

LAKE SOMERSET REVIEW 2024

INFORMATION RATING



Stocking group: Somerset and Wivenhoe Fish Stocking Association

Species stocked: Australian Bass, Golden Perch, Silver Perch, Mary River Cod

Stocking timeframe: 2014-2024

Fish timeframe: 2015-2024

Fisher timeframe: 2020-2024

DAF link: <https://www.daf.qld.gov.au/rsa/sips-dams-and-weirs/profile?dam=somerset-dam>

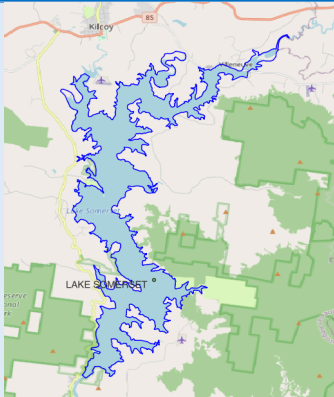

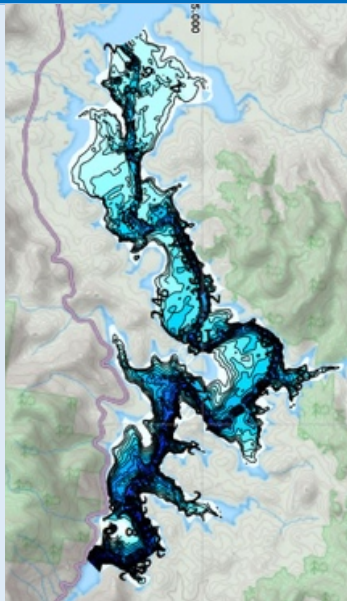
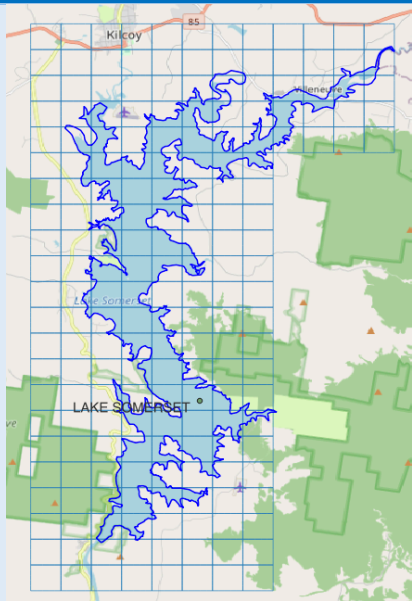
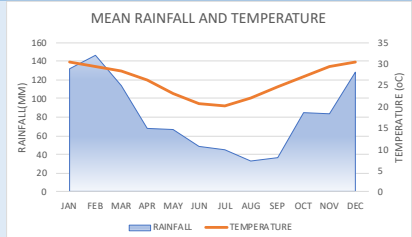
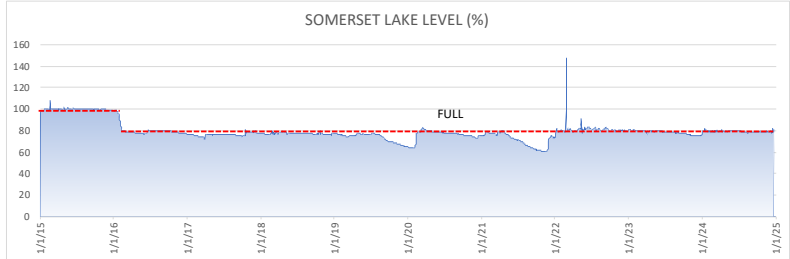
Lake Somerset is mostly a visitor fishery as there is a low local population with Kilcoy the largest town. Those recapturing fish mostly live less than 100km from the lake, mainly from Toowoomba to the Gold Coast, Brisbane and the Sunshine Coast. It is mostly an experiential fishery with a low harvest rate of 15% based on rate of legal Bass harvested by recapture fishers (ex-taggers). Weekend fishing is strong with 41% of tagger and 45% of recapture fisher activity over those days.

Lake Somerset is fished throughout the year with a peak in Sep by taggers. There was a drop off in effort in 2022 when the lake spilled, and fishing conditions were difficult. While there was an improvement in effort in 2023 in 2024 there appears to have been a shift by taggers to Lake Wivenhoe where catch rates are higher.

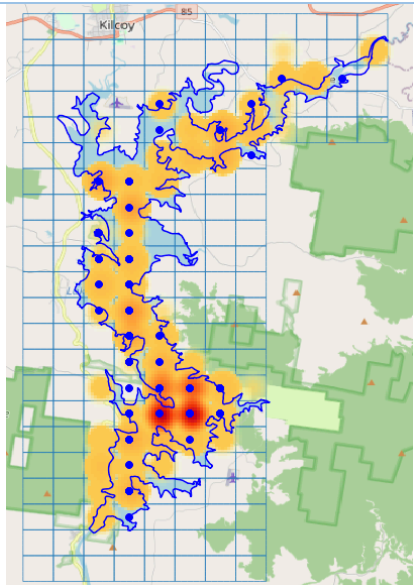
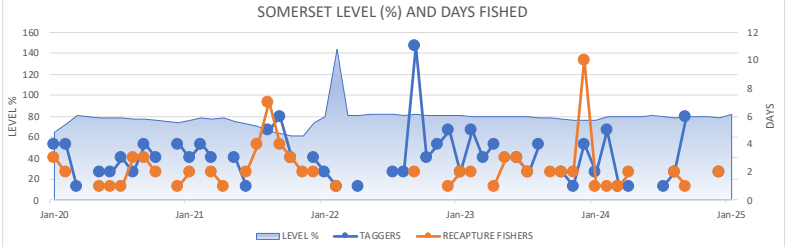
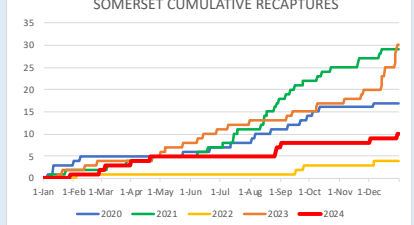
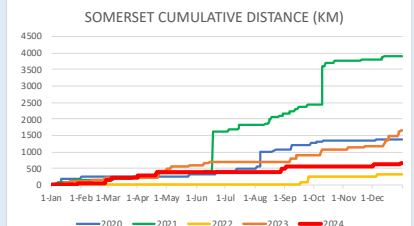
Lake Somerset has the highest percentage of trophy Bass of any impoundment with 5% of all fish tagged in the last 10 years being over 500mm. Bass in the lake live a long time with the longest time out for a recaptured fish being 25.3 years and one of the longest times out for a tagged freshwater fish.

