INLAND FISHERIES COMMISSION
NEWSLETTER

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PROPOSED CHANGES TO CLOSED SEASONS

The Inland Fisheries Commission is considering amending closed seasons in the coming year. The suggested changes will not affect 'brown trout' waters at all, but will extend the fishing season on 'rainbow trout' waters. It is felt that a five month closed season on rainbow trout waters is unrealistic, especially when brown trout make up a significant proportion of the trout population in such waters.

There are a number of major brown trout waters which have remarkably vigorous self-supporting rainbow trout populations – Lake Sorell, Bradys Lake and Penstock Lagoon are good examples. Rainbow trout are doing well in these waters without the protection of a five month closed season.

At present, rainbow trout waters open on Saturday nearest 1 November and close on Sunday nearest 31 May. This means that Great Lake, Lagoon of Islands, Dee Lagoon and Lake Rowallan are closed to angling throughout June, July, August, September and October.

Great Lake

A detailed analysis of the number and timing of Great Lake spawners entering the trap at Liawenee Canal has been conducted during the past two years.

Each year approximately 18 000 trout entered the trap, with browns outnumbering rainbows by 15 to 1. But, what is even more surprising is that the majority of spawners (more than 90%) entered the trap before the season closed at the end of May. In fact, the five month closed season is not serving any meaningful biological purpose. It now seems that closure of Great Lake during the early months, August to October, has effectively been protecting the brown trout population from angling and not assisting rainbow trout numbers.

It is proposed that Great Lake close as at present, but open at the same time as brown trout waters, i.e. close on Sunday nearest 31 May and open on Saturday nearest 1 August. Great Lake would thus have a two month closed season, i.e. June and July.

Three extra months fishing would help to crop the brown trout population whilst the rainbow trout are spawning. This would assist management as a rainbow trout water and would help maintain the condition of brown trout. The extended season would also provide a bonus for natural bait fishing by extending the season on a large and popular water. The extended season would also promote shack and tourist development in the area.

Lagoon of Islands, Dee Lagoon and Lake Rowallan

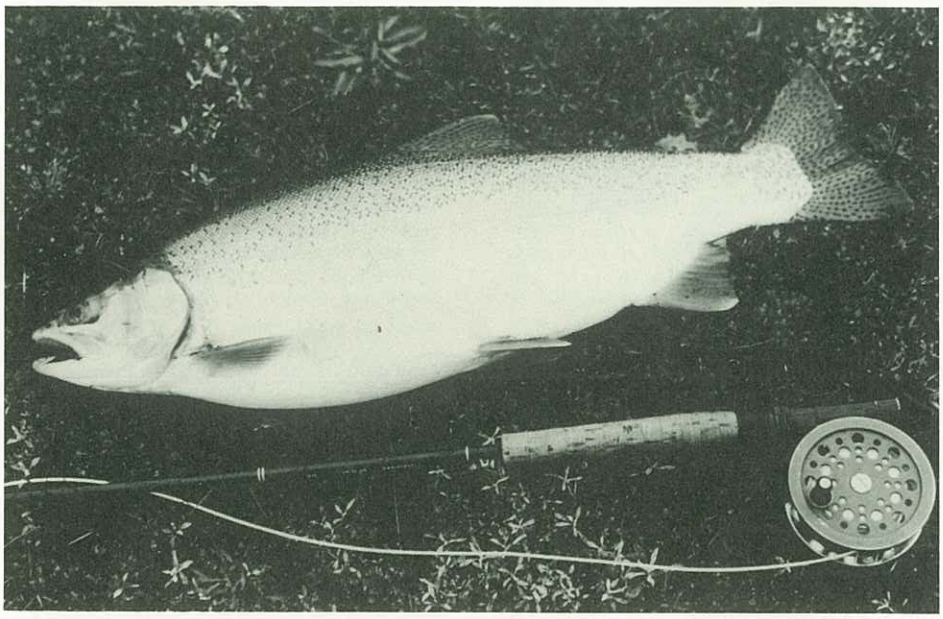
As rainbow trout generally spawn early in these waters, it is felt that the season could be extended by one month without adversely affecting rainbow spawning.

It is proposed that these waters close as at present, but open one month earlier, i.e. close on Sunday nearest 31 May and open on Saturday nearest 1 October. Fishing during October would increase the catch of brown trout without affecting rainbow trout spawning success.

Summary and Advantages

Great Lake: Proposed to close on Sunday nearest 31 May and open on Saturday nearest 1 August. Three extra months fishing would help crop the brown trout population whilst rainbows are spawning. This would provide greater fishing opportunities for natural bait enthusiasts and would assist development in the Great Lake area.

