

Hot Topics - Inland Fisheries Service Report

Presented to Anglers Alliance Tasmania - 9 November 2014

Low lake levels

Below average rainfall has contributed to low lake levels, particularly in the Central Highlands. Issues were raised early in the season in the Bradys Chain and Bronte Lagoon and more recently at Little Pine Lagoon. Hydro Tasmania has provided advice that yields for the period 7 August through to 30 September 2014 were the driest on record for the last 90 years. IFS will discuss management strategies to address this issue at the next scheduled meeting in February 2015. In the interim HT have agreed to raise the level of Little Pine Lagoon. It is likely that Great Lake will remain at a low level for the fishing season.

Election commitments

The North West Fisheries Officer position was filled in September by Paul Middleton who is based at Stoney Rise Devonport.

IFS are investigating the feasibility of developing a "Southern Four Springs" within 1 hour of Hobart. Funding of \$8000 has been allocated to the project to enable a desktop study to be completed. A detail report with recommendations will be provided to the Minister by the end of December 2014.

Bag and size limits

Bag and size limit compliance remains an issue with reports of anglers taking undersized fish particularly in Four Springs Lake and Pet Dam. IFS compliance will focus on this issue at these particular waters and more widely across the fishery. Following on from the earlier issues at Lake Kara the IFS stresses the importance of anglers referring to the Fishing Code provided with their licence.

Liawenee fisheries officer

The Liawenee Fisheries Officer position was vacated in February. The IFS advertised the position in October and is currently in the process of filling the position.

Eel fishing in public waters

The Service has received a number of complaints and concerns from anglers fishing in Four Springs Lake about commercial eel fishing operations. The main issues include the marking and location of nets and the potential for accidental transfer of pest species into this water. These have been relayed to the eel fishermen and will be considered by the Service in future management arrangements for the commercial eel fishery.

Anglers Access – Neil Morrow

River Access

Installation work has commenced on the River Derwent Anglers Access between Dowsings Point and New Norfolk. Volunteers have been sought to assist with infrastructure installation. Negotiations over the State and Local road network and Tasrail infrastructure have been successful and private landowner negotiations upstream from New Norfolk are continuing.

The new parking area, jointly funded by IFS and AAT at Miles Ford Bridge on the Mersey River at Latrobe has been well patronised during the current whitebait season.

Signs and Brochures

New information sheets have been completed for Lake Kara and Lake Crescent and are available on the IFS website in PDF format.

Recreational Boating fund and associated projects

Site surveys of the Little Pine Lagoon and Penstock Lagoon projects have been completed and plans are being drafted. Both proposals will be presented to AAT for consideration and comment.

The plan for Lake Leake campground boat ramp has been submitted to Northern Midlands Council for planning approval.

Final enhancements at the new Bradys Lake ramp including a culvert to the eastern camping area and parking signs have been installed.

Shannon Lagoon – Chris Wisniewski

The project team has been collating the information that has been gathered in preparation for a Hydro Tasmania/Inland Fisheries workshop. The workshop was held on Wednesday 30 October

where a range of specialists reviewed the management options to enable a report, including recommendations, to be completed before 31 December 2014.

Locating and Developing a Southern Fishery – Chris Wisniewski

The project team which consists of John Diggle, Neil Morrow, Chris Wisniewski and Jason Garrett has undertaken preliminary discussions to scope out the project. Consultants Macquarie Franklin have been engaged and provided a report on potential dam sites that may be suitable for a future recreational trout fishery with the following criteria:

- Within one hour travel distance by car from Hobart
- 5,000 – 10,000Megalitres(ML) in storage capacity
- 1 to 3 square kilometres of surface area – not narrow and deep – around 10 meters deep at the dam
- Good water quality
- Water available for allocation
- No pest fish

The report is based on a desktop analysis using DPIPWE Land Information Systems of Tasmania (LIST) and the Water Assessment Tool (WAT). It identifies 11 dam sites of which 3 are less than 5,000ML.

