

UPPER NOOSA RIVER BASS 2024

INFORMATION RATING



Key species: Australian Bass
Fish timeframe: 2015-2024
Fisher timeframe: 2020-2024

The upper Noosa River is largely undeveloped. It is in the Noosa National Park with several campsites along the river. Boating on the river is limited to electric motors and is popular with kayak fishers. Most tagging activity is from Lake Cootharaba to Campsite 3.

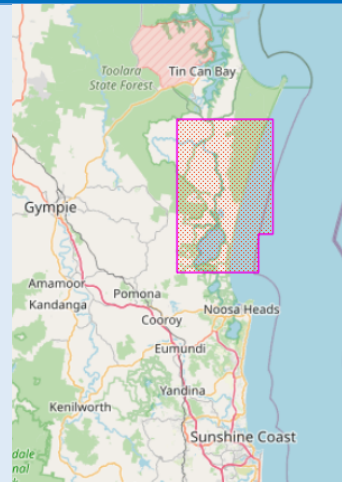
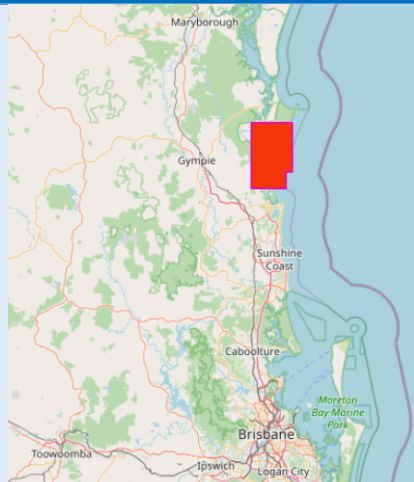
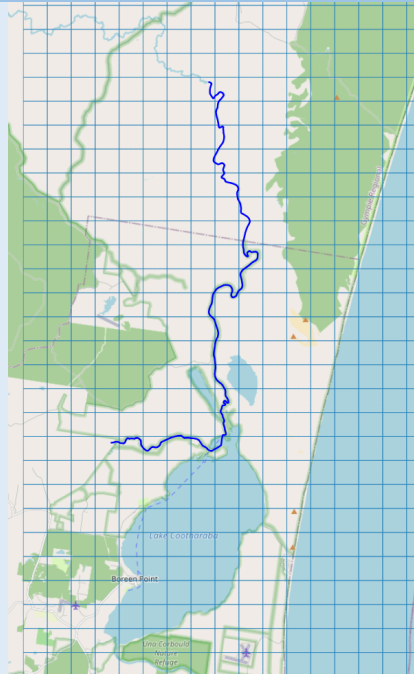
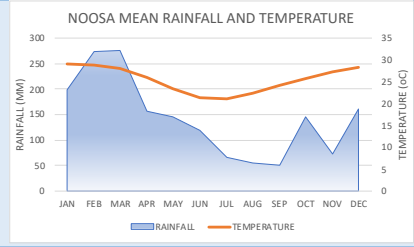
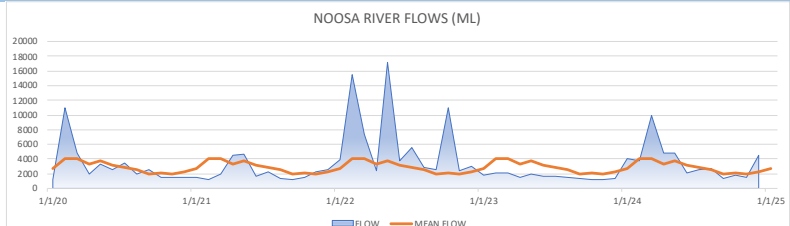
Tagging in the upper Noosa River for Bass has been ongoing since the 1980's providing a long timeline of data that helps understand the dynamics of Bass in the river. Being largely a natural system, the Noosa River provides an important comparison with Bass stocked in SEQ impoundments.

Over the past decade tagging has been undertaken mostly in Sep-Oct by the same group of taggers. As such fisher activity may not be reflective of the actual activity in the river. Activity was curtailed in 2022 with high flows in the river for most of the year resulting in a lowering of fishing effort and a low number of recaptures.

