



DALY RIVER CLASSIC BARRAMUNDI
2014-2023

DALY RIVER AND BARRAMUNDI CLASSIC COMPETITION JUNE 2023

Recaptures of tagged fish over the past 5 years have provided useful trends in fishing activity, travel and demographics of fishers. As recaptures are a random event this provides a useful view of fishing activity in the river.

Recaptures were made by NT fishers and visitors from other states on close to a 50-50 basis. The months in which recaptures are made indicates that there is a surge in activity at the end of the wet season from Apr-Jun by both NT fishers and visitors and then that tapers off over winter. Visiting fishers recapturing fish have come from all states with fishers from NSW, Vic and Qld accounting for 70% of the visiting fishers.

Overall there is a steady level of activity on all days of the week. As visiting fishers tend to stay for extended periods of time they have the opportunity to fish during weekdays as well as during the week. For NT fishers there is a slightly higher level of activity on weekends.

Of interest is that 13% of recaptures were made by females which is almost double the rate in Qld of 7-8%. This is likely a reflection of visiting fishers travelling as a family with fishing being a prime objective when visiting the river. Visiting fishers also tend to keep recaptured legal fish at a higher rate than that by NT fishers.

The Barra Classic has been held on the Daly River since the early 1980's and run by the Darwin Game Fishing Club and this dashboard examines the last decade from 2014-2023. 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. For the Barra Classic the trend in the overall catch rate and catch rate of legal fish has varied for the same reasons that the number of fish tagged has varied. The event provides a unique view of the trend in the catch rate over a long period of time. While the catch rate has fluctuated each year the long-term trend for legal fish over the past 24 years from 2000-2023 has shown a decline of 46%.

There are significant differences in the catch rate for tagging by different groups. Over the past decade the recapture rate of fish tagged in the Classic has been 4%, while for those tagged by Fisheries, mainly using electrofishing, was 10% while for fish tagged in the Million Dollar fishing competition have been recaptured at 32%. As the recaptures from the MDF competition attract a significant cash prize it was expected that the reporting of recaptures would be high.

Product of Infofish Australia

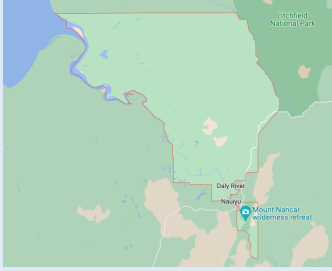


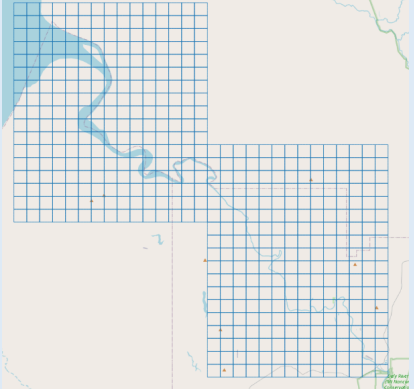
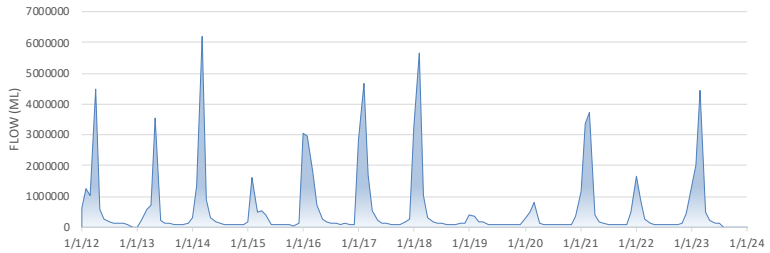


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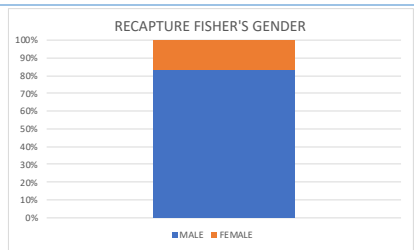


