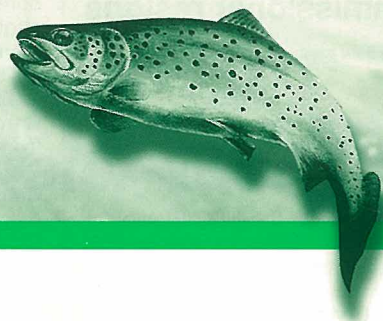


On the Rise



Volume 27 No. 1
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Commissioner resigns

Commissioner Wayne Fulton announced his resignation from the Inland Fisheries Commission in late June this year.

Wayne served with the Commission for 28 years, and was Commissioner for the last six years. Most of Wayne's early background was focussed on research of native fish and the benthic invertebrate communities of highland lakes. Wayne was also instrumental in expanding our knowledge of Tasmania's native fish and obtaining grants to assist with the management of our endangered fish species. As Commissioner, Wayne's attention turned more to the management of inland recreational fisheries such as the trout and whitebait fisheries and more recently the commercial fisheries. He was also responsible for procuring funding for the carp management program, developing opportunities for commercial freshwater

fisheries and identifying the need for a review of the Commission. Wayne also established the Museum of Trout Fishing at the Salmon Ponds, an achievement that he was extremely proud of.

I know that both staff and the angling community certainly appreciate Wayne's contribution to the Commission and angling during his sterling service and wish him well for the future.

Other staff changes

Dr Andrew Sanger (Senior Scientific Officer) resigned from the Commission in late 1997 after 10 years of service to take up a position with New South Wales Fisheries. Andrew will be

largely responsible for the management of fisheries in inland waters including the trout fishery across the State. No doubt he will put much of his valuable experience and knowledge gained at the Commission to good use in New South Wales.

David Crook resigned from his position in the Native Fish Conservation Section at the Commission to undertake a Ph.D that will examine the importance of snags (ie woody debris) to fish in mainland waters. David made a fine contribution to native fish conservation in Tasmania during his time at the Commission. Dr Jean Jackson has joined the Commission to lead the Native Fish

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Cleary retires

John Cleary started angling when he was a kid at Meander where his father taught at the school. Young John fished irrigation ditches after school, and later went on trips up to the Great Lake with his father and uncle.

He mainly fished rivers until recent years and caught his first bag in an afternoon at

the Coal River when grasshoppers were around, and long before Craigbourne Dam was built.

In recent years he has turned to lakes, with Lake Pedder being a favourite. John would take his boat to a remote corner, and absorbed in his sport it was a great counter-balance to

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Interim management arrangements

The resignation of Commissioner Wayne Fulton and the possible implementation of the recommendations arising from the review of Inland Fisheries has necessitated some interim management arrangements for the Commission.

Mr Greg McCrossen, General Manager, Corporate Support Division, Department of Environment and Land Management (DELM), has been appointed Commissioner and Mr Rod Hayes, Human Resources Manager (DELM), has been appointed Manager. Greg will fulfill the statutory requirements of the Commission in a part-time capacity whilst Rod will be managing the day to

day business of the Commission. Both Greg and Rod have a strong background in management which will be an asset for the Commission in the coming months. These arrangements will remain in place until the recommendations of the review are implemented.

Although Greg and Rod are probably not going to challenge the members of the Australian World Fly Fishing Team for a place at the championships in Poland, they are keen to learn and develop their fishing skills. So if you see two unlikely characters either tangled up in fly line or frothing the water with their casting you can probably guess who they could be!

IFC Commissioner resigns

...continued from front page

Conservation Section. Jean has a fine background in aquatic conservation and is well acquainted with the challenges facing the State's native fish.

The team leader of the HEC Biological Consultancy, David Bluhdorn, has left the Commission after three and a half years to join Environmental Services at the HEC. In his time at the Commission, David has been active in pursuing freshwater environmental issues relevant to both the State's anglers and the HEC. The service provided by the HEC Biological Consultancy to the HEC is

considered extremely important by both anglers and the Commission. An appointment to the vacant team leader's position will be announced in the near future.

Tim Farrell, a Technical Officer with the Carp Management Section also resigned from his position to chase bone fish in Central America. Tim started with the Commission as a volunteer before gaining employment on the carp program. Chris Cleary recently joined the Commission to fill the vacancy on the program.

Sharon Gadowski and Ann Christian recently joined the Commission's Administration Section after the departure of Paddy McLaughlan. Paddy was at the Commission for six years and was often the first point of contact for the public.

Cleary retires

...continued from page one

political life. However, on a couple of occasions he has been called away urgently from angling to attend to political matters.

John has served six and a half years as Minister for Inland Fisheries, and even took the portfolio with him when he became Minister for Energy and Transport.

"I became aware that, while Tasmania was a great example of a wild trout fishery, a number of things had to be changed. Environmental problems in the form of algal bloom in the Lagoon of Islands, camping problems at Silver Plains at Lake Sorell and water quality problems in several places. The discovery of carp in Lake Crescent was the final straw and brought home to all anglers just how fragile our fishery really is," John Cleary said.

"It was necessary to move with the angling community to develop plans for the future, and the response was to establish and complete Stage 1 of the Review into Inland Fisheries in late 1996. This stage recommended varying bag limits, and different management regimes for different waters," he said.

