

On the Rise



Volume 26 No. 3
December 1997

HEC to kick start the Fish Habitat Improvement Fund

The Hydro-Electric Corporation recently agreed to provide funding of up to \$50 000 over the next two years to support the newly established Fish Habitat Improvement Trust Fund.

One of the recommendations of Stage 1 of the Review of Inland Fisheries that was

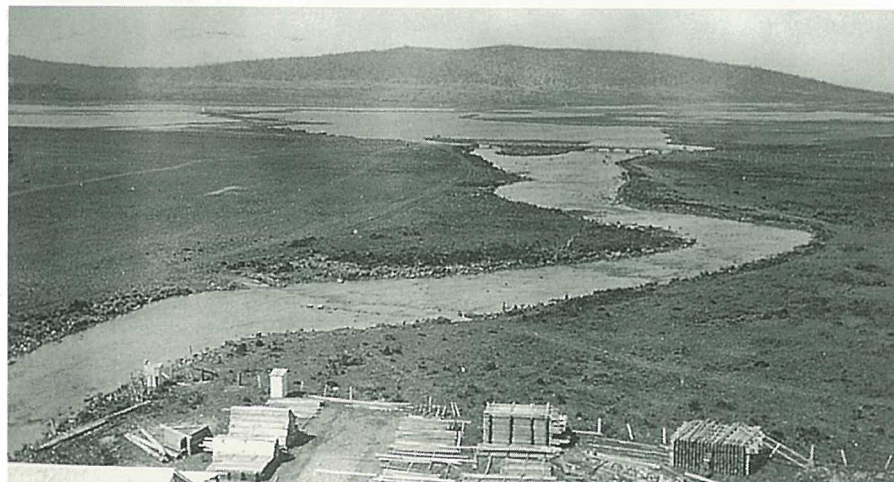
adopted as part of initial implementation proposals was the establishment of a trust fund to foster research and management projects aimed at improving freshwater fish habitat.

As outlined in the review report, the fund would be used to support community and other projects aimed specifically at

improving and restoring habitat for fish and other aquatic fauna for the purpose of improving fishing.

Projects would be selected via an open annual call and could be applied for by angling organisations, community groups and interested individuals. The Commission would also expect to apply for funding for specific projects that also fall within the guidelines.

Shannon Lagoon – could this be the first project? (Photo courtesy Don Gilmour)



Funding sources

Further financial support will be sought from various sources including corporate, government and private individuals. A levy on angling licence fees, to be added directly to the fund, will also be considered.

Donations, large and small, will be acknowledged and greatly appreciated.

Administration

The fund will be overseen by a Board of Trustees who will be advised by a Technical Committee. The Board of Trustees will be independent of Government and will be responsible for setting directions for, and

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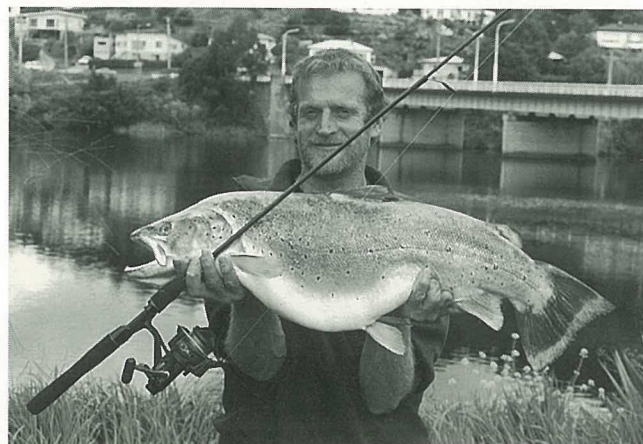
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Huon River produces another monster

When I first heard that a 20lb trout had been caught recently in the Huon River I immediately knew without a doubt who had caught it.

Larry Paul with his latest catch



Larry Paul of Huonville could justifiably describe himself as Tasmania's big fish specialist with another 20lb (it sounds bigger than 9.14kg) brown trout to add to

his collection. The fish, a superb female, was taken in the Huon River on 3 November. Remember also that the State record brown trout of 29 1/2 lb was taken by Governor Robert Hamilton in this river in 1887 not far from where Larry landed his latest fish some 110 years later.

Viv Spencer recently spoke to Larry about his fishing and put the following notes together.

Whilst most anglers would be happy with

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- IN BRIEF -

Review Stage 2 Underway

The consultants undertaking the second stage of the IFC review have commenced work. Their expected program will involve regional public consultations as well as extended focus group meetings with a cross section of IFC staff.

A draft report is expected by the end of the year and this should then be released for public comment.

End of an Era

As announced in *On the Rise 25(3)*, the Commission is moving to new premises in Lampton Avenue, Derwent Park.

We have occupied the Davey Street site since 1967 and even for the longest serving head office based staff members Kevin Petterwood and Wayne Fulton (both 25 years) the Commission has always been "up Davey Street opposite the Aberfeldy". It will certainly be a change, and, with the need for new facilities, a welcome change.

The new offices will offer the scope for expanded activities and will be far more easily accessible to the public. It is doubtful that many tears will be shed.

Little Pine Lagoon Fishery Management Committee

The committee is currently working on several issues as it progresses towards the drafting of the management plan.

Not surprisingly, most of the important issues are not of a biological nature but are focussed on water level management and angler etiquette.

For the committee to tackle these issues each problem needs to be clearly defined and possible solutions identified. Soon, a questionnaire on the issues and the solutions will be circulated to interested anglers. This information will form a sound basis for the committee to recommend appropriate remedies to the Inland Fisheries Commission.

