



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

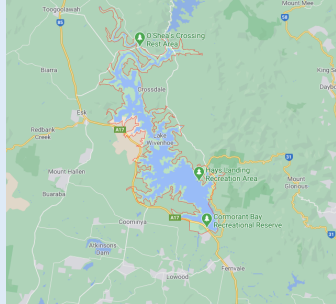


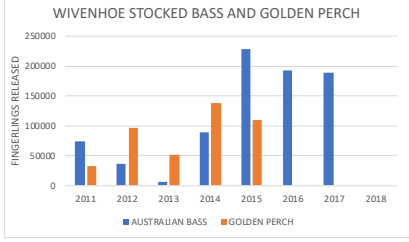
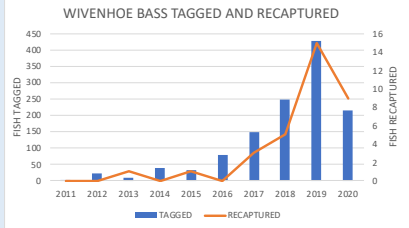
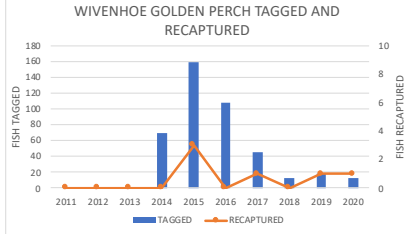
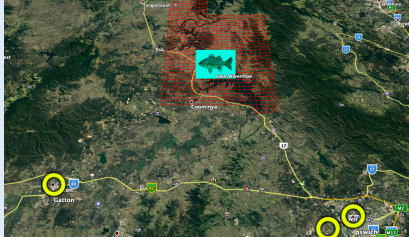
Stocked fish numbers, tagged and recaptured fish, catch rates, fish sizes, growth, survival, locations, movement and recapture fisher postcodes

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

Summary

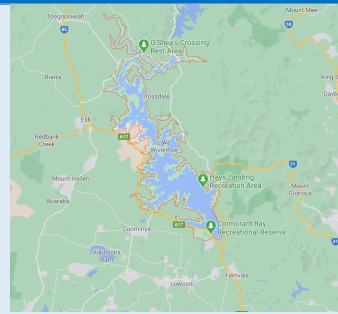
- Dam level at the 31 Dec 2020 was 38.5%
- From 2011-2018 there have been 816.7K Bass and 428.8K Golden Perch fingerlings stocked
- Over the past 10 years there have been 1,230 Bass tagged for 34 recaptures (2.8%) and 427 Golden Perch tagged for 6 recaptures (1.4%)
- In 2020 the catch rate for Bass was 11.4 fish/fisher day which is well above the average historic catch rate of 6.8 fish/fisher day while for Golden Perch it was 0.8 fish/fisher day and below the average historical catch rate of 2.4 fish/fisher day
- The average Bass length in 2020 was 312mm and ranged from 230-520mm while for Golden Perch it was 464mm and ranged from 410-520mm (however low fish numbers)
- In 2020 the percentage of legal Bass was 39.4% with 0.5% trophy fish over 500mm while for Golden Perch the percentage of legal fish was 100% with no undersized fish tagged in the past 10 years
- Annual Bass growth calculated from a limited number of tag recaptures at the end of year 1 was 45mm and at the end of year 5 was 95mm
- Over the past 10 years most Bass were tagged in LWH map grids P30, P31, Q31, O27 and P29 close to Billies Bay while most Golden Perch were tagged in grids L8, J10 and F18 up the top end of the lake
- Of the 34 recaptured of Bass tagged over the past 10 years none have been recaptured outside the lake
- Of the 6 recaptures of Golden Perch tagged over the past 10 years 1 was recaptured in the Brisbane River 38km above where it was tagged
- Over the past 10 years most postcodes of fishers recapturing fish are 4305 (Ipswich), 4306 (Amberley area) and 4343 (Gatton area)
- Only 1 fish has been recaptured by a fisher (from NSW) with a postcode outside Queensland

Infotish Australia
January 2021

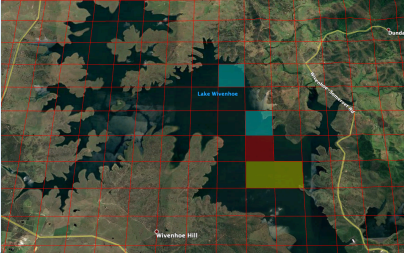
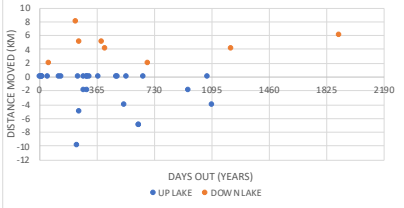
LAKE WIVENHOE	AUSTRALIAN BASS	BATHYMETRY																				
																						
