



TINAROO STOCKED BARRAMUNDI 2001-2020

2020 REVIEW

Stocked tagged fish, recaptures, survival and growth

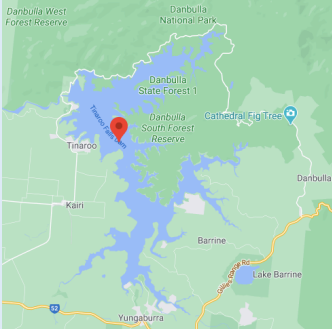


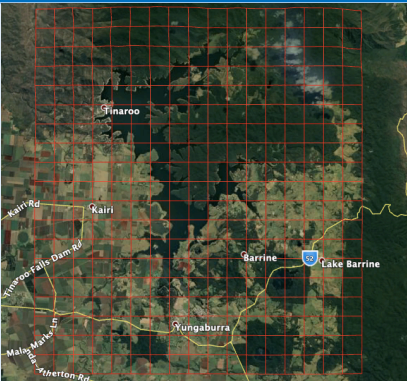
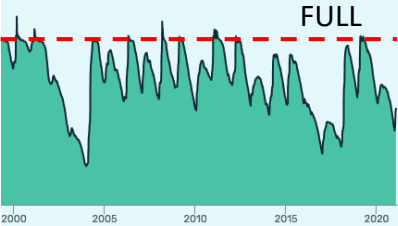
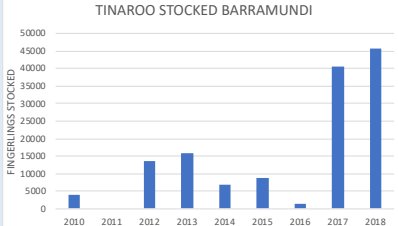
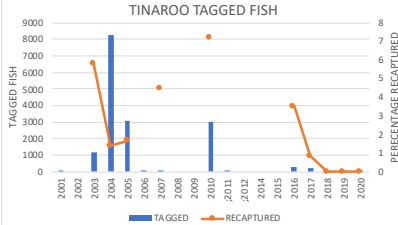
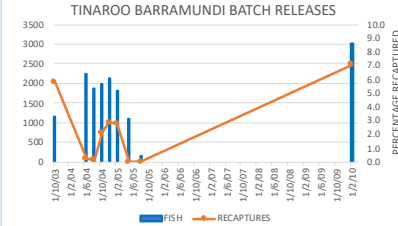
The following dashboard provides a summary of tagged Barramundi released by the Tablelands Fish Stocking Group over the past 20 years. Dashboards normally cover the last 10 years however has been extended here as there are fish that are still being recaptured from the early 2000s.

Summary

- At the end of 2020 the lake capacity was at 48%
- From 2011-2020 there were 133.0K fingerlings released
- From 2001-2020 there were 16,215 Barramundi tagged in Lake Tinaroo with an overall recapture rate of 2.9%
- Of those 15,448 were tagged and released in batches in 2003, 2004, 2005 and 2010
- The recapture rate for winter releases in 2004 was 0.2% and for winter releases in 2005 was 0% while the recapture rate for summer releases in 2003 was 5.8%, in 2004 was 2.5%, in 2005 was 2.8% and in 2010 was 7.1% (recaptures from 2003 and 2010 were boosted by electrofishing by Fisheries after the releases)
- The average size of released fish ranged from 195mm in 2010 to 339mm in summer 2005
- Almost all fish from each of the batch releases are now over 1m including those released in 2010
- The longest time out for a Barramundi was 7,313 days (20.0 years) with 8 fish being recaptured after 15 years
- Of all recaptures 51.3% were recaptured in the same area as tagged, 17.5% moved down the lake and 31.2% moved up the lake
- Fishers recapturing fish mostly came from the Cairns coastal strip (54%), locally from the Atherton Tableland (34%) and SE Qld (7%)
- There were 3 competitions from 2018-2020 where data were collected through the Trackmyfish app being Barra Bash 2018, Barra Bash 2019 and ABT 2020
- The Bash events targeted all species (including Redclaw) while the ABT event was Barramundi only
- Catch rates for T20 fishers were 1.26 fish/fisher day in Bash 2018, 2.11 in Bash 2019 and 2.10 in the ABT event
- The median length of Barramundi in Bash 2018 was 920mm, in Bash 2019 was 680mm and 810mm in the ABT event
- There were 20 Barramundi over 1m in Bash 2018, 33 in Bash 2019 and 31 in the ABT event