DALY RIVER	BARRA CLASSIC	LOCATION
		
DALY RIVER	ACTUAL	GRAPH or MAP
<p>Grid map Daly River NTD</p>	<p>Daly River boat ramp 13.68°S 130.64°E</p>	
ENVIRONMENTAL		
<p>Daly River Monthly flow (ML) 2014-2023</p>	<p style="text-align: center;">DALY RIVER FLOW</p> 	

RECAPTURE FISHERS											
ACTIVITY											
Monthly activity by recapture fishers NT fishers Visitors 2019-2023	NT fishers	<table border="1"> <thead> <tr> <th>Month</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>May</td> <td>20%</td> </tr> <tr> <td>Apr</td> <td>19%</td> </tr> <tr> <td>Jun</td> <td>20%</td> </tr> </tbody> </table>	Month	%	May	20%	Apr	19%	Jun	20%	
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DEMOGRAPHICS											
Recapture fisher's residence 2019-2023	Fishers	<table border="1"> <tbody> <tr> <td>Local</td> <td>14 (7%)</td> </tr> <tr> <td>Intrastate</td> <td>90 (45%)</td> </tr> <tr> <td>Interstate</td> <td>98 (48%)</td> </tr> </tbody> </table>	Local	14 (7%)	Intrastate	90 (45%)	Interstate	98 (48%)			
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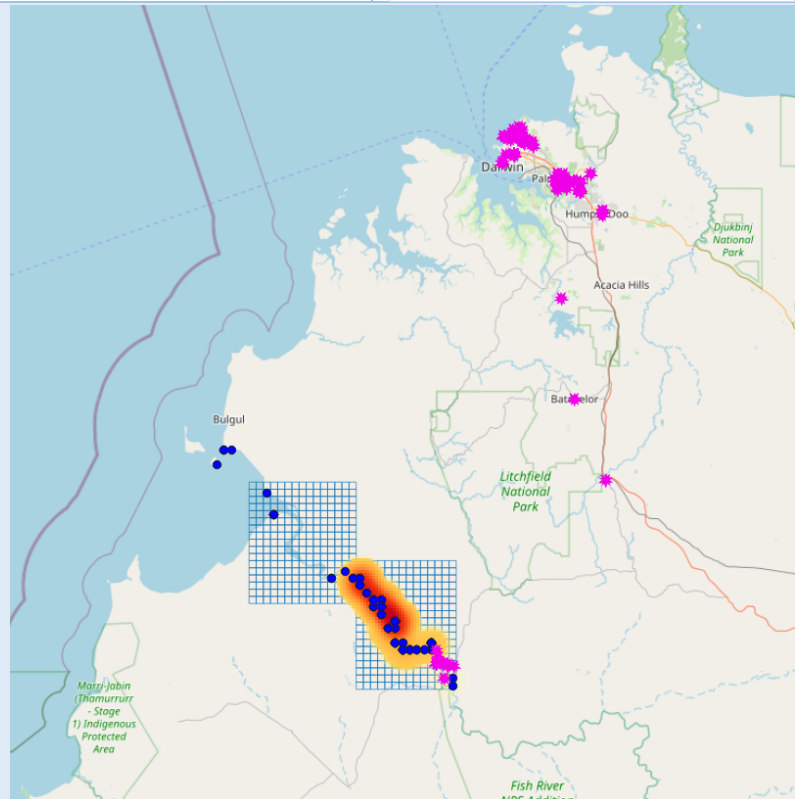
**Recapture fisher's gender
2019-2023**

Fishers	187
Male	156 (83%)
Female	31 (17%)



