

# INLAND FISHERIES COMMISSION NEWSLETTER

VOLUME 14 NUMBER 4 – DECEMBER 1985



## CONTENTS

### NEWS

- Rainbow Trout Spawning Runs
- Adult Education Courses for Anglers
- Trout Fishing Championships
- Great Lake Rainbow Tags
- Join an Angling Club
- Trout Stocking
- Guide to British Trout Waters
- Triploid Trout

### ARTICLES

- Morton Allport (1830-1878)  
by Jean Walker
- The Great Lake Trout Fishery  
by Robert Sloane
- Lune River Netting Survey  
by Wayne Fulton and Stuart Chilcott

## ADULT EDUCATION COURSES FOR ANGLERS

Adult Education will offer a series of courses of interest to anglers in 1986. These will include a series on fly fishing, which will consist of three evening sessions at the South Hobart Adult Education Centre and a one day field trip into the Highlands. This course will be offered in Term 1 (starting in March) and Term 3 (starting in September).

There will be a ten week fly tying course in Term 2 (starting in June).

Dr Peter Davies, Inland Fisheries Commission Scientific Officer, will conduct a weekend workshop on Freshwater Biology at the Liawenee Field Station on 26 and 27 April for Adult Education.

The workshop will cover:

1. The biology of trout, including the observation of spawning brown trout and egg stripping.
2. An introduction to the scale ageing of fish.
3. Identification of freshwater invertebrates.
4. An introduction to Tasmanian native fishes.

Accommodation will be at the Antarctic Division's Bernacchi Field Station, near Lake Augusta.

The cost will be \$36.00, which includes accommodation but NOT food.

Details of the Fly Fishing and Freshwater Biology Courses will be advertised in the Mercury on Tuesday 28 January. Enrolments must be made in accordance with the instructions in the paper. They will NOT be accepted before this date.

## RAINBOW TROUT SPAWNING RUNS

### Great Lake

A total of 1 606 rainbow trout spawners passed through the trap in Liawenee Canal this year. The run extended from the beginning of September to the end of October and fish were counted each day until the 16 October.

The run comprised 1 126 female and 480 male fish. On 23 September 240 female and 180 male rainbows were moved to the zigzag spawning channel and on 25 September 160 females and 120 males were released in the new spawning channel on the northern side of Liawenee Canal.

Some details of the rainbow trout spawners in Liawenee Canal are given below:

	Male	Female
Number measured	50	50
Average length mm	501	491
Range of length mm	418 - 565	398 - 599
Average weight g	1 358.5	1 455.0
Range of weight g	900 - 1 950	850 - 2 900

### Lagoon of Islands

This year has produced the best ever rainbow trout spawning run at Lagoon of Islands. Although the traditional spawning area in Mary Creek maintained adequate flow throughout the spawning season, virtually all the rainbow trout utilised the new Ripple Creek spawning channel.

Rainbows spawned in the channel from mid-August until the end of October. More than 100 fish were counted in the channel on eight separate occasions between 25 August and 27 September.

The spawning runs and channel flow were closely monitored in conjunction with the Hydro-

Electric Commission in order to determine minimum flow requirements for future years. The excellent condition of brown and rainbow trout in Lagoon of Islands during the early part of the fishing season testifies to the success of the channel.

Subsamples of spawning rainbow trout were examined on two occasions and the combined details are given below:

	Male	Female
Number measured	50	50
Average length mm	525.5	544.0
Range of length mm	356 - 648	408 - 661
Average weight g	1 869.5	2 160.7
Range of weight g	600 - 3 850	850 - 4 350