Lagoon of Islands, Dee Lagoon, Lake Rowallan: Close on Sunday nearest 31 May and open on Saturday nearest 1 October. Opening one month earlier would reduce the closed season to a more realistic four month period. Rainbows usually spawn early in these waters and should be encouraged to do so.



Rainbow trout – changes to the season are proposed.

RECREATIONAL FISHING – BIG BUSINESS

The second report of the national survey commissioned by the Australian Recreational Fishing Confederation was released in December.

The first report (released in September), based on a national household survey, confirmed that recreational fishing is a giant industry in its own right, contributing more than $2.2 billion annually to the Australian economy. The survey found that fishing for fun is the most popular single outdoor recreation in Australia, involving a third of the country's adult population.

The more recent report surveyed fishing club members and the tackle/equipment trade. Fly fishers were found to own fishing equipment worth an average of $4 620 and spent an average of $3 480 on their recreation in the last twelve months. Fly fishers ranked the most important reason for fishing as 'to be outdoors'.

The survey found that of the 535 000 recreational boats owned by Australians (35 boats per 1 000 population), at least

375 000 are used primarily for fishing. The annual retail expenditure on new boats, motors and trailers used mainly for recreational fishing totals $204 million. Other retail equipment and tackle sales total $48 million a year and the recreational fishing fleet uses an estimated $75 million worth of fuel each year.

Copies of the survey reports are available for sale from the Australian Recreational Fishing Confederation, P.O. Box E243, Queen Victoria Terrace, A.C.T. 2600

BOAT RAMP CONSTRUCTION

During the summer months the Inland Fisheries Commission has continued the programme initiated last year to provide and improve boat launching areas in the highlands. Projects have been co-ordinated with Lands Department developments in the region.

The boat ramps at Miena and Swan Bay have now been completed after final top-dressing and rolling. A further boat ramp which was formed at Brandums Bay last summer has been consolidated, top-dressed and rolled and is already proving popular with anglers.

Consideration was given to construction of a boat ramp at the Poatina off-take, to cater for boating enthusiasts travelling to Great Lake from the Launceston area. However, after site investigations with Hydro-Electric Commission officers it was concluded that construction of a major boat ramp near the outlet canal would not be cost effective.

Instead, the Commission decided to construct a new boat ramp at nearby Cramps Bay and the Lands Department agreed to upgrade the 1 km of road leading from the Poatina Highway to the launching area. This project should be completed by the end of this month and is expected to prove a boon to boat users travelling to Great Lake from the north.

A further major boat ramp project has been undertaken by the Commission at Pine Creek on the north-western shore of Great Lake. This launching site will complement a camping area being developed by the Lands Department and will also provide a much needed facility for the many shack owners in the region.

The Commission is grateful for the assistance and advice provided by the Lands Department, Hydro-Electric Commission and Department of Main Roads officers in the planning and construction of boat launching sites at Great Lake.

A much needed boat ramp is also being constructed on the Henty River (West Coast) in conjunction with the Rosebery Branch of the North Western Fisheries Association. This will provide ready boat access to the lower reaches of the Henty without the need for a four-wheel-drive vehicle.

SPAWNING STREAM IMPROVEMENT

Further improvements have been made to trout spawning grounds in the Central Highlands in keeping with the Commission's policy of enhancing spawning success and natural recruitment to the major trout fisheries.

An excavator has been used to reconstruct a further 1 km of Mountain Creek, the major spawning area at Lake Sorell. Improvements to this creek were initiated last summer and the massive spawning run which resulted during the winter has justified additional expenditure on the project. Trout will now be able to spawn over a far greater area, and it is hoped that modifications to pool depths and dimensions in the creek will encourage trout to drop downstream as soon as spawning has been completed.

Major structural changes have also been made to the Dee River, the main rainbow trout spawning area at Dee Lagoon. A large channel has been excavated through a vast sand delta which has hindered the passage of spawning fish for many years. Important spawning beds in the lower reaches have been improved by clearing of logs, minor terracing and addition of gravel.

The Dee River mouth has now been relocated so that the river flows into the inlet canal below the Lake Echo power station. Spawning trout attracted to the discharge from the power station should now be readily able to locate suitable spawning beds in the river.

A minor spawning creek in Tods Corner at Great Lake has been modified to improve spawning and to reduce the incidence of spawning trout mortality due to stranding.

A road has been completed to the new spawning channel on the north bank of Liawenee Canal and a major drain has been excavated in order to divert surface run-off away from the channel and the new road.

TRIPLOID TROUT

The Commission's research and hatchery staff have been experimenting with the production of sterile rainbow trout and sufficient numbers are now available for trial release.

