Tay District Salmon Fisheries Board



Annual Report
2006 / 07

ANNUAL REPORT 2006 / 07

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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. Apthorp (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)
P. Steuart-Fothringham

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)
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Clerk and administrator

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CHAIRMAN'S REPORT

I would have liked to introduce this latest Annual Report with as much good news as possible. The previous few seasons have been improving on the Tay and it looked as if a real corner had been turned for spring fish. However this was not to last and 2007 saw a serious downturn in spring catches not just on the Tay but throughout Scotland. The main causes of lower catches and thin grilse may be out of our control as explained in the report. It is abundantly clear that all is not well in the sea and so we must work even harder to make sure we do all that we can on the River Tay.

I am concerned that not enough fish are getting to spawn and later in the report you will read of the effect of last winter's big flood on spawning. The Tay seems particularly affected by flooding perhaps because we extend further west than the other main rivers and flash flooding seems to be getting more common.

For all these reasons The Board believe we on the Tay must do much better in terms of preserving our stock of fish, other rivers are doing it, so why can't we? We have strengthened our catch-and-release recommendations for 2008 which should result in at least 75% of fish being returned. This will particularly save female fish, adding millions of more eggs to the river. We are asking proprietors and tenants to make our proposed Catch and Release Policy a condition of let and I have written to all proprietors seeking their commitment. Should we fail to achieve this then the Board may have to consider even tougher options.

The second Tay Salmon Conservation Award Dinner was a great success and some very generous donations were made to the Tay Foundation to progress project work. The opening of weirs, clearance of excessive trees from tributaries, DNA profiling our salmon, investigating the problems of the River Cononish are all under way. I was particularly pleased to see the Award given to Ken Bell. He has been a great friend of the river for many years and justly deserved it.

There is now an opportunity for the first time in 50 years to see real improvements to the River Garry and other abstracted rivers like the Lochay. European legislation demands improvements be made. We are pressing hard to ensure that SEPA and the Scottish Government listen to our views. If adequate flows are restored to these rivers many more spring fish will return.

I want to thank all those who have worked hard in 2007. I wish to thank the Board members who give of their time and make an excellent contribution, The Board's staff who I know are highly committed, The Tay Ghillies Association have also continued to do excellent work and are a real force for good on the river. I would also like to thank those who have given generous donations to the Ghillies Association and the Tay Foundation.

Also remember the threat of *Gyrodactylus* the parasite present in Scandinavia that threatens to wipe out salmon. Ensure that adequate precautions are taken on your beat and I will write to you again about this at the start of the season.

Finally as the new season will soon be commencing I would like to wish you all better success in 2008. I hope there are more fish but remember dead fish don't spawn.

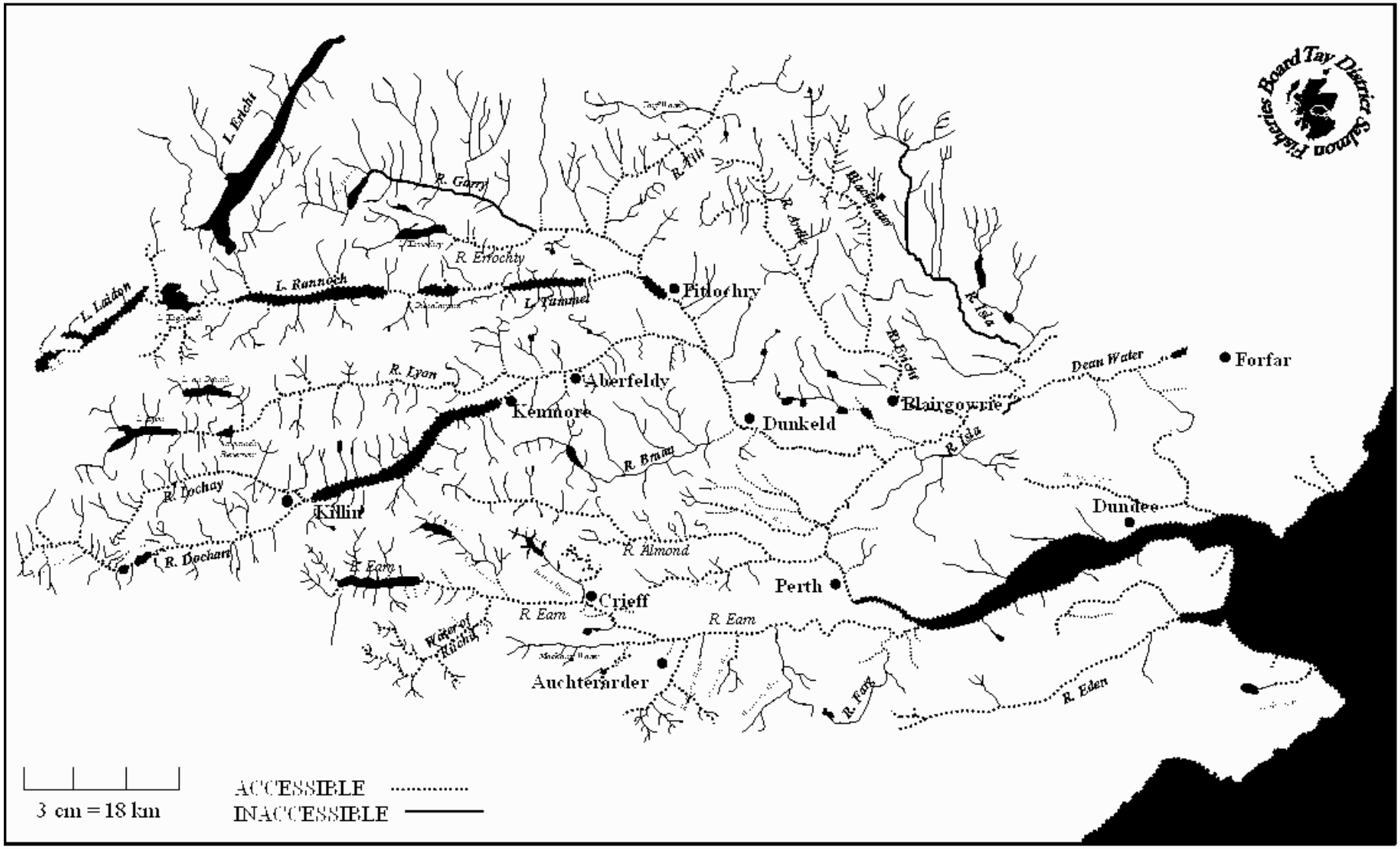
I would also like to remind you all that the Tay is a potentially dangerous river and that adequate safety precautions should be taken at all times. Fish safely and best wishes for 2008.

Yours sincerely



John R. Milligan
Chairman

Salmon Distribution within the Tay District



2007 REPORT

Season 2007

The 2007 season opened on the 15th of January with extremely high water (12ft) which practically put paid to fishing during the first week, though three salmon were caught on the Loch Tay in the first two days. The second week then proved to be the best January week for some years but thereafter catches were less than hoped for. The first two weeks of February were dry and wintry and the last two weeks unsettled. Catches were modest, about 70 for the month. The first half of March was marred by very high water which made fishing difficult. Thereafter levels gradually fell and fishing conditions did improve and catches picked up somewhat, though the final tally, probably around 250, was lower than for several years. The main redeeming feature was better numbers of larger 3SW fish than for several years. The largest, a 29 pounder, was caught on the Meikleour House beat.

April was a very different month from the early part of the season. Apart from one three foot rise in the third week, it was a very dry month, sunny and incredibly warm, apparently the warmest ever. Though conditions were not ideal to say the least, it was apparent that like other Scottish rivers the run of fish wasn't that strong, and this was reflected in catches. With a probable catch of around 250 it was a disappointing April. But May proved to be much better. Soon the weather changed and higher water prevailed. A better run of fish, which had first been evidenced in northern rivers, provided the best fishing of the spring. The monthly total is likely to stand between 400 and 500.

June was again very much a month of cool unsettled weather and surfeit of water - good conditions for fish to run but not ideal for fishing on the Tay. Fresh fish continued to run all month, but not in as good numbers as May. The catch is thought to be around 350. There were also some good conditioned sea trout around, many over 3 pounds, which provided a welcome bonus. July, can only be described as a disappointing month. The water remained high and fishing conditions were generally poor on the main river. As in 2005 and 2006, the main grilse run failed to materialise at the expected time, and catches reflected this. Things only improved when the long awaited summer run finally began to arrive right at the end of the month. The total for July was possibly only around 400, a significant part of which were caught in the last three days.

August was a better month than July, but not like the previous two years, when August had been very good. A weaker run was evidenced by the fish counters but the condition of the grilse also improved, with fewer of the thin grilse seen in 2006. But, compounding the weaker run, fishing conditions were on the whole pretty poor for the first three weeks, with regular spates and very unsettled conditions. This meant that catches for most of the month were nothing like what they might have been, but towards the end of the month things did pick up as fresh grilse and salmon started to slow up in the lower Tay. The total for the month is estimated at 1500.

The first half of September was as dry and settled as the summer had been wet and cool. It was in fact the only summer Tayside had. Scottish and Southern Energy's Clunie Power Station had been out of commission all summer for renovation work and, once natural runoff fell away, the Tummel was drawn back to the compensation level right at the beginning of September. This meant that the Tay fell very quickly to summer level. Fish then built up in the lower river but for several weeks the bright conditions were not ideal for

fishing, though steady catches were made. The third week saw a dramatic improvement after a modest rise in water and possibly as many as 1,000 fish were caught. This was the best week on the Tay for some years, though mainly from the lower reaches. With the total catch for the month likely to exceed 2,500 this was one of the better Septembers in the last ten years.

Unlike normal years, October remained exceptionally dry and the Tay remained low during the last two weeks of the season. A good head of fish built up in the very lowest reaches of the river but many were coloured and becoming reluctant to take. Nevertheless Almondmouth, for example, had 149 for the last two weeks. Fish were even caught right down into the tidal waters at Perth, the best fishing there for a good number of years. A number of other beats from Islamouth down did quite well, but those which depend on water did not. Middle Tay beats did not do well as there was simply never the water to get fish that far. The last few weeks of the Earn season were also disappointing as the river remained low. There was a spate on the 28th but it fell back too quickly to do any real good.

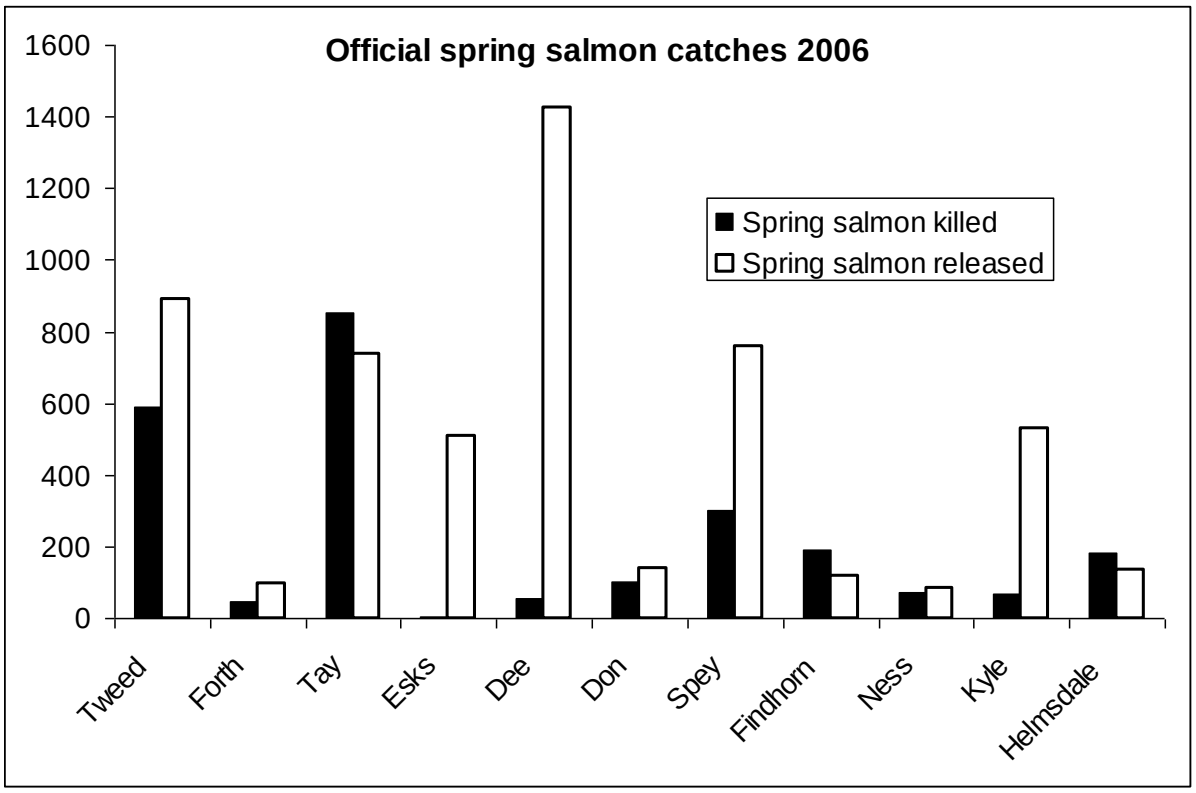
Conservation of spring salmon

In 2007 the Board continued to encourage anglers to release salmon, especially those caught in the spring. It continued to recommend that anglers, as a minimum, should release the first spring salmon they catch and alternate fish thereafter. When the official figures for 2006 were released by the Scottish Government it was heartning to see that after some faltering in 2004 and 2005, 2006 saw the highest spring release rate yet of 46%. While it is welcome to see this improvement, strict adherence to the first fish back policy should actually result in a return considerably over 50%. It is apparent therefore that full compliance with the code has yet to be achieved, although it is recognised that some beats do actually do better than requested. 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
2006	739	854	1593	46

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

While spring return rates are gradually improving, the spring release rate on the Tay is still the lowest of Scotland's major rivers, the national average for 2006 being 66%, a full 20% higher than the Tay. In 2006 more spring salmon were killed on the Tay than in any other UK river, and indeed probably the world. (see figure below). Furthermore the Tay district's release rate for the full season was only 35% in 2006 compared to a national average of 55%.



Numbers of salmon killed and released by anglers to the end of April 2006 on Scotland's major spring salmon rivers. Data from Scottish Government.

Because of concerns regarding the strength of runs in 2007 (see marine problems described below) and the relatively poor catch-and-release rate the Board resolved to strengthen the conservation code for 2008 and crucially has requested that proprietors make the new code a condition of let. The catch and release code for 2008 is as follows:

Before 1 June

The first fish caught each day by each individual angler must be returned. Each individual angler then has the option of keeping one subsequent fish only, per day.

From 1 June

All hen fish to be returned. The aim should then be to return at least 50% of cock fish caught, in particular cock fish weighing over 15 lbs.

Throughout the year

All coloured fish are to be returned.

Yet more on thin and late grilse!

A worrying feature of recent seasons has been the prevalence of small and sometimes very thin grilse which seem to be returning several weeks later than usual. More light was shed on this problem by Professor Todd from St Andrews University at a seminar organised by the Atlantic Salmon Trust at Kenmore on the 16th of January.

