

On the Rise



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Members of the Inland Fisheries Advisory Council announced

The Minister for Primary Industries, Water and Environment, Hon David Llewellyn MHA, recently announced the inaugural membership of the Inland Fisheries Advisory Council, established under the new *Inland Fisheries Amendment Act 1999*. The same legislation has resulted in the name change of the Commission to the Inland Fisheries Service, and Commissioner to Director.

"The Council will be chaired by Emeritus Professor Nigel Forteath who brings to the position considerable expertise in aquaculture and freshwater fisheries

management," Mr Llewellyn stated.

"The role of the Council in providing advice to the Government on fishing policy will be strengthened through the broad range of representation on the Council, which includes angling, tourism, commercial fisheries and conservation interests," he said.

The composition of the Council is as follows: Professor Nigel Forteath (Chair), Ms Gabrielle Balon, Mr Bernard Creed, Mr Jason Garrett, Mr John Ranicar, Ms Sheryl Templar, Dr Leon Barmuta, Mr Jim Ferrier, Mr Les Monson and Mr Bob

Ward, as well as the Director of Inland Fisheries, Mr Greg McCrossen.

The Minister expressed his appreciation, along with that of anglers and staff of Inland Fisheries, for the work undertaken over the past 12 months by the interim Council, chaired by Professor Forteath.

"The three Associate Commissioners from the former Inland Fisheries Commission have been appointed to the Council for the remainder of this calendar year in order to ensure that the important transition process is handled smoothly," he said.

The Minister also announced planned appointments to the Council which are to be made, effective from 1 January 2001. These are: Mr Bob Campbell, Dr Peter Davies, Mr Brian Proudlock and Mr Michael Stevens.

Free Fishing Day



The Director of Inland Fisheries, Mr Greg McCrossen reported that the Inland Fisheries Free Fishing Day held on Australia Day, Wednesday 26 January this year, was a great success attracting an estimated 1600 people to the five organised club events around the State.

Mr McCrossen explained that the success of the Day was due to the support of angling clubs and fishing tackle shops, and the willingness of clubs to organise public events at key locations.

"I'd like to thank those dedicated angling clubs who assisted this year, namely Ulverstone, Launceston, Huon, Kingborough and Clarence angling clubs, and also WIN TV and Got One for their generous advertising sponsorship," he said.

"The Free Fishing Day certainly achieved its aim of attracting new blood to trout fishing this year since about half the number of people attending the club events had never fished for trout before.

"There were reports of people turning up to the club events not long after first light – despite the weather – with all sorts of fishing equipment, from surf rods to hand-lines.

"Judging by the number of public enquiries made to the Inland Fisheries

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A successful young angler taking part in the Free Fishing Day

Trout Spawning Open Weekend at Liawenee

Each year in May, the Inland Fisheries puts on an Open Weekend for anglers and their families to visit the IFS field station at Liawenee and harvest eggs from wild brown trout spawning in the Zig Zag Canal.

Last year, about 6000 attended the first weekend event (until then it had been an Open 'Day' event) and braved the wintery conditions that forced the hasty re-organisation of displays under permanent shelter when the tents gave-way.

This year, the IFS is hiring weatherproof display tents and hopes to increase the number of display participants, and general attendance at the event. Last year's participants, as well as additional businesses keen to market their products and services to the Tasmanian angling community, are invited to make the most of this unique event.

Children can enjoy a hands-on experience of live wild trout and the egg stripping process, observe spawning behaviour in the Canal, the fish trap and capture, and egg storage and incubation. The IFS is also

displaying its boat fleet, with access for children aboard the Mighty Carp Crusader, complete with electro-fishing and radio-tracking equipment.

Take-away food and drink will be supplied by volunteers from angling clubs. This year a refreshment tent will be provided for dining, socialising and meeting various IFS staff. It will be available for meetings, informal talks and discussion of anything and everything about the Fisheries.

Hopefully, angling clubs will host a range of events such as raffles, casting competitions, fly-tying demonstrations, and provide novice fishers with fishing advice and casting tuition.

Come and join in the fun this May, no matter what the weather and enjoy excellent food as you browse the displays, watch wild trout spawning, observe the careful capture and stripping of fish, and take part in competitions and events for the whole family.

Contact the Inland Fisheries on (03) 6233 4141 for more information about the Open Weekend.

Free Fishing Day

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Service in the lead up to the Day, there were also many other individuals – besides those attending the organised events – who took advantage of not having to purchase an angling licence and went fishing at other locations.

"The youngest person reported to have caught a fish on the Day was two and a half years old. Apparently his father helped him land the lovely rainbow trout and although the toddler was shy to touch the fish at first, he carried his personal trophy with pride!

"I look forward to the Inland Fisheries providing another Free Fishing Day again next year and hope, with even greater support from the State's angling clubs and tackle shops, it will be an even bigger and better event," Mr McCrossen said.

Read more inside about the Free Fishing Day by participating angling clubs in the Free Fishing Day Feature.

Bothwell Anglers do Bruisers

Bob Ward, Councillor, Inland Fisheries Advisory Council

On Sunday 27 February 2000, local anglers from the Bothwell Anglers Club turned out in force – men, women and children alike – armed with all the necessary equipment to carry out the rebuilding of Bruisers Lagoon Dam plus a new car park. A great day was had by all and it was followed with a superb country barbecue.

Anglers, please note that Bruisers Lagoon is on private property. It would be appreciated if anglers could use the car park area provided to prevent damaging the surrounding countryside.



Above: The new car park at Bruisers Lagoon



Left: Members of the Bothwell Anglers Club helping out at Bruisers Lagoon

OTHER THAN TROUT

A regular article on animals of interest to the angler

Australian Grayling (*Prototroctes maraena*)

by Dr Jean Jackson, Fisheries Biologist, Native Fish Conservation

The Australian grayling is one of our threatened species which may be encountered by anglers in coastal rivers. This article is designed to assist anglers in recognising the Australian grayling and returning it to the water unharmed, so as to help conserve what is a valuable native species.

