



LAKE MONDURAN  
BARRAMUNDI AND AUSTRALIAN BASS 2011-2020  
2020 REVIEW


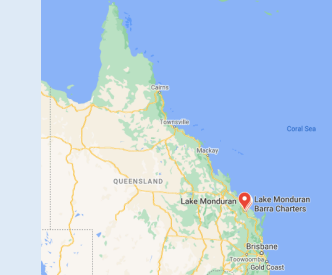
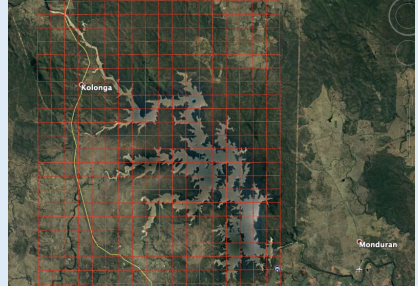
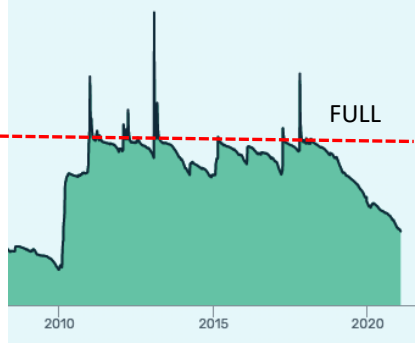
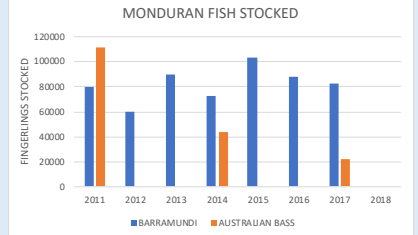
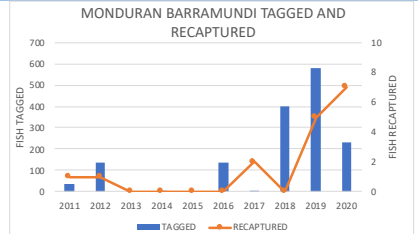
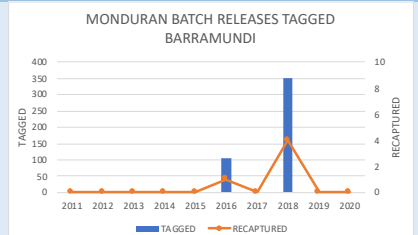
**Stocked fish numbers, tagged and recaptured fish, catch rates, fish sizes, growth, survival, locations, movement and recapture fisher postcodes**

The following dashboard provides a summary of Barramundi data from Lake Monduran covering the past 10 years.



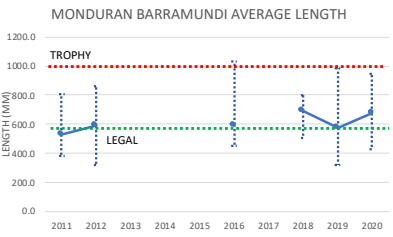
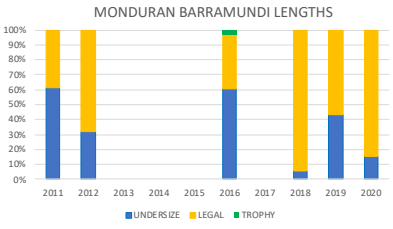
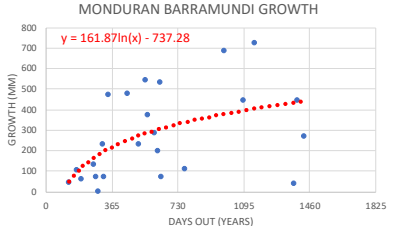
### Summary