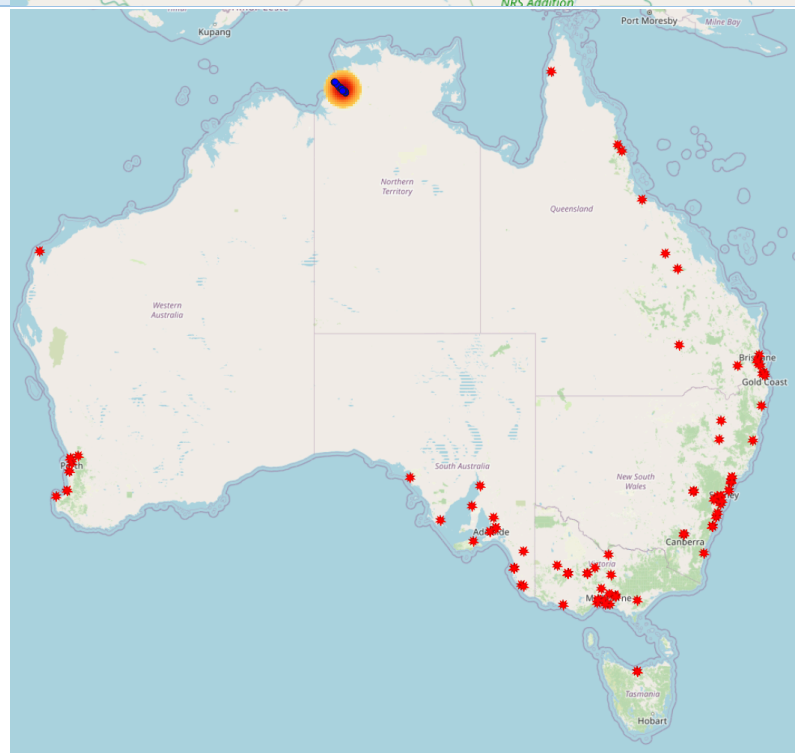
**Where NT fishers live
(purple stars) that
recaptured fish
2019-2023**


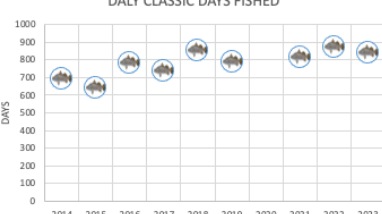
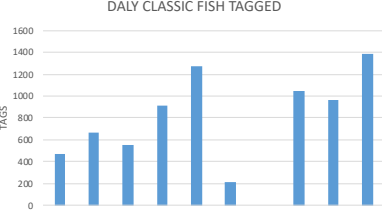
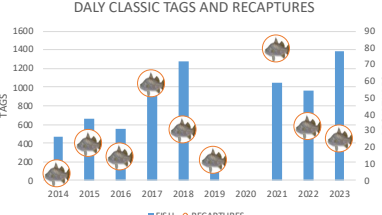
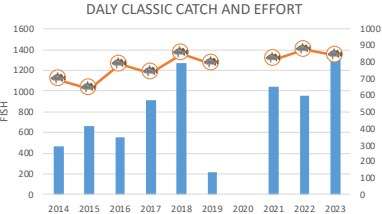
Total 104 (52%)



