

INLAND FISHERIES COMMISSION

NEWSLETTER

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Lake Pedder and Lake Gordon - Inspection and Meeting

Members of the Commission held a meeting with Strathgordon anglers to discuss the fisheries at Lake Pedder and Lake Gordon. The Commission received a number of helpful suggestions from anglers regarding additional facilities for visitors and fishermen at these lakes which have become great fisheries.

The current limited access to Lake Gordon could be improved by the installation of a camping ground and boat access to the lake at the end of Island Road. The camping ground would need to be about 200 metres by 60 metres deep. In other words, most of the ground below the Island Road to the margin of Lake Gordon. Further, where the IXL Holly Road ends in two branch terminals, launching facilities could be provided. Improvements have already been made at the Edgar Lake to the boat ramp and camping area and it is envisaged that further improvements could be made here.

At Strathgordon itself, facilities are needed for the caravan-type camping visitor. Further consideration will need to be given to a launching site right at Strathgordon for clients at the Chalet and the campers at Strathgordon village.

Launching facilities at the Serpentine area are excellent and the Strathgordon Angling Club has a well-appointed club house for rest and meals at the Serpentine. There are no camping facilities at the Serpentine and it is not envisaged that any would be provided because of lack of space.

Fishing at Lake Pedder continues to be in the world-class. Among the largest fish caught so far are - 11.1 kg by Mr. Graeme Parker and another angler, and the largest fish caught on a dry fly is a brown weighing 7.6 kg caught by Mr. Milne. Popular areas for fly-fishermen are around the Scotts Peak area near Edgar Dam and, for other forms of artificial lures, the Serpentine area and the Gabians.

At Lake Gordon anglers are catching fish 1 - 2 kg in the Calder Reach.

Assistance from other instrumentalities

During the inspection of Lake Pedder and Lake Gordon, valuable assistance was given by the Hydro-Electric Commission and the National Parks and Wildlife Service. The Commission had fruitful discussions with staff of both organisations on matters relating to fisheries in the area.

Course on electro-fishing

The Commission has approved a visit by Mr. Wayne Fulton, Biologist, to New Zealand to undertake a course in August in the operation of electro-fishing machines. The Commission, being aware of the dangers associated with electro-fishing by untrained persons, desires to have a fully qualified operator.

Rainbow trout fishery in Lake Gordon

The Northwestern Fisheries Association has supported the liberation of rainbow trout in Lake Gordon.

Illegal importation of natural bait

The Commission inspectors have seized yabbies brought into Tasmania and used at Dee Lagoon. Other information received by the Commission indicates that other forms of live bait have been brought into Tasmania and the Commission wishes to draw attention that this practice is illegal.

Application for trout farm licences

The Commission has received several applications from persons wishing to farm trout in small farm dams. The Commission referred the matter to angling associations who are unanimous in opposing this type of fish farm development.

Canadian pond weed

The Hydro-Electric Commission has maintained the level of Little Pine Lagoon at a high level throughout the summer at the request of the Inland Fisheries Commission and proposes to keep it at as low level as possible during the winter in an attempt to control the spread of Elodea canadensis. The Commission received reports that the Canadian pond weed is also present in Penstock Lagoon,

Lakes Flora and O'Dell and Julian Lakes and Arthurs Lake. The distribution of Elodea canadensis is of great concern to the Commission and the Commission would be pleased to receive reports of the occurrence of this weed in other storages. A sample of the weed for identification would be useful.

Lamprey investigations

Dr. Jean Joss of Macquarie University collected lampreys from the Plenty River to continue investigations.

Corra Linn road

The Commission proposes to seek \$10 000 in the 1977-78 Loan Fund Appropriation for the purpose of upgrading the access road to Corra Linn. Work will be done by the Public Works Department and that Department would make a similar contribution.

Film on trout fishing

The Australian Broadcasting Commission recently made good progress in its four-segment film on the trout fishery of Tasmania. The Inland Fisheries Commission staff provided technical assistance on the project.

Cormorants

Tasmania has been visited with the largest number of cormorants for many years. Enquiries elsewhere have indicated that cormorants are ten-times more numerous along the Murray Valley than they have been in most years. This dramatic increase in the cormorant population due to successful breedings early in 1976 in Northern Victoria, was followed by a dispersal in which birds migrated to Tasmania.

There is some evidence that in the autumn of 1977 the numbers of cormorants on Tasmanian freshwaters have decreased slightly. The Commission, itself, found it necessary to kill over 100 cormorants at the Salmon Ponds and approximately 60 at Liawenee Canal. Reports of anglers killing large numbers of cormorants have come from all parts of the State. Anglers on the Northwest were particularly active.