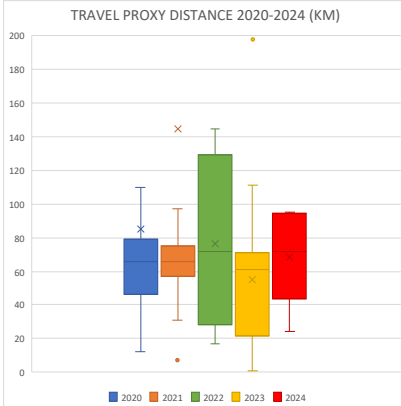
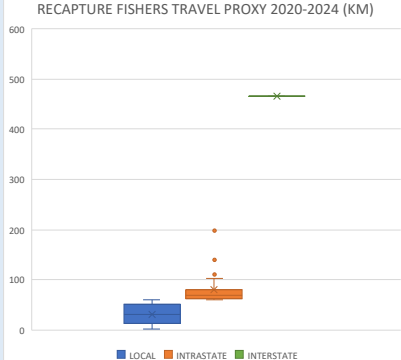
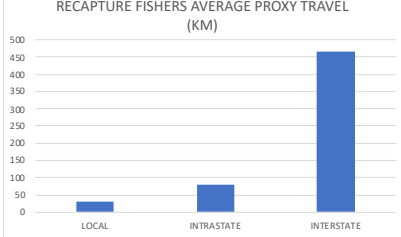
Following the spilling of Lake Somerset in 2022 there have been 3 Bass recaptured from below Wivenhoe dam to the mouth of the Brisbane River. This compares with 50 Bass recaptured below the dam following the spill in 2011 which were recaptured in the Brisbane and Bremer Rivers.

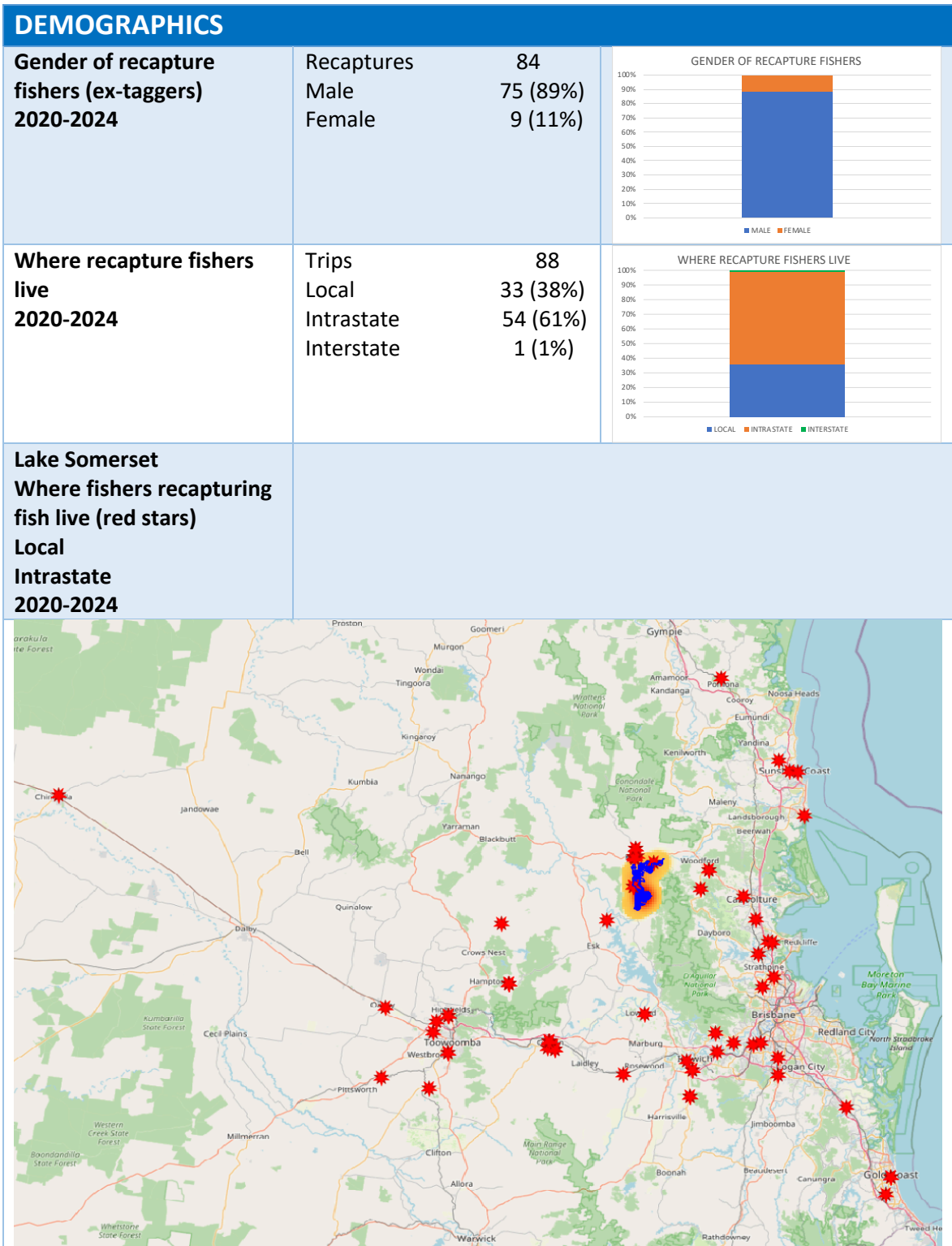
The lake spilled again in Dec 2024 so it is likely that further fish will be recaptured below in the dam in 2025.