Professor Todd analysed data on the lengths and weights of grilse collected by staff of Fisheries Research Services at netting stations on the River North Esk and at Strathy Point,

Sutherland. From 1993 to 1997 the average condition (i.e. weight for a given length) increased to a peak but since then the condition has fallen and the last few years have been particularly bad. What is particularly concerning is that the body fat content of these thin grilse is much less than in a healthy grilse which raises serious questions as to the reproductive potential of these fish. Professor Todd found that the condition of the grilse was inversely correlated with winter sea temperatures in the Norwegian Sea where it is thought these fish spend the winter. A recent increase in temperature seems to be associated with thinner grilse.

In 2007 there were reports of some very small grilse, down to as little as 14 ounces, and some thin grilse were caught, especially in July. But overall, the condition of grilse was deemed to be better, although there were fewer than in 2005 and 2006. However, Professor Todd pointed out that just because the grilse which make it back are in better condition the problem may not have gone away. It could just be that in 2007 more of the thin grilse just died. Norway apparently had a poor grilse run with small fish evident. The problem has clearly not gone away.

While the picture presented by Professor Todd appears a very gloomy one, there is perhaps a little ray of hope. The particularly thin grilse seen in 2003, 2004 and 2005 preceded much better spring salmon runs in the subsequent years while the year of best grilse condition, 1997, preceded a particularly poor spring salmon year. So does this mean that starving grilse will delay their return for another year. Perhaps, but presumably only if they live as long, as this pattern did not hold true in 2007.

Red vent syndrome (RVS)

For the last three summers we have reported the occurrence of grilse and salmon with red and bleeding vents. This problem has been even more widespread in 2007 and has now attracted considerable official attention. While the exact cause has not been unequivocably defined, the most likely culprits seem to be parasitic worms. One of these, *Anisakis*, is normally seen around the liver and resembles a small white coiled spring. In cases with RVS *Anisakis* has been found encysted around the vent. Salmon and other fish like herring are infected by the *Anisakis* parasite through the consumption of krill. The final host is a cetacean; e.g. a whale or dolphin which then eats infected fish.

The effect of RVS on fish health or reproductive success is not yet known. However, *Anisakis* can live in the human gut and can cause “serious health problems”. The Food Standard Agency advises that salmon should be cooked at a temperature of at least 70^{o}C for at least two minutes, or if hot smoked the internal temperature must exceed 60^{o}C. All cold smoked or marinated salmon (e.g. gravadlax) should be frozen for at least 24 hours below -20^{o}C before consumption.

Sandeels, sea birds and sea trout

According to the RSPB sea bird breeding was again disastrous in parts of Shetland, Orkney and north west Scotland although better on the east coast. That sea productivity may be lower to the north of Scotland than in the North Sea may explain the seemingly better condition of sea trout in 2007, although an “exploratory” sandeel fishery was permitted in the North Sea in the spring but this was closed after a short time because of continued low abundance. Changes believed to be brought about by climatic change are affecting other

species of fish. Mackerel which have a similar migration route to grilse into the Norwegian Sea penetrated further north and west in 2005 and 2006 and waters around the north of Scotland have seen an explosion in numbers of the formerly little known snake pipefish, an invader from the south. Taken together there is clearly something far wrong at sea.

Enforcement

Reports of poaching were less numerous in 2007 than in some recent years partly as a consequence of the wet summer. However, some problems did arise in September, notably in the Scone area and on the River Braan. Nevertheless reports were sent to the Procurator Fiscal by Tayside Police concerning three incidents.

Board staff continue to maintain close cooperation with Tayside Police for whose continued support the Board is very grateful. This was greatly aided by the launch on 1 February of Operation Salmo, a joint operation between Tayside Police and the Board. This initiative, originally pioneered in Strathclyde, has resulted in even closer cooperation between the two organisations to ensure that the strongest possible cases are submitted to the Procurator Fiscal.

Gyrodactylus

Gyrodactylus salaris, a parasite of juvenile salmon has decimated salmon stocks in a number of Norwegian rivers is potentially the most serious threat looming over Tay salmon. Should this parasite arrive in Scotland its effects could be devastating. It is essential therefore that any angler who has been fishing on the continent, but especially in Scandinavia or Baltic countries, should have their fishing tackle and clothing treated. This includes disinfection, immersion in brine, thorough drying or freezing. Details of the required procedures were supplied to all proprietors at the start of the season along with declaration forms designed to be completed by anglers to certify appropriate measures had been taken.

Hatchery report

The 2006 / 2007 hatchery season was not as successful as some earlier seasons. This was mainly caused by the fact that November and December 2006 were incredibly wet and netting for broodstock proved very difficult. While it is not feasible to accurately count the number of eggs in the hatchey, the total number is thought to be just under one million. Eyed ova or fry were stocked into the rivers Tilt, Garry, Errochty, Shee, Braan, Lyon, Lochay and Cononish and the Tullimet and Balnaguard burns.

In contrast the 2007 season has been very dry and the initial few weeks of broodstock fishing have been very good and a good hatchery season is anticipated.

Staff changes

There was only one staff change in 2007. The hatchery manager, Martin Ritchie resigned and has since taken up a post as a bailiff with the Tweed Commissioners. The role of broodstock capture and hatchery maintenance has been assigned to Lee Fisher, one of the existing bailiff team. A new bailiff, William Tritton, was recruited.

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. After a major review of the Board's Health and Safety Policy in 2006 a subcommittee of the Board met with staff in 2007 and duly reported to the Board that they were satisfied with progress so far but obviously the situation requires regular review. No reportable accidents occurred.

Refurbishment of Lochay fish passes

As compensation for the loss of spawning grounds in the upper Lyon, the North of Scotland Hydro Electric Board installed a Borland fish lift at the impassable Lochay Falls near Killin. The number of fish which has ascended the Lochay is thought to be well below its true potential. It is thought the efficiency of the pass may have been a contributory factor.

In 2006 / 07 Scottish and Southern Energy completely refurbished this facility, replacing the mechanisms which were worn out. The opportunity was taken to improve a number of aspects of the lift's performance including the volume of water it can pass. As a consequence the flow through the lift has considerably increased, which should have increased its attractiveness to ascending salmon. In 2007 the count was higher than usual and commenced earlier, hopefully reflecting these improvements.

In addition SSE refurbished three other conventional fish passes further up the Lochay which were falling into dereliction. Those works were part of the EU LIFE conservation of Atlantic Salmon in Scotland Project.

Removal of obstructions

Several man made obstructions, some total, some partial, have been identified as priorities for removal or improvement. A weir on the Coupar Burn (River Isla) prevents salmon accessing one of the most significant tributaries on the lower Isla. A gap is to be opened in the weir and a sluice installed to allow fish migration during the winter and upstream levels to be maintained in summer. All that is now required is approval from SEPA under the controlled activities regulations. This is awaited.

Though not a total barrier, Board staff have been concerned about an eel trap on the Lunan Water upstream of Marlee Loch. In 2007 juvenile salmon were absent upstream but present immediately downstream. Negotiations are underway to find an acceptable solution.

Kelt reconditioning

Fisheries Research Services continue the kelt reconditioning project at their experimental fish farm at Almondbank. Despite some problems following the banning of the fungicide malachite green several years ago, the use of other treatments, mainly salt, has now successfully brought fungus under control. Spring salmon caught by Board staff at spawning time in the Dochart, Tilt, Garry, Lyon and Shee continue to be successfully reconditioned to spawn several years in a row and yield several hundred thousand valuable spring salmon eggs which would otherwise not exist.

New hydro stations

2007 continued to see increasing numbers of proposals for new small-scale hydro stations as a consequence of the financial incentives afforded by the renewables obligation (Scotland). The Board's views were sought by planning authorities and / or SEPA on no less than eight separate applications. In addition there are at least another ten schemes under active consideration and several others which have been in the planning process for some time. Others will no doubt follow in future.

Most of the areas affected by the proposed schemes are upstream of impassable waterfalls so there is no direct threat to salmon but in a number of instances varying lengths of stream downstream of impassable waterfalls will be affected. In these instances we have requested power houses be moved upstream to the natural limit of salmon migration or that a generous compensation flow be provided. Though, individually, such schemes may have limited impact, the big concern is the cumulative impact. If all the proposed schemes were to be built, then in Glenlyon, for example, no significant tributaries would remain which were not impacted by hydro in some way.

Common seal decline?

There has apparently been a significant decline in numbers of common seals on the east coast of Scotland and the Northern Isles. The cause of this has not been established. According to the Sea Mammal Research Unit numbers in the Northern Isles fell from 12,635 in 2001 to 7,277 in 2006 and in the Firth of Tay they fell from 668 in 2002 to 342 in 2006. As a consequence the Scottish Executive introduced a blanket ban on the shooting of common seals, but this can still be done under licence.

However, the autumn of 2007 was the first year since at least 1999 when seals did not venture up to Perth in the autumn, or at least very infrequently. Whatever the reason for the reduction in seals, 2007 was the first year for some time that salmon lay back right down to the Perth town water where numbers of fish were caught. Almondmouth and the Stormont Angling Club at the tidal limit had good seasons too. It seems quite clear therefore that the presence of seals is disastrous for fishing in the tidal reaches and has been responsible for the ruination of the Perth town water in recent times.

The Aquaculture and Fisheries (Scotland) Act 2007

This new Act came into force in 2007 and includes the following provisions relevant to fishing on the Tay:

- **Gaffs and tailers are now prohibited** as are landing nets with mesh constructed with knotted or metallic material. Only **knotless landing nets are now permissible**, being less abrasive on fish which are to be released.

- Harling has now officially been legalized and the maximum number of rods which can be used in one boat is four.

- The use of live vertebrates as bait is prohibited (e.g. the use of live fish in pike or trout fishing).

Upper Tay Rafting Agreement

The disturbance caused by the growth of commercial "white water" rafting in the upper Tay, especially between Aberfeldy and Grandtully has seriously affected salmon fishing in that area. There was an agreement between the Upper Tay Riparian Owners Association and rafting interests to limit rafting during important fishing periods. However, this agreement was discarded after the passing of the Land Reform (Scotland) Act. After considerable negotiation an agreement was finally brokered in 2006 whereby from 1 April to the end of the salmon season no rafting should take place on Tuesdays and Thursdays and there should be a reduced rafting presence on Saturdays when much of the activity moved to the Tummel at Clunie Dam where freshets are released.

It seems generally agreed that this agreement has worked as well as may have been hoped in 2007 although there were some teething troubles. Therefore it will to continue in 2008. However, it is recognized that 2007 was not a fair trial because continuous high flows on the River Tummel from June to September due to maintenance work on Clunie Dam meant that an alternative rafting site was permanently available. 2008 will prove a better test. The Board is exploring the possibility with SSE, SEPA and the rafting operators of altering freshet frequency at Clunie Dam to optimize benefits for fish passage and rafting in order to further reduce rafting pressure on the upper Tay.

Lyon Project

For several years the Tay Foundation, Scottish & Southern Energy and the Board funded Heather Jackson, a PhD student from the University of Aberdeen to conduct a study of invertebrates in the River Lyon. Heather completed her degree in 2006 and a paper detailing her findings was published in 2007 (H. M. Jackson, C. N. Gibbins & C. Soulsby [2007] Role of discharge and temperature variation in determining invertebrate community structure in a regulated river. *River Research and Applications*, 23, 651 – 669). This study has shown that the invertebrate community in the upper Lyon is impoverished and has been impacted by flow regulation for hydro power.

Dams have been widely found to impact on downstream ecology in other parts of the world as a result of impacts on temperature regime, flow regime and chemistry. However, this is the first time such impacts have been found in Scotland.

Genetic sampling

Recent advances in methods of "fingerprinting" the DNA of salmon mean that it is now possible to produce DNA profiles which should permit the identification of individual tributary stocks of salmon. The Board has now commenced a programme of sampling the tributary populations which will then be "typed" by the Fisheries Laboratory at Pitlochry.

Once this work is complete in several years time it will then be possible to ascribe fish to their home tributaries when they are caught entering the Tay, in coastal net fisheries or even on the high seas. This will allow us to determine which tributaries are contributing to which fisheries / beats which will prove invaluable in formulating conservation policies to improve weak stocks.

Crayfish, an undesirable newcomer

The North American Signal crayfish has unfortunately been introduced to several places within the Tay district. They are now entrenched in the upper Earn. They were introduced to a pond in the Ericht catchment and in 2006 Board staff were involved in an eradication project which involved poisoning two ponds and a connecting stream. This was only the third time ponds had ever been treated in this way and the first for a stream. After a year the ponds were revisited and sampled and no crayfish have subsequently been found. While this is very good news, crayfish have since been found elsewhere in the Ericht system and it is feared this second colony may now have escaped into the river and may be beyond eradication.

Smolt damage at Almondbank Hydro Station

We have been concerned for some time at the possibility that a small hydro generating station at Almondbank could pose problems for smolts. Under low flows this facility can abstract most of the flow in the lower Almond. The turbine is screened with louver screens which are not a total physical barrier but a slatted device which is meant to create sufficient turbulence to deter fish from passing through until they find the bypass.

On trapping the tailrace in the early darkness after a small rise in water in late April, several hundred smolts were caught, having passed through the turbine. In contrast few were caught in the bypass. Some of the smolts in the tailrace were dead, having been chopped by the blades, but many more showed signs of damage, though alive. Modifications are being made to the screening arrangements to ensure the bypass flow is more attractive and these will be tested during the 2008 smolt run. Should these continue to prove inadequate a physical screen will be insisted on.

Blairgowrie Fish farm abstraction

A lot of concern was expressed, especially by members of the Blairgowrie Angling Association, regarding smolt passage at a rainbow trout farm at Blairgowrie. April 2007 was unseasonably dry and much of the Ericht's flow was abstracted into the lade and many smolts undoubtedly would have passed through the lade in preference to the main river. Concerns were expressed to the farm owner regarding the screening arrangement at the entrance to the fish farm. There are good physical screens but these are sited in a backwater where smolts may mill around searching for an exit. The bypass is sited a short distance downstream. It was agreed that a new bypass pipe would be installed adjacent to the screens to draw water, and hopefully smolts, right from the point at which the smolts might be expected to congregate.

Fishtay / fishscotland website

2007 saw the fourth year of operation of the **www.fishtay.co.uk** website. The popularity of the website has continued to increase. In 2007 £114,780 worth of fishing was booked online. Previously the Board had not charged commission on bookings but in 2007 a 10% commission was reinstated in order to offset the annual fishscotland management fee.

There were differences in the success of individual beats using the facility. While these reflect the fishing available etc, there are several factors which seem to be important in aiding success which are by no means followed by all users.

- Reporting catches. Beats which report catches on a daily basis do get the anglers' attention.
- Be competitive. One of the website's strengths is selling last minute fishing at less than prime times. As this fishing may not otherwise be let, it seems important to 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 fewer 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!
- Beats which 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 produces considerable reward.

The Fishscotland team who run the website are continually looking for new ways to improve the service and to add value. In 2008 it is hoped that at least one temperature sensor and possibly a turbidity sensor will be installed at a SEPA gauging station. Thus, in addition to water heights, it will be possible to see the temperature and colour of the river.

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.

2007 was the fourth year of the scheme and included the following primary schools: Madderty, Grandtully, Crieff, Bridge of Cally, Longforgan, Newbigging and Carlogie plus three 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 small clear fronted fridges (wine chillers) to keep them at approximately 4 degrees. These were generously donated by Mr John Apthorp. 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.