Sterile salmonids have been found to grow to a larger size than normal fertile fish which use a considerable amount of energy in egg and milt production and spawning behaviour. Producing large numbers of sterile fish has only become possible with the application of the discovery that when fertilised eggs experience short heat shocks or pressure shocks within ten minutes after spawning, they develop into 'triploid' fish.

Triploids – fish with 50% more chromosomal material than normal or 'diploid' fish – are fully functional but sterile. Their initial growth rates are slower than normal fish in a hatchery situation, but they ultimately outgrow diploids which are held back by the pressure of spawning. They are thus potentially ideal for put-and-take fisheries where spawning facilities are absent or limited and where stocking on a regular basis is possible or already established.

The production of sterile fish is also of use in commercial farming of salmonids, especially rainbow trout and salmon, enabling production of larger fish for the smoked fillet market.

STREAM PROTECTION SYMPOSIUM

An international symposium on stream protection was held at the Water Studies Centre of the Chisholm Institute of Technology in Melbourne on 12 and 13 February.

The keynote speaker was Professor Ken Cummins from the Department of Fisheries and Wildlife, Oregon State University, U.S.A. – one of the world's leading stream ecologists. Professor Cummins' major research interest has been the relationship between the land based surroundings and the biological communities in streams.

Other speakers included Dr Mike Winterborn from the Department of Zoology, University of Canterbury, Christchurch, internationally known for his research on the ecology of New Zealand streams. Dr Laurel Teirney from the New Zealand Fisheries Research Division presented a paper on river protection and flow requirements for New Zealand fish. Dr Peggy Wilzbach of the University of Maryland presented findings of a study of cutthroat trout in both logged and forested reaches of streams in the United States Pacific Northwest.

Other papers presented included an account of the evaluation of flow requirements for New South Wales fish, approaches to determining flow and habitat requirements for native fish in Victoria, and an account of fish passage facilities in Australia.

Proceedings of the symposium will be published later this year.

TROUT LIBERATIONS

Liberations of both fingerling and yearling-plus stocks from the Salmon Ponds were successfully undertaken in early February. Liberation of small fingerlings in summer is a departure from past stocking programmes. Some risks are involved in transporting large numbers of fish during mid-summer, but by picking suitable days and with early starts, in-transit mortality was completely avoided.

Ongrowing of fry was made possible by the introduction of improved rearing techniques and a good summer flow in the Plenty River.

Details of summer trout liberations are set out below.

Date	Species	Water	Liberation Point	Number	Average Fork Length	Average Weight
5.2.85	Rainbow (fingerling)	Lake Rowallan	100 m above dam	10 000	65 mm	3.2 g
6.2.85	Rainbow (fingerling)	Great Lake	Canal Bay	10 000	65 mm	3.2 g
7.2.85	Rainbow (fingerling)	Dee Lagoon	Below power station	8 000	55 mm	2.4 g
11.2.85	Rainbow (fingerling)	Lagoon of Islands	Spawning channel	3 800	55 mm	2.8 g
7.2.85	Brown (fingerling)	Lake Dulverton	Boat ramp	2 000	85 mm	3.3 g
7.2.85	Brown (fingerling)	Lake Crescent	Agnews Creek	2 000	85 mm	3.3 g
7.2.85	Brown (fingerling)	Penstock Lagoon	Below No. 2 Canal	2 000	85 mm	3.3 g
12 & 13.2.85	Rainbow (yearling plus)	Lagoon of Islands	Spawning channel	600	300 mm	330.0 g

CRACKDOWN ON DEADLINES

Commission enforcement officers are concerned at an apparent increase in the number of illegal deadlines being set in inland lakes and streams. An inspector recently removed 62 deadlines from 3 km of shore at Tungatinah Lagoon. Seven dead trout were removed from the lines.

Deadlining, the practice of setting baited hand-lines, is illegal and carries heavy penalties for those convicted. When strong monofilament lines are set along lake shores and stream banks, it is not only trout that are killed; other fish, livestock, waterbirds, platypus and native water rats often become cruelly ensnared.

Anglers finding deadlines or seeing an offender checking set lines, should report the matter to Commission officers as soon as possible. An accurate description or the registration number of an offender's boat or vehicle can often lead to swift apprehension.

RECREATIONAL USE OF WATER SUPPLY STORAGES

A workshop on the recreational use of urban water storages and their environs, was held at Griffith University, Brisbane, in December. Participants at the workshop developed draft guidelines for the recreational use of such storages. The guidelines will be published as part of the workshop proceedings.

The workshop brought together representatives from State water, environment, public health, recreation, land management and fisheries authorities.

There was general agreement that for direct supply storages where chlorination is the only water treatment provided prior to consumption, water-based recreational activities (including fishing) should not normally be appropriate secondary uses.

However, for direct supply storages where water receives full treatment before consumption, participants agreed that consideration should be given to allowing water based recreational activities (including fishing).