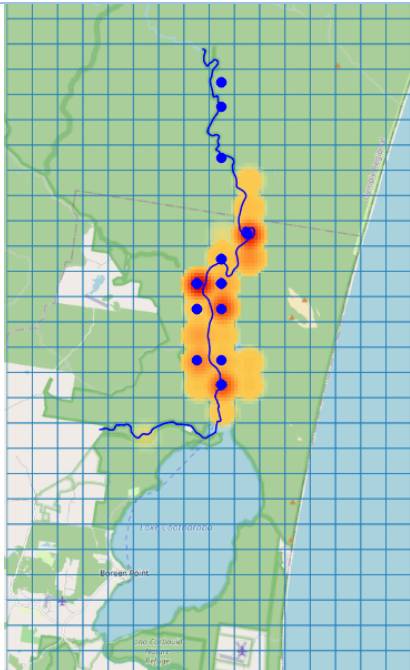
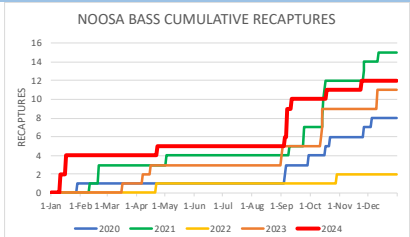
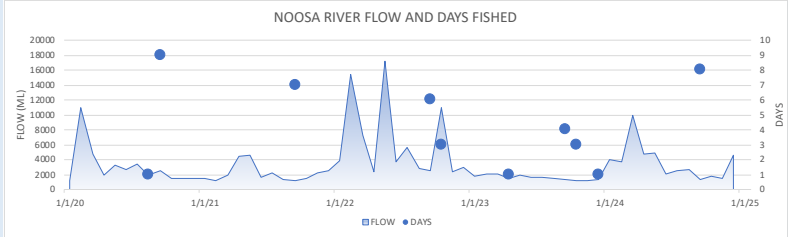
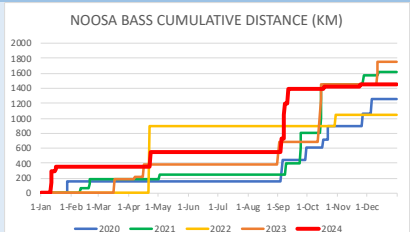
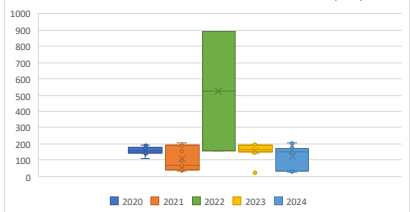
Bass fishing in the river is mostly experiential with few fish being kept and is mostly a visitor fishery with those recapturing fish most coming from the Sunshine Coast, Brisbane and the Gold Coast.

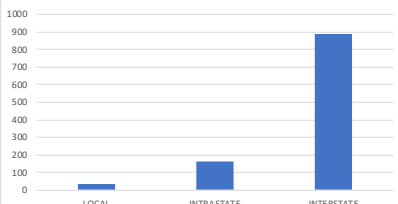
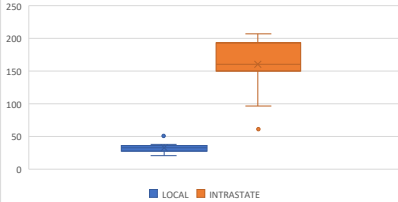
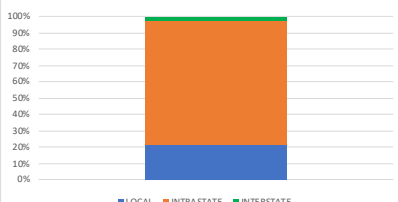
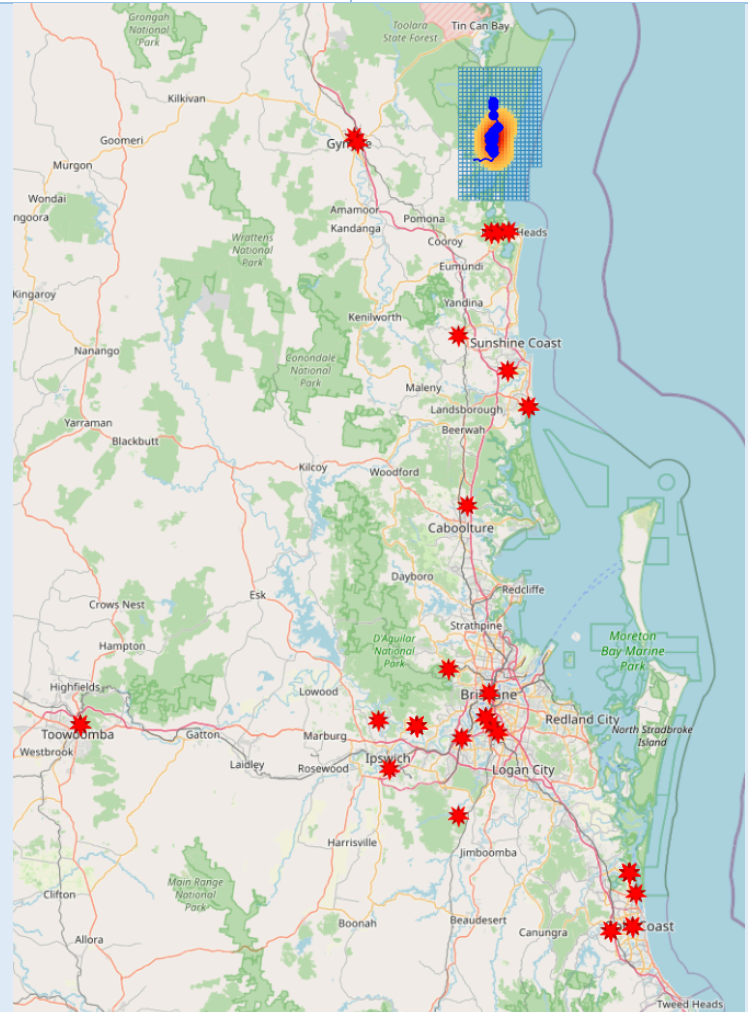
Bass tagged in the river were mostly undersized with legal fish ranging from 11% in 2019 to 52% in 2023 and 2024. There have been no trophy fish over 500mm tagged in any year however the largest fish was 490mm in 2022 and just short of the trophy length.