| LAKE SOMERSET | | LOCATION | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|-------|----------------|--------|-----|--------|----|--------|-----|-------------|-------|--------|------|---------|----|--|-------|---------------|------------------|--------|-----|--------|-----|--------|----|-----|-----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|----|----|-----|-----|----|
|  | Lake Somerset 27.27°S 152.59°E |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IMPOUNDMENT | ACTUAL | GRAPH or MAP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Grid map Lake Somerset LS01 Surface area 43.5km ² Bathymetry 2021 |  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ENVIRONMENTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mean monthly rainfall (mm) Mean monthly air temperature (oC) | <table><tr><td>Rainfall</td><td>Month</td><td>mm</td></tr><tr><td>High</td><td>Feb</td><td>146</td></tr><tr><td></td><td>Jan</td><td>131</td></tr><tr><td>Temperature</td><td>Month</td><td>oC</td></tr><tr><td>High</td><td>Dec-Jan</td><td>30</td></tr></table> | Rainfall | Month | mm | High | Feb | 146 | | Jan | 131 | Temperature | Month | oC | High | Dec-Jan | 30 | <div><p>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>131</td><td>28</td></tr><tr><td>FEB</td><td>146</td><td>27</td></tr><tr><td>MAR</td><td>100</td><td>25</td></tr><tr><td>APR</td><td>60</td><td>23</td></tr><tr><td>MAY</td><td>40</td><td>21</td></tr><tr><td>JUN</td><td>30</td><td>20</td></tr><tr><td>JUL</td><td>20</td><td>19</td></tr><tr><td>AUG</td><td>10</td><td>18</td></tr><tr><td>SEP</td><td>10</td><td>19</td></tr><tr><td>OCT</td><td>20</td><td>21</td></tr><tr><td>NOV</td><td>40</td><td>23</td></tr><tr><td>DEC</td><td>100</td><td>25</td></tr></tbody></table></div> | Month | Rainfall (mm) | Temperature (oC) | JAN | 131 | 28 | FEB | 146 | 27 | MAR | 100 | 25 | APR | 60 | 23 | MAY | 40 | 21 | JUN | 30 | 20 | JUL | 20 | 19 | AUG | 10 | 18 | SEP | 10 | 19 | OCT | 20 | 21 | NOV | 40 | 23 | DEC | 100 | 25 |
| Rainfall | Month | mm | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High | Feb | 146 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Jan | 131 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Temperature | Month | oC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| High | Dec-Jan | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Month | Rainfall (mm) | Temperature (oC) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| JAN | 131 | 28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FEB | 146 | 27 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAR | 100 | 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APR | 60 | 23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAY | 40 | 21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| JUN | 30 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| JUL | 20 | 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AUG | 10 | 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SEP | 10 | 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| OCT | 20 | 21 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NOV | 40 | 23 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DEC | 100 | 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lake level 2015-2024 Full level reduced to 80% in 2016 Spilled 2015 2022 2024 Dec | <div><p>SOMERSET LAKE LEVEL (%)</p><table><thead><tr><th>Date</th><th>Lake Level (%)</th></tr></thead><tbody><tr><td>1/1/15</td><td>100</td></tr><tr><td>1/1/16</td><td>80</td></tr><tr><td>1/1/17</td><td>80</td></tr><tr><td>1/1/18</td><td>80</td></tr><tr><td>1/1/19</td><td>80</td></tr><tr><td>1/1/20</td><td>80</td></tr><tr><td>1/1/21</td><td>80</td></tr><tr><td>1/1/22</td><td>80</td></tr><tr><td>1/1/23</td><td>80</td></tr><tr><td>1/1/24</td><td>80</td></tr><tr><td>1/1/25</td><td>80</td></tr></tbody></table></div> | | Date | Lake Level (%) | 1/1/15 | 100 | 1/1/16 | 80 | 1/1/17 | 80 | 1/1/18 | 80 | 1/1/19 | 80 | 1/1/20 | 80 | 1/1/21 | 80 | 1/1/22 | 80 | 1/1/23 | 80 | 1/1/24 | 80 | 1/1/25 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Date | Lake Level (%) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/1/15 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/1/16 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/1/17 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/1/18 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/1/19 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/1/20 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/1/21 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/1/22 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/1/23 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/1/24 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1/1/25 | 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