"The second stage of the review process recently completed looked at the administration of fishing in the State that had been the province of Inland Fisheries Commission. A major recommendation calls for the setting up of a Freshwater Fisheries Service with a Freshwater Recreational Fisheries Council to which Nigel Forteath has been invited to chair.

The Freshwater Fisheries Service will be set up once the appropriate legislation has been passed. Together with the Freshwater Recreational Fishing Council, the Service will forge a new management era. The new arrangements will give anglers more ownership and they have been fully endorsed by the Freshwater Anglers Council of Tasmania (FACT).

"The position of Director of the Freshwater Fisheries Service will be advertised soon. It is a key position to take recreational trout fishing into the 21st Century. However, it is largely up to anglers to ensure that the changes happen," he said.

Government changes to freshwater fishing and fisheries management in Tasmania

The Government has recently approved changes to the management of Freshwater Fishing and Fisheries in Tasmania in response to a two-stage review into the Commission's strategic direction, organisation and administration. Conducted by consultants Wise, Lord and Ferguson the second stage of this review examined the Commissions role, structure, financing and administration.

The basic thrust of the changes is to provide a more representative and accountable management structure through a Freshwater Fisheries Service, managed by a Director of Freshwater Fisheries, and supported by a Freshwater Fisheries Council. The Council will advise the Service and the Minister on fisheries management policy, goals and priorities and provide greater representation for the range of stakeholder views.

The chair of the Council will be an independent non-government person with a commitment to freshwater recreational fishing along with administrative, and ideally scientific, qualification/skills. The link between the Council and the Service will ensure the close involvement of anglers both in policy development and management decisions affecting the State's freshwater fisheries.

The Freshwater Fisheries Service will continue to be an autonomous statutory body headed by a Director but with greatly increased emphasis on recreational fisheries management. The Service will manage the fishery on a catchment basis with multi-skilled teams and continue to conduct its own independent enforcement role with emphasis on joint action with enforcement arms of other agencies for serious breaches.

The Service will continue to manage carp eradication, commercial wild fisheries and native fish. Provision will also be made to ensure that there are formal policy and operational links with the relevant land management agencies particularly DPIF and DELM.

The process for appointing the Chairman of the Council and other members will be an open one. Expressions of interest will be publicly sought and the Government, in

consultation with stakeholders, will appoint the Council members.

There will need to be legislation drafted and introduced to establish the Service and put these changes into effect. This will be undertaken in the same consultative way that the review was undertaken. The Government will also offer to arrange a briefing for the opposition spokesperson on Inland Fisheries by the consultant and members of the Reference Group.

Copies of the full report are available for reference at the State Library in Hobart, Launceston, Burnie, Devonport, Glenorchy, Kingston, Rosny, Queenstown, Deloraine, Oatlands, Bothwell, New Norfolk, Huonville and St Marys as well as at IFC offices throughout the State. It is also available on the Internet www.ifc.tas.gov.au. Limited copies are available for purchase at \$5 per copy at Service Tasmania outlets and the IFC.

Big day at Liawenee

The Inland Fisheries Commission held its 1998 Open Day on Sunday 17 May at Liawenee Field Station. Open Day coincides with the brown trout spawning run up Liawenee Canal from Great Lake. Some 3 000 to 4 000 people, from as far away as Swansea, Hobart, West Coast and Burnie, attended this spectacle in perfect sunny weather.

The theme of this year's Open Day was the variety and scope of the Commission's management responsibilities, which includes the conservation of native fish, the carp eradication program and the trout fishery.

Whilst the trout spawning run was once again undoubtedly the major attraction, Commission displays and watching employees stripping trout of their eggs, also proved popular with the young and old alike. It appears that anglers appreciate the opportunity to ask questions of staff in a relaxed atmosphere. It is also a bonus that research staff responsible for individual projects are available for discussion.

Daniel Poole of Longford was one of many children which assisted in stripping fish during open day.



Tasmania's Giant Freshwater Lobster

Astacopsis gouldi (PART ONE)

by Dr Sally Bryant, Threatened Species Unit, Parks and Wildlife Service

A unique creature

The giant freshwater lobster, *Astacopsis gouldi*, is one of the largest freshwater invertebrates in the world. It is found only in rivers of northern Tasmania.

Lobsters are very cryptic and shy. They are slow-growing, slow to colonise new areas and have a low reproductive rate. Their diet is mainly decaying wood but leaves, small fish, rotting flesh and detritus are also eaten.

While little is known of their dispersal patterns, individuals have been recorded moving 60 to 100m in a few days and distances up to 500m, both in streams and overland are possible. Lobsters are most active during early autumn and summer.

Female lobsters mature after about 14 years, weighing about 500g with a carapace (head shell) length (CPL) of 120mm. Males mature more quickly at around 300g and approximately 76mm CPL in about nine years. Females breed every two years with mating and spawning occurring between April and May. The female carries the eggs on her tail over winter until they hatch in January. The hatchlings stay attached until the following summer when they measure about 10mm CPL. The young moult several times a year but this becomes less frequent as they get older.

It is estimated that lobsters may live up to 60 years. Historically, lobsters weighing 4 to 6kg were reported, however, animals weighing 2 to 3kg are now considered large.