Carp – Chris Wisniewski

Carp Captures at a Glance - Lake Sorell

July – September 2014 (Total)	Adult*/Juvenile	Total 1995 to present
23	0 / 23	40,019

*Adult fish refers to carp from pre-2009 cohorts

Lake Crescent

July – September 2014 (Total)	Adult/Juvenile	Total 1995 to present
0	0 / 0	7797

The winter period produced low carp numbers for the effort that was applied. The warming weather has seen an increase in activity with the carp program going into a 7 day a week operation from the beginning of October. The barrier netting preventing access to spawning grounds in the extensive

wetlands is all in place. Blocking any further spawning is seen as critical to eradicating carp from Lake Sorell.

Traps are set to target maturing fish and overnight gill netting has seen a steady increase in carp being captured. Around 100 carp have captured for the month of October. Along with the normal trapping and targeting techniques an increased gill netting program is also being undertaken this year. This is aimed to target the period from late October until after Christmas when the warmer water and rising water levels stimulate the carp to move and feed more actively.

Given the success of the program in eradicating carp from Lake Crescent and preventing any further spawning in Lake Sorell since 2009 the Minister, Jeremy Rockliff, has written to the Federal Government seeking support beyond the current financial year to provide the resources to complete the eradication of carp from Lake Sorell. This resulted in the Federal Environment Minister, Greg Hunt, paying a visit to Interlaken on Friday 10 October where he was able view the situation first hand and discusses options for the future of the program.

Licencing and Administration – Tony Wright

2014-2015 Season

Since the launching of the sesquicentenary in May 2014 some \$13,000 of celebratory memorabilia has been sold to date.

As the season progresses reports of excellent fishing conditions and good quality catches are continuing to flow and this is expected to enhance the opportunity for licence sales.

The Ford Ranger promotion has continued with themes based on fathers day, families and the healthy aspects of fishing. All full season adult, pensioner and senior licence holders and five season licence holders who take out their 2014-2015 licence prior to the 31 March 2015 will be eligible to go in the draw to win the vehicle. Current five season licence holders who took out their licence in 2013-2014 will also be eligible to be in the draw. The lucky winner will be announced on Saturday 16 May 2015 at next year's Liawenee Trout Weekend.

Licence Sales

At the 31 October 2014 after adjusting for 5 season licences, licence revenue was steady compared to the same time in the previous year. At this stage licence sales are unlikely to cover the promotional and advertising expenditure incurred in 2013-14 and 2014-15 relating to the 150th anniversary and the Ford Ranger promotion. Licence sales will be monitored closely in the coming months to assess trends. A review of promotional activities will be undertaken prior to the close of the season to develop a plan for future advertising and promotion.

A total of 16,619 licences have been issued this year to the 28 October 2014, of these 389 were 5 season licences, 15,412 full season licences and 818 short term licences. The majority of short season licences were 48 hour and totalled 468 in number.

Compliance – Stephen Hepworth

Compliance Statistics from 1/7/14 to 26/10/14

- 20 Fisheries Infringement Notices issued for 29 offences.
- 23 Infringement notices endorsed as conditional cautions issued for 26 offences.
- \$6,650 in infringement notice fines.
- \$4,060 in infringement notice fines issued in relation to whitebait offences included in above.
- 29 kilograms of whitebait seized.
- 8 whitebait nets seized.
- 2 search warrants executed in relation to residential premises.

Disqualifications

Two offenders from Stanley disqualified from holding a recreational whitebait licence each for 5 years commencing 2014 season.

Prosecutions Matters

- Two defendants are to appear in the Burnie Magistrates Court on 4/11/14 regarding the unlawful taking of Giant Freshwater Crayfish.
- Bench warrant issued for the arrest of offender for failing to appear in the Burnie Magistrates Court for offences against officers and whitebait related offences.

Fisheries Officer Positions

- Paul Middleton has been appointed to the position of Fisheries Officer based at Stoney Rise Devonport.
- The Liawenee Fisheries Officer position has been advertised and closed on 24/10/14.

Fisheries Management – Rob Freeman

Fisheries Performance Assessment – Penstock Lagoon

The report from the Penstock Lagoon FPA due late September has been delayed. However, it is presently being written up and will be available at next AAT meeting.