The committee is also currently:

- initiating discussions with the Hydro-Electric Corporation about water level management for future seasons;
- drafting a "Code of Etiquette" for anglers;
- planning for lakeside notice boards with information on angling etiquette;
- preparing the first newsletter about the process for circulation.

The committee would also like to see more volunteers to participate in the creel survey at the lagoon during the period mid-December 1997 and January 1998. If you are interested, please contact Phil Potter at Liawenee on (03) 6259 8166 or Noel Wilson in Hobart on (03) 6223 6622.

Curries/Lauriston Tagged Fish

The news is that all of the 15 tagged fish released in these two waters have now been caught and the prizes claimed.

The tagged fish have created a lot of interest in the area and their recapture just goes to show that tagged fish can be caught.

The Commission just hopes that one of the major competition fish with the \$1000 plus price tag on them will eventually be caught.

Four Springs – the dream approaches reality

This long running project moves ever close to reality as a small number of fish were recently released to take advantage of the rising water level.

The water is only about 1m from full, although it is not likely to get much higher this year.

Further trout releases will be made this summer with the intention to open the water for fishing in 1999.

Cliff Oliver, Tim Ferrier and Noel Green releasing the first fish into Four Springs



Freshwater Crayfish capture to be prohibited

A press release from the Minister for Environment and Land Management on 27 November 1997 explains the situation.

The Minister for Environment and Land Management, Mr Peter Hodgman, today announced the giant freshwater crayfish would be wholly protected from January 1, 1998.

Mr Hodgman said efforts over the past four years to aid the recovery of *Astacopsis gouldi* by reducing catch numbers had proven unsuccessful and that the complete closure of the fishery was necessary to secure the future of the species.

Astacopsis gouldi is listed as vulnerable under both the Tasmanian Threatened Species Legislation and the National Endangered Species Act.

A 1993 review by the Inland Fisheries Commission recommended the daily allowable catch be reduced from 12 crayfish to three male crayfish.

However, recent studies have shown the population is still declining in many

waters and, in two catchments, researchers were unable to locate any male crayfish which had reached the legal catch size.

Fishing pressure and habitat disturbance are pinpointed as the principal threatening processes affecting the giant freshwater crayfish, which is only found in rivers in the north of Tasmania.

There are now real concerns about the future of this crayfish, which was once widely distributed across the State's north, Mr Hodgman said.

The Parks and Wildlife Service's Threatened Species Unit and the Inland Fisheries Commission have been monitoring the population and it is now clear that the

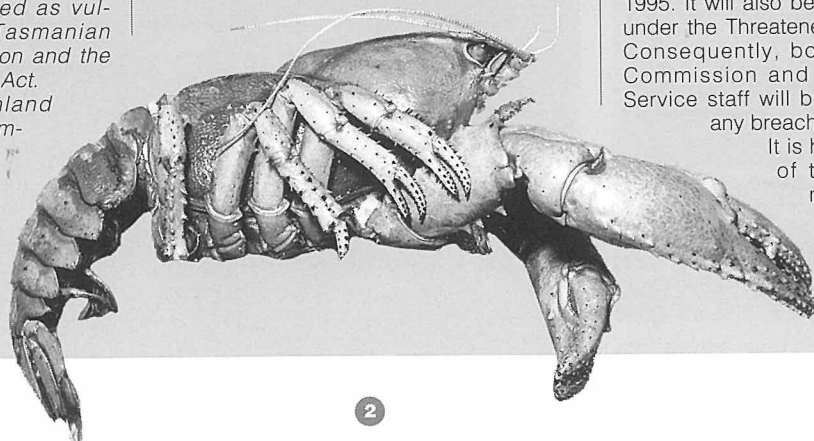
only way to responsibly manage this unique species is to wholly protect it by law.

From January 1 it will be illegal to take the crayfish anywhere in Tasmania, and any current freshwater fishing licence or licence issued after December 31 this year will not permit the taking of *Astacopsis gouldi*.

As indicated, the closure will apply from 1 January 1998 and will apply to persons taking crayfish with or without an angling licence.

To effect the closure, *Astacopsis gouldi* will be declared a "Protected Fish" under Section 131(1) of the Inland Fisheries Act 1995. It will also be subject to protection under the Threatened Species Act 1995. Consequently, both Inland Fisheries Commission and Parks and Wildlife Service staff will be on the look out for any breaches.

It is hoped that the effects of the closure can be monitored by IFC staff to follow the progress of this species.



'Catch and release' fishing

The choice of whether to keep or release fish is entirely up to the individual angler having regard for the rules of each water. If you do decide to release fish, then the following hints may help increase the survival rate of the fish. After all, there is little point in releasing a fish if it is going to die through the efforts of capture or poor handling.

The benefits of releasing fish alive are being widely recognised. Released fish can live to be caught at a larger size, and they can continue to spawn, improving populations in the longer term.

With proper care and attention most fish can survive catch and release. A few important points need to be considered.

Surviving the hook wound

The site and severity of the hook wound obviously plays an important part in whether or not the fish will survive.

Fish hooked in the gills or gut are less likely to survive than those hooked less deeply.

However, even deeply hooked fish can survive if the line is cut and the hook left in place. The hook will rust away quite rapidly with no apparent damage to the fish in most cases.

