

*Tay District Salmon Fisheries Board*



*Annual Report*  
*2005 / 06*





## *ANNUAL REPORT 2005 / 06*

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# **TAY DISTRICT SALMON FISHERIES BOARD**

## **Chairman**

John Milligan (Mandatory for Ballathie Timeshare)

## **Members Elected by Upper Proprietors**

W. Lindsay (Mandatory for Taymount Timeshare)  
J. Aphorp (Mandatory for Stobhall Timeshare)  
R. Gardiner (Mandatory for Pitlochry Angling Club)  
D. Glass (Mandatory for Clayfield Investments)  
J. Young (Mandatory for Laird Securities)  
A. Mactaggart (Mandatory for Taymouth Fishings)  
Viscount Stormont (Mandatory for The Viscount Stormont's Trust Trustees)  
R. White (Mandatory for Mr A. Gifford)  
M. C. Smith  
P. Steuart-Fotheringham

## **Members Elected by Lower Proprietors**

D. Clarke

## **Co-opted Members**

*Representatives of Tenant Netsmen*

Tay Foundation

*Representatives of Salmon Anglers*

J. M. Smith  
Lt. Col. R. P. D. Gordon  
Brigadier C. C. Dunphie  
J. Tritton (Tay Ghillies Association)  
J. Wood  
R. Rattray

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## 2006 REPORT

### Season 2006

The 2006 season opened on the 16th of January with high water (7ft), but the remainder of the month was dry and frosty and the river fell back to quite a low level. A few fish were caught in the first week, mainly fresh fish in the 8 - 10 pound bracket, but towards the end of the month, catches seemed to dry up. About 40 fish are thought to have been caught in total including at least 3 from Loch Tay. The first half of February continued in a similar vein; low cold water and few fish. However, after a spate in mid month, things improved and February ended on a higher note. Approximately 100 fish were caught.

The improvement in catches at the end of February accelerated in March which proved to be a good month overall. It seemed as if most of the winter was packed into this one month during which stiff frosts prevailed along with some significant bouts of snow. At the end of the month was there a thaw and a large spate. About 500 fish are thought to have been caught, the best March for many years. In fact you have to go back to 1980 before the official Government statistics show more. Because of the colder weather the pattern of catches was a little different from recent years with most fish being caught from Stanley up to Dunkeld or in the Isla. A number of fish were even caught in the very lowest beats which have tended to do very badly in recent springs. However, although conditions may have helped some of the lower beats, the general impression was that there genuinely were more fish about.

April proved to be a great month! It started off with quite a bang when around 300 springers were caught in the first week alone. After that catches did slowly tail off but the monthly catch was probably between 800 and 900, again the best April in years. As to conditions, April also remained a relatively cool month, and fish were caught on some lower beats which don't normally fish so well at this time. So, again, conditions may have helped, but there seems little question that there were considerably more fish about, a fact later backed up by the fish counters (page 16).

May was a reasonably good month, not as good as April, but still better than for a few years. In the first half of the month the water was generally quite low, with some hot sunny days but the last ten days were wetter with a return to unseasonably cool weather. In the first half of the month the fish seemed to dry up, but from mid month more fresh fish started appearing again, but fishing conditions were not always good. At least 600 fish are likely to have been caught.

June is usually the doldrum month on the Tay, and in 2006 catches did again slow down, but for June it was still quite good. The water was mainly low with higher water at the start and in the third week. The catch is estimated at around 600, the majority of which were salmon. There was a showing of grilse early in the month, but they never strengthened. For the second year in a row July proved to be a bit of a disappointing month. The grilse run, which normally really gets going in early July, was very slow to materialise, increasingly only gradually through the month. The catch is estimated at about 800.

The grilse run which only really got going at the end of July continued in strength in August, just as it had done in 2005. Some excellent catches were made. Over 2,500 grilse and salmon are estimated to have been caught in August, which when compared with the "official" catch returns, made it the best August since 1989, and double the average catch for the ten years up

to 2005. Partly this was because the main grilse run was several weeks late and grilse which should have been caught in July were not caught until August. It was also a dry month with low water helping to keep the grilse in lower and middle Tay beats rather than allowing them to shoot quickly upstream into the tributaries. Despite this, as shown by the fish counters (p. 16), there was a good run of grilse, but notably the average size was unusually small, although by the end of the month this did improve.

After the good fishing of August, September was more mixed. The water was relatively low in the early part of the month, but in the last ten days the river ran high and was rarely settled. Reasonable catches were made throughout the Tay but many beats still caught fish which had entered during August. Catches of fresh fish in the lowest beats didn't really pick up as expected by that time of year. By the end of the month the quality of the fresh fish had improved but some very small specimens were still being caught, much as it had been all summer. Although the biggest catches were on the lower Tay, catches were still well spread and beats from Kercock up to Kinnaird had a greater than normal slice of the action. In total catches are likely to have been of the order of 2,500.

The last two weeks of the Tay season were not quite as good as hoped. Water conditions were never really good for long because of spates, and by the end of the season it was apparent that true autumn fish hadn't arrived in big numbers. Most of the fresh fish were grilse, with some larger salmon in the high teens of pounds, but not as many as usual. The total catch for the month, including the Earn and Eden may not have exceeded 1,500.

The 2006 season may be summarised as having an excellent March/April (the best for many years), an average late spring, a poor July, but a great August once the grilse arrived three weeks late. The autumn was moderate. The overall catch is likely to have been around 10,000 for the third year running. The most successful individual beat was again Islamouth where for the full week 746 salmon / grilse were reported, followed in second place by Coupar Grange with 633.

### **More late grilse and thin grilse!**

In last year's *Annual Report* it was reported that the summer grilse run had been late and that many of the grilse were small and thin. As reported above, 2006 was no better with many being very thin and even resembling kelts. Read more on page 33.

### **Conservation of spring salmon**

In 2006 the Board continued to encourage anglers to release spring salmon. It continued to recommend that anglers, as a minimum, should release the first spring salmon they catch and alternate fish thereafter up to the end of May. Some slippage in return rates was apparent when the official figures for 2004 were published at the end of 2005, so the Board particularly stressed the poor performance of the Tay relative to other rivers and encouraged proprietors and anglers to adhere to the recommendations. However, on the recent publication of the 2005 figures it was encouraging that an improvement had already taken place, but it is still the case that the recommendations are still not being fully complied with, as a majority of fish are still being killed.

As an incentive to return spring fish, the scheme of rewarding anglers who return fish with sweatshirts was continued and further supplies of sweatshirts were purchased.

Year	Number released	Number killed	Total caught	% released
1998	41	540	581	7
1999	108	831	939	12
2000	193	637	830	23
2001	415	739	1154	36
2002	271	524	795	34
2003	199	281	480	42
2004	301	684	985	31
2005	446	669	1115	40

Table 1. Numbers and percentage of rod-caught salmon released and killed up to end April from official returns to the Scottish Executive.

### **Fishtay / fishscotland website**

2006 saw the third year of operation of the [www.fishtay.co.uk](http://www.fishtay.co.uk) website. The popularity of the website has continued to increase. The great majority of beats on the main stem of the Tay downstream from the Tummel are now using the site to some extent, though uptake has been less elsewhere in the district.

Of the 56 beats which have a page on the site, 28 have tried the online booking facility. Uptake of this facility has been a slow and gradual process but, once used, proprietors generally report very favourably on the service. In 2006, 2,206 rod days worth £122,000, were booked online as opposed to £54,000 in 2005. There were differences in the success of individual beats using the facility, obviously reflecting the fishing available etc., but there are several factors which seem to be important in aiding success.

- Reporting catches. Beats which report catches do get the anglers' attention.
- Avoid over-pricing. Beats which offer fishing at a substantially higher price than other beats offering similar quality fishing or offer "ghillie extra" etc. get lower bookings, indeed to such an extent that overall income is less.
- Avoid unnecessary restrictions. Restrictions, for example, by insisting that a block of days or a block of rods are booked does also seem to reduce online bookings. It is especially important that, as it gets close to the date, restrictions should be lifted. For example, if a minimum 3 days booking is imposed and by Friday there is still availability, then it is not possible for any further fishing to be booked for the remainder of the week. This does in fact happen!

It is also clear that beats which do not use the online booking service, even if they do display availability but insist on "no online booking", receive far less attention than those who do. Those who put in no effort seem to gain little reward, but a modest amount of effort suddenly produces considerable reward.

The Fishscotland team who run the website are continually looking for new ways to improve the service and to add value. The most valuable innovation in 2006 was the addition of a "rod alert" service. Anglers can now register to have emails sent to them when new rods are added to the availability list. This should further increase booking levels, especially for the most sought after beats.

As a further indication of the popularity of the site, during September and October 2006 fishtay was averaging between 50,000 and 60,000 “visitor sessions” per month, on average nearly 2,000 visitor sessions per day. The website has clearly become the major information source for Tay anglers and doubtless will continue to become ever more so.

### **Health and Safety at Work**

Health and Safety at work is a major consideration for the Board. The Board’s staff are required to work in situations which can present potential hazards. Accordingly, the Board is insistent that Health and Safety provision is of the highest standard. In order to help maintain the high standard the Board’s Health and Safety Policy was reviewed and updated in 2006. Amongst other things it incorporated working practices in the Board’s new adult salmon holding facility at Almondbank. The review was conducted by a firm of Health and Safety specialists, Greens of Haddington.

No reportable accidents occurred during the year.

### **Staff**

During the year there were some changes in the Board’s staff.

In January the Board recruited a new Biologist, Dr Kjersti Birkeland. Kjersti is originally from Norway where her main field of interest was in interactions between sea lice and sea trout. More recently she was the biologist for the Argyll Fisheries Trust. She has already become a valued member of the team and has progressed a number of new projects for the Board in 2006.

Early in the year Leading Bailiff Colin Gordon resigned from the Board’s employment for a new career. He was later replaced by Craig Duncan. Craig was a ghillie on the Tay and brings with him a wealth of knowledge gained from his experience on the river.

### **Prosecutions**

2006 saw a number of individuals apprehended for various poaching incidents within the district and reports are being sent to the Procurator Fiscal. The Board’s bailiff staff enjoyed excellent co-operation with Tayside Police who provided exemplary back-up in a number of operations and are gratefully thanked.

Of particular interest were some cases which were submitted to the Procurator Fiscal concerning suspected illegal fishing near Scone in 2005. For many years the Board has been aware of a problem whereby some anglers may try to exploit a perceived loophole in the law. As the water is tidal, there is no requirement for a permit to fish for non-migratory trout or other freshwater fish in the Tay in the vicinity of Scone Palace. During dry autumns considerable numbers of salmon can accumulate in this area, especially those waiting to run the River Almond. On such occasions numbers of anglers can appear and fish with heavy spinning lines and lead weights on the end of which is typically attached a light trace and trout flies. It is usually claimed that brown trout or frequently rainbow trout are the target species. It has long been observed that salmon can be hooked on such tackle or foul hooked. In 2005 after a joint operation between Board staff and Tayside Police a number of reports were forwarded to the Procurator Fiscal. Unfortunately, in some instances no proceedings

were taken. However, one angler did plead guilty to fishing for salmon without permission and attempting to foul hook salmon and he was fined £250. This prosecution represents a milestone and it is hoped that the increased vigilance in this area might finally deter this activity in future.

### **Salmon in the classroom**

As mention in last year's *Annual Report*, Salmon in the Classroom is an initiative managed by Scottish Natural Heritage in which the Board is a partner along with the Esk Board, Perth and Kinross Council Ranger Services, Angus Council Ranger Services, Atholl Estates Ranger Services and Scottish and Southern Energy Plc and is part funded by the EU LIFE Fund. It is intended to raise awareness of the river environment and salmon in particular among school children in the locality.

2006 was the third year of the scheme and included the following primary schools: North Muirton (Perth), Letham (Perth) and Goodlyburn (Perth), Abernyte, Forteviot, Killin, Logierait, Grange (Monifieth) and Seaview (Monifieth) and some others in the Esk district.

The Board supplied each with approximately 50 eyed salmon eggs from the hatchery and these were kept in the schools in small tanks. In previous years there were great problems in keeping the eggs cool and most died. An effective solution was found in 2006 when the tanks were placed in small clear fronted fridges (wine chillers) which meant the eggs could be kept at approximately 4 degrees. This completely revolutionised the project. Board is very grateful to Mr John Apthorp for giving a generous donation towards the purchase of the fridges. On hatching the fry were released into local streams and Fisheries Board staff later electrofished the streams to show the pupils how the fish had survived. The schools also visited the Fisheries Research Services hatchery at Almondbank which has always proved highly popular. Such was the popularity of the project that Deputy Environment Minister, Rhona Brankin MSP, visited the release of fry into the Anny Burn near Scone.

### **The Hatchery**

The winter of 2005 / 06 was the third year of operation of the Board's hatchery. A number of modifications were made prior to the start of the hatchery season in 2005. This included the installation of adult holding tanks at the hatchery and extra incubation facilities allowing incubation of up to 3 million eggs. The new tanks made for more convenient operation of the hatchery and easier handling of the broodstock.

However, when operations commenced the weather proved very difficult for catching up broodstock. From about the 20<sup>th</sup> of October for the following three weeks it rained almost perpetually in Perthshire. This made it very hard to catch broodstock in upper tributaries, so the numbers of spring salmon broodstock collected was not as high as had been possible in the two previous years. The number of eggs stripped was estimated at around 1.5 million, as opposed to 2 million in 2004 and after some mortality which always occurs, approximately 1.3 million eggs and fry were stocked out in the spring of 2006.

The eggs were obtained by a combination of electrofishing and electronetting adult salmon in upper tributaries and by angling by ghillies in the main stem of the Tay.

As in previous years, incubation in the hatchery proceeded smoothly. No problems with fungus occurred. The mortality level among eggs, including those which failed to fertilize, was estimated to be around 10 - 20%. Most of the eggs were stocked out as eyed ova in February and March and the remainder as unfed fry in May.

