



LAKE MOOGERAH
AUSTRALIAN BASS AND GOLDEN PERCH 2011-2020
2020 REVIEW



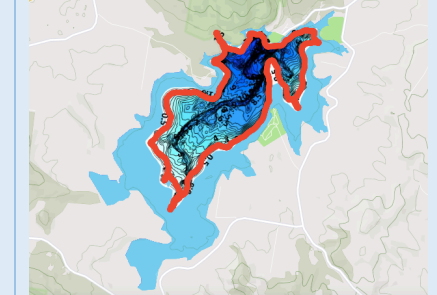
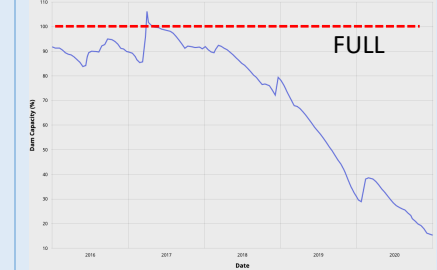
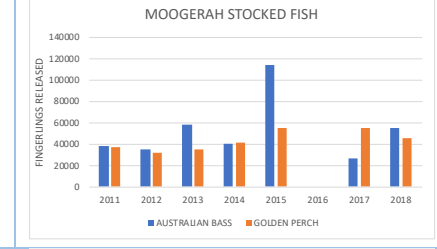
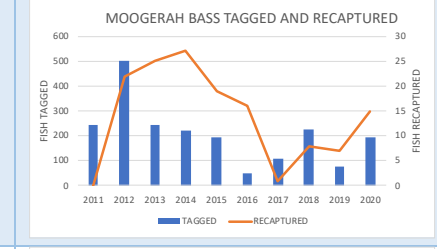
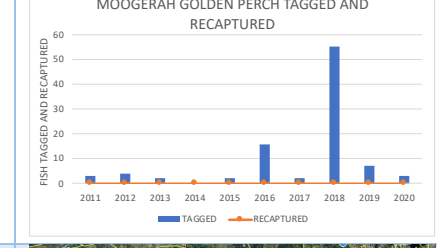
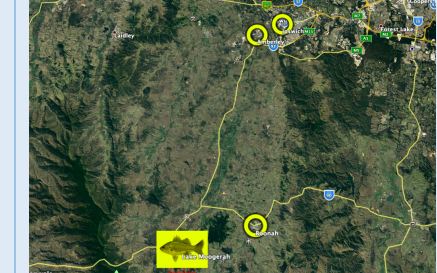
Stocked fish numbers, tagged and recaptured fish, catch rates, fish sizes, growth, survival, locations and recapture fisher postcodes

The following dashboard provides a summary of Australian Bass and Golden Perch data from Lake Moogerah covering the past 10 years.

Summary

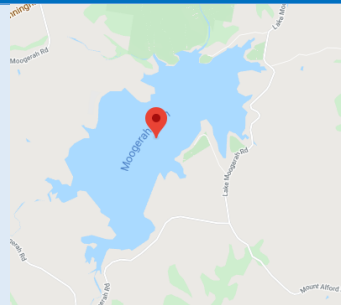
- Dam level on 31 Dec 2020 was 15.3%
- From 2011-2018 there were 368.9K Bass and 302.8K Golden Perch fingerlings released
- The number of fingerlings released was roughly the same but there were 2,054 Bass tagged for 140 recaptures (6.8%) while there were just 94 Golden Perch tagged for 0 recaptures
- The catch rate for Bass in 2020 was 13.3 fish/fisher day while the average historic catch rate was 12.0 fish/fisher day
- The average length of Bass in 2020 was 339mm and ranged from 240-455mm
- The percentage of legal Bass in 2020 was 75.5% with 0% trophy fish 500mm and over
- Annual Bass growth calculated from tag recaptures at the end of year 1 is 45mm and at the end of year 5 is 97mm
- Longest time out for a Bass after tagging is around 12 years although there has been 1 recapture after 15.6 years
- Over the past 10 years most Bass have been tagged in LMH map grids B3, B4, D2 and Golden Perch in grids C4 and C3
- Of the 123 Bass recaptured over the past 10 years and tagged since 2011 there were 0 recaptured outside the impoundment
- All fish recaptured outside the impoundment were tagged prior to 2011 and recaptured after 2011
- There were 5 fish recaptured below the dam with 2 in Reynolds Creek, 2 in Warrill Creek and 1 in Bremer River
- Over the past 10 years most postcodes of fishers recapturing fish are 4310 (Boonah area), 4305 (Ipswich) and 4306 (Amberley area)
- There have been 5 fish recaptured by fishers with postcodes outside Queensland with 3 from NSW, 1 from VIC and 1 from NT

