CRYSTALBOWL

LAKE CANIA REVIEW JUNE 2025
INFORMATION RATING ⭐⭐⭐⯪

Stocking group: Cania Dam Fish Stocking Association
Species stocked: Australian Bass, Golden Perch, Silver Perch, Southern Saratoga
Stocking timeframe: 2014-2023
Fish timeframe: 2016-2025 Jan-Jun
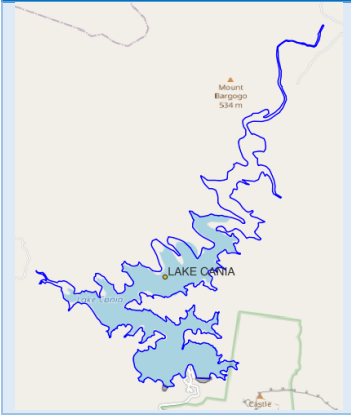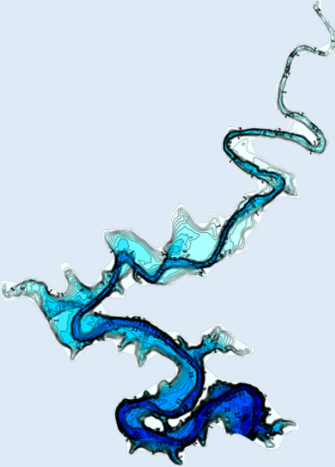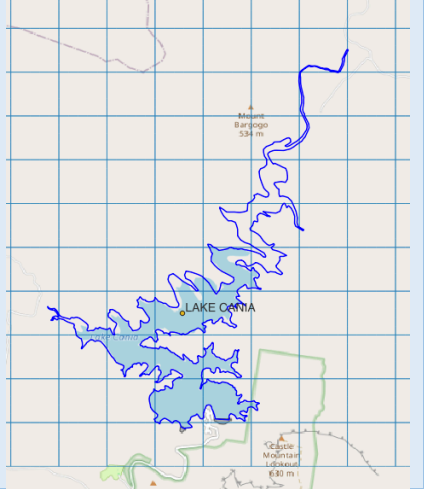Fisher timeframe: 2021-2025 Jan-Jun
DPI link: https://www.daf.qld.gov.au/rsa/sips-dams-and-weirs/profile?dam=cania-dam
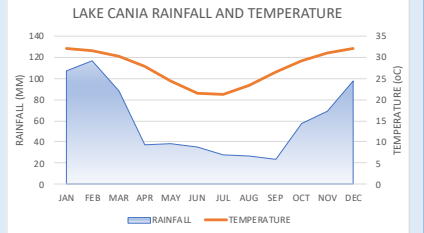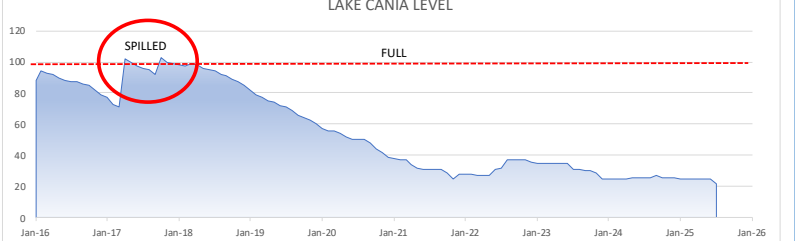
Lake Cania has been regularly stocked with Australian Bass, Golden Perch and Silver Perch. While Bass and Golden Perch have been stocked in large numbers the ratio of fish tagged is 75 Bass to 3 Golden Perch per 10,000 fingerlings stocked. There is also a population of Saratoga in the lake that is increasingly being targeted.

The SIPS competition saw an upsurge in fishing activity with increases in both tagger effort and recaptures. Based on where recapture fishers live Cania is mainly a visitor fishery and attracts fishers from a catchment that extends from Mackay in the north to Victoria in the south with most from central and southern Qld from over 100km away. Fishers from central Qld centres appear to fish Cania over a weekend (43% are weekend recaptures) and this is often a family or group affair with Cania having the highest percentage of recaptures by female fishers at 30%. There is a peak in days fished in Mar, a quieter period over winter and then increased activity from Aug-Oct.