Legislation Amendments for the 2015/16 Angling Season

To date there have been two submissions forwarded to the Service with regard to amending the regulations for trout fishing. One relating to bag limits in rivers or sections of rivers from the Quamby Club and more recently a submission was presented by J. Broomby (AAT member) on behalf of the Break O' Day Sports Anglers club who are seeking to have one additional "Year round angling" water added to the angling regulations. The proposal identified three primary waters within the north east for short listing (Cascade Dam, Frome Dam and Pioneer Minehole Dam) with the Pioneer Minehole Dam the preferred option. Once advice has been provided by AAT and IFAC, the Service will consider the submission and seek formal approval by the Minister. For further information, email: rob.freeman@ifs.tas.gov.au.

Threatened Freshwater Fish Conservation

Monitoring of the translocated Pedder galaxias population at the Strathgordon Water Supply was conducted during September. Population abundance has increased significantly, with high catch rates now common. There were substantial numbers of, young of the year Pedder galaxias present within the catch, indicating good recruitment from the previous spring spawning. A few female fish were observed to be in advanced spawning condition and carrying large numbers of well-developed eggs.

During July 2014, the Service undertook a survey of Floods Creek on behalf of Tasmanian Irrigation. As part of the Midlands Water Scheme, Floods Creek was recently dammed and therefore presented a potential risk to the existing population of the threatened Swan galaxias occurring upstream. As part of the pre-planning environmental assessment for the dam, Tasmanian Irrigation built a fish barrier across the creek, therefore preventing any trout or redfin perch from dispersing upstream should they exist in the dam. During the survey, no trout or redfin perch were found upstream of the barrier or within the new dam.

Hatchery and Stocking – Brett Mawbey

Brown fry in the hatchery are progressing extremely well. The top end of the diploid browns is approaching 5g and the lead triploids are around 4g. Stock out of brown fry has commenced with a small stocking of 5000 triploid into Rostrevor Lagoon being the first brown fry stocked out for the year. Penstock Lagoon, Big Lagoon and Michelson's dam stockings have also been completed. The Brady's system is gaining the majority of brown trout fry this year (200,000) and has received some allocations of diploid to date. The specific fish stocking size is determined on the characteristics of the water in which the stock are to be released. We now expect all the browns to be liberated prior to the end of November due to the reduced number of waters now to be stocked, compared to 2013-14 stocking list. 10,000 Brook trout advanced fry at 7g were transferred to lakes Plimsoll and Selina on the West Coast in late October. These rapidly growing fish were the last to hatch in the hatchery and raced past the browns, brooks have phenomenal growth rates up 2kg in comparison to other salmonids. The hatchery will cease operation by the end of November for at least six months.

(See brown fry stocking plan below)

The Great Lake rainbow run this year has been limited with a few hundred fish only, entering the Liawenee trap. A couple of hundred of these fish were evenly sorted into male and female, hand selected and allowed to spawn naturally in the long channel situated directly above the trap, therefore no rainbow eggs have been harvested to hatch and on grow in the hatchery this year. The long channel has excellent substrate for spawning and consistent reliable flow to enhance natural recruitment back into the main water body. The rainbows in the trap this year are averaging less than 1kg and the biggest being 1.6kg. Environmental conditions have not been conducive to spawning fish this spring, low flows, hence limited queues to attract the fish into the Liawenee migratory trap. We suspect the rainbows are naturally spawning in the main Liawenee canal below the trap. Current conditions of low flows, low lake level and the vast distance the migratory trap is from the main water body suggests there is plenty of habitat in the canal the fish may spawn in.