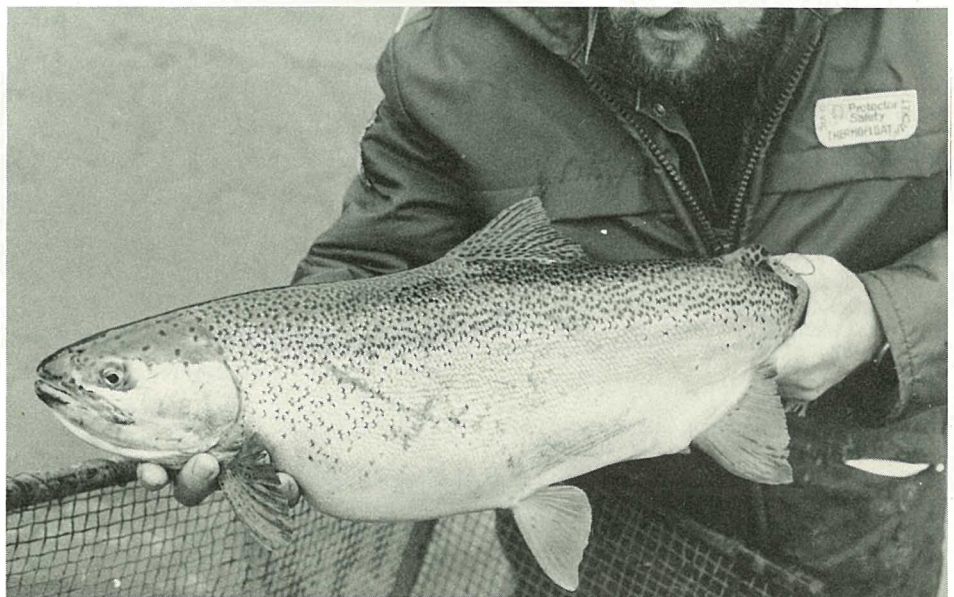
### Penstock Lagoon

An excellent run of rainbow trout was also recorded at Penstock Lagoon. Twelve counts taken during September recorded between 17 and 87 rainbow trout in No. 2 Canal. Some details are set out below:

	Male	Female
Number measured	9	24
Average length mm	443	492
Range of length mm	310 - 582	363 - 645
Average weight g	1 178	1 481
Range of weight g	350 - 2 200	600 - 3 050

### Other Waters

Good numbers of rainbow trout spawners were also monitored in Mountain Creek at Lake Sorell, the Dee River at Dee Lagoon and the Whitewater at Bradys Lake.



A 4.5 kg female rainbow trout from the spawning channel at Lagoon of Islands.

## GREAT LAKE RAINBOW TAGS

New yellow tags are being used in a study of the Great Lake rainbow trout. The tags are being used for a number of purposes:

- To assess the return of rainbows to Liawenee Canal from year to year, i.e. the survival of fish from one year's spawning run until the next.
- To estimate the contribution that the fish in the run make to the angler's catch, as well as the total population of catchable fish in the lake.
- To determine the number of Liawenee spawners that subsequently spawn in other creeks running into Great Lake in following years. To this end the clear visibility of the new tags is a help in attempts to count marked fish from the bank in other spawning streams.
- To study the degree of movement of rainbow trout within the lake.

Angler's returns are very important in this study, and the returns from the N.W.F.A. fishing competition have already been of considerable value. The Inland Fisheries Commission would be greatly assisted if any tags found on rainbows caught in Great Lake are returned to:

- Either Hotel at Great Lake.
- The I.F.C. Head Office, 127 Davey Street, Hobart, 7000.
- The I.F.C. Field Station, Liawenee, Great Lake.

The tags are yellow with the following lettering: **L0001 Return to IFC.** The numbers run from L0001 to L0405. The tags are placed on the left side of the fish, just below the dorsal fin. Some fish will have two tags. This is to help estimate the rate of loss of the new tags.

Anyone returning a tag will be provided with information on the fish's previous history. The study would be greatly assisted if anglers could provide the following details when they return a tag:

- the date and exact location within Great Lake where the fish was caught.
- the length of the fish, measured from the fork of the tail to the nose.
- the weight of the fish specifying whether clean or unclean.

The IFC is offering a reward of \$1 per return and the N.W.F.A. is offering \$5 per return for the rest of this season. **Please help us by sending in returns.**

## JOIN AN ANGLING CLUB

These days people have to think twice before spending their cash. Even the keenest of anglers wants to know if the membership fee is put to good use. So what do you get for your annual contribution? Quite a lot I believe.

First of all you get a copy of the Tasmanian Angling Report, probably the best produced magazine of its type in Australia today. Not only does it bring you up to date on the conditions of angling in Tasmania, but it provides authoritative articles on tackle, fish handling and the enjoyment of your sport. You get the company and discussion of a larger number of your fellow anglers. A wide range of information, advice and assistance is to be had from fellow club members and the occasional guest speaker at club functions.

Most clubs organise field trips and competitions where you get the chance to pit your skills against your mates, with good fellowship and a bit of celebration afterwards. If you are a beginner there will be experienced anglers to give you those odd hints that make the difference between satisfaction and frustration.

You get the chance at club level and through the Association and Council, to have an important influence on the management of the Inland Fisheries in Tasmania. The united voices of these organisations and the combination of skills available from their membership, ensure a better response from the Commission and from Government to matters that concern you.

## TROUT STOCKING

Brown trout fry liberations and rainbow trout yearling liberations for the current year have recently been completed by Commission staff and the details are set out below.