FISH COUNTER RESULTS 2007

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 ("Hydro Board" mark XI) 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 (a "Hydro Board" mark X) 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

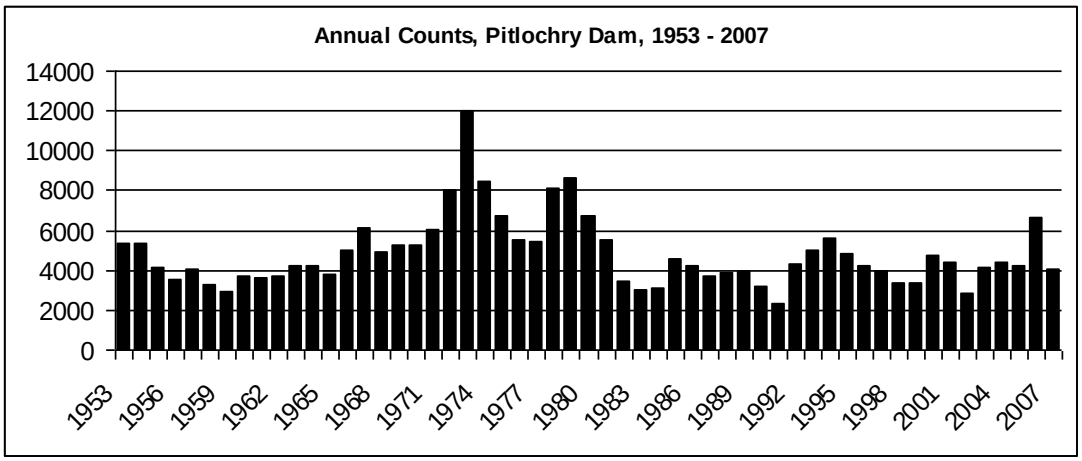


Figure 1. Annual net upstream counts (that is down counts are subtracted from up-counts on a daily basis) through Pitlochry Dam fish ladder, 1953 – 2007.

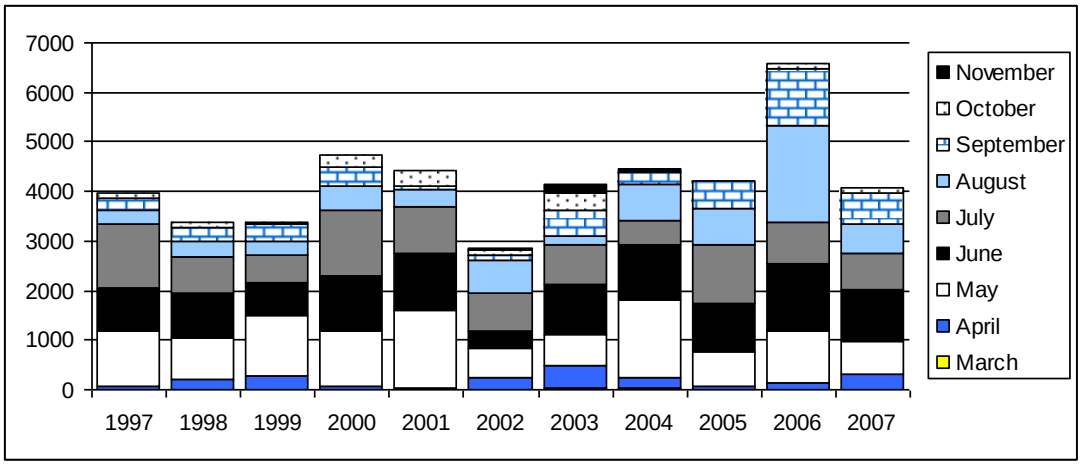


Figure 2. Monthly net upstream counts, Pitlochry Dam, 1997 to 2007

The count at Pitlochry Dam for 2007, at 4069, was a fairly average count for recent times. The count to the end of June, which should encompass the spring run, was also average despite lower spring catches downstream. The summer counts continue to show the trend of a latening of the summer grilse run. The dominant month had been July, but in the last few years August and September have become increasingly important.

Clunie Dam

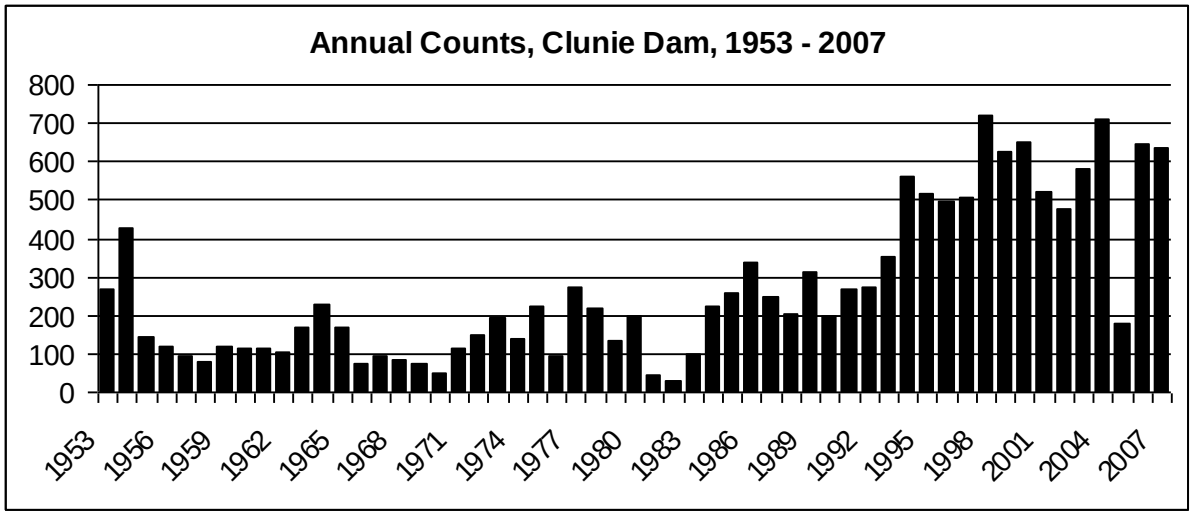


Figure 3. Net annual upstream counts through Clunie Dam fish ladder, 1953 to 2007. (Note: there was a malfunction in 2005).

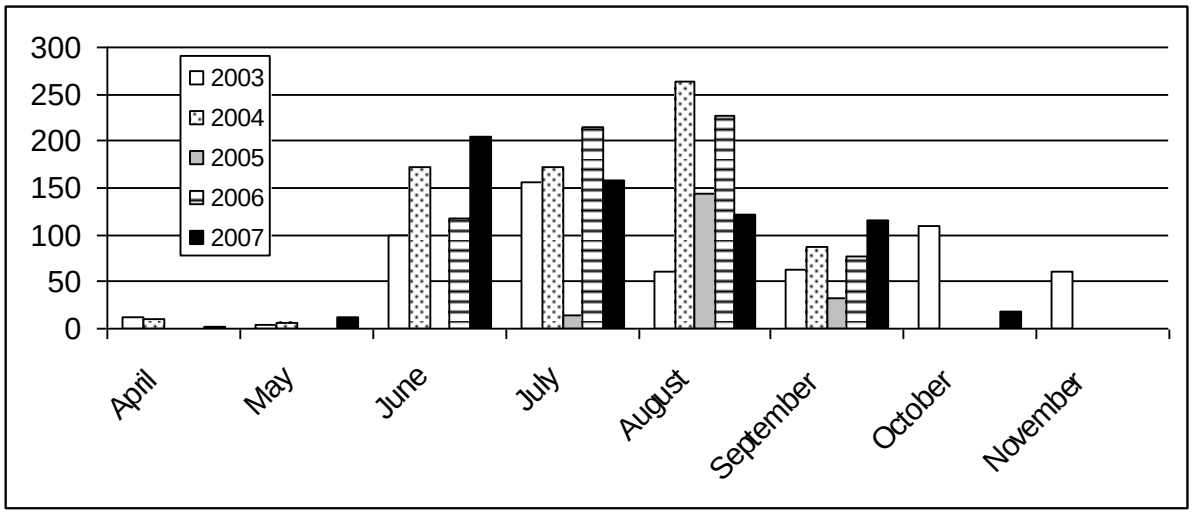


Figure 4. Monthly net upstream counts, Clunie Dam fish ladder, 2003 - 2007

Counts at Clunie Dam were once again maintained at the historic high levels seen in recent years. 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 Tummel catchment. However, in 2007 the proportion of the run which ascended in June was greater than normal. Most of these fish in fact ascended in the last week of the month. From late June to September Clunie Power Station underwent a maintenance outage. The main Tummel flow was passed down the main river instead of through the power station. It would seem that the much greater flow stimulated the fish to run. If this is the case then the usual arrangement of a compensation flow and weekly summer freshets is perhaps not quite as effective in drawing fish as a more natural flood level would be.

Lochay Falls

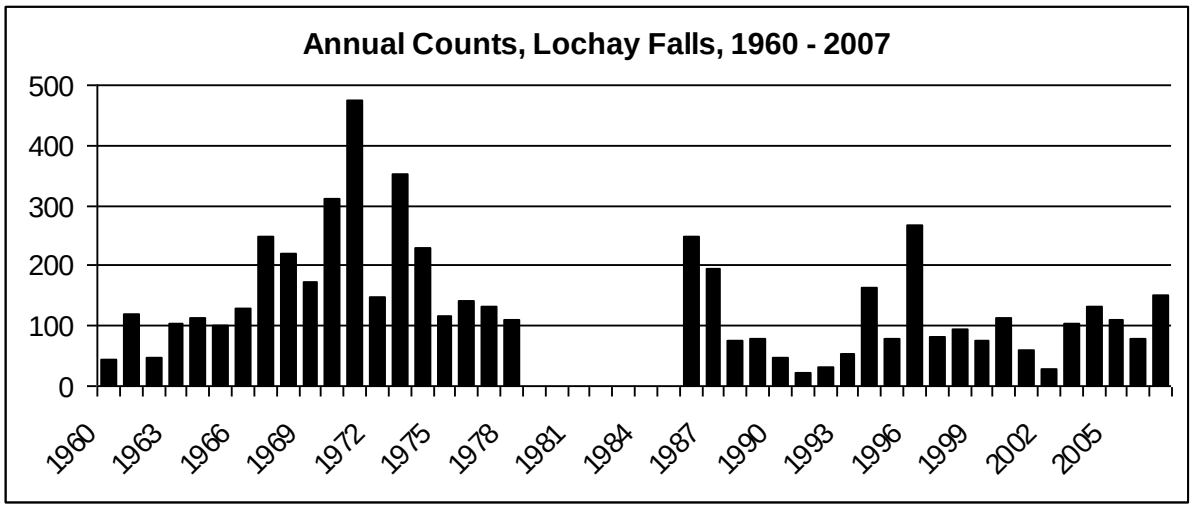


Figure 5. Net annual counts at Lochay Falls fish lift, 1960 to 2007

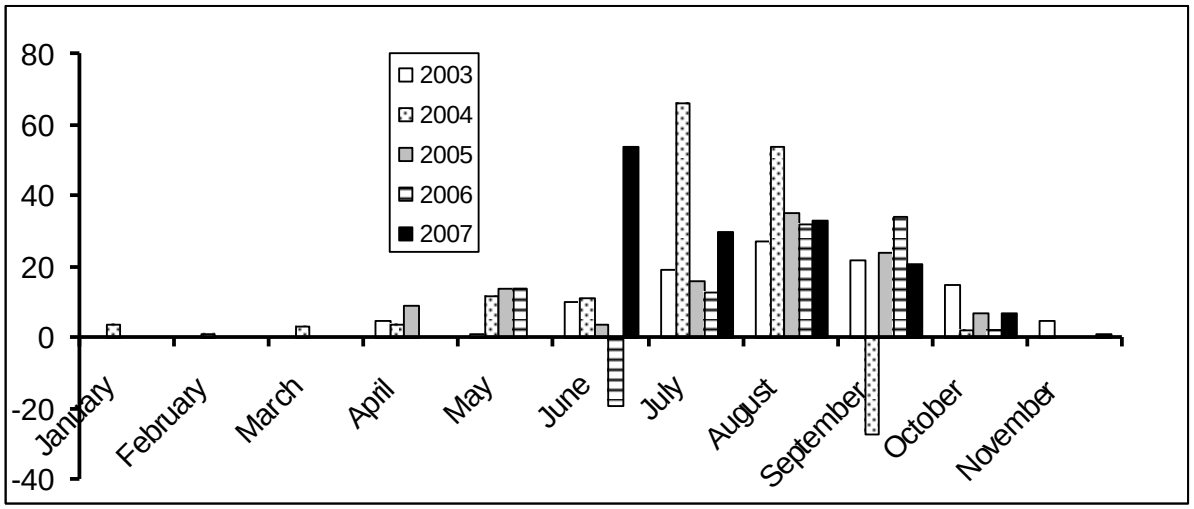


Figure 6. Net monthly upstream counts at Lochay Falls, 2003 and 2007

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 of 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. In response to concerns regarding the efficiency of this lift Scottish & Southern conducted major improvements to the lift in 2006 / 07 (page 11). Hopefully the increased run in 2007 and its earlier timing have been a result of this work. Future monitoring should provide the answer in years to come.

Stronuich Dam

Owing to refurbishment work which has entailed moving the counter location no count data are available from Stronuich Dam on the River Lyon for 2007.

River Ericht

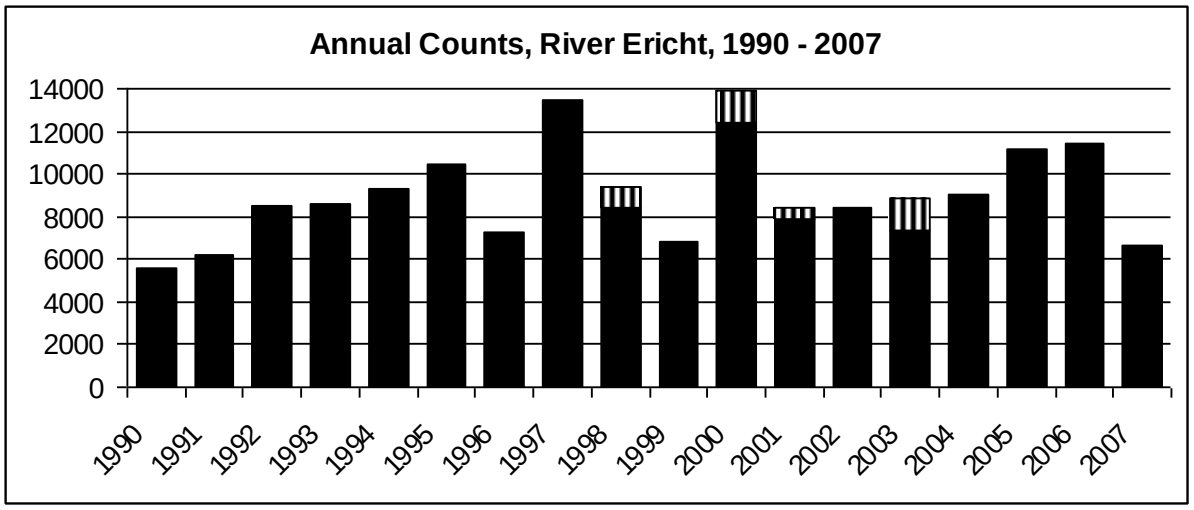


Figure 9. Annual upstream counts at the Blairgowrie fish counter, River Ericht 1990 – 2007. Hatched areas give indication of possible extra counts which might be added in years of malfunctions or when fish were trapped below the counter.