Bass in the river are slow growing. Fish tagged at 200-300mm grew an average 22mm in the first year and 72mm by the end of the fifth year. However, Bass in the river survive for many years with the longest time out being 20.5 years for a fish tagged in 1996 and recaptured in 2016.

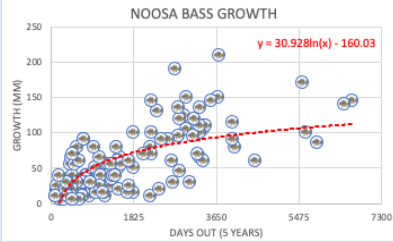
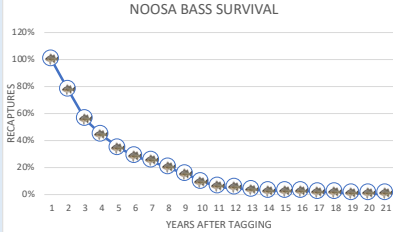
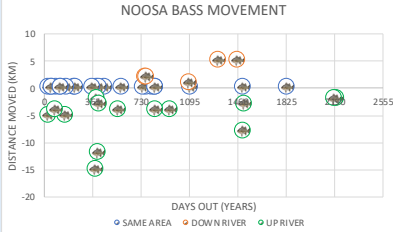
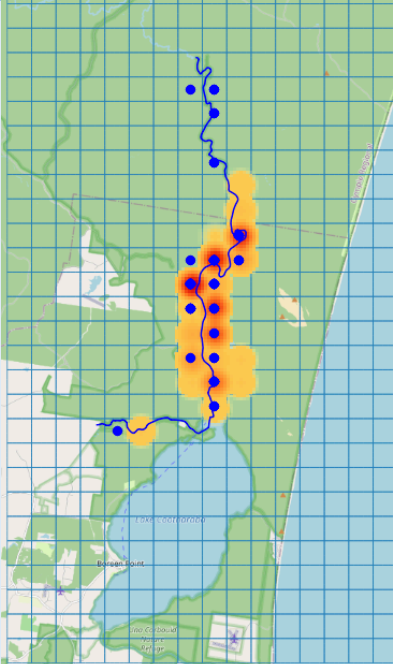
UPPER NOOSA RIVER		LOCATION																																																			
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WATERWAYS	ACTUAL	GRAPH or MAP																																																			
Tag grid map Upper Noosa River SC23	Noosa River Above Lake Cootharaba Noosa River length 25km Kin Kin Creek length 5km																																																				
ENVIRONMENTAL	ACTUAL	GRAPH or MAP																																																			
Noosa Mean monthly rainfall (mm) Mean monthly air temperature (oC)	<table><tr><td>Rainfall</td><td>Max (mm)</td></tr><tr><td>Feb</td><td>274</td></tr><tr><td>Mar</td><td>277</td></tr><tr><td>Temperature</td><td>Max (oC)</td></tr><tr><td>Jan</td><td>29</td></tr><tr><td>Feb</td><td>29</td></tr></table>	Rainfall	Max (mm)	Feb	274	Mar	277	Temperature	Max (oC)	Jan	29	Feb	29	<div><p>NOOSA MEAN RAINFALL AND TEMPERATURE</p><table><thead><tr><th>Month</th><th>Rainfall (mm)</th><th>Temperature (oC)</th></tr></thead><tbody><tr><td>JAN</td><td>250</td><td>29</td></tr><tr><td>FEB</td><td>274</td><td>29</td></tr><tr><td>MAR</td><td>277</td><td>28</td></tr><tr><td>APR</td><td>150</td><td>25</td></tr><tr><td>MAY</td><td>100</td><td>22</td></tr><tr><td>JUN</td><td>80</td><td>20</td></tr><tr><td>JUL</td><td>60</td><td>18</td></tr><tr><td>AUG</td><td>50</td><td>18</td></tr><tr><td>SEP</td><td>60</td><td>20</td></tr><tr><td>OCT</td><td>100</td><td>22</td></tr><tr><td>NOV</td><td>150</td><td>25</td></tr><tr><td>DEC</td><td>200</td><td>28</td></tr></tbody></table></div>	Month	Rainfall (mm)	Temperature (oC)	JAN	250	29	FEB	274	29	MAR	277	28	APR	150	25	MAY	100	22	JUN	80	20	JUL	60	18	AUG	50	18	SEP	60	20	OCT	100	22	NOV	150	25	DEC	200	28
