



AWOONGA STOCKED BARRAMUNDI 2000-2020

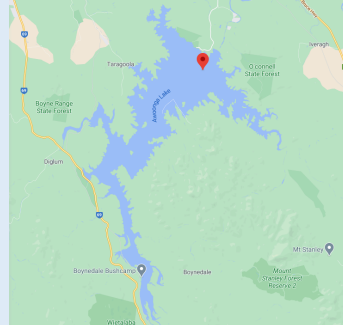


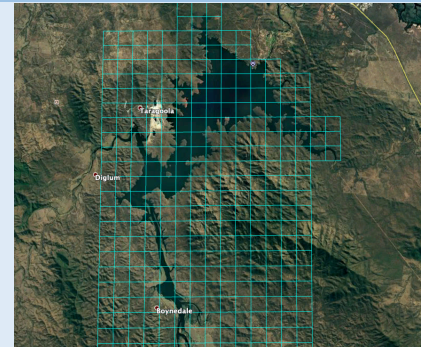
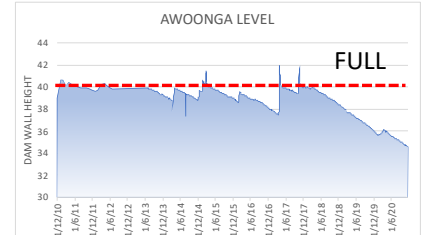
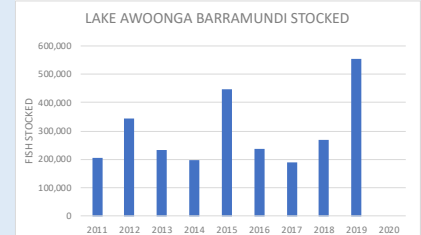
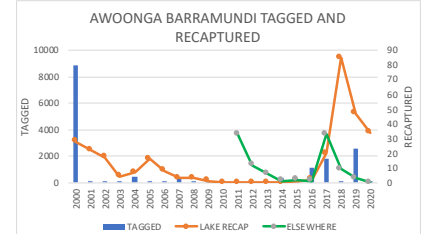
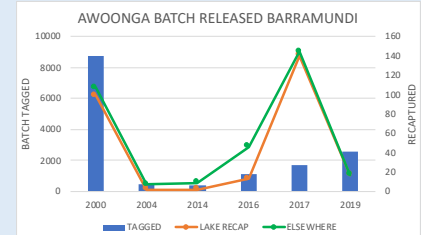
2020 REVIEW

AVAILABLE		AVAILABLE	
Dam capacity	✓	Storage level	✓
Stocked fish numbers	✓	Bathymetry	
Tagged fish	✓	Recaptures	✓
Postcodes	✓	Competitions	✓
Species		Barramundi	
Catch rates	✓	Fish sizes	✓
Growth	✓	Survival	✓
Tag locations	✓	Fish Movement	✓

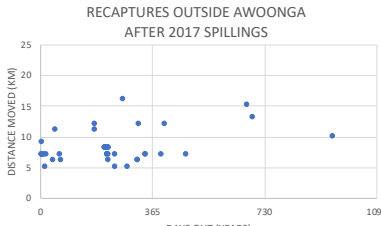
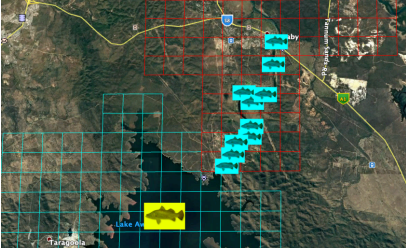