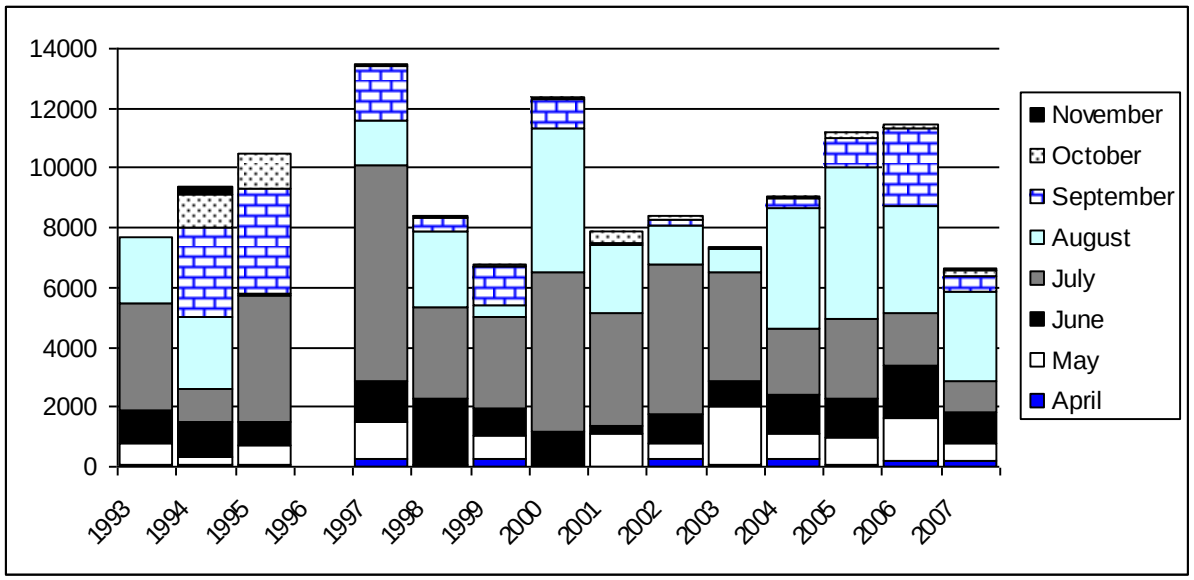


Figure 10. Monthly upstream counts at the Blairgowrie fish counter, River Ericht, 1993 to 2007. Note: data are not available for 1996 nor the springs of 1998 and 2000.

2007 saw a significant decrease in the Ericht count. The spring count to the end of June was lower than the four previous good years, but this may reflect a general decrease in Scottish spring salmon abundance in 2007. Despite plenty of water to draw fish up, July was poor, again as a result of a delay in the grilse run which has occurred each year since 2005. August, the first half of which was very wet, was again the best month for the fourth year in a row. September and October were dry months and there was never really a spate to draw more fish up to Blairgowrie during that period. The fish counter is situated upstream of a temperature barrier (Cargill's Leap) and it is unlikely that fish arriving in November would reach the counter in any numbers. Had there been water in September and October the final count might have ended up somewhat higher.

TAY SALMON CONSERVATION AWARD

The second Tay Salmon Conservation Award Dinner was held on the 19 of April at Scone Palace and was judged another highly successful evening. The Ballathie Trophy was presented by Mrs Miranda Lindsay to Ken Bell, who for many years has been angling correspondent with the Courier, and previously wrote the monthly reports for the Trout and Salmon Magazine under the pseudonym “Taysider”. Ken’s coverage of events over the years has undoubtedly been highly influential, especially in the days when the Tay was dominated by netting interests. Mr David Profumo rounded off the evening with a highly entertaining speech which was much enjoyed. Over £30,000 was received in donations to the Tay Foundation as a result of the evening. The Board is very grateful to all the donors for their extremely generous contributions and making the event a tremendous success.



Ken Bell receives the Ballathie Trophy from Mrs Miranda Lindsay. The guest speaker, David Profumo, looks on.

TAY SALMON CONSERVATION AWARD

The 3rd TAY SALMON CONSERVATION AWARD DINNER

will be held on the evening of 12 June 2008 at Ballathie House Hotel

Guest speaker – Magnus Linklater

Tickets are priced at £65 and are available from

Mrs Miranda Lindsay, Taymount Mains, Stanley, PH1 4QG.

Tel 01738 828984, Email – mirandalindsay@btinternet.com

Numbers are limited. Early booking is advised.

CLOSE SEASON FISHING EXPERIMENT 2006

Introduction

In recent years there have been indications that around or after the end of the Tay angling season (15 October) greater numbers of fresh run salmon may be entering the river than there were two or three decades ago. This has prompted speculation on, for example, the opening and closing dates of the season.

In order to obtain objective information on what type of fish really are present in the Tay after the end of the angling season, in both 2005 and 2006 a licence was obtained from SEERAD to conduct experimental angling for 3 – 4 weeks of the close season. The results for 2005 were reported in last year's report. This report presents the results for 2006 with comparisons to 2005.

Methods

Fishing 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 might be present, if at all. The beats selected in 2006 were: Luncarty, Stobhall-Taymount, Burnbane, Kinnaird, Coupar Grange (River Isla), Dalcrue (lower Almond), Kinkell-Innerpeffray (River Earn) and Kemback (River Eden).

Fishing was conducted with barbless hooks using typical fishing tackle (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 down a qualitative judgment of the colour of each fish and were asked to estimate the weight of each. In the event, fishing conditions were poor due to high water in the last week of October 2006 but during the first ten days of November water levels fell steadily and fishing conditions improved markedly.

Results

The numbers of fish caught and days fished in 2006 are presented in the Table below.

Beat	Total caught	Number successfully Photographed	Number days fished
Luncarty	25	24	5
Stobhall-Taymount	72	36*	7
Burnbane	24	22	6
Kinnaird	40	37	16
Coupar Grange	10	9	4
Almond	9	9	3
Kinkell-Innerpeffray	9	9	5

- Damaged camera resulted in loss of photographs.

Colouration

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

For males, over 50% caught at Kinnaird, the Almond and at Coupar Grange were coloured. Males which were silver or fresher (those which would be of most interest to any fishery) were only caught in the main stem of the Tay. These amounted to a very small proportion at Kinnaird, about one third at Burnbane and Stobhall / Taymount and approximately half in the lower reaches at Luncarty. Sea liced males made up over 20% of the male catch at Luncarty but were scarce elsewhere. This was similar to the pattern of 2005 where, apart from Luncarty and the Earn, coloured males were the majority, the proportion increasing in an upstream direction.

For females, only silver or fresher fish were caught in the Earn and such fish were just the majority at Luncarty, Stobhall-Taymount and Burnbane. But again, sea liced fish were only significant at Luncarty. Coloured females were hardly in evidence, except at Kinnaird and in the Almond. This was again not that different from 2005 when silver females had also been the majority in the Earn and Taymount / Stobhall.

Fish size and sea-age

Considering recent entrant fish first of all (i.e. those which were tarnished or fresher), in all Tay beats and on the Earn, the modal size was in the region of 6 – 9 lbs, typical of autumn grilse. In the Almond and at Coupar Grange they were generally smaller.

Of coloured fish, a few were bigger salmon (commonest at Kinnaird) but, in the Tay and on the Earn, the grilse were again typically of 6 – 9 pounds. During the summer of 2006 there had been a significant run of small grilse (from 2 to 5 pounds) which ran to the upper tributaries. These were scarcely present in the main river catches, indicating that they had already passed through these beats and that the coloured fish which remained were most likely grilse which had entered in the early part of the autumn. In the Almond, the coloured fish were relatively small, indicating an earlier run.

Conclusions

In both 2005 and 2006 the majority of fish present in the main stem of the Tay and in the lower Earn were “autumn grilse”. Some of these were recent entrants but most had probably been in freshwater for some weeks. However, there was certainly no overwhelming evidence of large numbers of fresh run fish. The proportion of recent entrants also decreased with distance from the sea. Furthermore the abundance of these autumn grilse decreased with distance from the sea. Catch rates were high in the lower Tay but Kinnaird appears to have been near the tail of the distribution of these fish. At Kinnaird especially there was also a sparse population of large coloured MSW salmon over 20 pounds which are obviously of significant conservation interest, but the bulk of the spring run and the early grilse run had passed on upstream earlier in the year. The Almond has an earlier run of grilse and the Isla appears to have a mixture of both early and later grilse.

RIVER GARRY RESTORATION CAMPAIGN

Last year's report described a proposal by Scottish & Southern Energy (SSE) to restore some flow to the River Garry. For 13 miles between the House of Bruar and Drumochter Summit the River Garry has been completely dried out by abstraction. It is probably the most extreme example of overabstraction in Scotland, if not the UK, and the biggest single avoidable issue in the Tay catchment. SSE propose to restore a small flow to the river, to be achieved by a commensurate cut in the flow of the Tromie, a tributary of the Spey.

The proposal was made in advance of an impending review of hydro abstractions by the Scottish Environment Protection Agency (SEPA). Because of the EU's Water Framework Directive (WFD) SEPA now have powers to demand restoration of damaged rivers and the first tranche of these have to be agreed by the end of 2009. SSE's pre-emptive proposal was accepted "in principle" by the then relevant Minister, Rhona Brankin MSP, and SEPA.

The Board objected to SSE's proposal as the proposed flow would be insufficient to adequately fill the available salmon habitat in the Garry, it ignored any of the potentially productive tributaries and because there was no provision for "freshets" to allow adult salmon up to spawn. A sufficient flow to achieve these aims could only be obtained by some loss in electricity generation which SSE had requested Rhona Brankin to rule out.

Faced with this situation the Board felt there was no other option left but to embark on a publicity campaign to influence the process. A website detailing the story of the River Garry was set up (www.tdsfb.org/RiverGarryReport.htm) and the campaign was launched on 1 June with an article in the *Trout and Salmon* magazine by Andrew Graham-Stewart who also ably acted as press agent. Considerable coverage was also achieved. This initially included articles in the *Courier*, *Herald*, *Scotsman*, *Press & Journal*, *Perthshire Advertiser*, *Comment* and coverage by Scottish Television. Later the campaign gained coverage from Charles Clover in the *Daily Telegraph* and BBC TV's *Landward* programme. A petition was then launched at the Game Conservancy Scottish Fair at Scone Palace and run in conjunction with the Salmon & Trout Association and the Scottish Anglers National Association. The petition was also supported by a number of local businesses, for example hotels and shops, in the highland Perthshire area and placed in ghillies huts etc. With further efforts being made at the Highland Game Fair at Moy, the Blair Atholl Horse Trials and the Scottish Countryside Festival at Glamis, approximately 5,000 signatures have now been obtained. Leaflets were also distributed urging concerned members of the public to write to local politicians on the matter, and it is understood that significant numbers did. Meetings were held with Peter Wishart MP and Murdo Fraser MSP both of whom were sympathetic to the campaign. Perth & Kinross Council also wrote to express their support.

Perhaps the highlight of the campaign was attendance at SSE's AGM at Perth Concert Hall where shareholders were offered leaflets and the question of the Garry was put to SSE's full board of executive and non-executive directors. Even the Chairman, Sir Robert Smith, expressed his surprised on visiting the Garry for the first time in that the river comprised of nothing but "rocks and stones".

So what has been achieved?



Willie Macgregor (83), still a ghillie on the lower Garry, recalls the pre-hydro glories of the River Garry to the BBC Landward film crew

Certainly the campaign has brought this issue to local prominence and has helped increase awareness of a piece of obscure and convoluted environmental legislation which has ramifications for more than just the River Garry. So what now?

SEPA have recently set up a team who are reviewing the Garry abstraction and SSE's proposal. They are expected to complete the review in the spring of 2008. Local SEPA officials have informed the Board that their policy is the principle of "no loss in electricity generation as agreed by Rhona Brankin". On completion of the review SEPA will advertise its proposals and invite responses. If after this procedure we or indeed SSE are unhappy with the outcome an appeal can be made to Scottish Ministers. In the event that this fails, the implementation of the WFD is designed to form a succession of rolling plans, so in fact the issue need ever go away. Therefore the awareness campaign must continue.



BBC Landward presenter Ken Rundle receives a casting lesson on the dry bed of the River Garry from Andrew Graham-Stewart

However, on 9 October SEPA published a consultation document, the *Significant Water Management Issues* (SWMI) *Report*. This manifesto for WFD work states that in instances where significant ecological gains can be made for small losses in generation then some cut in generation is justified. A senior SEPA official has recently confirmed that this is their policy. The SWMI consultation concludes on 8 April 2008 and obviously requires full support. It can be accessed at www.sepa.org.uk/consultation/index.htm.

So in conclusion it seems that there is not a question of whether water will be restored to the Garry, but rather how much. Over the coming months there is everything to play for.

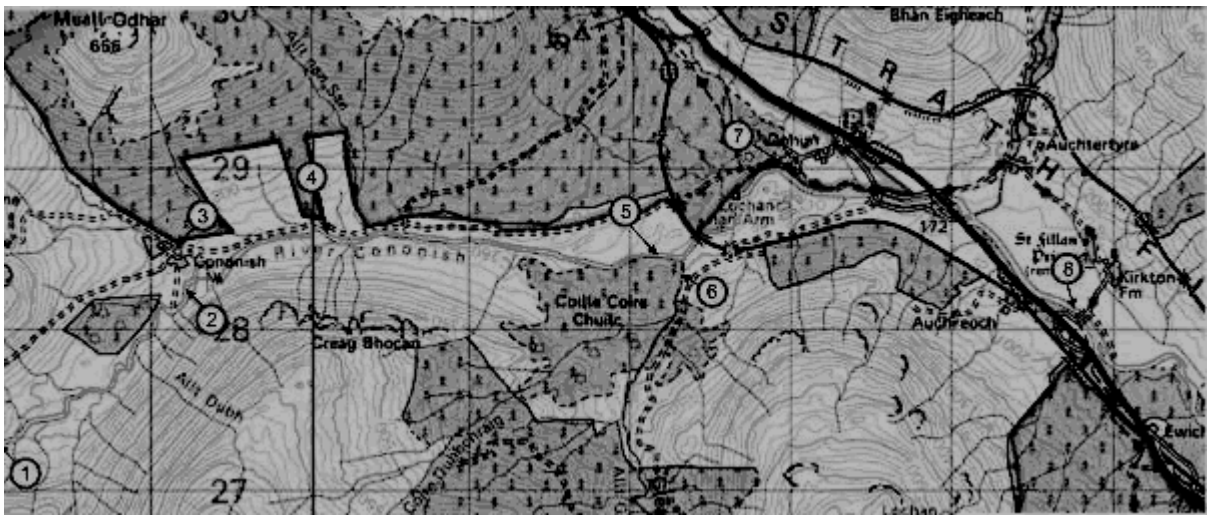
RIVER CONONISH INVERTEBRATE SURVEY 2006

Dr Kjersti Birkeland

Background

The Cononish, the upper reaches of the River Dochart, should be very important for spring salmon but surveys by the Board dating back to at least 1992 have shown that numbers of naturally spawned juvenile salmon and trout are very low compared to the nearby River Fillan, which the Cononish becomes. Salmon fry of local origin that have been stocked into the area have not survived well. It has been suggested that this may in some way be related to water quality. Therefore a survey was undertaken in 2006 to look at the invertebrate (insect) community in the Cononish, its tributaries and the upper reaches of the River Fillan. Such surveys are most useful in the first instance because, in addition to being good indicators of overall water quality, freshwater invertebrates are of course also the most important food source for fish.

