2011
ANNUAL REVIEW

ASSOCIATION OF SALMON FISHERY BOARDS
(ASFB)

RIVERS AND FISHERIES TRUSTS OF SCOTLAND
(RAFTS)

Chairmen's introductions

ALAN WILLIAMS - *ASFB*

I am delighted to introduce you to the ASFB's third annual review. I was elected chairman at the end of 2010 in succession to Hughie Campbell Adamson.

Hughie was chairman for many years and recently oversaw the adoption of our new constitution, the start of a greater level of financial independence and the successful appointment of Alan Wells as our policy and planning director. We all owe Hughie a great debt of gratitude for everything he achieved.

At the beginning of a new season there is always a sense of anticipation and I hope that when we come to address the next review we will be reporting a year that will be every bit as prolific as last season for some rivers, while others may hopefully show improvements on 2010. Meanwhile, the association still faces many challenges as it seeks to protect and conserve Scotland's salmon and sea trout stocks. We have resolved that our initiatives will cover a number of issues, including aquaculture, mixed stock net fisheries and the interpretation of 'good ecological potential' under the Water Framework Directive. However, we will not be limited to just these tasks and, amongst others, we will also seek to promote the socio-economic importance of salmon and sea trout fishing to communities within Scotland.

This review is the first that we have produced in conjunction with RAFTS, with whom we share premises and human resources, and is an indication of how closely we work together. While the ASFB is an association of statutory bodies and RAFTS and its member organisations are charities – and thus legally must remain separate – we certainly share the same objectives.

Finally I would like to thank our sponsors Strutt & Parker and Gillespie Macandrew for their support for this review and also would like to record our continuing thanks to the Fishmongers' Company and RAFTS for all the support they give to Scottish fisheries management.

ROGER BROOK - *RAFTS*

This joint review reflects the close working relationship between our two organisations and mirrors the co-operation that exists between salmon fishery boards and fisheries trusts throughout most of Scotland. It is the trusts' role to inform the management of all freshwater fisheries with scientific knowledge and advice, while the boards are responsible for the management of the salmon and sea trout fisheries.

Although many of you, like me, will be motivated primarily by a passion for angling, the interests of the angler and the fisheries scientist coincide. Environmental improvements lead to more fish in our freshwaters and to improvements in the Scottish countryside. We should take pride and pleasure in the work that is done on the behalf of anglers.

2010 may well be remembered for the very high numbers of salmon caught and we should welcome that success. However, it is important to note that there is still much to concern us in the catch statistics. Many rivers, even those that had a very successful late season, were sufficiently worried about the poor spring run to bring in tighter conservation rules for next season. Moreover, catches were not universally good and some rivers – notably in Argyll and Lochaber – continue to record very poor returns. Sea trout catches also remain disappointing in many areas, particularly on the west coast.

I trust you will find much in this review to inform you of the scientific studies and management actions which are shaping our fisheries of the future. I am confident that the better informed we all are the better the chances for the long term successful future of both freshwater fisheries and the Scottish environment as a whole.

ASFB/RAFTS acknowledges and thanks the following for their support of their work:

Worshipful Company of Fishmongers

Editorial consultant: Rob Fletcher
Editorial assistance and images: Andrew Graham-Stewart

RAFTS, ASFB and the wider fisheries sector – the challenge of working together

ANDREW WALLACE - *Managing Director, ASFB & RAFTS*

2010 saw some significant changes within the organisational network of RAFTS and ASFB. Hugh Campbell Adamson's tenure as chairman of ASFB came to an end in November, after 7 years of extremely hard work on behalf of the organisation. Alan Williams, his replacement, already knows the sector well from his time as chairman of the Spey DSFB and is committed to working closely with RAFTS. Meanwhile Roger Brook stands down this March after a similarly energetic period at the helm of RAFTS and his replacement will be elected at the RAFTS AGM. It is a credit to both Hugh and Roger that, barring occasional ups and downs, the two organisations have grown and prospered side by side.

