



GOFISH-20 AFTER COVID-19 SEPTEMBER UPDATE

Impact of COVID-19 on recreational fishing

Recaptures of tagged fish are being used as a random sample of the fishing population to get a sense of the impact of COVID-19 on recreational fishing in Queensland.

Recaptures are correlated to the level of fishing effort so any change in the number of recaptures is likely to reflect a change in fishing effort. Location of recaptures and the address or postcode of the fisher is another measure providing an approximation of how far fishers are travelling to go fishing. The changes observed provide support for recaptures being sensitive to changes in fishing effort and fisher behaviour.

While there are no restrictions currently on recreational fishing the biggest issue is the border closure with NSW and its impact on interstate visitors, and in particular on fishers. This month we continue the analysis to look at the changes to interstate fishers.

Summaries for locations 2019-2020

- Statewide
- South East Queensland (Sunshine Coast to Gold Coast)
- Fitzroy River
- South East Queensland impoundments

Observations

- Statewide recaptures for Sep were down 19.5% on last year however recaptures to date for 2020 are down just 4.7%
- From late Apr to late July there were no recaptures by interstate fishers however there have been 21 recaptures (all NSW fishers) so far this year compared with 18 last year
- While the statewide average distance between fisher's address and recapture location this year lagged behind last year from Apr-Aug there has been a narrowing of the gap in Sep
- In SEQ there is little difference in the number of recaptures (-3.4%) and the distance between home and recapture (0.0%) (when interstate trip excluded)
- Impoundments were closed in Apr so the rebound in fishing has been strong and now both the number of recaptures (+10.9%) and the distance between address and recapture (+23.7%) are up on the same time last year
- Recaptures in the Fitzroy River have picked up in Sep as the weather has warmed and fishers from non-local postcodes have shown up again with a jump in the average distance between address and recapture location
- While the Fitzroy River has had the greatest impact from Covid-19 there is evidence that it is slowly recovering
- See **About the Observations** for further explanation of factors influencing the results