Invertebrates were collected from eight locations ranging from site 1 in the upper reaches of the Cononish to site 8 on the Fillan. The invertebrate samples were collected in April, July and August 2006, using a standard sampling protocol. This involves three minutes vigorously kicking of the riverbed while holding a collecting net in a position where the animals, dislodged from the stones and sand is carried by the current into the net. This was followed up by a one minute manual boulder search. Insects caught in the net were immediately transferred to plastic containers and later processed in the lab.



The insects were mainly collected in areas with medium to fast water flow, and the riverbed consisted of a mixture of smaller (pebble & cobble) and larger (boulder) substrate. All areas where insects were collected were considered to be suitable habitat for juvenile salmon.

A juvenile electric fishing survey was also conducted at four of the eight insect survey sites on 18 August 2006 in order to relate invertebrates to fish production. All of the sites fished are naturally accessible to salmon with spawning gravel present nearby but, at two of them, unfed salmon fry had been stocked in the spring to augment the natural stock in order to saturate the available habitat. These fry were the progeny of adults obtained from the River Fillan which had been reconditioned by Fisheries Research Services

Insect surveys

Insect numbers and groups varied greatly between individual sites and sampling dates (Figure 1). For most sites the highest insect numbers were found in April when between 90 and 440 insects were recorded in the samples. At that time the highest numbers were found in the samples taken in the lower half of the study area. Mayfly species were particularly prominent in the April samples at those sites. The upper three sampling sites (situated upstream of Cononish Farm) contained relatively very few insects. While *Baetids* (free swimming "agile darter" type of larvae) dominated the mayflies in the lower sites in April, *Heptagenids* (flattened stone clinging larvae) were the dominant type of mayfly upstream.

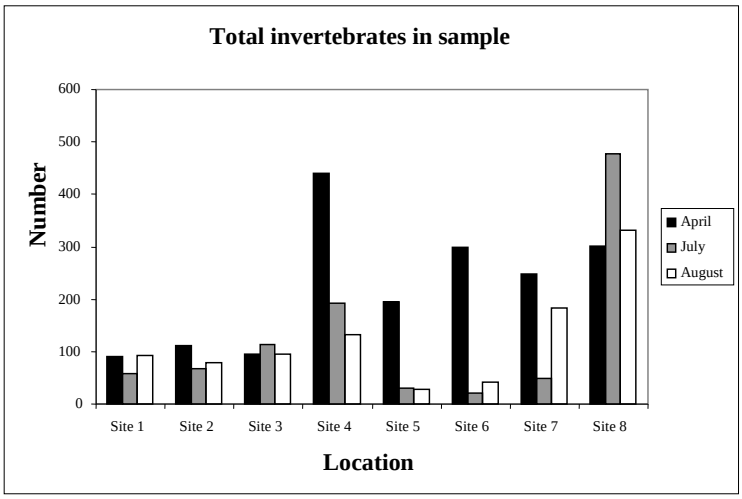


Fig 1: Total numbers of invertebrates caught at each site

On re-visiting the sites three months later the overall insect abundance had changed relatively little in the relatively poor sites upstream of Cononish Farm (sites 1 – 3) but it had decreased greatly in all lower sites except for site 8, i.e. the River Fillan (Figure 1). In fact more invertebrates were found in the one sample from the River Fillan than all other July samples combined, but most of these were chironomids (midges) which were relatively scarce elsewhere (Figure 5). The general drop in abundance was especially caused by a drop in mayflies (Figure 2), as expected for these as a high proportion would have been either at the adult or egg stage of their life-cycle.

As it was felt that the insect numbers in the upper sites were still extremely low, it was decided to revisit the sites again in August but there were only minor differences between the insects in the July and August samples, i.e. insect numbers remained very low except in the two lowermost sites (Sites 7 & 8).

Although overall insect numbers were very low at most of the sites, there was still a fairly high insect diversity (Figures 2 to 5). The main insect groups expected to be found in stony, upland rivers like the Cononish were present, such as mayflies, stoneflies and caddis larvae, as well as midge larvae, beetles, and worms suggesting the sites could nearly all be considered to be good or very good in terms of water quality.

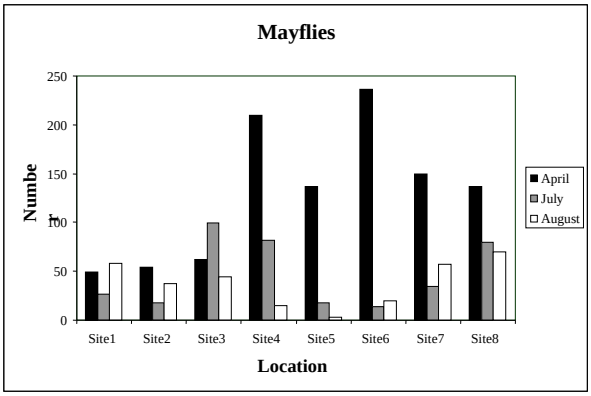


Fig 2: Mayfly larvae samples

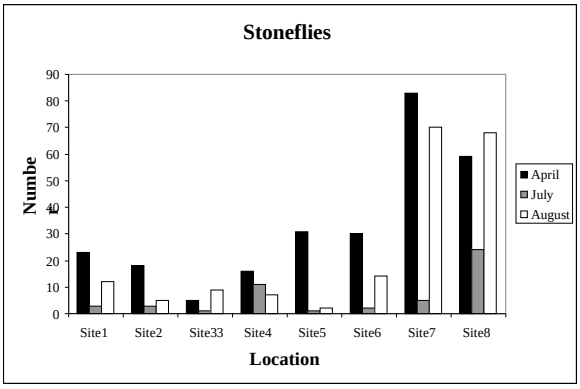


Fig 3: Stonefly larvae samples

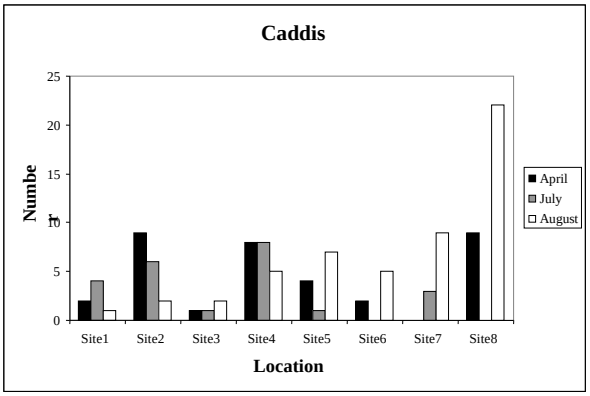


Fig 4: Caddis larvae samples

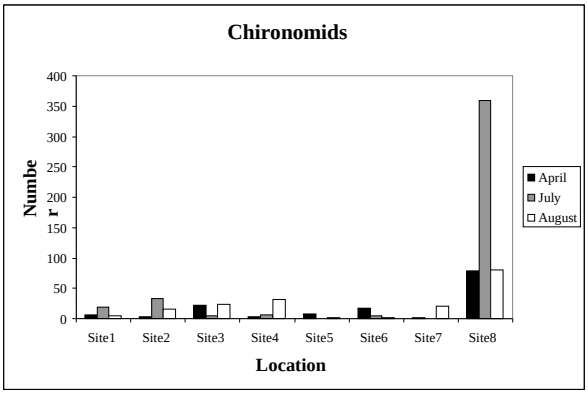


Fig 5: Chironomidae larvae samples

Fish surveys

On electrofishing on 18 August salmon fry were found at all four sites surveyed but no salmon parr were found at the topmost site (Table 1). Salmon fry were most abundant at the downstream sites. The best site (River Fillan, site 8) had not been stocked but sites on the Cononish were much poorer, even the one which had been stocked. However, fry growth rates were relatively high for upland Scotland. 45 – 50 mm would rather be the norm in the neighbouring River Lyon catchment for example.

Table 1: Results of electric fishing 18 August 2006

Site Code	Density* salmon fry (per 100 sq. m)	Density* salmon parr 1+ (per 100 sq.m)	Mean length salmon fry (mm)
Site 2 (Cononish, above farm)	18.8**	0	60.8
Site 4 (Cononish below farm)	13.4	2	64.2
Site 7 (tributary Crom Allt)	71.4**	2	50
Site 8 (Fillan at Kirkton)	93.8	1	60.7

***** Minimum density based on one electric fishing pass

** Sites where salmon fry had been stocked to augment natural spawning

Discussion

Although insect abundance in the River Cononish and Cononish tributaries was generally low, the relatively high diversity of insect groups in the samples result in the Cononish being

classified as a water body of good water quality. Since most of the main insect groups expected were present there appear to be no obvious indications of water quality problems.

The clear dip in insect abundance in July, and to some extent August, is not unusual as a high proportion of invertebrates normally present in the watercourse are at the adult stage of their life-cycle (flies).

The reason for the low abundance of invertebrates in the upper Cononish is unclear. One possibility is that this is just a result of very low nutrient levels in the Cononish. The almost complete lack of chironomids in the Cononish samples supports this as chironomids are fairly typical of (slightly) enriched water but not that common in nutrient poor water. Large numbers of chironomids were caught in the River Fillan which had a higher conductivity and will be partly enriched by effluent from the ever expanding Tyndrum village.

Another contributor to the low insect abundance in the upper Cononish may be linked to the relatively unstable riverbed substrate in this area. Being on the main Scottish watershed this area has amongst the highest rainfall in Scotland and is subject to damaging floods. The frequency of these is increasing as both total rainfall and its intensity has increased in recent years may have resulted in even more movement of river bed substrate, leading to smothering and wash out of aquatic invertebrates. The relative abundance of Heptagenid mayflies, which are particularly adapted to fast flows, in the upper river perhaps reflects this.

The broad differences in abundance of insects parallels the broad differences in numbers of salmon fry, despite spawning gravel being present at all locations electric fished. Low numbers of salmon in the upper Cononish, even despite stocking, coincided with low numbers of insects. However, the growth rates of salmon are actually high for this type of environment. Given it has both high growth and high densities, the Fillan is clearly a very productive environment for salmon and this has been borne out by previous surveys. Given that fry emerge in late spring and have been growing through the summer it seems likely that chironomids are sustaining the fry in the Fillan, but in the Cononish there seems to be relatively little food after the fry emerge. The high growth rates of the few fry in the Cononish may be a result of low competition amongst the survivors.

Low numbers of salmon are not new in the Cononish. In a previous survey in 1992 a density of only 5 fry per 100 sq. m was found at a site near Site 2 and none at all were found at Site 4.

Conclusion

In conclusion it appears that the Cononish may just be a very impoverished and hostile environment, which perhaps may be deteriorating as a consequence of climatic change. However, the contrasting abundance of salmon in the Fillan, perhaps demonstrates the strong effect which stream fertility has on controlling salmon numbers.

Of course, care should be exercised over any conclusions based on data from only a one year survey. Results elsewhere have shown that invertebrate abundance can vary greatly between years, sometimes without any obvious reason for this variation. But the fact that salmon have being doing poorly for at least 15 years suggests there is a long term problem.

HOW DOES THE TAY COMPARE WITH OTHER RIVERS?

Because of poorer catches on some Tay beats in 2007 a notion seems to be spreading that salmon catches on the River Tay are in steep decline, especially so relative to other rivers. Is the Tay really as bad as claimed, or are these claims just misleading?

Official catch data – all season

As of November 2007 the official catch data for 2007 are not yet available. The Scottish Government have only recently published the 2006 data, therefore Figure 1 shows the total salmon (including grilse) rod catch for the four major rivers in Scotland from 1990 to 2006.

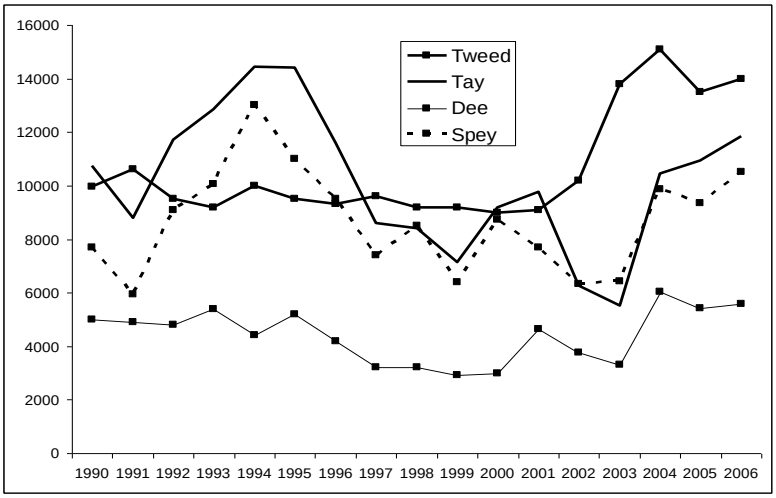


Figure 1. Official annual rod catches of salmon, rivers Dee, Spey, Tay and Tweed, 1990 – 2006.

This does not show the Tay on some spiral of decline at all. Rather, the trend in Tay catches has been remarkably similar to the Spey and indeed the Dee, except that Dee catches are usually considerably lower. Only the Tweed really exhibits a different trend. Its catch was generally steady in the 1990s but increased markedly in 2003, the first year of removal of the Northumbrian drift net fishery.

Official catch data – the spring

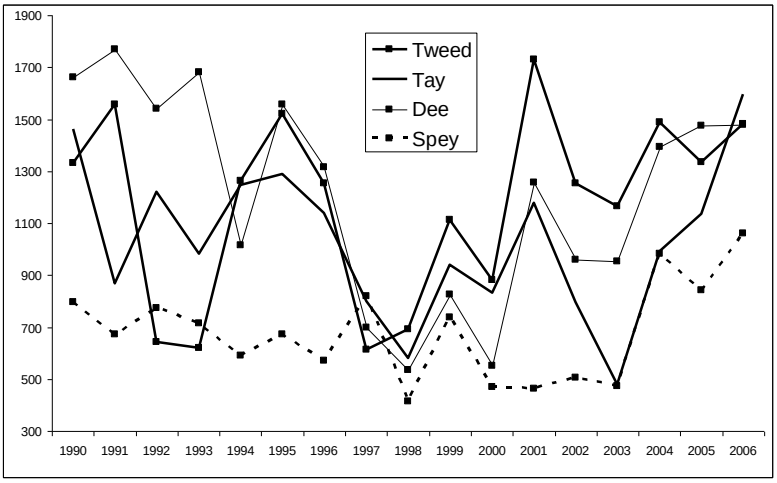


Figure 2. Official spring rod catches of salmon, rivers Dee, Spey, Tay and Tweed, 1990 – 2006.

Figure 2 shows spring rod catches as published by the Scottish Government for the "big four" rivers from 1990 to 2006. Again the four rivers show a similar broad trend over this period. After a fall in the late 90s, things generally picked up in the last few years. It should be noted that in the absence of autumn catches, the Tweed trend is broadly similar to the other rivers. In 2006 the Tay actually produced a higher rod catch than any other river.

