# GOFISH-20 AFTER COVID-19
# 2020 REVIEW

## Impact of COVID-19 on recreational fishing

Recaptures of tagged fish were used as a random sample of the fishing population to get a sense of the impact of COVID-19 on recreational fishing in Queensland. Here is the review for 2020.

There were 2 aspects that were monitored:

- Fishing effort - a change in the number of recaptures is likely a reflection of fishing effort as recaptures are closely correlated to fishing effort
- Fisher behaviour – a change in the distance travelled to go fishing is a reflection of fisher behaviour and that was measured by the distance from the fishers address or postcode to the recapture location

## Summaries for locations 2019-2020

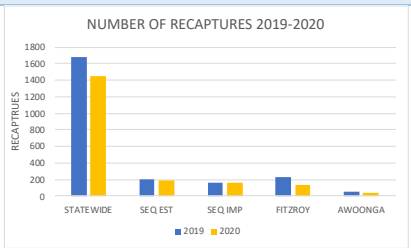
- Statewide
- South East Queensland (Sunshine Coast to Gold Coast)
- Fitzroy River
- South East Queensland (Bass impoundments)
- Lake Awoonga (Barramundi impoundment)

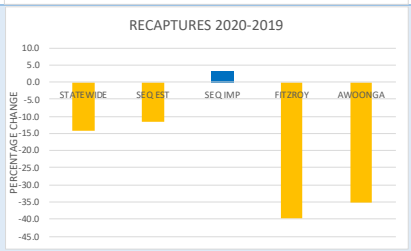
## Observations

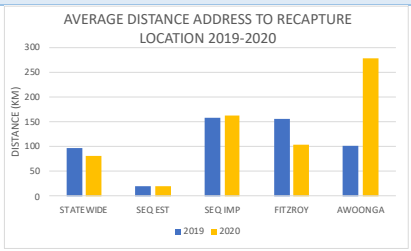
- Statewide for the year recaptures were down by 13.8% while total distance was down by 25.5% with most of that difference occurring from Oct-Dec when the surge in recaptures over that period in 2019 was not reflected in 2020
- All locations experienced a similar trajectory for Oct-Dec where the surge in 2019 did not occur but maintained the trajectory from the previous months
- The lack of a surge in Oct-Dec this year could have been influenced by workers returning to work, reductions in JobSeeker and JobKeeper payments and constant rule changes limiting available time, discretionary spending and diminishing confidence to travel
- There was a drop off in recaptures and total distance from Mar-Jun when restrictions were in place but there was a surge in Jul-Aug following the easing of restrictions
- SEQ impoundments and estuaries were the least affected with very similar results in 2020 and 2019 even though impoundments were mostly closed in Apr
- The Fitzroy River was the most affected with recaptures down by 39.7% and total distance down by 58.4% however this was tempered by a reduction in the total number of tags in the river
- For most of the year recaptures in Awoonga tracked much the same as last year however fell behind in Oct-Dec due to the surge at that time in 2019
- However, in Awoonga the average distance between postcode and recapture was up 171.6% and total distance was up 75.8% reflecting an increase in visiting fishers
- Overall recreational fishing was not affected to the same extent as other industries and may have benefitted overall based on feedback from tackle stores and industry bodies
- See **About the Observations** for further explanation of factors influencing the results