**Where visiting fishers live
(red stars) that recaptured
fish
2019-2023**

QLD	17 (18%)
NSW	29 (30%)
VIC	21 (22%)
TAS	2 (2%)
SA	16 (17%)
WA	11 (11%)
Total	96

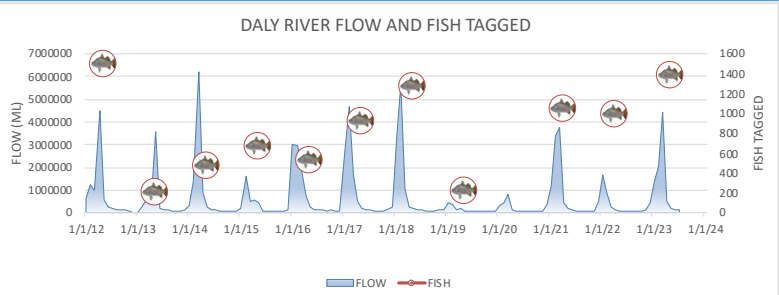


BARRA CLASSIC	ACTUAL			GRAPH or MAP
Target species Barramundi				
CLASSIC DAYS				
Classic days fished 2014-2023 Days fished each year 5	High Days 2022 875	Low 2015 640* *records for 1 day missing	Now 2023 840	
TAGGED				
Classic fish tagged 2014-2023	High Tagged 2018 1272	Low 2019 215	Now 2023 1383	
Classic fish recaptured from year tagged 2014-2023 Recaptures will continue to increase from last few years tagging	Highest Recaptured 2017 58 6.3%	Lowest 2014 4 0.9%	Now 2023 25 1.8% Recapture rate overall 3.7%	
Top 5 taggers 2014-2018 2019-2023	2014-2018 Shane Compain Terry Ryan Steve Compain Eddie Carroll Peter Politis		Fish 106 85 59 51 49	2019-2023 Shane Compain Troy Dixon James Park Eddie Carroll Terry Ryan Fish 106 69 61 59 57
TAG RATE				
Classic catch and effort Fish tagged Days fished 2014-2023	High Tagged 2018 1272 Days 2022 875	Low 2019 215 2015 640	Now 2023 1383 2023 840	

<p>Classic catch rates fish 400mm+ legal fish 550mm+ fish/day 2014-2023</p>	<table border="1"> <thead> <tr> <th>High</th> <th>Low</th> <th>Now</th> </tr> </thead> <tbody> <tr> <td>All 400+</td> <td></td> <td></td> </tr> <tr> <td>2018</td> <td>2019</td> <td>2023</td> </tr> <tr> <td>1.5</td> <td>0.3</td> <td>1.7</td> </tr> <tr> <td>Legal 550+</td> <td></td> <td></td> </tr> <tr> <td>2017</td> <td>2019</td> <td>2023</td> </tr> <tr> <td>0.9</td> <td>0.1</td> <td>0.9</td> </tr> </tbody> </table>	High	Low	Now	All 400+			2018	2019	2023	1.5	0.3	1.7	Legal 550+			2017	2019	2023	0.9	0.1	0.9	
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DALY RECAPTURE RATES																							
<p>Comparison of recapture rates Classic Fisheries Million Dollar Fish 2019-2023</p>	<table border="1"> <tbody> <tr> <td>Classic Fisheries</td> <td>4%</td> </tr> <tr> <td>Classic MDF</td> <td>10%</td> </tr> <tr> <td>Classic MDF</td> <td>32%</td> </tr> </tbody> </table>	Classic Fisheries	4%	Classic MDF	10%	Classic MDF	32%																
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RIVER FLOWS AND FISH TAGGED

River flows and Classic Barramundi tagged 2014-2023
2013 low catch rate impacted by high river flow



