



**DALY RIVER CLASSIC BARRAMUNDI**  
**2012-2021**

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

### Observations

- The Barra Classic has been held on the Daly River since the early 1990's and run by the Darwin Game Fishing Club and this dashboard examines the last decade from 2012-2021
- The competition is normally held over 5 days in May however was cancelled in 2020 due to Covid and held in late April in 2021
- The number of fish tagged in the competition is highly variable and dependant on tides, late wet season river flows and the strength of recruitment in previous years with 1,486 fish tagged in 2012 and then 219 in 2013
- For the Barra Classic the trend in the overall catch rate and catch rate for legal fish has varied for the same reasons that the number of fish tagged has varied and the overall catch rate was highest in 2012 at 2.0 fish/fisher day and lowest in in 2019 at 0.3 fish/fisher day
- The recapture rate for Classic fish was 3.7% and slightly below the Fisheries rate of 5.0% but well below the rate of 43.8% in the Million Dollar Fish competition however there are likely to be a range of factors contributing to that difference
- The length of fish tagged in the Classic was highly variable depending on recruitment however the average length was around the legal minimum length of 550mm in most years with 663mm being the highest average length in 2015
- While strong recruitment is generally associated with above average wet seasons this appears to be variable with strong recruitment in 2017 and 2020 and poor recruitment in 2013 and maybe 2019
- The Daly River is a strong attractor of visiting fishers from other states and recaptures of fish tagged in the Classic highlight this with 60% of recaptures coming from fishers that live 2,000-3,000km from the river in all states except Tasmania

Infofish Australia

March 2022

Product of Infofish Australia

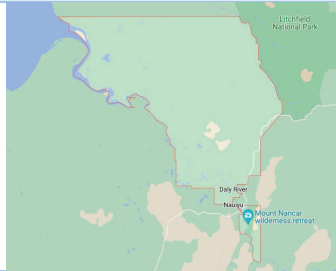


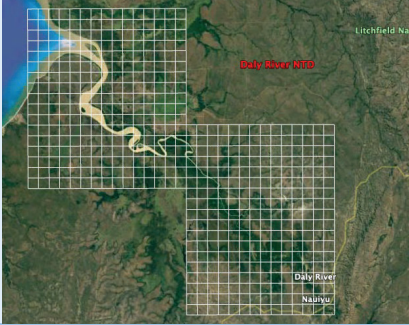
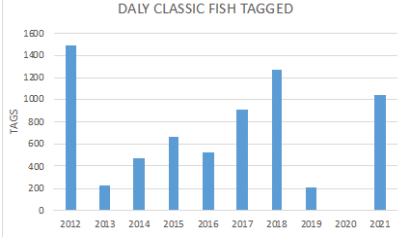
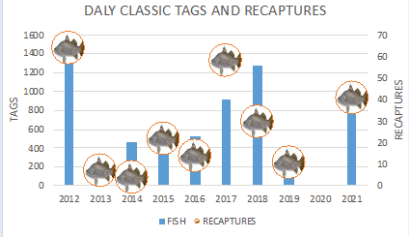
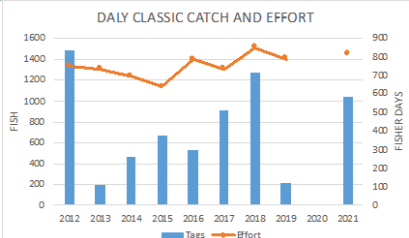
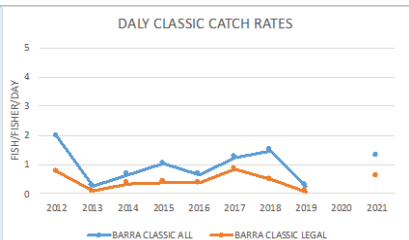