LUNE RIVER SURVEY

Research staff conducted a second netting survey of the Lune River estuary on 11 and 12 December. A similar netting strategy to that used on the first visit was followed, with the addition of some extra sites. These were added to investigate the range occupied by certain species.

With the exception of leatherjackets, bream were the most common fish of edible size caught in the estuary and were the only species found to be in sufficient quantity to be of significant attraction to fishermen. The range of occurrence of bream was also extended by catches at two further sites in Hastings Bay on this occasion.

Four silver trevally, 3 trumpeter and 1 perch were caught in total, but no more than two specimens were taken at any one site. These fish were all of small size and would not be a highly prized catch.

Fewer brown trout were caught on this occasion as expected, with the sea-run essentially over. However, one very good specimen of 2 180 g was caught in Hastings Bay.

Another interesting catch was a single luderick of 1 210 g in weight. This is the first recorded catch of this highly fancied angling species so far south, although its presence in the Lune River estuary is probably well known to locals.

To date the survey results have demonstrated that bream and trout are prone to net capture in the area between Southport Narrows and the seaward limits of the Lune River. Consequently, the netting ban appears to be entirely justified.

NORTH-EASTERN LAGOON SURVEY

Following requests from the Scottsdale Branch of the Northern Tasmanian Fisheries Association, research staff conducted a cursory netting survey of the major north-eastern trout fishing lagoons during early February.

The survey illustrated that Blackmans Lagoon is well stocked with brown trout of excellent size and condition. Thirty-four brown trout weighing from 750 g to3 500 g (average 1 530 g) were handled. For a number of years this water has been stocked with fingerling brown trout which have been on-grown by the Scottsdale Branch at their Kamona rearing unit.

Big Waterhouse Lake did not yield any trout when subjected to a similar netting effort, although 9 large sea mullet weighing 1 500 to 2 000 g (average 1 700 g) were recorded. It was concluded that this water suffers from a relatively high salinity and from the presence of a large population of predatory fish including sandies, sea mullet and long-finned eels.

A similar netting trial at Little Waterhouse Lake yielded two brown trout weighing 890 and 2 130 g, indicating that this water holds a relatively small population of excellent brown trout. Little Waterhouse has been heavily stocked with rainbow trout in recent years and although rainbows are known to be present none were recorded during the survey.

When details of water analyses are to hand, the Commission will be reviewing its stocking policy in relation to these waters in the light of the survey findings.

ITEMS IN BRIEF

Forestry Study Funded

At the December meeting of the Forest Ecology Research Fund, the Committee of Management approved support for an Inland Fisheries Commission proposal to study the effects of forest operations on stream fauna. An amount of $14 000 per annum for two years has been allocated. The project will form part of the Forestry Commission's study on Forest Hydrology, and the resources of the two departments will be integrated as far as possible.

Whitewater Salvage

Commission staff conducted a trout salvage at the Bradys Whitewater recently when the water was shut off to allow a bulldozer to reconstruct the canoe course. Several hundred small fingerling trout were returned to the water but many were taken by crows. Many larger trout were stranded in the deeper pools and eight fish between 0.75 and 4 kg died in the muddy water after the introduction of the bulldozer. Between 45 and 50 large trout were salvaged and returned to cleaner deep water, the largest weighing a staggering 6.8 kg.

Atlantic Salmon

The Atlantic salmon presently held at the Sea Fisheries Department's Taroona laboratories are soon expected to gain quarantine clearance enabling their release. Preparations are well in course to receive the salmon at the Commission's Salmon Ponds hatchery where they will be held in fresh water until they are sufficiently developed to survive transfer to sea cages. It is hoped that the young salmon will provide the foundation for a sea-cage farming industry in years to come.

Netters Nabbed

In a late night raid, Commission enforcement officers recently nabbed two poachers using graball nets at Laughing Jack Lagoon. The officers took possession of a haul of 13 brown trout and confiscated a 50 m graball net, a small dinghy and associated gear.

Trout Survey

The State Government has provided a special grant of $100 000 over two years, to conduct a statewide survey of trout habitat. The survey of trout populations in rivers is well under way; two three-man electrofishing teams have been sampling rivers throughout January and February. The survey teams started in the north of the State and have now moved to the north-western and southern rivers. Data on trout populations (numbers, weights, age and growth) and habitat parameters (cover, gradient, flow and depth) are being collated at present and preliminary findings will be available soon.

Poacher Lands Heavy Fine

An illegal haul of 148 spawning brown trout was reported in the July Newsletter. A man charged in relation to this offence appeared in the Oatlands Court of Petty Sessions on 20 February. Evidence was presented by Oatlands Police Officers who discovered the trout while making a routine vehicle check in the highlands. The Inland Fisheries Commission Senior Inspector was called as an expert witness. The Magistrate took a serious view of the offence, imposing fines of $350, a special penalty of $5 per fish and costs, bringing the total to $1 134.