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Noosa River flows and monthly mean flows (ML) 2020-2024	<div><p>NOOSA RIVER FLOWS (ML)</p><table><thead><tr><th>Date</th><th>Flow (ML)</th><th>Mean Flow (ML)</th></tr></thead><tbody><tr><td>1/1/20</td><td>10000</td><td>4000</td></tr><tr><td>1/1/21</td><td>4000</td><td>3000</td></tr><tr><td>1/1/22</td><td>16000</td><td>4000</td></tr><tr><td>1/1/23</td><td>10000</td><td>3000</td></tr><tr><td>1/1/24</td><td>10000</td><td>3000</td></tr><tr><td>1/1/25</td><td>4000</td><td>3000</td></tr></tbody></table></div>		Date	Flow (ML)	Mean Flow (ML)	1/1/20	10000	4000	1/1/21	4000	3000	1/1/22	16000	4000	1/1/23	10000	3000	1/1/24	10000	3000	1/1/25	4000	3000																														
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FISHERS		ACTUAL		MAP or GRAPH	
DATA RELIABILITY					
Sample size (days fished)		Reliability level		MODERATE	
Tag days (blue arrow)		Samples		MODERATE	
Recaptures (orange arrow)		Confidence		HIGH	
Confidence %		Error			
Error %					
2020-2024					

<div>Location activity</div> <div>Fish tagged (red-orange heat map)</div> <div>Recaptured (blue dots)</div> <div>2020-2024</div>	<div>Tagged413</div> <div>Recaptured43</div>	
EFFORT		
<div>Cumulative recaptures</div> <div>2020-2024</div>	<div>Year</div> <div>20208</div> <div>202115</div> <div>20222</div> <div>202311</div> <div>202412</div>	<div>NOOSA BASS CUMULATIVE RECAPTURES</div> 
<div>River flow</div> <div>Tagger effort</div> <div>Days fished</div> <div>2020-2024</div>	<div>NOOSA RIVER FLOW AND DAYS FISHED</div> 	
TRAVEL		
<div>Cumulative distance (km) home to recapture location</div> <div>2020-2024</div>	<div>Year</div> <div>20201250</div> <div>20211613</div> <div>20221046</div> <div>20231754</div> <div>20241451</div>	<div>NOOSA BASS CUMULATIVE DISTANCE (KM)</div> 
<div>Distance (km) home to recapture location</div> <div>2020-2024</div>	<div>DISTANCE HOME TO RECAPTURE LOCATION (KM)</div> 	