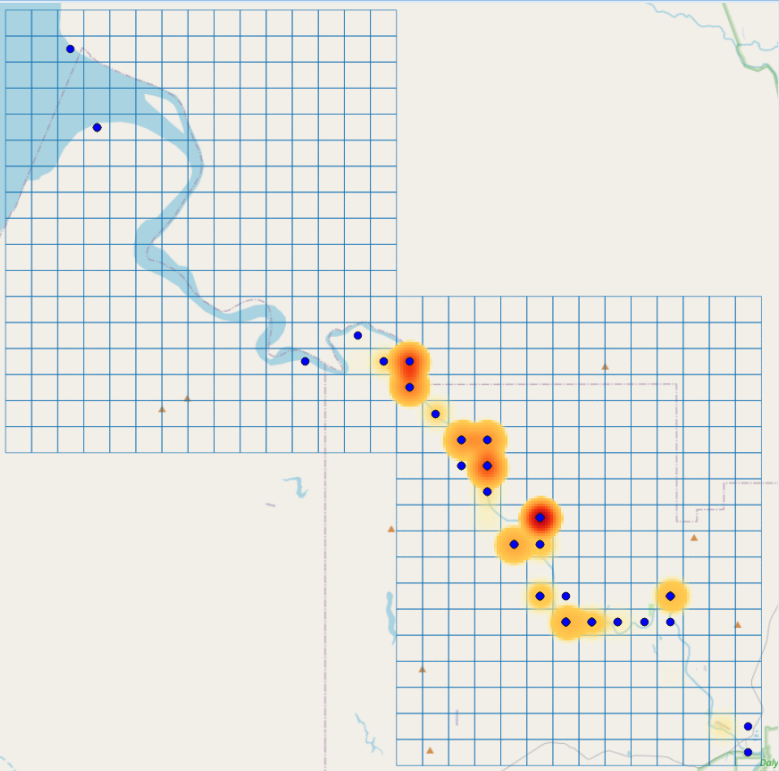
TAG LOCATIONS

Classic tag locations (red-orange heatmap) and recapture locations (blue dots)

2014-2023

Fish tagged 7476
 Fish with locations 1959 (26%)
 Hottest spot S bends

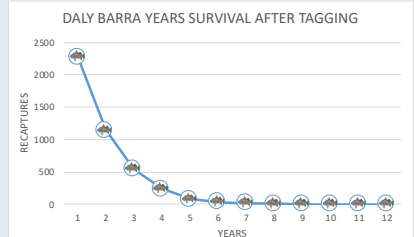
Recaptures 278 (3.7%)



SURVIVAL

Years fish survive after tagging tags and recaptures 1990-2023

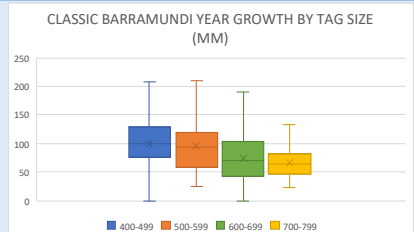
Recaptures in
 Year 1 2271
 Year 2 1140
 Year 5 83
 Year 10 3
 Longest years out 11.9



GROWTH

Annual growth (mm/year) for size range of fish when tagged 2014-2023

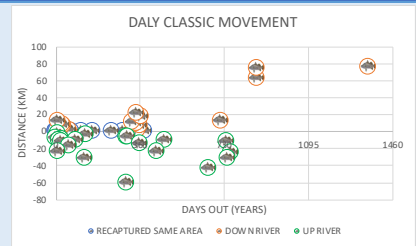
Size range Growth/year
 400-499 100
 500-599 95
 600-699 75
 700-799 67



MOVEMENT

Barramundi movement for Classic fish 2014-2023

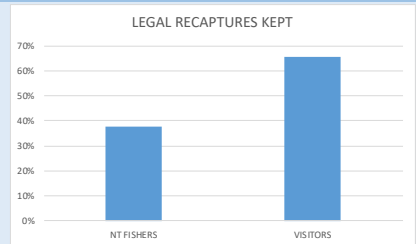
Recaptures	69
Same area	33 (48%)
Down river	16 (23%)
Up river	20 (29%)
Max distance	75km



FATE

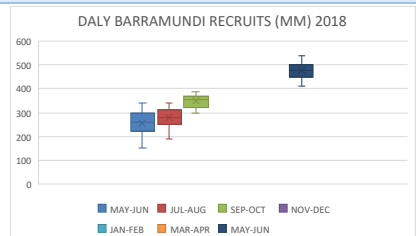
Percentage of legal fish recaptured and kept Classic fish 2019-2023

Legal recaptures	286
Kept/legal	
NT fishers	72/190 (38%)
Visitors	63/96 (66%)



Daly Barramundi recruits growth 2018 (typical year)
May-Oct 2018 (Fisheries)
May-Jun 2019 (Classic)

Average length (mm)		
Year 1	May-Jun	257
	Jul-Aug	278
	Sep-Oct	349
Year 2	May-Jun	477



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 collected by AFANT and available from <http://crystalbowl.infofishaustralia.com.au/>
- Locations based on Infofish grid maps Daly River (NTD), Daly River Nancar (DRN), Daly River Ooloo (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 (2km²) 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