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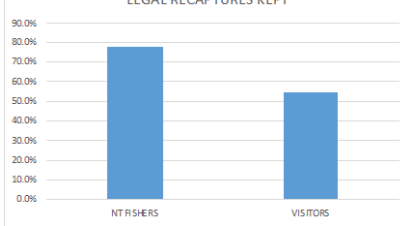
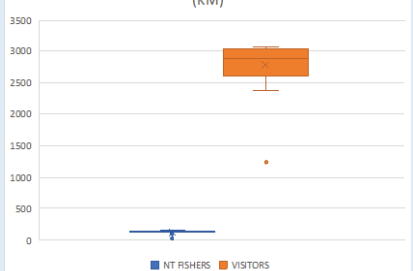
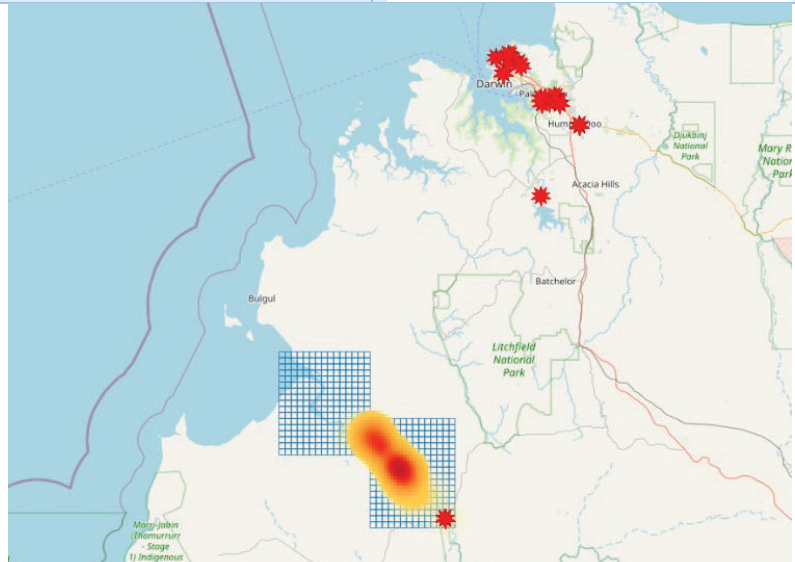
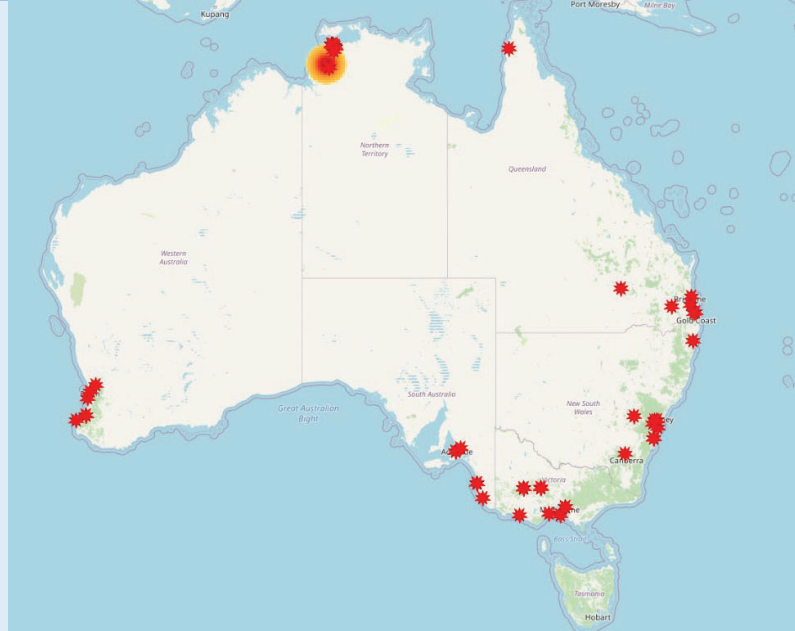
Supported by Darwin Game Fishing Club