MEASURE	ACTUAL	GRAPH																																																
QUEENSLAND		STATEWIDE PERSPECTIVE																																																
Number of recaptures	<table> <tr> <td></td><td>2020</td><td>2019</td></tr> <tr> <td>Jun</td><td>120</td><td>76</td></tr> <tr> <td>Jul</td><td>81</td><td>99</td></tr> <tr> <td>Aug</td><td>89</td><td>82</td></tr> <tr> <td>Sep</td><td>99</td><td>123</td></tr> <tr> <td>YTD</td><td>1089</td><td>1143</td></tr> </table>		2020	2019	Jun	120	76	Jul	81	99	Aug	89	82	Sep	99	123	YTD	1089	1143	<p>MONTHLY RECAPTURES 2019-2020</p> <table> <tr> <th>Month</th> <th>2019</th> <th>2020</th> </tr> <tr><td>JAN</td><td>150</td><td>150</td></tr> <tr><td>FEB</td><td>150</td><td>150</td></tr> <tr><td>MAR</td><td>150</td><td>150</td></tr> <tr><td>APR</td><td>150</td><td>150</td></tr> <tr><td>MAY</td><td>150</td><td>150</td></tr> <tr><td>JUN</td><td>150</td><td>150</td></tr> <tr><td>JUL</td><td>150</td><td>150</td></tr> <tr><td>AUG</td><td>150</td><td>150</td></tr> <tr><td>SEP</td><td>150</td><td>150</td></tr> </table>	Month	2019	2020	JAN	150	150	FEB	150	150	MAR	150	150	APR	150	150	MAY	150	150	JUN	150	150	JUL	150	150	AUG	150	150	SEP	150	150
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Cumulative recaptures Jan-Sep 2020-2019 Dots show recaptures by interstate fishers	Sep 2020-2019 -19.5% Interstate fishers Jan-Sep 2020 21 2019 18	<p>CUMULATIVE RECAPTURES JAN-AUG 2019-2020</p> <p>NO INTERSTATE RECAPTURES</p>																																																
Cumulative recaptures Jan-Dec 2020-2019 Dots show recaptures by interstate fishers	2020-2019 Jan-Sep -4.7%	<p>CUMULATIVE RECAPTURES 2019-2020</p>																																																
Cumulative distance (km) address or postcode to recapture location Jan-Sep 2020-2019	2020-2019 Jan-Sep -10.4% Sep -31.9%	<p>RECAPTURE CUMULATIVE DISTANCE ADDRESS TO RECAPTURE JAN-SEP 2019-2020</p>																																																
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Average distance (km) address or postcode to recapture location 2020-2019	Average distance 2020 2019 Aug 183 115 Sep 129 155	<p>AVERAGE DISTANCE ADDRESS TO RECAPTURE LOCATION JAN-SEP 2019-2020</p> <table> <tr> <th>Month</th> <th>2019</th> <th>2020</th> </tr> <tr><td>JAN</td><td>50</td><td>50</td></tr> <tr><td>FEB</td><td>50</td><td>50</td></tr> <tr><td>MAR</td><td>50</td><td>50</td></tr> <tr><td>APR</td><td>50</td><td>50</td></tr> <tr><td>MAY</td><td>50</td><td>50</td></tr> <tr><td>JUN</td><td>50</td><td>50</td></tr> <tr><td>JUL</td><td>50</td><td>50</td></tr> <tr><td>AUG</td><td>183</td><td>115</td></tr> <tr><td>SEP</td><td>129</td><td>155</td></tr> </table>	Month	2019	2020	JAN	50	50	FEB	50	50	MAR	50	50	APR	50	50	MAY	50	50	JUN	50	50	JUL	50	50	AUG	183	115	SEP	129	155																		
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MEASURE	ACTUAL	GRAPH
FITZROY RIVER	ESTUARY	REGIONAL PERSPECTIVE
Number of recaptures	2020 2019 Jun 7 1 Jul 5 7 Aug 4 11 Sep 18 25 YTD 104 145	
Cumulative recaptures Jan-Sep 2019-2020 Dots show recaptures by interstate fishers	Sep 2020-2019 -32.0% Interstate fishers Jan-Sep 2020 1 2019 4	
Cumulative recaptures Jan-Dec 2020-2019 Dots show recaptures by interstate fishers	2020-2019 Jan-Aug -29.0%	
Cumulative recaptures based on local and non-local postcodes 2020-2019	Local trips 2019 66.4% Jan-Mar 2020 67.9% Apr-Sep 2020 80.9%	
Cumulative distance (km) address or postcode to recapture location Jan-Sep 2020-2019	Distance 2020-2019 Jan-Mar +58.6% Apr-Sep -83.3%	
Cumulative distance (km) address or postcode to recapture location 2019-2020	Distance 2020-2019 Jan-Aug -45.4%	
Average distance (km) address or postcode to recapture location Jan-Sep 2020-2019	Average distance 2020 Feb Apr 239 30 May Sep 18 89	

MEASURE	ACTUAL	GRAPH
SOUTH EAST QLD	ESTUARIES	REGIONAL PERSPECTIVE
Number of recaptures	2020 2019 Jun 13 14 Jul 8 14 Aug 10 12 Sep 10 13 YTD 142 147	
Cumulative recaptures Jan-Sep 2020-2019 Dots show recaptures by interstate fishers	Sep 2020-2019 -23.1% Interstate fishers 2020 0 2019 1	
Cumulative recaptures 2020-2019 Dots show recaptures by interstate fishers	2020-2019 Jan-Sep -3.4%	
Cumulative distance (km) address or postcode to recapture location Jan-Sep 2020-2019	Distance 2020-2019 Jan-Sep 0.0% Ex interstate trip	
Cumulative distance (km) address or postcode to recapture location 2020-2019	Distance 2020-2019 Jan-Aug -16.5%	
Average distance (km) address or postcode to recapture location Jan-Sep 2020-2019 Ex interstate trip (Jun)	Average distance 2020 2019 Sep 28.2 28.0 Aug 24.9 14.0	

