

LAKE CANIA
AUSTRALIAN BASS AND GOLDEN PERCH 2011-2020
2020 REVIEW



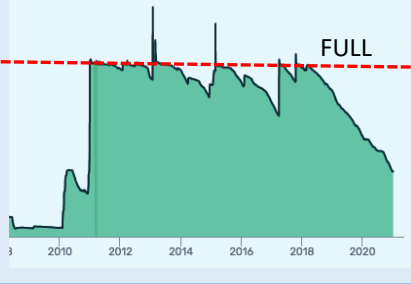
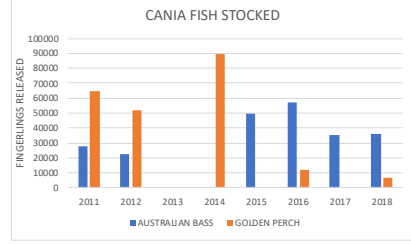
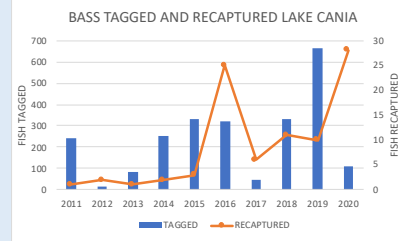
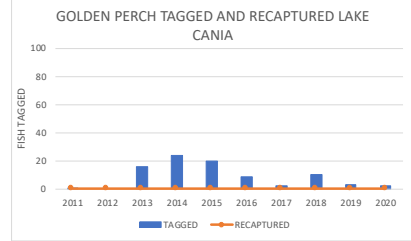
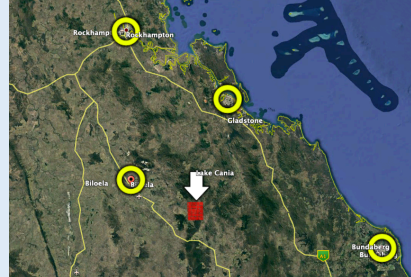
Stocked fish numbers, tagged and recaptured fish, catch rates, fish sizes, growth, survival, locations, movement and recapture fisher postcodes

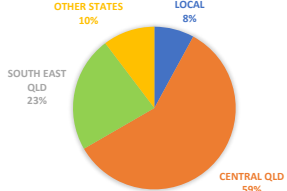




The following dashboard provides a summary of Australian Bass and Golden Perch data from Lake Cania covering the past 10 years.

Summary

- Dam level at 31 Dec 2020 was 39%
- From 2011-2018 there were 228.8K Bass and 225.1K Golden Perch fingerlings released
- The number of fingerlings released was roughly the same but there were 2,397 Bass tagged for 90 recaptures (3.8%) while there were just 87 Golden Perch tagged for 0 recaptures
- The catch rate for Bass in 2020 was 4.1 fish/fisher day compared with the 10 year historic average of 9.1 fish/fisher day
- The average length of Bass in 2020 was 349mm and ranges from 170-450mm and was short of the highest average length of 373mm in 2016
- The percentage of legal Bass in 2020 was 76.4% with 0% trophy fish 500mm and over
- Over the past 10 years most Bass have been tagged in LCG map grids G8, E11 and D10
- Annual growth for Bass calculated from tag recaptures at the end of year 1 is 32mm and at the end of year 5 is 94mm
- The longest time out for a Bass after tagging is 11.8 years
- Of the 90 fish recaptured over the past 10 years 2 have been recaptured below the dam in 3 Moon Creek in the Monto area
- Over the past 10 years most postcodes of fishers recapturing fish are 4670 (Bundaberg), 4700/4701 (Rockhampton), 4680 (Gladstone) and 4715 (Biloela)
- There have been 13 fish recaptured by fishers with postcodes outside Queensland with 8 from NSW, 2 from VIC and 3 from SA

Infofish Australia
January 2021

LAKE CANIA	LOCATION	BATHYMETRY																				
																						
MEASURE	ACTUAL	GRAPH																				
<p>Surface area Lake capacity</p>	<p>Surface area 7.2km² Level at 31 Dec 2020 39% For latest level https://www.sunwater.com.au/water-data/historical-dam-capacity/</p>																					
<p>Fingerlings stocked 2011-2018</p>	<table border="1"> <thead> <tr> <th></th> <th>HIGHEST</th> <th>LOWEST</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>BASS</td> <td>2016</td> <td>2014</td> <td></td> </tr> <tr> <td></td> <td>56.8K</td> <td>0</td> <td>228.6K</td> </tr> <tr> <td>GOLDEN PERCH</td> <td>2014</td> <td>2017</td> <td></td> </tr> <tr> <td></td> <td>89.2K</td> <td>0</td> <td>225.1K</td> </tr> </tbody> </table>		HIGHEST	LOWEST	TOTAL	BASS	2016	2014			56.8K	0	228.6K	GOLDEN PERCH	2014	2017			89.2K	0	225.1K	
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  <p>Product of Infish Australia</p>		  <p>Supported by Suntag and FFSAQ</p>																				