At staff level, I will cease to be managing director of ASFB/RAFTS at the RAFTS AGM and Brian Davidson has become the joint operations director role for both organisations in order to help cement their working relationship. Dr Alan Wells started in January as the association's policy and planning director and he will be co-ordinating the policy positions of the ASFB (with, we expect, considerable cross-over with RAFTS). Alan has a great deal of experience in policy development and on a political and communications front, which is an area where both organisations need to focus to convert their thoughts into actions. Callum Sinclair continues as director of RAFTS with his project development team – Dr Chris Horrill, Elizabeth Clements and the various project staff on the FASMOP genetics project and the mink eradication programme. Many of these staff will continue to be based at the joint Edinburgh office, where Stephen Harris continues to keep the financial and administrative wheels of both organisations turning.

The aim of the last few years has been to get the right people with the right skills for both RAFTS and ASFB. Our personnel should now reflect the specific skills required in each organisation, whilst also providing appropriate cross-over staff and working arrangements to ensure that duplication is avoided, business conducted efficiently and statutory and charitable obligations are observed.

I have long been on record stating that, had we started with a blank sheet of paper, we might not have come up with the slightly schizophrenic, dual-organisational structure we find ourselves part of today. However, given the historical legacy of salmon management and administration in Scotland – a facet of Scottish law that many other salmon producing nations regard with envy – the current system seems to be the best way forward. It allows the statutory salmon management legislation to be discharged, whilst opening up catchment and fisheries management to different sources of funding and fresh ideas.

It may be a complex and often confusing structure for those we do business with – and even for ourselves on occasion – but I think significant progress has been, and will continue to be, made in improving the co-ordination of our activities. After all, the problems we face oblige us to present a united front.

However, I must also make it clear that there is no prospect or ambition to amalgamate boards and trusts. This chimera continues to haunt us, but the law and charities legislation simply will not allow us to merge, nor do most of us think it desirable. The emphasis must therefore be on better co-ordination in an attempt to make the best use of the organisations and assets we have. The board/trust model now covers about 80 per cent of Scotland and – although it is not perfect – it is flexible and can be adapted to local circumstances and is moving ever closer to the Holy Grail of showing independence when required, combined with effective co-ordinated activity whenever possible.

It is also worth stressing that, although boards and trusts clearly have different roles, most of the people we do business with are profoundly uninterested in the complexities of these internal arrangements – all they want is a one-stop shop that offers a sensible, evidenced-based reaction to the many issues affecting our freshwater catchments. The current model is starting to reflect this in a variety of different ways – as is demonstrated by our vastly improved relationship with the public sector.

Co-ordination within and beyond Scotland

The acronym soup of the fisheries world is one that has long perplexed many of our supporters and this remains a significant problem for the sector. Efforts are being made to address this both through active partnerships on the ground and some strategic level thinking by decision makers within the main organisations.

In 2010 the Fishmongers' Company, which has a long tradition of supporting freshwater fish and fisheries organisations, set up a chief-executives' group of all the main angling and management bodies. This involves:

- RAFTS and ASFB – responsible for managing Scotland's fish and fisheries.
- Association of Rivers Trusts (ART) – a charity acting as an umbrella for the growing network of river trusts operating in England, Wales and Ireland.
- Atlantic Salmon Trust (AST) – a UK conservation charity promoting research into the lives of salmon and sea trout, and communicating relevant information to managers and the public.
- Angling Trust (AT) – which is now the leading angler representative body in England and Wales, and is supported by Fish Legal, who use the law to protect fish and fisheries.
- Salmon & Trout Association (S&TA) – now a registered charity promoting the protection and conservation of fish and aquatic habitats.
- Wild Trout Trust (WTT) – a UK-wide charity focusing on wild trout, their habitat and the promotion of wild trout fisheries.
- Game and Wildlife Conservation Trust (GWCT) – a UK-wide research charity with a strong reputation in providing an evidenced-based approach to game management, including fisheries.

This group, which meets three times a year, enables staff in these organisations to meet regularly, discuss opportunities and problems, and to help co-ordinate activity in a crowded operating environment. Secondly, it allows for strategic thinking about how this group of organisations can work more efficiently together and, importantly, be seen to do so by a sometimes rather bewildered public. We hope that there will be some tangible, overt and perhaps also less obvious benefits resulting from these discussions over the coming months and years.