Infofish Australia
January 2021

LAKE MOOGERAH	LOCATION	BATHYMETRY																					
																							
MEASURE	ACTUAL	GRAPH or MAP																					
Surface area Lake level	Surface area 8.3km ² Level at 31 Dec 2020 15.3% For latest level https://www.segwater.com.au/historic-dam-levels																						
Fingerlings stocked 2011-2018	<table border="1"> <thead> <tr> <th>HIGHEST</th> <th>LOWEST</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td colspan="3">BASS</td> </tr> <tr> <td>2015</td> <td>2016</td> <td></td> </tr> <tr> <td>114.3K</td> <td>0</td> <td>368.9K</td> </tr> <tr> <td colspan="3">GOLDEN PERCH</td> </tr> <tr> <td>2017</td> <td>2016</td> <td></td> </tr> <tr> <td>55.6K</td> <td>0</td> <td>302.8K</td> </tr> </tbody> </table>	HIGHEST	LOWEST	TOTAL	BASS			2015	2016		114.3K	0	368.9K	GOLDEN PERCH			2017	2016		55.6K	0	302.8K	
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Bass tagged and recaptured 2011-2020	<table border="1"> <thead> <tr> <th>TAGGED</th> <th>RECAPTURED</th> </tr> </thead> <tbody> <tr> <td>2049</td> <td>140</td> </tr> <tr> <td colspan="2">RECAPTURE RATE</td> </tr> <tr> <td colspan="2">6.8%</td> </tr> </tbody> </table>	TAGGED	RECAPTURED	2049	140	RECAPTURE RATE		6.8%															
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Golden Perch tagged and recaptured 2011-2020	<table border="1"> <thead> <tr> <th>TAGGED</th> <th>RECAPTURED</th> </tr> </thead> <tbody> <tr> <td>94</td> <td>0</td> </tr> <tr> <td colspan="2">RECAPTURE RATE</td> </tr> <tr> <td colspan="2">0%</td> </tr> </tbody> </table>	TAGGED	RECAPTURED	94	0	RECAPTURE RATE		0%															
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Postcodes of recapture fishers 2011-2020	<table border="1"> <thead> <tr> <th>Recaptures</th> <th>195</th> </tr> <tr> <th>POSTCODE</th> <th>FISHERS</th> </tr> </thead> <tbody> <tr> <td>4310</td> <td>49</td> </tr> <tr> <td>4305</td> <td>36</td> </tr> <tr> <td>4306</td> <td>15</td> </tr> <tr> <td>NSW</td> <td>3</td> </tr> <tr> <td>VIC/NT</td> <td>1</td> </tr> <tr> <td>No code</td> <td>23</td> </tr> </tbody> </table>	Recaptures	195	POSTCODE	FISHERS	4310	49	4305	36	4306	15	NSW	3	VIC/NT	1	No code	23						
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LAKE MOOGERAH

AUSTRALIAN BASS



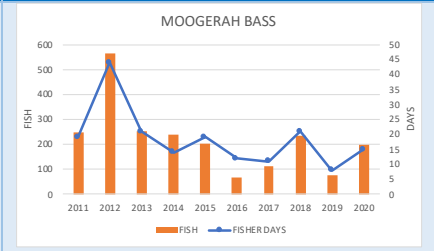
MEASURE

ACTUAL

GRAPH or MAP

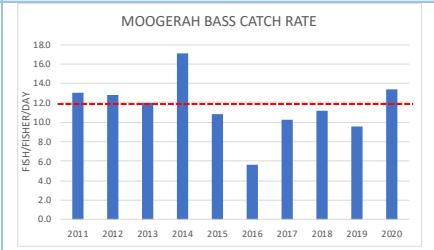
Catch and effort number of fish fisher days T20 fishers 2011-2020

