



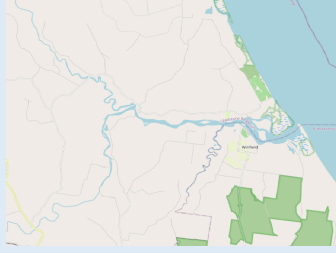


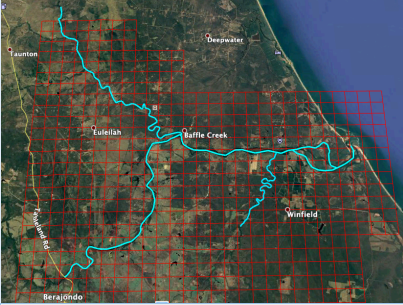
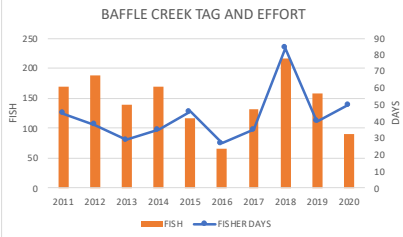
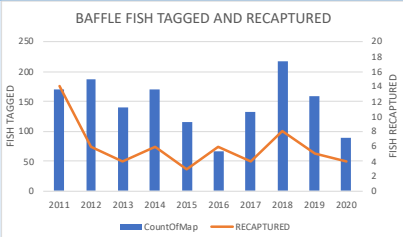
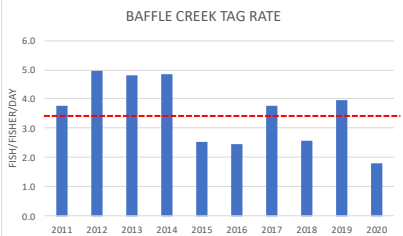
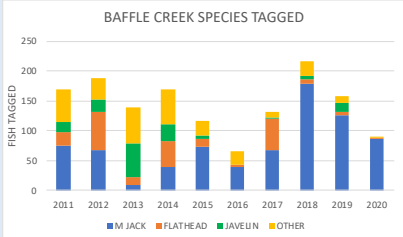
BAFFLE CREEK 2011-2020 2020 REVIEW

AVAILABLE		AVAILABLE	
Tagged fish	✓	Recaptures	✓
Postcodes	✓	Competitions	
Species		Mangrove Jack	
Tag rates	✓	Fish sizes	✓
Growth	✓	Tag locations	✓
Fish movement	✓		
Species		Dusky Flathead	
Tag rates	✓	Fish sizes	✓
Growth		Tag locations	✓
Fish movement	✓		
Species		Barred Javelin	
Tag rates	✓	Fish sizes	✓
Growth		Tag locations	✓
Fish movement			


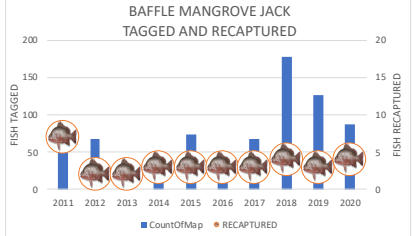
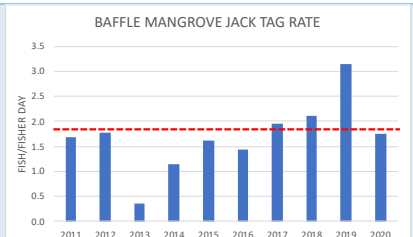
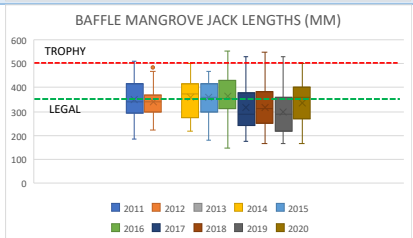
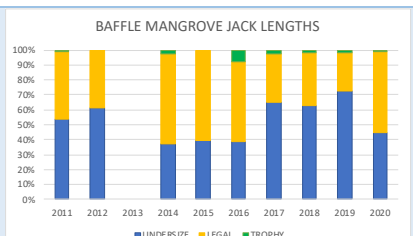
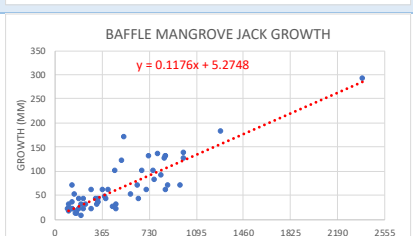
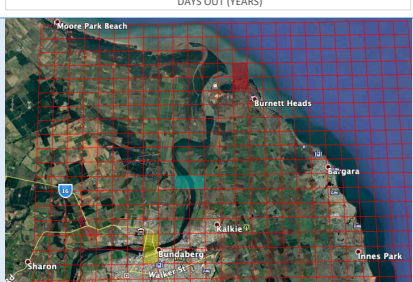
Summary