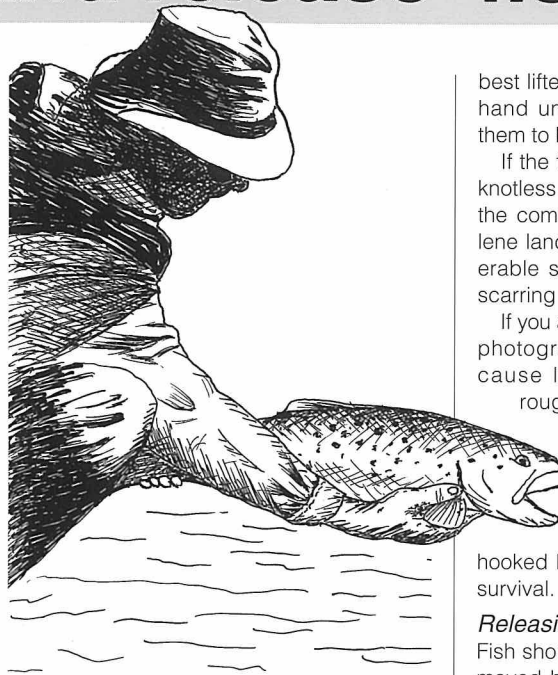
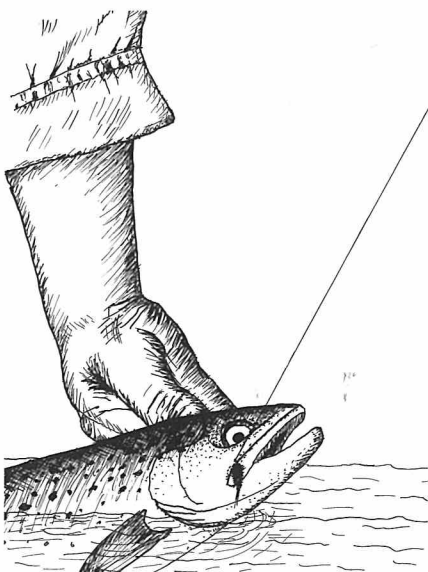
Removing the hook has been shown to dramatically reduce the chances of a fish surviving.

Surviving catching & handling

Fish become stressed as a result of capture and handling. This stress is known to upset their blood chemistry. It causes an increase in the production of stress related hormones, a build-up of lactic acid, and a change in the concentration of haemoglobin, glucose and salts.

The result can be death, either immediately or later.

As stress takes time to occur and its effects are cumulative, it can be reduced by



catching and releasing fish quickly, and handling them as little as possible.

If heavy tackle is used, fish are less likely to become exhausted before they are landed and released.

One of the major effects of stress is a reduction in the normal resistance to infectious disease. Fungal and bacterial infections are probably a common cause of death after release.

Rough handling will increase the amount of damage done to a fish and create a greater chance of infection.

As a fish's skin is particularly prone to injury, handling that causes a loss of scales and damage to the skin mucus producing cells should be avoided.

Increasing the survival rates of released fish

The following guidelines may help anglers to successfully release fish alive.

Hooking and landing

Bring the fish in as quickly as possible but make sure it is not in such a lively state that it will damage itself during landing or release.

A fish exhausted by a long fight on light tackle may suffer greater stress than a fish caught on heavy tackle and may be less able to survive.

Flattening the barbs on hooks or using single instead of treble hooks on lures will make unhooking of fish easier. (Barbless hooks are also easier to remove from hooked anglers.)

Avoid lifting the fish out of the water if possible and unhook and release it quickly.

A hook disgorger may be useful for removing hooks from the throat, but do not try and remove a hook from the gills or gut. Cut the line and leave the hook in place. The few cents a hook costs isn't worth killing a fish for.

If the fish has to be landed, it may be

best lifted out of the water by a wet hand. A hand under the body of a fish may allow them to be landed without damage.

If the fish has to be netted, a net made of knotless mesh will cause less damage than the commonly available knotted polypropylene landing nets, which can cause considerable skin damage and can blind fish by scarring the eye.

If you are putting a fish down to measure or photograph it, a smooth wet surface will cause less damage to the skin than a rough dry surface. Covering the fish's eyes can help settle it down.

If you wish to keep a few fish, try to keep those that are bleeding from the gills or hooked in the gut. Release those that are hooked lightly and have the best chance of survival.

Releasing

Fish should be held upright in the water and moved backwards and forwards for a short time to allow them to regain equilibrium before release.

Avoid releasing the fish into warm shallow water of lakes if deeper cooler water is available.

Unfortunately, even when fish are released with great care and skill there is still some risk of killing them. However, by following the simple steps as outlined, these risks can be reduced.

If you wish to kiss your fish prior to release, that is entirely an individual decision.

The article has been prepared by Inland Fisheries Commission inspector, John Dowling, and is based on NSW Fisheries Fishnote DF27 - "Catch and Release Fishing". It is reproduced courtesy of Bill Talbot, Recreational Fisheries Manager, New South Wales Fisheries.

Illustrations by David Crook.

HEC Fund contribution

...continued from front page

final approval of projects, as well as encouraging public support for the Fund.

The Technical Committee will consist of persons capable of reviewing projects and assessing their relative merits before making recommendations to the Board.

It is anticipated that the Trust Fund will be set up as a charitable fund such that any donations can be tax deductible. This process is now being pursued by the Commission.

Further advice is being sought regarding the formal structure of the fund and this will be made public in due course.

This is a positive move to direct funding to specific projects aimed at improving fish habitat and ultimately our fisheries.

Lake Sorell

Just three or four seasons ago Lake Sorell was fishing as well as any lake in the State but, as it has been prone to do in the past, this water is not producing the quality of fish that it has done.

The Commission is not certain of the reason and many people have their own pet theories. The fact is we have little detailed information on the structure of

the fish population in this water or the processes that influence it, such as recruitment levels.

Within our limited resources a series of research projects are being undertaken to address a number of important issues and the following articles report on, or update, this work.