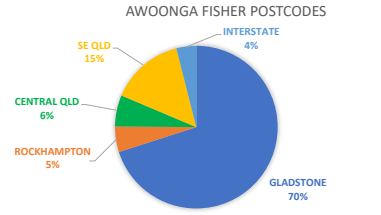
Summary

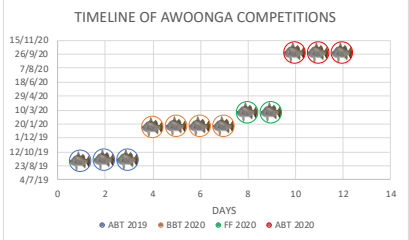
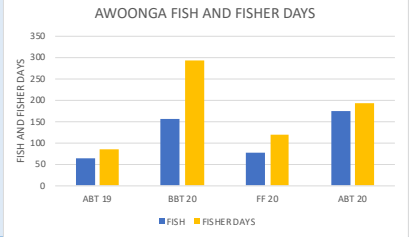
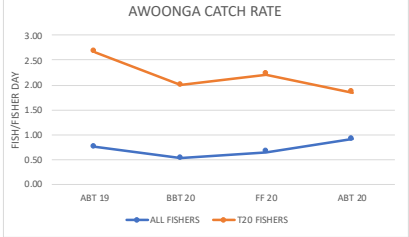
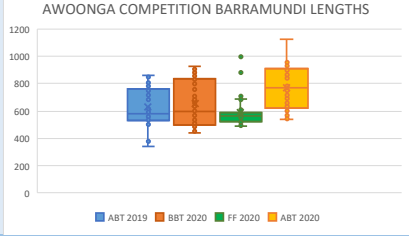
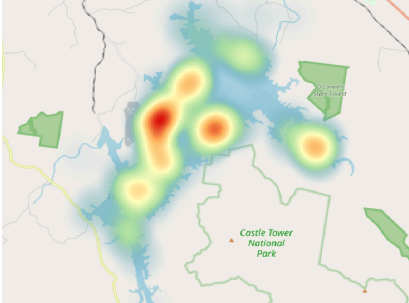




- At the end of 2020 the lake capacity was at 59%
- The lake spilled in 2011, 2015 and 2017
- From 2011-2020 there were 2.7M Barramundi fingerlings released
- From 2000-2020 there were 16,136 Barramundi tagged in Lake Awoonga with 298 (1.8%) recaptures in the lake and 100 (0.6%) recaptures elsewhere below the dam
- Of those 15,726 were tagged and released in batches from 2000-2019 for 330 (2.1%) recaptures
- The average size of released fish ranged from 150mm (estimated) in 2014 to 211mm in 2017 and 2019
- Growth was estimated at 343mm at the end of year 1
- The longest time out for a Barramundi was 13.1 years
- Following the spilling of the lake in 2011 there were 55 fish recaptured below the dam up to 5.0 years later and as far north as the Fitzroy River (100km) and as far south as the Burnett River (200km)
- Following the spilling of the lake in 2017 there were 45 recaptures up to 2.6 years later and all within the Boyne River up to 10km below the dam
- Fishers recapturing fish mostly came Gladstone (70%), SE Qld (15%), Central Qld (6%) and interstate (4%)
- There were 4 competitions from 2019-2020 where data were collected through the Trackmyfish app being ABT 2019, Barrabasstastic 2020, Fishing Freshwater 2020 and ABT 2020
- Catch rates for T20 fishers were 2.7 fish/fisher day in ABT 19, 2.0 in BBT 20, 2.2 in FF 20 and 1.9 in ABT 20
- The median length of Barramundi in ABT 19 was 580mm, 600mm in BBT 20, 560mm in FF 20 and 770mm in ABT 20
- The largest Barramundi was 1130mm in ABT 20 while there were just 2 fish over 1m caught in all the competitions

Infotish Australia
January 2021

AWOONGA STOCKING	LOCATION	BARRAMUNDI																					
																							
MEASURE	ACTUAL	GRAPH or MAP																					
Lake Awoonga	Grid map Lake Awoonga GLA																						
Surface area Lake capacity	Surface area 67.5km ² Level at 31 Dec 2020 59% Lake spilled 2011 2015 2017																						
Fingerlings stocked 2011-2020	<table><tr><td>Highest 2019</td><td>Lowest 2020</td><td>Total</td></tr><tr><td>555.9K</td><td>0</td><td>2.7M</td></tr></table>	Highest 2019	Lowest 2020	Total	555.9K	0	2.7M																
Highest 2019	Lowest 2020	Total																					
555.9K	0	2.7M																					
Fish tagged and released Recapture rate (%) 2001-2020	<table><tr><td>Tagged In lake (orange)</td><td>Recap</td><td>Recap%</td></tr><tr><td>16136</td><td>298</td><td>1.8%</td></tr><tr><td>Elsewhere (green)</td><td>100</td><td>0.6%</td></tr></table>	Tagged In lake (orange)	Recap	Recap%	16136	298	1.8%	Elsewhere (green)	100	0.6%													
Tagged In lake (orange)	Recap	Recap%																					
16136	298	1.8%																					
Elsewhere (green)	100	0.6%																					
Batch releases of tagged fish Recapture rate 2000-2010	<table><tr><td>Year</td><td>Fish</td><td>Recap</td></tr><tr><td>2000</td><td>8760</td><td>107</td></tr><tr><td>2004</td><td>481</td><td>7</td></tr><tr><td>2014</td><td>385</td><td>9</td></tr><tr><td>2016</td><td>1825</td><td>46</td></tr><tr><td>2017</td><td>1696</td><td>144</td></tr><tr><td>2019</td><td>2579</td><td>17</td></tr></table>	Year	Fish	Recap	2000	8760	107	2004	481	7	2014	385	9	2016	1825	46	2017	1696	144	2019	2579	17	
Year	Fish	Recap																					
2000	8760	107																					
2004	481	7																					
2014	385	9																					
2016	1825	46																					
2017	1696	144																					
2019	2579	17																					