- From 2011-2020 there were 1,447 fish tagged in Baffle Creek for 60 recaptures (4.1%)
- Key species tagged were Mangrove 765 (52.9%) for 34 (4.4%) recaptures, Dusky Flathead 226 (15.6%) for 8 (3.5%) recaptures and Barred Javelin 149 (10.3%) for 2 (1.3%) recaptures accounting for 81.0% of all fish tagged
- The tag rate was calculated as the number of fish tagged/fisher day and the rate in 2020 was 1.8 which was below the 10 year average historic catch rate of 3.4 fish/fisher day
- The tag rate in 2020 for Mangrove Jack was 1.7 fish/fisher day compared to the 10 year average of 1.8 while there were only 2 Flathead and 0 Barred Javelin tagged
- This is more of a reflection of the targeting of Mangrove Jack by taggers rather than any change in the other species
- Of the 72 recaptures with the postcode of the fisher recorded 36 (50%) were local from Bundaberg and 15 (21%) were locals from the Baffle Creek and surrounding areas and 4 (5%) from Gladstone
- The average length of Mangrove Jack in 2020 was 338mm with 54% over legal size
- Most of the Barred Javelin tagged were undersized suggesting that the river is mainly used by juvenile fish and/or taggers are mostly keeping legal fish
- Just 2 Mangrove Jack were recapture outside the creek with both moving offshore to adult habitats


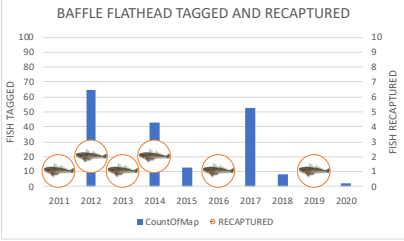
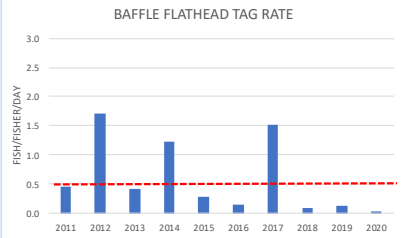
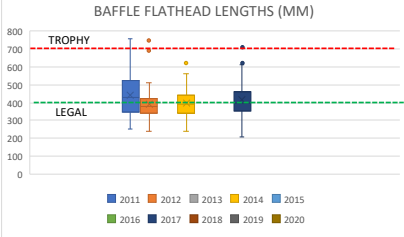
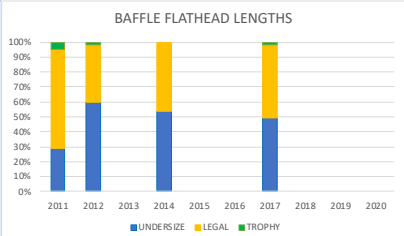

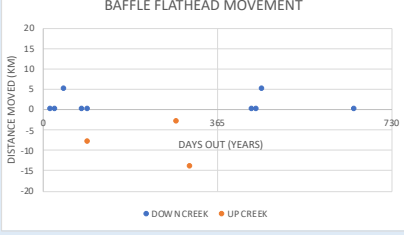
Infofish Australia
March 2021


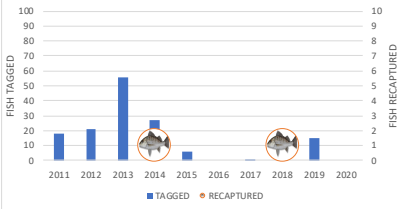
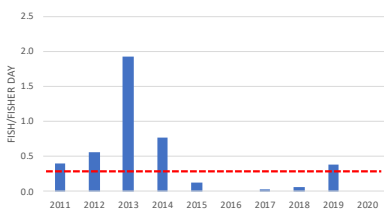
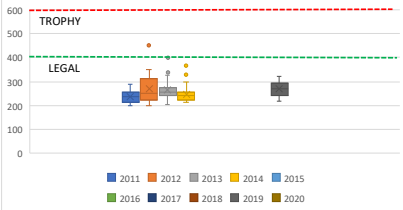
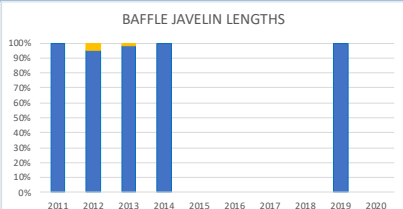
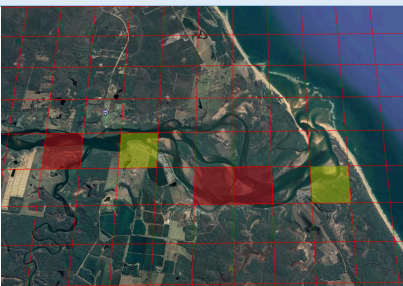
BAFFLE CREEK	BARRED JAVELIN DUSKY FLATHEAD	MANGROVE JACK																					
																							