Conservation status

The species is listed on both State and national threatened species protection legislation with the status 'Vulnerable'. This means it is at some risk of extinction unless the threats to it are removed.

The Australian grayling is the only surviving member of the family Prototroctidae (southern graylings). A closely related species from New Zealand (*Prototroctes oxyrhynchus*) became extinct by the 1930s for reasons which are unclear.

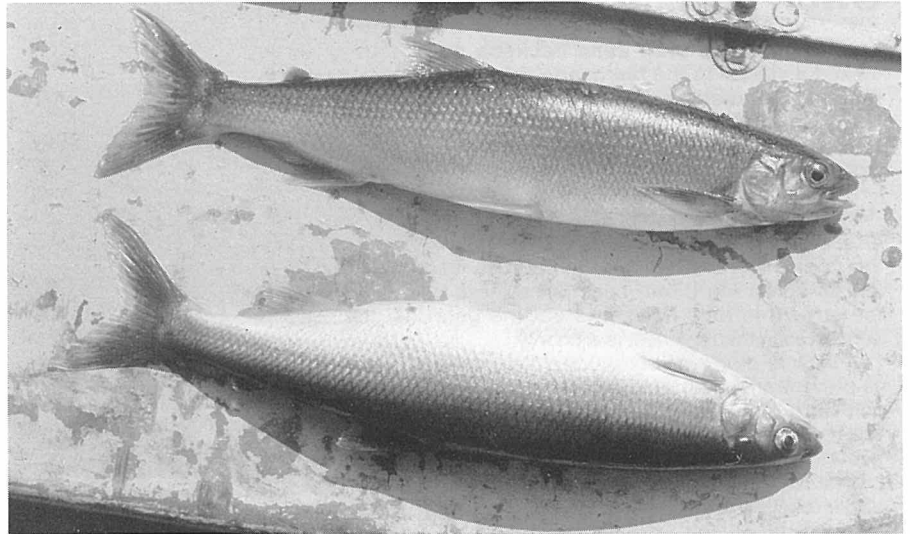
The Australian grayling has declined in numbers although it is still quite widespread. It was once common and often taken by anglers but is now rarely seen. It has been suggested that large fluctuations in grayling populations may be a natural result of variation in recruitment from year to year.

Appearance

The Australian grayling is a silvery, stream-lined fish which grows to about 300 mm in length. It has a distinctive cucumber smell and is sometimes known as the cucumber herring or cucumber mullet. The dorsal fin is positioned just behind the base of the pelvic fin, there is a small adipose fin, forked tail, thin scales and no lateral line. The body shape is slender and compressed, with a small head, large eyes and bluntly pointed snout. Colour may vary with age, from silvery with olive-grey back and whitish belly, to olive green-brown on the back with a darker side streak and silvery-yellow belly.

Biology

The biology of the Australian grayling is not well known. It spawns in freshwater around autumn-winter although the timing apparently varies between rivers and years. Spawning behaviour and exact spawning habitat are unknown. The eggs are amber coloured and non-adhesive, and probably scatter on the river bed. Females produce a very large number (about 40-50 000) of small eggs. After hatching the larvae are buoyant and swim actively towards the surface and so are swept to sea. They return upstream as juveniles after four to six months to spend the rest of their life in freshwater. Grayling spawn at two years of age although a few males may mature at one year. The migrating juveniles are sometimes found amongst whitebait or elver runs. Adults have occasionally been seen in large schools in rivers.



Australian grayling Prototroctes maraena

Graylings are omnivorous, feeding on a mixed diet of small aquatic insects, crustacea and algae. They may live for up to six years although most reach only two to three years.

Distribution and Habitat

The Australian grayling occurs in coastal streams and rivers around Tasmania and in south-eastern Australia from western Victoria to southern NSW as far north as the Shoalhaven River. It may potentially occur in any coastal stream without barriers to upstream juvenile migration.

Adult grayling have been found in deep, slow flowing pools and in clear, gravel-bottomed streams with moderate flow and alternating pools and riffles as well as muddy waters. They occur in both riffle and pool habitats. The spawning habitat is unknown, as is the marine juvenile habitat. Dispersal distances in both the marine and freshwater habitat are also not known.

Important Locations

All rivers where Australian grayling have been recorded are important locations. In Tasmania there are records from 28 rivers on the West, North and East coasts and King Island: Gordon, Pieman, Arthur, Ettrick, Duck, Detention, Inglis, Cam, Blythe, Sulphur Creek, Leven, Forth, Don, Mersey, Rubicon, North Esk, Great Forester, Ansons, George, Scamander, Douglas, Apsley, Lisdillon, Meredith, Prosser, Derwent, Huon, and North West Bay.

Why is it Threatened?

The species is threatened by various causes of habitat degradation:

- Barriers such as dams, weirs and culverts

prevent upstream movement of juveniles and downstream movement of adults. These movements are essential for completion of the species' life cycle.

- River regulation by dams and water extraction causes loss of dry weather flows and minor floods. Sudden cessation of flows below a dam has killed many grayling in New South Wales.
- Loss of riparian vegetation through clearing or dieback results in degradation of the aquatic habitat in many ways.
- Siltation of rivers from catchment erosion caused by clearing, and channel damage from sand and gravel extraction.
- Exotic fish such as trout and redfin perch are likely to predate on the larvae and juvenile stages and compete for adult habitat.
- Risk of infection by introduced parasites and diseases. A copepod parasite probably originating on carp and redfin has been found on grayling in Victoria.

Actions needed for Grayling conservation

- Prepare a conservation strategy outlining research needed, management guidelines for threat reduction, habitat protection and rehabilitation actions to be implemented, community awareness programs, etc.
- Determine distribution and population status in Tasmania.
- Determine habitat requirements needed for completion of the life cycle.
- Identify and protect localities with breeding populations.
- Remove barriers to migration (e.g. redundant weirs).
- Control trout populations and restrict stocking of trout in known habitats.
- Protect riparian vegetation.
- Actions NOT required are translocation and captive breeding.