<b>Tributary</b>	<b>Estimated number stocked</b>
Almond (Dunan)	35,000
Braan (Cochill Burn)	75,000
Braan (Girron Burn)	25,000
Braan (mainstem)	50,000
Cononish	50,000
Earn (Glascorrie Burn)	25,000
Earn (Machany Water)	30,000
Earn (Strath a Glen Burn)	80,000
Earn (tributaries between Comrie and St Fillans)	40,000
Earn (Turret Burn)	30,000
Errochty Water	90,000
Eden	30,000
Garry (Dalnamein Lodge)	180,000
Isla (Burrelton Burn)	80,000
Lochay	75,000
Lyon (Invervar Burn)	15,000
Lyon (Milton Burn)	50,000
Shee (Glen Lochsie Burn)	75,000
Tay (Kindallachan Burn)	20,000
Tay (Inchewan Burn)	30,000
Tilt (Lochain Burn)	60,000
Tilt (Tarf Water)	75,000
Tummel (Fincastle Burn)	90,000
<b>Total</b>	<b>1,310,000</b>

### **Cargill's Leap Easement**

Cargill's Leap is a waterfall on the River Ericht at Blairgowrie which has long been a problem for salmon. Salmon can ascend the waterfall but usually with some difficulty. This has meant that at some times salmon build up below the waterfall in large numbers where they become highly vulnerable to poaching and to disease. It has long been an ambition of the Board to make this fall more passable. The 2005 *Annual Report* described how the height of the fall was reduced by 50 cm by blasting. Further works were then conducted in the spring of 2006 to raise the level of the water downstream of the fall to help reduce the turbulence at its base. Contractors were employed to place large boulders on the bed of the river at a constriction point just downstream from the fall and raise the level. This work was funded through grant aid obtained by the Tay Ghillies Association.

As a result of these works it is felt that fish do seem to be passing Cargill's Leap easier than they used to, though it may take several years before we can demonstrate a definite pattern.

## **Proposed Fisheries Legislation**

As of November 2006, a new Aquaculture and Freshwater Fisheries Bill has reached Committee Stage in the Scottish Parliament. The main provisions of this Bill have been generally welcomed by the angling community, although in some areas it is felt they may not go far enough, especially the omission of *Argulus* from parasite control proposals. They include:

- Stricter regulations on fish farms regarding the control of sea-lice.
- Regulation on the movement and stocking of freshwater fish.
- Prohibition of gaffs, tailers and knotted landing nets in angling.
- Legalisation of some methods of coarse fishing.
- Powers for emergency action in the event of a *Gyrodactylus salaris* outbreak.

The Bill also proposes to clarify the law on harling. The Scottish Executive have said that they consider it may technically be illegal. This Bill seeks to remove any doubt as to its legality and impose a maximum number of rods which may be fished from any boat of four.

## **River Lyon Project**

This project, joint funded by the Board, the Tay Foundation and Scottish and Southern Energy, has investigated the invertebrates in the River Lyon. The work was conducted by Heather Jackson of the Department of Geography of the University of Aberdeen as a PhD project. Heather's thesis has been submitted with the examination scheduled for 30 November 2006. The study has shown that in the upper part of the Lyon the insect community is different from that which might normally be expected in this type of river, although it does recover further downstream. Changes in temperature and flow regime and water chemistry through hydro regulation are all implicated as possible contributory factors.

## **Pitlochry Dam Tailrace Screens**

Downstream of the turbines at Pitlochry Dam vertical bars spaced at 3 inches apart prevent salmon from entering the tailrace and guide them towards the fish pass entrance. While this seems to work with spring salmon, small grilse are able to wriggle between the bars. In recent years considerable numbers of grilse have pushed through into the tailrace and cannot return. This summer was no exception. Once an accumulation was noticed in August it was decided to lift the screens to allow the grilse to escape. The grilse quickly disappeared and an increase in fish counts in the fish pass was noted.

The alternative is to install narrower screens. However, narrower screens may potentially increase the likelihood of smolts being damaged on their downstream migration, as most of the smolts are thought to migrate through the turbines. The current practice of keeping the screens in during the spring and removing them once a build up of grilse occurs seems to be a reasonable compromise.

## **Proposed new hydro stations**

As reported in recent *Annual Reports* proposals for new hydro stations keep appearing. 2006 was no exception. New schemes are being proposed on the Innerwick, Invervar and Inverinian burns (all Glenlyon), the Allt Coire Chaorach (Crianlarich) and the Kinnaird Burn

(Pitlochry). Older proposals on the Keltney Burn (Glenlyon), Innerhadden Burn (Strathtummel) and on the River Braan continue through the process of authorization. These schemes are generally on streams not accessible to salmon, except for their lower reaches. The Board has been consulted and significant concerns have been addressed where possible.

Generally speaking the generating capacity of these schemes is small. The Braan scheme, for example, is equivalent to about one windturbine and the others considerably smaller.

### **Closure of the Irish Drift Net Fishery**

The Irish Government recently announced that drift netting at sea for salmon will no longer be permitted as of 2007. The fishermen will be compensated. The Irish drift net fishery has for some time been the last major drift net fishery for Atlantic salmon. Its closure is not only good news for Irish salmon populations but also for rivers in southern England, Wales and parts of Scotland which may have been significantly affected by it. Historical tagging studies by Fisheries Research Services found that some Tay salmon were caught in this fishery. More significant for the Tay are the remaining Northumbrian drift nets which must become increasingly hard to justify in the light of the courageous Irish decision.

### **Ordie and Shochie habitat improvements**

Over the winter of 2005 / 06 work was conducted to improve the riparian habitat along parts of the Ordie and Shochie Burns in the vicinity of Bankfoot. Parts of these burns have become degraded because livestock have caused erosion of the banks and also because trees are increasingly shading the burn which is likely to be reducing the burn's productivity.

On the Ordie, over a section of approximately 600 metres shading was reduced by lopping off the lower branches of trees (mainly alder) and thinning out small specimens under 10cm diameter. Following the thinning / coppicing work fences were erected to exclude animals from the stream. The work was performed by contractors, being the first time a project like this has been performed locally. On the Shochie several obstructions in the form of fallen trees were removed, a weir was modified and on the Ordie a further weir was demolished. Many valuable lessons were learned and it is hoped that in subsequent winters a programme of riparian improvements can be continued.

The work was funded by the Tay Ghillies Association through grants obtained from the National Lottery Awards for All and Scottish Enterprise Tayside's Leader Plus scheme.

### **Cononish Project**

The Cononish is the name given to the upper reaches of the River Dochart, the symbolic headwaters of the Tay. It is an area which should be very important for spring salmon.

However, surveys by the Board have found that numbers of juvenile salmon tend to be very low in comparison to the Fillan Water (which the Cononish becomes) only a few miles downstream. It was thought that perhaps just too few fish managed up to spawn. However, salmon fry of local origin have been stocked on several occasions and do not appear to survive well.

The cause of this problem is unknown. In the first instance it is necessary to establish whether there is a water quality problem. An investigation of the invertebrate community has therefore been established and is being conducted by Board staff and funded by the Tay Foundation.

### **Historical data project**

Some estates hold historic records of fish catches in game books etc., but this rich source of information has never been collated. It is important that such information is properly documented in order to help place present day catches in the context of the past. A request was made to proprietors throughout the district requesting access to such records as they may hold. A considerable number of records were forthcoming and these are gradually being digitized. A full report will be available in 2007. The Board is again grateful to the Tay Foundation for helping to fund this project.

In the meantime, if anyone holding records has not already responded, the Board would be grateful to hear from you.

### **Board Website**

The Board has for several years had its own information website, [www.tdsfb.org](http://www.tdsfb.org). With the advent of the fishtay website this website was largely left to languish. However, the Board has employed website specialist Paul Fishlock on a temporary basis and the website has been revamped and is gradually being developed. It is intended that this website will be a major information source of news and issues surrounding the management of salmon in the Tay District.

### **Proposed new powers for Boards to collect catch data**

At present only the Scottish Executive has legal powers to request proprietors to submit annual catch returns. All proprietors in the district should receive and return a catch form every autumn. However, the information is then published in an aggregated form for the whole Tay district in an annual bulletin. The information is not provided to the District Salmon Fisheries Board at any finer scale. On the Tay, in particular, this is something of a handicap, for an aggregate district figure is pretty meaningless if you are interested say a particular tributary. For many years the Association of Salmon Fishery Boards and others have argued that DSFBs should have the statutory powers to collect, or have access to, catch data from proprietors.

Consequently a Statutory Instrument is in the process of becoming law. It is intended that from 1 January 2007 DSFBs will have the powers to request proprietors to provide catch data in the same way as the Scottish Executive currently does. At the time of writing the Tay Board has not decided whether it will exercise these powers or considered how it would be done. A major concern would be to try and ensure that inconvenience to proprietors through receiving multiple requests is minimized.

### **Conservation of Atlantic Salmon in Scotland (CASS), EU LIFE Project**

Work by Scottish and Southern Energy under the CASS project continues. The Borland fish lift at Stronuich Dam on the River Lyon was replaced earlier this year and the Gaur Dam fish

pass was upgraded last year to improve fish access. Work is now currently ongoing at the Model Dam and Kenknock Falls on the River Lochay where SSE are rebuilding fishpasses which had fallen into disrepair. Shortly they are to commence work on modifying the Borland lift at Lochay Falls which is thought to be inefficient at passing salmon (see page 18).

Encouragingly a recent survey upstream of Gaur Dam by Board staff found both salmon fry and salmon parr at the railway viaduct below Loch Laidon and in one tributary. Staff from Faskally Lab also netted a salmon parr in Loch Laidon in the summer. However, salmon were not found in the River Ba, west of Loch Laidon. West of Gaur Dam there is a great amount of habitat available for salmon which is now being recolonised.

A bid to obtain £20,000 for tree coppicing work on the Ordie, Lunan and Errochty from the LIFE fund has also been successful.

### **Smolt production above Stronuich Dam**

Stronuich Dam is a hydro diversion dam on the upper Lyon, situated approximately three miles downstream of the larger Lubreoch Dam. Salmon can pass through Stronuich by means of a fish pass until they reach Lubreoch, the highest point on the Lyon salmon can now access. Studies by the University of Aberdeen have found that invertebrate numbers between these two dams are relatively low and seem to be affected by factors like the unnatural temperature regime below Lubreoch Dam. The survival of juvenile salmon in this reach is not known and could potentially be relatively poor if there is insufficient food.

In order to assess the productivity of this area, a smolt trap was installed on the Lyon just downstream of Stronuich Dam in May 2006. By comparing the numbers of smolts passing through the dam with the numbers of adults which were counted through the fish counter at the dam, the survival of salmon in this area can be estimated.

2006 was very much treated as a trial year. Some smolts were caught but some teething troubles had to be overcome (mainly caused by the quantity of algae continually drifting downstream) which meant the main part of the smolt run was missed. The teething troubles corrected, a successful trapping is anticipated for 2007. The Board is again grateful to the Tay Foundation for financial support for this project.

### **Invasive plants survey**

During the summer a survey was undertaken to identify the distribution and abundance of three invasive plant species in the Tay catchment, namely Japanese knotweed, giant hogweed and Himalayan balsam. These plants are making rapid encroachments on parts of the Tay system, as in other Scottish rivers. They are aggressive and spread rapidly, crowding out native plant species and have a general detrimental effect on river ecology. Knotweed in particular is not easy to kill. The aim of this survey is to develop a strategic control programme for these plants over the coming years. Unless these plants are tackled soon they will become even more dominant. Hence the Board would like owners to inform us of the existence of any of these plants and any experience of trying to control them.

The survey was funded by the Tay Foundation.

## FISH COUNTER RESULTS 2006

In the Tay district there are five resistivity fish counters which provide valuable information on the status of the salmon resource. Four of the counters are owned and operated by Scottish and Southern Energy plc at fish passes on the rivers Tummel, Lyon and Lochay and the Board is grateful to SSE for providing the data from these. A fifth counter is operated by the Board on the River Ericht at Blairgowrie. All these counters are located on spring salmon producing tributaries and the data so obtained are particularly important in monitoring the strength of spring runs.

### Pitlochry Dam

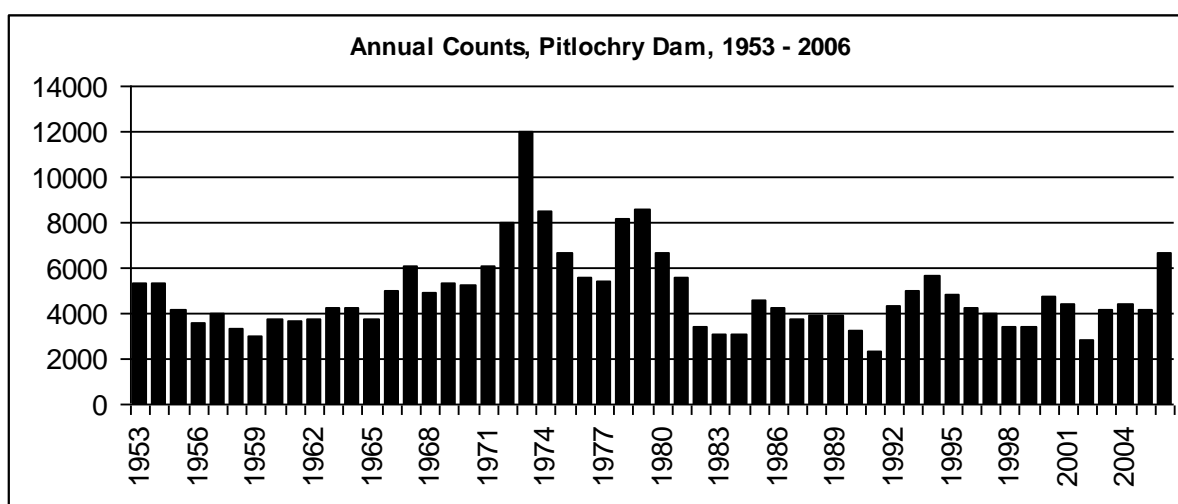


Figure 1. Annual net upstream counts (that is down counts are subtracted from up-counts on a daily basis) through Pitlochry Dam fish ladder, 1953 – 2006.

