

Completion of fry and fingerling production and fry releases

May 2021 to February 2022

Climatic Conditions

A rather mild winter, spring and summer was experienced in 2021, with quality rainfall and average temperatures across the board. The Thredbo River experienced excellent flows in winter and over the summer months, with major floods occurring in December and January. Silt from the 2003 fires is still working its way down the Thredbo River system, covering many breeding locations above and below the Hatchery. January saw 240 mm of rain, which kept water temperatures low over the usually 'warmer' period.

In September, extremely high winds were experienced at the site, causing damage to buildings, residences, equipment and trees. Staff spend weeks removing fallen trees, cleaning debris and tidying up after the event - Great job team!







Infrastructure

A new roller door for the hatching shed (damaged from the winds in September) was installed in early February. Circuit boards (deemed noncompliant) were upgraded at both hatchery residences in February.

As previously mentioned, Gaden will receive some well needed upgrades to its tourist centre and Hatchery later in the year. Planning for these upgrades is almost complete, with the job going out to tender in the coming months. The upgrades should be finalised in late 2022/early 2023. Fish production and tourist centre duties will be affected this year, with fisheries management working on planning production numbers for the 22/23 season.

Hatchery staff worked on repairing the circular outside tanks. Sealant and non-slip paint was reapplied, which helps staff clean safely but also reduces algae growth over the summer period. These circular tanks are the original concrete tanks used when Gaden was first built. Although an important historical part of the site, they are in constant need of repair.

Breeding Season

Atlantic Salmon stocks were once again bred from hatchery broodfish to excellent success this year. Since the implementation of a warm water egg upwelling system two years ago, we are finding that the success of these “captive” fish eggs is extremely high in this system. This saves staff time and also means less handling and stress on the fish due to obtaining less ova than previously needed. Atlantic Salmon are only stocked in two impoundments across the State, with fisheries managers and researchers working better understanding their survival and distribution factors and noting whether this species is still a viable recreational species for anglers in NSW waters.

Brook Trout have once again been bred for release for the second year since drought conditions and warmer than average water temperatures wiped out broodfish stocks at the Gaden site. In 2019/20, wild fish were captured from several creeks across the Snowy region to once again start up the breeding of these iconic cold water species. Brook Trout are stocked in three waterways across the Snowy region, adding recreational fishing value to these popular waterways.

Wild Rainbow Trout stocks from the Thredbo River were again given a break from ova removal this breeding season, with broodstock used to supplement ova supply. Eggs were extremely small this past breeding season (10,000 per litre) which equated to Gaden laying down surplus rainbow trout ova. Trapping data for the rainbows was again low for the Thredbo River, with 181 individuals trapped between

July and September. Over 1 million rainbow Trout eggs were laid down, with excellent fertility across all species this breeding season.

The Brown Trout spawning season was once again successful, with some huge browns running up the Thredbo River system. A notable capture was a 12.2lb female, which still has me scratching my head how she squeezed into the fish trap to this day! Unfortunately this female was quite old and did not hold viable eggs. She was released back into the system to hopefully be caught by an unsuspecting angler in the near future. Individuals were trapped between early May and mid-September, with plenty of larger fish caught in the early days of the spawning run. 1477 individuals were trapped with 700,000 eggs laid down. Dutton Hatchery received in excess of 150,000 Brown trout ova, and an additional 80,000 fry and fingerlings from the Gaden hatchery for 2021/22.



Tiger Trout were once again bred for release across three impoundments near Lithgow in Central Western NSW. This three-year trial will determine this species' economic value as well as its effectiveness in combating Redfin populations (due to being largely piscivorous). This sterile hybrid of a Brown Trout female and Brook Trout male are fast growers and voracious eaters, and may suit release in other parts of the state in the future.

Higher than usual numbers Brook Trout and Atlantic Salmon were trapped in the Thredbo River over May-October. These fish were released back into the system, which some fine specimens being caught by fishers over the summer period.

Fish Stocking

Fry stocking for the 21/22 season commenced in October, with over 450,000 fish released with the help of members of the MAS, CSDAC, CAS and NETAS. A huge thankyou to these volunteers who were very patient with the new covid-19 protocols in place when picking up fish from our Gaden facility and meeting staff in the field.

Fingerling releases began in late December, with large numbers of fish being rolled out for release into impoundments and streams. The Gaden staff are on the road approximately 100 days a year and travel thousands of kilometres to waterways across NSW. This effort is made easier with the endless help and coordination from fishing club and acclimatisation society members, including valuable assistance with access and releases into many of these sites. A huge effort from these volunteer anglers – and very much appreciated, especially in these covid-19 times!

Larger sub-adult Rainbow Trout will again be trialled in Lakes Eucumbene and Jindabyne. 20,000 of these larger 16-22cm fish will be released around May-June.

Tagged Rainbow Trout yearlings have been once again released into Redfin waters across NSW. These releases are set to be rolled out further in the future.

All stocking information can be found on the DPI website

<https://www.dpi.nsw.gov.au/fishing/recreational/resources/stocking>

Stocks at Hand (as of Feb 2022)

Atlantic Salmon

Atlantic Salmon	
Age	Number
Fingerlings	10,000
Future Broodstock	450

Brook Trout

Brook Trout	
Age	Number
Fingerlings	5000
Broodstock	300

Brown Trout

Brown Trout	
Age	Number
Fingerlings	5000
Broodstock	50

Rainbow Trout

Due to a decision by the SLSWG, Gaden will be obtaining all ova from captive brood stock again this season. The decision was made to give the Thredbo River a break from Rainbow Trout collection and let natural spawning occur. All research priorities will still be fulfilled

Rainbow Trout	
Age	Number
Fry	0
Fingerlings	250,000
Broodstock	5000

Tiger Trout

2021 marked the second year of a three-year trial stocking Tiger Trout in Lake Lyell, Lake Wallace, and Thompsons Creek Dam. This trial has been put in place to identify if Redfin numbers can be effectively controlled by these largely piscivorous species. All fish released for 2022 will be sub adults (17-20cm)



Age	Number
Fingerlings	5000

Tourist Centre – Events – Revenue

The tourist centre has been shut since April 2021 due to Covid -19 and staffing issues. It has reopened in February 2022 to school groups and large bookings only (due to upgrades starting in the upcoming months). \$7000 revenue was raised from farm dam fish sales. The tourist centre will be back to running at full operation once upgrades are completed.

© State of New South Wales through the Department of Industry, Skills and Regional Development, 2022. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute the NSW Department of Primary Industries as the owner. Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (March 2022). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of the Department of Primary Industries or the user's independent adviser. Published by the Department of Primary Industries.