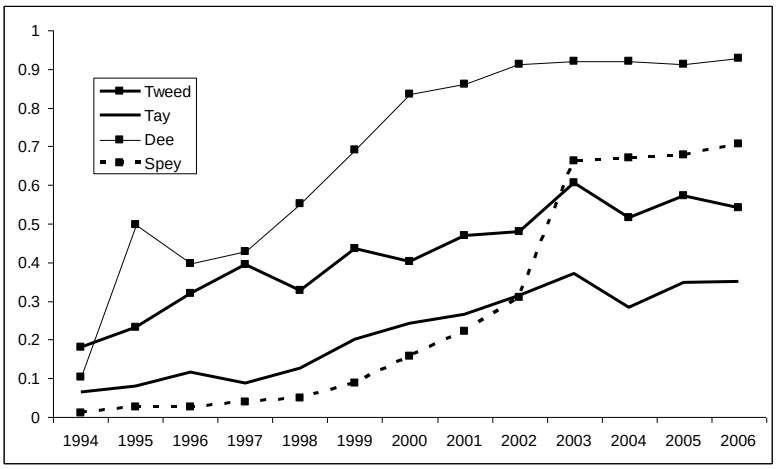


Figure 3. Proportion of the annual rod catch which is released, rivers Dee, Spey, Tay, and Tweed, 1994 – 2006.

One of the reasons sometimes cited for the rise in catches in some rivers following the late 90's nadir is catch and release. Figure 3 shows the proportion of the catch released in the big four rivers since 1994. The trends between the rivers are clearly different. The Dee was quick to achieve almost total catch-and-release. The Spey was initially the slowest but increased markedly after 2002. The Tay has gradually increased but is now lower than other rivers.

While the timing of the increase in catch-and-release is right for the increase in Dee catches, this could not be argued for the Spey. Therefore it is still too soon to be sure of the impact of catch and release. Marine factors are undoubtedly behind the common trends observed.

BUT WHAT OF 2007?

Official catches for 2007 will not be available for some time but a strong indication of Tay catches is available from catches reported on www.fishtay.co.uk. Figure 4 shows that beats downstream of Islamouth pretty much had an average year for recent times. Only Almondmouth did considerably better. Although not reported on fishtay, the Stormont Angling Club (immediately downstream from Almondmouth at the tidal limit) also had one of its best years for some time as did the Perth town water (see comment on seals, page 12).

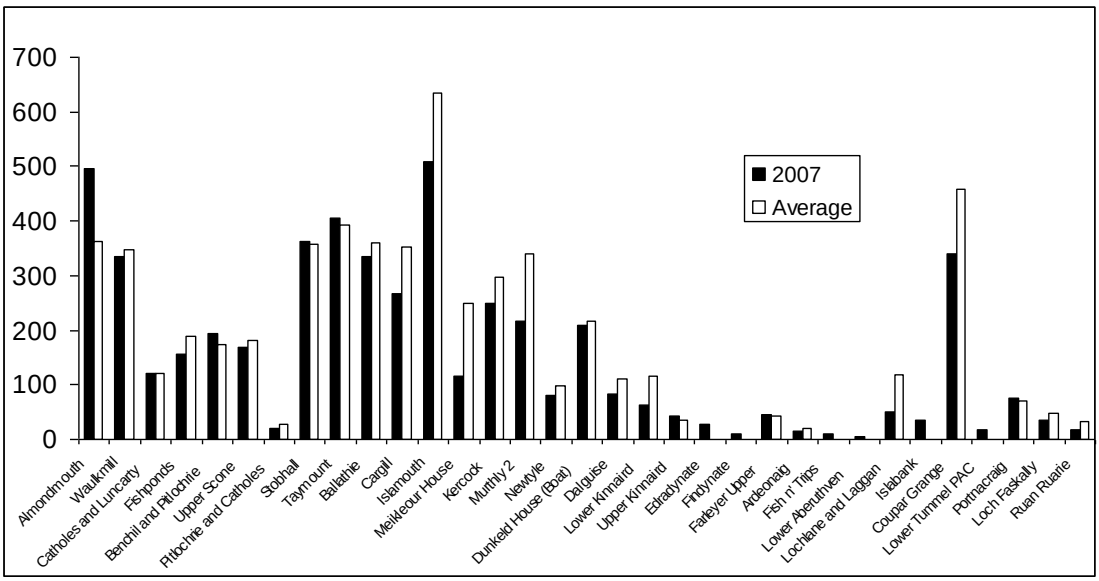


Figure 4. Number of salmon reported on the fishtay website in 2007 compared with five year average, per beat

But the full season catch masks big seasonal differences. The spring is typified by the April catch (Fig. 5) which shows a general lag behind the average, except for a few beats. This reflects the generally poorer runs experiences throughout the UK and Ireland. July (Fig. 6) was even more extreme, where all the main river fisheries were well down. Again this reflects the widespread delay in the grilse run. But by September matters had considerably improved (Fig. 7). This was generally a good month for lower Tay beats.

A major factor affecting catches in the summer and autumn was the flow. Throughout the summer flows were constantly high until the third week in August (Fig. 8). This provided ideal conditions for fish to run through to higher tributaries without being caught in the mainstem of the Tay. But when the true autumn fish (those destined to spawn in the Tay and lower tributaries) arrived in September levels fell markedly. Remarkably the Tay fell from near flood to near drought in three weeks. This meant that the autumn run became bottled up in the lower reaches of the river and as there was never really a spate before the end of the season middle beats never had any chance at the autumn run. Incidentally, the sudden drop in Tay levels in September was aided by the fact that Clunie Power Station was undergoing maintenance and flows on the Tummel were reduced to compensation flow around 1 September (Fig. 9).

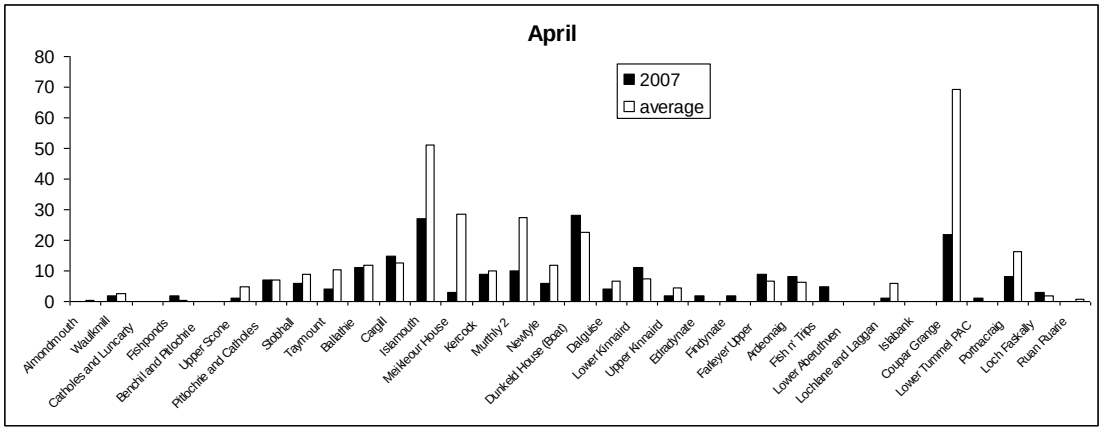


Figure 5. Numbers of salmon reported on the fishtay website in April 2007 compared to previous five year average

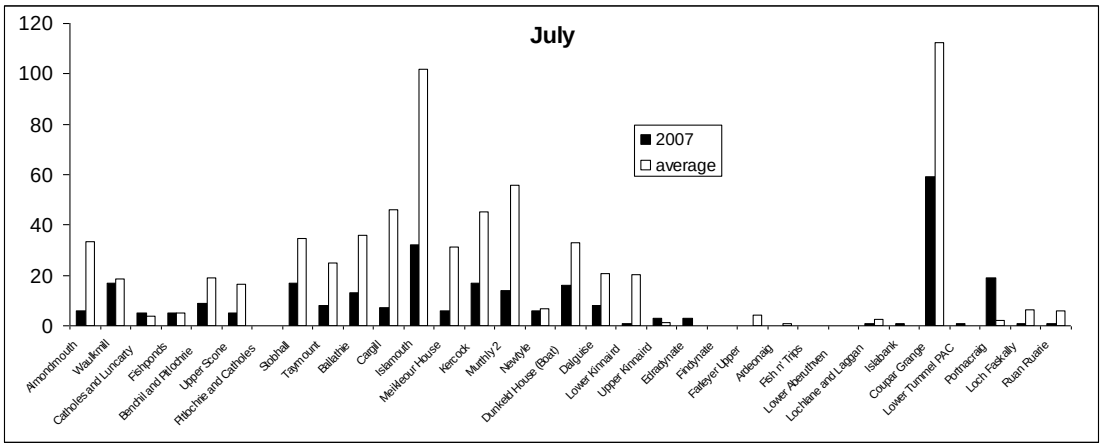


Figure 6. Numbers of salmon reported on the fishtay website in July 2007 compared to previous five year average

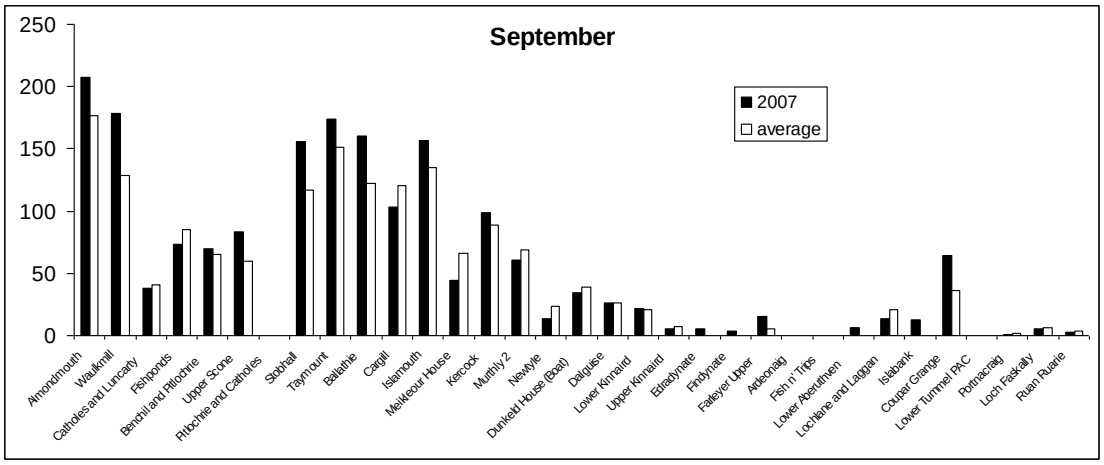


Figure 7. Numbers of salmon reported on the fishtay website in September 2007 compared to previous five year average

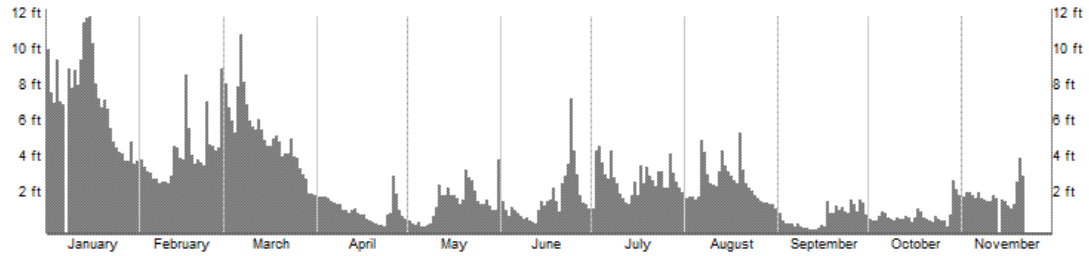


Figure 8. Daily water heights at Ballathie, River Tay, 2007. (Data courtesy of SEPA)

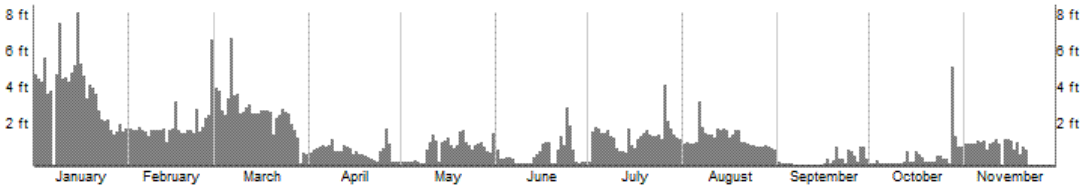


Figure 9. Daily water heights at Portnacraig, River Tummel, 2007. (Data courtesy of SEPA)

Conclusions

Rather than the Tay differing from other rivers the trend in catches is actually very similar to other rivers. However, 2007 was a peculiar season. A generally poor spring run, a delayed summer run which was modest at best and coincided with poor conditions and then an autumn drought which restricted the autumn catch to the lower river. It is reported that some other rivers also had poorer seasons while some others fished well in late summer and autumn. The wet summer did in fact help those rivers which normally suffer from low water, for example, the Dee. Caution should therefore be exercised before jumping to too many conclusions about 2007, especially before the full facts are available.

THE EFFECTS OF THE MID DECEMBER 2006 FLOOD

The winter of 2006 / 2007 was wet in Tayside, resulting in severe and repeated floods across the catchment. The worst of these occurred on 15 December. The epicentre of the rain was in the western part of the catchment especially affecting the Dochart, Lyon, Tummel and Garry areas. SEPA recorded the largest flow in their record in the upper Tay. When water levels finally it became clear there had been significant damage as a result of the floods, both in the Tay itself, as well as in many Tay tributaries such as the Tilt and the Lyon. Bridges had been washed away, roads damaged, houses flooded and gravel substrate moved several hundreds of metres. Some of the stretches affected by the flood were in areas of important salmon spawning habitat. It was feared the floods had resulted in washout of many salmon redds, significantly reducing salmon fry numbers. Therefore a juvenile electric fishing survey was carried out in the autumn of 2007 to gauge the numbers of juvenile salmon in areas affected by the flood.