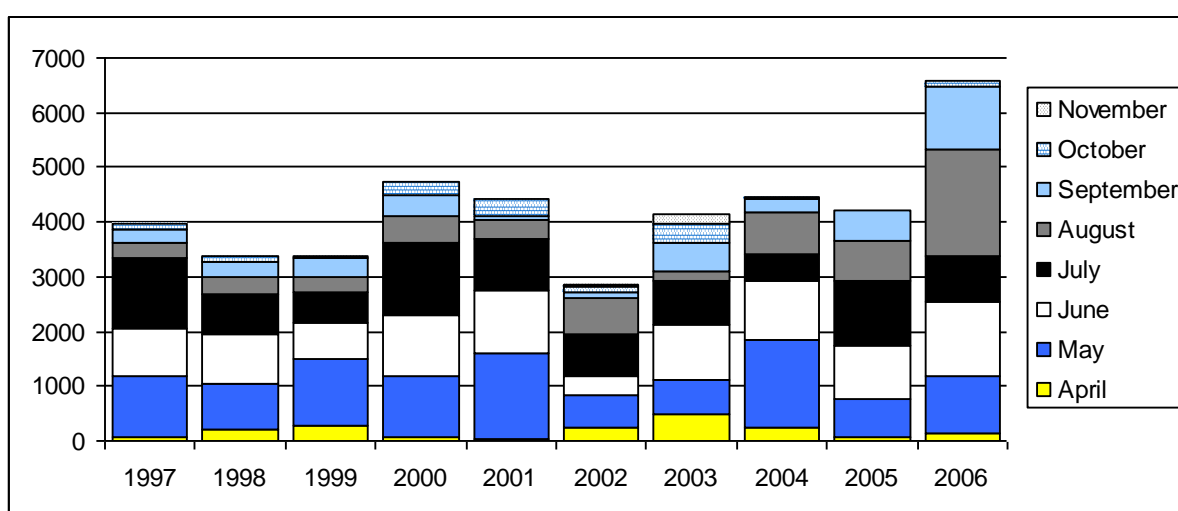


Figure 2. Monthly net upstream counts, Pitlochry Dam, 1997 to 2006 (final year incomplete)

The count at Pitlochry Dam for 2006, at 6650, was the highest count since 1979 and head and shoulders above anything in recent years. The spring run was relatively late in passing through the dam owing to a colder spring and many “springers” probably did not ascend until

June or even later. The count to the end of June was one of the best in recent times (Fig. 2). Some grilse are always present in June counts, but since the grilse were late in '06 it is likely this count reflected the good spring run as reflected by catches generally. The biggest boost in the counts resulted from considerably increased grilse counts but these mainly ascended in August and September reflecting the apparently delayed run in Scotland and Ireland in 2006. However, as a caution, at the end of 2004 a new counter was installed at Pitlochry replacing one which was known to undercount small grilse. It may partly be that grilse are now being counted more accurately, but even so, it would still mean that the '06 grilse run was much stronger than '05.

### Clunie Dam

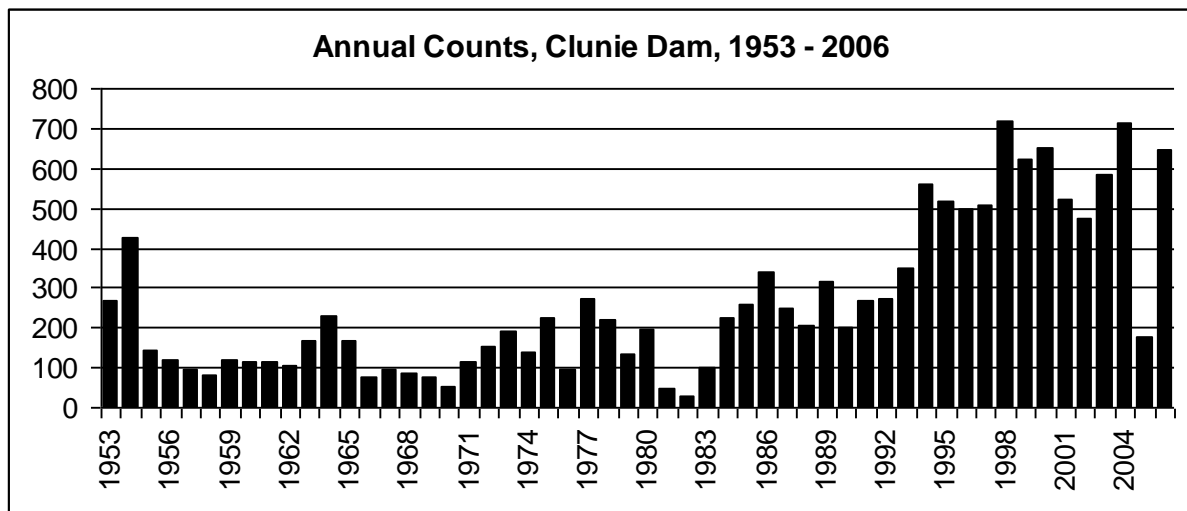


Figure 3. Net annual upstream counts through Clunie Dam fish ladder, 1953 to 2006.

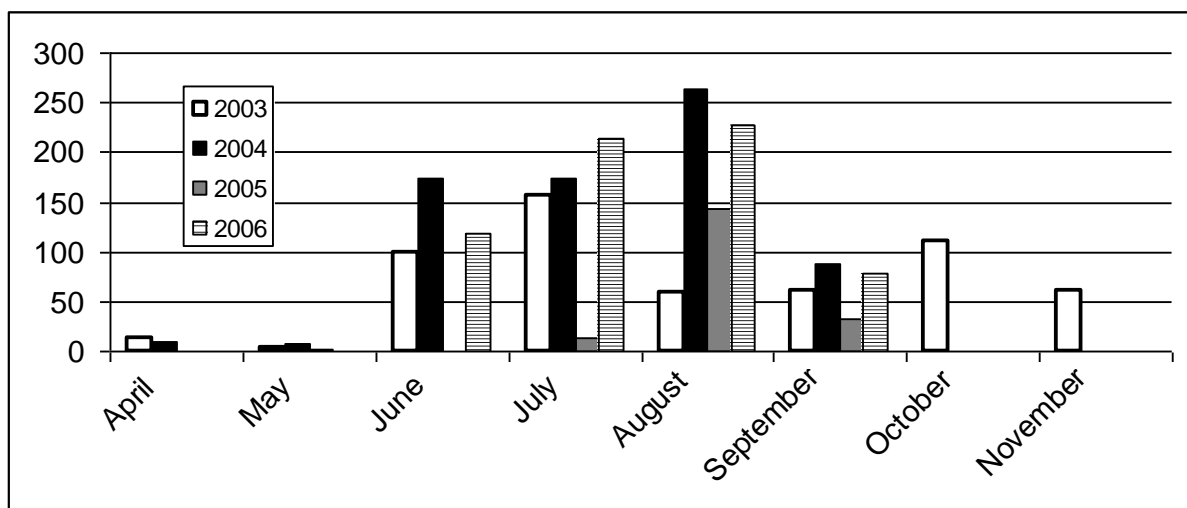


Figure 4. Monthly net upstream counts, Clunie Dam fish ladder, 2003 - 2006

Counts at Clunie Dam were again up at the historic high levels seen in recent years, following a counter malfunction giving low counts in 2005. Counts at Clunie Dam increased in the 1990s after improvements in smolt passage led to an expansion of the population in the

western part of the catchment. This increase now seems to have stabilised but hopefully improvements in access on the Gaur system will result in renewed increase (page 15).

### Lochay Falls

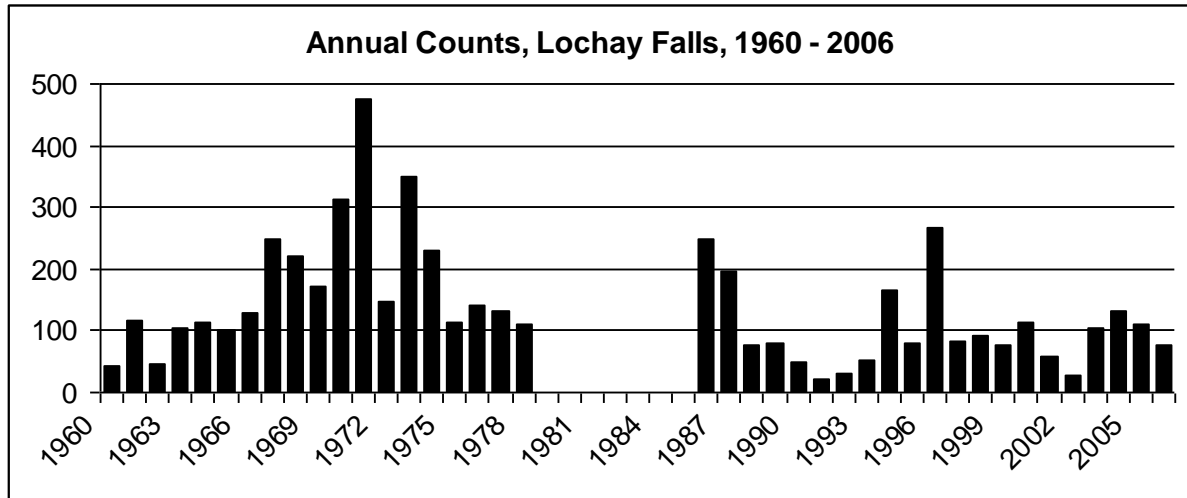


Figure 5. Net annual counts at Lochay Falls fish lift, 1960 to 2006

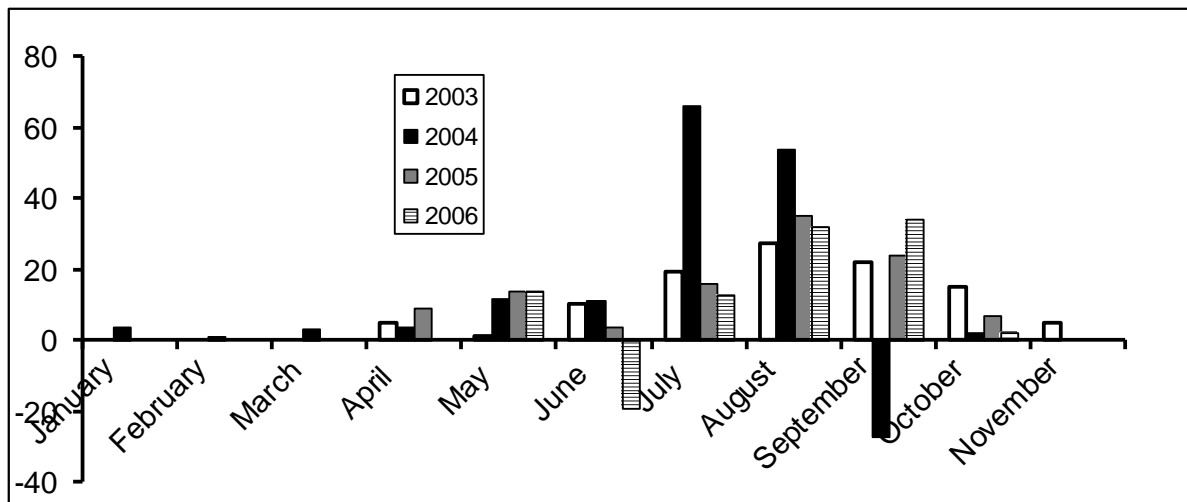


Figure 6. Net monthly upstream counts at Lochay Falls, 2003 and 2006 (final year incomplete)

The Lochay Falls are a naturally insurmountable barrier to salmon on the lower reaches of the River Lochay near Killin. As compensation for the loss former spawning areas on the Lyon through damming, the North of Scotland Hydro Electric Board installed a Borland fish lift to allow salmon access to the Lochay. The 2006 count was, however, lower than for several years. The monthly counts indicate that on occasions fish which ascend the pass may subsequently drop out again. Improvements to the Borland lift are to be conducted over the winter 2006 / 07 and it is hoped in future the pass may be more attractive to salmon (page 15). If so, future counts should increase.

