



LAKE CALLIDE REVIEW 2024

INFORMATION RATING



Stocking group: Callide Valley Native Fish Stocking Association
 Species stocked: Barramundi, Golden Perch, Southern Saratoga, Sleepy Cod
 Stocking timeframe: 2012-2024
 Fish timeframe: 2015-2024
 Fisher timeframe: 2020-2024
 DPI link: <https://www.daf.qld.gov.au/rsa/sips-dams-and-weirs/profile?dam=callide-dam>
 CVNFSA link: <http://www.cvnfsa.org.au/stocking.html>
 CVNFSA Facebook: <https://www.facebook.com/cvnfsa/>

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

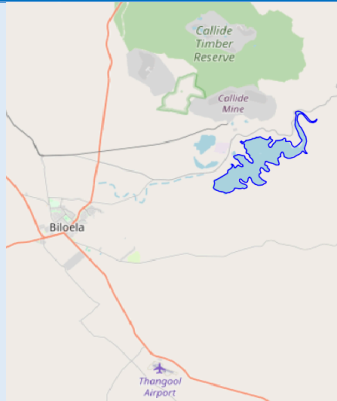

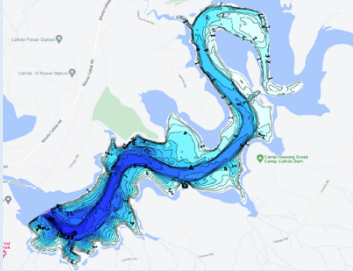
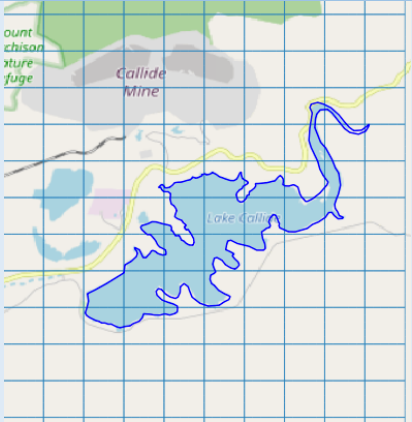
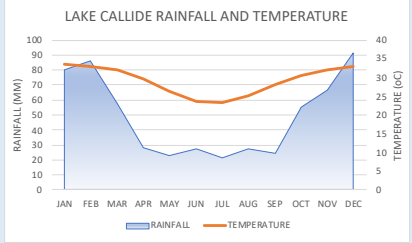
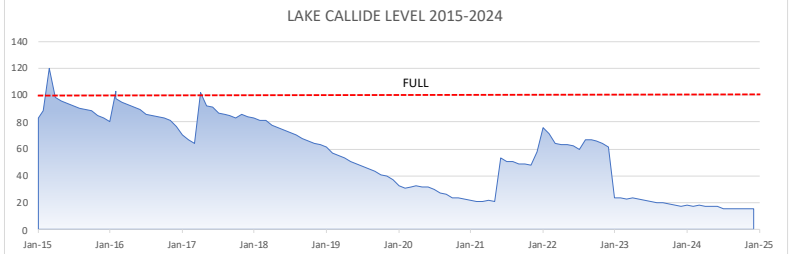

While Lake Callide has been stocked with Barramundi it is susceptible to fish kills over winter when water temperatures drop to low levels below 14°C. In the winter of 2007, with the water level at 8% the temperature dropped to 10°C, resulting in a total fish kill of Barramundi. See <https://infofishaustralia.com.au/wp-content/uploads/2016/11/Fish-Kill-report-2007.pdf>

A further fish kill occurred in Sep 2022, and it was estimated that there were over 1,000 dead Barramundi, mostly large fish from 800-1200mm. However, this was only a partial kill and there may have other causes as the water temperature was not low enough to be the cause.