NATIVE FISH NEWS

By Jean Jackson, Scientific Officer, Native Fish Conservation

Swan galaxias rescue operation

Late in 1999 IFS staff Jean Jackson and Andrew Harvey visited a stream in the Macquarie catchment and discovered a remnant population of Swan galaxias. The population had been reported by Andrew Sanger in the late 1980s when he was studying the species, but it was thought to have become extinct after trout were discovered in the lower reaches.

IFS officers observed the tiny Swan galaxias larvae and an adult in the small upper reaches of the stream. Further exploration and electro-fishing indicated that only a few galaxias remain, and that the population is threatened by a small fire dam lower on the stream containing brown trout. Since these trout could move up the stream in high flows and eat the galaxias, the need for conservation management is a priority.

A vertical drop was constructed from concrete below the dam to prevent any more trout moving into it from downstream. Then fish were removed from the dam. This is an ongoing job with netting, electrofishing, and consideration of other options such as use of rotenone. The aim is to provide a safe haven and vital habitat for the endangered Swan galaxias in the dam and small upper reaches of the stream.

Gill netting to remove trout from below Swan galaxias habitat

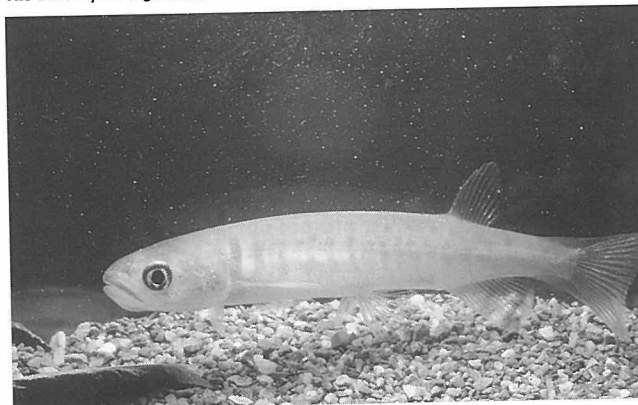


White fish found in cave

In January this year, a white fish was collected by a group of Parks and Wildlife staff researching fauna in Exit Cave. Exit is one of Australia's largest and longest caves and the fish was in a stream about 2km from the entrance.

The fish was identified as a spotted galaxias *Galaxias truttaceus*, without colour except some faint patches and very pale orange in the fins. It is unknown at this stage whether there is a population of spotted galaxias living totally within the cave (feeding on amphipods and anaspides) or whether the fish captured had migrated to the cave as a juvenile (whitebait) from the sea, up the D'Entrecasteaux River which flows out of Exit Cave.

The white spotted galaxias from Exit Cave. Photo: J. Gooderham



Surveys for dwarf galaxias

The dwarf galaxias is one of Tasmania's threatened fish species. In order to find out more about its distribution and to enable protection of its habitat, IFS native fish staff will be conducting surveys for the species in the north-west in March-April, with support from the DPIWE Threatened Species Unit and Parks field staff.

The tiny dwarf galaxias, which grows to only about 4 cm long, also occurs in the north-east, on Flinders Island and in southeastern mainland Australia. It is fairly transparent with three black stripes running along the sides.

Dwarf galaxias



This species lives in slow flowing or still wetlands, pools, marshes, streams and drains, usually where there is a lot of aquatic vegetation such as rushes. It is under threat from destruction of its habitat by draining, flooding for farm dams, ploughing, clearing of native vegetation and predation by introduced fish.

If you see a dwarf galaxias, please contact the IFS with information on what, where and when. It can be found by swishing around in aquatic vegetation with a fine mesh dip net.

Blue-Green Algae in Tasmania

By Christopher Bobbi, Water Quality Officer, DPIWE



Example of the 'scums' formed by blue-green algae

Blue-green algae – in rivers, dams and water storages – have been in the news in Tasmania over the past few months.

This summer, which boasted one of the warmest February's on record, saw a recurring bloom of the blue-green algae *Microcystis* and *Anabaena* at Craighourne Dam in the Coal Valley. Two more cases were brought to public attention in the Gorge, Launceston and at Four Springs Lake.

The Four Springs bloom is particularly serious since the species of blue-green algae responsible (*Microcystis*) is toxic to humans and other animals. Latest tests from this fishery have shown that the algae is present in large numbers and poses a significant health risk to users of the storage. It has been temporarily closed to the public.

Further attention on blue-green algae came about in early February with an international conference in Hobart which gathered together many leading fresh water researchers from around the world. One of the primary issues arising from the conference was the prospect that as global warming continues, the spread and occurrence of blooms of blue-green algae (Cyanobacteria) will rise.

Some of the major causes of blooms of algae are an excess of nutrients, warm water temperatures and extended periods of stable, dry weather. These conditions encourage the growth of many types of algae in both lakes and rivers.

In Tasmanian rivers, it is usually species of green algae which dominate. These are generally filamentous forms (pictured) which cover the bed of rivers with bright green mats and although they can be unsightly and may cause smells when they die and decompose, they pose no risk to human or animal health.

The appearance of blue-green algal blooms are usually different in appearance to those of green algae. During the early stages of a bloom they generally cause the water to turn green, but are not easily identified without the aid of a microscope. However, later on when the bloom reaches higher cell densities, the algae tends to form 'scums' or 'slicks' on the water surface. These scums (pictured) are where the algae is most dense and pose greatest risk to stock and recreational users.

Many species of blue-green algae are capable of producing toxins which can cause a range of health problems, from allergic types of reactions on the skin and eyes, to more serious liver and nervous system damage if the water is ingested. While many species have the potential to produce toxins, not **all** produce toxins **all** of the time. As a safety measure, it is important to check farm dams or storages that have turned green by taking a sample of the water and having it tested for the presence of blue-green algae before allowing human or animal contact.

What can be done to prevent blooms of blue-green algae?