## Stronuich Dam

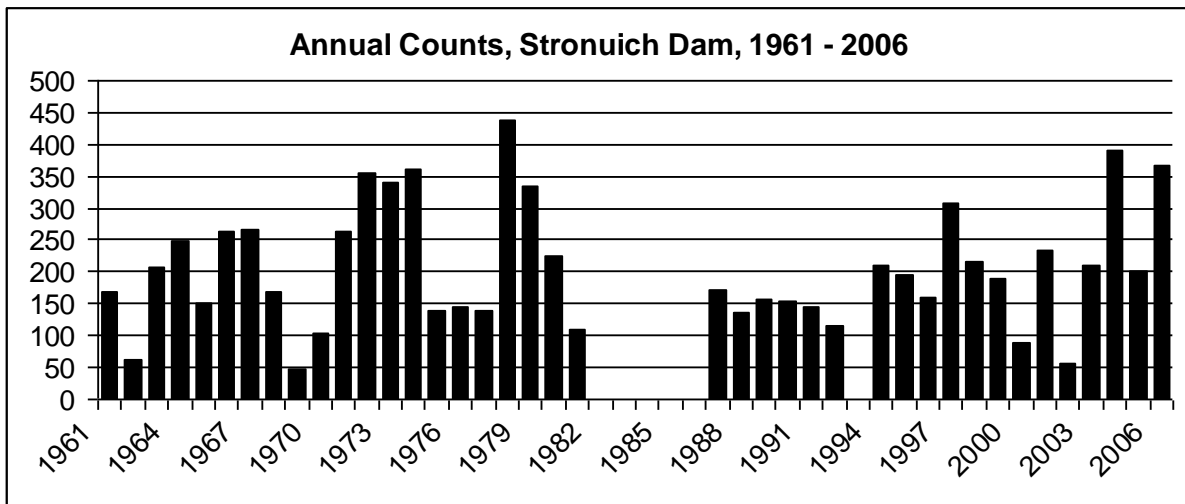


Figure 7. Net annual upstream counts at Stronuich Dam, River Lyon, 1961 to 2006

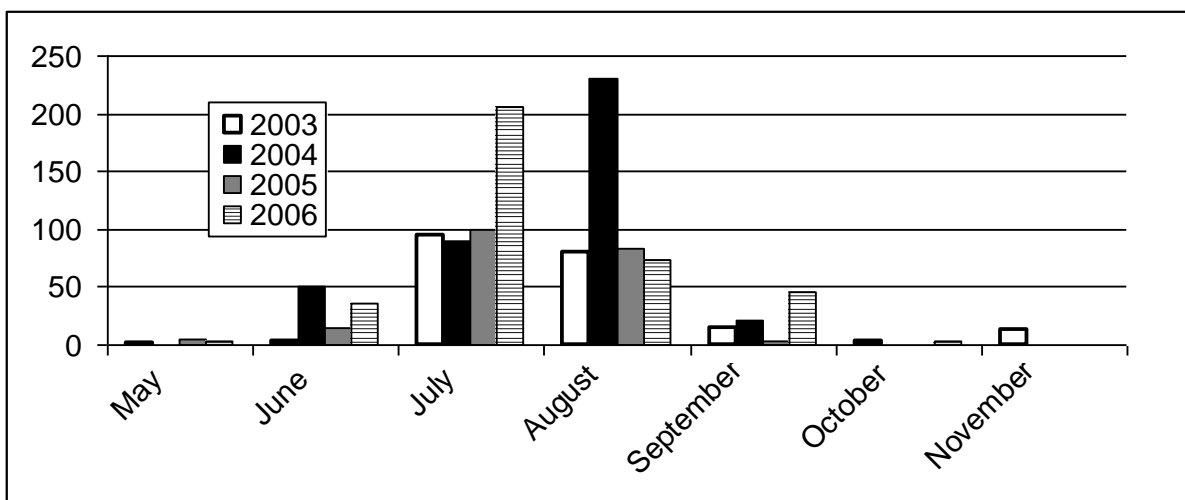


Figure 8. Net monthly upstream counts at Stronuich Dam, 2003 - 2006

Stronuich Dam is situated near the head of the River Lyon, about three miles downstream from the larger Lubreoch Dam which is the highest point to which salmon can ascend the Lyon. Salmon can ascend Stronuich Dam into this short length of river by a Borland fish lift. 2006 was one of the best counts there has ever been, but as the fish pass was completely refurbished in 2006 it is not clear yet whether this may have been due to improved efficiency of fish passage. The biggest counts this year were in July, which might have reflected the better spring run in '06, since the grilse run on the Lyon was late, as elsewhere. Spring salmon, of course, take some time to ascend that far.

## River Ericht

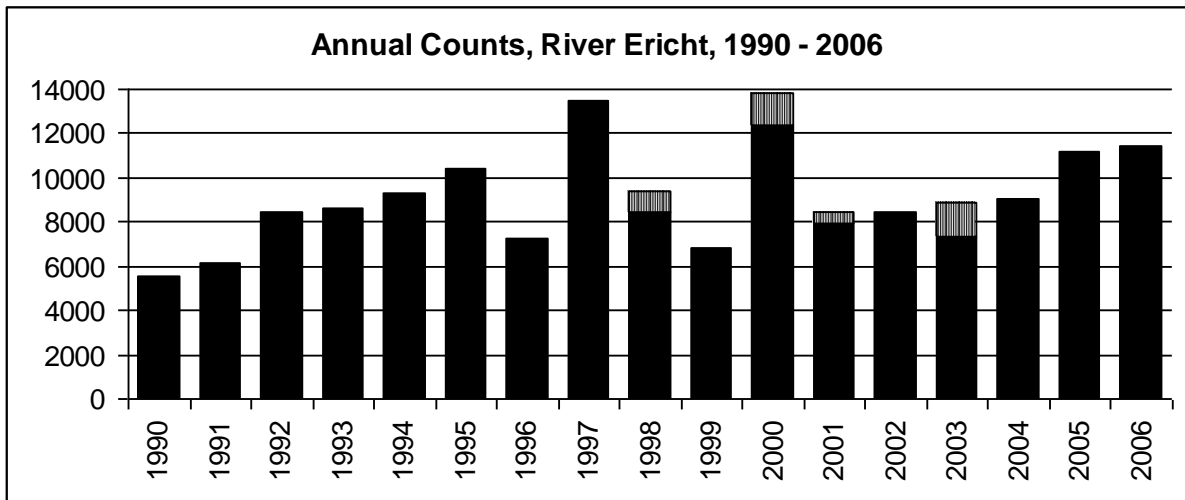


Figure 9. Annual upstream counts at the Blairgowrie fish counter, River Ericht 1990 – 2006. Hatched areas give indication of possible extra counts which might be added in years of malfunctions or when fish were trapped below the counter.

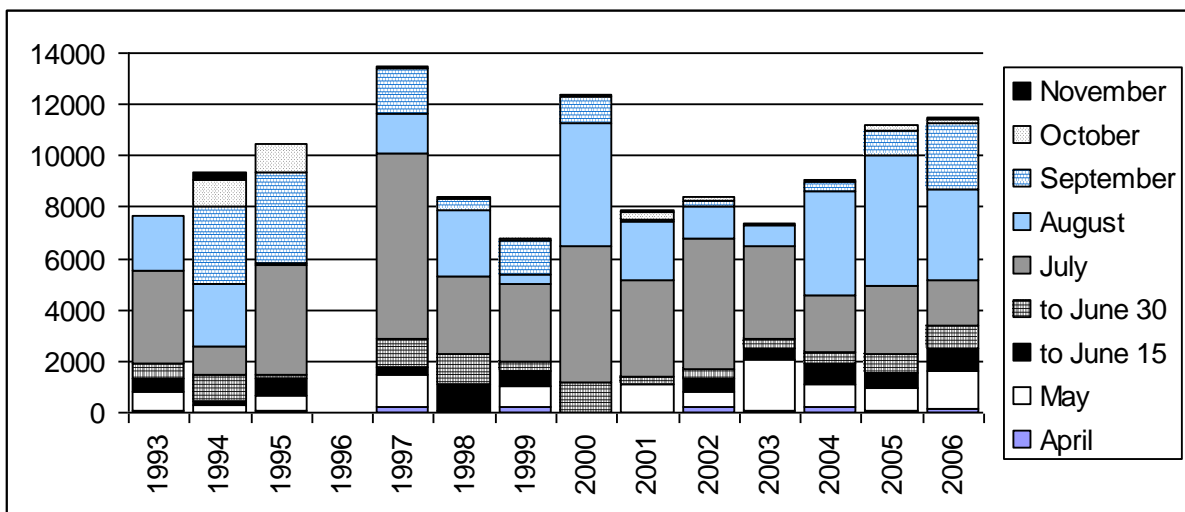


Figure 10. Monthly upstream counts at the Blairgowrie fish counter, River Ericht, 1993 to 2006. Note: data are not available for 1996 nor the springs of 1998 and 2000.

2006 saw another excellent count on the Ericht. At 11,500, this was the third biggest since the counter was installed in 1990. Counts to mid June and end June were at their highest recorded levels, reflecting the improved spring runs. Again, like elsewhere, the main grilse run occurred late in the season reflecting the lateness of their arrival in the Tay and a period of low water. As in '05 grilse numbers were, however, relatively good.

## **Overall conclusions**

As concluded in last year's *Annual Report*, the fish counters continue to show a pretty stable or reassuring picture in recent times, with the exception of Lochay Falls. These counters are all situated in areas of early running populations. Their results indicate that early running populations in the Tay currently seem to be sustainable at their present level.

## TAY SALMON CONSERVATION AWARD

In order to encourage participation in projects to improve the river and to continue to encourage the conservation of salmon a new award was created – the Tay Salmon Conservation Award. It was intended this would be presented annually to an individual or group who has made an outstanding contribution towards the conservation of salmon in the Tay district. The winner would receive the Ballathie Trophy, a fine bronze cast of salmon, kindly donated by Ballathie Estates, at an annual Tay Salmon Conservation Award Dinner.

The inaugural Dinner was held on 9<sup>th</sup> March 2006 in the Long Gallery in Scone Palace and was attended by nearly 120 guests. The Award was presented by Mrs Morag Milligan to Mr Duncan Glass, secretary / treasurer of the Tay Ghillies Association. It is fitting the first ever award was made to Mr Glass who has made a tremendous contribution in recent years, bringing considerable skills and energy, especially in the field of fundraising. After receiving his award, Mr Glass commented that the Tay Ghillies Association had raised £104,000 towards river projects in 2005 alone and aspired to even more in future. After dinner the guests were treated to an entertaining and enthralling speech by Sir Max Hastings. It was generally agreed to have been a most successful event which should be repeated in 2007.



Duncan Glass receives the Ballathie Trophy from Mrs Morag Milligan and Sir Max Hastings

**The 2<sup>nd</sup> TAY SALMON CONSERVATION AWARD DINNER**

**will be held on the evening of 19 April 2007 at Scone Palace.**

Tickets are priced at £100 and are available from  
Mrs Miranda Lindsay, Taymount Mains, Stanley, PH1 4QG.  
Tel 01738 828984, Email – [mirandalindsay@btinternet.com](mailto:mirandalindsay@btinternet.com)

Numbers are limited. Early booking is advised.

## CLOSE SEASON FISHING EXPERIMENT 2005

### Introduction

In recent years there have been indications that around or after the end of the Tay angling season (15 October) more fresh run salmon may be entering the river than there were two or three decades ago. In order to obtain objective information on these later running fish a licence was obtained from the Scottish Executive Environment and Rural Affairs Department (SEERAD) in 2005 to conduct experimental angling in the close season.

### Methods

Angling was conducted on a number of beats, selected to be representative of different areas of the lower and middle Tay, and some lower tributaries where it was thought genuine late running fish could also be present. While it would have been interesting to include more upstream beats, SEERAD did not feel it appropriate to fish in places where their scientific advisors, Fisheries Research Services, considered spawning spring salmon were likely to be present. The beats permitted were: Almondmouth (Tay), Waulkmill (Tay), Luncarty (Tay), Stobhall/Taymount (Tay), Burnbane (Tay), Kinnaird (Tay), Moulinearn (Tummel), Coupar Grange (Isla), Dalcrue (Almond), Dupplin (Earn), Eden Angling Association (Eden).

The licence was initially granted for the period 16 October to 12 November. However, because very high water prevailed during the last three weeks of the survey, fishing conditions were very poor and little fishing was in fact achieved on some beats. Therefore an extension to 19 November was granted for all beats except for the Almond, Kinnaird and Moulinearn beats. The Luncarty beat had not initially been selected for the trial but was added during the extension period as it is probably the lower Tay beat best suited to high water fishing.

On each beat the intention was that angling would be conducted on two days of each week, or more if catches proved to be poor. Fishing was meant to be representative of normal angling conditions. The intention was that four anglers would fish each beat each day along with one boat harling on those beats where harling is ordinarily conducted. It was also intended that the anglers be of mixed ability, two expert and two less experienced anglers, as may be expected in a typical fishing party. In the event, river conditions were such that it did not always prove convenient for invited anglers to fish on those days which had to be chosen at short notice, so on some beats on some days the full complement of four anglers was not always achieved.

Fishing was conducted with barbless hooks using typical fishing tackle used under the conditions (fly or spinner). All fish caught were carefully handled with soft landing nets and then released. Anglers were supplied with disposable cameras (Kodak Fun Flash) and requested to take a photograph of each fish caught. They also noted a qualitative judgment of the colour of each fish and were asked to estimate the weight and measure each fish.

## Results

### Overall numbers

The numbers of fish caught and days fished are presented in the table below. Numbers varied considerably partly owing to numbers present but also because of the adverse conditions which meant some beats were not fished nearly as hard as others.

<b>Beat</b>	<b>Total caught</b>	<b>Number successfully Photographed</b>	<b>Number days fished</b>	<b>Average number of rods</b>
Almondmouth	8	0	3	2
Waulkmill	11	10	2	3
Luncarty	20	20	2	4
Stobhall / Taymount	100	65	8	4 + one boat harling
Burnbane	34	28	6	2 + one boat harling
Kinnaird	20	20	9	4
Moulinearn	0	0	2	2
Coupar Grange	25	13	5	4
Almond	15	13	8	2
Dupplin	14	14	5	4
Eden	3	3	1	3

### Colouration

All fish which were successfully photographed were assigned to one of five colouration categories: sea-liced, fresh, silver, tarnished and coloured.

In October some fresh run males were caught, but only at Waulkmill, Taymount and Burnbane. In November some relatively fresh males were caught on nearly all beats. However, in both months the majority of males were always tarnished or coloured. The higher beats such as Burnbane, Kinnaird, the Almond and Coupar Grange (Isla) had a slightly higher proportion of darker fish than the lower beats such as Waulkmill, Taymount, Luncarty and Dupplin (Earn).

Regarding females the majority in both months were again either tarnished or coloured in practically all beats. The main exceptions being Waulkmill in October which had a relatively high proportion of sea-liced fish (60%, but a small sample) or Dupplin (Earn) in November which had 55% silver fish. There was again some slight indication of an upstream gradation. No recent entrants (fish which were at least silver) were caught at all in the Almond or at Coupar Grange (Isla) and some kelts were caught in both the Almond and Isla in November.

In summary, sea-liced fish of either sex were on the whole relatively scarce and mainly found in lower beats such as Waulkmill and Luncarty and an odd one at Taymount or Burnbane.