Name of water stocked (or dam owner)	Locality	Number of fry
<b>Central Highlands</b>		
Lake Crescent		30 000
Penstock Lagoon		15 000
<b>North Western Tasmania</b>		
Guide River Dam		10 000
Pet River Dam		15 000
J.A. Allen	Kindred	1 000
J.P. Bennett	Elizabeth Town	1 500
D.C. Briggs	Bellar Macargee Creek	2 000
D. Cameron (2)	Penguin	2 000
L.R. Campbell	Devonport	4 000
G.P. Chamberlain	Preston	4 000
M. Craigie	West Pine	2 000
T.W. Dunham	Burnie	1 000
S.P. Elphinstone	Stowport	2 000
M. Ford (3)	Newground	15 000
J. Gofton	Sulphur Creek	2 000
M. Hawes	Pine Road	1 000
M.W. Hill (3)	Spalford	5 000
B.M. Hopkins	Forth	4 000
G.C. Jones	East Ridgley	3 000
B. & D. Jordan	North Motton	6 000
N.K. Leyn	Natone	4 000
J.A. Lillico	Devonport	1 000
E. Loane	Devonport	1 000
B.A. McKenna	Spalford	4 000
C.L. Main	Sprent	5 000
K. Mason	West Pine Road	5 000
G. Owens	Penguin	500
W. Owen	Moltema	2 000
K. Parry	Boat Harbour	2 000
Rearing Pond	Forest	10 000
Rearing Pond (2)	Preston	2 000
Rearing Unit	Ulverstone	40 000
R. Ryan	South Elliott Road	1 000
Rearing Pond	South Riana	5 000
R. Sharman & P. Langmaid	Kindred	5 000
T. Smith (2)	South Riana	2 000
J. Walker	Riana	1 000
Williams (4)	Sassafras	4 000
<b>Northern Tasmania</b>		
Lake Leake		30 000
R.F. & B.D. Cassidy	Carrick	20 000
A.C. Ibbott	Longford	10 000
Koorakai Essential Oils Pty. Ltd.	Bridgenorth	2 000
R.M. Mitchelson & Son	Westbury	10 000
A.F. Peek	Flinders Island	1 000
E.A. & J.A. Reilly	Longford	2 000
Riverside High School	Riverside	1 000
Scottsdale Branch	Blackmans & Waterhouse L.	120 000
<b>Southern Tasmania</b>		
Bridgewater Anglers Club	Derwent River	40 000
Lake Dulverton		30 000
Pawleena Reservoir		20 000
Rileys Creek Dam		10 000
Rostrevor Dam		20 000
L. Arnol	Little Swanport	6 000
T.K. Clarke & Son	Campbell Town	5 000
G.G. Graham	Taranna	1 000
K.P. McCarthy	Pelverata	1 000
J.A. McDougall	Bruny Island	1 000
R.A. Round	Sandfly	1 000
H.G. Smith	Kaoota	500
H.K. Taylor	Elderslie	3 000
Westlands Nursery	Lenah Valley	100
T. Whittle	Forcett	500
<b>TOTAL</b>		<b>555 100</b>

Rainbow trout yearling liberations are as follows.

Date	Water stocked	Number	Average Weight (g)	Average Fork Length (mm)
14.11.85	Lagoon of Islands	1500	154	216
15.11.85	Dee Lagoon	1500	154	216
18.11.85	Great Lake	1200	141	216
19.11.85	Great Lake	786	141	216
19.11.85	Carters Lagoon (fin clipped)	100	141	216

Through affiliation with national organisations, you even get the chance to influence Commonwealth activities affecting freshwater angling development and research.

If you look at the number of club reports in the Annual Tasmanian Angling Report you will find that there is probably a club not far from you. Most clubs meet every month or two, as well as having their field trips and competitions. They are

there to be enjoyed and to take an active interest in the freshwater angling scene in Tasmania.

So I believe you will get good value for your small membership fee. You get the chance to make your own contribution to the development of Tasmanian angling. Join us - we welcome your interest.

(Contributed by Peter Hodge, President, New Norfolk Licenced Anglers Association).

## TROUT FISHING CHAMPIONSHIPS

The Annual Tasmanian Trout Fishing Championships were held during the weekend of November 2 and 3. The event was conducted by the North Western Fisheries Association in conjunction with the Compleat Angler Hotel at Great Lake.

Competition results are summarised below:

Water	No. Brown	Average weight cleaned (kg)	No. Rainbow	Average weight cleaned (kg)
Arthurs L.	223	0.438	0	-
Great L.	258	0.885	229	0.709
Carters L.	4	1.293	0	-
L. Augusta	22	1.087	4	0.429
Bradys L.	23	0.488	6	0.637
L. Binney	2	0.690	1	0.565
Lagoon of Islands	13	2.955	19	1.756
Macquarie R.	0	-	3	1.698
L. Fergus	1	0.190	0	-
L. Pedder	10	0.945	0	-
Laughing Jack L.	12	0.801	0	-
L. Sorell	5	1.054	2	0.650
L. Dulverton	1	3.345	0	-
Woods L.	29	1.124	1	1.385
Ouse R.	1	0.560	0	-
L. Echo	31	0.726	3	1.005
Dee L.	4	1.173	2	1.145
Howes Bay	5	0.916	0	-
Pine Tier L.	12	0.382	3	0.310
Little Pine L.	18	0.962	1	0.500
Bronte L.	8	0.759	0	-
Total weight for brown trout	5263 kg		Total weight of rainbow trout	216.3 kg
Total number of brown trout	682		Total number of rainbow trout	274
Av. cleaned weight brown trout	0.772 kg		Av. cleaned weight rainbow trout	0.790 kg

642 anglers entered the competition and weighed in a total of 956 trout. The major prizes which included a holiday at Surfers Paradise and an aluminium dinghy and outboard motor were presented by the Minister for Inland Fisheries, Mr. Brendan Lyons.