LAKE CANIA



AUSTRALIA BASS



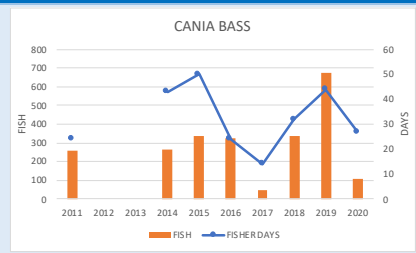
MEASURE

ACTUAL

GRAPH

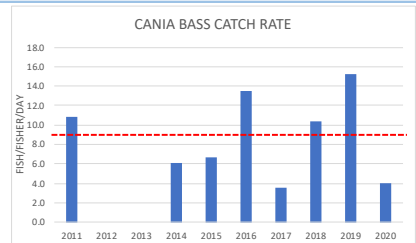
Catch and effort
number of fish
fisher days
T20 fishers
2011-2020

HIGHEST CATCH	LOWEST CATCH	NOW
2019	2017	2020
672	50	110
EFFORT		
2015	2017	2020
50	14	27



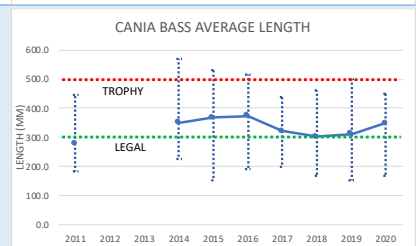
Catch rate
Fish/fisher day
2011-2020

HIGHEST CATCH RATE	LOWEST CATCH RATE	NOW
2019	2017	2020
15.3	3.6	4.1
10 YEAR AVERAGE		
		9.1



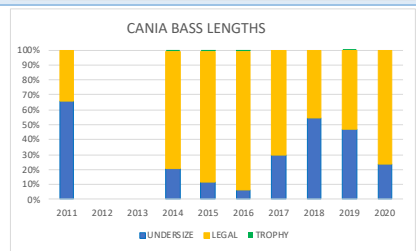
Average length (mm)
Bars show smallest and
largest fish
2011-2020

HIGHEST AVERAGE LENGTH	LOWEST AVERAGE LENGTH	NOW
2016	2011	2020
373	280	349
LARGEST		
2014	2017	2020
570	440	450



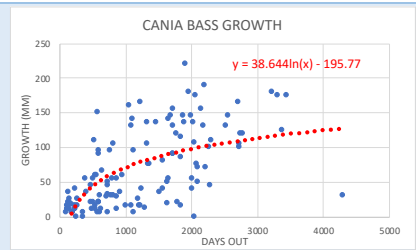
Fish lengths percentage
Undersize <300mm
Legal 300-499mm
Trophy 500+mm
2011-2020

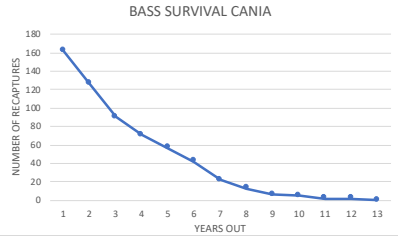
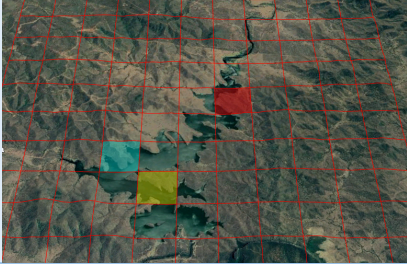
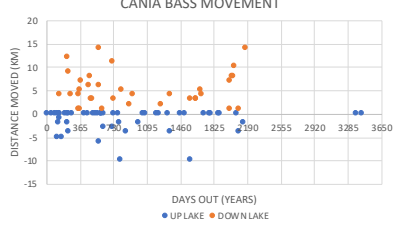

HIGHEST LEGAL	LOWEST LEGAL	NOW
2016	2011	2020
92.8	34.4	76.4
TROPHY		
2015	2018	2020
0.9	0	0





Bass growth at the end of each year based on recaptures all years

Recaptures	ANNUAL GROWTH
127	
Year 1	32mm
Year 2	59mm
Year 3	75mm
Year 4	86mm
Year 5	94mm



Bass survival based on recaptures by years out after tagging	Survival rate by years out Year Recaptures 1 162 5 57 10 5 Longest time out (years) 11.8	
Grid locations of tagged fish (map LCG) 2011-2020	Grids where most fish caught GRID FISH G8 488 E11 269 D10 260	
Bass movements (km) 2011-2020	Recaptures 90 Recaptured same area 36 (40.0%) Up lake Down lake 17 35	
Bass recaptured outside impoundment	Recaptures below lake 2 Below dam in 3 Moon Creek near Monto 48km 55km Recaptures above lake 0	

LAKE CANIA	GOLDEN PERCH	
		
MEASURE	ACTUAL	GRAPH or MAP
All measures 2011-2020	Insufficient data Fish recorded 87	

Data sources

Data used in the Impoundment Crystal Bowl are:

- Tag records and recapture records for the impoundment at <http://crystalbowl.infofishaustralia.com.au/>
- Dam level data from Sunwater <https://www.sunwater.com.au/water-data/historical-dam-capacity/>
- Stocked fish records from <https://www.data.qld.gov.au/dataset/queensland-freshwater-fish-stocking-records/>

Basis for analysis

- 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 and Golden Perch are <300mm, legal fish are ≥ 300 and <500mm and trophy fish are ≥ 500 mm
- Growth calculated using logarithmic curve from recaptures where fish were out for 90 days or more and had positive growth
- Locations based on Infish grid map LCG for the impoundment and other grid maps where fish were recaptured outside the impoundment
- Survival rates are calculated based on a model that uses the reduction in the number of recaptures each year after tagging
- Distance moved was the shortest distance by water between the tag and recapture location measured in Google Earth