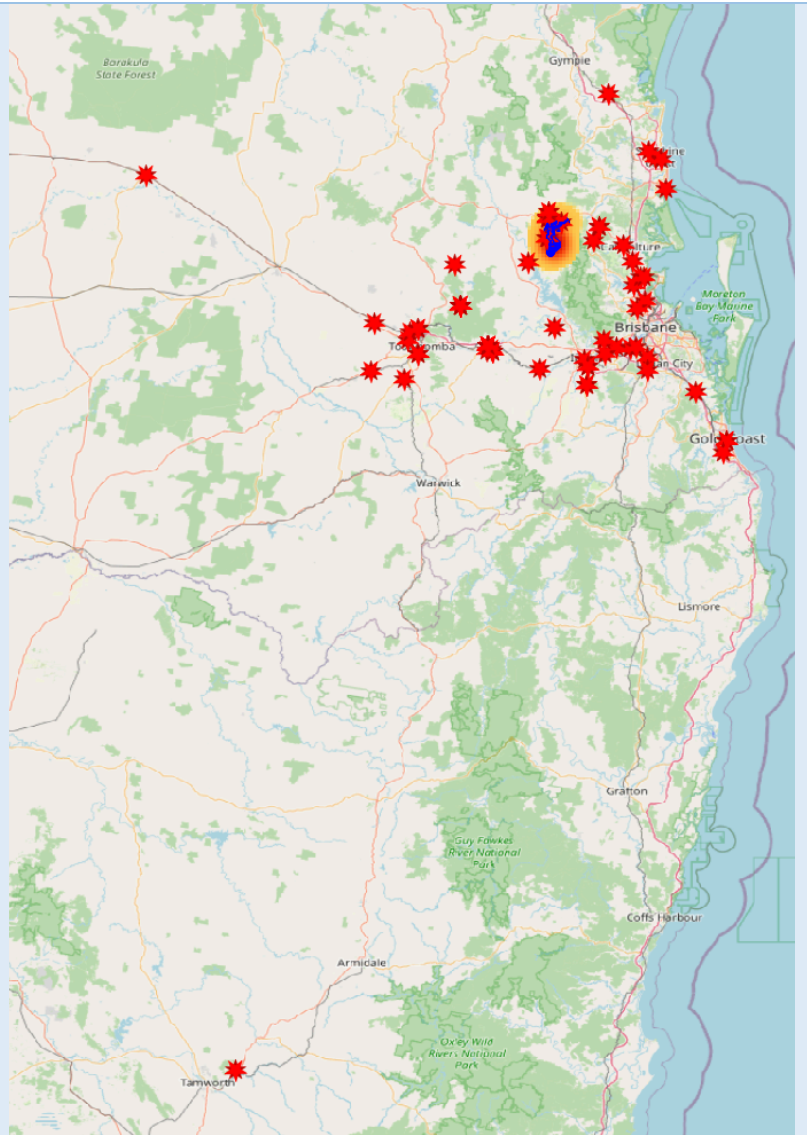
| FISHERS | ACTUAL | | GRAPH or MAP | |
|---------------------------------------|---------------------------|--|---------------------------------|--|
| DATA RELIABILITY | | | | |
| Sample size (days fished) | Reliability level | | MODERATE | |
| Tag days (blue arrow) | Samples | | MODERATE | |
| Recaptures (orange arrow) | Confidence | | HIGH | |
| Confidence % | Error | | | |
| Error % | | | | |
| 2020-2024 | | | | |
| TYPE OF FISHERY | | | | |
| Seasonality | Months most effort | | SOMERSET FISHING SEASONALITY | |
| Mean monthly rainfall (mm) | Taggers | | Rainfall (mm) | |
| Days fished | Recapture fishers | | Temperature | |
| Taggers | | | Fishers Combined | |
| Recapture fishers | | | | |
| 2020-2024 | | | | |
| Harvest or experiential fishery | Bass legal fish kept rate | | TYPE OF FISHERY | |
| Release rate of recaptured legal Bass | Legal fish | | Harvest | |
| 2020-2024 | Kept | | Experiential | |
| | Released | | | |
| | | | | |
| Local or visitor fishery | Recapture fishers | | TYPE OF FISHER | |
| Where recapture fishers live | Local | | Local | |
| 2020-2024 | Visitor | | Visitor | |
| | | | | |
| ACTIVITY | | | | |
| Monthly activity | Month | | SOMERSET DAYS FISHED BY MONTH | |
| Days fished | Taggers | | Taggers | |
| Taggers (142) | Recaps | | Recapture Fishers | |
| Recapture fishers (89) | | | Combined | |
| 2020-2024 | | | | |
| Weekday activity | Day | | SOMERSET DAYS FISHED BY WEEKDAY | |
| Days fished | Taggers | | Taggers | |
| Taggers (142) | Recaps | | Recapture Fishers | |
| Recapture fishers (89) | | | Combined | |
| 2020-2024 | | | | |






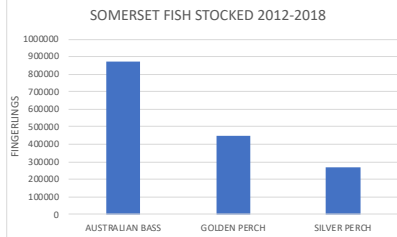
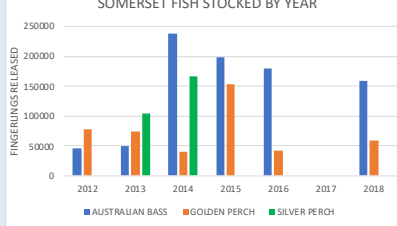
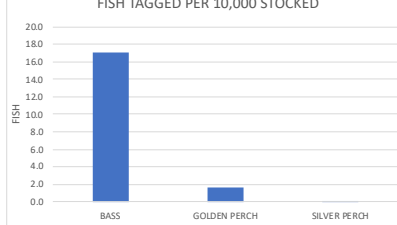
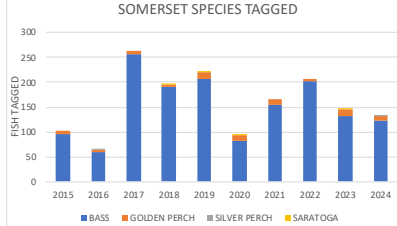
| | | | |
|---|---|---|--|
| Location activity Fish tagged Recaptured 2020-2024 | Tagged Recaptured | 753 90 |  |
| EFFORT | | | |
| Lake level (%) Days fished Taggers Recapture fishers 2020-2024 |  | | |
| Cumulative recaptures 2020-2024 | Year 2020 2021 2022 2023 2024 | Recaps 17 29 4 30 10 |  |
| TRAVEL | | | |
| Cumulative distance (km) address to recapture location 2020-2024 | Year 2020 2021 2022 2023 2024 | Km 1365 3906 305 1655 670 |  |