Distribution

Giant freshwater lobsters once occurred in all northern rivers flowing into Bass Strait except those of the Tamar River catchment. They ranged from the Arthur River in Tasmania's northwest, to the Ringarooma River system in the northeast. They occurred in all river systems below 400m and were most numerous in streams below 200m. Interestingly, their range was thought to coincide with that of the river blackfish (*Gadopsis marmoratus*).

Today their distribution is more sporadic. Significant declines are thought to have occurred in the Welcome, Montagu, Rubicon, Don, Brid, Boobyalla, Pipers, Ringarooma, Duck, Little and Great Forester rivers as well as Claytons Rivulet. Sexually mature and large individuals, particularly males, are either very scarce or absent from these river systems.

Ideal retreat

Lobsters, by nature are shy, secretive animals. Ideal habitat is an intact stream catchment of several stream sizes including rivulets and small headwaters. These should flow and meander through a relatively undisturbed, well-vegetated catchment containing snags, pools and undercuts, but not eroding banks. Water temperature should

seldom exceed 18°C, have high oxygen content and be clear of sediment.

Adults take refuge in still, deep pools which are sheltered and well shaded beneath submerged and decaying timber. While little is known about the needs of juveniles, it is suspected they migrate into smaller stream zones including semi-permanent creeks and runnels lined with overhanging vegetation.

Why so threatened

A steady increase in habitat disturbance combined with a long history of traditional fishing has caused the decline of the lobster. Large individuals have been targeted for eating and trophies and this has had a significant effect on breeding stock. Often this has led to the removal of large sized lobsters from some river systems. The species occurs in few reserves and there are no known populations located in national parks.

Habitat disturbance

Habitat disturbance, including the removal of streamside vegetation, bank erosion, desnagging, channelisation, siltation, eutrophication and chemical pollution continues to occur at every level from the small private landholder to large scale industry and commercial forestry.

Increased roading has led to a significant increase in fishing pressure and access to previously unexploited populations.

Land use practices

The clearing of streamside vegetation, extensive modification of stream channels, access by stock, and inflows of agricultural chemicals and nutrients have all contributed to the decline of lobster populations. Even disturbances to urban streams and their surroundings have been severe in their effects.

Legal status and what it means

In 1995 the lobster was listed as 'Vulnerable' on the Tasmanian *Threatened Species Protection Act 1995* and the *Commonwealth Endangered Species Protection Act 1992*. From 1 January 1998 it was declared a 'Protected Fish' under the *Inland Fisheries Act 1995* signalling the immediate end of the recreational fishery.

This legal recognition means that conservation of the species is of national concern. Unless issued with a special permit, it is illegal and a fineable offence to catch or disturb the animal in any way.

If you are aware of any illegal actions on the species you should contact either the Inland Fisheries Commission or the Threatened Species Unit of the Parks and Wildlife Service with the information.

Fishing – please don't

Traditionally, fishing has targeted adults at a size just above sexual maturity. This means taking lobsters 10 years or older, many being breeding females. Combine the argument that "...we have done it for years..." with the multitude of other habitat pressures and it is easy to understand why the species is threatened.

In the next edition of *On The Rise*, part two of this article will discuss habitat management issues and how you can help protect the giant freshwater lobster.

Contacts

Threatened Species Unit, Parks & Wildlife Service, 134 Macquarie Street, Hobart, Tas 7000. Ph (03) 6233 6556, Fax (03) 6233 3477.

Inland Fisheries Commission, 6B Lampton Avenue, Derwent Park, Hobart, Tas 7009, Phone (03) 6233 4140, Fax (03) 6233 4141.

Bushwatch 1800 005 555.

Australian Team leaves for the World Fly Fishing Championships in Poland

The Australian Fly Fishing Team, which contains five Tasmanians, left for Poland on 17 August to compete in the World Fly Fishing Championships starting on 24 August.

The team is Jason Garrett, Manager and non-fishing Captain; Jim Davis (Tasmanian Fly Tyers Club); Terry Elmer (Quamby Fly Fishers Club); Chris Hill (professional trout guide, Tasmania); Blair Scott (Northern Fly Fishers Club, Victoria) and Jonathon Staggs (Van Dieman Angling Club). Senator Shayne Murphy was originally a member of the team but had to withdraw due to work commitments.

The team is fortunate to have Jason Garrett as captain given his wealth of international experience. He has represented Australia a number of times in competition and this is

his third year as Captain/Manager.

Australia will be one of 22 countries competing in Poland and will be endeavouring to improve on its 11th placing at last year's Championship in the USA.

The competition will consist of five sessions — four on various sectors of the stony and fast running Czarny Dunajek River, and one in boats on the Crosztin Reservoir. Fishing will be for browns, rainbows, grayling and a fish called huchen.

The World Championship will be a good precursor to the Australian Championship at Jindabyne in November and the World Championship there in 1999.

We wish Jason and the team all the best in their endeavours.

New life for Brushy Lagoon

by David Jarvis (Scientific Officer – Recreational Fisheries)

The Inland Fisheries Commission has undertaken an extensive and careful planning and consultation process in preparation for the rehabilitation of the Brushy Lagoon trout fishery. The planning and consultation process was an important part of the project and was essential before the Department of Environment and Land Management (DELm) could allow the Commission to undertake any rehabilitation activity.

This preliminary work culminated in the treatment of Brushy Lagoon with the fish toxicant rotenone, in the last week of May this year.