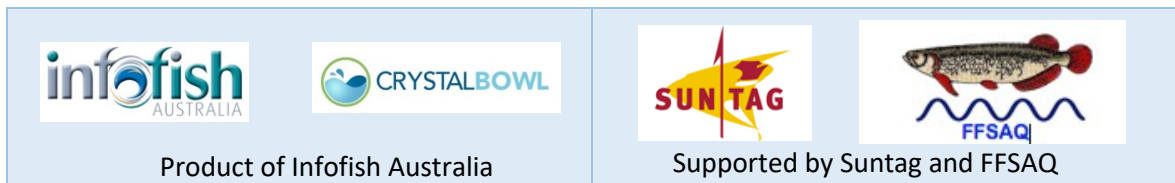
Infofish Australia

January 2021

TINAROO STOCKING	LOCATION	BARRAMUNDI																					
																							
MEASURE	ACTUAL	GRAPH or MAP																					
Lake Tinaroo	Grid map Lake Tinaroo LTA																						
Surface area Lake capacity	Surface area 35km ² Level at 31 Dec2020 48% For latest level https://storagelevels.sunwater.com.au/win/reports/winstorages.htm																						
Fingerlings stocked 2011-2018	<table border="1"> <thead> <tr> <th>Year</th> <th>Fish</th> <th>Recap</th> </tr> </thead> <tbody> <tr> <td>2011</td> <td>45.7K</td> <td>0</td> </tr> <tr> <td>2018</td> <td>133.0K</td> <td>0</td> </tr> </tbody> </table>	Year	Fish	Recap	2011	45.7K	0	2018	133.0K	0													
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Batch releases of tagged fish Recapture rate 2001-2010	<table border="1"> <thead> <tr> <th>Season</th> <th>Fish</th> <th>Recap</th> </tr> </thead> <tbody> <tr> <td>2003Sp</td> <td>1138</td> <td>5.8%</td> </tr> <tr> <td>2004W</td> <td>4099</td> <td>0.2%</td> </tr> <tr> <td>2004Su</td> <td>4118</td> <td>2.5%</td> </tr> <tr> <td>2005Su</td> <td>1825</td> <td>2.8%</td> </tr> <tr> <td>2005W</td> <td>1240</td> <td>0.0%</td> </tr> <tr> <td>2010Su</td> <td>3029</td> <td>7.1%</td> </tr> </tbody> </table>	Season	Fish	Recap	2003Sp	1138	5.8%	2004W	4099	0.2%	2004Su	4118	2.5%	2005Su	1825	2.8%	2005W	1240	0.0%	2010Su	3029	7.1%	
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Average fish lengths (mm) on release Bars show minimum and maximum sizes 2001-2020	Average length Low High 2010 2005Su 195 339	
Timeline of fish sizes 2001-2020	Releases 2003 2004 2005 2010	
Growth from releases	Releases 2003 2004 2005 2010	
Barramundi survival Based on recaptures by years out after tagging All years	Year Recaptures 1 491 5 111 10 46 15 12 20 1 Longest time out (years) 20.0 years	
Fish movement 2001-2020	Number of recaptures 349 Recaptured same area 179 (51.3%) Down lake Up lake 61 (17.5%) 109 (31.2%) Outside lake 0	
Postcodes of recapture fishers 2011-2020	Number of recaptures 178 Postcode 4870 28 4880 16 4865 9 4873 8	
Regions of recapture fishers 2011-2020	Region Percent Cairns coast 54% Tablelands 34% SE Qld 7% Nth Qld 3% Interstate 2%	

COMPETITIONS	ACTUAL	GRAPH or MAP															
Event Barra Bash 2018 Barra Bash 2019 ABT 2020	Code Bash 18 Bash 19 ABT 20	Targets All species All species Barramundi															
Timeline of events Bash 18 Bash 19 ABT 20	Dates 21-23/9/2018 (3 days) 8-10/11/2019 (3 days) 30-31/10/2020 (2 days)	<p>TIMELINE TINAROO COMPETITIONS</p>															
Fisher days and Barramundi catch	<table><tr><td>Bash 18</td><td>Bash 19</td><td>ABT 20</td></tr><tr><td>Fisher days</td><td></td><td></td></tr><tr><td>141</td><td>363</td><td>78</td></tr><tr><td>Barramundi</td><td></td><td></td></tr><tr><td>68</td><td>217</td><td>131</td></tr></table>	Bash 18	Bash 19	ABT 20	Fisher days			141	363	78	Barramundi			68	217	131	<p>TINAROO COMPETITIONS BARRAMUNDI CATCH AND FISHER DAYS</p>
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Barramundi median lengths (mm) Bars show smallest and largest fish	<table><tr><td>Bash 18</td><td>Bash 19</td><td>ABT 20</td></tr><tr><td>Median length</td><td></td><td></td></tr><tr><td>920</td><td>680</td><td>810</td></tr><tr><td>Maximum length</td><td></td><td></td></tr><tr><td>1300</td><td>1210</td><td>1140</td></tr></table>	Bash 18	Bash 19	ABT 20	Median length			920	680	810	Maximum length			1300	1210	1140	<p>TINAROO COMPETITION BARRAMUNDI LENGTHS</p>
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Barramundi size ranges (50mm intervals)	<table><tr><td>Bash 18</td><td>Bash 19</td><td>ABT 20</td></tr><tr><td>Most fish</td><td></td><td></td></tr><tr><td>500:549</td><td>650:699</td><td>950:999</td></tr><tr><td>Over 1m</td><td></td><td></td></tr><tr><td>20</td><td>33</td><td>31</td></tr></table>	Bash 18	Bash 19	ABT 20	Most fish			500:549	650:699	950:999	Over 1m			20	33	31	<p>TINAROO COMPETITION BARRAMUNDI</p>
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Heat map Locations Barramundi caught during competitions	All competitions combined Bash 18 Bash 19 ABT 20																



DATA SOURCES

Data used in the Tinaroo Barramundi Crystal Bowl:

- Tag records and recapture records for Lake Tinaroo at <http://crystalbowl.infofishaustralia.com.au/>
- Competition records from Infofish <http://tournaments.trackmy.fish/>
- 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

- 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