 98%	Now 2025 NA

LOCATIONS			
Golden Perch locations	Tagged	114	
Tagged (red-orange heat map)	Recaptures		
Recaptures (blue fish)	In lake	1	
2016-2025	Below lake	1	
2025 Jan-Jun			

SILVER PERCH	ACTUAL	GRAPH or MAP																						
																								
TAGGED																								
Silver Perch Tagged Recaptured 2016-2025 2025 Jan-Jun	Tagged 4 Recaptured 0 Recapture rate 0% Tagged 2025 Jan-Jun 2	<div><p>SILVER PERCH TAGGED</p><table><tr><th>Year</th><th>Tagged</th></tr><tr><td>2016</td><td>1</td></tr><tr><td>2017</td><td>0</td></tr><tr><td>2018</td><td>1</td></tr><tr><td>2019</td><td>0</td></tr><tr><td>2020</td><td>0</td></tr><tr><td>2021</td><td>0</td></tr><tr><td>2022</td><td>0</td></tr><tr><td>2023</td><td>0</td></tr><tr><td>2024</td><td>0</td></tr><tr><td>2025</td><td>2</td></tr></table></div>	Year	Tagged	2016	1	2017	0	2018	1	2019	0	2020	0	2021	0	2022	0	2023	0	2024	0	2025	2
Year	Tagged																							
2016	1																							
2017	0																							
2018	1																							
2019	0																							
2020	0																							
2021	0																							
2022	0																							
2023	0																							
2024	0																							
2025	2																							

Data sources

Data used in the Lake Moogerah Crystal Bowl are:

- Tag records and recapture records for the lake at <http://crystalbowl.infofishaustralia.com.au/>.
- Dam level data from SEQwater at <https://www.seqwater.com.au/historic-dam-levels>.
- Stocked fish records from Fisheries Queensland and from <https://www.data.qld.gov.au/dataset/queensland-freshwater-fish-stocking-records/>.
- Bathymetric data from Infofish surveys.
- Rainfall records from Station 040139 Mt Alford and temperature records from Station 040983 Beaudesert Drumley Street from <http://www.bom.gov.au/climate/data>.

Basis for analysis

- Data reliability for fishers based on the sample size over the past 5 years for days fished by taggers and by fishers recapturing fish.
- Data reliability for fish based on average number of fish tagged and recaptured per year over the past 5 years.
- Catch rates calculated as number of fish tagged/fisher/day for T20 fishers (taggers) with a minimum of 12 fisher days (at least 1 per month) to provide a reliable catch rate.
- Undersized Bass are <300mm, legal fish are ≥300 and <500mm and trophy fish are ≥500mm.
- Growth calculated using logarithmic curve from recaptures where fish were less than 300mm when tagged, were out for 90 days or more and had positive growth.
- Locations based on Infofish grid map LMH for the impoundment and other grid maps where fish were recaptured outside the impoundment.
- Survival rates are calculated based on a model that uses the reduction in the numbers of recaptures each year after tagging.
- 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.