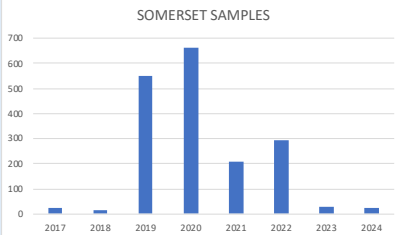
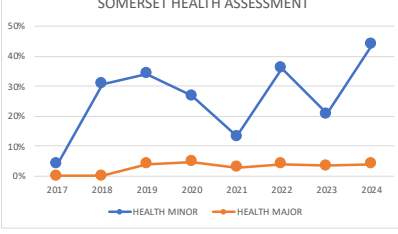
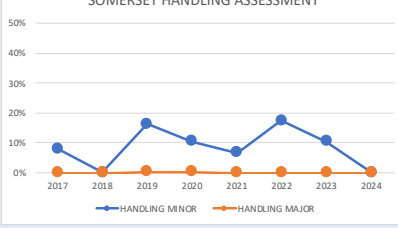
| | | | |
|--|--|--|--|
| Cumulative distance (km) address to recapture location by year 2020-2024 | | |  |
| Proxy travel distance (km) home to recapture location Local Intrastate Interstate 2020-2024 | Trips Local Intrastate Interstate | 88 Range (km) 1-59 60-198 467 |  |
| Proxy travel average distance (km) home to recapture location 2020-2024 | Trips Average distance (km) Local Intrastate Interstate | 88 33 80 467 |  |




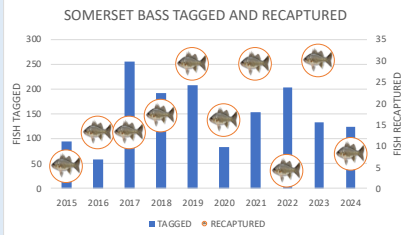
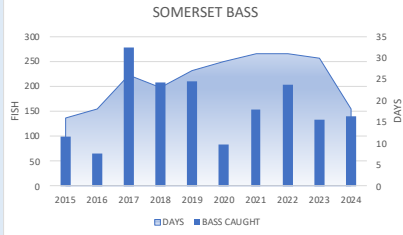
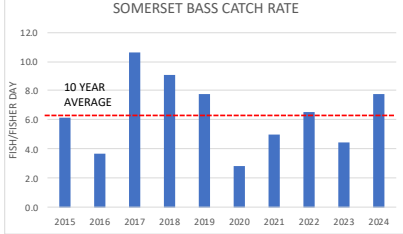
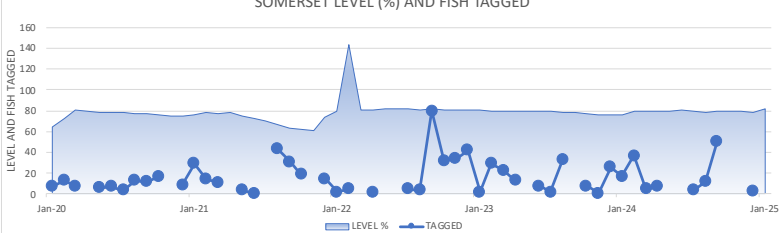


Where fishers recapturing
fish live (red stars)
Local
Intrastate
Interstate
2020-2024