## GUIDE TO BRITISH TROUT WATERS

'Trout Fisherman' magazine recently published its 1985 guide to British trout fisheries. Popular reservoirs such as Blagdon, Grafham, Bewl Bridge, Eye Brook and Rutland open for a seven month season and season tickets range from \$440 to \$620. A days fishing on such waters costs between \$13 and \$15.

The guide makes interesting reading as it lists more than 800 entries covering the majority of reservoirs and streams available to the average angler.

Most of the reservoirs listed are restricted to fly fishing only and as well as a ticket to fish the water, in the majority of cases a local Water Authority licence is also required. Fishing is generally restricted to the period between one hour before sunrise and one hour after sunset. Bag limits vary and many fisheries make an extra charge for each kg weight of fish removed.

Fishing methods are very restrictive, with some fisheries specifying limits on leader breaking strain, barbless hooks, maximum hook size, use of landing nets, priests for killing fish, wading (not permitted on many waters) and boating. Limited numbers of boats are available at many of the larger fisheries but charges for the use of a boat are as high as \$36 per day.

Fishing is so closely regulated on some waters that even certain fly patterns are banned! I am sure that British trout fishermen would envy the freedom enjoyed by Tasmanian anglers.

## MORTON ALLPORT (1830-1878)

by Jean Walker, Honorary Historian, Southern Tasmanian Licensed Anglers Association.

A bronze plaque to honour Morton Allport's great contribution to the Tasmanian trout fishery will be displayed at the Commission's Salmon Ponds hatchery.

Morton Allport, naturalist and solicitor was born in Staffordshire, England on 4 December 1830. When twelve months old he arrived in Hobart Town with his parents in the 'Platina'. He was educated first at the Queen's school and was later influenced by the ornithologist, Rev. T.J. Ewing, whose school he afterwards attended. In Tasmania, he became regarded as one of the most successful of those educated in the colony.

From childhood Morton Allport was encouraged to take an interest in natural history and art and he became a great bushwalker and an authority on botany and zoology, rather to the neglect of his legal practice. He was elected to the Royal Society of Tasmania in 1849 at 19 years of age.

Allport travelled overseas during 1852-55 and fished in England, Scotland and Wales. He possessed very keen powers of observation, a most retentive memory and a physical frame equal to any exertion in exploring expeditions. He also possessed immense enthusiasm and gaiety, great energy and a sense of humour! A most skilful angler, he fished with spinner and fly, sending to England for his rods and writing in his letter-books of 'gorgeous fishing, a 16½ lb. trout just below the bridge at New Norfolk'.

A Fellow of a number of overseas Societies, it was his habit to despatch by sailing-ship, boxes of specimens - including skeletons of our native fauna, seeds, flora, shells and fish. For good measure he would include 'some photographs I have taken of the surrounding country-side'. He was responsible for the introduction to Tasmania of many of the flowers and plants from 'Home'; the white water-lily is perhaps the one with which his name will long be associated.

He was a leading figure in bringing trout and salmon to Tasmania and at the age of thirty one became one of the first Salmon Commissioners. His several papers to the Royal Society in



Morton Allport - (Allport Library)

connection with the introduction of salmon and trout have provided us with a classic reference-source. Confident that the trout would acclimatise here, he was, at first, doubtful that the same success would attend attempts with the Atlantic Salmon. It was he who was in constant correspondence with the experts in England, often taking issue with them when their findings did not coincide with his own!

It is clear from Morton Allport's letter-books that he was very much in favour of brown trout being included in the "Norfolk" in 1864. As it turned out, of course, Allport was correct in that trout quickly established in Tasmania whereas salmon did not.

Refusing the suggestion that he might "put himself up for Parliamentary honours" following the success of the 1864 salmon shipment, he accepted with warmth, fellowships of overseas societies, life memberships of the Otago and the Victorian Acclimatisation Societies and the Silver Medal awarded him by the latter.

His many papers and proceedings to the Royal Society, written over a century ago, make 'compulsive reading' whether he is writing of the

platypus or fossils at Risdon and one can begin to understand the amazing "ability to inform whilst, at the same time, conveying to the listener the impression that it was he who was learning something".

He was also responsible for introducing other European fish into Tasmania. Setting out his reasons for introducing the Perch he explains that, whilst the young fry would supply a food-source for the salmon, the Perch would provide excellent sport for those who perhaps had not the means or the skill to become salmon fishers.