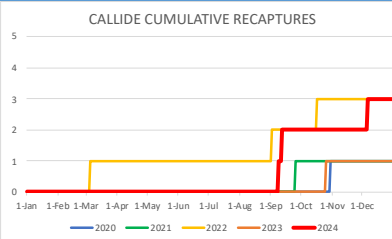
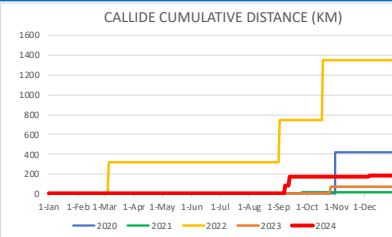
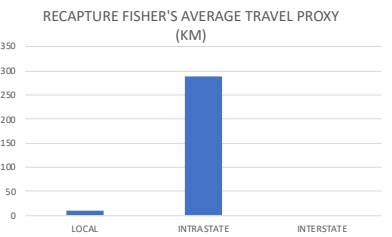
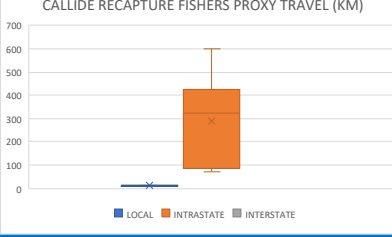
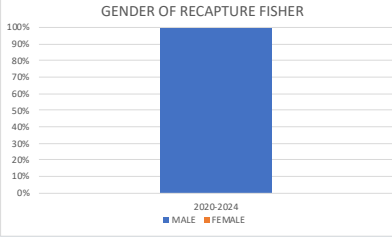
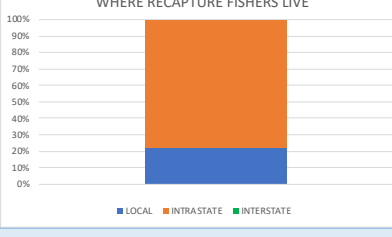
Fish tagged in 2021-2022 up to Sep 2022 were mostly large fish of a similar size to those in the fish kill. No Barramundi were tagged in 2023 and 2024 however there have been several recaptures of fish tagged earlier.

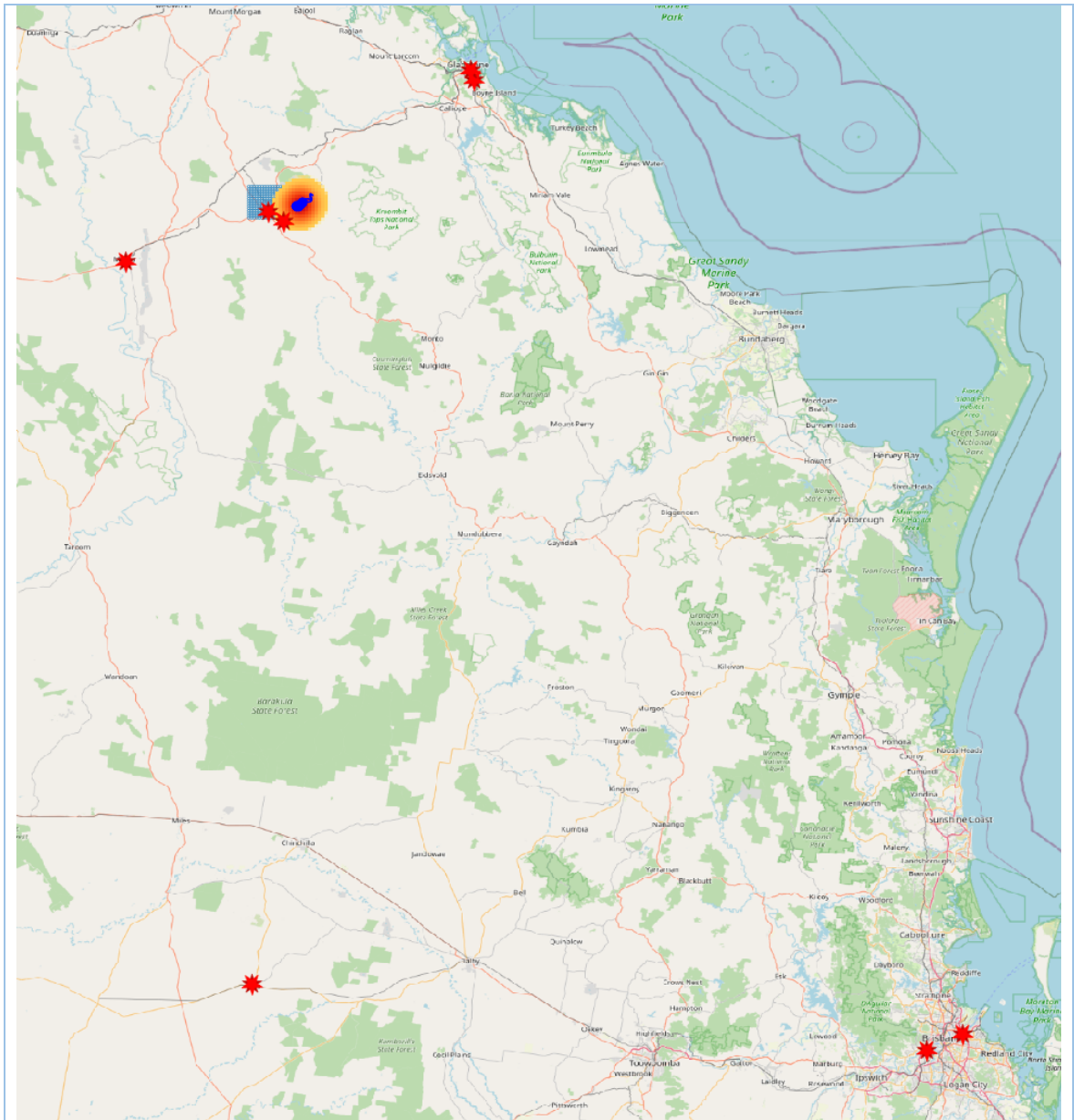
Lake Callide is included in the Fish and SIPS fish competition in 2023 and 2024 and there has been the recapture of 1 competition fish.