MEASURE	ACTUAL	GRAPH or MAP																					
Baffle Creek lengths	Baffle Creek 36km Euleilah Creek 22km Bottle Creek 11km Grid map BFF																						
Tag effort number of tagged fish fisher tag days Taggers 2011-2020	<table border="1"> <thead> <tr> <th>HIGHEST</th> <th>LOWEST</th> <th>NOW</th> </tr> </thead> <tbody> <tr> <td>TAGGED FISH</td> <td></td> <td></td> </tr> <tr> <td>2018</td> <td>2016</td> <td>2020</td> </tr> <tr> <td>217</td> <td>66</td> <td>90</td> </tr> <tr> <td>EFFORT</td> <td></td> <td></td> </tr> <tr> <td>2018</td> <td>2016</td> <td>2020</td> </tr> <tr> <td>84</td> <td>27</td> <td>50</td> </tr> </tbody> </table>	HIGHEST	LOWEST	NOW	TAGGED FISH			2018	2016	2020	217	66	90	EFFORT			2018	2016	2020	84	27	50	
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Species composition Numbers tagged 2011-2020	Mangrove Jack 765 Dusky Flathead 226 Barred Javelin 148																						

<p>Species composition Percentage tagged 2011-2020</p>	<p>Mangrove Jack 52.9% Dusky Flathead 15.6% Barred Javelin 10.3%</p>	<p>BAFFLE CREEK SPECIES TAGGED</p>												
<p>Key Species tagged Mangrove Jack Dusky Flathead Barred Javelin</p>	<table border="1"> <thead> <tr> <th>Year</th> <th>% tagged</th> </tr> </thead> <tbody> <tr> <td>2011</td> <td>67.6</td> </tr> <tr> <td>2015</td> <td>80.2</td> </tr> <tr> <td>2020</td> <td>98.9</td> </tr> </tbody> </table>	Year	% tagged	2011	67.6	2015	80.2	2020	98.9	<p>BAFFLE MANGROVE JACK - FLATHEAD - JAVELIN</p>				
Year	% tagged													
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<p>Postcodes of recapture fishers 2011-2020</p>	<table border="1"> <thead> <tr> <th>Fishers with postcodes</th> <th>Fishers</th> </tr> </thead> <tbody> <tr> <td>72</td> <td></td> </tr> <tr> <td>Region</td> <td></td> </tr> <tr> <td>Bundaberg</td> <td>50%</td> </tr> <tr> <td>Baffle local</td> <td>21%</td> </tr> <tr> <td>Gladstone</td> <td>5%</td> </tr> </tbody> </table>	Fishers with postcodes	Fishers	72		Region		Bundaberg	50%	Baffle local	21%	Gladstone	5%	<p>RECAPTURE FISHERS POSTCODES</p>
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<p>Product of Infotech Australia</p>		<p>Supported by Suntag</p>												

MEASURE	ACTUAL	GRAPH or MAP
Mangrove Jack		
Mangrove Jack tagged and recaptured 2011-2020	TAGGED 765 RECAPTURED 34 RECAPTURE RATE 4.4%	
Tag rate Mangrove Jack Fish/fisher day 2011-2020	HIGHEST 2013 0.3 LOWEST 2019 3.2 NOW 2020 1.7 10 YEAR AVERAGE 1.8	
Average length (mm) Bars show smallest to largest fish Dots show outliers 2011-2020	HIGHEST 2016 555 LOWEST 2019 298 NOW 2020 500 Average length 2016 363 2019 298 2020 338 Largest 2016 555 2015 470 2020 500	
Fish lengths percentage Undersize <350mm Legal 350-500mm Trophy 500+mm 2011-2020	HIGHEST 2015 60.8 LOWEST 2019 26.2 NOW 2020 54.0 Legal 2016 7.7 2015 0 2020 1.1 Trophy 2016 7.7 2015 0 2020 1.1	
Mangrove Jack growth at the end of each year based on recaptures since 2011	Recaptures 57 Growth end of year (mm) Year 1 48 Year 2 91 Year 3 134 Year 4 177 Year 5 220	
Grid locations of tagged fish (map BND) 2011-2020	Grids where most fish caught GRID FISH N4/N5 983 H16/H17 237 J11/J12 115	