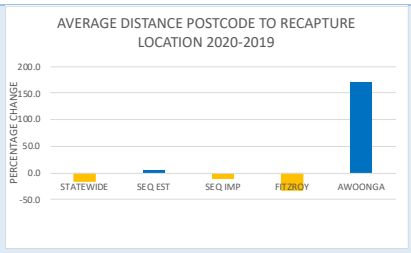
Infofish Australia
January 2021

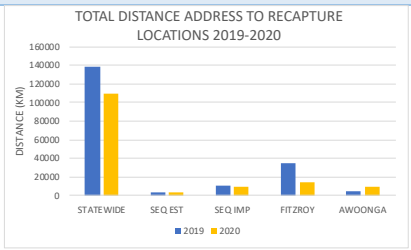
| MEASURE | ACTUAL | | GRAPH |
|---|---|---|---|
| **QUEENSLAND** | | | **COMPARISON** |
| **Number of recaptures 2020-2019** | | 2020 | 2019 |
| | S-wide | 1453 | 1686 |
| | SEQ est | 185 | 209 |
| | SEQ imp | 164 | 158 |
| | Fitzroy | 141 | 234 |
| | Awoonga | 33 | 51 |
| **Recaptures percentage change 2020-2019** | | | 2020-2019 |
| | S-wide | | -13.8 |
| | SEQ est | | -11.5 |
| | SEQ imp | | +3.8 |
| | Fitzroy | | -39.7 |
| | Awoonga | | -35.3 |
| **Average distance (km) address or postcode to recapture location 2020-2019** | | 2020 | 2019 |
| | S-wide | 81 | 98 |
| | SEQ est | 21 | 20 |
| | SEQ imp | 64 | 72 |
| | Fitzroy | 103 | 155 |
| | Awoonga | 277 | 102 |
| **Average distance percentage change 2020-2019** | | | 2020-2019 |
| | S-wide | | -17.3 |
| | SEQ est | | +5.0 |
| | SEQ imp | | -11.1 |
| | Fitzroy | | -33.5 |
| | Awoonga | | +171.6 |
| **Total distance (km) address or postcode to recapture location 2020-2019** | | 2020 | 2019 |
| | S-wide | 109.5K | 146.9K |
| | SEQ est | 3500 | 3565 |
| | SEQ imp | 9.9K | 10.7K |
| | Fitzroy | 14.4K | 34.5K |
| | Awoonga | 9146 | 5203 |
| **Total distance percentage change 2020-2019** | | | 2020-2019 |
| | S-wide | | -25.5 |
| | SEQ est | | -1.8 |
| | SEQ imp | | -7.3 |
| | Fitzroy | | -58.5 |
| | Awoonga | | +75.8 |

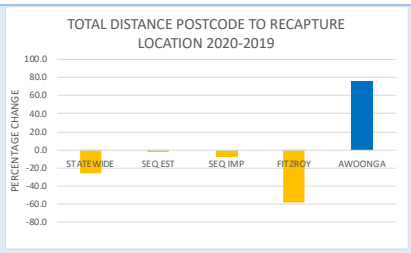


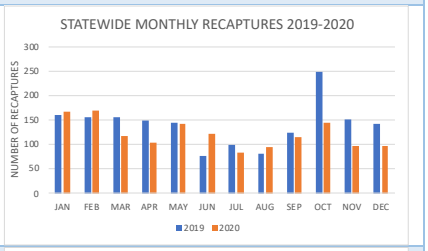
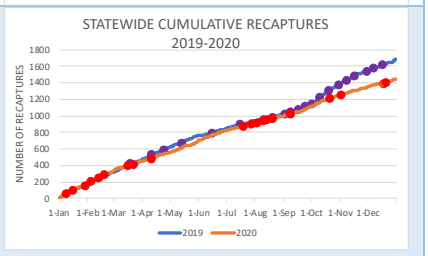
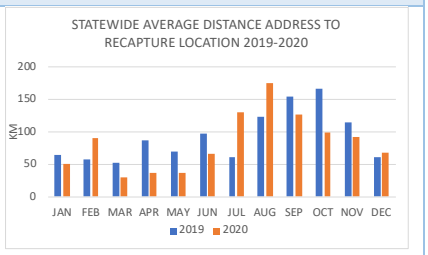
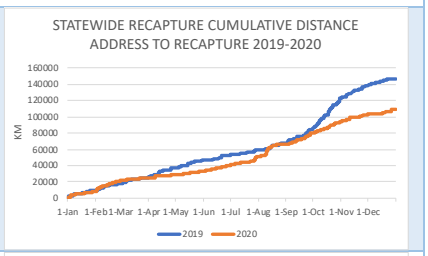
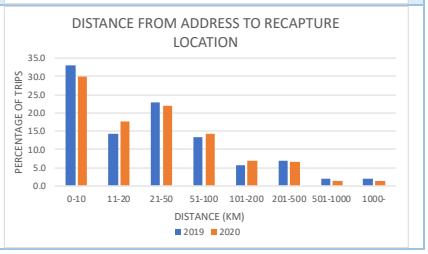