Average fish lengths (mm) on release Bars show minimum and maximum sizes 2011-2020	Average length 2014 150 (E) 2016 168 2017 211 2019 211 E = estimated	
Timeline of fish sizes from release to recapture 2000-2020	Releases 2000 2004 2014 2016 2017 2019	
Growth (mm) from combined releases 2000 2014 2016 2017 2019	Growth at end of year Year 1 343 Year 2 523 Year 5 838 Year 10 957	
Barramundi survival Based on recaptures by years out after tagging All years	Year Recaptures 1 522 5 101 10 12 15 0 Longest time out (years) 13.1 years	
Fish movement in lake 2001-2020	Number of recaptures 206 Recaptured same area 45 (21.8%)	
Recaptures after Jan 2011 spilling of lake 2011-2016	Number of external recaptures 55 Longest time out after spill 5.0 years	
Recaptures after 2011 spilling of lake 2011-2016	Furthest north Fitzroy River 100km Furthest south Burnett River 200km	

Recaptures after Apr and Nov 2017 spilling of lake 2017-2020	<div>Number of external recaptures 45 Longest time out after spill 2.6 years</div>	<div>RECAPTURES OUTSIDE AWOONGA AFTER 2017 SPILLINGS</div> 												
Recaptures after Apr and Nov 2017 spilling of lake 2017-2020	<div>From below dam wall down Boyne River as far as Benaraby (10km) Maximum distance moved 16km</div>													
Postcodes of recapture fishers 2011-2020	<div>Number of recaptures 193 Postcode 4680 124 4700/4701 9 4670 5 No code 16</div>													
Regions of recapture fishers 2011-2020	<div><table><tr><th>Region</th><th>Percent</th></tr><tr><td>Gladstone</td><td>70%</td></tr><tr><td>SE Qld</td><td>15%</td></tr><tr><td>Central Qld</td><td>6%</td></tr><tr><td>Rockhampton</td><td>5%</td></tr><tr><td>Interstate</td><td>4%</td></tr></table></div>	Region	Percent	Gladstone	70%	SE Qld	15%	Central Qld	6%	Rockhampton	5%	Interstate	4%	<div>AWOONGA FISHER POSTCODES</div> 
Region	Percent													
Gladstone	70%													
SE Qld	15%													
Central Qld	6%													
Rockhampton	5%													
Interstate	4%													

COMPETITIONS	ACTUAL	GRAPH or MAP
Event ABT 2019 Barrabasstastic BBT 2020 Fishing Freshwater FF 2020 ABT 2020	Code ABT 19 BBT 20 FF20 ABT 20	Targets Barramundi Barramundi All species Barramundi
Timeline of events ABT 19 BBT 20 FF 20 ABT 20	Dates 10-12/9/2019 (3 days) 9-12/1/2020 (4 days) 29/2-1/3/2020 (2 days) 29/9-1/10/2020 (3 days)	
Fisher days and Barramundi catch	ABT 19 BBT 20 FF 20 ABT20 Fisher days 84 292 120 192 Barramundi 63 155 78 174	
Catch rates Fish/fisher day T20 fishers All fishers	ABT 19 BBT 20 FF 20 ABT20 T20 catch rate 2.7 2.0 2.2 1.9 All fishers catch rates 0.8 0.5 0.7 0.9	
Barramundi median lengths (mm) and range Bars show smallest and largest fish Dots show outliers	ABT 19 BBT 20 FF 20 ABT20 Median length 580 600 560 770 Maximum length 860 930 1000 1130	
Heat map Locations Barramundi caught during competitions	All competitions combined ABT 19 BBT 20 FF 20 ABT 20	
 		 
Product of Infish Australia		Supported by Suntag and FFSAQ

DATA SOURCES

Data used in the Awoonga Barramundi Crystal Bowl:

- Tag records and recapture records for Lake Awoonga at <http://crystalbowl.infofishaustralia.com.au/>
- Competition records from Infofish <http://tournaments.trackmy.fish/>
- Dam level data from Gladstone Area Water Board
- Stocked fish records from Gladstone Area Water Board

BASIS FOR ANALYSIS

- Growth calculated using linear trendline from recaptures where fish were out for 90 days or more and had positive growth
- Tag and recapture locations based on Infofish grid maps for the area with 1km² grids
- Distance moved was calculated between the grids where fish were tagged and recaptured using Google Earth and was the shortest distance by water between the two locations
- T20 catch rates in competitions based on fishers catching a minimum of 1 fish/fisher day