Brown fry stocking plan 2014-15

Water	Species	Number	Age	Stock	Type	Priority	notes
Big Lagoon	brown	5,000	fry	wild	triploid	1	GB 2/10/14
Big Waterhouse	brown	5,000	fry	wild	triploid	1	
Blackmans	brown	10,000	fry	wild	triploid	1	
Brady's Chain	brown	200,000	fry	wild	diploid	1	Part stocked
Crescent	brown	50,000	fry	wild	triploid	1	
Four Springs	brown	50,000	fry	wild	triploid	1	
Little Waterhouse	brown	1,000	fry	wild	triploid	1	
Mitchelson's Dam	brown	1,000	fry	wild	triploid	1	
Penstock	brown	50,000	fry	wild	triploid	1	21/10 20000 27/10 30000
Rostrevor	brown	5,000	fry	wild	triploid	1	GB 30/09/14
Farm Dams?	brown	20000	fry	wild	triploid	1	
Total		397,000					

Fisheries Management – Tim Farrell

Rainbow trout spawning run monitoring

The IFS has changed the management of the Great Lake rainbow trout spawning run for 2014. For the last 11 years the run has been managed by trapping adults, harvesting and fertilising ova that is taken back to the New Norfolk hatchery for grow out and restock into Great Lake and other fisheries.

There has been little evidence in the return of spawning adults and in angler catches that the former management regime was actually benefitting rainbow stocks in Great Lake. The numbers of rainbow trout in the Liawenee spawning run has been diminishing slowly for many years.

The decision was made in 2013 to cease the restock of Great Lake. The harvest of ova from the rainbow trout run at Liawenee has also ceased following the 2013 spawning run, instead the IFS will rely on domestic rainbow stocks for restocking other fisheries in the state.

Rainbow trout at Great Lake will be monitored via the trap at Liawenee with the fish transferred upstream of the trap after they are weighed and measured. During the 2014 rainbow trout spawning run there were two weigh and measure events.

Below are tables showing the average weight, length and condition factor for each weigh and measure for 2014 and the weigh and measure for 2013 for comparison.

The condition factor of the 2014 spawning run is better than that of 2013 but length and weight of the overall run in 2014 is less than in the sample for 2013.

Liawenee canal

25/09/2014

All fish	<i>Length (mm)</i>	<i>Weight (g)</i>	<i>condition factor</i>
Mean	433	909	1.11
Minimum	355	510	0.92
Maximum	515	1500	1.46
Count	116	116	116

15/10/2014

All fish	<i>Length (mm)</i>	<i>Weight (g)</i>	<i>condition factor</i>
Mean	419	832	1.13
Minimum	363	520	0.92
Maximum	535	1600	1.37
Count	79	79	79

2/10/2013

All fish	<i>Length (mm)</i>	<i>Weight (g)</i>	<i>condition factor</i>
Mean	446	935	1.06
Minimum	290	450	0.82
Maximum	600	1800	1.87
Count	177	177	177

Four Springs Angler Postal Survey results to 2014

Following the fisheries performance survey work from 2012-13 and associated management responses Four Springs Lake was chosen as one of two fisheries to be monitored using analysis of the Angler Postal Survey (APS). For the next four seasons the APS will be used to monitor the performance of this fishery and evaluate the success or otherwise of management actions.

The population of brown trout at Four Springs Lake was estimated using a mark and recapture survey and applying the Petersen method at the start of 2012-13 season. In May 2013 there were 2,000 brown trout adipose clipped and transferred there from the spawning run at Liawenee canal, Great Lake. A subsequent recapture survey caught a total of 480 brown trout, 46 of which were adipose clipped. The resultant estimate of the population size of brown trout was 19,200. It must be noted that the estimated population size is of brown trout between 260-620 mm fork lengths. At this size all fish are likely to be within the fishery's take-able size (300+mm) range during the 2013-14 season.