<div>Average proxy distance home to recapture location 2020-2024</div>	<div><div>Av distance (km)</div><div><div>Local33</div><div>Intrastate162</div><div>Interstate890</div></div></div>	<div><div>AVERAGE PROXY TRAVEL DISTANCE (KM)</div></div>
<div>Travel proxy distance from where fishers live to recapture location 2020-2024</div>	<div><div>Range (km)</div><div><div>Local21-51</div><div>Intrastate61-207</div><div>Interstate890</div></div></div>	<div><div>TRAVEL PROXY DISTANCE (KM)</div></div>
DEMOGRAPHICS		
<div>Where recapture fishers live</div> <div>Local (<60km)</div> <div>Intrastate (Qld postcode)</div> <div>Interstate</div> <div>2020-2024</div>	<div><div>Recaptures47</div><div><div>Local10 (21%)</div><div>Intrastate36 (77%)</div><div>Interstate1 (2%)</div></div></div>	<div><div>WHERE RECAPTURE FISHERS LIVE</div></div>
<div>Where recapture fishers live (red stars)</div> <div>Local</div> <div>Intrastate</div> <div>Interstate</div> <div>Sydney (1) not shown</div> <div>2020-2024</div>		

AUSTRALIAN BASS		ACTUAL		MAP or GRAPH	
					
DATA RELIABILITY					
Sample size (av fish/year)		Reliability level		LOW	
Tagged (orange arrow)		Samples		41	
Recaptures (orange arrow)		Confidence		80%	
Confidence %		Error		20%	
Error %					
2020-2024					
EFFORT					
Fishing effort		Overall catch rate		9.0	
Days fished (70)		Insufficient days fished each		year for a yearly catch rate	
Fish tagged (631)					
Catch rate (fish/day)					
2015-2024					
Bass tagged and recaptures from each year's tagging		Tagged		631	
2015-2024		Recaptured		75	
		Recapture rate		11.9%	
LENGTHS					
Average length (mm)		High		Low	
Bars show length range		Average length		Now	
Dots show outliers		2023		2019	
2015-2024		306		255	
		Largest		2022	
		490		365	
Fish length percentage (%)		High		Low	
Undersize <300mm		Legal-trophy		Now	
Legal 300-499mm		2023		2019	
Trophy 500+mm		52%		11%	
2015-2024		Trophy		No fish over 500mm in any year	

GROWTH		
Bass growth based on recaptures Fish tagged 200-300mm 1985-2024	Recaptures	135
	Annual growth (mm)	
	Year 1	22
	Year 2	44
	Year 3	56
	Year 4	65
	Year 5	72
		
SURVIVAL		
Bass survival based on recaptures by years out after tagging 1985-2024	Year	Recaptures
	1	287
	5	98
	10	26
	15	7
	20	1
	Longest time out (years)	20.5
		
MOVEMENT		
Bass movements 2015-2024	Recaptures	48
	Same area	26 (54%)
	Up river	14 (29%)
	Down river	8 (17%)
	Outside river	0 (0%)
		
LOCATIONS		
Noosa River Tagged (red-orange heat map) Recaptured (blue dots) 2015-2024	Tagged fish	631
	Recaptured	70
		

Data sources

Data used in the Upper Noosa River Bass Crystal Bowl are:

- Tag records and recapture records at <http://crystalbowl.infofishaustralia.com.au/>.
- River flow from Station 140002A on Teewah Creek at Coops Corner from <https://water-monitoring.information.qld.gov.au/>.
- Rainfall from Station 040995 Noosaville and temperature from Station 040861 Sunshine Coast Airport from <http://www.bom.gov.au/climate/data>.

Basis for analysis

- Data reliability for fishers based on the sample size over the past 5 years for days fished by taggers and by fishers recapturing fish.
- Data reliability for fish based on average number of fish tagged and recaptured per year over the past 5 years.
- Catch rates calculated as number of fish tagged/fisher day for T20 fishers (taggers) with a minimum of 12 fisher days (at least 1 per month) to provide a reliable catch rate.
- Undersized Bass are <300mm, legal fish are ≥300 and <500mm and trophy fish are ≥500mm.
- Growth calculated using a logarithmic curve from recaptures where fish were out for 90 days or more and had positive growth.
- Survival rate based on the number of recaptures each year after tagging.
- Movement distance calculated as the shortest distance by water from the tag to the recapture location using Google Earth.
- Distance from fisher's address to recapture location is the straight-line distance between locations based on Google Earth coordinates with Local <60km, Intrastate ≥60km and Qld postcodes, Interstate postcodes other than Qld.