THE POPULATION OF A TROUT STREAM
A COMPARISON AFTER 30 YEARS

Robert Sloane
Commissioner of Inland Fisheries

Introduction

In 1945 the Salmon and Freshwater Fisheries Commissioners (the predecessors of the Inland Fisheries Commission), requested the CSIRO to undertake an investigation into the question of a suspected deterioration of trout fishing in Tasmania. This action was taken in response to representations made by anglers' associations.

Dr A.G. Nicholls was appointed to the Division in 1947 to undertake freshwater studies. In May 1949 Dr Nicholls transferred to Hobart to devote his full-time attention to the Tasmanian investigation. During the summers of 1954/55 and 1955/56 Nicholls studied the North Esk River and its major tributary the St Patricks River in order to discover the relationship between survival of released fish and the natural population of trout in a typical river system.

The North Esk system was chosen for the study because of the accessibility of many sites on numerous tributaries and because "... in the opinion of anglers as expressed in the 56th annual report of the Northern Tasmanian Fisheries Association (1954) both the North Esk and St Patricks rivers required heavy stocking".

Nicholls' findings supported the research of many other scientists overseas in concluding that fingerling trout releases cannot provide significant additions to anglers' catch when planted in waters having abundant populations of resident trout; by far the majority of trout caught will result from natural propagation.

As a result of Nicholls' work supplementary stocking of most Tasmanian rivers was phased out during the late 1950's and early 1960's although the controversy still rages, with many anglers claiming that annual stocking is needed in order to maintain a reasonable standard of fishing.

The funding of a trout survey team by the State Government resulted in an ideal opportunity to return to the sites studied by Nicholls in order to assess natural changes in the trout population over a 30 year period without significant hatchery stocking having taken place.

This article merely describes the overall changes in trout numbers and total weight of trout, from a preliminary analysis of the data. Commission biologists Peter Davies and Wayne Fulton headed the survey, and they will be assessing various aspects of the study in detail when field work on other rivers has been completed. This will include an assessment of electrofishing efficiency, the influence of various habitat parameters (e.g. gradient, flow, depth, substrate, cover), the effect of variations in water chemistry, food availability, and a comparison of trout age, growth and condition.

Methods

During the summer (December and January) of 1954/55, Nicholls electrofished sections of the North Esk and St Patricks rivers and their tributaries at 25 sites, 14 in the North Esk and 11 in the St Patricks. (Fig. 1)

In June 1955, 10 000 marked yearling brown trout were released – 1 000 at each of 10 sites, and Nicholls returned during February and March 1956 to electrofish the majority of the sites again (higher water levels prevented all sites being refished).

In January and February 1985 the 25 sites sampled by Nicholls were again electrofished using essentially similar electrofishing apparatus; in both studies two electrofishing runs were conducted at each site.

Results

Preliminary results of the 1985 survey are presented in Tables 1 and 2, together with data from Nicholls' 1955/56 study. Brown trout numbers and total weights recorded at each site have been corrected for a standard 100 m length of stream.

All figures represent two-run electrofishing totals. Nicholls estimated that 70% of trout numbers were recorded in two runs, whereas the equivalent efficiency for the 1985 survey was approximately 75%. When comparing the figures presented, differences of less than 10% should not be considered as being significant because of small variations in sampling efficiency from site to site and from Nicholls' study to the recent survey.