The tagger catch rate for Bass has fluctuated over the past decade from a high of 15.0 fish tagged per day in 2019 to a low of 2.5 in 2023 and is currently 15.8 in the first half of 2025. The level of trophy fish over 500mm tagged remains very low while the average length of Bass tagged is currently 274mm and the lowest average length in the past decade. The longest time out for a Bass after tagging is mostly around 10 years however 1 fish was recaptured after 11.9 years.
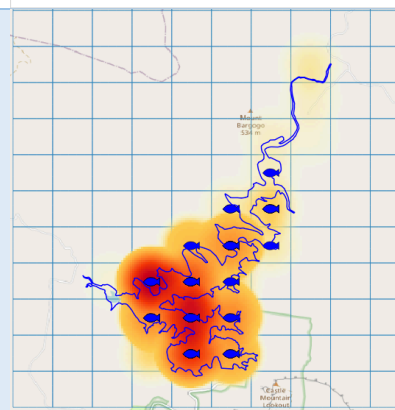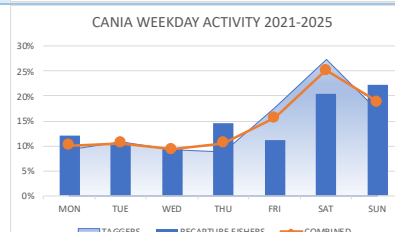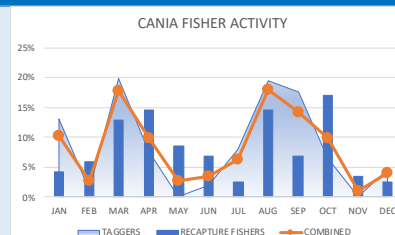
Unlike Bass lakes further south Cania did not spill in 2022 and hasn't spilled since 2017. This year the level has remained steady at around 25%. There were 2 Bass recaptured after the lake spilled in 2015 and again in 2017. Both fish were recaptured around Monto by local fishers.

Product of Infofish Australia

Supported by Suntag and FFSAQ

LAKE CANIA		LOCATION
	Lake Cania 24.63ºS 150.98ºE	

LAKE	ACTUAL	GRAPH or MAP
Grid map **Lake Cania LCG** **Bathymetry** **Surface area** **7.2km^2**		

ENVIRONMENTAL

Mena monthly rainfall (mm) **Mean monthly air temperature (oC)**	Rainfall	Month	mm	
	Max	Feb	116	
		Jan	107	
	Temp	Month	oC	
	Max	Dec-Feb	32	

Lake level **2017-2025** **Spilled** **2017** **Level Jun 2025** **25%**	

FISHERS	ACTUAL	GRAPH or MAP

DATA RELIABILITY

Sample size (days fished)
Tag days (blue arrow)
Recaptures (orange arrow)
Confidence %
Error %
2021-2025

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%	

TYPE OF FISHERY

Seasonality
Mean rainfall (mm) and temperature (oC)
Days combined (378)
Taggers
Recapture fishers
2021-2025
2025 Jan-Jun

Months most effort
Fishers combined   Mar
Aug
Sep
Oct

CANIA FISHING SEASONALITY

Harvest or experiential fishery
Release rate of recaptured legal Bass (ex-taggers)
2021-2025
2025 Jan-Jun

Bass legal fish kept rate
Legal fish   93
Kept   29 (31%)
Released   64 (69%)

TYPE OF FISHERY

Local or visitor fishery
Where recapture fishers live
2021-2025
2025 Jan-Jun

Recapture fishers   132
Local   13 (10%)
Visitor   119 (90%)

TYPE OF FISHER

Gender of recapture fishers (ex-taggers)
2021-2025
2025 Jan-Jun

Recaptures   104
Male   73 (70%)
Female   31 (30%)

GENDER OF RECAPTURE FISHERS

ACTIVITY

Monthly activity Days fished Taggers (261) Recapture fishers (117) 2021-2025 2025 Jan-Jun		Month	%
	Taggers	Mar	20%
		Aug	20%
	Recaps	Oct	17%
		Apr	15%
		Aug	15%

CANIA FISHER ACTIVITY

Weekday activity Days fished Taggers (261) Recapture fishers (117) 2021-2025 2025 Jan-Jun		Day	%
	Taggers	Weekdays	56%
		Weekend	44%
	Recaps	Weekdays	57%
		Weekend	43%