That said, it is also important to point out that such partnerships already function well, as is demonstrated by the following projects:

- RAFTS and ART are now working ever more collaboratively on specific policy issues such as the management of invasive non-native species (INNS). These are a growing nationwide threat to our aquatic environment that demand a national response. A major conference on June 7th at Fishmongers' Hall will present a high profile opportunity for RAFTS and ART to demonstrate how the rivers and fisheries trust network is co-operating throughout the British Isles. Further co-ordinated policy initiatives look set to follow.

- GWCT and S&TA have just announced a collaborative venture on dealing with the opportunities and threats presented by the Water Framework Directive.

- AT is working closely with all major English and Welsh fish and fisheries bodies on the political lobbying front, defending angling from its many challenges, backed up with the force of law with its sister organisation, FishLegal, which now also operates in Scotland and which specialises in legally challenging those who damage and pollute our water courses and fisheries.

- WTT has a strong track record of collaboration with all major organisations, particularly on innovative river bank wild trout restoration projects now being rolled out throughout the British Isles.

- AST have been pivotal players in the development and management of the international SALSEA project, which is trying to unravel the mysteries of the salmon's life at sea. AST also co-ordinates sea trout research throughout the UK. The trust works on specific projects with GWCT, RAFTS, and the S&TA, as well as with universities and research institutes at home and abroad.

As the challenges facing our rivers and fisheries escalate, there is growing obligation for a small number of organisations with finite resources and largely common objectives to work together. We are all too aware that our supporters are impatient to see more clarity and progress in the field of co-operation and co-ordination. This is not always easy – after all, we do not always agree on how to approach the problems and challenges facing us and, indeed, in many cases organisations are after the same 'customers' for funding and support.

However, it is clear that if we don't pull together and be seen to hunt more as a pack, the very object of our attentions – Britain's rivers, fish, fisheries and the people who use them – will suffer.

ASFB news

BRIAN DAVIDSON - *Operations Director, ASFB & RAFTS*

Seals

A new licensing system for controlling seals became operative from 31 January 2011, as part of the Marine Act. All control of seals now requires a licence, and the most significant change in the law is that there is now no unlicensed control of seals – formerly known as the 'netsmen's defence' – permitted, even if the marine mammals are damaging fish stocks.

Those applying for a licence will notice a greater focus in the application process on quantifying 'loss' – which will not only encompass fish lost to predation, but also any economic loss which could be experienced due to in-river disruption to fisheries caused by seals. Marine Scotland fully accepts that this can be an issue and can be factored into future applications. The key issue for fishery managers is that it has now been recognised that a 'rogue' seal entering a freshwater environment can cause significant damage to fish stocks and disturbance to fisheries. The ASFB will monitor closely how well the new licensing regime is bedding in and feedback on this matter from the DSFBs will be sought during 2011.

Offshore energy

Significant renewable energy developments are now underway in Scottish seas through formal seabed leases granted by the Crown Estate. Many of these sites have the potential to affect migratory salmonids, but their precise impact is still unknown. As a result the ASFB, RAFTS, and local boards and trusts have fed detailed comments into the Government consultation on these schemes. The response can now be viewed at http://www.scotland.gov.uk/Publications/2010/12/22153227/4

The key issues highlighted by the ASFB and RAFTS in this exercise include:

- Effects of the construction processes on fish, including physiological and behavioural effects of underwater noise and vibration resulting from construction operations and subsequent turbine operation.
- Direct effects on water quality, through suspension of sediment in the water column disturbed during construction.
- Indirect effects of water quality changes, through effects on food sources available to salmon, sea trout and other species of interest.
- Effect of electrical or magnetic fields associated with the installation and operation and whether these have a discernable effect on fish.
- Whilst salmon use the area primarily as a migration route and are unlikely to remain there for lengthy periods, sea trout and other species may use the area more extensively as a feeding area. Accordingly, there may be a risk of more prolonged interaction with sea trout and other species of interest in relation to the site.

The Scottish Government and SNH have just concluded studies that will require further consideration. As these technologies are new and largely untested, the key concern of fishery managers is simply that the effects of both construction and operation on anadromous fish are unknown. These gaps in knowledge should be addressed so that appropriate mitigation measures can be developed where appropriate.