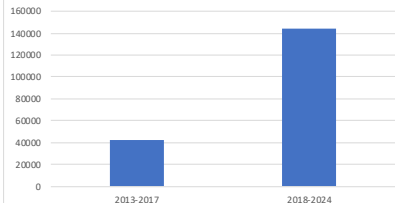
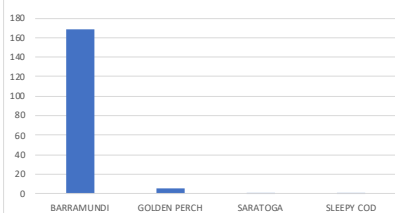
While the data on fishers is low it suggests that Lake Callide is popular with visiting fishers, likely attracted by the high proportion of trophy Barramundi. There is a lull in fisher activity over winter with low water temperatures that make Barramundi much harder to catch. The lake is mostly an experiential fishery as all large Barramundi that were recaptured were released again.




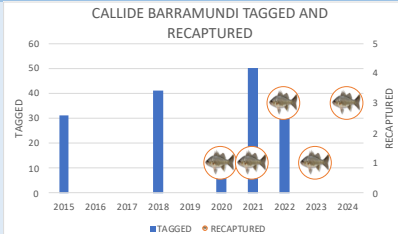
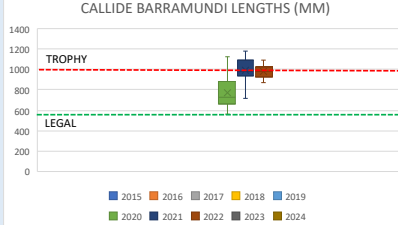
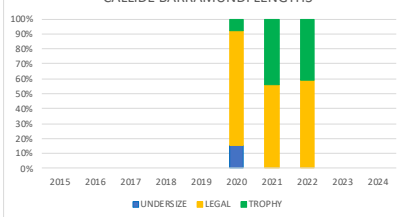
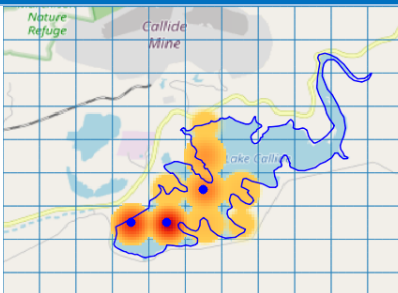
LAKE CALLIDE		LOCATION																					
	Lake Callide 24.36°S 150.36°E																						
IMPOUNDMENT	ACTUAL	GRAPH or MAP																					
Lake Callide Grid map Lake Callide LCD	Surface area 11.6km ² at Full Surface Level Bathymetry 																						
ENVIRONMENTAL																							
Mean monthly rainfall (mm) Mean monthly air temperature (oC)	<table> <tr> <td>Rainfall</td><td>Month</td><td>mm</td></tr> <tr> <td>Max</td><td>Dec</td><td>92</td></tr> <tr> <td></td><td>Feb</td><td>87</td></tr> <tr> <td>Temp</td><td>Month</td><td>oC</td></tr> <tr> <td>Max</td><td>Jan</td><td>34</td></tr> <tr> <td></td><td>Feb</td><td>33</td></tr> <tr> <td></td><td>Dec</td><td>33</td></tr> </table>	Rainfall	Month	mm	Max	Dec	92		Feb	87	Temp	Month	oC	Max	Jan	34		Feb	33		Dec	33	
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Lake level 2015-2024 Spilled 2015 2016 2017																							
Fish kill 2022 Sep	Fish kill estimated >1,000 fish Size range 800-1200mm																						