### Fish size and sea-age

Generally speaking, the great majority of relatively recent entrants (i.e. sea-liced, fresh, silvery or even tarnished) caught in the survey weighed below 10 / 11 pounds in weight. These fish, without doubt, were grilse and are typical of the size expected for late running grilse (6 – 12 pounds, males slightly heavier than females). Only very few of the recent entrants are likely to have been 2SW salmon, generally in the mid to high teens of pounds. Scrutiny of the photographs of the silvery fish suggested that none are likely to have been early springers of any sea-age.

With perhaps the exception of Coupar Grange (males and females) and Almond females, the average size of coloured grilse fell between six and eight pounds. No coloured grilse under 5 pounds were caught with the exception of one at Coupar Grange. Since grilse runs in June and July are largely made up of grilse under that size, it indicates that, even as far upstream as Kinnaird, the early grilse had long since passed through and that the predominant type of fish was presumably a late summer / early autumn entering grilse.

### **Conclusions**

This survey found there were some fish, mainly grilse, still entering the Tay in late October / early November 2005. However, these were largely only encountered in the lower reaches, but, except for the lower Earn, these were a distinct minority. Most of the fish present in the main stem of the Tay seemed to be coloured grilse which probably entered the river system in late summer / early autumn (August-September), these also being in the greatest concentration in the lower reaches.

In the Almond and Isla tributaries the grilse were perhaps of an even earlier run than the coloured grilse in the Tay and in both these tributaries there were some kelts present in November, including some in the Isla which may have been spring salmon kelts, although these could have dropped down from further upstream.

Of course it is not known where the majority of the fish caught might actually have spawned. The early autumn of 2005 was dry with low water levels and in August and early September there had been a large concentration of fish in the lower part of the Tay and it may well have been that these fish were still there even after the season, while they may have ultimately migrated further upstream to spawn. Also it did appear that in 2005 fishing in the lower Tay was better in August / early September than it was for some of the years in the early 2000s. In some of those years there seemed to be more appearance (anecdotally) of increasing numbers of fresh fish towards the close of the season. It may indeed have been that the main “autumn” grilse run in 2005 was slightly earlier than it was in some other recent years.

While relatively few genuinely fresh fish were caught in the survey this is not to say late run fish are not an insignificant part of the Tay salmon population. It is known that such fish continue to enter the river at least until January (as some sea-liced “autumn” fish are always caught at the start of the angling season in mid January), so significant numbers could continue to enter. For example, in the first two days of the 2006 season on one lower Tay beat, 15 fish were caught which had still to spawn, half of which were described as “bright silver”, one of which was sea-liced.

# **PROPOSAL TO RESTORE WATER TO THE RIVER GARRY**

## **Introduction**

As a result of the Water Environment and Water Services (Scotland) Act 2003 which transposed the European Water Framework Directive (WFD) into Scots Law, water abstractions may be required to be altered in the next decade to improve the ecology of rivers and lochs where these are being impacted by the abstraction, if that is practicable. The Scottish Environment Protection Agency (SEPA) is the lead organisation for implementing this legislation. However, at the present time, the process is just beginning and it is not totally clear just how these changes will come about.

One thing was always clear, that the River Garry would be high up the agenda when SEPA came to consider changes. The River Garry is the most significant abstraction issue in the Tay district, in fact probably the worst example of overabstraction in Scotland and among the worst in the UK. At two locations the entire flow of the river can be abstracted for hydro-electric purposes with absolutely no requirement for any flow to be left in the river.

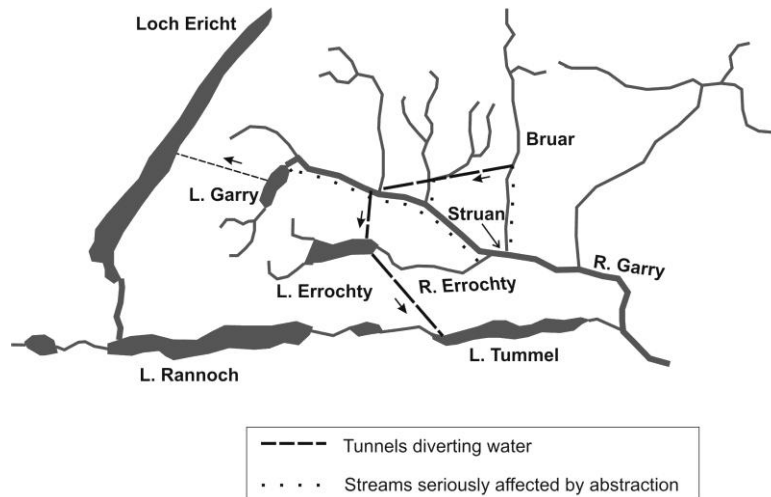
However, in anticipation of a need for change, Scottish and Southern Energy have recently volunteered proposals to restore water to the Garry. These are now outlined.

## **The River Garry**

The River Garry is a significant tributary within the Tay district being over 50 km long from its source to its confluence with the River Tummel near Pitlochry. It has always been particularly important as a spring salmon river, but for over 50 years much of the Garry has been severely impacted by water abstraction.

Water is abstracted at two places. These are shown on the map on the next page. Firstly, water is diverted by gravity from Loch Garry to Loch Ericht by means of a tunnel through the hillside. There is no requirement for any flow to be maintained below Loch Garry and frequently all water flowing into the loch is completely abstracted with no outflow whatsoever. Furthermore, several streams which would enter the Garry just below the Loch have also been diverted such that all their flow now diverts to the Loch, unless flows are high.

Moving downstream, flow does of course pick up as side streams enter the river. Approximately 9 km below the Loch a second abstraction point has been installed to collect this water. A weir has been constructed in the channel and this diverts the flow into another tunnel, this time diverting the water to another dam, Loch Errochty. Again there is no requirement to maintain any flow below this weir, and during dry weather the river is dry immediately downstream. Naturally, of course, flow would again re-establish as side-streams enter. However, most of the larger streams between the intake and the Bruar Water, 15 km downstream, are also subject to abstraction with their waters also being piped to the same tunnel. Therefore, during dry weather the Garry has very little flow down to the point at which the Errochty Water joins at Struan. Since this part of the Garry has so little flow, it has been considered unsuitable for salmon spawning and, to prevent salmon becoming trapped and dying, a weir was constructed at Struan with the sole purpose of excluding salmon.



In total some 22 km of main river between Struan and Loch Garry (13km up to first intake) plus a number of tributaries have been lost to salmon as a result of abstraction. This represents a lost production of perhaps as many as 3,000 early running salmon and grilse per annum.

The water from the Garry is part of a wider hydro scheme which also involves a transfer of water from some tributaries of the River Spey into Loch Ericht and thence down into the Tay. The Tay catchment has in effect been augmented by taking water from the Spey.

### The Proposals

The proposal put forward by Scottish and Southern Energy is to re-establish a low flow down the River Garry from Loch Garry to Struan. This would be achieved by allowing some escapement of water from the streams which enter Loch Garry from the north and by modifying the lower Garry intake to allow a flow from there. The flow proposed from Loch Garry would amount to up to 0.414 cumecs (cubic metres per second) and up to 0.499 cumecs from the lower Garry intake. To put this into perspective this is similar to a low summer flow on the Braan at the Dunkeld.

In addition to adding flow to the Garry small flows are to be restored to two other totally abstracted streams which flow into the Truim, a Spey tributary near Dalwhinnie.

To balance up the water which SSE must “lose” if flows are to be restored to the Garry and the small Spey tributaries, it is further proposed that the compensation flow which is released down the Tromie, another Spey tributary, be reduced by around 40%. This water, released from Tromie Dam, is apparently a generous compensation flow, greater than the flow naturally occurring during a drought. Presumably, this was originally agreed in view of the overall volume of water being lost from the Spey.

### What do the proposals mean for salmon?

The flow proposed for the River Garry, though obviously welcome, would still just be a modest attempt at restoring the river. The proposed flows represent something known in hydrological jargon as the Q95 flow. This basically means the flow which is predicted to occur on the 18<sup>th</sup> driest day of an average year. It is, therefore, very much a drought flow. While such a flow would be capable of maintaining a population of juvenile salmon (though

a slightly greater flow might perhaps maintain a greater number of juveniles) it is quite likely that adult salmon would still not be capable of spawning. Unless a provision is made to allow higher flows for a period in the autumn then these proposals may not be sufficient to re-establish a self-sustaining salmon population. Furthermore, salmon might only be expected to use the river up to the lower intake, as there is no provision to allow salmon to ascend beyond there, or more importantly to prevent smolts from ending up in the diversion.

Of course there will also be implications for the Spey. Benefits will accrue from the re-watering of streams at Dalwhinnie, but these need to be balanced against the potential for losses on the Tromie.

### **Larger perspectives.....**

The proposals outlined are thought to be achievable without loss of electricity production. SEPA have said they welcome the proposals since they represent an opportunity to improve the freshwater environment while at the same time not decreasing renewable energy production, a consideration which SEPA apparently think is important. This is unfortunate.

The amount of energy under consideration is actually irrelevant in the context of national energy production. If the proposed flows were to be restored to the Garry and Spey, without reducing the Tromie flow, then the loss in generation would be equivalent to a continuous production of about 1.5 MW. This is about the same production as two modern land based wind turbines<sup>1</sup>. For a little more “lost” energy even greater gains could be made. For example, the flow at the lower Garry intake could be increased by 50% and the new flows in the Spey tributaries could be doubled for about another 0.7 MW, further increasing the potential juvenile production. Freshets could be released from the lower Garry intake from mid October to the end of November for the equivalent of another 1MW, if averaged over a year, and this might be sufficient to allow salmon to ascend the Garry and spawn naturally. So, even if the flow in the Tromie is cut, for the equivalent of two windturbines a self-sustaining salmon population could be restored with a better flow provided for the juveniles.

The main argument used against cutting electricity production is that this will reduce valuable “renewable” energy. In reality the quantity under consideration is of little consequence. According to the Scottish Renewables Forum, the Scottish Executive’s 2010 target of 18% renewable generation seems likely to be exceeded by the end of 2007 and by 2010 the figure could be as high as 33% (Scottish Renewables Forum press release, 3 August 2006). According to the website of the British Wind Energy Association ([www.bwea.com](http://www.bwea.com)) on 13 November 2006, in Scotland alone, there was already 7,803.19 MW<sup>2</sup> of wind power either being considered by the planning authorities, consented, under construction or in operation. Assuming a “load factor” of 30%, if all these schemes were built they would generate on average 2,341 MW, as opposed to the 400 MW or so which all of Scotland’s conventional hydro stations generate. In reality many of the proposed wind farms will be turned down as the amount of generation proposed is far in excess of the Scottish Executive’s targets. So, considering that Scotland is on the brink of being awash with renewable energy, the 1.7 MW required to bring the Garry back to life as a salmon river seems a pretty small consideration.

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<sup>1</sup> This assumes wind turbine installed capacity of 2.5MW and 30% load factor

<sup>2</sup> Installed capacity

## **ARGULUS – FRESHWATER LICE**

In the 1990s problems arose at a couple of local stillwater fisheries owing to the outbreak of a parasite called *Argulus*. This is a freshwater louse, not dissimilar to sea lice which attaches itself to the surface of a fish by means of suckers and eats into the skin of the fish. Superficially, if attached to an adult salmon they might be mistaken for sea lice, but they can grow larger than sea lice, and are generally more transparent with two prominent black eyes. They also do not have trailing egg strings – the “tails” of sea lice.

Staff from the Freshwater Laboratory at Faskally established two species were present. One species, *Argulus coregoni*, was found to be present in the lower Earn and in the lower Tay where it attached to wild fish like brown trout and salmon parr. It is understood this species has been in the Earn for at least several decades. This parasite then infested Glenfarg Reservoir through water pumped up from the Earn. However, at Sandyknowes Fishery which was forced to close temporarily, a second species *Argulus foliaceus* was found. The third species, *Argulus japonicus*, is not native to the UK and has not so far been found in Scotland.

*Argulus coregoni* is the only species of three occurring in the British Isles which seem to survive in rivers, the others really only occurring in stillwaters. The newly hatched lice are little bigger than the full stops on this page and are easily swept away by strong currents. Their level of activity is dependent on temperature and hot dry summers make for ideal conditions for them to proliferate.

In recent years relatively little attention has been paid to *Argulus*, but following reports of infestations on salmon parr in the lower Tay in the warm dry summer of 2005, the Board conducted a survey in 2006 to better establish their distribution.

By flyfishing with small trout flies or electrofishing where possible, salmon parr, brown trout, grayling, minnows and stone loaches were sampled at various locations. *Argulus coregoni* were found in the lower Earn (Dupplin) on a brown trout, the Tay (Islamouth) on salmon parr and the lower Isla (Links Farm) on grayling. Considerable numbers of fish were caught, mainly salmon parr, and most were parasite free. Only a few specimens were seen on the few infested fish. It was notable, however, that those fish with parasites were generally caught in more slow flowing areas. Since it was much easier to catch small fish with the fly in faster rather than in dead water areas, the degree of infestation may appear less than it really was. It was also noted that on landing one grayling into a bucket of water the *Argulus* on it quickly detached themselves. It is possible, therefore, that anglers may not be aware of the true extent of them. Ghillies also reported some specimens of the same species on adult salmon on Islamouth, Glendelvine, Dunkeld House and Kinnaird, though of course they need not have acquired the parasites at these places. It seems clear, therefore, that *Argulus coregoni* is endemic in the lower Tay, Earn and Isla. The latter two rivers are probably particularly suited to them being relatively slow flowing and pooly.