MEASURE	ACTUAL			GRAPH or MAP
<b>DALY RIVER</b>				<b>BARRAMUNDI</b>
				
<b>Grid map</b>	Daly River	NTD		
<b>Classic fish tagged 2012-2021</b>	Highest Tagged	Lowest	Now	
	2012 1486	2013 219	2021 1046	
<b>Classic fish recaptured From year tagged 2012-2021</b>	Highest Recaptured	Lowest	Now	
	2017 58 6.3%	2014 4 0.9%	2021 41 3.9%	
	Recapture rate overall 3.7%			
<b>Classic catch and effort number of fish fisher days 2012-2021</b>	Highest Catch	Lowest	Now	
	2012 1486	2013 201	2021 1046	
	Effort	2015	2021	
	2018 850	2019 640	2021 815	
<b>Classic catch rates fish 400mm+ legal fish 550mm+ fish/fisher/day</b>	Highest Catch	Lowest	Now	
	2012 2.0	2013 0.3	2021 1.3	
	Legal	2019	2021	
	2017 0.9	2019 0.1	2021 0.6	

<p><b>Comparison of recapture rates</b>  <b>Classic and Fisheries</b>  <b>2012-2021</b>  <b>Million Dollar Fish</b>  <b>2015-2021</b></p>	<table border="1"> <tr> <td>Classic</td> <td>3.7%</td> </tr> <tr> <td>Fisheries</td> <td>5.0%</td> </tr> <tr> <td>MDF</td> <td>43.8%</td> </tr> </table>	Classic	3.7%	Fisheries	5.0%	MDF	43.8%																			
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<p><b>Classic percentage sizes</b>  <b>undersize &lt;550mm</b>  <b>legal-trophy 550-999mm</b>  <b>trophy 1000mm+</b>  <b>2012-2021</b></p>	<table border="1"> <tr> <td>Highest</td> <td>Lowest</td> <td>Now</td> </tr> <tr> <td colspan="3">Legal-trophy</td> </tr> <tr> <td>2017</td> <td>2019</td> <td>2021</td> </tr> <tr> <td>41%</td> <td>4%</td> <td>33%</td> </tr> <tr> <td colspan="3">Trophy</td> </tr> <tr> <td>2013</td> <td>2012</td> <td>2021</td> </tr> <tr> <td>4.5%</td> <td>0.1%</td> <td>0%</td> </tr> </table>	Highest	Lowest	Now	Legal-trophy			2017	2019	2021	41%	4%	33%	Trophy			2013	2012	2021	4.5%	0.1%	0%				
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<p><b>Timeline of Barramundi tagged and river flows</b>  <b>2012-2021</b>  <b>2013 low catch rate</b>  <b>impacted by high river flow</b></p>																										
<p><b>Years fish survive after tagging</b>  <b>tags and recaptures</b>  <b>1990-2021</b></p>	<table border="1"> <tr> <td colspan="2">Recaptures in</td> </tr> <tr> <td>Year 1</td> <td>2124</td> </tr> <tr> <td>Year 2</td> <td>1044</td> </tr> <tr> <td>Year 5</td> <td>77</td> </tr> <tr> <td>Year 10</td> <td>3</td> </tr> <tr> <td>Longest years out</td> <td>11.9</td> </tr> </table>	Recaptures in		Year 1	2124	Year 2	1044	Year 5	77	Year 10	3	Longest years out	11.9													
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<p><b>Daly Barramundi recruits growth</b>  <b>2018 (typical year)</b>  <b>May-Oct 2018 (Fisheries)</b>  <b>May-Jun 2019 (Classic)</b></p>	<p>Average length (mm)</p> <table border="0"> <tr> <td>Year 1</td> <td>May-Jun</td> <td>257</td> </tr> <tr> <td></td> <td>Jul-Aug</td> <td>278</td> </tr> <tr> <td></td> <td>Sep-Oct</td> <td>349</td> </tr> <tr> <td>Year 2</td> <td>May-Jun</td> <td>477</td> </tr> </table>	Year 1	May-Jun	257		Jul-Aug	278		Sep-Oct	349	Year 2	May-Jun	477	
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<p><b>Daly Barramundi recruits and river flow</b>  <b>2012-2021</b>  <b>Year 1 (Fisheries)</b>  <b>Year 2 (Classic)</b></p>	<p>Strong recruitment  2014      2017      2020</p> <p>Poor recruitment  2013      2019*</p> <p>* no year 2 Classic data</p>													
<p><b>Barramundi movement for Classic fish</b>  <b>2012-2021</b></p>	<table border="0"> <tr> <td>Recaptures</td> <td>58</td> </tr> <tr> <td>Same area</td> <td>31 (82%)</td> </tr> <tr> <td>Down river</td> <td>11 (19%)</td> </tr> <tr> <td>Up river</td> <td>16 (28%)</td> </tr> <tr> <td>Max distance</td> <td>82km</td> </tr> </table>	Recaptures	58	Same area	31 (82%)	Down river	11 (19%)	Up river	16 (28%)	Max distance	82km			
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<p><b>Heat map showing where fish were tagged in Classic</b>  <b>2012-2021</b></p>	<p>Fish tagged  6794</p> <p>Fish with locations  1727 (25.4%)</p> <p>Hottest spot  S bends</p>													
<p><b>Recaptures (green dots) for fish tagged in Classic</b>  <b>2012-2021</b></p>	<p>Total recaptures  251</p>													
<p><b>Recaptures by visiting fishers (pink dots) for fish tagged in Classic</b>  <b>2019-2021</b></p>	<p>Recaptures by visiting fishers  45</p>													