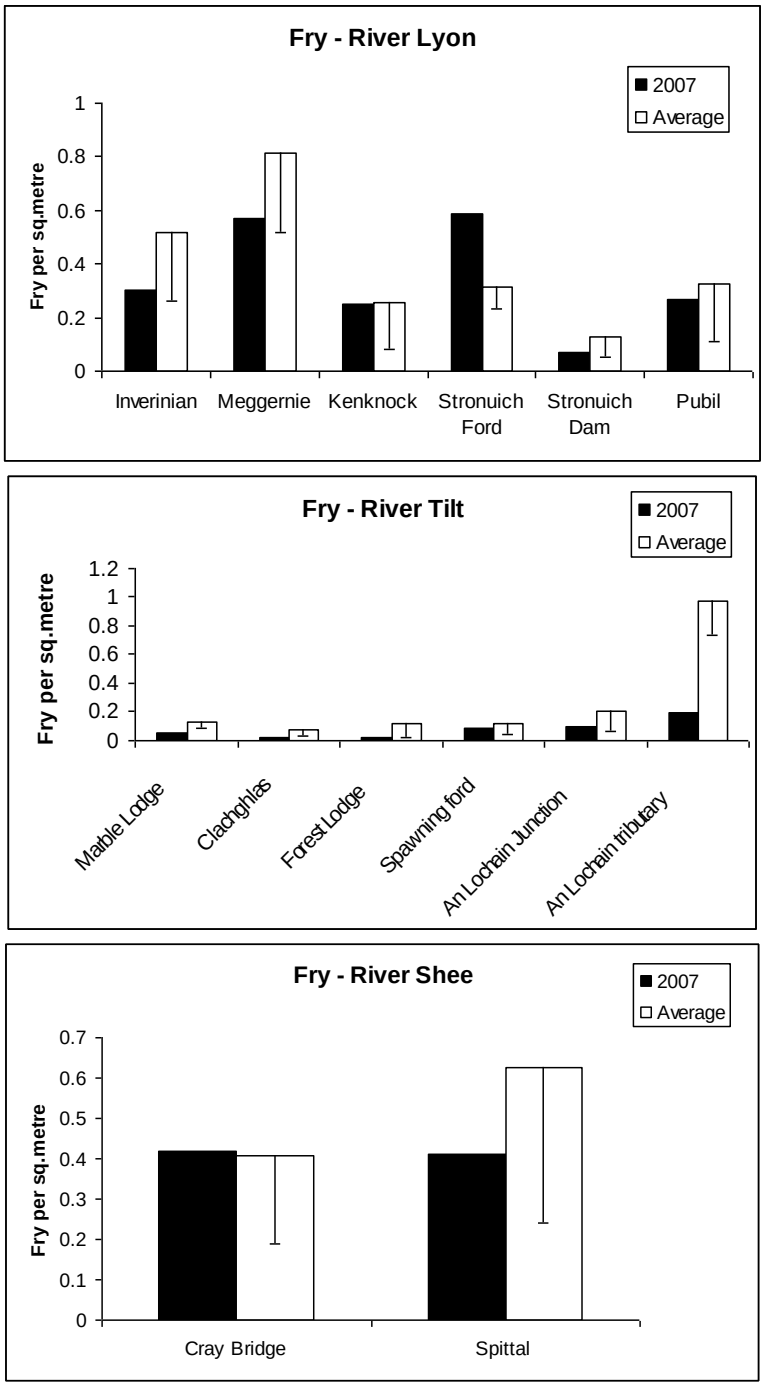
In three of the areas targeted the Board has conducted surveys in most years since 1999 with which to compare the results of 2007. All three, are also important areas for spring salmon (the rivers Lyon, Tilt and Shee).

The results presented below show that in the River Lyon fry numbers were well down compared to the average at two sites in the middle Lyon (Inverinian and Meggernie) but not the lowest ever seen. In contrast the upper Lyon presented a healthier picture. This fits in with observations on the effects of the flood. The damage was worse in the lower Lyon and seemingly less severe in the upper river. A further site at Chesthill was also fished, but the absence of historic data means the effects on this site will only become apparent with comparisons with future surveys.

The Tilt sites, were in contrast, well down everywhere and in some instances the worst results yet recorded. The Tilt is a particularly steep river and very rough. It was very badly affected by the flood and it seems this has had a big impact on salmon spawning.

The Shee, by contrast, being further east, was less affected and fry numbers were nearer the average.

While these data are not terribly robust in a statistical sense, they do nevertheless support concerns which many have expressed, that the increasing frequency and size of floods may be having a significant affect on spawning.



Densities of salmon fry in autumn 2007 at sites in the Lyon, Tilt and Shee compared to the 1999 – 2006 average. The "error" bars represent the level of the poorest year previously found.

SCALE SAMPLING PROGRAMME

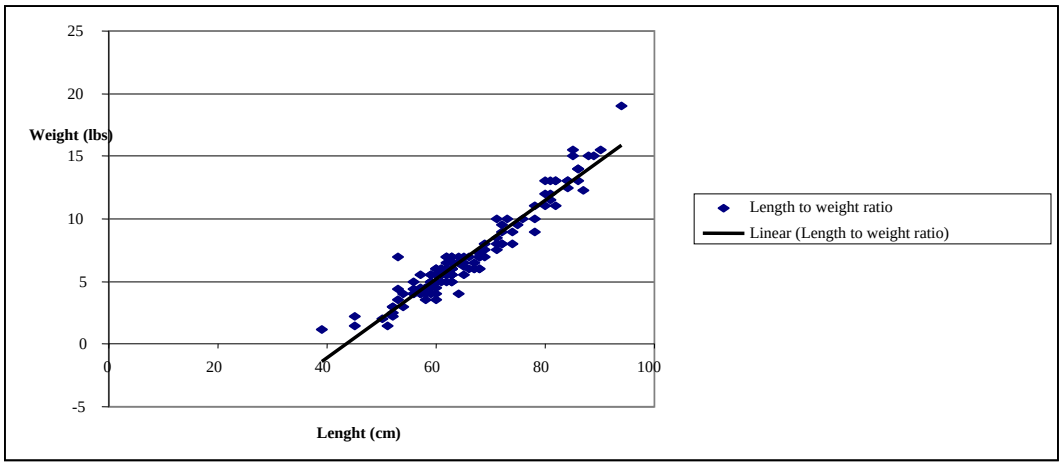
Dr Kjersti Birkeland

The occurrence of thin and small grilse was widely reported across Scotland in 2006. A number of suggestions why the grilse were so thin and small were put forward, including lack of condition while awaiting better conditions for entering the river, parasites and shortage of food in the high seas. Salmon scales may provide useful information on periods of growth and reduced growth whilst at sea and whether small grilse have a different growth pattern to "normal" grilse.

Therefore scale samples were collected from grilse returning to the River Tay in 2007. The scale samples were taken by the ghillies from the following 5 beats: Stanley, Kercock, Islamouth, Stobhall and Kinnaird. In addition to scale samples the ghillies also provided information on where and when the fish was caught as well as fish length and weight. There was also a note on whether the fish were thin and/or had a bleeding vent.

Scales were collected from a total of 141 grilse, the majority from Stobhall, a total of 78 grilse. The proportion of fish reported as being thin was low, only about 6%, i.e. nine out of 141 grilse. This reflects well the general feedback we have got from the Tay ghillies this year. Some thin and small grilse were seen but these fish were not as abundant as in 2006. A higher proportion of fish (25%) were reported to have a bleeding vent.

The Tay DSFB staff are currently analysing the scales and it is anticipated that the scale readings will be completed by early 2008 and a fuller report will be circulated. However, as the graph below shows, with the information provided on the scale packs we have found that for most of the fish there us a good correlation between fish length and weight as most fish are clustered neatly around the trendline. This confirms the view that there was not a wide disparity in condition in 2007.



Length to weight ratio for grilse caught in the River Tay in 2007 (August – October)

TAY DISTRICT SALMON FISHERIES BOARD

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 4th December, 2006.

Present: John Milligan (Chairman)
John Apthorp
Duncan Glass
John Young
Patrick Steuart Fothringham
Patrick Gordon
Viscount Stormont
Ross Gardiner
Robert White
Christopher Dunphie
John Wood
William Lindsay
David Clarke
Murray Smith
Robert Rattray
Ken Bell
Bruce Reid
J C C Taylor
R S Fothringham
Sir William Macpherson of Cluny
Deirdre Stewart
Gemma Thomson
David Colville
Wattie Barbour
Peter MacDonald
John Monteith
Yvonne Learmonth
P Tait
R D Finlay
Charlotte Gifford

In Attendance: Dr. David Summers, Fisheries Manager
Dr. Kjersti Birkeland
Inspector Derek Gregor
Callum Towns, Administrator

Apologies: Michael Smith
Richard Blake
Jim Tritton
Mr. Andrew Mactaggart
Lord Ridley
Lord Ogilvie
Major General C.A. Ramsay

Minutes of the Annual Meeting held on 6th December, 2005.

The Minutes of the 2005 Annual Meeting were taken as read and, on a proposal by Robert Steuart Fothringham and seconded by John Apthorp, were approved.

Accounts for the Year Ended 31st December, 2005

The Accounts for the year ended 31st December, 2005 which were incorporated in the Annual Report had been circulated and were taken as read. On a proposal by William Lindsay and seconded by Christopher Dunphie, the Accounts were approved.

Annual Report 2005/06

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 work, and fundraising. He also advised the meeting that the second Tay Salmon Conservation Award Dinner would take place on Thursday 19th April 2007 at Scone Palace.

He also raised the subject of Rafting on the Tay and advised the meeting that the Board's position was that it would take legal advice as to whether it was within its power to become involved in this issue and, if so, it would seek a meeting with Perth & Kinross Council to discuss how this problem could be resolved.

He expressed his particular thanks to the Board members, David Summers, Kjersti Birkeland, Derek Gregor, Callum Towns and all the Bailiff Staff.

On a question from the floor, David Summers reported that the sand eel abundance in the North Sea had been low during the last 3 years and that measures had been taken by the EU which had resulted in very little sand eel fishing during this period.

On a proposal by William Lindsay, seconded by Patrick Steuart Fothringham the Annual Report was approved.

Presentation by Dr David Summers

Dr Summers then gave a presentation covering the areas of:

<u>Conservation</u>

The Tay continued to return a lower percentage of spring fish than other major Scottish rivers. He confirmed the Board's recommendations that to 31st May the first fish caught and every second thereafter should be returned. From 1st June a minimum of 50% of fish should be returned, including all coloured fish. He also noted that the grilse run had been late in 2006 and that they had been unusually thin, with many having bleeding vents.

<u>Fishtay Website</u>

£120,000 in on-line sales had been achieved in 2006 by the 26 participating beats. The Board had unanimously agreed to re-instate the 10% commission on online bookings which

had been suspended during 2004 and 2005. David Summers provided some guidance on maximising sales from the website.

Project Work

Many projects had been carried out in 2006 which had involved volunteers and Board members as well as Board staff and outside contractors. These had included fencing, coppicing, clearance of obstructions, signal crayfish eradication, surveying of invasive plants, study of the Argulus parasite, and smolt surveying on the Lyon.

Water Framework Directive

This European Union legislation had given SEPA increased powers regarding, among other things, river maintenance work. Licences would in future be required to carry out such work.

One WFD issue which would benefit the Tay was that of abstraction. Scottish & Southern Energy had agreed in principle to reinstate some flow in the Garry. Whilst the current proposals fell short of what would be required to make the Garry a self sustaining breeding tributary, it was a starting point and the Board would monitor the situation.

Any Other Business

There was a discussion on the re-instatement of Fishtay commission. The Chairman anticipated that this would result in an income of £15,000 in 2007. The Board was always seeking ways of increasing income other than via the Assessment and, now that the Website was established, it was equitable that those beats who use the website should contribute directly to the costs which in 2007 would be £26,780. The point was made that those beats which were registered on the website but who did not allow on-line booking were gaining financially. The Chairman pointed out that beats offering on-line booking tended to be much more successful.

On a question concerning the conservation guidelines, the Chairman stressed that the Board continued to take the view that the guidelines should remain voluntary.

The Chairman advised the meeting that it was not in the Board's remit to recommend prices which should be charged by individual beats.

The meeting closed at 12noon.

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 financial statements on pages 41 to 45. These financial statements have been prepared in accordance with the Financial Reporting Standard for Smaller Entities (effective January 2005), 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
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.

Our responsibility is to audit the financial statements in accordance with relevant legal and regulatory requirements and International Standards on Auditing (UK and Ireland). We report to you our opinion as to whether the financial statements give a true and fair view and are properly prepared in accordance with the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003. We also report to you whether in our opinion the information given in the Annual Report is consistent with the financial statements

In addition, we report to you if, in our opinion, the company has not kept proper accounting records, if we have not received all the information and explanations we require for our audit, or if information specified by law is not disclosed.

We read the Annual Report and consider the implications for our report if we become aware of any apparent misstatements within it.

Basis of Opinion
We conducted our audit in accordance with International Standards on Auditing (UK and Ireland) issued by the Auditing Practices Board. An audit includes examination, on a test basis, of evidence relevant to the amounts and disclosures in the financial statements. It also includes an assessment of the significant estimates and judgements made by the Board members in the preparation of the financial statements, 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 financial statements.

Opinion
In our opinion:

- the financial statements give a true and fair view, in accordance with United Kingdom Generally Accepted Accounting Practice applicable to Smaller Entities of the state of the Board's affairs as at 31 December 2006, and of its deficit for the year then ended;
- the financial have been properly prepared in accordance with the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003; and
- the information given in the Annual Report is consistent with the financial statements.

Campbell Dallas LLP
Chartered Accountants and Registered Auditors
Perth
28 November 2007

TAY DISTRICT SALMON FISHERIES BOARD
INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED 31 DECEMBER 2006

	NOTES	£	2006 £	2005 £
INCOME				
Fishery assessments	2		344,492	325,535
Revaluation Appeals			(9,444)	-
Bad debts, changes to provision for doubtful debts etc			-	(156)
			335,048	325,379
Compensation Received (SSE)			5,201	5,089
Contributions from Tay Foundation			7,932	-
Contributions from Tay Ghillies			-	45,338
Contribution from Scottish Executive			5,000	-
Contribution from SNH			17,022	-
Conservation Dinner			877	-
Other Income			343	5,593
			371,423	381,399
EXPENDITURE				
Salaries and National Insurance		205,587		173,611
Pension plus Death in Service- Board's contribution		6,949		5,005
Recruitment		607		576
Motor cars and boats running costs, incl insurance		32,359		22,829
Rent, rates and general insurance		16,383		15,820
Heat & light		3,326		3,318
Repairs&maintenance - General		3,445		2,082
Repairs&maintenance - Hatchery		5,060		4,081
Telephone & Communications		5,126		7,351
Printing, stationery and advertising		2,125		2,647
Annual report costs		617		494
Meetings and other statutory costs		1,907		2,006
Retiral Gift		-		170
Ghillies lunch and meeting		570		569
Clerk's remuneration and office expenses		1,586		7,112
Administration costs		16,320		15,900
Legal fees		-		620
Audit and accounts fees		2,312		2,368
Depreciation		31,987		35,322
Subscriptions and levies		8,080		7,551
I T costs		1,797		571
Health & Safety implementation incl clothing		7,658		7,203
SOAFD - Kelt reconditioning		15,000		15,000
Stock enhancement costs		1,570		2,706
Salmon in the Classroom		-		1,000
Project Work		28,485		18,111
Fishtay Limited Loan written off	10	18,998		23,944
Tay Ghillies Association		-		10,000
			417,854	387,967
			(46,431)	(6,568)
Gain on sale of fixed assets			-	-
			(46,431)	(6,568)
Interest received	3		9,396	11,031
			(37,035)	4,463
Transfers to reserves: NASF(UK)	8		(1,553)	(26,000)
(Deficit)/Surplus for the year			(38,588)	(21,537)

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

TAY DISTRICT SALMON FISHERIES BOARD

BALANCE SHEET
AS AT 31 DECEMBER 2006

	NOTES	£	2006 £	2005 £
FIXED ASSETS				
Tangible assets	4		113,557	131,558
Investments	5		-	100
			113,557	131,658
CURRENT ASSETS				
Debtors & prepayments		26,658		7,743
Cash at Bank and in Hand		187,881		230,642
		214,539		238,385
CURRENT LIABILITIES				
Other creditors & accruals		45,539		42,898
Net current assets			169,000	195,487
NET ASSETS			282,557	327,145
Representing:				
Reserves	6		83,434	89,434
General Fund	7		199,123	237,711
			282,557	327,145

These accounts were approved on 16th August 2007

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 2006

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 HM Revenue and Customs 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

	2006		2005	
	Rateable Value	Assessment	Rateable Value	Assessment
	£	£	£	£
Upper proprietors	745,290	342,834	824,800	321,672
Lower proprietors	13,805	6,350	40,005	15,602
	759,095	349,184	864,805	337,274
Less River Shee		(138)		(312)
		344,492		325,535

The assessments are based on 46 % of Rateable Value (2005 - 39%)