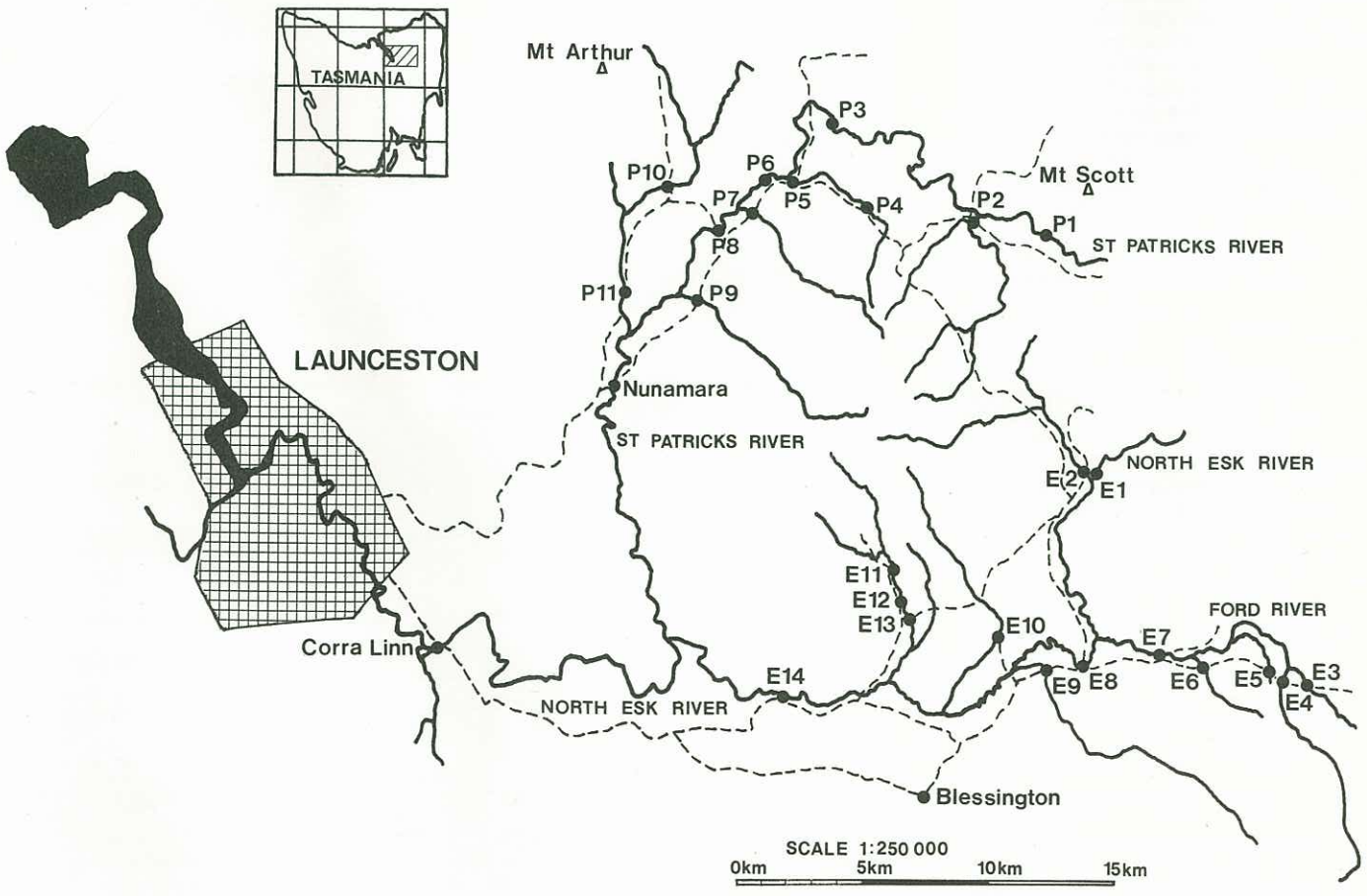


FIGURE 1 – Location map showing sampling sites on the North Esk and St Patricks rivers.

It can be seen from the mean (average) number and weight of brown trout taken (given at the bottom of each table) that the trout population showed little variation between 1955 and 1956, but that the number and weight of trout taken during the 1985 survey showed a marked increase. The North Esk sites show a 59.3% increase in trout numbers and a 64.8% increase in the weight of trout taken. The St Patricks sites reveal a 59.5% increase in numbers and a 82.9% increase in weight.

The results recorded at a small number of sites did not conform with the overall trend, i.e. the 1985 figures indicated a decrease in trout abundance. This was the case at Patersonia Rivulet (P11), unnamed creek (P7) and Musselboro Creek (E13). However, these anomalies could be easily explained as there was evidence of significant habitat disturbance at all these sites.

Approximately 6 km of Patersonia Rivulet at P11, was found to have been recently channelised. Site P10, above the channelised section, showed an increase in trout numbers. Site P7, on a tributary of the St Patricks River, was also found to have been channelised since Nicholls' study.

Three new houses were found to have been recently constructed immediately above sample site E13, on the Musselboro Creek; nearby unspoilt sites E11 and E12 did not show a decrease in trout numbers. Site E3 on an unnamed tributary of the Ford River showed an apparent increase in siltation, probably resulting from forestry activities further upstream. Trout numbers were down at this site although the total weight of trout taken was similar to that recorded by Nicholls.

Analysis of trout length data from the 1985 survey reveals that 45% of the trout recorded at the 14 North Esk sites were takeable size (22 cm), whereas 22% of the trout from the 11 St Patricks sites were takeable. Nicholls estimated that there were 120 takeable trout per kilometre at each of the lowest main river sites, E14 and P8. The comparable 1985 estimates were 290 takeable trout per kilometre at E14 and 370 takeable trout per kilometre at P8.