Following receiving reports of *Argulus* in Fingask Loch, near Blairgowrie, samples were obtained from rainbow trout caught by anglers there. These proved to be *Argulus foliaceus* and have been present in this loch for several years. An electrofishing survey in the Lunan Burn, into which the loch flows, failed to yield any *Argulus* at all. While *Argulus* have never reached catastrophic levels in Fingask Loch (it is thought the depth of the loch may give the fish a cool water refuge from them) they are considered a problem. *Argulus* are not present at Butterstone Loch, further up the Lunan system and the fishery manager there insists on

rigorous biosecurity measures to prevent anglers inadvertently introducing it. However, the relatively shallow Lindores fishery in Fife has been plagued by *Argulus foliaceus* for some years, and the fishery has also been forced to make temporary closures as a consequence.

As far as the effect on migratory salmonids goes, *Argulus* has probably reached a peak in the Tay system. *Argulus coregoni* is now endemic in the slower tributaries and presumably cannot realistically be eradicated. The extent to which it is a threat to juvenile salmon is not known. Most of the river is probably unsuitable habitat for it, but in dry summers local problems may continue to arise. However, species which have a greater affinity for pools, for example trout or grayling, may be more threatened.

However, both the continued spread of the *Argulus coregoni* species and the more recently introduced *foliaceus* species must pose a big threat to fish populations in warmer lowland lochs and stillwaters. The most likely reason for the spread of *foliaceus* has probably been introductions of stocked fish. Since it is not a riverine species it would seem less likely to be transmitted by wild river fish.

The spread of these parasites in Tayside only serves to highlight why tight controls on the introduction of fish, as proposed in the current Aquaculture and Freshwater Fisheries Bill, are necessary.

## NORTH AMERICAN SIGNAL CRAYFISH

The North American signal crayfish is a serious threat to the ecology of Scotland's rivers and lochs and probably also to salmon fisheries. This animal eats practically anything – plants, insects, carrion and fish if it can get them. It is a prolific breeder and highly aggressive, armed with a formidable set of claws. They hide in burrows in the bank and in crevices between and under stones and boulders, the same places where juvenile salmon seek refuge. In some rivers they have already reached what can only be considered plague proportions. If the same thing happens here it is feared that juvenile salmon numbers will be reduced. They were first introduced into England several decades ago, but have since spread rapidly. In recent years they have been turning up quite widely in Scotland.

Locally, they were found in the upper part of the River Earn several years ago. However, for some years they appeared to be present only at a low density, but in 2006 a burgeoning population has been found in a tributary burn upstream of Comrie. This is extremely disturbing news as it means that crayfish really have become entrenched in the Earn system and are likely to continue to become more widespread in time.

Another introduction took place some time years ago to a pond in Strathardle. Some crayfish were found in a small stream draining from the pond three years ago, but it does not appear they have reached the River Ardlie. Previously no technique was available to eradicate such populations. However in December 2004 an experimental controlled poisoning was conducted in some ponds near Fettercairn in the Esk district. The consultant who conducted this first trial was engaged by the Board to eradicate the Strathardle crayfish. In this instance the work entailed poisoning two ponds and 700 metres of stream, the first time in Britain such work has been performed. The crayfish were poisoned using natural pyrethrin, a potent insecticide obtained from a type of *Chrysanthemum*. Administration of the poison was relatively easy in the ponds but treating the stream required quite an involved process requiring the progressive damming of sections of stream and diverting the natural flow.

Obviously the project was something of a learning experience, but after three weeks the target area was fully treated. It is hoped the crayfish population has now been wiped out. The Board is very grateful to Stephanie Peay for providing her expertise, Scottish Natural Heritage, the Scottish Executive and the Tay Foundation for providing funding.

Ironically, since the eradication has been carried out, another colony of crayfish has been discovered in Tayside. At the time of writing it is not known how extensive this further colony is and whether it is controllable.

**If any readers are aware of the presence of these animals anywhere in the district the Board would be grateful for information.** They can readily move, even over damp ground, and any colonies need to be controlled if it is not too late. Otherwise, we will be left with a disastrous legacy.

Readers should also be aware that it is now an offence to introduce crayfish to the wild and it is an offence to catch them without a licence from the Scottish Executive.

## **THIN AND SMALL GRILSE WITH BLEEDING VENTS**

The occurrence of thin and small grilse returning to Scottish rivers has been widely reported in 2006, as well as in several Irish fisheries, particularly early in the run. Of 15 other river / regions contacted by the Board, only the Dee and Lochy (Lochaber) had not noted thin grilse this year. But, besides there being thin fish, almost every fishery across Scotland report that a large proportion of the unusually small grilse also had a perfect body condition. On the Tay there were also numerous reports of grilse with bleeding vents but they seem to have been more patchy across the rivers. These have been noted in some areas (e.g. Kyle of Sutherland, Galloway) while others did not observe these. Whether this was because there were no fish with bleeding vents in these rivers or because anglers/ ghillies have not noted them or passed the information on to the DSFBs is not known.

The majority of other rivers also noted that the grilse run appeared to be later compared with previous years, by approximately 2-6 weeks. Identifying the main grilse run period may be tricky as it is influenced by river flow, especially in smaller rivers. As the spring/ early summer of 2006 was warm and dry this could have delayed the grilse run in some rivers. However, bag and stake nets operating off the coasts of Angus and Galloway also noticed that the grilse returned later this year compared with previous years. On the Tay, of course, summer drought is not really an issue, and the grilse were at least three weeks late, confirming the late grilse run must have been caused by other factors than river levels.

As yet it is not entirely clear why large numbers of thin and small grilse are returning to Scottish rivers. A number of suggestions have been put forward, including loss of condition while awaiting better conditions for entering the river, lack of food in the high seas (different feeding grounds for different populations and year classes of salmon) and parasites.

For example after the long drought of 1976, Derek Mills (then Edinburgh University) reported that on the Tweed fish were smaller and thinner than normal, though fresh run. He considered these may have been delayed out at sea by the drought of 1976 where they lost condition. However, as catches by the Northumbrian drift nets had also been relatively poor that year they would have had to have been waiting further out to sea.

It seems likely, however, that a lack of feeding at sea seems to be an issue. For several years now there has been a collapse in the production of juvenile sandeels in the North Sea, such that the sandeel fishery has at last been curtailed. But, despite spawning stocks being at their highest levels for 30 years, the same has also happened to North Sea herring. On the west coast sea-birds have been starving and there have been numerous reports of guillemots being present on the Tay and other rivers this autumn. The most unusual observation was that of a Manx shearwater on the Earn, a species usually only seen far out to sea. It appears that the ecology of the seas around Scotland is changing at all levels. The species and abundance of plankton has apparently been changing and in '05 and '06 many more basking sharks have been seen on the west coast than for many years. A significant food item found in the stomachs of post-smolts caught between Shetland and the Faroe Islands was juvenile blue whiting. This is a widespread species in the North East Atlantic. However, after a run of apparently good years, it is thought that the abundance of juveniles hatched in '05 has also been very poor. Whatever is happening, it seems to be operating at a broad scale far out to sea.

To obtain more information on this issue Fisheries Research Services are currently looking at scale samples collected from fisheries throughout the country as well as their own long term data set from the net fishery on the North Esk. Such scales could provide useful information on periods of growth (i.e. food in abundance) or reduced growth (i.e. starvation) whilst at sea. It will also be possible to identify whether small and thin grilse have experienced different “growth pattern” (or periods of growth) compared with the larger grilse. It is hoped that more information on this will be available by next year.

Grilse with bleeding vents had also been observed in the Tay in 2005. Fish health inspectors from Fisheries Research Services had examined some of these fish but found no other sign of diseases other than an infestation with the *Anisakis spp* worm, i.e. a parasitic nematode (round worm) which have a complex life cycle involving both fish and marine mammals. The fish health inspectors confirmed that in future they would be happy to assist with further investigations of these fish. This would require that the fish health inspectors have access to live (or recently dead fish) as most tests cannot be carried out on dead specimens. Several beats were provided with keepnets to keep such specimens, but as always seems to happen, either none were then caught or fishing conditions proved to be bad!

**Suggested actions:**

- 1) In anticipation of this happening again, it is proposed that in 2007 scale samples should be taken from Tay salmon, throughout the season. Scales should be taken from fish covering the geographic range of the catchment, and the various age classes returning.
- 2) Record the proportion of thin grilse being recorded, as well as their length/ weight
- 3) If fish with bleeding vents are seen the fish should be kept alive in a keep net and the local fish health inspector at the Fisheries Lab in Pitlochry contacted.

Beats which would be interested in participating should contact the Board’s office.

## **TAY FOUNDATION**

At the end of 2005 Rear Admiral John Mackenzie retired as chairman of the Tay Foundation. Admiral Mackenzie had been the chairman for a number of years, especially during the important years when the Tay Foundation was successful in leasing the Tay estuary nets. As a mark of appreciation of his long service he was presented with a fine cast of a leaping salmon.

From the start of the year John Milligan took on the chairmanship. The other trustees include Andrew Mactaggart, Professor Felicity Huntingford (Glasgow University), Jim Jeffrey (Tay Liaison Committee), Duncan Glass (Tay Ghillies Association) and Councillor Peter Mulheron.

The Tay Foundation has striven this year to become more project focused and has been working closely the Tay Board in this respect. So far an expenditure of approximately £18,000 has been committed to joint projects with the Board for 2006. These have included the collation of historical rod catch data, a survey of invasive plants, a survey of the distribution of *Argulus* fish lice, an investigation into invertebrates in the River Cononish, a contribution to research into the lack of invertebrates and smolt production in the River Lyon and the eradication of crayfish from a pond in Strathardle.

These projects are being funded from existing reserves and donations. However, it is a necessity that the Foundation increases its income if its plans to fund more projects is to become a reality. A number of fundraising initiatives are being planned for 2007 including an auction of fishing and the Foundation is in the process of gaining expertise in obtaining grants.

## **TAY GHILLIES ASSOCIATION**

Like the Tay Foundation the Tay Ghillies Association is also charity devoted to the improvement of fish populations in the River Tay. In recent years it has been very successful in fundraising and 2006 was no exception.

This year the TGA spent £33,882 on river improvements, fish ladders, weir removal. This money was obtained through grants from Scottish Enterprise Tayside's Leader Plus fund, the Lottery Awards for All fun and funds raised at various functions. In addition another grant of £8,000 has been secured from Awards for All for more fish passes and £10,000 has been raised through fundraising – the Tay Ghillies Fun Day, race nights and donations. The Fun Day, held every August at Ballinluig is proving ever more popular each year and 2006 was the busiest yet.

The TGA works closely in conjunction with the Board and makes a big contribution to the good of the river.

**Minute of the Annual Meeting of the proprietors within the Tay District held in terms of Section 44(1) of the Salmon & Freshwater Fisheries (Consolidation) (Scotland) Act 2003 held at the Birnam Institute, Birnam, Dunkeld at 11am on 6<sup>th</sup> December, 2005.**

Present: John Milligan (Chairman)  
J. Tritton  
J. Apthorp  
Duncan Glass  
J. Young  
P. Steuart Fotheringham  
P. Gordon  
Viscount Stormont  
R. Gardiner  
Robert J. White  
Brigadier C.C. Dunphie  
J.M. Wood  
W. Lindsay  
Mr. K. Bell  
Mr. Harry Davidson  
Mr. Bruce Reid  
Mr. Alastair Riddell  
Ms. G. Thomson  
Mr. R. Stewart  
Mr. David Clarke  
Ms. Y. Learmonth  
Mr. R. Cairns  
Mr. R. Steuart Fotheringham  
Mr. J. Paterson  
Mr. C. Lowson  
Mr. W. Jackson  
Mr. L. Rattray  
Mr. A. Dunnet  
Mr. J. Taylor  
Mr. A. Allen  
Mr. R.D. Finlay  
Mr. W. Barbour  
Ms. D. Stewart  
Sir William Macpherson of Cluny  
Mr. M. Wedderburn  
Mr. S. Furniss  
Mr. J. Monteith  
Lady Jane Mercer Nairne  
Mr. D. Taylor  
Mr. M.C. Smith  
Mrs. C. Gifford  
Miss P. Hood

In Attendance: Richard P.J. Blake, W.S., Clerk  
Dr. David Summers, Fisheries Manager  
Inspector Derek Gregor

Callum Towns, Administrator

Apologies: Rear Admiral D.J. Mackenzie  
Councillor C. Gillies  
General C.A. Ramsay  
Mr. J.M. Smith  
Mr. Andrew Mactaggart  
Mr. Andrew Mylius

### **Minutes of the Annual Meeting held on 7<sup>th</sup> December, 2004.**

The Minutes of the 2004 Annual Meeting were taken as read and on a proposal by Brigadier Dunphie and seconded by Mr. William Lindsay were approved.

### **Accounts for the Year Ended 31st December, 2004**

The Accounts for the year ended 31<sup>st</sup> December, 2004 which were incorporated in the Annual Report had been circulated and were taken as read. On a proposal by Mr. Apthorp and seconded by Lord Stormont the Accounts were approved.

### **Annual Report 2004/05**

The Chairman tabled the Annual Report which had been circulated. He reported briefly on the season, the importance of the Catch and Release Programme, the ongoing project as highlighted in the Annual Report, the experimental out of season fishing.

He expressed his particular thanks to the outgoing Board – the Clerk, Dr. Summers, Inspector Bailiff Gregor and all the Bailiff Staff.

On a proposal by Mr. Wood, seconded by Mr. Steuart Fotheringham the Annual Report was approved.

### **Presentation by Dr David Summers**

Dr Summers then gave a verbal presentation on the work of the Board during 2005.

### **Any Other Business**

The Chairman expressed particular thanks to Mr Jim Tritton for his ongoing work on projects on the Tay system, Mr. Apthorp for his continuing generosity in supporting various projects, in particular the Hatchery, and Duncan Glass who was tireless in his efforts to raise funds.

The Chairman intimated that a new assistant manager had been engaged and would be in post at the beginning of the 2006 season.

The meeting closed at 11.30am.

**Triennial Election of The Tay District Salmon Fisheries Board held under the Salmon & Freshwater Fisheries (Consolidation) (Scotland) Act 2003 on 6<sup>th</sup> December, 2005 at The Birnam Institute, Dunkeld.**

Present: Those proprietors present at the earlier Annual Meeting together with Mandatories.