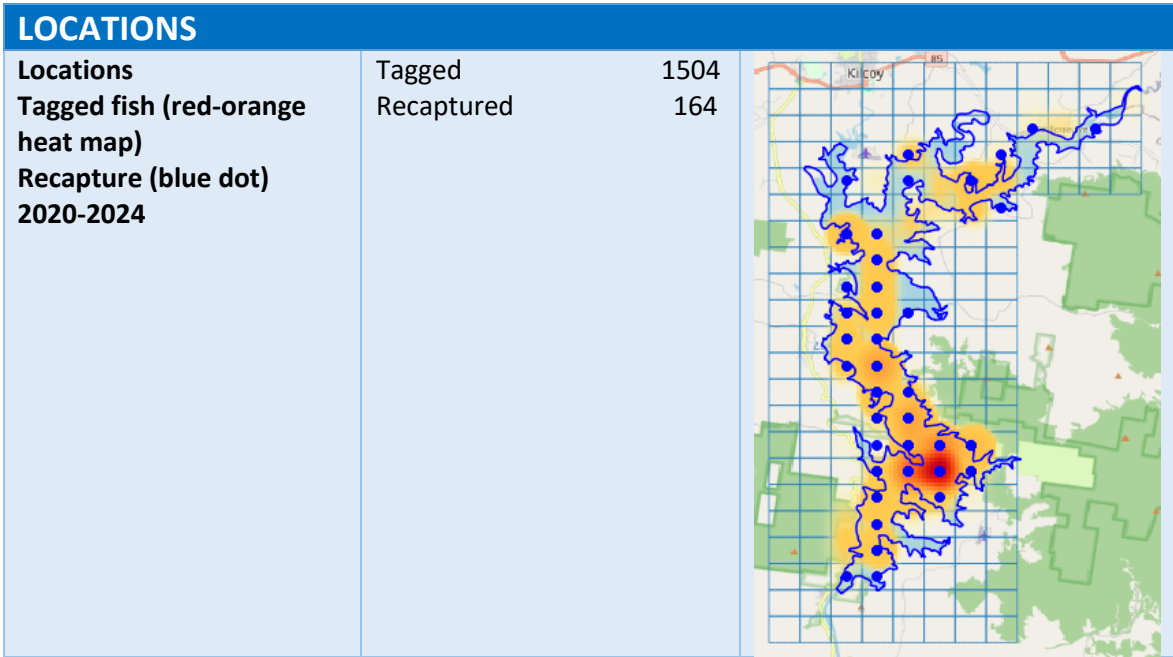
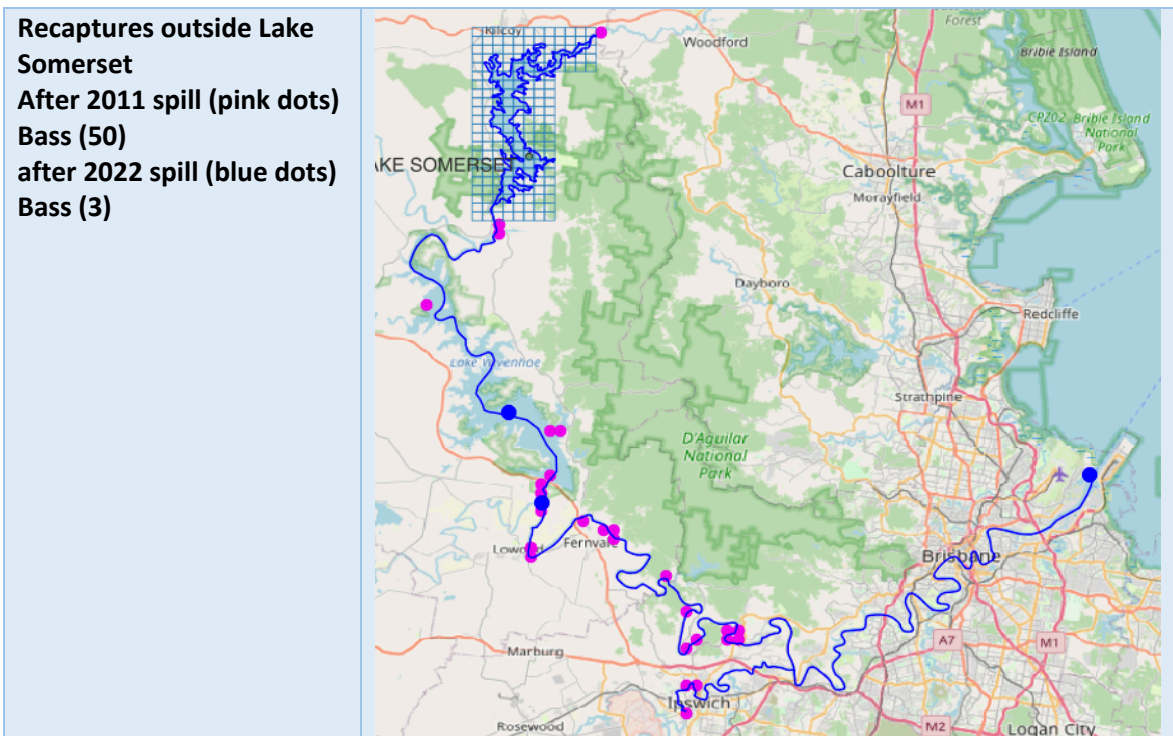





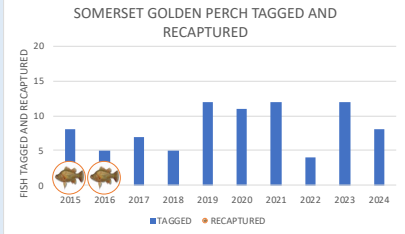
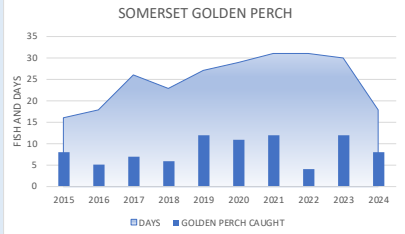
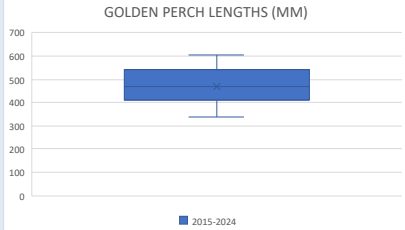
| SPECIES | | |
|---|--|--|
| AUSTRALIAN BASS | GOLDEN PERCH | SILVER PERCH |
|  |  |  |
| MARY RIVER COD | SOUTHERN SARATOGA | |
|  |  | |
| STOCKING | SPECIES | |
| Fingerlings stocked 2012-2018 | Bass | Fingerlings 870,700 |
| | Golden Perch | 450,400 |
| | Silver Perch | 271,300 |
| |  | |
| Fingerlings stocked by year 2012-2018 |  | |
| Fish tagged 2014-2023 per 10,000 fish stocked 2012-2018 | Tagged/10,000 fingerlings | |
| | Bass | 17 |
| | Golden Perch | 2 |
| | Silver Perch | 0.1 |
| |  | |
| SPECIES TAGGED | | |
| Species tagged 2015-2024 | Australian Bass | Tagged 1504 |
| | Golden Perch | 84 |
| | Silver Perch | 3 |
| | Southern Saratoga | 7 |
| |  | |

| FISH HEALTH AND HANDLING | | | | |
|---|--------------------------|------------|-------------|--|
| Fish health from photos Fish 2017-2024 | High | Low | Now |  <p>SOMERSET SAMPLES</p> |
| | 2020 661 | 2018 13 | 2024 25 | |
| | Total images 1806 | | | |
| Fish health assessment Fins/lesions and skin condition 2017-2024 | High | Low | Now |  <p>SOMERSET HEALTH ASSESSMENT</p> |
| | Minor 2019 34% | 2014 4% | 2024 44% | |
| | Major 2020 5% | 2018 0% | 2024 4% | |
| Handling assessment Bleeding and scale loss 2017-2024 | High | Low | Now |  <p>SOMERSET HANDLING ASSESSMENT</p> |
| | Minor 2022 17% | 2018 0% | 2024 0% | |
| | Major All years 0% | | | |