The problem

In the early 1990's Brushy Lagoon was one of Tasmania's top lake fishing destinations for trout anglers, but in 1994 the fishery underwent a serious decline. Angling statistics collected from annual postal surveys and advice received from anglers confirmed a marked decline in catch rates, fish harvests and angler satisfaction. The fishery was performing poorly and anglers were fishing elsewhere. The decline in the performance of the fishery coincided with an explosion of the redfin perch population. Although in parts of the State redfin perch are considered a valued recreational fish, in Brushy Lagoon anglers consider it a nuisance. The redfin perch population consisted of a large number of small stunted fish that offered no challenge to the angler and were usually too small to be worth eating.

The primary problem was that the redfin perch were consuming the young trout that were being stocked into the lagoon. Consequently, significant numbers of trout were not surviving.

In an attempt to overcome the problem the Commission tried to increase the level of predation on the redfin perch population by increasing the number of trout in the lagoon. It was hoped that this would significantly reduce the number of redfin perch in the lagoon. Unfortunately this strategy was unsuccessful as the performance of the fishery did not improve.

The solution

A 'Development Proposal and Environmental Management Plan' (DP&EMP) was drafted



Results of the successful eradication of redfin perch at Brushy Lagoon

documenting the feasibility of rehabilitating the fishery at Brushy Lagoon using the fish toxicant rotenone to eliminate the population of redfin perch. The elimination of redfin perch would enable the fishery to be 'reset' and flourish as it did prior to the dominance of the perch. The DP&EMP was made available for public comment and was generally supported by the angling community who



Tireless volunteers (from left) Errol Rossiter & Graham Hodder with Commission staff Charles Thompson & Dave Jarvis

viewed Brushy Lagoon as an important recreational and economic fishery. The DP&EMP was subsequently approved by DELM allowing the Commission to commence work on the project.

The draining of Brushy Lagoon

It was important to drain as much water as feasible out of Brushy Lagoon as less water meant:

- a higher chance of successful eradication
- less rotenone would be needed as the volume of water to be treated was reduced
- significantly less surface area to manage.

The bulk of the water was removed by several siphons set up along the dam wall. These siphons required regular maintenance over the three months of their operation and the Commission is grateful to the volunteers who contributed their time to this cause. Once the siphons became ineffective due to the minimal head difference between the lagoon's surface and the outflow, a high volume diesel water pump was brought in to draw the lagoon down to treatment level. Again, volunteers helped to keep this pump operational 24 hours a day for over two weeks.

Preparing for poisoning

An accurate final water volume had to be determined before the poison could be added. Nearly 200 water depth soundings were taken over the measured water sur-

face area indicating that approximately 85 000m³ of water remained to be treated with rotenone. This volume was equal to only 7% of the water storage capacity of Brushy Lagoon. The drop in water volume equated to lowering the water level by 2.75 metres.

After determining the water volume, the final step was to calculate the concentration of poison required to effectively kill all the redfin. To do this, redfin were placed in holding tanks of a known volume and a measured volume of rotenone then added. This process was repeated several times until the correct concentration was determined to ensure a rapid (less than two hours) and complete kill was achieved.

Applying rotenone

It was decided to apply the majority of the rotenone by helicopter as this would:

- ensure a complete and even coverage of the total surface area of the water
- distribute the rotenone around the lagoon more easily
- apply the rotenone much more time effectively i.e. a total application time of 2-3 hours.

Commission staff added the final volume of rotenone by boat to the deeper sections of water in front of the dam wall.

How quickly did it work?

Dead and dying redfin were observed almost immediately after coming into contact with the treated water. It is believed that a total kill of all the redfin perch present was achieved within two hours of the last application of rotenone. The dead redfin were collected over the next week and taken to a purpose-dug pit for disposal.

What happened to the trout?

Prior to poisoning, Commission staff and volunteers conducted several netting surveys to try and capture as many trout for relocation as possible. Although several hundred metres of net were used in these surveys less than ten trout were captured and released. The Commission again captured trout as soon as the rotenone had been added to the water but only three trout



Commission staff carefully mixing the rotenone preparation

were detected for placement in recovery pools. Only another five trout were recovered during the collection of the redfin after the poisoning. Of the less than 20 trout that were recorded in Brushy Lagoon, all were brown trout with the largest weighing approximately 2.2 kg.

How does rotenone work?

Rotenone does not 'suffocate' fish, nor does it remove all the oxygen from the water. Instead it inhibits a biochemical process at the cellular level making it impossible for fish to use oxygen in the release of energy needed for body processes. Rotenone is a naturally occurring poison that is produced in the roots and stems of certain tropical plants and is commonly used in the household garden as an insecticide called derris dust.

How long did the rotenone remain active?

Rotenone breaks down naturally in water to carbon dioxide and water. The speed of this breakdown in water is influenced by temperature, light, oxygen and the alkalinity of the water.