The Commission has received a number of complaints from municipal councils and from Members of Parliament regarding the influx of cormorants into Tasmania and the possibility of reintroducing a bounty was suggested but rejected, as this form of control has not proved satisfactory.

However, it is likely that cormorants have taken a large number of fish in smaller streams.

Retirement of Mr. A. F. Jones

Mr. A. F. Jones retires from the Commission on 19th April, 1977, after forty-seven years service with the Commission and the Salmon and Freshwater Fisheries Commission.

Mr. Jones is the fourth-generation of his family to work on the trout fishery in Tasmania. His great-great grandmother married the assistant to William Ramsbottom, who accompanied the first shipment of trout ova to Tasmania.

Benthic fauna research at Arthurs Lake

In January 1977, the Inland Fisheries Commission commenced sampling the bottom fauna of Arthurs Lake. Six marker buoys indicating the sampling sites were placed at stations in the lake. The buoys provided anchorage for a boat during sampling and were to enable relocation of the site at a later date. All buoys were clearly marked with the words "IFC sample site".

It is regrettable to find that after two months, only three of the six buoys remain.

Fisheries research is difficult at any time, but without the co-operation of anglers, who stand to benefit from it, research and consequent maintenance or improvement of a fishery is frustrated. The Commission would appreciate hearing from anglers who may see anyone interfering with these marker buoys.

Court cases

At Bothwell Court of Petty Sessions on 7th February, 1977, before M. A. Hannon, Magistrate, Phillip Stephen Cowen of Goodwood and Ross Allen Siggins of Lachlan appeared and pleaded guilty to two charges of - being an unlicensed angler at Meadowbank Dam on 10th October 1976 - fined \$50 each - and fishing by means other than a rod and line at Meadowbank Dam on 10th October 1976 - fined \$20 each. Costs of \$8.00 were imposed on each defendant. Fisheries Officer B. Isaac prosecuted on behalf of the Inland Fisheries Commission.

At Beaconsfield Court of Petty Sessions at 10 a.m. on 17th February 1977, before K. Dockray, Magistrate, William Lewis Tunks of Scott Street, Ilfraville, was charged with fishing in Middle Arm Creek at Beaconsfield on 1st August 1976, without an angling licence. The complaint was

proved and William Tunks was fined \$50.00 with \$8.10 costs. The case was heard ex parte.

At Evandale Court of Petty Sessions on 18th February 1977 before H. T. McGrath and A. J. Hart, Justices of the Peace, Geoffrey Williams of Box Street, Mayfield, was charged with fishing in the Nile River on 12th November, 1976, without an angling licence. The complaint was proved and Geoffrey Williams was fined \$60.00 with \$8.10 costs. The case was heard ex parte. Fisheries Officer N. Maroney prosecuted on behalf of the Inland Fisheries Commission.

At Bothwell Court of Petty Sessions on 25th February 1977 before Messrs. A. Goggin and L. White, Justices of the Peace - Jorg Hergert, Ravenswood Rd., Launceston, pleaded guilty by summons to a charge of fishing in the Clyde River on 2nd October, 1976, with two rods. He was fined \$50.00 with costs of \$8.00.

Douglas John Wells, Sorell Street, Devonport, pleaded guilty by summons to a charge of fishing in Lake Crescent on 2nd October, 1976, with two rods. He was fined \$50.00 with costs of \$8.00.

Donald James Wilson of James Street, Devonport, pleaded guilty by summons to a charge of fishing with two rods at Lake Crescent on 2nd October, 1976. He was fined \$50.00 with \$8.00 costs.

Arthur Henry Alfred How, Preston, pleaded guilty by summons to a charge of using two rods in Great Lake on 25th November, 1976. He was fined \$50.00 with \$8.00 costs.

Owen Leo Gardiner of Lyell Street, Westbury, pleaded guilty by summons to charges of fishing without a licence on 25th November, 1976 - fined \$50.00 with \$8.00 costs - and falsely representing to be a licensed angler on 25th November, 1976 - fined \$100.00 with costs of \$8.00.

Chester John Tatnell of Wentworth Street, Hobart, pleaded guilty by summons to charges of taking two spawning rainbow trout from Mary Creek, Lagoon of Islands, on 29th August 1976. He was fined \$50.00 with \$8.00 costs, plus a penalty of \$20 for each of the two fish taken - and taking fish with a gaff hook - fined \$75.00 with \$8.00 costs. Senior Inspector M. F. Duncan prosecuted on behalf of the Inland Fisheries Commission.