In 1856 Allport married Elizabeth (1835-1925) daughter of Lieutenant Thomas Ritchie. Of their children, Cecil (1858-1926), Curzona Frances Louise (1860-1949) and Evett Gordon (1863-1934) all made significant contributions as Tasmanians.

Morton Allport died in "Lebrena", Davey Street, Hobart in September 1878, aged 48 years, and was buried in Queenborough cemetery. The Morton Allport Bequest at the Tasmanian Museum was created to honour his memory and that of his grandson and namesake.

That his untiring zeal and well-directed energy in the interest of our fishery should be forgotten, and that time should dim the memory of his endeavours would, I think, reflect sadly upon those anglers who have come after him.

### References:

Australian Dictionary of Biography  
Letterbooks and Obituaries.  
P & P Royal Society of Tasmania.

### Acknowledgement:

G.T. Stilwell, Curator, Allport Library  
and Museum of Fine Arts, Hobart.

The plaque reads:

**MORTON ALLPORT, F.L.S., F.Z.S.**  
1830 - 1878

Naturalist, Acclimatiser  
& Foundation Member of the  
SALMON COMMISSION 1861 - 1878

To commemorate his services to the

**TROUT FISHERY OF TASMANIA**

Presented by Jean Walker  
on behalf of the S.T.L.A.A.

# THE GREAT LAKE TROUT FISHERY

Dr Robert Sloane  
Commissioner of Inland Fisheries



*A morning's catch from Great Lake, 1939.*

Great Lake was first stocked with brown trout, *Salmo trutta* in December 1870, when 120 fingerlings were conveyed to the lake in billy-cans on horseback. These fish were the only trout released in Great Lake until 5 500 fingerling rainbow trout, *Salmo gairdneri*, were introduced in 1910.

The brown trout and rainbow trout established self-supporting populations, but the later introduction of quinnat salmon *Oncorhynchus tshawytscha*, and sebago salmon *Salmo salar*, failed to establish wild populations. 2 760 sebago salmon were released in Great Lake in 1911, and another liberation of 2 000 yearlings took place in 1936. 4 000 quinnat salmon yearlings were released in Great Lake in 1935 but both species failed to acclimatise.

In its natural state Great Lake was an extensive expanse of shallow water and the original brown trout thrived, spawned, and they and their progeny grew to a great size. The lake was dominated by brown trout until the early 1920's, when, for a period of some twenty years, rainbow trout became the dominant species. From the early 1940's until the present day brown trout have again predominated.

The Great Lake, although difficult of access, produced huge brown trout at the turn of the century. In 1893, when the average size is said to have fallen below its peak, Tom Earley's records describe 85 brown trout taken during April, weighing 1½ to 18¼ lb. A 25¼ lb brown trout was caught in March 1897. In 1904/05 Arthur Fleming recorded a catch of 30 brown trout averaging 9½ lb; amongst these were two fish of 18 lb.

The boom period for anglers at Great Lake occurred in the 10 to 15 years following 1922, as rainbow trout thrived and became the dominant species. The predominance of rainbow over brown in anglers' catches was then reported to be 50 to 1 and the ratio in spawning runs at Liawenee Canal was about 10 to 1. An angler's diary reports a catch of 81 trout in six days during Christmas 1937; there were at least six times as many rainbows as browns and a few quinnat salmon; the 81 fish averaged 5 lb in weight.

By the end of the 1945/50 period the fishery had fallen into disrepute because of the poor condition and smaller size of the trout. The ratio of browns to rainbows had fallen to 1 : 1 in the anglers catch, whilst browns dominated the spawning run by 10 to 1.

Although there has been considerable speculation as to the reasons for the early success and later decline of Great Lake as a rainbow trout fishery, there is little doubt that major physical changes to the Great Lake storage and catchment were responsible.

In 1922 a major change occurred through the construction of a dam at the outlet to the Shannon River which added 25 feet to the depth of the lake. Of even greater importance was the diversion of the Ouse River into Great Lake via the Liawenee Canal. When first completed, this canal added enormously to the spawning grounds available to both trout species and heavy spawning runs soon developed.

The new Liawenee Canal provided some 10 km of uniform gravel substrate for spawning, with the water being allowed to spill down another 3.6 km less suited to spawning, before entering Great Lake. The lake was held at a relatively stable level for the first decade after completion of the canal, but fluctuated greatly in the years that followed.

The canal was then progressively concreted during a period of six to eight years until completion in 1941. This resulted in the confinement of spawning to the lower 2 km of steeper, scoured, coarse substrate of limited spawning value, a situation which has persisted to the present day.

It was also said that when the Great Lake rainbow trout fishery was at its best during the 1920's and 30's, rainbow trout spawned in thousands on gravel areas around the lake margins. This behaviour depended on stable high water levels and may well have been related to the release of hatchery raised rainbow trout in those vicinities.

However, a similar decline was not evident in the brown trout population, which continued to prosper and predominate. Presumably brown trout had established significant spawning areas in other tributary streams in Great Lake.