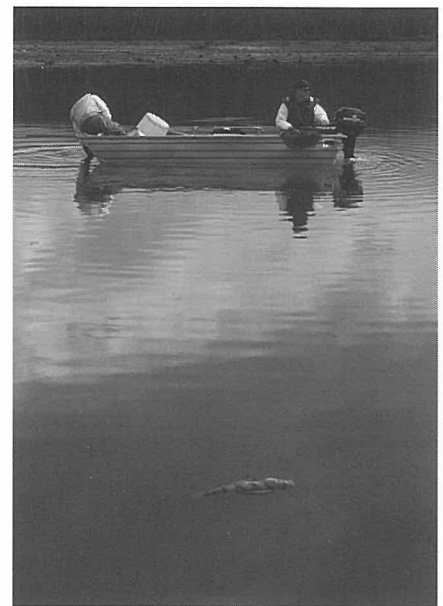
Since the treatment with rotenone, Brushy Lagoon has been monitored on a weekly basis to determine if the poison is still active. It was found that the rotenone had completely broken down within 4 weeks from its application. Consequently the water is now safe for trout restocking and for releasing downstream if required.

Restocking and reopening

Trout will be restocked in the near future depending on water levels and food availability. The water level is still down from full supply level and food items affected by the poison – some zooplankton – are naturally recolonising the lagoon. Many other trout food items such as snails, beetles, damselflies and worms were apparently not affected by the rotenone. It is the intention of the Commission to once again have Brushy Lagoon managed as a high catch rate fishery where trout numbers will be kept high ensuring good catches in the future. Both rainbow and brown trout will be stocked, with a greater emphasis on rainbow trout.

Brushy Lagoon will be kept closed during the 98/99 season to allow the trout one full growing season. It is anticipated that both Brushy Lagoon and the newly completed Four Springs fishery will be opened for the beginning of the 1999/2000 season. These two lakes together will offer a great opportunity for the angler to experience two of Tasmania's newest trout fisheries.

Brushy Lagoon drained down prior to rotenone application



Retrieving redfin perch after the successful eradication

IN BRIEF

Rehabilitation of Shannon Lagoon

The Minister recently brought together several major stakeholders to form a working party to examine the options for the rehabilitation of Shannon Lagoon. The working party consists of the Inland Fisheries Commission, Hydro-Electric Corporation, Central Highlands Council and Mr Malcolm Crosse. The objectives of the working party are to identify options to improve water quality, specifically turbidity in the lagoon. Some obvious beneficial outcomes would be improved water quality for downstream users and improved trout fishing in Shannon Lagoon. The working party will also be examining opportunities for funding such as the Natural Heritage Trust.

Four Springs update

Recently, 450 adult brown trout were transferred from the highlands to Four Springs. There was high drama on the way as the road up Haulage Hill was covered with snow and ice but after a short delay the journey was able to continue. The fish arrived in good condition and were welcomed by several willing anglers. The fish, up to 1kg in weight, were released near the dam. This is the only place accessible to the tanker and fish soon spread along the face of the dam, as they became acclimatised to their new (and warmer) surroundings.

A meeting has been arranged with the Office of Sport and Recreation, the Parks and Wildlife Service, Jim Ferrier and Norm Scott to discuss the next step in the ongoing management plan for Four Springs. The Four Springs Fisheries Management Plan, currently being drafted by Commission staff, will be a major part of the overall management plan.

Colin Finch from Marine and Safety Tasmania has inspected the site and indicated that the access roads to the public boat ramp, car park, and to the jetty for the disabled, could well attract funding from MAST. This funding, a return on anglers' boat registrations, is intended for improvement of facilities in inland waters. Improvements at Four Springs appear to be an excellent choice.

Four Springs Lake will not be open until August 1999. This will allow the present stocks to settle and grow and, with further additions of fry and adults this season, there will be a healthy head of fish for anglers to catch next year.

Fish Habitat Improvement Fund – board announcement

The Fish Habitat Improvement Fund has been established to foster research and

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In Brief

...continued from previous page

management projects that improve freshwater fish habitat. The fund will be administered by a Board of Trustees. This board is composed of Professor Emeritus Dr Nigel Forteach (Chairman), Dr Robert Sloane, Mr Wayne Fulton, Mr Kevin Petterwood and Mr Michael Stevens. A Technical Panel will assess projects on technical merit and make recommendations to the Board. The technical assessments for each project will be provided to the Board for consideration as a basis for their deliberations. The Technical Panel is composed of Mr Stuart Chilcott (Chairman), Mr John Miedecke, Mr David Bluhdorn, and Mr Martin Read.

Fish for the future mobile display units

Funding has been received from the Natural Heritage Trust for the construction and deployment of two mobile display units as part of a program to increase the awareness of issues involving our freshwater and marine fisheries. The display units will provide a platform for educational and public displays about issues such as carp, fish conservation, trout fishing and marine recreational fishery regulations. The Marine Resources Division (DPIF) is the lead agency for the project although sponsorship has been obtained from the Commission, Department of Education, Community and Cultural Development and the Marine Police. No doubt you will see the mobile units at events such as Agfest and the major agricultural shows to name a few.

Illegal lobster fishing

The giant freshwater lobster is now a protected species under State legislation. Anglers and the general public should report any illegal fishing activities to the Commission or Bushwatch at the numbers listed below. The Bushwatch number is a freecall from anywhere in the State. Help us protect the lobster!