MEASURE	ACTUAL	GRAPH																				
Surface area Lake level	Surface area 109.4km ² Level at 31 Dec 2020 38.5% For latest level https://www.seqwater.com.au/historic-dam-levels																					
Fingerlings stocked 2011-2018	<table border="1"> <thead> <tr> <th></th> <th>HIGHEST</th> <th>LOWEST</th> <th>TOTAL</th> </tr> </thead> <tbody> <tr> <td>BASS</td> <td>2015</td> <td>2018</td> <td></td> </tr> <tr> <td></td> <td>227.8K</td> <td>0</td> <td>816.7K</td> </tr> <tr> <td>GOLDEN PERCH</td> <td>2014</td> <td>2018</td> <td></td> </tr> <tr> <td></td> <td>138.1K</td> <td>0</td> <td>428.8K</td> </tr> </tbody> </table>		HIGHEST	LOWEST	TOTAL	BASS	2015	2018			227.8K	0	816.7K	GOLDEN PERCH	2014	2018			138.1K	0	428.8K	
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Postcodes of recapture fishers 2011-2020	<table border="1"> <thead> <tr> <th>Postcodes</th> <th>FISHERS</th> </tr> </thead> <tbody> <tr> <td>54</td> <td></td> </tr> <tr> <td>POSTCODE</td> <td></td> </tr> <tr> <td>4305</td> <td>12</td> </tr> <tr> <td>4343</td> <td>8</td> </tr> <tr> <td>4306</td> <td>7</td> </tr> <tr> <td>NSW</td> <td>1</td> </tr> </tbody> </table>	Postcodes	FISHERS	54		POSTCODE		4305	12	4343	8	4306	7	NSW	1							
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LAKE WIVENHOE

AUSTRALIAN BASS

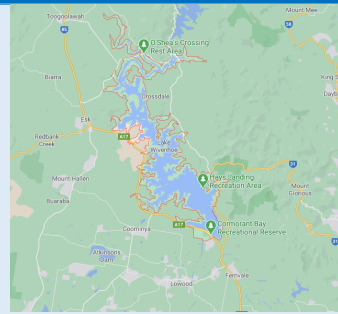


MEASURE	ACTUAL	GRAPH																					
Catch and effort number of fish fisher days T20 fishers 2011-2020	<table border="1"> <thead> <tr> <th>HIGHEST</th> <th>LOWEST</th> <th>NOW</th> </tr> </thead> <tbody> <tr> <td>CATCH</td> <td></td> <td></td> </tr> <tr> <td>2019</td> <td>2015</td> <td>2020</td> </tr> <tr> <td>441</td> <td>34</td> <td>216</td> </tr> <tr> <td>EFFORT</td> <td></td> <td></td> </tr> <tr> <td>2019</td> <td>2014</td> <td>2020</td> </tr> <tr> <td>33</td> <td>19</td> <td>19</td> </tr> </tbody> </table>	HIGHEST	LOWEST	NOW	CATCH			2019	2015	2020	441	34	216	EFFORT			2019	2014	2020	33	19	19	
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Bass survival based on recaptures by years out	<p>Insufficient data as tagging has not continued for a long enough time and the number of recaptures is too low</p>																						

Grid locations of tagged fish (map LWH) 2011-2020	Grids where most fish caught GRID FISH P30 191 P31 121 Q31 118 O27 69 P29 52	
Bass movements 2011-2020	Recaptures 34 Recaptured same area 18 (52.9%) Moved down lake 8 (23.5%) Moved up lake 9 (26.5%) Outside lake 0	<p style="text-align: center;">WIVENHOE BASS MOVEMENT</p> 

LAKE WIVENHOE

GOLDEN PERCH



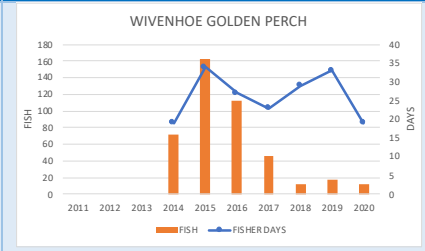
MEASURE

ACTUAL

GRAPH

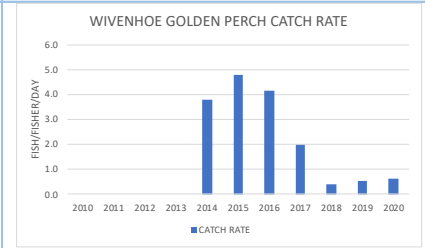
Catch and effort
number of fish
fisher days
T20 fishers
2011-2020