<p><b>Percentage of legal fish recaptured and kept for Classic fish 2019-2021</b></p>	<p>NT fishers (27 legal fish) 78% Visitors (42 legal fish) 55%</p>	<p>LEGAL RECAPTURES KEPT</p> 
<p><b>Distance from recapture fisher's home to recapture location for Classic fish 2019-2021</b></p>	<p>Average distance (km) NT fishers 119 Visiting fishers 2783</p>	<p>RECAPTURE FISHERS HOME TO RECAPTURE LOCATION (KM)</p> 
<p><b>Where NT fishers live that recaptured fish from Classic 2019-2021</b></p> <p>Total            27 (40%)</p>		
<p><b>Where visiting fishers live that recaptured fish from Classic 2019-2021</b></p> <p>QLD            7 NSW            9 ACT            1 VIC            10 TAS            0 SA            7 WA            6 Total            40 (60%)</p>		

## DATA SOURCES

Data used in the Daly Barramundi Crystal Bowl are:

- Tag records from Barra Classic competition provided by Northern Territory Fisheries and available from <http://crystalbowl.infofishaustralia.com.au/>
- Tag records provided from monitoring by electrofishing by Northern Territory Fisheries and available from <http://crystalbowl.infofishaustralia.com.au/>
- Recapture records of tagged fish from <http://crystalbowl.infofishaustralia.com.au/>
- Locations based on Infofish grid maps Daly River (NTD), Daly River Nancar (DRN), Daly River Oolloo (DRO), Daly River Claravale (DRC) and Channel Point (CPD) where location specified
- River flow records for Daly River at the Mount Nancar station G8140040 from <https://nt.gov.au/environment/water/water-data-portal>

## BASIS FOR ANALYSIS

- Tag data were available for all years from the Barra Classic however there are no tag records for the last day of the Classic in 2015 – 17/5/2015
- Recruitment has been assessed using Fisheries monitoring data for fish from 0-400mm from May-Sep as year 1 recruits and Classic fish from 400-550mm as year 2 recruits and the data have not been adjusted for effort so that reduces the reliability of the recruitment data
- Locations have been plotted at the grid scale (2km<sup>2</sup>) where there were sufficient data to identify the location in map NTD and a heat map produced showing tagging however only 25.4% of locations had sufficient data to identify a grid so the map may not reflect the overall effort
- Survival was based on the survival rate since 1990 of tags in each year until exhausted which resulted in a 50% survival/attrition rate per year
- For recapture fishers where they live was obtained for the fisher's address, town or suburb, or postcode which ever was available
- Distance from recapture fisher's home to recapture location calculated as the straight line distance using Google Earth