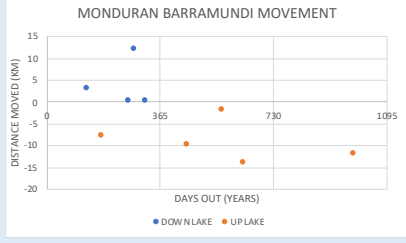
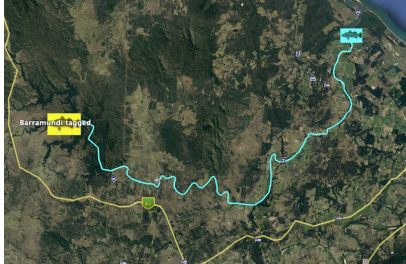
- The limited available data for Lake Monduran means the information provided is indicative only
- Dam level at 31 Dec 2020 was 47%
- From 2011-2018 there were 577.1K Barramundi and 176.6K Australian Bass fingerlings released
- Over the past 10 years there were 1,534 Barramundi tagged for 16 (1.0%) recaptures and 9 Bass tagged for 0 (0.0%) recaptures
- There were insufficient Bass recorded to make any assessment other than the numbers are low compared to the fish stocked however Barramundi are the most targeted
- There were 2 batch releases of tagged Barramundi with 104 in 2016 for 1 (1.0%) recapture and 350 in 2018 for 4 (1.1%) recaptures with fish averaging 180mm in both releases
- The tag rate and fishing effort was not suitable to calculate a tag or catch rate
- The average length of tagged Barramundi was 679mm in 2020 with just one fish of 1030mm over 1m tagged in 2016
- Over the past 10 years most Barramundi were tagged in LMK map grids L9, K10, K11 and H13
- There were insufficient recaptures to calculate a reliable growth rate
- The longest time out for a Barramundi after tagging is 2.7 years however this is a reflection of the limited early tagging effort
- There has been 1 recapture of a fish outside the impoundment with a fish recaptured in the Kolan River 48km from where tagged after going over the dam wall
- There were 16 recaptures where the postcode of the fisher was recorded with 6 from SE Qld, 2 from Bundaberg, 2 from SW Qld and 4 from interstate indicating fishers are coming from wide afield to fish the lake

Infotish Australia  
January 2021

LAKE MONDURAN	LOCATION	BATHYMETRY																			
																					
MEASURE	ACTUAL	GRAPH of MAP																			
<b>Lake Monduran</b>	Grid map Lake Monduran LMK																				
<b>Surface area</b> <b>Lake capacity</b>	Surface area 53.4km <sup>2</sup> Level at 31 Dec 2020 47% For latest level <a href="https://www.sunwater.com.au/water-data/historical-dam-capacity/">https://www.sunwater.com.au/water-data/historical-dam-capacity/</a>																				
<b>Fingerlings stocked</b> <b>2011-2018</b>	<table border="1"> <thead> <tr> <th>HIGHEST</th> <th>LOWEST</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>BARRAMUNDI</td> <td>2015</td> <td>2012</td> <td></td> </tr> <tr> <td></td> <td>103.7K</td> <td>60K</td> <td>577.1K</td> </tr> <tr> <td>BASS</td> <td>2011</td> <td>2016</td> <td></td> </tr> <tr> <td></td> <td>111.1K</td> <td>0</td> <td>176.6K</td> </tr> </tbody> </table>	HIGHEST	LOWEST	TOTAL	BARRAMUNDI	2015	2012			103.7K	60K	577.1K	BASS	2011	2016			111.1K	0	176.6K	
HIGHEST	LOWEST	TOTAL																			
BARRAMUNDI	2015	2012																			
	103.7K	60K	577.1K																		
BASS	2011	2016																			
	111.1K	0	176.6K																		
<b>Barramundi tagged and recaptured</b> <b>2011-2020</b>	<table border="1"> <thead> <tr> <th>TAGGED</th> <th>RECAPTURED</th> </tr> </thead> <tbody> <tr> <td>1534</td> <td>16</td> </tr> </tbody> </table> RECAPTURE RATE 1.0%	TAGGED	RECAPTURED	1534	16																
TAGGED	RECAPTURED																				
1534	16																				
<b>Batch releases of tagged Barramundi</b> <b>2011-2020</b>	<table border="1"> <thead> <tr> <th>Tagged</th> <th>Recap</th> <th>Av length</th> </tr> </thead> <tbody> <tr> <td>2016</td> <td></td> <td></td> </tr> <tr> <td>104</td> <td>1(1.0%)</td> <td>180mm</td> </tr> <tr> <td>2018</td> <td></td> <td></td> </tr> <tr> <td>350</td> <td>4(1.1%)</td> <td>180mm</td> </tr> </tbody> </table>	Tagged	Recap	Av length	2016			104	1(1.0%)	180mm	2018			350	4(1.1%)	180mm					
Tagged	Recap	Av length																			
2016																					
104	1(1.0%)	180mm																			
2018																					
350	4(1.1%)	180mm																			