At the Deloraine Court of Petty Sessions on 17th March 1977 before K. N. Dockray, Magistrate, Bryce William Lovell of James Street, Devonport, was charged with being an unlicensed angler on 8th November, 1976, at Great Lake. He was fined \$60.00 with \$8.10 costs - on the same date falsely representing to be a licensed angler - fined \$80.00 - and fishing in an artificial lure only area with natural bait - fined \$25.00. The case was heard ex parte and Senior Inspector M. F. Duncan prosecuted.

At Evandale Court on 18/3/77 before J. Littlejohn and I. Bezette, Justices of the Peace, Phillip Jarman of Box Street, Mayfield, was charged with being an unlicensed angler in the Nile River on 12/11/76 - fined \$50.00 - and falsely representing to be a licensed angler - fined \$50 with costs of \$8.30. The case was heard ex parte and Fisheries Inspector V. Spencer prosecuted.

At Bothwell Court of Petty Sessions on 25th March 1977 before J. B. G. Edgell and A. J. Goggins, Justices of the Peace, Shane Michael Jago of Bass Highway, Burnie, appeared and pleaded guilty to fishing when not licensed at Tods Corner, Great Lake, on 27/12/76 - fined \$50.00 with \$8.00 costs - and using natural bait in an artificial lure area on the same date - fined \$20.00.

Stephen John Dunn of Montrose Place, Launceston, appeared and pleaded guilty to fishing without a licence at Great Lake on 30th October, 1976 - fined \$50.00 with \$8.00 costs. He also pleaded guilty to falsely representing to be a licensed angler on the same date - fined \$50.00.

Donald Trevor Dunn of Montrose Place, Launceston, was charged with fishing without a licence at Great Lake on 30th October, 1976 - fined \$60.00 with \$8.00 costs - and falsely representing to be a licensed angler on the same date - fined \$70.00.

Leon Douglas Phillips of Cimitiere Street, Launceston, was charged with fishing without a licence on 30th October, 1976 - at Great Lake - fined \$60.00 with \$8.00 costs - falsely representing to be a licensed angler - fined \$70 with \$8.00 costs - and using two rods - fined \$40.00.

Kevin Sullivan of Yarbrook Street, Launceston, appeared and pleaded guilty to a charge of using two rods at Great Lake on 13th January 1977 - fined \$20.00 with \$8.00 costs.

William Grahame Collier of Ashton Court, Sunbury, Victoria, pleaded guilty by summons to charges of fishing without a licence at Tods Corner on 27th December 1976 - fined \$60 with \$8.00 costs - and using natural bait in an artificial lure area on the same day - fined \$40.00. Senior Inspector M. F. Duncan prosecuted.

Supersize trout

The following feature, written by Geoffrey West, was supplied to the Commission by the London Press Service through the British Consulate General's office and is included in the "Newsletter" as a matter of interest to anglers.

On a fish farm near the city of Winchester, in southern England, Mr. Sam Holland has bred a strain of trout which achieve a weight of 16 kg. Indeed, he even has some aged

four and a quarter years which have reached 17 kg.

This Avington strain of trout is remarkable not only for size but for economical feeding (a food conversion ratio of between 1.2 and 1.25 to 1) and fast growth.

"It takes most trout breeders two to three years to obtain a 1 kg fish", said Mr. Holland, "but we take only one. In the second year we can produce a 3 kg fish, and in the third, one weighing 6 kg. In this third year our trout gain as much as 0.45 kg per week."

Worldwide Interest

Not surprisingly, the Avington trout have attracted world-wide interest. Eggs are exported to the United States of America (U.S.), South Africa, Japan, Hong Kong, Cyprus, Sweden, France and Germany; and this is by no means a complete list.

During the first six months of this year sales of eggs and fry totalled 11.5 million and Mr. Holland also sold some 75 000 trout from 30 cm long and up to 5 kg in weight.

He stresses the need for more rearing-on trout farms. The older ones are designed mostly for fish up to a quarter of a kilogram. The newer ones are planning for bigger fish, and the larger fisheries are turning increasingly to the table market. Among the rearers of Avington trout is Lord Shaftesbury, whose lakes are stocked with a million trout.