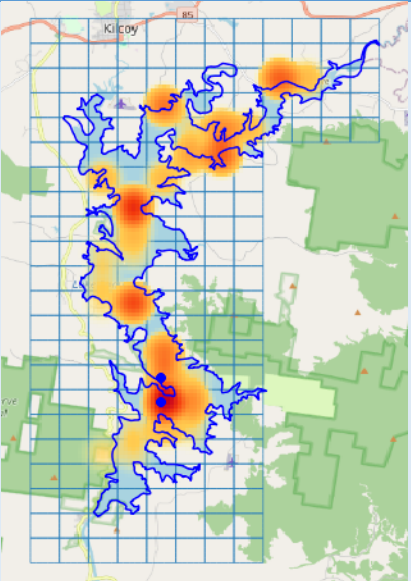
| BASS | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|------------|--|--|-----|----------|----------|------|---------|----|----|----|-----|------------|-----|-----|-----|-----|-------|-----|-----|-----|----|
|  | | | | | | | | | | | | | | | | | | | | | | | |
| DATA RELIABILITY | | | | | | | | | | | | | | | | | | | | | | | |
| Sample size (fish/year) | <table><tr><td>Reliability level</td><td>LOW</td><td>MODERATE</td><td>MODERATE</td><td>HIGH</td></tr><tr><td>Samples</td><td>10</td><td>41</td><td>68</td><td>271</td></tr><tr><td>Confidence</td><td>80%</td><td>80%</td><td>90%</td><td>95%</td></tr><tr><td>Error</td><td>20%</td><td>10%</td><td>10%</td><td>5%</td></tr></table> | | | Reliability level | LOW | MODERATE | MODERATE | HIGH | Samples | 10 | 41 | 68 | 271 | Confidence | 80% | 80% | 90% | 95% | Error | 20% | 10% | 10% | 5% |
| Reliability level | LOW | MODERATE | MODERATE | HIGH | | | | | | | | | | | | | | | | | | | |
| Samples | 10 | 41 | 68 | 271 | | | | | | | | | | | | | | | | | | | |
| Confidence | 80% | 80% | 90% | 95% | | | | | | | | | | | | | | | | | | | |
| Error | 20% | 10% | 10% | 5% | | | | | | | | | | | | | | | | | | | |
| Tagged (blue arrow) |   | | | | | | | | | | | | | | | | | | | | | | |
| Recaptures (orange arrow) | | | | | | | | | | | | | | | | | | | | | | | |
| Confidence % | | | | | | | | | | | | | | | | | | | | | | | |
| Error % | | | | | | | | | | | | | | | | | | | | | | | |
| 2020-2024 | | | | | | | | | | | | | | | | | | | | | | | |
| TAGGED | | | | | | | | | | | | | | | | | | | | | | | |
| Bass | Tagged | Recaptured |  | | | | | | | | | | | | | | | | | | | | |
| Tagged | 1504 | 164 | | | | | | | | | | | | | | | | | | | | | |
| Recaptured (from year tagged) | Recapture rate | | | | | | | | | | | | | | | | | | | | | | |
| 2015-2024 | 10.9% | | | | | | | | | | | | | | | | | | | | | | |
| | Tagged 2024 | | | | | | | | | | | | | | | | | | | | | | |
| | 124 | | | | | | | | | | | | | | | | | | | | | | |
| EFFORT | | | | | | | | | | | | | | | | | | | | | | | |
| Catch and effort taggers | High | Low | Now |  | | | | | | | | | | | | | | | | | | | |
| Fish caught | Tagged | | | | | | | | | | | | | | | | | | | | | | |
| Days fished | 2017 | 2016 | 2024 | | | | | | | | | | | | | | | | | | | | |
| 2015-2024 | 277 | 66 | 140 | | | | | | | | | | | | | | | | | | | | |
| | Days | | | | | | | | | | | | | | | | | | | | | | |
| | 2022 | 2015 | 2024 | | | | | | | | | | | | | | | | | | | | |
| | 31 | 16 | 18 | | | | | | | | | | | | | | | | | | | | |
| Catch rate | High | Low | Now |  | | | | | | | | | | | | | | | | | | | |
| Fish/day | 2017 | 2020 | 2024 | | | | | | | | | | | | | | | | | | | | |
| 2015-2024 | 10.7 | 2.9 | 7.8 | | | | | | | | | | | | | | | | | | | | |
| | 10 year average | | 6.3 | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Lake level (%) | | | |  | | | | | | | | | | | | | | | | | | | |
| Fish tagged | | | | | | | | | | | | | | | | | | | | | | | |
| Full at 80% | | | | | | | | | | | | | | | | | | | | | | | |
| 2020-2024 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |