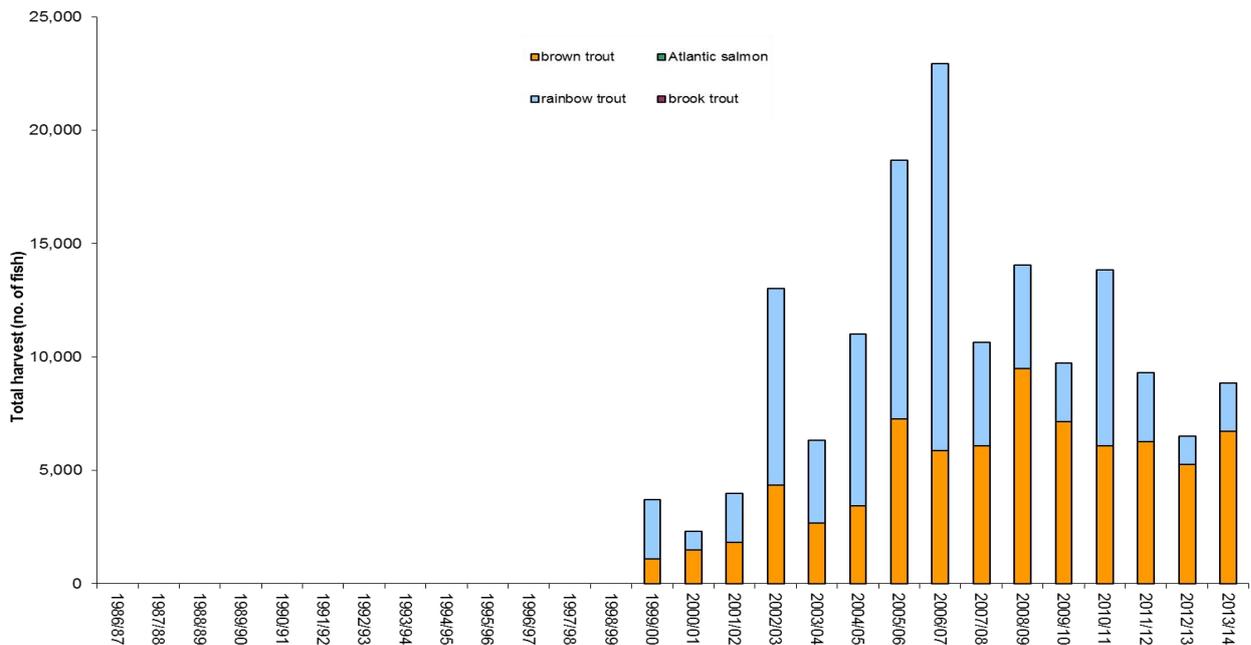


Figure1. The harvest of trout from Four Springs Lake for each angling season (1990-2014) showing proportion of brown and rainbow trout.

The chart above shows the number of trout harvested for each season that the lake has been open to fishing. The proportion of brown trout is shown as a separate colour to rainbow trout (orange vs blue). In recent years, 2004-05 to present, the number brown trout harvested each season is a significant portion of the overall take-able sized fish available to the fishery, 25-50%.

In response to this estimate and the popularity of the fishery the number of brown trout transferred before the start of the 2014-15 season was increased to 2,700 fish from the average prior to 2013 of 1,000 fish (since 2008). The fry/fingerlings stocked to support new recruits to the fishery had already been increased to 50,000 fish in 2012 where previously it was between 10,000 and 20,000. These brown trout juvenile stockings are using triploid fish as there are no suitable streams for natural recruitment.

The stocking of rainbow trout has also been increased during 2014 to 11,500 fingerling/yearling and 30,000 fry whereas previously the number has been variable but often significantly lower than this. The plan for 2014-15 is to stock 20,000 fingerling or 50,000 fry.

The seasons 2005-06 and 2006-07 had an anomalously high harvest of rainbow trout due to the opportunistic stocking of large numbers of yearling/adults from fish farm donations (5,000+ @ 300-1000 grams).