Mr. Holland requires all his rearers to use the same fish food (BP Nutrition's standard pellets), so that the colour and quality of Avington trout can be maintained. Their flesh is pink, and they are large enough to be cut into cutlets of a useful size; or, of course, the trout can be smoked or cooked in the same way as salmon.

Stocked a Lake with Trout

He has been a projects design engineer, working on the Lunar Exploration Module with the National Aeronautics and Space Administration in the U.S.A. After his retirement from the aerospace industry in 1967 he bought a few hectares of land at Avington. There he stocked a lake with trout and let rods to other fly fishermen. Soon, however, he decided to breed his own trout.

"I bought a lot of fish and practised selection", he says. "I took 50 hen fish and stripped them of eggs, and 50 cock fish and stripped them of milt. That gave me a quarter of a million different fish or - repeated four times - one million". Of these he selected the larger hens and mated them with their largest brothers. The following year the same hens were mated with their largest offspring. And the year after that the third generation cock fish were mated with the daughters of the first hens.

In this way the characteristics of the Avington strain were fixed so that they now breed true to type.

Today it is a simple matter of using one cock fish to 1 000 hen fish. Mr. Holland has some 17 000 brood fish, varying in size from about 1.5 kg to 13 kg. He maintains between 200 and 250 cock fish for breeding, although six would suffice for 17 000 hen fish.

Fertilisation Prolonged

In establishing this strain of giant trout Mr. Holland has clearly had remarkable success as a breeder; and it would be no exaggeration to say that some of this success, at least, stems from his experience as an aerospace engineer.

"The normal practice in breeding is to strip a cock fish with a hen to get a single cross. The problem is", he explains, "that the breeder has only about 40 seconds for fertilisation of the egg, as after that brief period the egg flaps close."

Mr. Holland pioneered a method of prolonging the fertilisation period from 40 seconds up to as much as five hours. "It is a dry process," he says, "in which the eggs are subjected to a slight degree of negative pressure (vacuum)." This is part of the secret of keeping the egg flaps open, and the idea came readily to this former aerospace engineer. The absence of water is important too, for if it is present the flaps will close.

Stripping of the fish is carried out under anaesthetic, the fish merely being placed in the impregnated water. The choice of anaesthetic is important. The first one which Mr. Holland used caused some preliminary excitement and violent movements, but he has now obtained one which causes the trout quickly to go limp.

Stripping under an anaesthetic is a less stressful process for the fish, and it can be complete in that virtually no eggs are left behind to cause trouble later. The eggs are placed first in a sterile container. The milt is stored in a vacuum flask, for use as required over a two and a half month period.

Near Sterile Conditions

A basic requirement for the Lunar Exploration Module, on which Mr. Holland worked, was to ensure as near sterile conditions as possible. This he has put into practice in fish breeding work, knowing that many failures are due to bacterial contamination of the eggs through using water from streams, old wooden boxes, dirty utensils and so on.

His own hatchery is supplied with uncontaminated water from a borehole at a temperature of just under 11°C - "not far above that of the melted snow which trout are accustomed to in their natural spawning grounds", he says. This water, which needs oxygenating, flows at the

rate of about 23 litres/minute through immaculate polystyrene troughs in which are placed trays of the same material, each containing 1 000 eggs. After 35 days the fry (free swimming and feeding) are transferred to polystyrene tanks. No wooden or galvanised fittings in this hatchery.

Such conditions as these, plus the fact that no fish have been bought in for five years, go a long way towards ensuring that the trout remain healthy. As an additional safeguard Mr. Holland retains the services of a commercial laboratory (recommended to him by the Ministry of Agriculture and Fisheries), one of whose staff makes visits of inspection every two or three weeks.

Staff of Four

The Avington Trout Fishery has four hectares of water. The stews can be oxygenated by pumping in air or by taking well oxygenated water from the river.

There are electric and diesel engined pumps, and Mr. Holland has his own generator in case of a mains electricity failure. He employs three men full time and one student, who is a former Royal Navy officer with 24 years' service and at present on a rehabilitation scheme following retirement.

Plans for 1979 include an expected production of 1 000 tons of trout of 4.5 to 7.0 kg.

Import of ova to Tasmania

In reading the above article, anglers should note that there is an Australia-wide ban on the import of any salmonid ova, in the interest of keeping out fish diseases which may enter into Australia. Because of its isolation for such a long time, the diseases which are so troublesome overseas are absent from Australia and the Governments of the various States and the Federal Government have acted to prevent the entry of unwanted diseases which could cause great damage to the salmonid fisheries in Australia.

(D. D. Lynch),
Commissioner