Just how many brown trout are in Lake Sorell?

by Stuart Chilcott, Scientific Officer, and Robert Freeman, Technical Officer, Recreational Fisheries

One question that anglers often ask is, how many trout are in that lake? Well, that is exactly what we wanted to find out for Lake Sorell – how many brown trout there are? More importantly, the Commission also needed this information to see if the poor catch rates reported at Lake Sorell were due to a low number of fish in the lake.

To answer this question we used a mark-recapture method, commonly known as the Petersen Method, to estimate the number of trout in the lake. Mark-recapture methods are commonly used in fisheries and wildlife management and there are a number of variations on the basic method to cover many different situations when it is important to know the size of a population.

For several reasons the fishery at Lake Sorell is a good example of a simple system well suited for this exercise:

- the fish are more or less contained within the one area with negligible movement in or out of the lake;
- the spawning run enables a large number of fish to be easily trapped and marked;
- after several weeks all the fish return to the lake and mix with the non-spawning proportion of the population.

Even though the Lake Sorell fishery may be a simple system there are still many important assumptions that should not be violated. The more complicated the estimation method, the more assumptions that generally need to be made.

Some of the assumptions made in this exercise are:

- there is no mortality associated with the marking procedure;
- marks are not lost before recapture;
- the marked fish and unmarked fish mix evenly;
- the catchability of marked fish is the same as unmarked fish;
- the re-capture method is unbiased, and captures fish of a similar size range to the marked fish.

If any of these assumptions are violated then the estimate can be biased and inaccurate.

Stage One: The Marking of the Fish – Fin Clipping

The focus of our marking activities was Mountain Creek, the primary spawning stream for trout at Lake Sorell. Minor spawn-



Kingborough Anglers Club members Grant Hinchcliffe and Scott Marsden assisting at Mountain Creek

ing runs also occur in Silver Plains Creek and Dogs Head Creek. The first run of brown trout occurred before a fish trap could be installed in the lowest reach of Mountain Creek. These fish dispersed over almost 600 m of the creek, from the mouth to the small weir which prevents passage of fish further upstream. By using two block nets and a pocket net these fish were systematically rounded up and processed. During the frantic days between the 13-20 May 1997 this first run of fish were all fin-clipped; 5 039 in all.

Once installed, the fish trap enabled us to capture unclipped upstream and downstream migrants (fish that were missed during the initial marking effort). Another 5 374 fish were clipped during the remainder of the run, from 16 May 1997 to 14 August 1997. This meant that almost the entire spawning run in Mountain Creek was fin-clipped – a total of 10 413 fish. A small run of 493 fish at Silver Plains Creek was also fin-clipped. Overall, a grand total of **10 906** fish was fin-clipped during this initial phase of the exercise. Knowing the total number of

fin-clipped fish is essential for the calculation of the population estimate.

The fish were marked by removing the adipose fin – a small fleshy fin situated dorsally near the tail fin. This clip provides a clear mark that is more or less permanent and cannot be mistaken.

No doubt anglers will catch and notice these marked fish during this season and probably many seasons to come.

Stage Two: Re-capturing the Fish

This stage did not start until all the fish had returned to the lake and had spread evenly around the lake. After this period we are assuming that the proportion of marked fish to unmarked fish is more-or-less the same at any given location in the lake.

The fish were recaptured during an intensive netting survey in mid-August 1997. A number of nets were set over five days by four teams consisting of two persons per team. The nets were set in a variety of locations and after a suitable period of time were moved to fresh locations. The aim of

the survey was to capture as many fish as possible, record marks, and to release them unharmed back into the lake.

A total of 900 fish were captured made up of 787 brown trout and 113 rainbow trout. Of the brown trout, 703 fish were unmarked whilst 84 fish possessed adipose fin clips. Therefore, expressed as a percentage, the ratio of marked brown trout to unmarked brown trout is 11.9%.

The Estimate of Population Size (Petersen estimate)

The method we used to estimate the size of the population is called the Petersen estimate.

The Petersen estimate is calculated using the equation below:

$$N = \frac{MC}{R}$$

where: N = Petersen estimate;
M = number of marked fish;
C = number of fish captures;
R = number of marked recaptures.

Thus, for our estimate at Lake Sorell we have:

$$N = \frac{(10\ 906 \times 787)}{84}$$

$$= 102\ 179$$

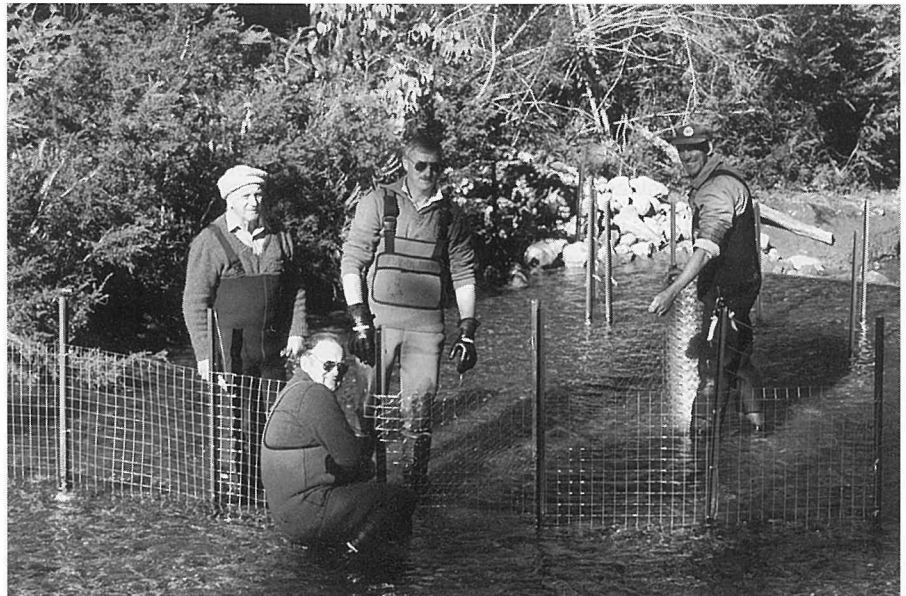
A 95% confidence limit of 20 600 applies to this calculation. This is a mathematical expression which gives us an indication of the range of values within which the estimate may actually be. For Lake Sorell, we can say that we are 95% certain (statistically speaking) the estimate for the size of the population lies between 81 600 and 122 800.