3 INTEREST RECEIVED	2006	2005
	£	£
Bank interest	9,396	11,031
	9,396	11,031

NOTES TO THE ACCOUNTS (cont'd)
AT DECEMBER 31 2006

4 FIXED ASSETS

	Leasehold Property	Motor Vehicles	Boats	Equipment	Plant & Equipment	Office and Computer £	Total £
Cost:							
At 1 January 2006	64,578	52,998		42,671	181,448	15,246	356,941
Additions	-	7,999		-	5,069	918	13,986
Disposals	-	-		-	-	-	-
At 31 December 2006	64,578	60,997		42,671	186,517	16,164	370,927
Depreciation:							
At 1 January 2006	10,311	42,111		39,422	118,293	15,246	225,383
Charge for year	3,393	10,415		813	17,058	308	31,987
Eliminated for disposals	-	-		-	-	-	-
At 31 December 2006	13,704	52,526		40,235	135,351	15,554	257,370
Net book amounts:							
At 31 December 2006	50,874	8,471		2,436	51,166	610	113,557
At 31 December 2005	54,267	10,887		3,249	63,155	-	131,558

5 INVESTMENTS

	SUBSIDIARY UNDERTAKING
Cost:	£
At 1 January 2006	100
Additions	-
Disposals	(100)
At 31 December 2006	-

6 RESERVES

	GENERAL £	NASF(UK) £	TOTAL £
At 1 January 2006	83,434	6,000	89,434
Provision in year	-	1,553	1,553
	83,434	7,553	90,987
Expenditure in year	-	(7,553)	(7,553)
Transfer to NASF(UK)	(8,000)	8,000	-
At 31 December 2006	75,434	8,000	83,434

7 GENERAL FUND

	2006	2005
	£	£
At 1 January 2006	237,711	259,248
(Deficit)/Surplus for year	(38,588)	(21,537)
At 31 December 2006	199,123	237,711

8 NASF

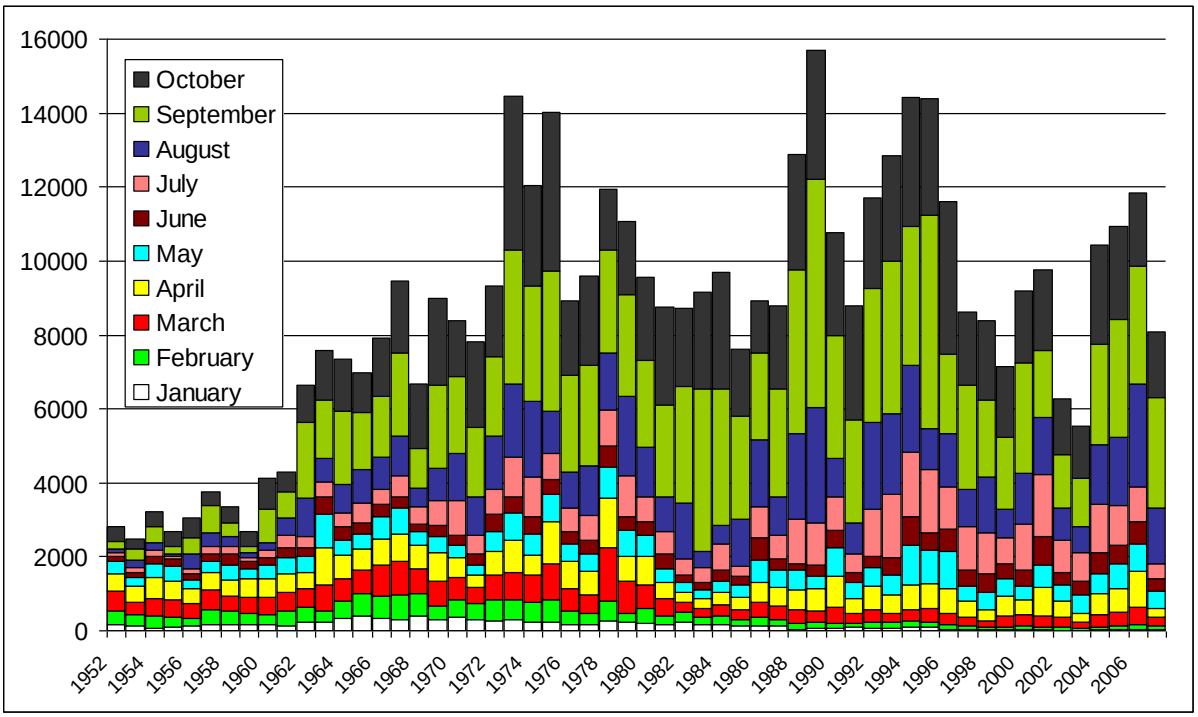
During 2006, £7,553 was paid to to NASF in connection with the Faroese/Greenland buy-out. £8,000 has been transferred from the General Reserve to the NASF(UK) Reserve in respect of a further Faroese/Greenland payment in 2007.

9 CAPITAL COMMITMENT

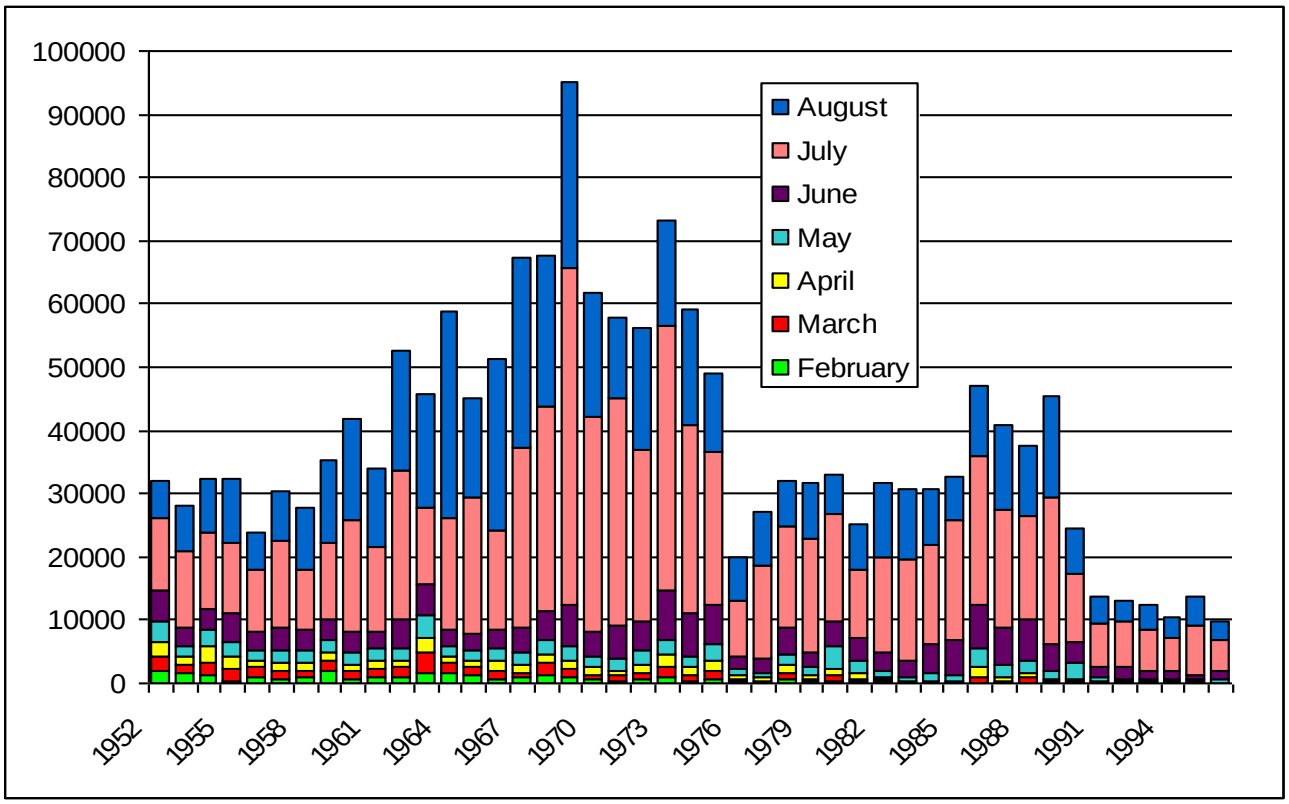
At the year end the Board had authorised the purchase of a van and computing equipment up to the value of £15,000 and £1,000 respectively.

10 RELATED PARTY TRANSACTIONS

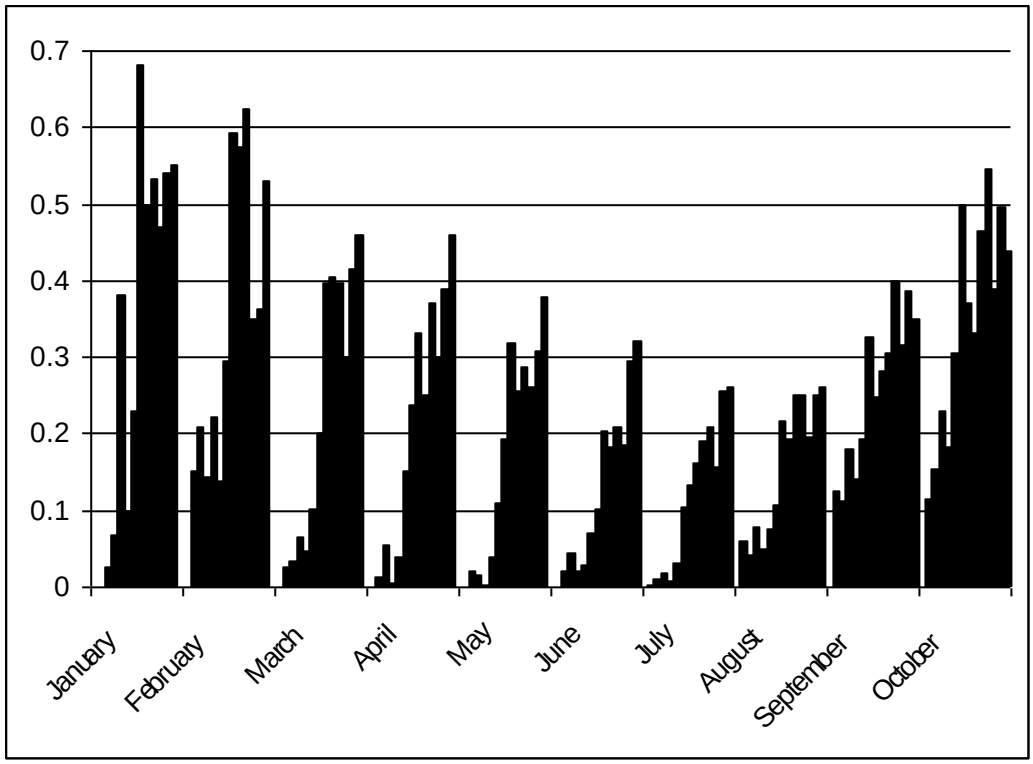
During the year the Board made a loan of £18,998 to Fishtay Limited, its 100% subsidiary. This loan has been considered to be irrecoverable by the Board and has been written off to the Income and Expenditure account for the year. During the course of 2006 steps were put in place to dissolve Fishtay Limited, with the Board taking over the management of the website directly.



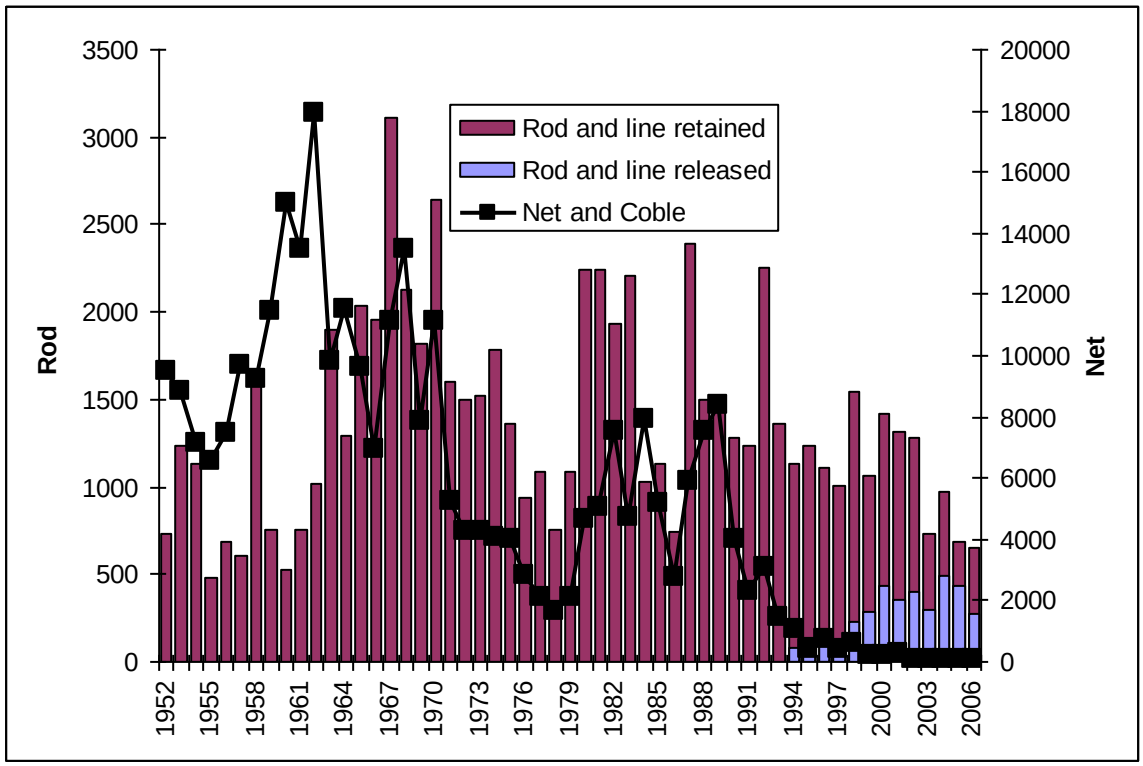
Monthly angling catch for the Tay District 1952 – 2007 (including released fish)
(1952 – 2006 data kindly supplied by Fisheries Research Services, 2007 is a preliminary estimate based on fishtay website analysis)



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, 1994-2006
(Data kindly supplied by Fisheries Research Services)



Tay District rod & line and net catches of sea trout, 1952 – 2006
(Data kindly supplied by Fisheries Research Services)

BOARD MEMBERS ATTENDANCE FOR 2006

	23 March	16 May	11 July	31 August	01 November	04 December
J. Milligan	X	X	X	X	X	X
J. Apthorp	-	X	X	X	-	X
D. Clarke	-	X	X	X	-	X
C.C. Dunphie	X	X	X	X	X	X
P. Fothringham	X	X	X	-	X	X
R. Gardiner	X	-	-	X	X	X
D. Glass	X	X	X	-	X	X
R.P.D. Gordon	X	X	X	X	X	X
W. Lindsay	X	-	X	X	X	X
A. MacTaggart	X	-	X	-	-	-
R. Rattray	X	X	X	-	X	X
J.M. Smith	X	X	X	-	X	X
M. Smith	X	X	X	X	-	-
Lord Stormont	X	X	-	X	-	X
J. Tritton	-	-	X	X	X	-
R. White	X	X	X	X	X	X
J. M. Wood	X	-	-	X	X	X
J. Young	X	X	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 2006 and 2007.

All Proprietors within the Tay District
Callum Towns
Andrew Graham-Stewart
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