It is not always clear exactly why or how an algal bloom occurs. As mentioned above, the availability of nutrients encourages

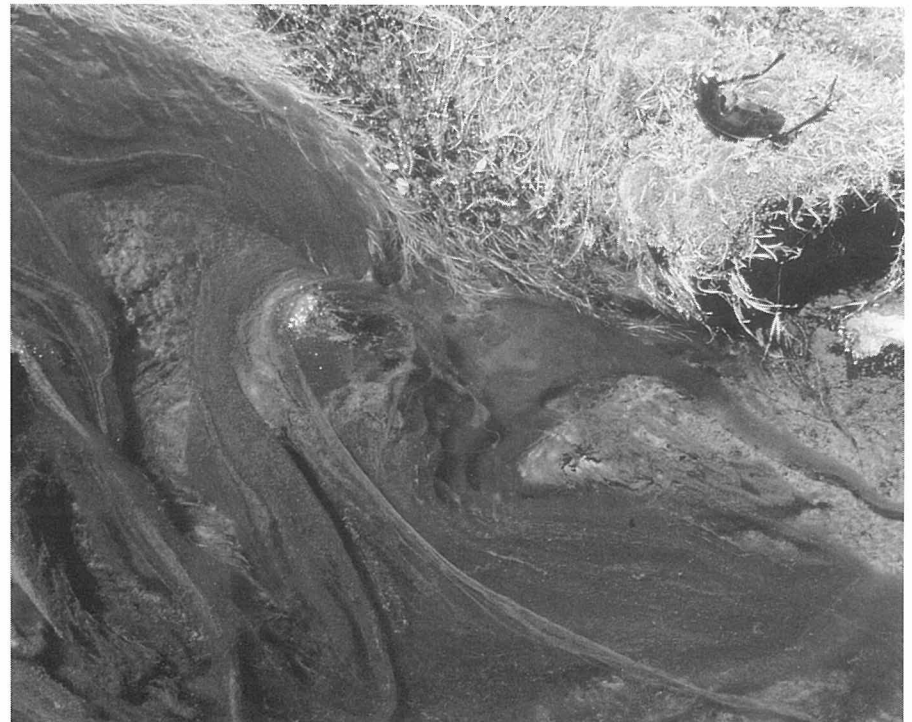
growth of algae. However blue-green algae are particularly efficient at storing phosphorus (an essential nutrient for algae) and can out-compete other algae under conditions of nitrogen and phosphorus limitation. Excess nutrients are therefore not always the main reason for blooms of blue-green algae, and limiting nutrient input to a water storage may not always prevent blooms forming. In many cases, calm warm weather is the primary trigger for blooms of blue-green algae, as they prefer warm temperatures and are sensitive to turbulence. The steep gradient of most of our rivers is one of the reasons that blooms of the common forms of toxic blue-green algae are rare in Tasmania.

Where toxic blooms are already present, there is generally little that can be done to extinguish them and reduce the toxin levels. Approved algicides incorporating copper chelates are available for treatment of blooms. While these can reduce algal concentrations in the water, they also cause the cells to rupture and release their toxic compounds. These toxins are slow to degrade in the environment and can linger for many weeks following a significant bloom.

The main strategy in controlling blooms of blue-green algae is to be proactive. While limiting stock access to rivers and lakes and reducing nutrient levels in runoff, will help reduce the likelihood of algal blooms in the longer term, prevention of blooms through turbulence can also be effective. Aeration of water storages is used in many areas to create unfavourable conditions for the growth and blooming of blue-green algae by increasing the amount of water movement in the water body. This does not extinguish an existing bloom, but if undertaken early in the season will discourage the formation of blue-green algal blooms.

Further information on blue-green algal blooms and their management, can be accessed in a document called "Guidelines for the Management of Blooms of Blue-Green Algae in Freshwaters in Tasmania" on the DPIWE website at < www.dpif.tas.gov.au/dominio/DPIF/LandAndWater.nsf >.

Filamentous green algae forming bright green mats



Frombergs Dam, Ulverstone

By David Clarke, Ulverstone Anglers Club

Ulverstone Fishing Club hosted their first Free Fishing Day at Frombergs Dam, on Australia Day and it was a great success, attracting hundreds of anglers from along the North West Coast. A total of 1500 participants caught an estimated 900 fish, the largest being 4½lb.

Members of Ulverstone's Young Anglers Development Committee, who organised the event, were initially concerned that the inclement weather on Australia Day would put people off attending. Later, they felt it was a blessing in disguise because if it had been a fine day, the number of anglers may have been more than the Club could accommodate!

The Committee met on a weekly basis over the four weeks prior to the event and posted 300 fliers in business house windows from Latrobe to Wynyard. Fish



Keen anglers going for the trophy fish at Frombergs Dam

Successful organisation by the Ulverstone Club's Young Anglers Development Committee



Frombergs Dam – a popular fishing spot on the Day

were purchased from Springfield Fisheries, to supplement stock provided by the Inland Fisheries Service. TV and Radio advertising commenced ten days before and a full page feature was printed in the local newspaper on the day before the event.

The Club normally encourages catch and

release, and juniors are given instruction on the correct methods to maximise the fish's survival. However, for the Australia Day event this was ruled out, to protect caught fish from novice fishers and prevent experienced fishers from fishing exclusively for the trophy fish.

Overcast conditions and rain didn't put people off their fishing



Lake Waverley, Launceston

By Peter Richards, Northern Tasmanian Fishing Association

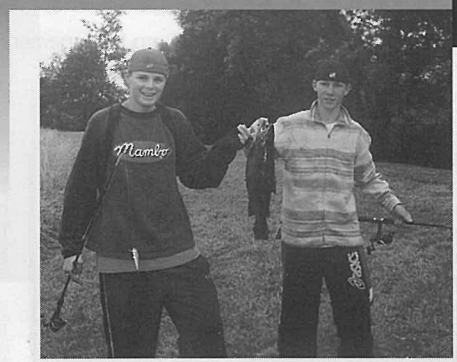
The Launceston Angling Club hosted the IFS free fishing day at Lake Waverley on 26 January. With the weather extremely poor, participant numbers were low, but this didn't stop "mums, dads and kids" turning up for a free sausage sizzle and some pointers from local club members.