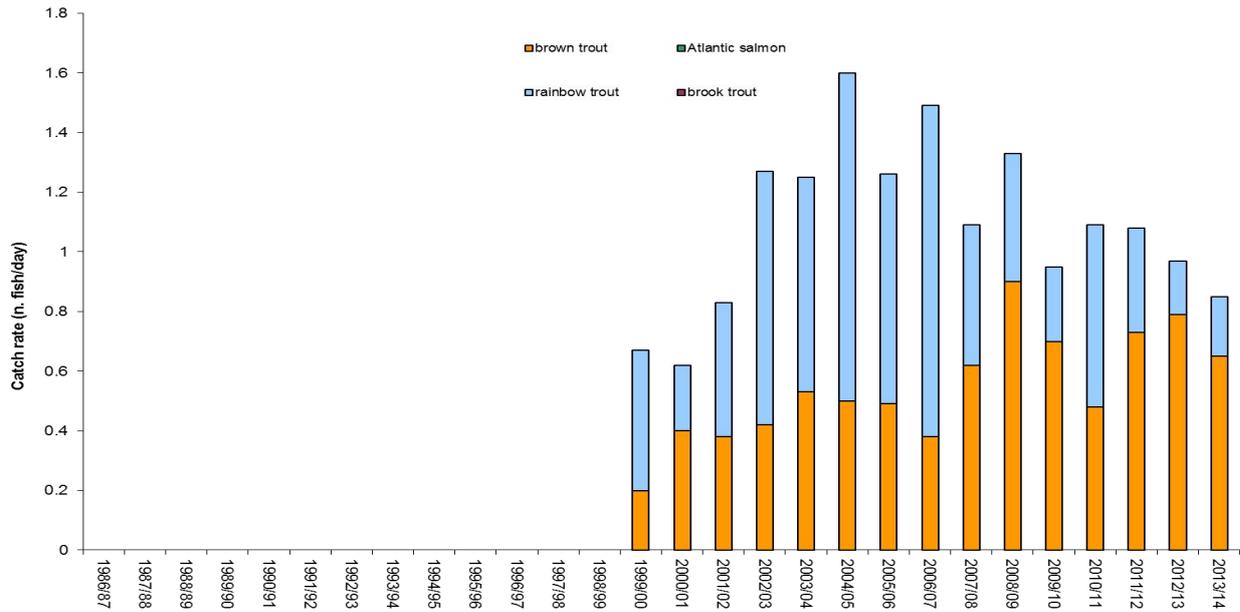


Figure 2. The catch rate (fish per day) at Four Springs Lake for each angling season (1990-2014) showing the proportion of brown and rainbow trout.

The catch rate at Four Springs Lake is relatively low (0.6-1.6) in comparison to other popular fisheries throughout the state. The catch rate for brown trout has been as high as 0.77 fish per day but is typically 0.4-0.7. For rainbow trout the catch rate is highly variable with spikes of 1.1 fish per day being reflective of the stocking of advanced fish such as the yearling/adults stocked in 2004/05 but frequently has been below 0.5. The stocking of adult brown trout has not produced large changes in catch rate, 0.1-0.2 increases at most when the stocking of these fish exceeds 1,500. The driver of brown trout catch rates for recent seasons appears to be the stocking of juvenile fish two to three seasons prior. It should be noted that the APS provides a whole season catch rate and that the catch rate at Four Springs is typically higher early and late in the season.

The significant increases in brown trout fry stockings for 2012, 2013 and that planned for 2014 will be most likely reflected with improved catch rates shown in APS results for future seasons. With some increase in rainbow stockings of fingerlings for 2014 and an underpinning of a good base number of fry for the last two seasons it is hoped that catch rate for this species will also show improvements in APS results for future seasons.