CANIA WEEKDAY ACTIVITY 2021-2025

Location activity Fish tagged (red-orange heat map) Recaptured (blue fish) 2021-2025 2025 Jan-Jun		
Fish tagged	1908	
Recaptured	133	

EFFORT

Lake level (% full) and days fished Taggers Recapture fishers 2021-2025 2025 Jan-Jun

LAKE CANIA LEVEL (%) AND DAYS FISHED

Cumulative recaptures 2021-2025 2025 Jan-Jun	Year	Recaps
	2021	56
	2022	23
	2023	16
	2024	29
	2025 Jan-Jun	9

CANIA CUMULATIVE RECAPTURES

TRAVEL		

Cumulative distance (km) home to recapture location 2021-2025 2025 Jan-Jun	Year	Km
	2021	14128
	2022	9595
	2023	5143
	2024	16584
	2025 Jan-Jun	1797

CANIA CUMULATIVE DISTANCE (KM)

Distance (km) home to recapture location by year 2021-2025 2025 Jan-Jun		

DISTANCE HOME TO RECAPTURE LOCATION (KM)

Distance (km) home to recapture location Local Intrastate Interstate 2021-2025 2025 Jan-Jun	Trips	132
		Range (km)
	Local	27-55
	Intrastate	84-873
	Interstate	653-1635

CANIA TRAVEL PROXY DISTANCE (KM)

Average distance (km) home to recapture location 2021-2025 2025 Jan-Jun	Trips	132
		Average distance (km)
	Local	31
	Intrastate	313
	Interstate	1241

RECAPTURE FISHER'S AVERAGE TRAVEL PROXY (KM)
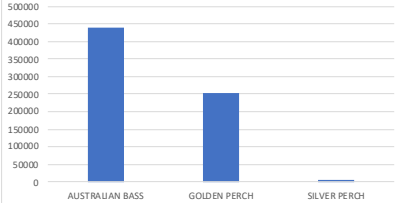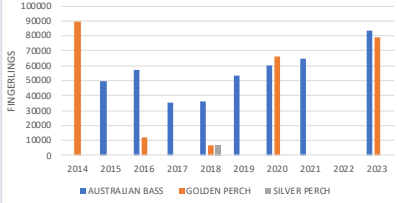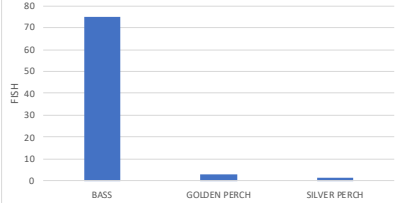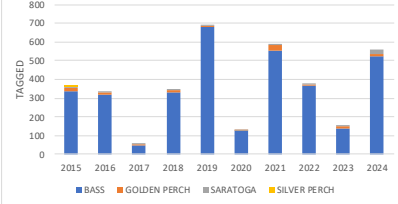
WHERE RECAPTURE FISHERS LIVE

Where recapture fishers live 2021-2025 2025 Jan-Jun	Trips	132
	Local	13 (10%)
	Intrastate	108 (82%)
	Interstate	11 (8%)

WHERE RECAPTURE FISHERS LIVE
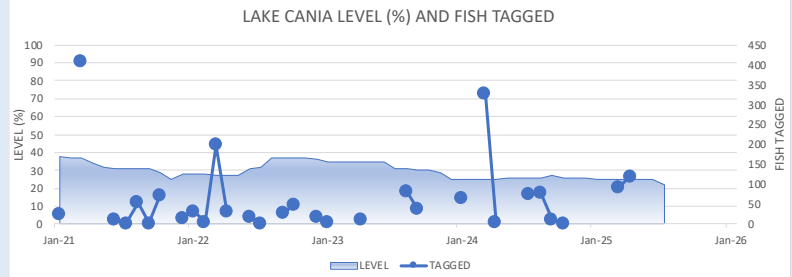
■ LOCAL ■ INTRASTATE ■ INTERSTATE

Where recapture fishers live (pink houses)
Local
Intrastate
2021-2025
2025 Jan-Jun