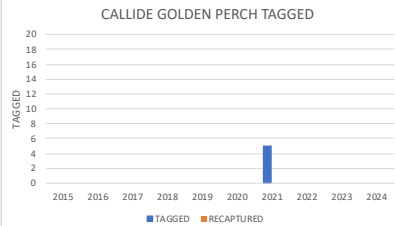
FISHERS	ACTUAL		GRAPH or MAP																					
DATA RELIABILITY																								
Sample size (days fished) Days (blue arrow) Confidence % Error % 2020-2024	<table> <tr> <td>Reliability level</td><td>LOW</td><td>MODERATE</td><td>MODERATE</td><td>HIGH</td></tr> <tr> <td>Samples</td><td>10</td><td>41</td><td>68</td><td>271</td></tr> <tr> <td>Confidence</td><td>80%</td><td>80%</td><td>90%</td><td>90%</td></tr> <tr> <td>Error</td><td>20%</td><td>10%</td><td>10%</td><td>5%</td></tr> </table>	Reliability level	LOW	MODERATE	MODERATE	HIGH	Samples	10	41	68	271	Confidence	80%	80%	90%	90%	Error	20%	10%	10%	5%			
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TYPE OF FISHERY																								
Months fished Temperature Monthly days fished (taggers and recapture fishers combined) 2020-2024	Most days fished (low numbers) Oct Sep																							
Harvest or experiential fishery Release rate of recaptured legal Barramundi 2020-2024	Barramundi legal fish kept rate Legal fish 7 Kept 0 (0%) Released 7 (100%)																							
Local or visitor fishery Where recapture fishers live 2020-2024	Recapture fishers 9 Local 2 (22%) Visitor 7 (78%)																							
ACTIVITY																								
Monthly activity Days fished Taggers (35) Recapture fishers (9) 2020-2024	Taggers Recaps	Month Oct Sep Sep Oct	% 46% 14% 44% 33%																					
Weekday activity Days fished Taggers (35) Recapture fishers (9) 2020-2024	Taggers Recaps	Day Weekend Weekdays Weekend Weekdays	% 37% 63% 33% 67%																					


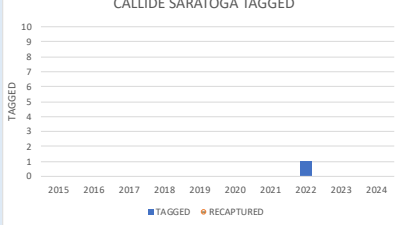
EFFORT			
Cumulative recaptures 2020-2024	Year	Recaps	
	2020	1	
	2021	1	
	2022	3	
	2023	1	
	2024	3	
TRAVEL			
Cumulative proxy travel distance (km) address to recapture location 2020-2024	Year	Kms	
	2020	422	
	2021	13	
	2022	1348	
	2023	71	
	2024	179	
Proxy average travel distance (km) home to recapture 2020-2024	Trips	9	
	Local	11	
	Intrastate	287	
	Interstate	-	
Proxy travel distance (km) home to recapture location 2020-2024	Trips	9	
	Local	Range (km) 9-13	
	Intrastate	71-602	
	Interstate	-	
DEMOGRAPHICS			
Gender of recapture fishers 2020-2024	Fishers	9	
	Female	0 (0%)	
	Male	9 (100%)	
Where recapture fishers live 2020-2024	Fishers	9	
	Local	2 (22%)	
	Intrastate	7 (78%)	
	Interstate	-	
Where fishers recapturing fish live (red stars) Local Intrastate 2020-2024			