MEASURE	ACTUAL	GRAPH																		
SOUTH EAST QLD	FRESHWATER	IMPOUNDMENTS																		
Impoundments In a circle inland of SEQ	All stocked with Australian Bass	Lake Somerset Lake Wivenhoe Lake Moogerah Lake Maroon Lake Advancetown Lake Borumba																		
Number of recaptures	<table> <thead> <tr> <th></th><th>2020</th><th>2019</th></tr> </thead> <tbody> <tr> <td>Jun</td><td>24</td><td>2</td></tr> <tr> <td>Jul</td><td>10</td><td>12</td></tr> <tr> <td>Aug</td><td>17</td><td>10</td></tr> <tr> <td>Sep</td><td>14</td><td>20</td></tr> <tr> <td>YTD</td><td>112</td><td>101</td></tr> </tbody> </table>		2020	2019	Jun	24	2	Jul	10	12	Aug	17	10	Sep	14	20	YTD	112	101	
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YTD	112	101																		
Cumulative recaptures Jan-Sep 2020-2019 Dots show recaptures by interstate fishers	2020-2019 Jan-Mar -4.0% Apr 2020 Nil (no fishing) May-Sep +44.0%																			
Cumulative recaptures 2020-2019 Dots show recaptures by interstate fishers	2020-2019 Jan-Sep +10.9% Interstate fishers Jan-Sep 2020 6 2019 1																			
Cumulative distance (km) address or postcode to recapture location Jan-Sep 2020-2019	Distance 2020-2019 Jan-Mar -21.8% Apr May-Sep -100% +85.5%																			
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Average distance (km) address or postcode to recapture location Jan-Sep 2020-2019	<table> <thead> <tr> <th></th><th>2020</th><th>2019</th></tr> </thead> <tbody> <tr> <td>Apr</td><td>0</td><td>65</td></tr> <tr> <td>Sep</td><td>51</td><td>62</td></tr> </tbody> </table>		2020	2019	Apr	0	65	Sep	51	62										
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Data sources

Data used in the GOFISH-20 Crystal Bowl are:

- Tag and recapture records for Queensland from Infish Suntag database from http://crystalbowl.infishaustralia.com.au/infish/f_infish.htm
- Postcodes data from Australia Postcode Location Data at Corra at <https://www.corra.com.au/australian-postcode-location-data/>
- River flow data from Water Monitoring Information Portal Station 130005A the Gap on the Fitzroy River at <https://water-monitoring.information.qld.gov.au/>

Data analysis

- Effort proxy is based on daily number of recreational recaptures each year
- Distance based on straight line distance between centroid of grid in which the fish was recaptured and their residential address, or town or suburb or centroid of their postcode, whichever is provided and calculated using Google Earth
- Fitzroy River includes Infish maps FRR, PAR and CIS
- SEQ is from Sunshine Coast to Gold Coast including Infish maps SC22, SC21, SC20, PPB, CAB, MB01, MB02, MB03, MB05, GC22, GC23 and TWR
- SEQ impoundments include Infish maps ADV, LMM, LMH, LWH, LS01 and LBY
- Interstate recaptures are limited to the east coast and includes NSW and Vic as that is where almost all interstate fishers come from

About the Observations

- The number of tagged fish in any waterway is an accumulation of the number of tagged fish in preceding years and the current year and discounted by fish lost through natural and fishing mortality or emigration or gained through immigration
- The number of tagged fish throughout the states waterways varies from year to year with the overall number of fish tagged in 2020 down by around 20% on the numbers tagged in 2019, possibly resulting in a reduction in the number of recaptures
- Distance calculated between address and recapture does not represent the actual distance travelled by road and/or by boat, which is likely to be considerably further, but provides a reasonable estimate for comparison purposes