Fourteen year old Matt Ritchie of Ravenswood (pictured) caught a magnificent 3lb rainbow in wet and chilly conditions. With fishing partner, 15 year old Jarrod Nicholson they continued to fish through the morning and managed to land other smaller fish.

Not to be outdone, Viv Spencer showed some finer points to angling newcomer, Elkana Ngwenya from Zimbabwe (better known to the Launceston Angling Club as Ali). Although Ali didn't manage to catch a fish, he did admit that some tuition wouldn't go astray. Ali described the fishing in his native Zimbabwe as either feast or famine, depending on the rainy season. In flood, fish would settle into ponds and depressions in the area and the locals would fish hard to catch them so that, when the following dry spell arrived, they would not perish. It was a case of both sides learning about how to fish in different parts of the world.

Right: Matt Ritchie and Jarrod Nicholson at Lake Waverley

Below: IFS Senior Inspector, Viv Spencer with some fishing tips for Elkana Ngwenya from Zimbabwe



Mums, dads and kids enjoying Clarence Club's sausage sizzle

Clarence Anglers Club member, Neil Pinkard showing visitors the Club's display



Pawleena Dam, Sorell

By Norm Cribbin, Clarence Anglers Club

About 50 people turned up at Pawleena Dam despite the weather conditions on the day. The Clarence Anglers Club were pleased with the public's response, especially considering that 80 per cent of these had never fished before.

Only a few fish were caught throughout the Day but it was enough to wet the appetite of a few novice fishers. Experienced Club members gave advice and fishing tips. The Day provided novice fishers with an opportunity, not only to learn to fish, but also to make contacts within the Club.

A family arriving at Pawleena Dam, Sorell



Carp Update February 2000

Tim Farrell, Fisheries Biologist, Carp Management

When European carp were found in Lake Crescent five years ago it seemed to many that the IFS faced an insurmountable challenge and the threat that carp infestation posed to Tasmania's status as a world class trout fishery with its wild and beautiful pristine waters. The fishing community and local anglers, meanwhile, faced the inevitable loss of Lake Crescent as a significant fishery, at least in the short to medium term. Now, after five years of work on the problem, the IFS Carp management team can see some light at the end of the tunnel.

To date 7050 carp have been removed from Lake Crescent. The population estimate from the tagging study carried out last summer indicates that there are less than 1050 remaining. This represents an 85% removal of all carp from Lake Crescent and over 95% removal of the original population.

Carp numbers in Lake Sorell are low and they have not been overly successful in reproducing in the lake. From five years of distribution surveys in the Clyde River catchment and other parts of Tasmania it is increasingly likely that carp are confined to lake's Crescent and Sorell.

The summer of 1999/2000 has seen a continuation of the eradication strategy of the last two years. Catches have been down despite high effort as carp numbers have been reduced. Radiotracking is still the key to success when used as a targeted fishing tool. It has become increasingly important as numbers are reduced and setting nets or electrofishing in favoured habitat or at random is unlikely to yield any fish. The "tracker fish" (male carp which have had surgically implanted transmitters) are located routinely and indicate whether the carp are aggregated or spread randomly around the lake. Aggregations, which occur for feeding or spawning, can then be located with radiotracking equipment, and fish captured using nets and electrofishing.

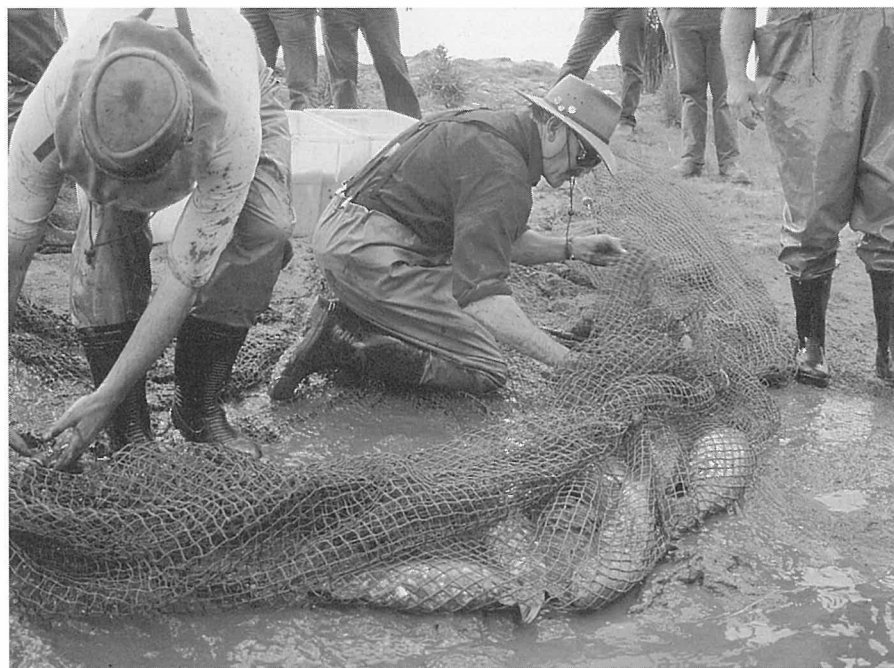
To effectively eliminate carp from Crescent, the remaining female fish need to be removed since males alone cannot

sustain a population. Males promote schooling behaviour in carp. They are an important research tool, providing a supply of tracker fish carrying transmitter implants and assisting in the capture of female carp.

Carp which have been identified as males, therefore, will be weighed, measured and tagged, and then released. The ratio of tagged fish to untagged males in future catches will provide a continual assessment of the numbers of carp remaining. When the only carp caught are tagged, all females and untagged males will have been removed from Lake Crescent.

By monitoring environmental conditions during spawning events, the IFS has a better understanding of the conditions which carp require for spawning. Some of these variables can be controlled while others cannot.