Where recapture fishers live (pink houses)
Local
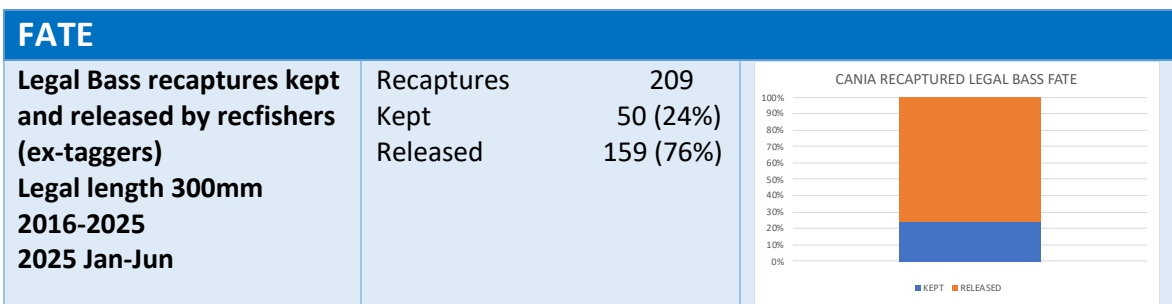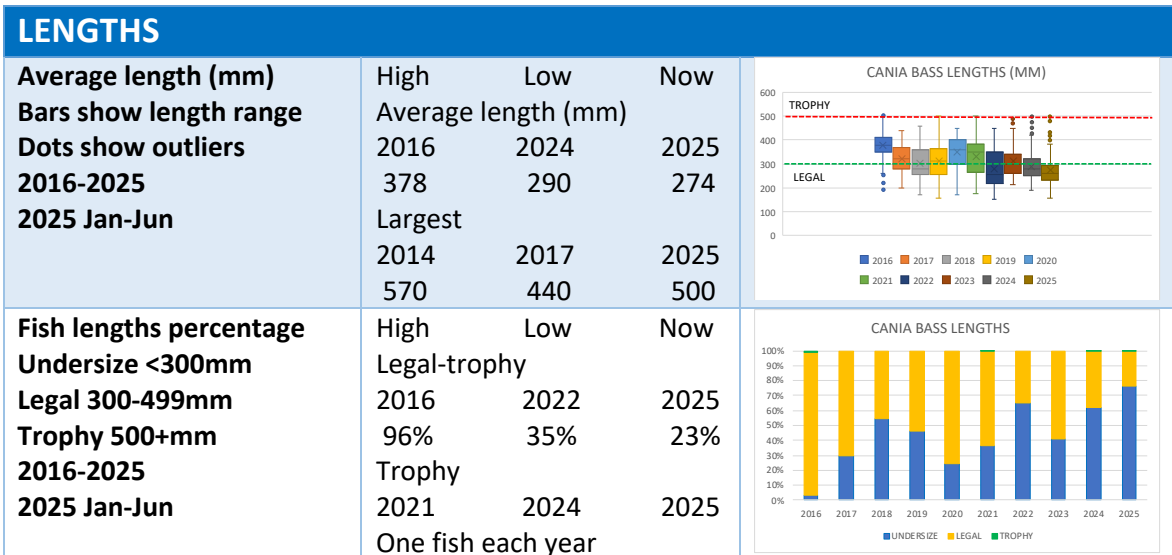**Intrastate**
Interstate
2021-2025
2025 Jan-Jun

FISH		
AUSTRALIAN BASS	**GOLDEN PERCH**	**SILVER PERCH**
SOUTHERN SARATOGA		

STOCKING		
Fingerlings stocked 2014-2023	Fingerlings Bass 440,331 Golden Perch 253,248 Silver Perch 6,818	 CANIA FISH STOCKED 2012-2018
Fingerlings stocked each year 2014-2023	Able to be tagged from 2016-2025	 CANIA FISH STOCKED 2014-2023
Fish tagged 2015-2024 per 10,000 fish stocked 2012-2018	Tagged/10,000 fingerlings Bass 75 Golden Perch 3 Silver Perch 1	 FISH TAGGED PER 10,000 STOCKED

SPECIES TAGGED		
Species tagged 2015-2024	Tagged Bass 3309 Golden Perch 82 Saratoga 69 Silver Perch 1	 CANIA SPECIES TAGGED

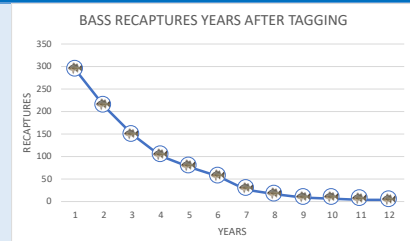**Lake level (%)**
Fish tagged
2016-2025
2025 Jan-Jun