<p>Mangrove Jack movements within creeks distance moved (km) recaptures 2011-2020</p>	<p>Recaptures 39 Recaptured same area 21 (53.8%) Longest movement in creeks 30km</p>	
<p>Mangrove Jack Movements outside creek</p>	<p>Outside creek 2</p>	

MEASURE	ACTUAL	GRAPH or MAP
Dusky Flathead		
Flathead tagged and recaptured 2011-2020	TAGGED 226 RECAPTURED 8 RECAPTURE RATE 3.5%	
Tag rate Flathead Fish/fisher day 2011-2020	HIGHEST TAG RATE 2012 1.7 LOWEST TAG RATE 2019 0.1 NOW TAG RATE 2020 0 10 YEAR AVERAGE 0.5	
Average length (mm) Bars show smallest to largest fish Dots show outliers 2011-2020	HIGHEST Average length 2011 443 LOWEST Average length 2012 392 NOW Average length 2020 NA Largest 2011 760 2014 630 2020 NA	
Fish lengths percentage Undersize <400mm Legal 400-700mm Trophy 700+mm 2011-2020	HIGHEST Legal 2011 66.7 LOWEST Legal 2012 38.5 NOW Legal 2020 NA Trophy 2011 4.8 2014 0 2020 NA	
Grid locations of tagged fish (map BFF) 2011-2020	Grids where most fish caught Grid Fish W14 69 Z14 46 Z13 33	
Flathead movement Distance moved (km) 2011-2020	Recaptures 13 Recaptured same area 7 (52.6%) Longest movement in creek 14km up creek Outside creek 0	

MEASURE	ACTUAL	GRAPH or MAP
Barred Javelin		
Javelin tagged and recaptured 2011-2020	TAGGED 149 RECAPTURED 2 RECAPTURE RATE 1.3%	<p>BAFFLE JAVELIN TAGGED AND RECAPTURED</p> 
Tag rate Javelin Fish/fisher day 2011-2020	HIGHEST TAG RATE 2013 1.9 LOWEST TAG RATE 2016 0 NOW TAG RATE 2020 0 10 YEAR AVERAGE 0.3	<p>BAFFLE BARRED JAVELIN TAG RATE</p> 
Average length (mm) Bars show smallest to largest fish 2011-2020	HIGHEST Average length 2015 315 LOWEST Average length 2012 260 NOW Average length 2020 287 Largest 2018 635 2017 410 2020 420	<p>BAFFLE JAVELIN LENGTHS (MM)</p> 
Fish lengths percentage Undersize <400mm Legal 400-600mm Trophy 600+mm 2011-2020	HIGHEST Legal 2012 5.0 LOWEST Legal 2014 0 NOW Legal 2020 0 Trophy Nil and just 2 legal fish tagged 2012 and 2013	<p>BAFFLE JAVELIN LENGTHS</p> 
Grid locations of tagged fish (map BFF) 2011-2020	Grids where most fish caught Grid Fish X14 34 S13 25 W14 24 Z14 21 U13 19	
Javelin movement Distance moved (km) 2011-2020	Insufficient data Recaptures 2	

Data sources

Data used in the Baffle Creek Crystal Bowl are:

- Tag records and recapture records for the creek at <http://crystalbowl.infofishaustralia.com.au/>

Basis for analysis

- Catch rates calculated as number of fish tagged/fisher day for taggers with a minimum of 12 fisher days (at least 1 per month) to provide an acceptable catch rate
- For Mangrove Jack undersized fish are <350mm, legal fish are ≥ 350 and <500mm and trophy fish are >500mm
- For Dusky Flathead undersized fish are <400mm, legal fish are ≥ 400 and <700mm and trophy fish are ≥ 700 mm
- For Yellowfin Bream undersized fish are <250mm, legal fish are ≥ 250 mm and <400mm and trophy fish are ≥ 400 mm
- For Barred Javelin undersized fish are <400mm, legal fish are ≥ 400 mm and <600 and trophy fish are ≥ 600 mm
- Growth calculated using a linear trendline from recaptures where fish were out for 90 days or more and had positive growth
- Locations based on Infofish grid map BFF and other grid maps where fish were recaptured outside the creek
- Movement distance calculated as the shortest distance by water from the tag to the recapture location