Seine netting for spawning adults in the Canal



Interlaken Canal – recent carp spawning site



The warm weather in late November early December last year, combined with an increase in flow of water through the Interlaken Canal, gave rise to ideal conditions for carp spawning. While a spawning event is generally not favourable, there were some benefits from this one.

The concentration of fish in the confines of the Interlaken Canal enabled the removal of large numbers of carp in a few days, including many of Crescent's remaining mature female carp (52). Male carp caught in the canal were tagged and released, allowing the start of the population assessment, with over 100 fish tagged. An excavator was used to remove aquatic plants and grasses containing deposited carp eggs, prior to their hatching. Electrofishing surveys are now being conducted to assess whether there was any recruitment from this spawning. Early indications are that a potentially large recruitment to the lake Crescent carp population was prevented.

Surveys to find juvenile fish continue in both lakes. As yet there is no evidence of carp spawning at Lake Crescent since 1996/97. Meanwhile, the size of juvenile carp caught at Lake Sorell, last November,

indicates that a spawning event took place in the summer of 1997/98. Numbers of this age class seem quite low despite the good conditions for carp spawning that occur at Sorell, indicating that there are relatively few adult carp there. Low catches per unit effort and the high ratio of tracker fish to unmarked carp in captures, are also indications of low carp numbers.

Assessment of the distribution of carp in Tasmania is an ongoing task. With the fifth year of surveys in the Clyde River catchment near completion, it is very encouraging that no carp have been found outside of Crescent and Sorell. However, the IFS is continually checking sightings of carp around the State. These reports have been subsequently identified as goldfish, tench or redfin perch. The IFS appreciates the public support and general concern about carp, so please continue to report the sighting of any "strange" fish. Upon capturing a suspect fish, photograph it, freeze it and contact the IFS on (03) 6233 4141.

Fishing in Arthurs and Great Lakes

By Peter Richards, Northern Tasmania Fisheries Association

Bait

This past year has seen a change in fortunes for bait fishing in Arthurs Lake. Gone are the peaceful afternoons when most trollers have "beached" their craft for the hotter parts of the day. When the sun is at its zenith, bait fishers would find a shady spot among the trees, drifting out a worm, grub or cockroach, sometimes with the float attached. With boats trolling past and others speeding from here to there looking for 'hot spots', this peaceful time seems rare these days.

Quite often a different spot needs to be found for that lazy afternoon on the lake. In the Morass area, try the trees dividing it and Blue Lake. The trees are often neglected because of their thickness. Many fine fish can be taken throughout the day by tying up to a tree and floating out your bait. By slowly

going along this strip of trees, it is possible to get your bag, if that is what you want, or peace and quiet as other boats usually give most of this area a wider berth.

In Great Lake it is much harder, for boats usually hug the shoreline because of the huge expanse of water. One area that usually gives up good fish to bait fishing is the sheltered water around Helen Island and along both sides of Reynolds Neck. Some of this area is not deep, but fish may be taken by using a careful approach.

Trolling

Hot afternoons have put fish down and made this type of angling extremely hard. Early morning is the way to go – very early. The first two hours will see the best of the fishing in Arthurs Lake and then it tapers off markedly. Lures to use are Savage No 4

and colours that have darker greens than usual. Olive green and opaque white has had a good success rate as morning grey turns to light. With the influx of boats over the last two years, and especially this year, most regulars admit that it is more challenging than ever to catch the wily trout.

In Great Lake the pressure is not so extreme. This huge lake is under-utilised and morning will see few boats in many areas. Lures here will see green and pink, and dark green and white, come into play. A good early morning run is along the dead tree line from Cramps Bay and around the corner to Elizabeth Bay. The tree line will give up nice browns of around 1 1/2kg, but Elizabeth will get the heart racing with rainbows over 1kg lifting out of the water and 'tail walking' in an effort to get free. This small bay has given up many fish this year and should continue to do so. Another area well worth the visit is along the shore from Cramps to the 'Intake'. This area also gives up a fair show of rainbows which have more than usual ability to fight free. Again, early morning and the 'evening shift' are the best times. Good luck.

Female anglers get the best from Arthurs

Viv Spencer, Senior Inspector, Inland Fisheries Service

I was recently informed by a reliable local Flintstone Drive identity that two women anglers from Ulverstone, had caught a fish each over 7lb during the week 26 February to 4 March, at where else but magnificent Arthurs Lake.

Pene Day couldn't believe her luck on the evening of the 25th of February when she fooled a 7 1/4lb brown trout with a dropper fly while drift-wobbler fishing in Phantom Bay near the edge of the trees.

Bev Parsons caught a 7 1/2lb brown trout near the dam later in the same week on a mud-eye. Bev realised at the last minute that she had left her landing net back in the car so, being a quick thinker, she packed rocks over her fishing rod and ran up and collected the net, returned, unpacked the rocks and netted her magnificent fish. I believe Bev gave up smoking six months ago and after this excitement the first person she saw greeted her with "have you got a smoke".



Pene Day, Ulverstone with her 7 1/4lb brown trout caught on a fly dropper

Bev Parsons, Ulverstone with her 7 1/2lb brown trout caught on a mud-eye

An angling report from the North

By Jim Ferrier, Councillor, Inland Fisheries Advisory Council

Arthurs Lake

Dun hatches and subsequent splendid fishing arrived on cue in December and January, and some good fishing followed. For much of the time the fishing was not easy as it often required time and effort to search for the best areas and "you should have been here Thursday" still holds. The few 'red letter days' made up for it.

Shore fishers in the shallows of the Cowpaddock and the Lily Pond reported outstanding polaroiding in the weed beds with the ever popular red tag and black spinner. The size and condition of these fish left nothing to be desired.

A well known local angler has a saying "When you see the first dun, put on a floating nymph". This works well in Arthurs and it often enlivened a slow day. To be at the right place at the right time is as important at Arthurs as elsewhere. As water temperatures increased and the sun blazed down in February, the fish were less inclined to show during the day and dun hatches faded but weighted nymphs came into their own. Fished very, very slowly on a long leader in 3-5 metres of water, subtle takes are hard to recognise but the results are worth the trouble.