Rainbow trout were recorded in both studies. Nicholls recorded one rainbow trout at sites P1 and P2, and two at site P5. The 1985 survey recorded 12 rainbow trout at site P1 on the St Patricks River.

Discussion

The preliminary results of the 1985 electrofishing survey in the St Patricks and North Esk rivers reveal an overall 59% increase in trout numbers and a 75% increase in the total weight of trout recorded, when compared with a similar survey conducted 30 years earlier.

This has occurred despite heavy stocking prior to and during Nicholls' 1955/56 survey and a virtual absence of stocking for at least 20 years prior to the 1985 survey. In the years 1951 to 1954 the St Patricks River received 183 000 brown trout fry and the North Esk was stocked with 97 000 brown trout fry, 14 350 brown trout yearlings and 3 400 rainbow trout yearlings. As part of Nicholls' investigations, 10 000 yearling brown trout were marked and released in June 1955.

In contrast, the only recorded stocking since 1960 has been the liberation of 100 adult brown trout in the St Patricks River in 1962, a further 500 adults in 1964, and the release of 130 adult brown trout in the

TABLE 1

NORTH ESK RIVER

Site	Location	Number Brown Trout/100 m			Weight Brown Trout/100 m (kg)		
		1955	1956	1985	1955	1956	1985
E1	North Esk River	13	8	34	1.00	0.90	4.25
E2	Evelyn Rivulet (Beckett Creek)	21	23	64	1.36	2.56	6.61
E3	Unnamed Creek	34	23	11	1.60	1.87	2.17
E4	Ford River	28	24	52	2.32	1.90	4.26
E5	Unnamed Creek	2	–	7	0.20	–	0.41
E6	Phillips Creek	9	3	39	1.49	0.64	1.52
E7	Ford River	61	29	111	5.70	5.62	16.55
E8	North Esk River	42	–	42	7.41	–	6.80
E9	Pig Run Creek	62	30	88	5.00	3.07	7.48
E10	Burns Creek	21	10	22	2.71	2.29	3.59
E11	Musselboro Creek (Musselborough Creek)	29	33	36	1.74	3.16	4.68
E12	Musselboro Creek	20	20	22	2.53	3.88	3.54
E13	Musselboro Creek	51	53	27	7.75	7.58	4.14
E14	North Esk River	47	–	43	5.74	–	7.44
Total Number		440	256	598			
Total Weight (kg)					46.55	33.46	73.43
Mean Number Per Site		31	23	43			
Mean Weight Per Site (kg)					3.33	3.05	5.25

TABLE 2

ST PATRICKS RIVER

Site	Location	Number Brown Trout/100 m			Weight Brown Trout/100 m (kg)		
		1955	1956	1985	1955	1956	1985
P1	St Patricks River	4	1	56	0.38	0.11	6.14
P2	Camden Creek	5	5	24	1.35	0.30	3.31
P3	St Patricks River	5	–	54	1.35	4.52	5.94
P4	Serpentine Rivulet (Seven Time Rivulet)	19	30	92	1.52	2.18	4.42
P5	Serpentine Rivulet	88	85	87	4.84	4.21	8.96
P6	St Patricks River	41	–	74	3.14	–	5.43
P7	Unnamed Creek	63	41	35	4.14	2.78	1.82
P8	St Patricks River	29	30	75	2.86	4.31	9.38
P9	Trout Creek (Coquet Creek)	40	35	34	1.13	1.46	1.96
P10	Patersonia Rivulet	44	55	84	2.24	4.58	2.87
P11	Patersonia Rivulet	70	49	38	5.46	4.15	2.68
Total Number		408	331	653			
Total Weight (kg)					28.4	24.1	52.9
Mean Number Per Site		37	37	59			
Mean Weight Per Site					2.6	2.7	4.8

Electrofishing the North Esk River near Blessington.
(Photograph courtesy of Bob Drew, The Examiner.)

Tipping the catch into a holding cage prior to counting and measuring.
(Photograph courtesy of Bob Drew, The Examiner.)

North Esk River at Corra Linn in 1967. There are no records of trout being released into the system after 1967 although some escapement may have occurred from the Commission's hatchery at Corra Linn.

Nicholls concluded from the 1955/56 survey that artificial releases of trout from the hatchery were not making a significant contribution to the abundant natural trout populations in these streams. Nicholls considered that natural spawning of brown trout in the North Esk/St Patricks system would provide adequate recruitment to support this trout fishery.

Nicholls' conclusions have certainly been borne out by the work of the survey team 30 years later. The trout population has been able to maintain itself by natural propagation despite a major increase in the number of licensed trout anglers in Tasmania. During the 1954 season 8 800 angling licences were issued, compared with 20 100 in 1984. (The greatest number of licences issued in the 30 year period was 31 900 in 1976.)