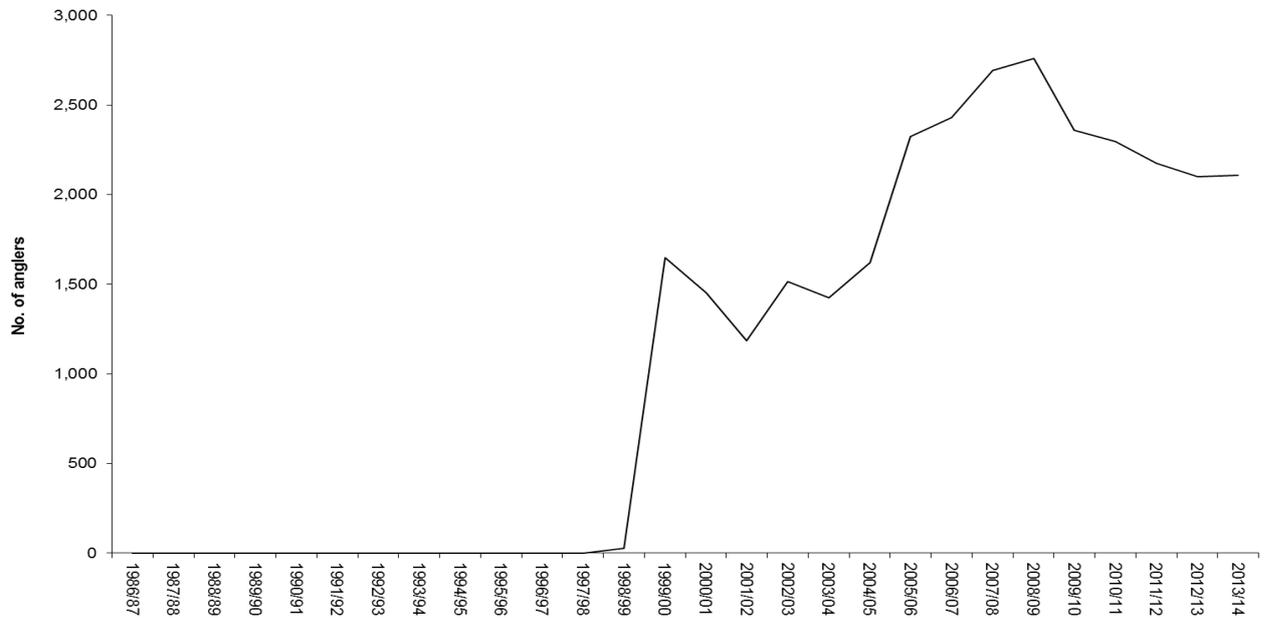


Figure 3. The number of anglers (all licence types) estimated to have fished at Four Springs Lake for each season (1990-2014).

The pattern of angler visitation is shown in figure 2. As the fishery was started with moderate numbers of adult brown trout (460 and 500 for 1998 and 1999) in the first few seasons, underpinned with fry stocking of both species the popularity of the lake was modest (1,600-1,400 anglers per year). The popularity of the fishery increased markedly with stocking of yearling/adult rainbow trout and adult brown trout between 2004 and 2006 with around 2,250 anglers fishing there in 2005/06.

The popularity of Four Springs Lake increased each season to 2008/09 rose when it peaked at 2,750 anglers. The peak of Four Springs Lake's visitation coincides with the breaking of the drought in 2009. During the drought period from 2006-2009 there was a down turn in visitation of many of the highland trout fisheries which may have resulted in increased popularity of Four Springs Lake.

Angler effort in Tasmania since the drought breaking in 2009 has reverted to a more dispersed pattern. Whilst visitation has fallen off somewhat, Four Springs Lake is still very popular for a fishery of its size with more than 2,100 anglers fishing there each year. This popularity is less attributable to catch rates and more so the condition and size of the fish available there.

There will be analysis of the APS for Four Springs Lake for 2014/15, 2015/16 and 2016/17 to monitor recent and future management actions.

Season	Total No. Resp. this year	No. Resp this water	Total No. Days fished	Days per angler	Catch per day brown	Catch per day rainbow	Brown trout Harvest	Rainbow Harvest	Percent of all anglers this water	No. all anglers
1999-00	851	50	214	4.28	0.2	0.47	1,097	2,603	5	1,647
2000-01	993	58	186	3.2	0.4	0.22	1,481	819	5	1,454
2001-02	776	37	187	5.05	0.38	0.45	1,829	2159	4	1,186
2002-03	880	56	467	8.33	0.42	0.85	4,341	8,683	6	1,516
2003-04	847	53	233	4.39	0.53	0.72	2,666	3,655	6	1,425
2004-05	910	54	282	5.22	0.5	1.1	3,431	7,568	5	1,621
2005-06	819	67	538	8.02	0.49	0.77	7,266	11,422	8	2,326
2006-07	867	73	579	7.93	0.38	1.11	5,874	17,044	8	2,430
2007-08	787	76	350	4.6	0.62	0.47	6,067	4,592	9	2,694
2008-09	1082	110	512	4.65	0.9	0.43	9,586	4,618	10	2,859
2009-10	817	67	366	5.46	0.69	0.25	7,121	2,663	8	2,379
2010-11	1111	90	616	6.84	0.48	0.6	6,081	7,525	8	2,303
2011-12	794	58	289	4.98	0.73	0.35	6,266	3,044	7	2,173
2012-13	948	70	276	3.94	0.77	0.18	5,099	1,221	7	2,100
2013-14	948	74	455	6.14	0.65	0.2	6,698	2,143	7	2,104