As usual, the fighting and eating quality of the fish from Arthurs can hardly be bettered, though size depended on the location fished.

As the end of the season nears and water temperatures fall, wet fly in a good slop will certainly come into its own and an Edith Emily, cat fly, green thing or Dunkeld would be a good choice. A third fly – a butcher or Kate MacLaren – bobbed, loch style, at the end of the retrieve, can cause fish to follow the fly to the surface and snatch at it. To date, the gum beetle and jassid falls have not eventuated, though some of us always "live in hope".

Penstock Lagoon

Penstock has been a revelation this year.

The clarity of the water has been outstanding and, even after a southerly blow, polaroiding has been possible. Superb fish, both browns and rainbows, were caught from the opening day and the bag limit of three fish was regularly exceeded with catch and release being practised.

Word got around and anglers flocked to this small water, one angler admitting to have landed over 200 fish of which he kept three.

Jassids have been reported on the gums and there may be some dry fly fishing to come if a warm, calm day can be organised.

Little Pine Lagoon

Water levels have been variable with particularly low levels before Christmas. This appears to have reduced the weed beds and left the water cloudy and dirty. Minimum water level agreements with the Hydro-Electric Corporation, too late for this year, will moderate the problem in future years.

Organochlorine Compounds in Trout and Eel

By Phil Boxall, Fisheries Management Biologist

The Inland Fisheries Service, Department of Primary Industries, Water and Environment (DPIWE), and the Hydro-Electric Corporation have initiated a survey of organo chlorine compounds namely PCB (polychlorinated biphenyls) and OCP (organochlorine pesticide) in trout, eels and sediments in catchments around Tasmania.

The purpose of the survey is to establish the persistence of these substances in the aquatic environment of Tasmanian inland waters.

PCBs and OCPs are both members of the group of chemical compounds called organochlorines – organic (carbon based) chemicals which contain chlorine.

Organochlorines have both pesticidal and major industrial applications. DDT, for example, an organochlorine compound, was widely used as a pesticide in Tasmania until the 1970's and by 1987 it was no longer reported for use.

First synthesized in 1881, PCBs are relatively fire resistant, very stable, do not conduct electricity and have low volatility at normal temperatures. These and other properties have made them desirable components in a wide range of industrial and consumer products. PCBs have been used widely industrially, as hydraulic fluids, additives to surface coatings, plastics, lubricants and transformer oils and have also been phased out except for some limited usage in the electrical industry.

Commercial production of PCBs began in response to the electrical industry's need for safer cooling and insulating fluid

for transformers and capacitors.

These chemicals have been documented as being persistent in the environment and have the ability to accumulate in the food chain. They are stored in the body fat and persist in this fat for many years after exposure has ceased. Their accumulation in wildlife is a worldwide phenomenon. There have even been animals in the Arctic and Antarctica found to be contaminated from the effects on the environment of PCBs and OCPs.

Concern over the possible adverse effects of PCBs and OCPs began to emerge in the 1970's. They have been reported to cause immune system and reproductive damage in animals.

The current survey will involve collecting samples of trout, eels and sediments from 14 sites around Tasmania covering catchments including the Tamar, Derwent, Forth, Emu, Pipers, South Esk and Huon Rivers, together with Lakes Pedder and Gordon.

Analysis of the samples will be undertaken by the DPIWE Laboratory using state-of-the-art chemical analysis techniques of gas chromatography – mass spectrometry which is able to identify these compounds at the parts per billion level.

So far the majority of the sites have been sampled. Information obtained from the survey will be used as part of a nationally co-ordinated monitoring program, under the endorsement of the Australian Environment and Conservation Council, to determine whether the concentrations of PCBs and OCPs in the environment are decreasing with time.

Fish quality has been patchy with some anglers vowing not to go back to catch lean fish in turbid waters while others caught limits of superb 4lb plus fish. The latter evaded my fishing skills all season and I became a member of the former brigade.

The last month of the season often livens up at Little Pine with a small smattering of duns about the middle of the day. Investigation and searching for these very local hatches will pay dividends as the fish are often maidens in good condition. Little Pine is always worth a look in April.

Great Lake

Great Lake has dropped very fast in the last two months and many of the shores, which were our usual haunts, are dry. It at least gives a view of the lake contours for future reference when the level is restored.

Wind lane fishing at last light has been frustrating; fish feeding all around but never a take. What they were feeding on remains a mystery.

Once again, the quality of the fish has been variable but the potential is there.

Four Springs Lake

Four Springs continued to be a prime brown trout fishery as was intended in the management plan. It's not a water where great catches are expected – go to Brushy for numbers – but the quality remains impressive though dedication is essential.

Unfortunately, an outbreak of blue-green algae in early March brought the fishing to a premature end this season.

Brumbys Creek

Brumbys Creek has been flowing at maximum capacity in recent weeks. This has allowed fish to take up resident station in areas where they could only prospect early in the morning and at last light. Some good fish have been caught – and lost – in the heavy weed beds. Leapers to dragonflies and red spinner are sure to raise the blood pressure, but catching them is another matter.

National Recreational and Indigenous Fishing Survey

Australian fishery resources, which are generally regarded as 'common property assets', support a range of commercial and non-commercial activities of varying social and economic value. The effective management of these resources, meanwhile, relies on a range of up-to-date and reliable information about the fisheries involved – including participation levels, the amount of fishing effort, harvest levels for each species and so on.

While extensive information is routinely collected for the commercial fisheries sector, comparatively little is known about the recreational sector, especially in terms of harvest levels. For certain species, large proportions of the total catch are believed to be attributable to the recreational fishing sector.

The National Recreational and Indigenous Fishing Survey (National Survey) was initiated in response to the demand for better information on the catch, effort and economic activity of the recreational fishing sector. It represents a unique opportunity to collect detailed information about recreational fishing and therefore will, for the first time, allow management initiatives to be developed and assessed on the basis of 'total fishery' data. It is jointly funded by the Fisheries Action Program (Natural Heritage Trust), the Fisheries Research and Development Corporation (FRDC) and State and Territory fisheries agencies.