LAKE CANIA LEVEL (%) AND FISH TAGGED

BASS	ACTUAL	GRAPH or MAP

DATA RELIABILITY

Sample size (av fish/year) **Tagged (blue arrow)** **Recaptures (orange arrow)** **Confidence %** **Error %** **2021-2025**		

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 AND TAG RATE

Bass tagged and recaptured 2016-2025 2025 Jan-Jun	Tagged Recaptured 3309 258 Recapture rate 7.8% Tagged 2025 Jan-Jun 206	
Catch and effort **Fish caught (all)** **Days fished** **Taggers** **2016-2025** **2025 Jan-Jun**	High Low Now Tagged 2019 2017 2025 682 50 206 Days 2015 2017 2025 50 14 13	
Catch rate **Fish/day** **2016-2025** **2025 Jan-Jun**	High Low Now Catch rate 2019 2017 2025 15.0 3.6 15.8 10 year average 8.3	

LENGTHS

Average length (mm) Bars show length range Dots show outliers 2016-2025 2025 Jan-Jun	High	Low	Now
	Average length (mm)		
	2016	2024	2025
	378	290	274
	Largest		
	2014	2017	2025
	570	440	500

Fish lengths percentage Undersize <300mm Legal 300-499mm Trophy 500+mm 2016-2025 2025 Jan-Jun	High	Low	Now
	Legal-trophy		
	2016	2022	2025
	96%	35%	23%
	Trophy		
	2021	2024	2025
	One fish each year		

FATE

Legal Bass recaptures kept and released by recfishers (ex-taggers) Legal length 300mm 2016-2025 2025 Jan-Jun		
Recaptures	209	
Kept	50 (24%)	
Released	159 (76%)	

GROWTH

Bass growth at the end of each year based on recaptures Tagged <300mm 2016-2025 2025 Jan-Jun		
Recaptures	47	
Annual growth (mm)		
Year 1	39	
Year 2	81	
Year 3	106	
Year 4	123	
Year 5	137	