Fish pass provision

SEPA's Water Environment Restoration Fund continues to offer river and fisheries managers a range of opportunities to tangibly improve the water environment, in particular through the provision of funding to remove obstacles to the movement of fish. Not all sites are eligible for this funding, however ineligible sites include those barriers that are formally licensed by SEPA for a particular use, in which case the terms of the license should be investigated – but those that do qualify should initially apply for phase 1 funding which will finance engineering assessments and offer costed solutions to improve fish passage.

Phase 2 projects, however, are even more crucial and it is essential that we can convert the phase 1 recommendations into physical works. As a result RAFTS will be embarking on a Scotland-wide survey with trusts and boards during 2011 to identify those obstacles which can be bypassed or removed. It is hoped that a twin-track approach can be devised, whereby sites eligible for funding will simultaneously apply for assessments and physical works, while ineligible sites will be highlighted and prioritised for enforcement of licence conditions.

Salmon stocking workshop

It should not be forgotten that the DSFBs are statutory regulators for authorising stocking in their district – a power they must use objectively, with due regard to process, transparency and sound decision-making, especially in those rivers that are designated as SACs for their salmon populations.

As a result we convened a workshop in May to discuss ASFB/RAFTS policy guidelines on this delicate matter. This event assessed individual case studies from rivers and outlined the rationale for both active restocking and electing not to stock. Wider input was contributed by the Scottish Government, the Environment Agency and the Government's statutory and scientific advisors.

Practical research projects, including the contemporary and potentially groundbreaking Focusing Atlantic Salmon Management on Populations (FASMOP), will undoubtedly assist fishery managers in focusing stocking action where it is needed, if at all, but trusts need to play a vital role in assisting boards with the decision-making process. Equally, boards must be comfortable in taking that advice.

Our policy guidelines will continue to be adapted to reflect new evidence as it comes to the fore. ASFB and RAFTS have a clear responsibility to ensure members operate within the guiding principles and further work is planned to ensure boards and trusts understand not only the legal obligations, but also the best practise route within any salmon stocking debate.

Mixed stock fisheries: an impediment to sound management and conservation

DR ALAN WELLS - *Policy and planning director, ASFB*

The issue of mixed stock fisheries (coastal nets which take fish destined for more than one river) is not a new one for the ASFB – Hugh Campbell Adamson discussed this issue in the last two reviews – but there has sadly been a distinct lack of progress since then. The ASFB has therefore established a specific working group to address the issue.

In 1963 the Scottish Office recognised that *indiscriminate* netting was contrary to good salmon management and driftnet fishing was therefore prohibited in Scottish waters that year. In addition, a large proportion of the major driftnet fishery in northeast England was decommissioned in 2003 and the Irish driftnet fishery was closed in 2007.

NASCO, ICES and the EU have all recognised the inherent problems of MSFs in the conservation and management of salmon stocks, and MSFs in home water countries have recently come under increased scrutiny. The statement by the Faroes, from the 2008 Report of the Annual Meeting of the Council of NASCO, reflects the pressure on all parties to the Convention to address MSFs in their home waters by indicating that they had *'refrained from salmon fishing but noted that the actions taken by the other Parties would be taken into consideration in deciding on the future management of their fishery'*. This statement must be considered in the light of the recent decision by Scottish Ministers to award funding of £100,000, via the European Fisheries Fund, to Usan Salmon Fisheries Ltd towards an on-shore pre-fabricated building for the repair and maintenance of nets and other gear.

Wild salmon, particularly the spring stock component, increasingly command a premium price and commercial fisheries continue to exploit this market. Indeed, the Scottish Government has recently applied (against the advice of the ASFB) to the EU for Protected Geographical Indication (PGI) status for 'Scottish Wild Salmon', a protection that would guarantee market advantage for this product.

Data compiled by Marine Scotland Science demonstrates a declining long-term trend for the spring stock component in 94% of Special Areas of Conservation for Atlantic salmon. Despite this, and despite a voluntary code promoted by the Salmon Net Fishing Association, several netting stations continue to fish from February onwards. The declared net catches for 2007, 2008 and 2009 (January-April) were 86, 80 and 145 respectively, but it is difficult to reconcile these figures with the amount of wild Scottish salmon reaching the market during this period. There is also almost universal acceptance that the spring run extends into May, and many would argue into June too, so many of the spring stocks are being more heavily exploited by nets than is often recognised. Indeed, the annual statistics for 2009 were, for the first time, broken down by month. The declared catches of salmon for fixed engine nets for May and June 2009 were 526 and 1220 respectively (corresponding grilse catches were 19 and 458). This is the period when the netting of spring salmon does the most damage.