<b>Bass tagged and recaptured 2011-2020</b>	<table border="1"> <thead> <tr> <th>TAGGED</th> <th>RECAPTURED</th> </tr> </thead> <tbody> <tr> <td>9</td> <td>0</td> </tr> <tr> <td colspan="2">RECAPTURE RATE</td> </tr> <tr> <td colspan="2">0%</td> </tr> </tbody> </table>	TAGGED	RECAPTURED	9	0	RECAPTURE RATE		0%		<p>MONDURAN BASS TAGGED AND RECAPTURED</p>				
TAGGED	RECAPTURED													
9	0													
RECAPTURE RATE														
0%														
<b>Postcodes of recapture fishers 2011-2020</b>	<table border="1"> <thead> <tr> <th>Recaptures POSTCODE</th> <th>FISHERS</th> </tr> </thead> <tbody> <tr> <td>4502</td> <td>3</td> </tr> <tr> <td>4670</td> <td>2</td> </tr> <tr> <td>4680</td> <td>1</td> </tr> <tr> <td>Interstate</td> <td>4</td> </tr> <tr> <td>No code</td> <td>2</td> </tr> </tbody> </table>	Recaptures POSTCODE	FISHERS	4502	3	4670	2	4680	1	Interstate	4	No code	2	
Recaptures POSTCODE	FISHERS													
4502	3													
4670	2													
4680	1													
Interstate	4													
No code	2													
<b>Recapture fishers from regions 2011-2020</b>	<table border="1"> <thead> <tr> <th>REGION</th> <th>FISHERS</th> </tr> </thead> <tbody> <tr> <td>SE QLD</td> <td>6 (37%)</td> </tr> <tr> <td>BUNDABERG</td> <td>2 (12%)</td> </tr> <tr> <td>CENTRAL QLD</td> <td>2 (13%)</td> </tr> <tr> <td>SW QLD</td> <td>2 (13%)</td> </tr> <tr> <td>OTHER STATES</td> <td>4 (25%)</td> </tr> </tbody> </table>	REGION	FISHERS	SE QLD	6 (37%)	BUNDABERG	2 (12%)	CENTRAL QLD	2 (13%)	SW QLD	2 (13%)	OTHER STATES	4 (25%)	<p>MONDURAN RECAPTURE FISHER POSTCODES</p>
REGION	FISHERS													
SE QLD	6 (37%)													
BUNDABERG	2 (12%)													
CENTRAL QLD	2 (13%)													
SW QLD	2 (13%)													
OTHER STATES	4 (25%)													
<p>Product of Infofish Australia</p>		<p>Supported by Suntag and FFSAQ</p>												