HIGHEST	LOWEST	NOW
CATCH		
2015	2018	2020
163	12	12
EFFORT		
2019	2014	2020
33	19	19



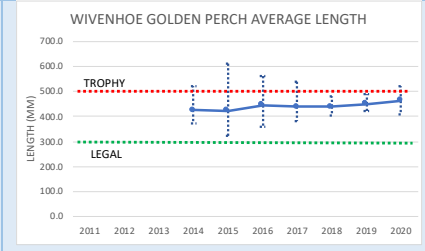
Catch rate
Fish/fisher day
2011-2020

HIGHEST	LOWEST	NOW
CATCH RATE		
2015	2018	2020
4.8	0.4	0.6
10 YEAR AVERAGE		2.4



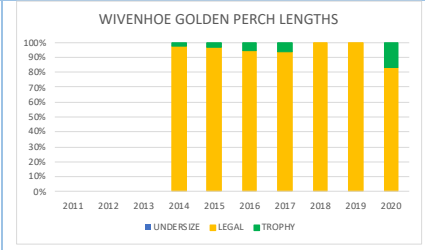
Average length (mm)
Bars show smallest and largest fish
2011-2020

HIGHEST	LOWEST	NOW
AVERAGE LENGTH		
2019	2015	2020
451	424	464
LARGEST		
2015	2018	2020
610	480	520



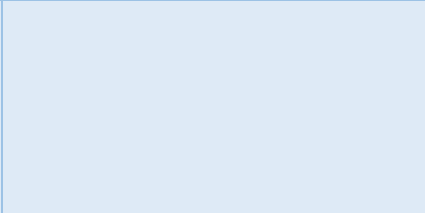
Fish lengths percentage
Undersize <300mm
Legal 300-499mm
Trophy 500+mm
2011-2020

HIGHEST	LOWEST	NOW
LEGAL		
2014-19		2020
100.0	NIL	100.0
TROPHY		
2017	2018-19	2020
6.5	0	16.7



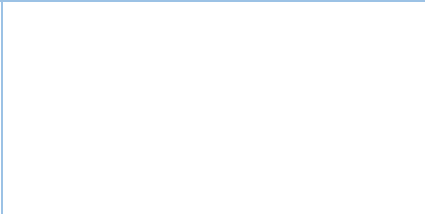
Golden Perch growth based on recaptures
2011-2020

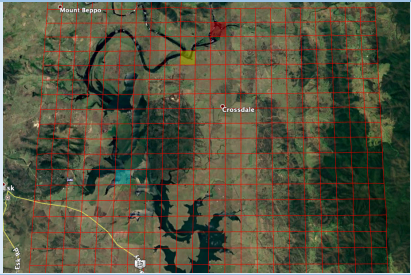
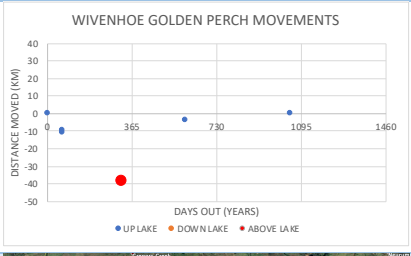
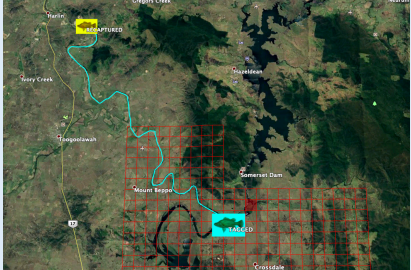




Insufficient data
Recaptures **6**



Golden Perch survival based on recaptures by years out

Insufficient data as tagging has not continued for a long enough time and the number of recaptures is too low



Grid locations of tagged fish (map LWH) 2011-2020	Grids where most fish caught GRID FISH L8 66 J10 44 F18 30	
Golden Perch movements 2011-2020	Recaptures 6 Recaptured same area 2 (33.3%) Up lake Down lake 2 0 Above lake 1	
Golden Perch recaptured above lake	Recaptures 1 Moved up Brisbane River 38km	
  <p>Product of Infotech Australia</p>		  <p>Supported by Suntag and FFSAQ</p>

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 SEQwater at <https://www.seqwater.com.au/historic-dam-levels>
- Stocked fish records from <https://www.data.qld.gov.au/dataset/queensland-freshwater-fish-stocking-records/>
- Bathymetric data from Infish surveys or other sources

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 fish 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 LWH 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