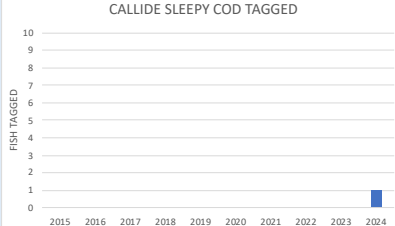


STOCKING		ACTUAL	GRAPH or MAP								
BARRAMUNDI		GOLDEN PERCH	SARATOGA								
											
SLEEPY COD											
Sleepy Cod <i>Oxyeleotris lineolata</i>											
STOCKING											
Barramundi fingerlings stocked from SIPS -2020		<table><tr><td>Barramundi</td><td>Fingerlings</td></tr><tr><td>Golden Perch</td><td></td></tr><tr><td>Saratoga</td><td></td></tr><tr><td>Sleepy Cod</td><td></td></tr></table>	Barramundi	Fingerlings	Golden Perch		Saratoga		Sleepy Cod		
Barramundi	Fingerlings										
Golden Perch											
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SPECIES TAGGED											
Species tagged 2015-2024		<table><tr><td>Barramundi</td><td>Tagged</td></tr><tr><td>Golden Perch</td><td></td></tr><tr><td>Saratoga</td><td></td></tr><tr><td>Sleepy Cod</td><td></td></tr></table>	Barramundi	Tagged	Golden Perch		Saratoga		Sleepy Cod		
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BARRAMUNDI																						
																						
DATA RELIABILITY																						
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Tagged (blue arrow)																						
Recaptures (orange arrow)																						
Confidence %																						
Error %																						
2020-2024																						
TAGGED																						
Barramundi	Tagged	Recaptured																				
Tagged	168	9																				
Recaptured	Recapture rate																					
2015-2024	5.4%																					
	Tagged 2024																					
	0																					
																						
LENGTHS																						
Average length (mm)	High	Low																				
Bars show length range	Average length	Now																				
Dots show outliers	2021	2020																				
2015-2024	997	776																				
	Max																					
	2021	2022																				
	1180	1090																				
		2024																				
		NA																				
																						
Fish length percentage (%)	High	Low																				
Undersize <580mm	Legal-trophy	Now																				
Legal 5800-1000mm	2020	2021																				
Trophy 1000+mm	77%	56%																				
2015-2024	Trophy																					
	2021	2020																				
	44%	8%																				
		2024																				
		NA																				
																						
LOCATIONS																						
Barramundi locations	Tagged	168																				
2015-2024	Recaptured	9																				
																						

GOLDEN PERCH		
		
TAGGED		
Golden Perch Tagged Recaptured 2015-2024	Tagged 5 Tagged 2024 0	Recaptured 0
		

SARATOGA		
		
TAGGED		
Southern Saratoga Tagged Recaptured 2015-2024	Tagged 1 Tagged 2024 0	Recaptured 0
		

SLEEPY COD		
Sleepy Cod <i>Oxyeleotris lineolata</i>		
TAGGED		
Sleepy Cod Tagged Recaptured 2015-2024	Tagged 1 Tagged 2024 0	Recaptured 0
		

LAKE CALLIDE FAMILY FISHING CLASSIC 2024		
Dates	26-27 October 2024	
CATCH		
Senior catch		Largest
	Barramundi	1120
	Golden Perch	516
	Eeltail Catch	490
	Sleepy Cod	400

Data sources

Data used in the Lake Callide Crystal Bowl are:

- Tag records and recapture records for the impoundment at <http://crystalbowl.infofishaustralia.com.au/>.
- Dam level data from Sunwater at <https://www.sunwater.com.au/water-data/historical-dam-capacity/>.
- Stocked fish records and Lake Callide Family Fishing Classic competition from Callide Valley Native Fish Stocking Association.
- Rainfall records for station 039290 Biloela Valbona and temperature records for Station 039089 Thangool Airport from <http://www.bom.gov.au/climate/data>.

Basis for analysis

- Data reliability for fishers based on the sample size over the past 5 years for days fished by taggers and by fishers recapturing fish.
- Data reliability for fish based on average number of fish tagged and recaptured per year over the past 5 years.
- Undersized Barramundi are <580mm, legal-trophy fish are ≥580 and <1000mm and trophy fish are ≥1000mm. Legal fish are 580-1200mm.
- Locations based on Infofish grid map LCD for the impoundment and other grid maps where fish were recaptured outside the impoundment.
- Travel proxy distance is the distance between where the fisher lives (address, suburb, town or postcode) and the recapture location. Local <60km, intrastate Qld elsewhere, interstate other than Qld.