In Attendance: R.P.J. Blake, WS as Clerk  
Dr. David Summers, Fisheries Manager  
Derek Gregor, Inspector Bailiff  
Callum Towns, Administrator

1. The Chairman of the outgoing Board, John Milligan, opened the meeting by intimating that he and the outgoing Board resigned. Mr. Milligan then handed over the meeting to the Clerk.
2. The Clerk welcomed the proprietors present to the first Election under the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003. He said that the only business to be conducted at the meeting of proprietors was the election of representatives of proprietors. There was no maximum number of Board members. However, the outgoing Board recommended that the constitution of the outgoing Board had worked well but they would be happy to see the number of elected proprietors increased by up to 2 and the number of co-opted members increased by up to 1. The Clerk asked that, after the Election had been completed, the newly elected committee should remain behind to hold the first statutory meeting of the new Board.
3. The outgoing Board had served 3 years. In terms of Section 43 of the 2003 Act the meeting of Upper and Lower Proprietors had been called for the purpose of forming an Association of Proprietors of Salmon Fisheries within the Tay District and for the purpose of electing a Committee to act on behalf of the Association, which Committee would then become the District Salmon Fisheries Board for the Tay District.
4. The Clerk said that Notice had been given to each proprietor on the roll of proprietors in terms of the 2003 Act and also by advertisement in the press.
5. The meeting unanimously agreed that the Clerk should conduct the Election.
6. The Clerk then called for the Election in terms of the 2003 Act and called for nominations from those qualified proprietors present for representatives of Upper and Lower Proprietors.

The following nominations were received for Upper Proprietors:-

1. Mr. John Milligan as Mandatory for Ballathie Timeshare proposed by Mr. John Wood and seconded by Mr. William Lindsay.
2. Mr. William Lindsay as Mandatory for Taymount Timeshare proposed by Mr. Michael Smith and seconded by Mr. Bob White.

3. Mr. John Apthorp as Mandatory for Stobhall Timeshare proposed by Brigadier Christopher Dunphie and seconded by Mr. John Milligan.
4. Mr. Ross Gardiner as Mandatory for Pitlochry Angling Club proposed by Mr. Bob White and seconded by Mr. John Young.
5. Mr. Duncan Glass as Mandatory for Clayfield Investments Limited proposed by Mr. John Wood and seconded by Mr. John Apthorp.
6. Mr. John Young as Mandatory for Lochlane & Laggan proposed by Mr. Duncan Glass and seconded by Mr. John Paterson.
7. Mr. Andrew Mactaggart as Mandatory for Taymouth Fishings proposed by Mr. W.H. Barbour and seconded by Brigadier Christopher Dunphie.
8. Viscount Stormont proposed by Mr. Patrick Steuart Fotheringham and seconded by Mr. William Lindsay.
9. Mr. Bob White as Mandatory for Stanley Fishings proposed by Mr. William Jackson and seconded by Mr. William Lindsay.
10. Mr. Michael Smith proposed by Mr. William Lindsay and seconded by Mr. William Jackson.
11. Patrick Steuart Fotheringham proposed by Mr. John Milligan and seconded by Lord Stormont.

The following nomination was received for Lower Proprietors:-

Mr. David Clarke proposed by The Tay Foundation and seconded by The River Earn Improvement Association.

There being no further nominations and with the agreement of all proprietors present the Clerk declared that all nominees for Upper Proprietors and the sole nominee for Lower Proprietors had been duly elected as representative of the proprietors to serve on the Committee as follows:-

Upper Proprietors:-

Mr. John Milligan, Mr. William Lindsay, Mr. John Apthorp, Mr. Ross Gardiner, Mr. Duncan Glass, Mr. John Young, Mr. Andrew Mactaggart, Lord Stormont, Mr. Bob White, Mr. Michael Smith and Mr. Steuart Fotheringham.

Lower Proprietor:-

Mr. David Clarke

The Clerk said that the formal business of the meeting was now concluded and asked the elected representatives to remain behind for the first meeting of the new District Salmon Fisheries Board. The Clerk thanked those proprietors who had attended.

## **REPORT OF THE AUDITORS TO THE PROPRIETORS OF SALMON FISHERIES IN THE TAY DISTRICT**

In accordance with the Salmon and Freshwater Fisheries (Consolidation)(Scotland) Act 2003, section 44, we have audited the accounts on pages 41 to 45 which have been prepared in accordance with the Financial Reporting Standard for Smaller Entities (effective June 2002), under the historical cost convention and the accounting policies set out on page 43.

This report is made solely to the proprietors of Salmon Fisheries in the Tay District. Our audit work has been undertaken so that we might state to the proprietors those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the proprietors for our audit work, for this report, or for the opinions we have formed.

### **RESPECTIVE RESPONSIBILITIES OF DULY ELECTED AND DULY CO-OPTED BOARD MEMBERS AND AUDITORS**

#### **Board members**

Section 44 of the Salmon and Freshwater Fisheries (Consolidation)(Scotland) Act 2003 requires the Board to prepare a statement of accounts for each financial year which give a true and fair view of the state of affairs of the Board and of the surplus or deficit for that period. In preparing those accounts, the Board members are required to:

- select suitable accounting policies and apply them consistently;
- make judgements and estimates that are reasonable and prudent;
- prepare the accounts on the going concern basis unless it is inappropriate to presume that the Board will continue in operation.

The Board members are responsible for keeping proper accounting records which disclose with reasonable accuracy the financial position of the Board. They are also responsible for safeguarding the assets of the Board and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

#### **Auditors**

As described above, the Board Members are responsible for the preparation of the accounts. It is our responsibility to form an independent opinion, based on our audit, on those accounts and to report our opinion to you.

#### **Basis of Opinion**

We conducted our audit in accordance with Auditing Standards issued by the Auditing Practices Board.

An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the accounts. It also includes an assessment of the significant estimates and judgements made by the Board members in the preparation of the accounts, and of whether the accounting policies are appropriate to the Board's circumstances, consistently applied and adequately disclosed.

We planned and performed our audit so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to give reasonable assurance that the accounts are free from material misstatement, whether caused by fraud or other irregularity or error. In forming our opinion we also evaluated the overall adequacy of the presentation of information in the accounts.

#### **Opinion**

In our opinion, the accounts give a true and fair view of the state of the Board's affairs as at 31 December 2005 and of its deficit for the year then ended and have been properly prepared.

Campbell Dallas  
Chartered Accountants and Registered Auditors  
Perth  
22 November 2006

TAY DISTRICT SALMON FISHERIES BOARD  
INCOME AND EXPENDITURE ACCOUNT  
FOR THE YEAR ENDED 31 DECEMBER 2005

	NOTES	£	2005 £	2004 £
<b>INCOME</b>				
Fishery assessments	2		325,535	325,535
Revaluation Appeals			-	-
Bad debts, changes to provision for doubtful debts etc			(156)	(156)
			-----	-----
			325,379	325,379
Compensation Received (SSE)			5,089	4,918
Contributions from Tay Foundation			-	3,000
Contributions from Tay Ghillies(Hatchery/Cargill-2005)			45,338	6,853
Contribution from SSE			-	3,000
Donations to NASF Appeal	8		-	16,820
Other Income			5,593	-
			-----	-----
			381,399	359,970
<b>EXPENDITURE</b>				
Salaries and National Insurance		173,611		156,524
Pension plus Death in Service- Board's contribution		5,005		6,266
Recruitment		576		-
Motor cars and boats running costs, incl insurance		22,829		24,474
Rent, rates and general insurance		15,820		16,481
Heat & light		3,318		3,293
Repairs&maintenance - General		2,082		5,314
Repairs&maintenance – Hatchery		4,081		7,927
Telephone & Communications		7,351		8,403
Printing, stationery and advertising		2,647		3,123
Annual Report costs		494		558
Meetings and other statutory costs		2,006		955
Retiral Gift		170		-
Ghillies lunch and meeting		569		592
Clerk's remuneration and office expenses		7,112		5,924
Administration costs		15,900		15,300
Legal fees		620		303
Audit and accounts fees		2,368		2,024
Depreciation		35,322		30,982
Subscriptions and levies		7,551		7,365
I T costs		571		627
Health & Safety implementation incl clothing		7,203		7,020
SOAFD - Kelt reconditioning		15,000		15,000
Stock enhancement costs		2,706		408
Salmon in the Classroom		1,000		-
Lyon Project		3,060		10,000
Cargill's Leap		15,051		2,163
Fishtay Limited Loan written off	10	23,944		22,000
Tay Ghillies Association		10,000		-
			-----	-----
			387,967	353,026
			-----	-----
			(6,568)	6,944
Gain on sale of fixed assets			-	-
			-----	-----
			(6,568)	6,944
Interest received	3		11,031	11,796
			-----	-----
			4,463	18,740
Transfers to reserves: NASF(UK)	8		(26,000)	(16,820)
			-----	-----
(Deficit)/Surplus for the year			(21,537)	1,920
			=====	=====

The notes on pages 43 and 44 form part of these accounts.

TAY DISTRICT SALMON FISHERIES BOARD

BALANCE SHEET  
AS AT 31 DECEMBER 2005

	NOTES	£	2005 £	2004 £
<b>FIXED ASSETS</b>				
Tangible assets	4		131,558	115,015
Investments	5		100	100
			-----	-----
			131,658	115,115
 <b>CURRENT ASSETS</b>				
Debtors & prepayments		7,743		2,966
Cash at Bank and in Hand		230,642		253,954
		-----		-----
		238,385		256,920
 <b>CURRENT LIABILITIES</b>				
Other creditors & accruals		42,898		28,878
		-----		-----
Net current assets			195,487	228,042
			-----	-----
<b>NET ASSETS</b>			327,145	343,157
			=====	=====
 Representing:				
Reserves	6		89,434	83,909
General Fund	7		237,711	259,248
			-----	-----
			327,145	343,157
			=====	=====

These accounts were approved on 16<sup>th</sup> May 2006

**JOHN MILLIGAN**

.....

JOHN MILLIGAN  
BOARD MEMBER

**WILLIAM LINDSAY**

.....

WILLIAM LINDSAY  
BOARD MEMBER

The notes on pages 43 to 45 form part of these accounts.

TAY DISTRICT SALMON FISHERIES BOARD

NOTES TO THE ACCOUNTS  
AT 31 DECEMBER 2005

1 ACCOUNTING POLICIES

The accounts have been prepared under the historical cost convention and are in accordance with applicable accounting standards. The following accounting policies have been applied:

Fixed assets and depreciation

The cost of fixed assets is stated at the net amount after deducting grants available. Donations relating to expenditure on fixed assets are credited to the Profit and Loss Account in the year of receipt, where there are no conditions attaching to the donation.

Depreciation is provided on all fixed assets, at rates calculated to write off the cost over the expected useful lives of the assets concerned as follows:

Hatchery	Over term of the lease
Motor vehicles	25% per annum straight line
Boats	25% per annum reducing balance
Plant and Equipment	25% per annum reducing balance
Computer equipment	33.3 % straight line

Taxation

No taxation is provided due to the fact that the Inland Revenue has agreed that the Board is not liable for corporation tax.

Death in service scheme

Contributions to the Board's scheme are charged to the Income and Expenditure account in the year in which they become payable.

2 FISHERY ASSESSMENTS

	2005		2004	
	Rateable Value £	Assessment £	Rateable Value £	Assessment £
Upper proprietors	824,800	321,672	824,800	321,672
Lower proprietors	40,005	15,602	40,005	15,602
	-----	-----	-----	-----
	864,805	337,274	864,805	337,274
	=====		=====	
Less River Shee		(312)		(312)
Estuarial netting stations		(11,427)		(11,427)
		-----		-----
		325,535		325,535
		=====		=====

The assessments are based on 39 % of Rateable Value (2004 - 39%)

3 INTEREST RECEIVED

	2005	2004
	£	£
Bank interest	11,031	11,796
	-----	-----
	11,031	11,796
	=====	=====

TAY DISTRICT SALMON FISHERIES BOARD

NOTES TO THE ACCOUNTS (cont'd)  
AT DECEMBER 31 2005

4 FIXED ASSETS

	Leasehold Property £	Motor Vehicles £	Boats £	Plant & Equipment £	Office and Computer Equipment £	Total £
Cost:						
At 1 January 2005	61,232	63,798	42,671	132,479	15,246	315,426
Additions	3,346	-	-	48,969	-	52,315
Disposals	-	(10,800)	-	-	-	(10,800)
At 31 December 2005	64,578	52,998	42,671	181,448	15,246	356,941
Depreciation:						
At 1 January 2005	6,919	42,835	38,338	97,073	15,246	200,411
Charge for year	3,392	9,626	1,084	21,220	-	35,322
Eliminated for disposals	-	(10,350)	-	-	-	(10,350)
At 31 December 2005	10,311	42,111	39,422	118,293	15,246	225,383
Net book amounts:						
At 31 December 2005	54,267	10,887	3,249	63,155	-	131,558
At 31 December 2004	54,313	20,963	4,333	35,406	-	115,015

5 INVESTMENTS

	SUBSIDIARY UNDERTAKING £
Cost:	
At 1 January 2005	100
Additions	-
Disposals	-
At 31 December 2005	100

6 RESERVES

	GENERAL £	NASF(UK) £	TOTAL £
At 1 January 2005	83,434	475	83,909
Provision in year	-	26,000	26,000
Expenditure in year	-	(20,475)	(20,475)
Transfers to General Reserve	-	-	-
At 31 December 2005	83,434	6,000	89,434

## TAY DISTRICT SALMON FISHERIES BOARD

### NOTES TO THE ACCOUNTS (cont'd) AT DECEMBER 31 2005

#### 7 GENERAL FUND

	2005	2004
	£	£
At 1 January 2005	259,248	257,328
(Deficit)/Surplus for year	(21,537)	1,920
At 31 December 2005	237,711	259,248
	=====	=====