HIGHEST CATCH	LOWEST	NOW
2012	2016	2020
565	68	200
EFFORT		
2012	2019	2020
44	8	15



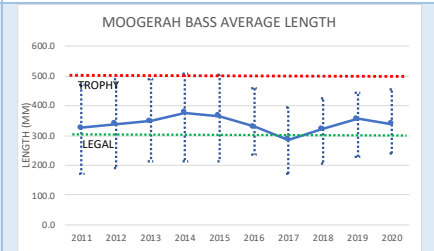
Catch rate Fish/fisher day 2011-2020

HIGHEST CATCH RATE	LOWEST	NOW
2014	2016	2020
17.1	5.7	13.3
10 YEAR AVERAGE		12.0



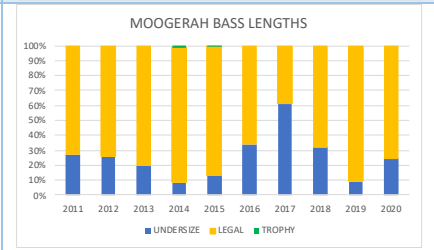
Average length (mm) Bars show smallest and largest fish 2011-2020

HIGHEST AVERAGE LENGTH	LOWEST	NOW
2014	2017	2020
376	286	338
LARGEST		
2014	2017	2020
510	395	455



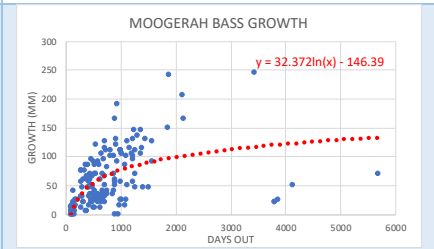
Fish lengths percentage Undersize <300mm Legal 300-499mm Trophy 500+mm 2011-2020


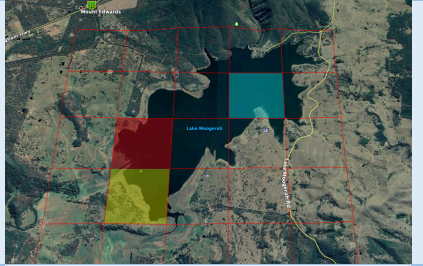
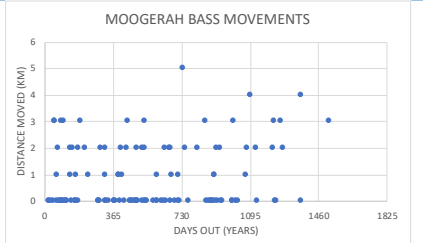
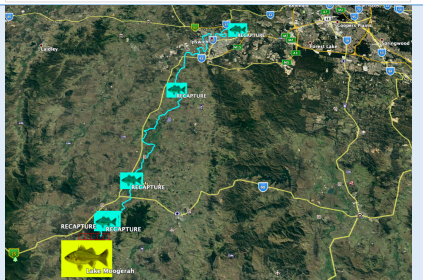
HIGHEST LEGAL	LOWEST	NOW
2019	2017	2020
90.9	39.0	75.5
TROPHY		
2014	2016-19	2020
1.3	0	0

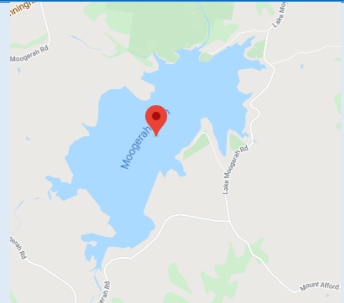

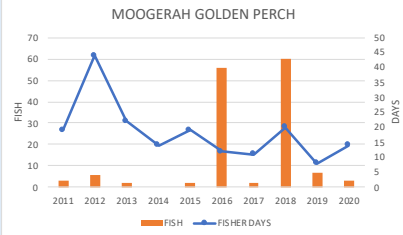
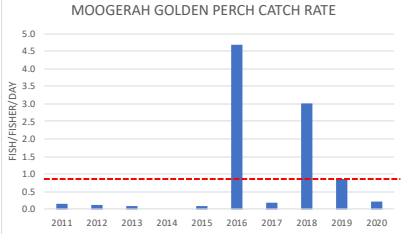
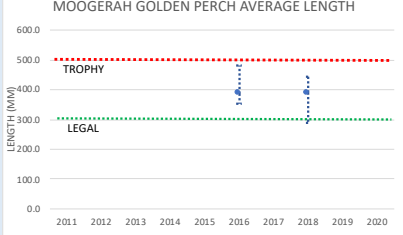
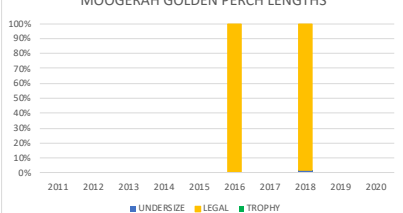
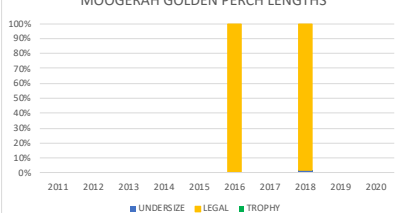
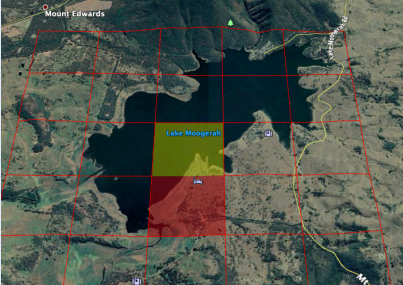