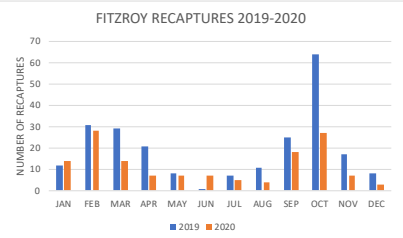
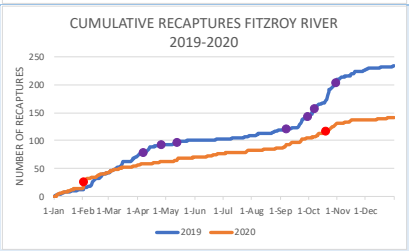
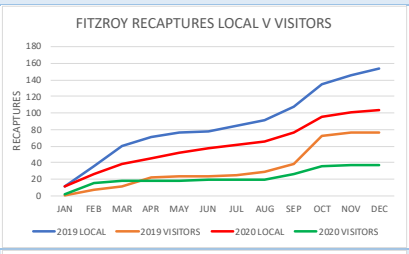
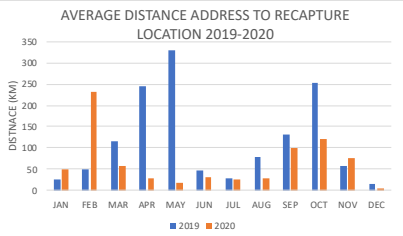
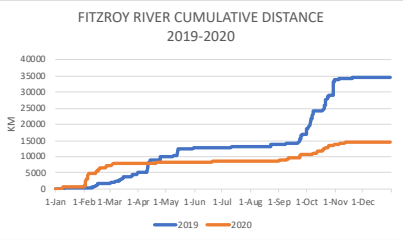



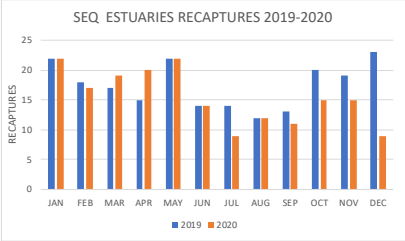
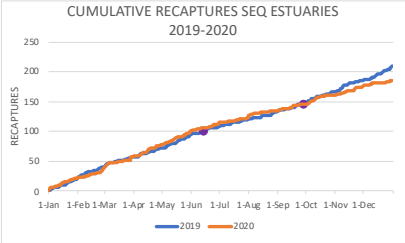
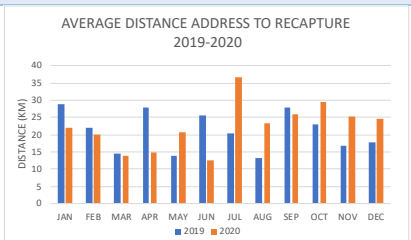
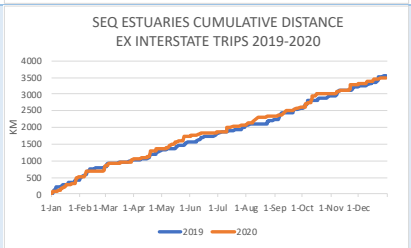
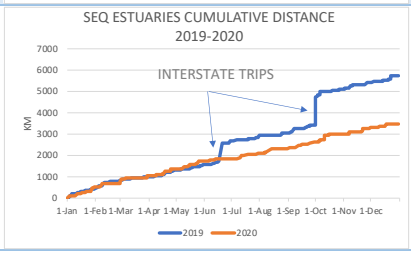



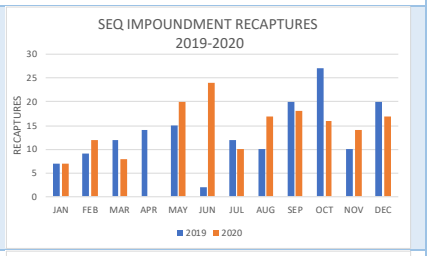
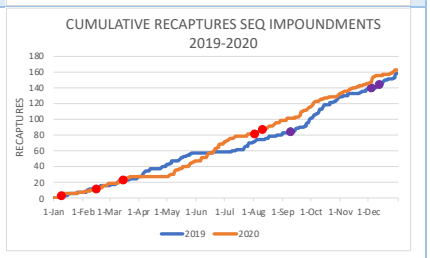
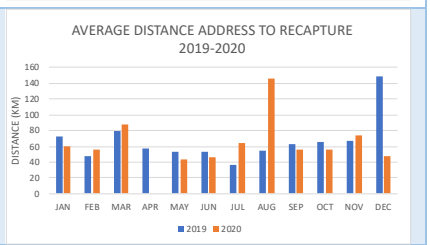
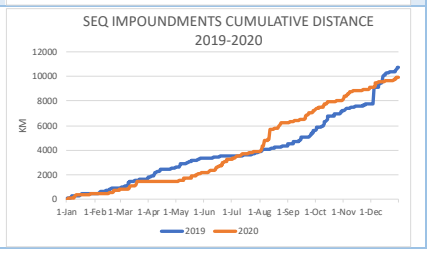



