



ROSS RIVER STOCKED BARRAMUNDI 2001-2020

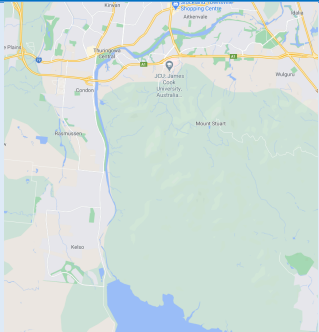


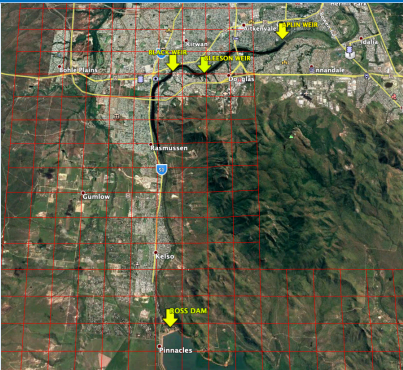
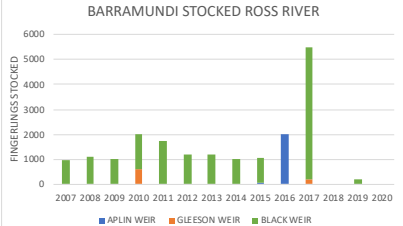
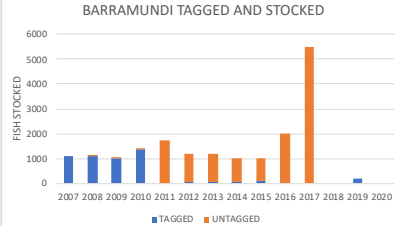
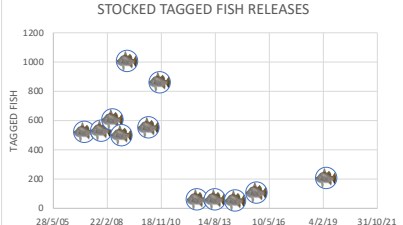
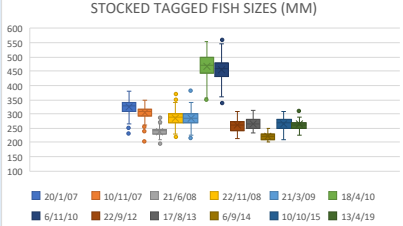
2020 REVIEW

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


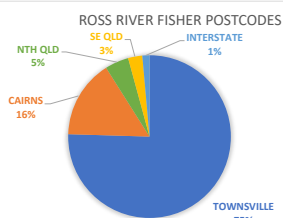






Summary

- The Twin Cities Fish Stocking Society has stocked Barramundi into the weirs on Ross River since 1992 and Lake Ross since 2017
- From 2007-2019 there were 19.0K Barramundi released (mostly in Black Weir) of which 4,953 were tagged and from 2017-2018 40,000 fingerlings were released into Lake Ross
- From 2007-2010 almost all fish were tagged while from 2012-2018 a small sub-sample of 50-100 fish only were tagged
- The overall recapture rate for released fish ranged from 20.8% for fish released in Nov 07 to 0% for fish released in Sep 14
- The median length of fish released ranged from 220mm for fish released in Sep 14 to 470mm for fish released in Apr 10
- Fish released in Sep 14 and in Jun 08 were the smallest fish released (median length 220mm and 240mm) and had the lowest recapture rates of 0% and 2.7% respectively
- Estimated growth of fish was 223mm in the first year after release however growth was very variable
- Based on recaptures the maximum survival time was estimated at 12 years with the longest time out for a fish being 4,455 days or 12.2 years
- For fish released into Black Weir 55.8% were recaptured in that weir pool while 9.4% were recaptured just below Aplin Weir and 3.2% were recaptured in Ross River and elsewhere
- Ross dam spilled each year from 2007-2012 with 39 fish recaptured below Aplin Weir and beyond while from 2013-2018 it did not spill and there were only 3 recaptures below Aplin Weir
- The largest spill occurred in 2019 when 26 fish were recaptured below Aplin Weir and from Toomulla Beach to the west (moved 60km) and Ocean Creek to the east (moved 120km)
- Postcodes of fishers recapturing fish were mostly from Townsville (75%) and from the Cairns region (15%)