The National Survey is the product of nearly four years of consultation and negotiations between States, Territories, key stakeholders and funding bodies. It is being coordinated at a national level by the Sustainable Fisheries Division of the Commonwealth Department of Agriculture, Forestry and Fisheries, and implemented at a State and Territory level by the local fisheries research agencies.

Hence, the Survey strategy uses the substantial local knowledge and expertise which exists in fisheries agencies, but ensures that the survey results will be comparable throughout Australia. The Tasmanian Aquaculture and Fisheries Institute (University of Tasmania), therefore, is responsible for all aspects of the conduct of the national survey in Tasmania.

The overall project comprises four discrete survey components, conducted in parallel over a 12 month period:

- 1 *National Telephone Survey* which will collect a range of information about recreational fishing (incl. participation, catch and effort, expenditure) from a representative sample of Australian residents.
- 2 *On-site Survey* – conducted at fishing sites, boat ramps etc. throughout Australia by trained field staff of each state fisheries agency to provide important additional information to the Telephone Survey – including fish sizes and assessment of the species identification skills of fishers.
- 3 *Visiting International Fisher Survey* – conducted as a 'follow-on' survey of respondents interviewed in an ongoing survey of international visitors on departure from Australia (major airports).

4 *Indigenous Fishing Survey* – conducted at a sample of aboriginal communities in coastal regions of northern Australia (from the Kimberley in WA, across the NT, down the Queensland coast to Cairns).

The objectives of the Survey, in summary, are to quantify (for the resident population):

- participation in recreational fishing and socio-demographic profiles of the populations involved (e.g. age, sex and household size);
- boat ownership, vessel profiles (e.g. length, power vs. sail) and usage/investment levels in terms of recreational fishing;

- recreational fishing effort (hours and days fished) and catch levels (numbers by species, both harvested and released) for a full 12 month period;
- for the same period, expenditure on recreational fishing-related items (incl. tackle, bait, travel, accommodation etc) and the proportion of that expenditure, which is attributable to recreational fishing (as opposed to other activities); and
- the opinions of fishers in terms of various fisheries-related issues and levels of awareness regarding key fisheries regulations.

The scope of the Survey is confined to non-commercial fishing activities, covering the range of recreational fishing methods including: line fishing, nets, pots, diving and other gathering methods.

For more information about the Survey, contact Dr Jeremy Lyle, Survey Manager, Tasmanian Aquaculture and Fisheries Institute, University of Tasmania on (03) 6227 7255 or email Jeremy.Lyle@dpiwe.tas.gov.au

Fish release from Corra Linn

Noel Maroney, Inspector, Inland Fisheries Service

In mid February 2000, 60 rainbow trout with an average weight of 1kg, were released into the North Esk River from the Long Pond at Corra Linn Hatchery, assisted by members of the Corra Linn Fly Fishing and Casting Association.

Most fish were reluctant to leave Corra

Linn as they had been spoilt by children, anglers and the local Inland Fisheries Service inspector.

So, if you'd like to catch a nice fat rainbow trout in the North Esk River in the next couple of months, now's your chance but be kind to him!

Nick Moore, Jai Moore and Jim Fulton – members of the Corra Linn club helping with the release of rainbows



Liberating Brown trout fry in Penstock Lagoon

Recently, 6000 brown trout fry were released into Penstock Lagoon. This was the third stocking for 1999. Previous liberations were: 250 adult

brown trout – 27 May 1999; 18 000 rainbow trout fry – 29 November 1999; and 6 000 brown trout fry – 14 December 1999.

Daniel Hackett, a work experience student from the University of Tasmania – enjoying a beautiful day in the highlands releasing trout fry into Penstock Lagoon



Introducing the new IFS logo

After considerable deliberation over the public image of the new Inland Fisheries Service, and how this might translate to a visual tag, the IFS has agreed upon the logo pictured below. The reason for the change is because it was felt that the Commission's old logo was no longer appropriate for the new Service. This is largely due to the significant changes that have occurred following implementation of the Review and also because the IFS is keen to project an image that is more in keeping with the 21st Century. The logo will also appear in a badge form on uniforms and cars.

Inland Fisheries SERVICE



Prosecutions

Infringement notices

Offence	Number
Fish without a licence	4
Possession of net.....	1
Possession or use of net.....	2
Take whitebait.....	2
Take fish from closed waters	1
Use a strike indicator	2
Use more than one rod and line	2

This newsletter is produced by the Inland Fisheries Service 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:

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Ph (03) 6233 4140, Fax (03) 6233 4141 or on the Internet at www.ifc.tas.gov.au

Court proceedings

Offences that were proceeded with by summons are listed below.

Offender	Location	Offences Summary	Total fine + costs (\$)
Peter Warren LAMBERT, Forest	Deep Creek	Possess and use whitebait net, take whitebait	2 035-30 (Payment of fine suspended on condition Lambert commit no offences under the Inland Fisheries Act or Regulations)
Peter Warren LAMBERT, Forest	Duck River	Take whitebait, possess net	2 000-00 (Payment of fine suspended on condition Lambert commit no offences under the Inland Fisheries Act or Regulations)
Peter Warren LAMBERT, Forest	Duck River	Take whitebait, possess net, possess whitebait	3 000-00 (Payment of fine suspended on condition Lambert commit no offences under the Inland Fisheries Act or Regulations)
Peter Warren LAMBERT, Forest	Duck River	Take more than 1kg of whitebait	335-30
Joseph Dale BANFIELD, Smithton	Montagu River	Possess net	535-30
Craig John CANN, Wynyard	Inglis River	Possess net, take whitebait, obstruct an officer	635-30
Tung Thanh Vu NGUYEN, Claremont	Derwent River	Unlicensed	235-30
Phillip Mark LOWERY, Deloraine	Meander River	Possess assembled rod in closed water	224-20
Phillip George THOW, Devonport	Forth River	Possess and use net, take whitebait	635-00