Now we have to recognise that there are a number of limitations of the methods used to derive this estimate.

Firstly, the fish were captured using different methods. During the marking stage fish were collected with pocket nets, scoop nets, electrofishing or were trapped in a fish trap at the lower end of Mountain Creek. Primarily, we were trapping spawning fish. During the recapture stage, fish were collected with gill nets of a variety of mesh sizes. We are assuming that the different methods used for each capture stage would sample the same size fish. Although this is unlikely to be strictly true, any bias is probably minimal.

The estimate does not take into account

The Mountain Creek trap (with fish)



Bob Ward, Ray Aitchison, Bernard Creed and Trevor Sutton erecting a temporary fish trap in Mountain Creek

young trout – young of the year trout (fry), yearling trout and a proportion of two year olds. This is because fish of this age have not reached sexual maturity and, consequently, do not take part in the spawning run. Hence, these fish were not marked and our recapture method also essentially does not catch them (with the exception of two year old fish). Young fish of these ages are generally much more abundant than fish of older ages and it could be expected that these age classes could potentially dominate the population. However, even though they may dominate the population, anglers are generally unaware of these fish because they do not form a major part of the “catchable” portion of the population.

Our estimate applies only to the catchable portion of the population and does not include young fish. Consequently, a more comprehensive estimate would include these young fish. Therefore, our estimate of the “catchable” portion of the population (which lies in the range 81 600 – 122 800) is an underestimate of the total number of brown trout in Lake Sorell. No doubt we can add several tens of thousands more fry and yearlings to this estimate. For example, the population will increase rapidly at this time as the annual fry migration into the lake from Mountain Creek takes place.

Future Work

Having now estimated the number of brown trout in Lake Sorell in August 1997 a number of other questions remain:

- does the number of brown trout vary significantly from year to year?
- if so, why? – is the variability driven by factors influencing recruitment?
- how do recruitment pulses or recruitment failures influence the performance of the fishery?
- what influence does the number of fish have on the size structure of trout in the lake?
- what does the number of fish in the population actually mean to your catches over a year?
- can we put this population estimate into context for Lake Sorell and other waters across the State?

Most of these questions are quite significant and the answers will no doubt provide a sound basis for understanding the Lake Sorell fishery. However, most of these questions require a long-term commitment of resources so that changes in population parameters (eg recruitment and fish numbers, etc) can be tracked over time. The Commission hopes to examine all these questions but it will take several years to provide the answers.

Many Thanks

We would like to thank a hard working group of anglers that helped erect the fish trap at Mountain Creek and assisted in the fin-clipping of the trout. They provided invaluable assistance in difficult conditions and their support is much appreciated.

Bridgewater Anglers Association

Bernard Creed	Trevor Dingle
Frank Johnston	Trevor Sutton
Terry Byard	Bob Ward
Barry Sheriff	Ray Aitchison

New Norfolk Licensed Anglers Association

John Aitchison	Ray Aitchison
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Kingborough Anglers Association

Ian Shaw	Keith Wilkinson
Grant Hinchcliffe	Scott Marsden

Non-club members

Chris Amos	Michael Terry
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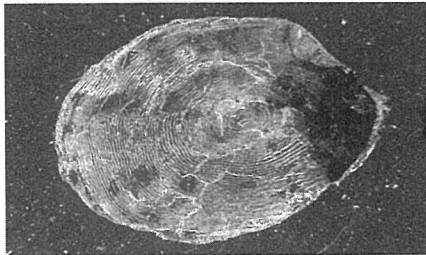
Ageing study of brown trout from Lake Sorell

by Stuart Chilcott, Scientific Officer, Recreational Fisheries

In many freshwater fisheries, the age of fish is generally determined by examining scales. This is particularly the case for brown and rainbow trout. However, scales have several limitations which can lead to errors in age estimates.

The main limitations are:

- erosion of scale edges;
- annual marks can be absent or ambiguous;
- additional non-annual marks may occur.



A scale from the 13 year old fish

In Tasmania, trout have been routinely aged by the examination of scales. However, the problem of significant numbers of brown trout in poor condition at Lake Sorell prompted a different approach to the traditional method of ageing. We speculated that many of these poor conditioned fish may be very old trout that are nearing the end of their life. However, because of the limitations of scale ageing techniques once the fish are older than five years, we would be unable to determine the true ages of these fish with any confidence.

Consequently, we turned to another ageing technique using another part of the fish – the otolith. Otoliths are basically the ear bones of fish which occur in pairs and are found one on each side of the brain. For trout the largest otolith is about 3mm in size

in a 550mm trout. The size of the otolith increases proportionally with the size of the fish. The internal structure of otoliths is similar to tree rings, with fast summer growth and slower winter growth observed in successive rings or annuli. By counting the number of rings we can determine the age of the fish.