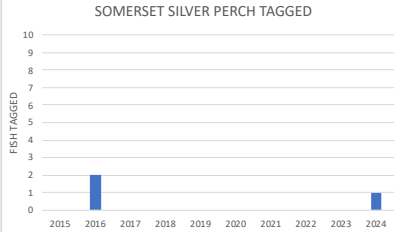
| LENGTHS | | | |
|---|----------------------------|------------|------|
| Average length (mm) Bars show length range Dots show outliers 2015-2024 | High | Low | Now |
| | Average length | | |
| | 2021 | 2016 | 2024 |
| | 406 | 323 | 389 |
| | Largest | | |
| | 2022 | 2019 | 2023 |
| | 580 | 515 | 550 |
| Fish length percentage (%) Undersize <300mm Legal 300-499mm Trophy 500+mm 2015-2024 | High | Low | Now |
| | Legal-trophy | | |
| | 2021 | 2016 | 2024 |
| | 82% | 47% | 80% |
| | Trophy | | |
| | 2021 | 2022 | 2024 |
| | 10% | 1% | 14% |
| | | | |
| | | | |
| FATE | | | |
| Fate of legal Bass recaptured by recfishers (ex-taggers) 2015-2024 | Recaptures | 150 | |
| | Kept | 23 (15%) | |
| | Released | 127 (85%) | |
| | | | |
| | | | |
| GROWTH | | | |
| Bass growth based on recaptures of fish tagged 2015-2024 | Recaptures | 90 | |
| | Annual growth (mm) | | |
| | Year 1 | 49 | |
| | Year 2 | 68 | |
| | Year 3 | 79 | |
| | Year 4 | 86 | |
| | Year 5 | 92 | |
| | | | |
| SURVIVAL | | | |
| Bass survival based on recaptures by years out All years | Survival rate by years out | | |
| | Year | Recaptures | |
| | 1 | 752 | |
| | 5 | 314 | |
| | 10 | 86 | |
| | 15 | 22 | |
| | 20 | 8 | |
| | 25 | 2 | |
| | Longest time out (years) | | |
| | 26.5 | | |
| | | | |
| MOVEMENT | | | |
| Bass movement in lake 2015-2024 | Recaptures | 83 | |
| | Same area | 19 (23%) | |
| | Down lake | 19 (23%) | |
| | Up lake | 45 (54%) | |
| | | | |


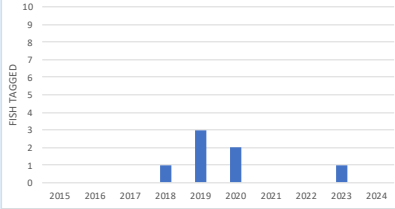



| GOLDEN PERCH | ACTUAL | GRAPH or MAP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|-------------------|-----|----------|----------|------|----------|--|------|--|---------|----|----|----|-----|-----|-----|--|--|------------|--|-----|-----|-----|-----|-----|-----|--|-------|--|-----|-----|-----|----|----|----|--|
|  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DATA RELIABILITY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample size (av fish/year) | <table><tr><td>Reliability level</td><td colspan="2">LOW</td><td colspan="2">MODERATE</td><td colspan="2">MODERATE</td><td colspan="2">HIGH</td></tr><tr><td>Samples</td><td>10</td><td>41</td><td>68</td><td>271</td><td>384</td><td>664</td><td></td><td></td></tr><tr><td>Confidence</td><td></td><td>80%</td><td>80%</td><td>90%</td><td>90%</td><td>95%</td><td>99%</td><td></td></tr><tr><td>Error</td><td></td><td>20%</td><td>10%</td><td>10%</td><td>5%</td><td>5%</td><td>5%</td><td></td></tr></table> | | Reliability level | LOW | | MODERATE | | MODERATE | | HIGH | | Samples | 10 | 41 | 68 | 271 | 384 | 664 | | | Confidence | | 80% | 80% | 90% | 90% | 95% | 99% | | Error | | 20% | 10% | 10% | 5% | 5% | 5% | |
| Reliability level | LOW | | MODERATE | | MODERATE | | HIGH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Samples | 10 | 41 | 68 | 271 | 384 | 664 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Confidence | | 80% | 80% | 90% | 90% | 95% | 99% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Error | | 20% | 10% | 10% | 5% | 5% | 5% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tagged (blue arrow) |   | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Recaptures (orange arrow) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Confidence % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Error % | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2020-2024 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TAGGED | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Golden Perch tagged and recaptured | Tagged 84 | Recaptured 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2015-2024 | Recapture rate 2.4% | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Tagged 2024 8 |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| EFFORT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Catch and effort taggers | High | Low | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| number of fish | Tagged | Now | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| fisher days | 2023 | 2022 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2015-2024 | 12 | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Days | 2024 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2022 | 2015 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 31 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| LENGTHS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lengths (mm) | Fish | 75 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bars show length range | Average length (mm) | 469 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dots show outliers | Largest (mm) | 605 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2015-2024 | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| LOCATIONS | | |
|-----------------------------------|------------|----|
| Locations | Tagged | 84 |
| Tagged fish (red-orange heat map) | Recaptured | 2 |
| Recapture (blue dot) | | |
| 2015-2024 | | |



| SILVER PERCH | ACTUAL | GRAPH or MAP |
|--|--|--|
|  | | |
| TAGGED | | |
| Silver Perch Tagged Recaptured 2015-2024 | Tagged 3 Recaptured 0 Recapture rate 0% Tagged 2024 0 |  |

| SARATOGA | ACTUAL | GRAPH or MAP |
|---|--|--|
|  | | |
| TAGGED | | |
| Saratoga Tagged Recaptured 2015-2024 | Tagged 7 Recaptured 0 Recapture rate 0% Tagged 2024 0 |  |

| MARY RIVER COD | ACTUAL | GRAPH or MAP |
|---|---|--------------|
|  | | |
| TAGGED | | |
| Mary River Cod Recorded Tagged 2015-2024 | Recorded 0 Tagged* 0 *Can be tagged from 2023 | |

Data sources

Data used in the Lake Somerset 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/>.
- Rainfall and temperature data from station 040189 Somerset Dam from <http://www.bom.gov.au/climate/data>.
- Bathymetric data from Infofish surveys.
- Fish health photos from tagging and competitions.

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 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 fish are <300mm, legal fish are ≥300 and <500mm and trophy fish are ≥500mm.
- Growth calculated using logarithmic curve from recaptures where fish were out for 90 days or more and had positive growth.
- Locations based on Infofish grid map LS01 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 numbers of recaptures each year after tagging.
- Travel proxy distance is the distance between where the fisher lives (address, suburb, town or postcode) and the recapture location. Local (60km, Intrastate Qld elsewhere, Interstate other than Qld).