

# Gaden Trout Hatchery - Tri Annual Report

## Completion of production

May 2018 to September 2018

### Climatic Conditions

Heavy frosts were experienced in June with the fish trap structure, all ponds and sections of the Thredbo River freezing over. In general the river level has been low for winter with only two occasions where flood waters were over the trap barrier. High winds, snow in addition to 223.7mm of rain have been received since May.

During the initial snow melt in spring, fine algae was very noticeable in the water which resulted in additional and regular cleaning of ova trays, trough and tank screens in the hatching room.

### Infrastructure

Applications for regional growth funding and research site upgrade expenditure for improvements were submitted for consideration for an upgrade to hatchery infrastructure and tourist facility.

The proposal to have a shared trail bridge within the hatchery grounds is gaining momentum with design concepts and geotechnical assessments of proposed bridge piers being conducted. In the near future this may result in restriction of access to the picnic area and redirection of both vehicle and foot traffic through the Gaden site.

During strong winds in June several trees including a poplar in the picnic area were blown over. Due to the size of the tree removal was undertaken by external contractors. Due to ongoing costs for removal, damaged infrastructure and safety issues more trees maybe removed in the near future.

### Fish Stocking

Trap screens were installed on 28 May 2018 targeting brown trout. Brown trout commenced to move shortly thereafter due to rain events however due to large frost little movement occurred again until mid-July, when a large proportion of Gaden production required numbers were obtained.

While the river level remained low with little movement of fish, it was evident that there was a large population (many hundreds) of brown trout in stretches of the Thredbo River adjacent to the hatchery. The river level was so low that there was insufficient water to enable fish to enter the trap box. Natural spawning and subsequent recruitment during this time is highly likely with some captured fish being 'spent'. Data has been collected by hatchery staff for all fish relating to condition factor, tagging/stocking information and return spawn fin clip assessment.

Trap screens were removed on 26 September with 866 brown trout being caught and 160 Rainbow trout harvested. Due to limited number of wild Rainbow trout captured, the allocation of ova was complimented by captive brood stock on hand at the hatchery. Ova is still incubating and full success rate yet unknown, however with more than half ova developed to the eyed stage indications are that brown trout eggs will be approximately 90% successful and rainbow trout 85%. With continued similar fertility and 'normal' die off during development stages it is likely there will be sufficient to cover requested allocations.

To further prevent possible future limitations on rainbow trout stocking numbers for MAS streams and NSW impoundments, Dutton Hatchery will provide fry for the CSDAC branches. Gaden hatchery will provide brown trout allocations for CSDAC in November in conjunction with MAS fry for both species.

Cormorants have been very active along the Thredbo River throughout the entire winter period and Pelicans have prominent in the rainbow trout spawning time, where they have been seen predated close in combined numbers of up to seven in the waterway immediately prior to the permanent fish trap. Hatchery staff is in contact with OE&H staff in relation to possible control measures.

Stocking Information is regularly updated and can be viewed at <https://www.dpi.nsw.gov.au/fishing/recreational/resources/stocking>

- Egg picking has been completed for Atlantic Salmon and Brook Trout
- Brown and Rainbow Trout will continue until November.

## Atlantic Salmon

128 2+ to 5+ year old adults and 210 1+, surplus to future brood stock requirement adults were released into Lake Jindabyne in May

1000 eyed ova were sent to Dutton hatchery for grow out and future display

Atlantic Salmon	
Age	Number
ova	200,000 (green ova laid down) 77.5% fertility
1+	400
2+	200
3+	90
4+	45
5+	20

## Brook Trout

50 fingerlings were transported to Dutton Hatchery for Aquaria display fish and future brood stock

150 adult Brook Trout released to Lake Jindabyne

1000 eyed ova were transported to Dutton for future aquaria, display and brood stock.

Brook Trout	
Age	Number
ova	121,000 (green) 73.5 % fertility
1+	200
2+	30

## Rainbow Trout

1,000 Rainbow Trout fingerlings were transported to Dutton trout hatchery for genetic diversity.

383 advanced 'tagged' fingerlings were released to Lake Jindabyne in May as part of the research program. These fish are the last of the Lake Jindabyne allocation for 2018 and were retained on site for tag retention data collection.

100 2+ were released into Pejar Dam in mid-August and a further 92 2+ and 3+ were released into Lake Jindabyne in late August. The Lake Jindabyne fish were implanted with elastomer eye tags to enable identification in future spawning runs or by recreational anglers.

20 adult r/t were supplied to NFC at request of western education officer Brett Smith for upcoming fishing clinic.

Gaden staff assisted NFC researches to conduct monitoring on numerous Lake Eucumbene tributaries. A small sample of ova was obtained for genetic diversity in future Gaden captive Rainbow Trout brood stock.

Approximately 20,000 rainbow trout ova/fry have been 'developed' in the limited temperature controlled tanks available.

Rainbow Trout	
Age	Number
Ova laid down	1,010,000 (green ova) Gaden/Thredbo river 21,000 Eucumbene
Fertility estimated 85% fingerlings	2000
1+	650
2+	200
3+ female	135

## Brown Trout

Brown Trout	
Age	Number
Ova laid down	440,000 (green ova)
Fertility estimated 90%	
Green ova to dutton	90,000
fingerlings	50

## Tourist Centre – Events – Revenue

- A Trout Strategy workshop was held in Jindabyne on 17 May facilitated by Robbie Sefton.
- A further stocking and production meeting for DPI hatcheries was held in Sydney discussions held around site challenges, logistics of transportation, additional staffing requirements and possible infrastructure/vehicle improvements or variations.
- Mitchel Elkins undertook job related experience with the Victorian Fisheries Authority as a Project Manager at the Snobs Creek Hatchery facility during the winter period.
- The hatchery site was visited by Manager Southern, Research Stations on 28 May 2018 for an orientation about core duties and to assess possible future infrastructure, major periodic maintenance and capital expense requests.
- NSW Gone fishing day proposed for 14 October 2018 in Queanbeyan. Gaden staff will provide 50 adult rainbow trout for stocking of the fishing location.
- Two children's fishing clinic to be held at Gaden in NSW School holidays 5-6 October 2018.

Guided tours weren't available on a number of occasions due to WHS, public risks and potential for injury due to high winds and extreme inclement weather. However, 'self-guides' were offered as an alternative help mitigate these risks.

Gaden Visitation Records						
	May	June	July	Aug	Sept	
Adults	18	29	53	58	37	
Kids	5	4	15	9	2	
Families	0	4	16	13	7	
Concession	20	4	9	10	5	
Self-Guide	51	111	339	125	165	
Tour	192	0	0	0	95	
Fish Food	63	161	294	153	209	
Smoked Trout	6	25	53	24	16	

## Gaden Revenue Records

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May	\$1676
June	\$1710
July	\$4224
Aug	\$2348
Sept	\$2613

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