Viv Spencer
Senior Inspector 6233 8809 (W)
(Hobart) 6391 8606 (H)
018 145 768 (Mobile)

Charles Thompson
Inspector 6425 7219 (W)
(Ulverstone) 64 26 1946 (H)
014 923 980 (Mobile)

John Dowling
Inspector 6425 7219 (W)
(Ulverstone) 6425 7027 (H)
0417 148 458 (Mobile)

Noel Maroney
Inspector 6339 1794 (W/H)
(Launceston) 0417 109 053 (Mobile)
Bushwatch 1800 005 555 (Freecall)
Threatened Species Unit 6233 6556

Little Pine creel survey

The Commission conducted an intensive creel survey of anglers at Little Pine Lagoon last season in order to obtain information about anglers, trout harvests and preferred water levels in the lagoon. The survey would not have been possible without the assistance and support provided by a number of volunteers from the angling community. The Little Pine Fisheries Management Committee and the Commission would like to thank the many anglers who participating in the creel survey.

The next task is to examine and analyse the data that was gathered by the volunteers. From the large number of data sheets this could take a quite a while!

Rainbow trout stocking

The Commission's rainbow trout stocking program is greatly assisted by donations of surplus stocks from private fish farms and the Aquaculture Centre of the University of Tasmania at Launceston. This generosity relieves the pressure of facilities at Salmon Ponds, and also reduces the need to take from the limited numbers of available wild spawning stock.

This season is off to a good start following a very generous donation of surplus ova from Alec Purves of Purves Fisheries at Bridport and Springfield. These have been laid down at Salmon Ponds and are hatching rapidly, which means that we should be able to get the fish to a reasonable size for stocking before high summer water temperatures make it difficult for us to hold them.

Alec is the main supplier of rainbow trout for the private stocking of farm dams and also exports considerable amounts of ova to places like New Mexico. He has been a very generous supporter of the Inland Fisheries Commission, and a keen trout fisherman from the time he could hold a rod. Recently Alec donated a number of historical items to the Museum of Trout Fishing at Salmon Ponds.

Without the support of people in the industry like Alec, we would find it difficult to maintain a reasonable rainbow trout stocking program.

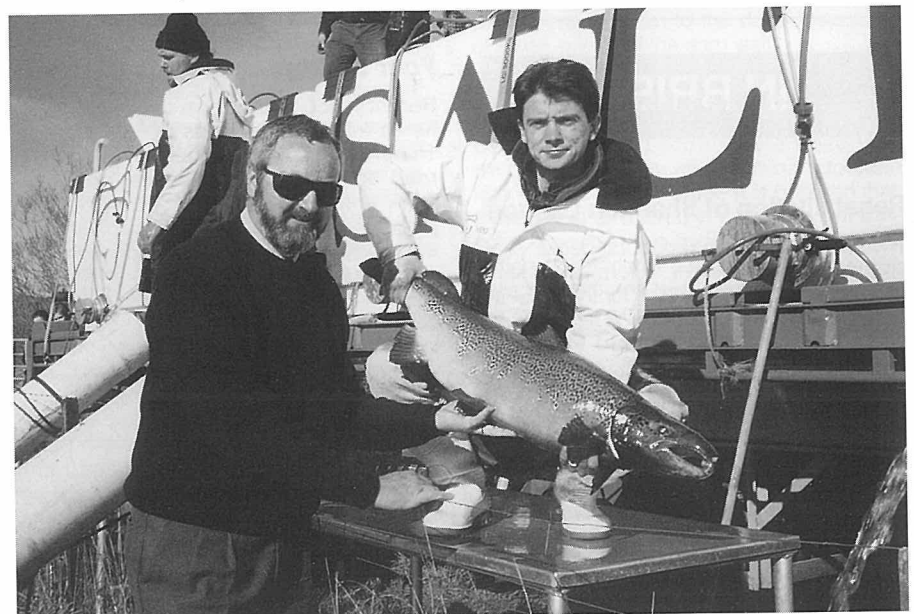
Salmon release in Lake Meadowbank

For the second year in a row, Saltas has donated adult Atlantic salmon and released them into Lake Meadowbank, much to the delight of anglers.

On Monday 13 July 1998, with permission from the Inland Fisheries Commission, 175 adult Atlantic salmon were released into the lake by Saltas.

The new manager of the Commission, Rod Hayes, along with about 20 anglers, was present to witness the release. Rod was amused by the size of the fish and believes the release will create a great deal of interest.

Commission Manager Rod Hayes (left) inspects one of the Atlantic Salmon recently released into Lake Meadowbank



Confiscated gear collected during illegal poaching activities

The bad old days

The brown trout spawning run is almost over with very few problems this year. It appears that most people these days realise the damage caused by poaching spawning fish. Most also realise that the penalties associated with being caught and fronting up to the Magistrate can be very painful.

This year's runs were late but good numbers of well-conditioned fish were checked once the runs did commence.

This photo is of Perc Campton, a well-known angler, and Rob McLaine, Inland Fisheries Commission Inspector. This photo was of the "bad old days" when spawning creek poaching was prevalent. In that run alone, nine firearms were confiscated from people shooting fish, let alone the other 30 or 40 who were snaring, netting, spearing, stoning etc.

Due to the dedication of Commission inspectors, we appear to be heading in the right direction.

IFC on the internet

The Inland Fisheries Commission now has a web site. Look it up at <www.ifc.tas.gov.au>.

This newsletter is produced by the Inland Fisheries Commission and may not be reproduced in any way without permission.