Bass growth based on recaptures 2011-2020

Recaptures	152
ANNUAL GROWTH	
Year 1	44mm
Year 2	67mm
Year 3	80mm
Year 4	89mm
Year 5	96mm



Bass survival based on recaptures by years out after tagging	Survival rate by years out Year Recaptures 1 911 5 193 10 10 12 1 Longest time out (years) 15.6 1													
Grid locations of tagged fish (map LMH) 2011-2020	Grids where most fish caught GRID FISH B3 500 B4 358 D2 276													
Bass movement 2011-2020	Recaptures 123 Recaptured same area 71 (57.7%) Outside lake 0													
Bass recaptured outside impoundment All years	<table border="0"> <tr> <td>Above lake</td> <td>Below lake</td> </tr> <tr> <td>0</td> <td>5</td> </tr> <tr> <td>Warrill/Reynolds Creeks</td> <td></td> </tr> <tr> <td>4</td> <td></td> </tr> <tr> <td>Bremer River</td> <td></td> </tr> <tr> <td>1</td> <td></td> </tr> </table>	Above lake	Below lake	0	5	Warrill/Reynolds Creeks		4		Bremer River		1		
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LAKE MOOGERAH			GOLDEN PERCH		
					
MEASURE	ACTUAL			GRAPH or MAP	
Catch and effort number of fish fisher days T20 fishers 2011-2020	HIGHEST CATCH	LOWEST	NOW		
	2018	2014	2020		
	60	0	3		
Catch rate Fish/fisher day 2011-2020	HIGHEST CATCH RATE	LOWEST	NOW		
	2016	2014	2020		
	4.7	0	0.2		
10 YEAR AVERAGE			0.8		
Average length (mm) Bars show smallest and largest fish 2011-2020	AVERAGE LENGTH				
	2016	2018	2020		
	389	391	NA		
LARGEST 2016 2018 2020 480 445 NA	AVERAGE LENGTH				
	2016	2018	2020		
	100	98.3	NA		
Fish lengths percentage Undersize <300mm Legal 300-499mm Trophy 500+mm 2011-2020	LEGAL				
	2016	2018	2020		
	0	0	0		
Grid locations of tagged fish (map LMH) 2011-2020	Grids where most fish caught				
	GRID	FISH			
	C4	31			
	C3	13			
 			 		
Product of Infotech Australia			Supported by Suntag and FFSAQ		

Data sources

Data used in the Impoundment Crystal Bowl are:

- Tag records and recapture records for the impoundment at <http://crystalbowl.infofishaustralia.com.au/>
- Dam level data from SEQwater at <https://www.seqwater.com.au/historic-dam-levels>
- Stocked fish records from <https://www.data.qld.gov.au/dataset/queensland-freshwater-fish-stocking-records/>
- Bathymetric data from Infish surveys or other sources

Basis for analysis

- Catch rates calculated as number of fish caught/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 fish are <300mm, legal fish are ≥ 300 and <500mm and trophy fish are ≥ 500 mm
- Growth calculated using logarithmic curve from recaptures where fish were out for 90 days or more and had positive growth
- Locations based on Infish grid map LMH for the impoundment and f other grid maps where fish were recaptured outside the impoundment
- Survival rates are calculated based on a model that uses the reduction in the number of recaptures each year after tagging
- Distance moved calculated using Google Earth as the shortest distance by water between the tag and recapture locations