The overall increase in the numbers and total weight of trout revealed by the 1985 survey may be partly explained by an increase in the available cover in these streams due to willow, blackberry and gorse growth; this may have led to a greater carrying capacity in some stream sections. It is hoped that detailed analysis of habitat parameters recorded during the survey and comparison with early aerial photographs may provide the answer.

Previous electrofishing surveys conducted by the Commission in Tasmania have illustrated that great variations in trout populations do occur naturally from year to year, depending on spawning success, stream flows and predator numbers. The 1985 results may reflect several very good years of trout production in Tasmanian streams. Detailed analysis of results from other streams around the State and comparison with previous survey findings should confirm whether or not this is the case.

Angling pressure must also have an effect and this may in fact have declined in the North Esk and St Patricks rivers over recent years. The widespread (and in this instance very misguided) belief that trout are scarce in Tasmanian rivers and streams may be driving anglers away from their own back doors in search of greener pastures in the highlands.

PROSECUTIONS

Successful prosecutions since the last Newsletter are listed below.

Court Date	Offender and Address	Nature of Offence	Fine	Costs	Penalty
12.9.84	Christopher WRIGHT Rosegarland Road St Marys	Possession of graball net. Other than rod and line.	20.00 20.00	15.10	
14.11.84	Peter Allan SEYMOUR 5 Mayfield Street Launceston	Take fish from closed waters. Other than rod and line. Take, offer and expose fish for sale.	20.00 20.00 20.00	31.10	22.00
20.11.84	Norman Bruce LLOYD 5 Leroy Place East Doncaster	Fishing without licence.	50.00		Wholly suspended
4.12.84	Phillip Ronald NELSON 195 Thompsons Road North Geelong	More than 1 rod and line. Other than rod and line.	30.00 30.00	15.10	
4.12.84	Glen Joseph SHERRIFF 284 Hobart Road Launceston	More than 1 rod and line. Unattended set rod.	35.00 35.00	15.10	
4.12.84	Dennis Ian BROWN 13 Brooklyn Road Youngtown	More than 1 rod and line. Unattended set rod.	35.00 35.00	15.10	
17.12.84	David Edward ROLAND 56 Cumberland Street Warrane	More than 1 rod and line.	50.00	15.10	
19.12.84	Graham Edward SMITH 13 Ready Place Latrobe	Take whitebait. Possession of net. Obstruct an officer.	75.00 35.00	15.10	Adjourned sine die
19.12.84	Harry Easpwood NEWTON 8 Grandview Grove Chadstone	Possession of whitebait.	75.00	15.10	
16.1.85	Pauline Faye HELM 14 Philosopher Street Savage River	Possession of whitebait.	50.00	15.10	
21.1.85	Leigh Lylton BLAZELY 2 Edwards Street Somerset	Possession of whitebait. Buying fish.	50.00 20.00	15.10	
21.1.85	Brett PETTINGILL 5 Fieldings Street Penguin	Fishing without licence.	100.00	15.10	
21.1.85	Kerry Clifford SUMMERS 39 Griffiths Street Burnie	More than 1 rod and line.	20.00	15.10	
21.1.85	Robert Steven FLANAGAN 3 Emma Street Zeehan	Fishing without licence.	100.00	15.10	
21.1.85	Layne Francis DELPHIN P.O. Box 28 Zeehan	Fishing without licence.	100.00	15.10	
21.1.85	Paul JULIAN 26 Agnes Street Rosebery	Fishing without licence.	100.00	15.10	
25.1.85	Marshall John PREDDY 191 Derwent Avenue Lindisfarne	More than 1 rod and line.	50.00	15.10	
25.1.85	Eric George BERRY 12 First Avenue Moonah	More than 1 rod and line.	40.00	15.10	
12.2.85	Terry John GILLESPIE 23 Francis Street Bridport	Possession of net. Take whitebait. Possession of whitebait.	20.00 50.00 50.00	15.10	
12.2.85	Wayne Russell HARDWICKE 11 Button Street Scottsdale	Fishing without licence. Falsely representing to be licensed.	100.00 50.00	15.10	
12.2.85	Phillip HAMMERSLEY Karoola	Fishing without licence.	100.00		Wholly suspended
15.2.85	Ronald Charles AUSTIN 14 Grassdale Place Ravenswood	More than 1 rod and line.	100.00	15.10	
15.2.85	Bernard James STEELE 26 Bedford Street Invermay	Fishing without licence. More than 1 rod and line.	100.00 20.00	15.10	
20.2.85	William Leslie HACK Maydena	Other than rod and line. Disturb spawning fish. Take fish from closed waters. Possession unclean fish.	100.00 80.00 120.00 50.00	44.10	740.00