To this day, many thousands of brown trout still migrate up Liawenee Canal each winter to spawn, although only limited spawning grounds now exist. It seems likely that this run is maintained to a large extent by the downstream migrations of young brown trout into Great Lake from the Liawenee Canal catchment in the upper Ouse, where brown trout predominate.

Once they became established in large numbers on the limited spawning beds, the

brown trout's earlier spawning time gave this species a significant advantage over the later spawning rainbow, and the era of rainbow dominance came to an end.

In an attempt to arrest the declining catch of rainbow trout, a heavy stocking program was initiated. In the twenty year period from 1930 to 1950, 2.85 million rainbow trout fry and 2.65 million rainbow trout yearlings were released into Great Lake, but the liberation of these hatchery raised rainbow trout failed to reverse the natural trend.

In 1947, Dr A.G. Nicholls of the CSIRO was appointed to investigate a suspected deterioration in the Tasmanian trout fishery. Dr Nicholls compiled information on the Great Lake fishery between 1949 and 1960, but unfortunately never concluded or published this work. However, Dr Nicholls has subsequently made all his data available to the Inland Fisheries Commission in order to evaluate more recent changes in the fishery.

As a result of Nicholls' recommendations the Commission embarked upon a program of removing "unthrifty" adult brown trout from the spawning beds in Liawenee Canal, and the policy of stocking with hatchery raised rainbow trout was continued.

In the twenty years from 1960 to 1980, 108 000 adult brown trout, representing some 150 tonnes of fish, were removed from the spawning beds in Liawenee Canal and transferred to other waters around Tasmania. During the same period, a further 5.2 million rainbow trout fry and 423 000 rainbow yearlings were released into the lake.

This management policy still failed to boost the proportion of rainbow trout in the catch and in 1983/84 an accurate count of spawning trout passing through the trap on Liawenee Canal revealed that brown trout still outnumber rainbow trout by 18 : 1.

Inland Fisheries Commission research staff are at present analysing Nicholls' data from the 1950's in order to compile a complete record of changes in the Great Lake fishery over the last thirty years. Details of this study will be presented in a future issue of the Newsletter. So far it seems that the Great Lake study is certain to illustrate the dominance of natural regeneration of trout numbers over the frustrated efforts of fisheries managers.

# LUNE RIVER NETTING SURVEY

by Wayne Fulton and Stuart Chilcott, Inland Fisheries Commission

## Introduction

A survey of the fish populations of the Lune River estuary was commenced in late October 1984. Gill nets of 100 mm mesh size were set at each of nine sites throughout the area from Echo Island to the Southport Narrows. Eight separate visits have been made covering all seasons. The netting sites, net length, and type were kept constant throughout. The nets were all of a type and condition commonly used by amateur net fishermen. They ranged from approximately 30 m (upper estuary sites) to 50 m in length.

A netting pattern of three pulls per trip was maintained throughout. The nets were first set at approximately 10.00 am on the first day with the first lift the same evening. They were again reset and pulled at approximately 1.00 pm on the second day. Additional nets were also set at various points throughout the estuary to determine fish presence at other than the routine sample points.

Nets could not be set close to the entrance to the estuary because of strong currents. Large amounts of floating weed in the lower estuary, especially in summer, also limited the area suitable for netting.

## Results

The total catch for all nets for the three sets have been combined for each visit. These totals are given in Table 1. The majority of fish were caught in the overnight sets, with lesser catches in the first set (afternoon) and very few fish at all in the third set (morning). There were seasonal differences in the total numbers of fish caught, with a decrease in total catch in the winter months. There was also considerable variation in the type of fish caught at the various sample sites, bream and trout being caught mainly in the mid to upper estuary nets whilst leatherjackets, cod and flathead were predominant in the mid to lower estuary nets. The few trumpeter taken were generally in the lower estuary.

It is important to note that of the eleven trumpeter caught during the survey only one fish was over the legal takeable size limit of 33 cm. Similarly, some of the flathead and five of the eight flounder were also undersize whilst the three trevally, for which there is no legal size limit, were only small fish. However, all of the bream caught were above the legal limit for this species.

## Discussion

The catch details show that a considerable range of fish can be found in the Lune River estuary. However, analysis of this list shows that most of the species present are not ones that should be the target of net fishermen. It is illegal to keep any trout caught in nets, whilst bream, flathead, cod and salmon can all be caught readily by angling; they are rarely the specific target of net fishermen. Leatherjackets were



Five sea-run trout, killed by an illegally set gill-net.

commonly taken in nets but these return a small ratio of edible flesh and are often discarded by fishermen.

Those species that are the usual object of netters, but which can also be caught by angling, namely trumpeter, trevally and perch, were not present in significant numbers and were generally not of sufficient size to be an attraction. The catch rate for these species was much less than one fish per visit from all nets combined.