Although otoliths are relatively small, most have to be prepared in some way to make the internal structure visible. A popular method is to cut the otolith into small slices, thin enough for light to pass through. The slices are then placed under a microscope and examined.

Earlier this year six otoliths from brown trout, Lake Sorell, were sent to the Central Aging Facility at Queenscliff, Victoria – a facility which conducts a great deal of ageing work for fisheries agencies around Australia. The aim was to have the otoliths prepared, examined and read.

The results are detailed below:

FISH LENGTH (mm)	AGE (YEARS)
460	7
507	9
515	13*
537	8*
548	7
548	7

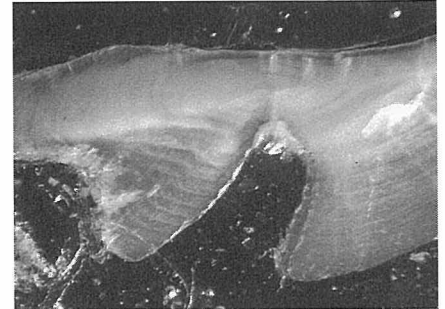
* = otoliths are pictured

The otolith section pictured below is about 3mm across its widest part and was



taken from a trout 537mm long. The fish is estimated to be eight years old.

An image of the otolith from the oldest fish is shown below. This fish was 515mm in length and is 13 years old. This means the fish originated from the 1984 spawning run, presumably from Lake Sorell. The annuli are relatively clear, except towards the centre of the otolith.



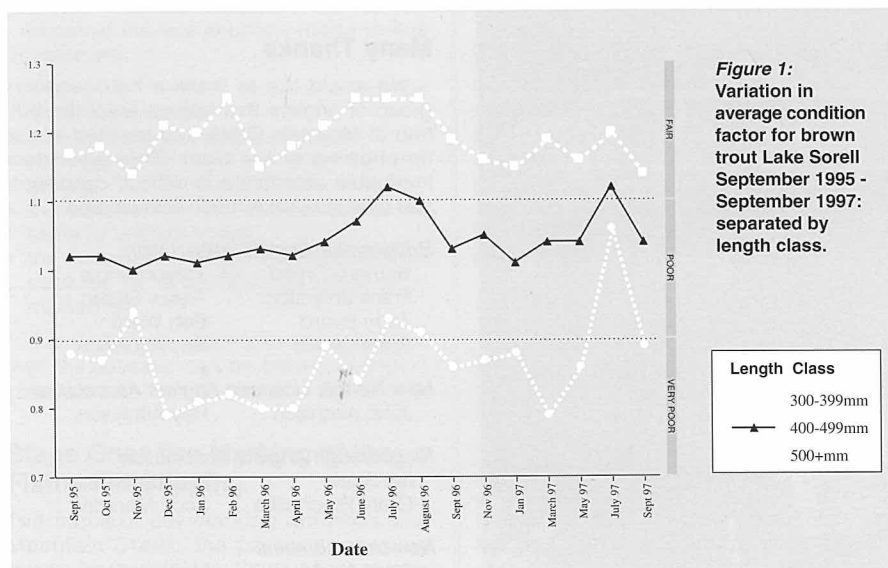
In otoliths, light and dark bands represent annual growth

We will soon be sending a large batch of otoliths from a sample of trout from Lake Sorell to the Central Aging Facility. This should provide some insight into the actual age structure of the trout population. It will also permit the examination of any relationship that may exist between age and body condition.

Previous reports in the newsletters have given average condition factors for three size groups but examining body condition and length in isolation can be misleading. For example, sometimes older fish are present at similar lengths to younger fish and it may be that it is just the older fish at these lengths that are showing poor body condition and not the young fish. It is hoped the detailed ageing results will enable us to determine this with some certainty.

Condition of brown trout in Lake Sorell

by Rob Freeman, Technical Officer, Recreational Fisheries



Since reports of poor condition fish during the 1994/95 season the IFC has monitored the condition of brown trout in Lake Sorell.

Electrofishing surveys were carried out initially every month but later every two months. For each survey around 100 brown trout were weighed, measured, sexed and scale sampled. Over the entire sampling period, a total of 1 992 fish have been examined. Data collected have been summarised and expressed as a condition factor based on the length and weight of individual fish (Refer Newsletter Vol 23 (1) May 1994).

The graph shows the condition factor for three different size classes of brown trout from Lake Sorell collected during the period September 1995 to September 1997. In general all trout have remained in fair to poor/very poor condition over the two years of sampling.

Older, larger fish (500+mm) vary in condition from poor to very poor with peaks in condition factor during July 1996 and July 1997. These peaks are associated with an

Carp Update – November 1997

by John Diggie, Scientific Officer, Carp Management

Radio Tracking

The radio tracking of carp is continuing as an aid in the targeted reduction of the adult carp population in Lake Crescent. So far this spring 223 adults have been captured, and although the fish have not been aggregating, the tracker fish have still enabled the team to successfully target the habitat carp prefer at this time of year.

A dedicated netting boat was recently purchased to compliment the radio tracking and carp removal work. The boat is an six metre twin hull manufactured to our requirements by local boat builder, Tri-Star Marine. The boat will be used to set and retrieve 500m nets, with the aim of encircling tracker fish and removing the other carp that have schooled with them.

Following the success of the radio tracking program in Lake Crescent, ten carp, implanted with radio transmitters, were recently released into Lake Sorell. The carp, which are all males, were released at selected sites around Lake Sorell and will be tracked intensively over the coming weeks. The aim of this project is to locate and



The new netting boat in action on Lake Crescent

increase in weight due to gonad development at spawning time. Troughs in the condition factor during the late summer period of 1996 and spring/summer period of 1996-97 suggest that these older fish fail to recover very well after spawning.