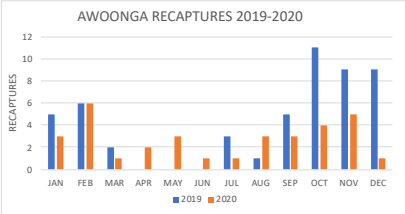
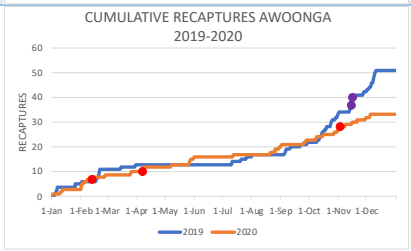
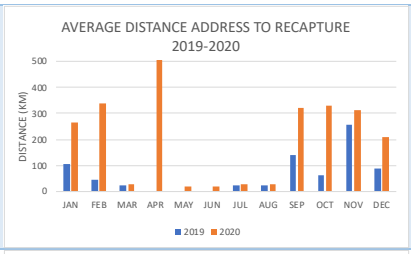
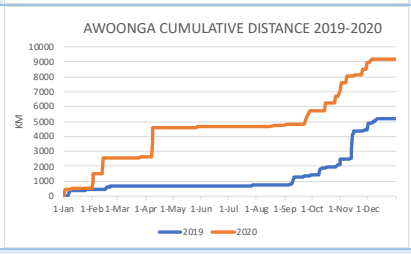



| MEASURE | ACTUAL | GRAPH |
|---|---|---|
| **QUEENSLAND** | | **STATEWIDE PERSPECTIVE** |
| **Number of recaptures 2020-2019** | 2020 2019<br>Oct 144 248<br>Nov 97 151<br>Dec 98 142<br>Q4 339 541<br>-37.4% |  |
| **Cumulative recaptures 2020-2019**<br>**Dots show recaptures by interstate fishers** | Recaptures<br>2020 2019<br>1453 1686<br>-13.8%<br>Interstate fishers<br>2020 2019<br>29 39<br>-25.6% |  |
| **Average distance (km) address or postcode to recapture location 2020-2019** | Average distance<br>2020 2019<br>81 98<br>-17.3% |  |
| **Cumulative distance (km) address or postcode to recapture location 2020-2019** | Distance<br>2020 2019<br>109.5K 146.9K<br>-25.5% |  |
| **Distance from address to recapture location Percentage trips 2020-2019** | Distance 0-50km<br>2020 2019<br>69.5% 70.3% |  |

| MEASURE | ACTUAL | GRAPH |
|---|---|---|
| **FITZROY RIVER** | **ESTUARY** | **REGIONAL PERSPECTIVE** |
| **Number of recaptures 2020-2019** | 2020 2019<br>Oct 27 64<br>Nov 7 17<br>Dec 3 8<br>Q4 37 89<br>-38.4% |  |
| **Cumulative recaptures 2019-2020 Dots show recaptures by interstate fishers** | Recaptures<br>2020 2019<br>141 234<br>-39.7%<br>Interstate<br>2020 2019<br>2 6 |  |
| **Cumulative recaptures based on local and non-local postcodes 2020-2019** | Non-local<br>2020 2019<br>37 77<br>-51.9% |  |
| **Average distance (km) address or postcode to recapture location 2020-2019** | Average distance<br>2020 2019<br>103 155<br>-33.5% |  |
| **Cumulative distance (km) address or postcode to recapture location 2019-2020** | Distance<br>2020 2019<br>14379 34620<br>-58.5% |  |