Infotish Australia
March 2021

ROSS RIVER	LOCATION	BARRAMUNDI
		
MEASURE	ACTUAL	GRAPH or MAP
Ross River	Ross Dam Black Weir Gleeson Weir Aplin Weir Ross Dam – Aplin Weir length 16km Maps KST and CBT	
Barramundi stocked 2007-2019	Ross River Highest Lowest Total 2017 2018 5.5K 0 19.0K Lake Ross 2017-2018 40.0K	
Barramundi stocked and tagged 2007-2019	2007-2010 100% 2012-2019 Sub-sample 50-200 Total tagged 2007-2019 4953	
Tagged fish releases 2007-2019	Year Releases Fish 2007 2 1031 2008 2 1091 2009 1 997 2010 2 1395 2012-19 5 439	
Release length of tagged fish Median length and range Dots show outliers 2007-2019	Median length (mm) High Low Apr 10 Sep 14 470 220	

Released tagged fish numbers and recapture rate (%) 2007-2019	Recapture rate High Low Nov 07 Sep 14 20.8 0	
Timeline of fish sizes from releases 2007-2010	Releases 2007 2008 2009 2010	
Growth from releases 2007-2019	Annual growth (mm) at end of year Year 1 223 Year 2 335 Year 3 400 Year 4 447 Year 5 483	
Barramundi survival based on recaptures by years out after tagging All years	Year Recaptures 1 477 5 135 10 33 13 1 14 0 Longest time out (years) 12.2 years	
Fish movement for fish released in Black Weir 2007-2020	Percentage of recaptures Black Weir 55.8% Gleeson Weir 25.0% Aplin Weir 6.6% Ross River 9.4% Elsewhere 3.2%	
Tagged fish released in Black Weir and recaptures in weir pools and below Aplin weir 2007-2020		
Recaptures below Aplin Weir in Ross River and beyond and rainfall Ross Dam did not spill 2013-2018	Below Aplin Weir 2007-2012 39 2013-2018 3 2019-2020 26	

Recaptures (blue) in Ross River and beyond after 2019 spilling of Ross Dam	<div><div>Furthest west (km)</div><div>Toomulla Beach60</div><div>Furthest east (km)</div><div>Ocean Creek120</div></div>													
Postcodes of recapture fishers 2007-2020	<div><div>Number of recaptures</div><div>650</div><div>Postcode</div><div>4814156</div><div>4815119</div><div>481772</div><div>487052</div></div>													
Regions of recapture fishers 2011-2020	<table><tr><th>Region</th><th>Percent</th></tr><tr><td>Townsville</td><td>75%</td></tr><tr><td>Cairns region</td><td>15%</td></tr><tr><td>Nth Qld</td><td>5%</td></tr><tr><td>SE Qld</td><td>3%</td></tr><tr><td>Interstate</td><td>1%</td></tr></table>	Region	Percent	Townsville	75%	Cairns region	15%	Nth Qld	5%	SE Qld	3%	Interstate	1%	<div><div>ROSS RIVER FISHER POSTCODES</div></div>
Region	Percent													
Townsville	75%													
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Nth Qld	5%													
SE Qld	3%													
Interstate	1%													
Previous reports	<div><div>Ross River Freshwater Tagging</div><div>Tagging above Aplin Weir available at</div><div>http://infofishaustralia.com.au/ross-river/</div></div>	<div><div></div><div><div>Suntag Report</div><div>Ross River Freshwater Tagging Tagging above Aplin Weir</div><div>Bill Sawynok Report No: ST200402</div><div></div></div></div>												
<div><div></div><div></div></div> <div>Product of Infofish Australia</div>		<div><div></div><div></div></div> <div>Supported by Suntag and FFSAQ</div>												

DATA SOURCES

Data used in the Tinaroo Barramundi Crystal Bowl:

- Tag records and recapture records for Ross River at <http://crystalbowl.infofishaustralia.com.au/>
- Dam level data from Townsville City Council from <https://www.townsville.qld.gov.au/water-waste-and-environment/water-supply-and-dams/dam-levels>
- Rainfall data from Bureau of Meteorology recording station Townsville Aero from <http://www.bom.gov.au/jsp/ncc/cdio/weatherData>
- Stocked fish records from <https://www.data.qld.gov.au/dataset/queensland-freshwater-fish-stocking-records/> and from Twin Cities Fish Stocking Society

BASIS FOR ANALYSIS

- Growth calculated using logarithmic 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
- Survival calculations based on the rate of decline in recaptures over time