The raw results of the Angler Postal Survey for Four Springs Lake 1999-00 to 2013-14

Stocking – Tim Farrell

Stocking of public waters 5 August 2014 to 28 October 2014

Lake	Date	Number	Species	Age	Type	Stock	Weight (g)	Origin
Derwent	14/08/2014	20	Atlantic salmon	Adult	Diploid	Domestic	1,500	Saltas Wayatinah
Brushy Lagoon	01/09/2014	600	rainbow trout	Adult	Diploid	Domestic	2,500	Springfield Fisheries
Rostrevor Lagoon	30/09/2014	5,000	brown trout	Fry	Triploid	Wild	1.45	IFS New Norfolk
Big Lagoon (Bruny Island)	02/10/2014	5,000	brown trout	Fry	Triploid	Wild	1.55	IFS New Norfolk
Craigbourne Dam	10/10/2014	220	rainbow trout	Adult	Triploid	Domestic	400	Springfield Fisheries
Bradys Lake	15/10/2014	60,000	brown trout	Fry	Diploid	Wild	2.50	IFS New Norfolk
Pioneer Mine Hole	17/10/2014	74	Atlantic salmon	Adult	Diploid	Domestic	3,500	Springfield Fisheries
Pioneer Mine Hole	17/10/2014	76	rainbow trout	Adult	Diploid	Domestic	3,000	Springfield Fisheries
Penstock Lagoon	21/10/2014	20,000	brown trout	Fry	Triploid	Wild	2.10	IFS New Norfolk
Penstock Lagoon	28/10/2014	30,000	brown trout	Fry	Triploid	Wild	2.55	IFS New Norfolk
Lake Plimsol	30/10/2014	8,000	brook trout	Fry	Diploid	Domestic	5	IFS New Norfolk
Lake Selina	30/10/2014	2,000	brook trout	Fry	Diploid	Domestic	5	IFS New Norfolk

Stocking of dams for club/junior fishing 5 August 2014 to 28 October 2014

Lake	Date	Number	Species	Age	Type	Stock	Weight (g)	Origin
Bushy park Junior Anglers	11/09/2014	80	Atlantic salmon	Adult	Diploid	Domestic	1800.00	Salmon Ponds
Bushy park Junior Anglers	12/09/2014	200	rainbow trout	Adult	Triploid	Domestic	400.00	Salmon Ponds
Bushy park Junior Anglers	03/10/2014	100	rainbow trout	Adult	Triploid	Domestic	400.00	Salmon Ponds
Mitchelsons Dam	06/10/2014	1,000	brown trout	Fry	Triploid	Wild	1.55	New Norfolk
Junior pond at Springfield	21/10/2014	54	rainbow trout	Adult	Diploid	Domestic	3000.00	Springfield

Angling Events attended by Inland Fisheries Staff

9/8/2014 Westbury Angling Club AGM
 16/8/2014 New Norfolk Angling Club Competition on River Derwent
 23/8/2014 Ulverstone Anglers Dinner
 30-31/8/2014 Trout Classic on River Derwent
 19-22/9/2014 Cressy Trout Expo
 12/10/2014 Veterans Day (Veterans Health Week) at Craighourne Dam
 18/10/2014 North East Rivers Run Festival
 22/10/2014 Longford Angling Club Primary School Fishing Day
 3/11/2014 Penguin Branch general meeting

Exemption Permits Issued from July 1 2014 20

Angling Exemption Permits Issued from July 1 2014 13