| MEASURE | ACTUAL | GRAPH |
|---|---|---|
| **SOUTH EAST QLD** | **ESTUARIES** | **REGIONAL PERSPECTIVE** |
| **Number of recaptures 2020-2019** | 2020 2019<br>Oct 15 20<br>Nov 15 19<br>Dec 9 23<br>Q4 39 62<br>-37.1% |  |
| **Cumulative recaptures 2020-2019**<br>**Dots show recaptures by interstate fishers** | Recaptures<br>2020 2019<br>185 209<br>-11.5%<br>Interstate<br>2020 2019<br>0 2 |  |
| **Average distance (km) address or postcode to recapture location 2020-2019**<br>**Ex interstate trips** | Average distance<br>2020 2019<br>21 20<br>+5.0% |  |
| **Cumulative distance (km) address or postcode to recapture location 2020-2019**<br>**Ex interstate trips** | Distance<br>2020 2019<br>3500 3565<br>-1.8% |  |
| **Cumulative distance (km) address or postcode to recapture location 2020-2019**<br>**Inc interstate trips** | Distance<br>2020 2019<br>3500 5763<br>-39.3% |  |

| MEASURE | ACTUAL | GRAPH |
|---|---|---|
| **SOUTH EAST QLD** | **FRESHWATER** | **IMPOUNDMENTS** |
| **Impoundments In a circle inland of SEQ** | All stocked with<br>Australian Bass<br>Golden Perch | Lake Somerset<br>Lake Wivenhoe<br>Lake Moogerah<br>Lake Maroon<br>Lake Advancetown<br>Lake Borumba |
| **Number of recaptures 2020-2019** | 2020 2019<br>Oct 16 27<br>Nov 14 10<br>Dec 18 20<br>Q4 48 57<br>-15.8% |  |
| **Cumulative recaptures 2020-2019**<br>**Dots show recaptures by interstate fishers** | Recaptures<br>2020 2019<br>164 158<br>+3.8%<br>Interstate<br>2020 2019<br>6 1 |  |
| **Average distance (km) address or postcode to recapture location 2020-2019** | Average distance<br>2020 2019<br>64 72<br>-11.1% |  |
| **Cumulative distance (km) address or postcode to recapture location 2020-2019** | Distance<br>2020 2019<br>9931 10713<br>-7.3% |  |

| MEASURE | ACTUAL | GRAPH |
|---|---|---|
| **CENTRAL QLD** | **FRESHWATER** | **IMPOUNDMENT** |
| **Impoundment near Gladstone** | Stocked with Barramundi | Lake Awoonga |
| **Number of recaptures 2020-2019** | 2020 2019<br>Oct 4 11<br>Nov 5 9<br>Dec 1 9<br>Q4 10 28<br>-64.3% |  |
| **Cumulative recaptures 2020-2019 Dots show recaptures by interstate fishers** | Recaptures<br>2020 2019<br>33 51<br>-35.3%<br>Interstate<br>2020 2019<br>4 2 |  |
| **Average distance (km) address or postcode to recapture location 2020-2019** | Average distance<br>2020 2019<br>277 102<br>+171.6% |  |
| **Cumulative distance (km) address or postcode to recapture location 2020-2019** | Distance<br>2020 2019<br>9146 5203<br>+75.8% |  |
| Product of Infofish Australia | Supported by Suntag | Funded by Fisheries Research and Development Corporation and Recfishing Research |

## 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 contributing to the 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

## Data sources

Data used in the GOFISH-20 Crystal Bowl are:

- Tag and recapture records for Queensland from Infofish Suntag database from http://crystalbowl.infofishaustralia.com.au/infofish/f_infofish.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 Infofish maps FRR, PAR and CIS
- SEQ is from Sunshine Coast to Gold Coast including Infofish maps SC22, SC21, SC20, PPB, CAB, MB01, MB02, MB03, MB05, GC22, GC23 and TWR
- SEQ impoundments for Australian Bass include Infofish maps ADV, LMM, LMH, LWH, LS01 and LBY
- Central Qld impoundment for Barramundi includes Infofish map GLA
- Interstate recaptures are limited to the east coast and includes NSW and Vic as that is where almost all interstate fishers come from