#### 8 NASF

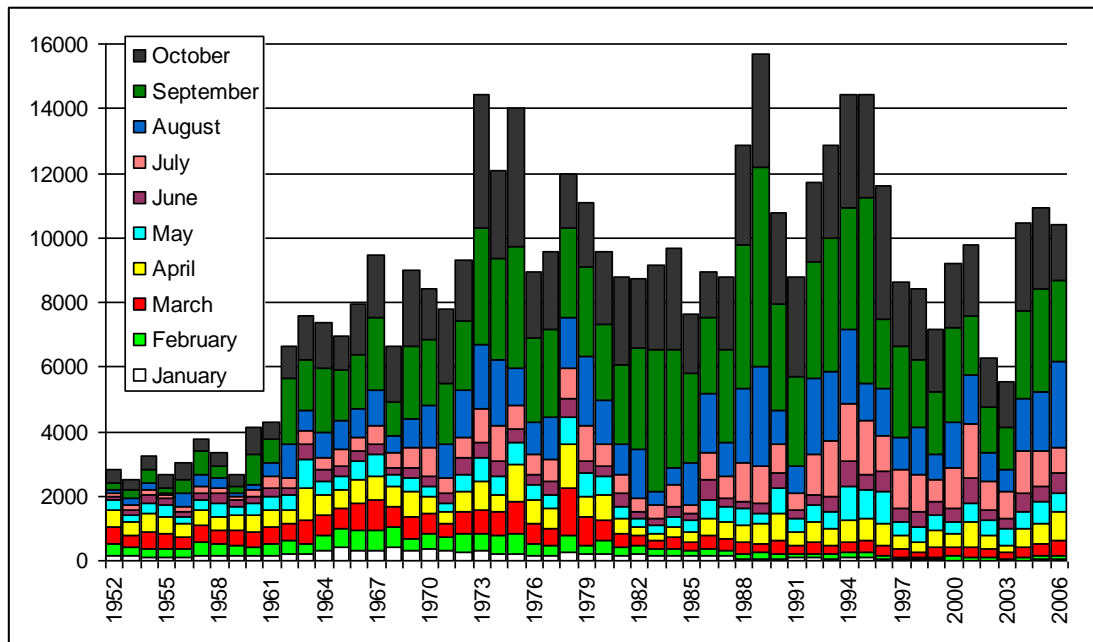
During 2005, £475 was paid to to NASF in connection with the North East Drift Net Appeal. A further £20,000 was paid in connection with the buy-out of the Montrose nets. An additional £6,000 has been provided for in the Accounts in respect of a further Faroese/Greenland buy-out, payable in 2006.

#### 9 CAPITAL COMMITMENT

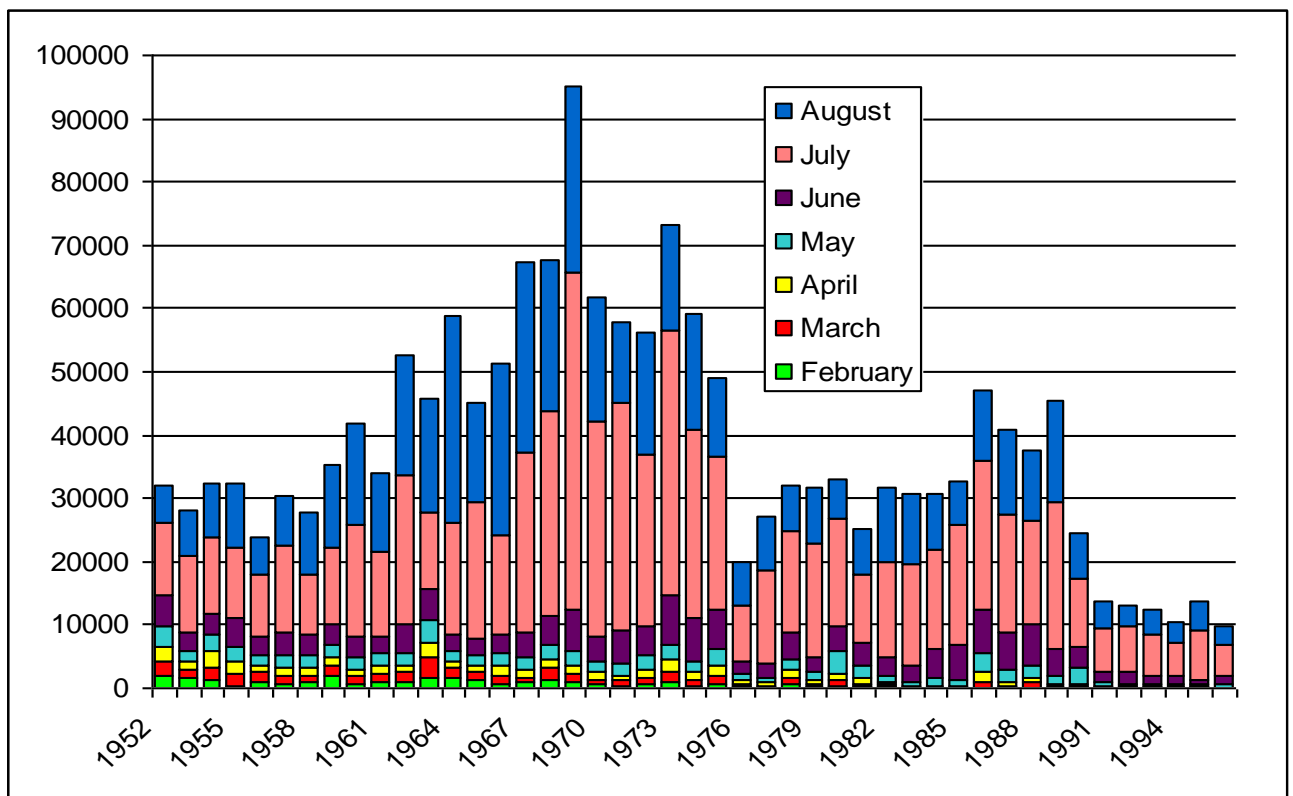
At the year end the Board had authorised the purchase of a van and computing equipment up to the value of £8,000 and £1,500 respectively.

#### 10 RELATED PARTY TRANSACTIONS

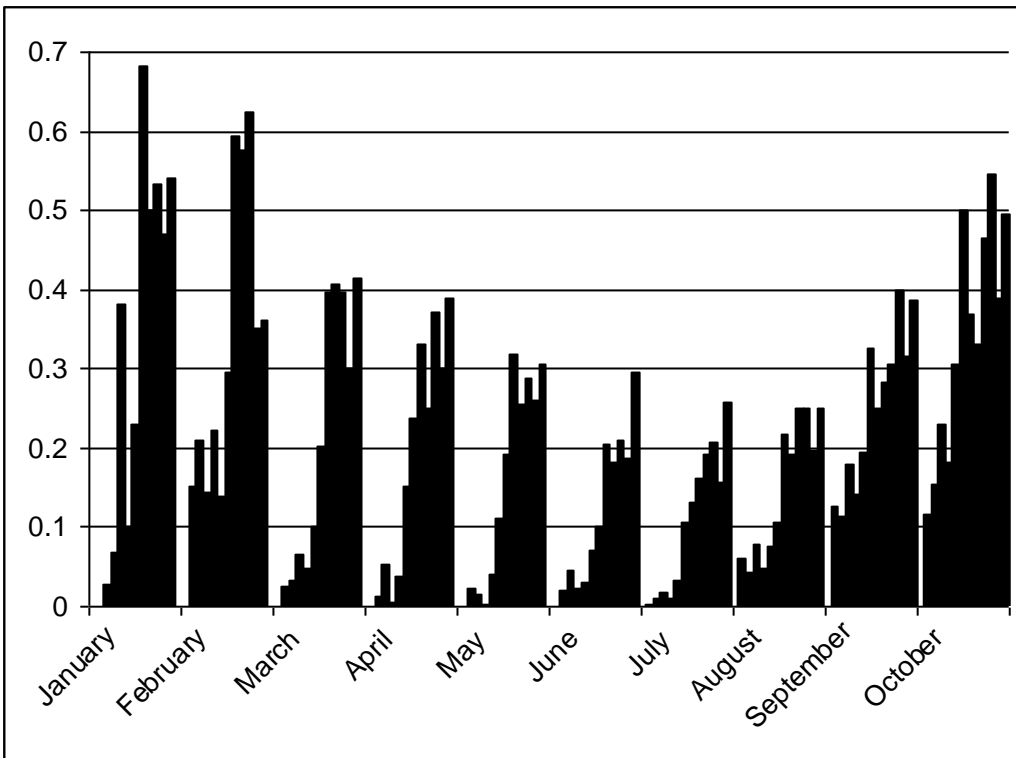
During the year the Board made a loan of £23,944 to Fishtay Limited, its 100% subsidiary. This loan has been considered to be irrecoverable by the Board and has been written off to the Income and Expenditure account for the year.



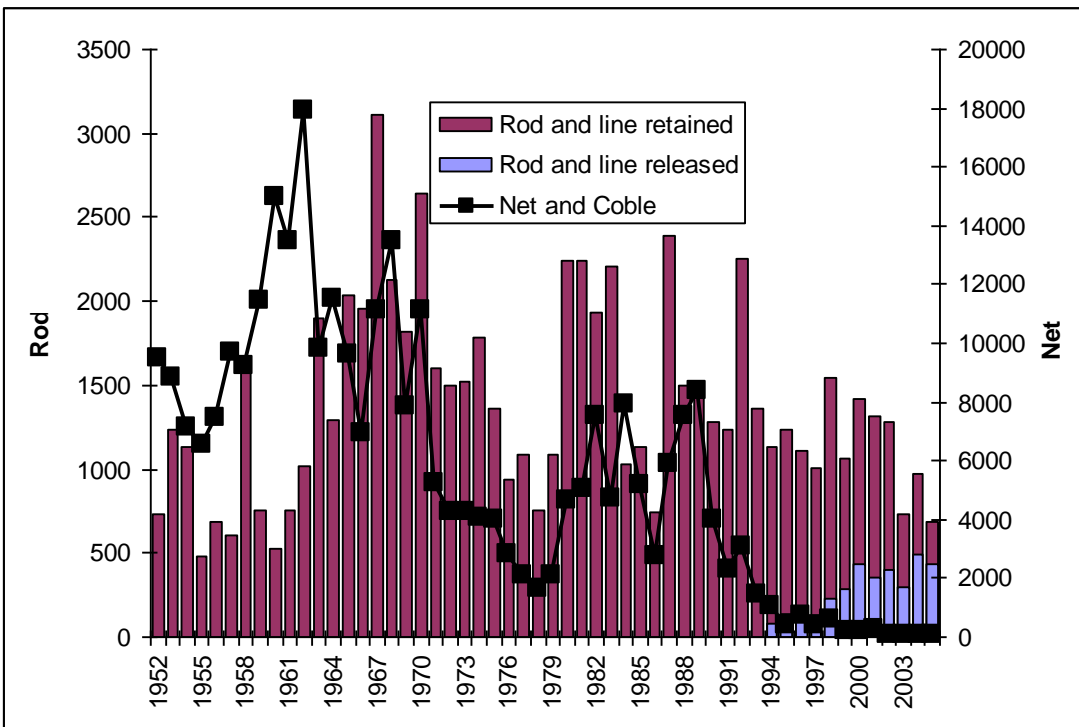
**Monthly angling catch for the Tay District 1952 – 2006 (including released fish)**  
 (1952 – 2005 data kindly supplied by Fisheries Research Services, 2006 is preliminary estimate based on fishtay website analysis)



**Monthly net and coble catch, Tay District 1952 – 1996**  
 (Data kindly supplied by Fisheries Research Services)



**Proportion of Tay District monthly angling catch which were released, 1994-2005**  
 (Data kindly supplied by Fisheries Research Services)



**Tay District rod & line and net catches of sea trout, 1952 – 2005**  
 (Data kindly supplied by Fisheries Research Services)

## BOARD MEMBERS ATTENDANCE FOR 2005

	10 Feb	13 April	14 June	9 Aug	8 Sept	6 Oct	6 Dec
J. Milligan	X	X	X	X	X	X	X
J. Apthorp	-	X	X	X	-	X	X
W. Lindsay	X	X	-	X	X	X	X
R. Gardiner	X	X	X	-	X	X	X
C.C. Dunphie	X	-	-	X	X	-	X
P. Fotheringham	X	-	X	-	-	-	X
C. Gillies	-	X	X	-	-	-	-
D. Glass	X	X	X	X	X	X	X
R.P.D. Gordon	X	X	X	X	-	X	X
D.J. Mackenzie	-	X	-	-	-	X	-
A. Mactaggart	X	X	X	X	X	X	-
J.M. Smith	X	X	X	-	X	-	-
Viscount Stormont	X	X	X	-	X	X	X
J. Tritton	X	X	X	-	X	X	X
R. White	X	X	-	X	X	X	X
J. M. Wood	X	X	X	X	X	X	X
J. Young	-	-	X	-	X	-	X

- X Present  
 - Apologised for non-attendance

## ACKNOWLEDGEMENTS

The Tay District Salmon Fisheries Board wishes to acknowledge the following people, organisations and companies for their very kind assistance and support throughout 2005 and 2006.

All Proprietors within the Tay District

Callum Towns

All honorary Bailiffs

All Ghillies and Boatmen

All Tay Board Bailiff staff

The Tay Ghillies Association

The Tay Foundation

Scottish Environmental Protection Agency

Mike Miles, Steve Keay and Jim Muir at the Freshwater Fisheries Laboratory, Almondbank

The staff of the Scottish Executive Environment and Rural Affairs Department at:

Pentland House, Edinburgh

Freshwater Fisheries Laboratory, Pitlochry

Montrose Research Station

The Association of Salmon Fishery Boards

Scottish Natural Heritage

Scottish and Southern Energy plc