Any comments, suggestions, contributions, or ideas for articles would be most welcome and should be addressed to:

Rod Hayes, Inland Fisheries Commission
6B Lampton Ave, Derwent Park
Hobart Tasmania 7009

Ph (03) 6233 4140, Fax (03) 6233 4141

CARP UPDATE – Winter 1998

The government has continued to support the Carp Program with substantial funding allocated to it for the next 12 months. The recognition of the significant threat posed by carp to recreational fisheries and the whole freshwater system should be welcomed by all concerned interest groups.

Carp populations

Lake Crescent

Since carp were first discovered in Lake Crescent in 1995 the IFC has implemented a management strategy of containment and population control. The total number of carp harvested from Lake Crescent over this period stands at 4821.

There is a distinct seasonal pattern to carp captures. This is due in part to changes in habitat preference and behaviour, which is in turn influenced by temperature and lake level. It has been observed that carp prefer the warmer lake margins in spring and summer and will aggregate for feeding and spawning over this period. It is also apparent that carp are more vulnerable to netting at this time, probably due to increased activity in the warmer months.

The juvenile carp captured from Lake Crescent so far have resulted from spawnings in the summers of 95/96 and 96/97. The larger carp over 400 mm length are becoming increasingly difficult to capture. The increase in effort needed to catch this size of fish indicates that a significant proportion have been removed since 1995. If no evidence of young carp is found from a spawning in summer 97/98 then the prospect for controlling the population with intensive fishing, combined with water level management is good.

Lake Sorell

The carp population in Lake Sorell remains elusive with total captures numbering only 9 adults and 16 juveniles over the last three years. The important features are that carp numbers do not appear to be rapidly increasing and that there is some unknown factor influencing breeding success in this lake. There has been only one successful spawning in the summer of 95/96 given the size of the juveniles captured there so far. The low number of captures in relation to a relatively high fishing effort suggests that this spawning failed to add large numbers of carp to the Lake Sorell population. At this stage the Lake Sorell carp population seems to be stable and at a low level.

Water level management

Managing water levels in lakes Sorell and Crescent is a critical, albeit contentious, method of managing carp both in terms of controlling numbers and aiding containment. Carp prefer inundated marsh habitat for spawning when temperatures are between 17°C and 27°C thus the strategy for controlling carp numbers has centered on reducing the amount of habitat available when temperatures are suitable.

The other side to water management is the prevention of escape of carp from the Sorell/Crescent system. This basically

means preventing uncontrolled, unscreened spillage from the lakes. A water management model devised by the Hydro-Electric Corporation in conjunction with the Department of Primary Industry and Fisheries has facilitated the meeting of control requirements. The model enables probabilities to be generated for various scenarios such as spill, failure to meet irrigation supply etc. The model predicts extreme events such as floods and droughts and the appropriate management levels to accommodate these events. The outcome of operating to this model is that a more natural seasonal fluctuation in lake levels will occur i.e. levels will fall over summer and will peak in spring.

The success of water level control will be assessed this spring and summer for Lake Crescent given that water was kept out of the marshes for the first time last summer. Success was due to more efficient screens at the Crescent outflow and the dry summer conditions.

Currently lakes Sorell and Crescent are at fairly low levels following a severe drought last summer. It is expected that levels should be approaching water level management targets by spring. However at the start of the season extreme caution should again be used whilst boating on Lake Sorell and anglers would be advised to limit themselves to trolling speed on most areas of the lake.



Checking a fyke net in an irrigation storage dam during distribution surveys downstream of Lake Crescent.

Ideal carp habitat in Lake Crescent.



Present Levels: Lake Sorell 803.2 m Australian Height Datum (AHD); Lake Crescent 802.5 m AHD.

Carp distribution

Distribution surveys have been conducted extensively around the state since 1995. The surveys have centered on likely habitat in the Clyde River catchment and reported carp sightings from other waterways. The only established populations found so far are in lakes Crescent and Sorell. The catchment below Lake Crescent, where it was feared carp may have spread prior to screening of the outflow, has not yielded evidence of an established carp population. The fact that carp have not been discovered elsewhere in the last three years is very encouraging. The longer this remains the case the more likely it is that carp are in fact contained to lakes Crescent and Sorell.

The findings on carp distribution reinforce the need for vigilance with containment in relation to screens, water level management and compliance. Ultimately the certainty of containment will determine the future cost and effectiveness of eradication or management options.

Quarantine

Lake Crescent will remain closed for the 98/99 season, whilst Lake Sorell will be open for the normal trout season. It is considered that the risk of carp translocation from Lake Crescent is much greater due to higher carp densities in this water. Future decisions for either lake will be based on the risk of carp being translocated. If the Lake Sorell population increases dramatically then it may be closed and visa versa for Lake Crescent which may be opened if densities are sufficiently lowered.

Summary of program aims for season 98/99

- Contain carp to lakes Sorell and Crescent.
- Continue to investigate and fish down carp populations in lakes Sorell and Crescent.
- Continue to investigate carp distribution outside of lakes Sorell and Crescent.
- Assess eradication options.
- Increase education and communication on carp issues.
- Assess options for improving containment screens and water management model.
- Assess threats to native flora and fauna from carp and carp management.

Curries River Dam netting survey – April 98

by Rob Freeman, Technical Officer (Recreational Fisheries)

The Commission recently conducted a netting survey in Curries River Dam in order to determine whether the current stocking regime of the dam is adequate. The survey was undertaken following anglers' concerns over poor catch rates during the 1996-97 season.