In summary, the results show that suitable species of fish other than bream and trout are not present in sufficient quantities to justify the removal of netting restrictions in the Lune River estuary. These two species are an angling resource that can only suffer from netting in this area.

The netting survey will be continued in order to learn more about the biology of sea-run trout and bream.

Species	31 Oct 1 Nov	11-12 Dec.	20-21 Mar.	16-17 May	17-18 July	12-13 Aug.	12-13 Oct.	9-10 Nov.	Total
Leatherjackets	28	42	13	4	9	13	5	28	142
Bream	20	21	4	5	-	-	3	30	83
Trout	7	2	-	-	2	2	1	-	14
Trumpeter	2	1	-	1	2	4	-	1	11
Salmon	2	-	-	-	-	-	1	2	5
Cod	5	1	3	8	11	7	1	1	37
Flathead	1	4	4	2	1	3	3	6	24
Silver Trevally	-	2	1	-	-	-	-	-	3
Mackerel	-	-	1	-	-	-	-	-	1
Perch (Morwong)	-	-	-	1	-	-	-	-	1
Flounder	-	3	2	-	1	1	1	-	8
Totals	65	76	28	21	26	30	15	68	329

## ITEMS IN BRIEF

### Commission Budget

The Minister for Inland Fisheries, Mr Brendan Lyons, recently announced that \$30 000 would again be made available on a dollar for dollar basis to assist angling club projects. The Minister also stated that the Government has continued to support the survey of trout populations in Tasmanian streams by allocating a further \$50 000 to the project this financial year. In addition, the Commission has been provided with a \$100 000 Loan Fund allocation for further improvements to spawning grounds and boat ramps, and for improvements to the water supply at Salmon Ponds.

### Trout-Fish Tasmania

The Inland Fisheries Commission has recently become more actively involved in the promotion of trout fishing in Tasmania. A revised edition of the Commission's "Trout Fishing in Tasmania" brochure has been produced and "Trout-Fish Tasmania" bumper stickers and publicity sheets are available on request. The Commission successfully mounted an exhibit on the "Trout-Fish Tasmania" theme at the Royal Launceston and Royal Hobart shows. The exhibit featured live trout and crayfish, an artificial pond, photographs and videos of trout fishing, and displays of fishing tackle.

### Trout Fishing Film

The Tasmanian Film Corporation has been contracted to produce a documentary on trout fishing in Tasmania. The film has been supported by Transport Tasmania (TT-Line), the Department of Tourism, the Tasmanian Development Authority and the Tasmanian Professional Trout Fishing Guides Association. The State Government, through the Department of the Premier and Cabinet, has agreed to meet the production costs of the film. Thirty-five days have been allocated for filming and the documentary will attempt to highlight the unique aspects of trout fishing in Tasmania.

## ITEMS IN BRIEF

### Campfires in the Highlands

The Central Plateau Fire Protected Area was gazetted in 1980 in order to provide responsible fire management in the Highlands. Much of this area is Crown Land or land vested in the Hydro-Electric Commission, particularly those lake shores used by fishermen. As it is illegal for persons to light a fire on any property without the permission of the owner, steps have been taken to amend the Fire Service Act in order that the fullest recreational use may be made of the area. Accordingly, it is now possible for fishermen and campers to light campfires in the Central Plateau area, providing those campfires are properly cleared around for 3 metres and are not left unattended without being fully extinguished. Campfires may not be lit on a day of Total Fire Ban. Also, the land managing authorities may, from time to time, declare certain areas where campfires may not be lit. It is intended to place signs regarding campfires at appropriate localities.

### Rearing Projects

A number of angling clubs are engaged in the on-growing of the brown trout fry allocated to their district, prior to liberation in local waters. Last year, Scottsdale Branch successfully raised 65 000 fingerlings, 75 to 125 mm in length, releasing 15 000 in Little Waterhouse Lagoon and 50 000 in Blackmans Lagoon during January. Devonport Branch liberated 4 000 fingerlings in Lake Barrington, 1 000 in Lake No Where Else and 1 000 in two local dams. Penguin Branch released 200 fingerlings in three local dams, whilst 260 fingerlings reared at Preston Ponds were liberated in Lake Isandula at Gawler. Circular Head Branch achieved a 69% survival rate and successfully released 3 422 fingerlings in seventeen local dams. North Motton hatchery achieved a 53% survival rate with 35 260 fingerlings being raised successfully and liberated in various waters including the Pet and Guide dams, Lake Barrington, the Leven River, Lake Isandula and twenty-four local dams.

### Community Employment Program

A thirteen week Community Employment Program landscaping and improvement project was completed at the Salmon Ponds recently. Two local workers were employed and successfully carried out a variety of beautification and maintenance work. With minor assistance from Commission staff they have completed a number of much needed improvements. These included the installation of a coin-operated barbecue and shelter, pine bark gardens and fern glades. In addition to general landscaping, the program also included preparation and painting of staff residences and buildings. The Commission gratefully acknowledges the value of the program and has plans to begin a similar undertaking at Liawenee Field Station in the summer months.