$$y = 60.579\ln(x) - 318.28$$

SURVIVAL

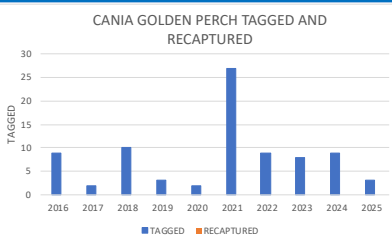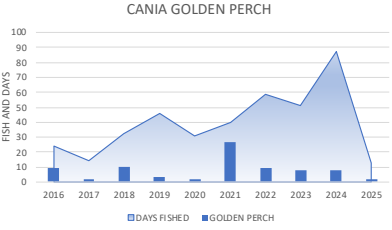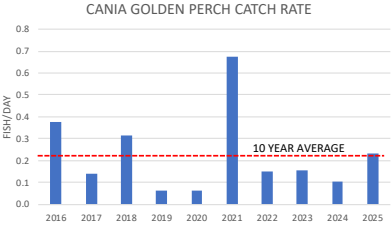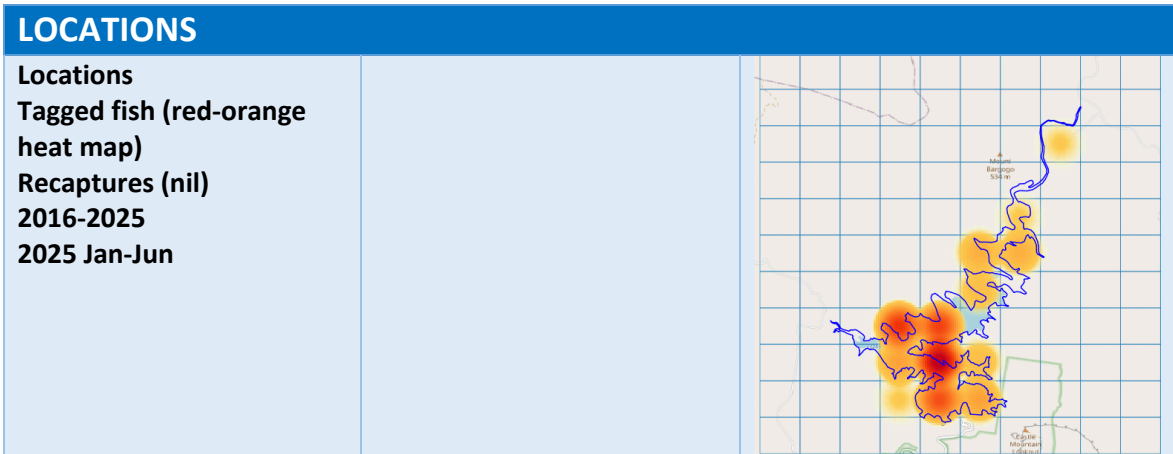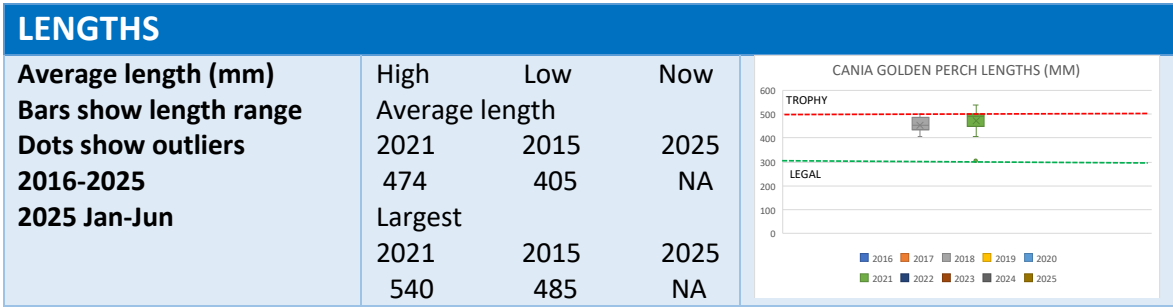|		
Bass survival based on recaptures by years out after tagging All years	Survival rate by years out Year Recaptures 1 293 5 76 10 6 12 3	BASS RECAPTURES YEARS AFTER TAGGING
Survival rates each year after tagging All years	Average survival each year 0.65 (65%) Range 0.47-0.72 Longest time out (years) 11.8	ANNUAL BASS SURVIVAL RATE
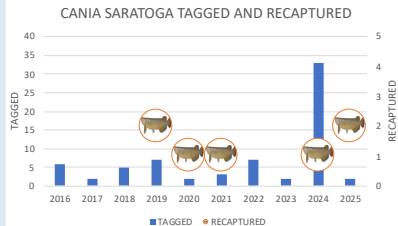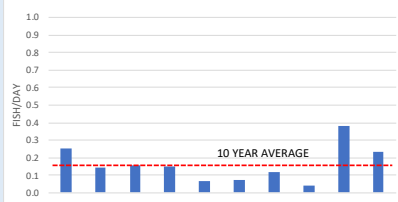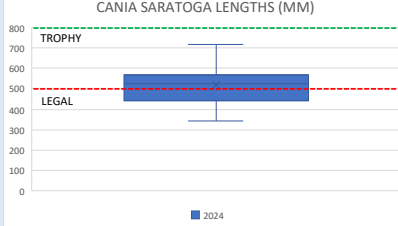
MOVEMENT

Bass movements (km) Recaptures 2016-2025 2025 Jan-Jun	Recaptures	167
	Same area	69 (41%)
	Up lake	33 (20%)
	Down lake	65 (39%)
	Below lake	2 (2%)

CANIA BASS MOVEMENT (KM)

Bass recaptured outside lake
Tagged (pink fish)
Recaptured (blue fish)
Below dam   **2**
3 Moon Creek near Monto
U41563   **2015**   **48km**
U41644   **2019**   **55km**

LOCATIONS

Location of tagged fish heat map (red-orange) and recaptures (blue dots) 2016-2025 2025 Jan-Jun	Tagged	3309
	Recaptured	258

GOLDEN PERCH	ACTUAL	GRAPH or MAP

DATA RELIABILITY		
Sample size (av fish/year) **Tagged (blue arrow)** **Recaptures (orange arrow)** **Confidence %** **Error %** **2021-2025**		