The survey was designed to assess stocks of brown and rainbow trout and was conducted over the period 6-9 April 1998, with assistance from volunteers Bob Youl and Carl Hyland of the George Town Anglers Club. The information collected will be used to establish an agreed stocking program for the fishery.

Fifty-four brown and five rainbow trout were captured after mullet and graball nets were used to net the eastern and western sections of the dam. Despite the relatively low catch rate the lagoon produced a high percentage of brown trout in excellent condition. Surprisingly, the number of rainbow trout captured in the nets was very low given that anglers' catches consisted mainly of rainbows with the odd well conditioned brown.

A single survey such as this provides limited information about the fishery, although in conjunction with information gathered from the annual postal questionnaire and angler feedback, this should be sufficient to give an overview upon which an assessment of an appropriate stocking level can be based.

During the survey, several regular anglers were interviewed about the performance of the fishery over the 1997-98 season. In general they were reasonably satisfied with their catches, with one angler catching over 200 fish consisting of approximately 60% rainbows and 40% browns.

A summary of weights and lengths for brown trout, both combined and for separate sexes, is shown below. The average weight for male brown trout was just over a very impressive 1.3 kg. Female brown trout were generally smaller and weighed on average slightly over 1.0 kg. Of those brown trout examined most were in advanced spawning condition. Due to the low sample number only the range of weights and lengths for rainbow trout is shown.

A typical brown trout from Curries River Dam (Photo: Carl Hyland)



Summary Statistics

BROWN TROUT

COMBINED SEXES

Number of fish 54
Average length.....447mm
Range of length.....340-610mm
Average weight.....1 187g
Range of weight.....500-2 500g

FEMALE

Number of fish 26
Average length.....433mm
Range of length.....340-602mm
Average weight.....1 061g
Range of weight.....500-2 400g

MALE

Number of fish 28
Average length.....458mm
Range of length.....400-610mm
Average weight.....1 303g
Range of weight.....700-2 500g

RAINBOW TROUT

Number of fish 5
Range of length.....273-335mm
Range of weight.....500-750g

Condition factor

Condition factor is an objective way of looking at the condition of individual fish and of providing an overview of the fish sample collected. The condition factor for trout has been divided up into five arbitrary categories - excellent, good, fair, poor and very poor. By measuring the length and weight of the fish we can calculate the condition factor.

Generally, the condition of brown trout was very good. A relatively high percentage of fish were classified as excellent indicating that the fishery is doing very well. The majority of fish were in the fair to good range with very few classed as poor and even these fish would have satisfied most anglers. Curries River Dam is certainly producing some very impressive fish for those anglers with local knowledge or a bit of patience.

Prosecutions

Infringement notices

During the twelve months from 1 July 1997 to 30 June 1998 the following 'on the spot fines' were issued.

Court proceedings

Offences that were proceeded with by summons are listed below.

Offence	Number
Fish without a licence.....	4
Fish with more than one rod & line.....	3
Fish without a licence.....	13
Fish with more than one rod and line...2	
Use strike indicator.....	2
Fish with unattended set rod.....	3
Use net other than a landing net.....	1
Use natural bait in artificial water.....	1
Possession of assembled rod when unlicensed.....	1
Take more than 1kg of whitebait.....	1

Offender	Location	Offences Summary	Total fine + costs (\$)
Peter James JAMIESON, Devonport	FORTH RIVER WEIR	Take whitebait	235
Christopher Paul BARNES, Bridport	LITTLE FORESTER RIVER	Take whitebait	335
Thomas Raymond WATT	TYENNA RIVER	Fish in closed season	135
Jamie Dennis SAGGERS, Devonport	FORTH RIVER	Take whitebait	235
Barry John LOVELL, Bridport	LITTLE FORESTER RIVER	Take whitebait	335
Robert Allan HOLLIS, New Norfolk	DERWENT RIVER	Use strike indicator	135
Theo John SMITHURST, Oatlands	LAGOON OF ISLANDS	Unlicensed/Use natural bait	385
Sean William CHIVERS, Bagdad	LAGOON OF ISLANDS	Use natural bait	185
Scott Andrew SMITH, Devonport	FORTH RIVER	Take whitebait	735
Michael Lee BRYAN, Launceston	POATINA HIGHWAY	Possess firearm	435
Gregory Rex BRANCH, Bothwell	LAKE CRESCENT	Enter waters of Lake Crescent/ Use gill net/Obstruct officer	1 435
William Alfred WILLIAMS, Smithton	DUCK RIVER	Take whitebait/Use net	935
Roger James LAMBERT, Smithton	DUCK RIVER	Take whitebait	835
Dean Justin GREY, Smithton	DUCK RIVER	Take whitebait/Use net	1 085
Marcus Raymond WALL, Devonport	MERSEY RIVER	Take whitebait	635
Anthony Laurence THORPE, Ranelagh	HUON RIVER	Unlicensed	235
Mathew Barry WALL, Devonport	MERSEY RIVER	Take whitebait/Threaten officer/Hinder officer	1 090
Mathew James COVENTRY, Latrobe	MERSEY RIVER	Take whitebait/Hinder officer	905
Terrence Edward CONWAY, Latrobe	MERSEY RIVER	Take whitebait/Hinder officer	335