LAKE MONDURAN		BARRAMUNDI																				
																						
MEASURE	ACTUAL	GRAPH																				
<b>Catch and effort</b> <b>number of fish</b> <b>Fisher tag days</b> <b>T20 fishers</b> <b>2011-2020</b>	<table border="1"> <thead> <tr> <th>HIGHEST</th> <th>LOWEST</th> <th>NOW</th> </tr> </thead> <tbody> <tr> <td>CATCH</td> <td>2019</td> <td>2017</td> <td>2020</td> </tr> <tr> <td>EFFORT</td> <td>579</td> <td>0</td> <td>227</td> </tr> </tbody> </table> <p>Data not suitable to determine effort</p>	HIGHEST	LOWEST	NOW	CATCH	2019	2017	2020	EFFORT	579	0	227										
HIGHEST	LOWEST	NOW																				
CATCH	2019	2017	2020																			
EFFORT	579	0	227																			
<b>Catch rate</b> <b>Fish/fisher day</b> <b>2011-2020</b>	Data not suitable to calculate catch rates																					
<b>Average length (mm)</b> <b>Bars show smallest and largest fish</b> <b>2011-2020</b>	<table border="1"> <thead> <tr> <th>HIGHEST</th> <th>LOWEST</th> <th>NOW</th> </tr> </thead> <tbody> <tr> <td>AVERAGE LENGTH</td> <td>2018</td> <td>2011</td> <td>2020</td> </tr> <tr> <td>LARGEST</td> <td>695</td> <td>531</td> <td>679</td> </tr> <tr> <td></td> <td>2016</td> <td>2018</td> <td>2020</td> </tr> <tr> <td></td> <td>1030</td> <td>800</td> <td>950</td> </tr> </tbody> </table>	HIGHEST	LOWEST	NOW	AVERAGE LENGTH	2018	2011	2020	LARGEST	695	531	679		2016	2018	2020		1030	800	950		
HIGHEST	LOWEST	NOW																				
AVERAGE LENGTH	2018	2011	2020																			
LARGEST	695	531	679																			
	2016	2018	2020																			
	1030	800	950																			
<b>Fish lengths percentage</b> <b>Undersize &lt;580mm</b> <b>Legal 580-999mm</b> <b>Trophy 1000+mm</b> <b>2011-2020</b>	<table border="1"> <thead> <tr> <th>HIGHEST</th> <th>LOWEST</th> <th>NOW</th> </tr> </thead> <tbody> <tr> <td>LEGAL</td> <td>2018</td> <td>2011</td> <td>2020</td> </tr> <tr> <td>TROPHY</td> <td>94.1</td> <td>36.4</td> <td>84.6</td> </tr> <tr> <td></td> <td>2016</td> <td>2019</td> <td>2020</td> </tr> <tr> <td></td> <td>3.0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>	HIGHEST	LOWEST	NOW	LEGAL	2018	2011	2020	TROPHY	94.1	36.4	84.6		2016	2019	2020		3.0	0	0		
HIGHEST	LOWEST	NOW																				
LEGAL	2018	2011	2020																			
TROPHY	94.1	36.4	84.6																			
	2016	2019	2020																			
	3.0	0	0																			
<b>Barramundi growth at the end of each year based on recaptures all years</b>	Recaptures 24 Insufficient data for reliable growth estimate Longest time out (years) 2.7																					

<b>Grid locations of tagged fish (map LMK) 2011-2020</b>	Grids where most fish caught GRID                    FISH L9                        154 K10                      74 K11                      52 H13                      52	
<b>Barramundi movements in lake (km) 2011-2020</b>	Recaptures            9 Recaptured same area 2 (22%) Up lake                    Down lake 5                            2	
<b>Barramundi recaptured outside impoundment</b>	Recaptures below lake 1 Over dam wall down Kolan river 48km	

## 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 Sunwater <https://www.sunwater.com.au/water-data/historical-dam-capacity/>
- Stocked fish records from <https://www.data.qld.gov.au/dataset/queensland-freshwater-fish-stocking-records/>

## Basis for analysis

- 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 Barramundi are <580mm, legal fish are >=580 and <1000mm and trophy fish are >=1000mm
- Growth calculated using logarithmic curve from recaptures where fish were out for 90 days or more and had positive growth
- Locations based on Infotag grid map LMK for the impoundment and other grid maps where fish were recaptured outside the impoundment
- Distance moved was the shortest distance by water between the tag and recapture location measured in Google Earth