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 AND TAG RATE		

| Golden Perch **Tagged** **Recaptured** **2016-2025** **2025 Jan-Jun** | Tagged   Recaptured
 82   0
Recapture rate
 0%
Tagged 2025 Jan-Jun
 3 |
CANIA GOLDEN PERCH TAGGED AND RECAPTURED |

| Tag and effort **number of fish** **Days fished** **Taggers** **2016-2025** **2025 Jan-Jun** | High   Low   Now
Tagged
2021   2020   2025
 27   2   3
Days
2022   2017   2025
 59   14   13 |
CANIA GOLDEN PERCH |

| Tag rate **Fish/day** **2016-2025** **2025 Jan-Jun** | High   Low   Now
Catch rate
2021   2020   2025
 0.7   0.1   0.2

10 year average   0.2 |
CANIA GOLDEN PERCH CATCH RATE |

LENGTHS

Average length (mm) Bars show length range Dots show outliers 2016-2025 2025 Jan-Jun	High	Low	Now
	Average length		
	2021	2015	2025
	474	405	NA
	Largest		
	2021	2015	2025
	540	485	NA

CANIA GOLDEN PERCH LENGTHS (MM)

TROPHY

LEGAL

2016 2017 2018 2019 2020
2021 2022 2023 2024 2025

LOCATIONS

Locations Tagged fish (red-orange heat map) Recaptures (nil) 2016-2025 2025 Jan-Jun	

SARATOGA	ACTUAL	GRAPH or MAP

DATA RELIABILITY

Sample size (av fish/year)
Tagged (blue arrow)
Recaptures (orange arrow)
Confidence %
Error %
2021-2025

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 AND TAG RATE

Saratoga tagged and recaptured
2016-2025
2025 Jan-Jun
	Tagged Recaptured
	  69 7
	Recapture rate
	  10.1%
	Tagged 2025 Jan-Jun
	  2
		CANIA SARATOGA TAGGED AND RECAPTURED

Tag and effort **number of fish** **fisher days** **Taggers** **2016-2025** **2025 Jan-Jun**	High Low Now Tagged 2024 2023 2025 33 2 2 Days 2022 2017 2025 59 14 13	CANIA SARATOGA
Tag rate **Fish/day** **2016-2025** **2025 Jan-Jun**	High Low Now Catch rate 2014 2022 2025 0.6 0.1 0.2 10 year average 0.2	CANIA SARATOGA CATCH RATE

LENGTH

Average length (mm) **Only year with sufficient fish** **2024**	Average length (mm) 520 Largest 720	CANIA SARATOGA LENGTHS (MM)

LOCATIONS
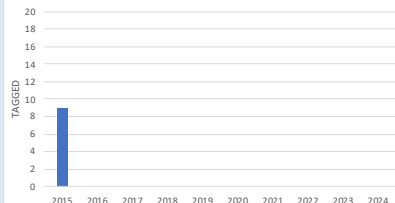
Locations
Tagged Saratoga (red-orange heat map)
Recaptures (blue fish)
2016-2025
2025 Jan-Jun
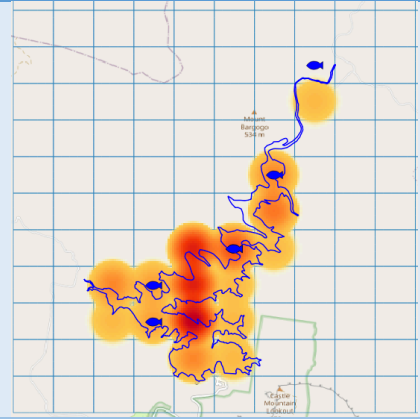
SILVER PERCH	ACTUAL	GRAPH or MAP
TAGGED		
Silver Perch tagged and recaptured 2015-2024	Tagged Recaptured 9 0 Recapture rate 0%	

Data sources

Data used in the Lake Cania 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 Fisheries Queensland and from https://www.data.qld.gov.au/dataset/queensland-freshwater-fish-stocking-records/ .
- Rainfall records from Station 03922 Cania Gorge Park and temperature records from 039104 Monto Township from http://www.bom.gov.au/climate/data.

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 per year over the past 5 years.
- Catch rates calculated as number of fish tagged/fisher day for 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 >=500mm.
- Undersized Saratoga are <500, legal are >=500 and <800 and trophy fish are >800.
- Growth calculated using logarithmic curve from recaptures where fish were less than 300mm, out for 90 days or more and had positive growth.
- Locations based on Infofish 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.
- 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.