## PROSECUTIONS

Successful prosecutions since the last Newsletter are listed below.

Court Date	Offender and Address	Nature of Offence	Fine	Costs	Penalty
4.7.85	Wayne Harold BAKES 9 East Barrack St. Deloraine	More than 1 rod and line	25.00	15.10	
4.7.85	Graham William FLOWERS P.O. Mole Creek	More than 1 rod and line	25.00	15.10	
5.7.85	Edward Phillip WELLS 43 Martin St. Wynyard	Take whitebait Possess whitebait Use a net Possession of net	50.00 25.00	30.10	Adjourned Sine Die Adjourned Sine Die
5.7.85	Colin Leslie MONSON 8 Rees St. Wynyard	Take whitebait Possess whitebait Use a net Possession of net Assembled rod	50.00 25.00 25.00	15.10	Adjourned Sine Die Adjourned Sine Die
8.7.85	Basil Thomas O'HALLORAN 5 Clarke St. Ulverstone	More than 1 rod and line	40.00	15.10	
21.8.85	Graham Mervyn CATE 45 Allunga Rd. Chigwell	Use spotlight		25.00	15.10
21.8.85	Brendon John CATE 45 Allunga Rd. Chigwell	Use spotlight	25.00	15.10	
16.9.85	Maxwell George HUME 12 Cobt St. Burnie	Other than rod and line Take fish from closed waters Unlicensed Possession of trout Disturb spawning trout	60.00	15.10	Conviction Recorded Adjourned Sine Die Adjourned Sine Die
16.9.85	Dale Edward FLYNN 8 Strahan St. Burnie	Fishing without licence Representing to be licenced False name and address	100.00 50.00	15.10	Conviction Recorded
25.9.85	Christopher Mark WATT 3 Burgan Circle, Chigwell	Other than rod and line Take fish from closed waters Disturb spawning trout Discharge a firearm	25.00 25.00 50.00 50.00	15.10	70.00 70.00
25.9.85	Fenia MIKOLCZGUK 9 Suicelace St. Glenorchy	More than 1 rod and line	40.00	15.10	
24.9.85	Graham Geoffrey HILL 70 Glenora Rd. New Norfolk	Other than rod and line Possession live bait Other than artificial bait	50.00 50.00 50.00	15.10	
24.9.85	Garry Vernon HAYDEN 75 Southview Cr. New Norfolk	Fishing without licence	100.00	15.10	
24.9.85	Terrance Bernard HALL Bushy Park	Unattended set rod	40.00	15.10	
24.9.85	Raymond Leslie HARRIS 20 Nicholson St. New Norfolk	More than 1 rod and line	40.00	15.10	
25.9.85	Kevin James GATEHOUSE 72 Highfield St. New Norfolk	Unattended set rod	40.00	15.10	
24.9.85	Lawrence Henry OAKLEY 8 Henry St. New Norfolk	More than 1 rod and line	40.00	15.10	
24.9.85	Nigel Robert YOUND 2 West St. Maydena	More than 1 rod and line	40.00	15.10	
16.9.85	Leigh Andrew DAVIS 1 Colgrave Rd. Burnie	Fishing without licence	100.00	15.10	
16.9.85	Andrew John COHEN 12 Jorgenson St. Burnie	Fishing without licence	100.00	15.10	
18.9.85	Terence Alfred HARRIS Main Rd. Wilmot	More than 1 rod and line Unattended set rod	60.00 20.00	15.10	
3.9.85	Stephen Paul HOWARD 9 Raymond St. Launceston	Fishing without licence Assembled rod and reel	20.00 20.00	15.10	
18.9.85	Darryl Ambrose McLAREN RSD 524, Wilmot	More than 1 rod and line Unattended set rod	40.00 20.00	15.10	
16.9.85	Angela Dawn MARSHALL 80 Ogden St. Burnie	Fishing without licence	100.00	15.10	
15.10.85	Robert John HALL Bushy Park	Unattended set rod	40.00	15.10	

## TRIPLOID TROUT

Production of sterile triploid trout has again been undertaken this year by the heat shock method on eggs at time of fertilization. On 23 September spawning rainbow trout at Liawenee Canal were stripped and a total of 69 000 ova (5.75 litres) was fertilized. Of these 50 000 were treated in order to produce sterile progeny.

2 000 triploid brown trout fingerlings are presently being reared at Salmon Ponds. A total

of 1 584 triploid rainbow trout yearlings have recently been released as listed below.

Date	Water stocked	Number	Average Weight (g)	Average Fork Length (mm)
20.11.85	Carters Lagoon	884	103	209
20.11.85	Little Blue Lagoon	350	103	209
20.11.85	Lake Botsford	350	103	209