The condition of fish in the 400-499mm size class has remained fairly constant throughout the entire sampling period. In general these fish continue to be of poor condition except during the spawning period when gonad development reaches its peak. Like the older fish (500+mm) this size class also shows a tendency not to recover well from the rigours of spawning.

Smaller, younger fish (300-399mm class) are in fair condition and have remained so throughout the entire sampling period. As this size class contains both mature and juvenile individuals, the variation in condition in July due to gonad development is to some extent masked by the non-reproductive fish. However, the general trend is similar to that of older, larger fish.

The table below summarises the condition factor for brown trout sampled in Mountain Creek during the 1997 spawning run. This information almost mirrors the condition of fish in the lake proper for all three size classes during the July 1997 electrofishing

remove if possible, what we suspect is a small adult carp population in Sorell, before it becomes well established.

Rotenone Consultancy

Prentiss Inc consultant, Jim Fajt, is still assessing the feasibility of the poisoning eradication option and preparing his report. It is expected that the report will be finalised sometime in the next two months.

Water Level Management

The levels of lakes Sorell and Crescent, are being managed in accordance with the water management plan developed by the HEC, for the carp management program.

The level in Lake Crescent is at the target level for this time of the year and should greatly assist efforts to limit carp spawning success and assist carp captures. The level in Lake Sorell is falling steadily due to a combination of evaporation and the small release for downstream domestic and irrigation requirements. If there is no significant rainfall input over the coming months then it is likely that Lake Sorell will fall to quite a low level by the end of the season. Anglers should use caution whilst boating in Sorell for the rest of the season as reefs and other hazards will become shallower and more likely to be "encountered".

Present levels – Sorell approx 803.87m AHD, Crescent approx 802.8m AHD.

Enforcement

Enforcement officers have recently apprehended an offender illegally netting in Lake Crescent. This type of activity is of great

sample, when gonad development is at a peak. This clearly confirms the effect of gonad development on the condition factor of brown trout and supports the results collected from electrofishing surveys.

AVERAGE CONDITION FACTOR FOR BROWN TROUT SPAWNERS IN MOUNTAIN CREEK, LAKE SORELL 1977

Size Class	Average Condition Factor
less than 399mm	1.2
400 – 499mm	1.1
greater than 500mm	1.1

The underlying message is that while brown trout show a detectable increase in condition factor with the on-set of spawning, they fail to recover well during the prime feeding period of spring and summer. Fish have therefore remained in generally poor condition.

Anglers can say we know all that, the question is why are these fish in generally poor condition compared to Lake Sorell fish of five years ago or compared to other lakes? We hope that the work being done at Lake Sorell will answer this question in the near future.

concern due to the risk of carp capture and transfer. Given that it is suspected that others may have also been involved in this type of activity, it confirms the need for a continued active enforcement presence in the area. The Commission will continue to police the Lake Crescent closure in order to ensure containment of carp within this system.

Another worrying report is the use of live fish bait, particularly redfin perch, in the upper Clyde River and Lake Crescent. Redfin could have a disastrous impact on the endemic golden galaxias and seriously impact on the trout fishery in both Sorell and Crescent. It is in the interests of all anglers and nature enthusiasts that any such activity is prevented and discouraged. From the Commission's point of view transferring fish is an extremely serious offence and any offender will be prosecuted to the full extent of the Fisheries Act.

Life History

The adult carp that have been captured in Lake Crescent over the winter/spring seasons have continued to show an increase in maturity, with nearly all males and females now capable of spawning. This increases the urgency to capture adults and manage water levels to limit recruitment this season.

Present Survey Work

Intensive surveys using fyke nets and backpack electrofishing recommenced in October, searching particularly for juvenile carp in Lake Sorell. These surveys have so far produced two juvenile carp which we suspect are the young from a spawning in the summer of 1995-96. This is the first evidence of successful carp spawning in Lake Sorell and, considering that suitable lake levels and temperatures existed last summer, there is probably another size class from 1996-97 yet to be found.

In order to increase survey effort in Lake Sorell, a commercial eel fisherman has been permitted to fish sites in likely carp habitat, on a one month trial basis. The Commission selects the sites to be fished and will obtain detailed information on catch and effort. The data collected by the eel fisherman will provide important information on the carp and eel populations in Lake Sorell. It will also free up IFC resources for important downstream distribution surveys. In the first week of the trial the eel fisherman captured three juvenile carp similar in size to those captured earlier.

The aim for both lakes will be to continue to remove adult carp using radio tracking in conjunction with netting, and monitor and remove the juveniles as they develop.

Distribution Surveys

Downstream surveys will be conducted this season between November and April, targeting juvenile carp. These surveys will be undertaken using the increased number of fyke and small mesh gill nets, the electrofishing boat and backpack electrofishing. Survey activities will concentrate on Weasel Plains Dam, Lake Meadowbank, the Clyde River and Edgell's dam on "Dennistoun".

The Commission remains optimistic that carp have not established outside of lakes Sorell and Crescent.

Rainbow Trout spawning runs 1997

Details of combined male/female samples from various sites are given below. In general the average size of fish was similar to 1996.

PENSTOCK LAGOON – 10 OCTOBER 1997

Despite low flows in the spawning canal at Penstock Lagoon, a reasonable number of rainbows managed to successfully spawn.

56 fish sampled

Average length (mm)	482
Range of length (mm)	390 - 545
Average weight (g)	1 334
Range of weight (g)	750 - 1 750

GREAT LAKE – 23 SEPTEMBER 1997

The condition of rainbows from Liawenee Canal, Great Lake was very good with the total number of spawners similar to previous years.

220 fish sampled

Average length (mm)	473
Range of length (mm)	400 - 550
Average weight (g)	1 177
Range of weight (g)	720 - 1 850

LAGOON OF ISLANDS – 13 AUGUST 1997

The spawning run at Lagoon of Islands was very encouraging with a good number of excellent condition rainbows present.

134 fish sampled

Average length (mm)	567
Range of length (mm)	370 - 730
Average weight (g)	2 550
Range of weight (g)	650 - 4 825

LAKE SORELL – 17 SEPTEMBER 1997

The spawning run at Lake Sorell was very poor with less than an estimated 100 fish present, this was well down on 1996 spawning run.

39 fish sampled

Average length (mm)	464
Range of length (mm)	295 - 578
Average weight (g)	1 080
Range of weight (g)	310 - 1 700

Huon monster

...continued from front page

just one fish of this size in their lifetime, Larry has now taken 29 brown trout in excess of 10lb from the Huon River plus one 17lb brown from Lake Crescent.

Larry usually goes down to the Huon River in the evening and if he doesn't catch anything within two hours he returns home but often goes back to the river at 2.00am and fishes until dawn.

Most of his big fish have been caught using the native freshwater flathead (also known as sandies or pike) as bait. He has caught one 10lb and one 12lb fish on lures.

It hasn't all been straight sailing; he has also lost quite a few large fish like the one that took his sinker which lodged crossways in the corner of its mouth and stayed there until Larry got it beside the bank. Then there

Trout Fishery of Tasmania

Volume 2 1910-1950

by Don Gilmour

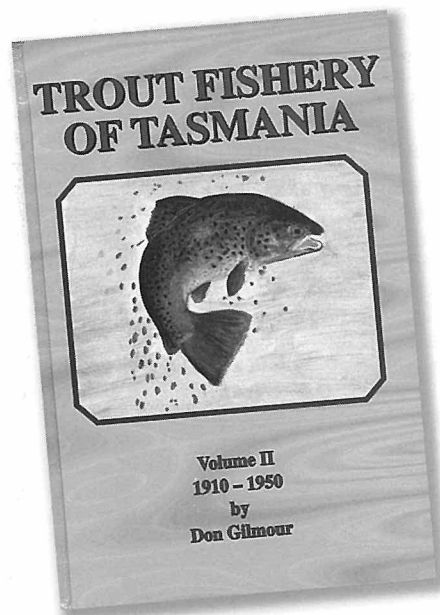
Heritage Edition – Boxed, gold embossed signed and numbered\$95
 Popular Edition – Hard cover\$45
 Available from Museum of Trout Fishing

Don Gilmour has recently released the second of a three volume series on the history of Tasmanian fishing.

The author does not present the book as the definitive and detailed history of our sport but more an enjoyable series of stories relating to many of our great fisheries of the period.

Fisheries such as Shannon, Penstock, Great Lake and Lake Leake to name a few are covered.

This volume is just as interesting as the first and again is beautifully presented.



Trout Angler's Tasmania 1998 Calendar

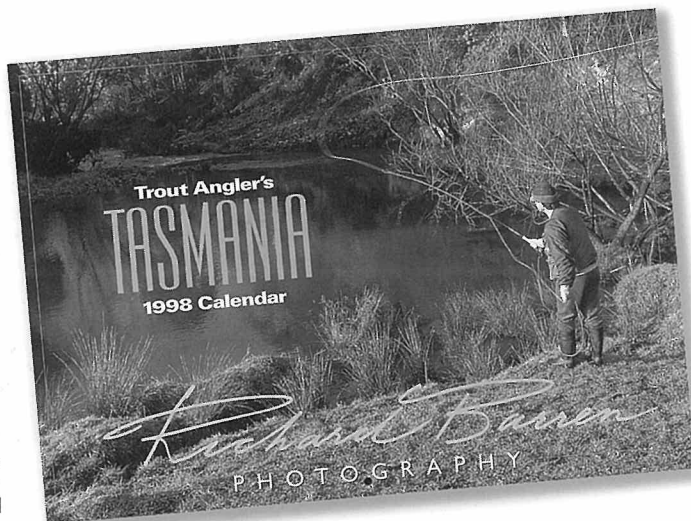
by Richard Barren

Richard Barren has done a superb job in producing his first angling calendar.

It has a separate page for each month accompanied by angling photographs and fishing notes. General notes on angling throughout the season are included and contact details for accommodation, trout guides, angling clubs and licence selling agents are also included.

The calendar is beautifully presented and Richard, a photographer by profession, hopes to make it an annual production.

Another fine Tasmanian production available from the Museum of Trout Fishing as a



Christmas special for \$20 including postage. You can also get it from many other tackle stores and book shops.

was the one he fought for half an hour and when he got it to the bank the handle broke on his new landing net, tipping the fish back and pulling the hook out at the same time.

Larry has a number of these monster trout mounted as a testimony to the superb fishing to be had in the Huon River which, in his opinion is fishing just as well as it did 20 years ago, the only difference being that there is now more competition.

He tells me he has just taken on fly fishing but believes his old method of using pike as bait is the way to fool the big ones.

In any case, one of the local store keepers told him if he caught a fish over 20lb he would give him a Shimano bait casting reel, so I suspect he will now still do a fair amount of bait fishing.

So if you see someone wearing a red freezer suit fishing the Huon River in a white frost just on daylight one winter's morning, don't laugh, because this man has caught more trophy fish than most anglers would dream of.



Just a couple of Larry's previous fish (photo Viv Spencer)