A carcass tagging scheme has been in operation in England and Wales since January 2009. Any salmon and sea trout caught by means other than rod and line must be tagged with a uniquely numbered carcass tag. Similar schemes have been in operation in the Republic of Ireland since 2001 and Northern Ireland since 2002, but no such scheme is in operation in Scotland. However, the *Report of the Scottish Mixed Stock Salmon Fisheries Working Group* recommended that a carcass tagging scheme for all wild net-caught salmon offered for sale, whether privately or on the open market, should be introduced with a view ultimately to making adherence to it compulsory.

Last year, Hugh expressed his frustration that more progress had not been made following the report of the Scottish Mixed Stock Fisheries Working Group. This called on the Scottish Government to *'make a clear, unequivocal policy statement about the strategy for MSFs'* and to *'publish its initial response to our recommendations by the end of September 2010'*. Whilst this deadline has not been met, this gives the ASFB an opportunity to work with Government to develop a positive solution for 2012. Our policy position is set out below:

ASFB policy for 2012

The ASFB will seek the closure of all Scottish coastal mixed stock fisheries (via salmon conservation regulations) until 1st July, with effect from 2012. The ASFB recognises the case for fair compensation for netting interests in these circumstances and such compensation should be negotiated on a case-by-case basis.

A compulsory carcass tagging scheme should be introduced immediately, in order to bring Scotland into line with the rest of the UK and Ireland. Any person found in possession of an untagged fish taken, other than by rod and line, would be guilty of an offence.

The ASFB will continue to encourage, for conservation reasons, means to reduce the rod exploitation rates of salmon where these stocks are under threat or in decline. The ASFB recognises that, on occasions, there may be a need to reduce all forms of exploitation for compelling and urgent conservation reasons.

Photo: Andrew Graham-Stewart

River Spey water abstraction and the Water Framework Directive

ROGER KNIGHT - *Director, Spey Board and Trust*

Introduction

The River Spey and its tributaries are a Special Area of Conservation (SAC) under the Habitats Directive, so are afforded the highest level of environmental protection available under European legislation. Despite this classification, however, an independent report commissioned in 2007 showed that up to 20 per cent of the mean annual water flow to Spey Bay was currently being abstracted and up to 50 per cent of the flow above Aviemore – an important area for spawning fish – could, at times, be removed.

However, the advent of the Water Framework Directive requires all water bodies to achieve 'Good Ecological Status' (GES), unless they are deemed to be Heavily Modified (eg through water abstraction and diversion), in which case at least 'Good Ecological Potential' (GEP) must be achieved. Sadly these terms are still rather vague, but the WFD nonetheless provides the board with a means of redressing the adverse ecological effects and imbalances caused by years of water abstraction.

Principal water transfers

The headwaters of the Spey are significantly affected by three main water transfers. The largest abstractor is Rio Tinto Alcan, which is licensed to divert water from Spey Dam, which lies some twelve miles from the source of the Spey, to Fort William to produce hydro-electricity. Meanwhile Scottish Water are replacing Badenoch & Strathspey's water supply with a borehole supply adjacent to the Spey, resulting in a small amount of water transferred from the river. In addition, Scottish & Southern Energy (SSE) divert water from Loch An-t Seilich at the top of the River Tromie and from the River Truim – both important spring salmon spawning tributaries – into the Tay catchment as part of the Tummel CAR Licence Scheme. By doing so, the River Cuaich, which is the most important tributary of the Truim, has in effect been lost in its entirety to the Spey catchment as a salmonid habitat.

Despite this, since 2006 SSE have been working on proposals to further reduce the flow down the Tromie and Truim in order to achieve Good Ecological Potential in the River Garry – thus improving the Tay catchment at the Spey's expense. These proposals are based on the almost impossible objective of meeting the requirements of the WFD without compromising Scotland's renewable energy output.

The Spey Board remains concerned that the cumulative impact of the SSE and Scottish Water proposals, on top of the high level of water abstraction already in place, will further exacerbate the impact that existing transfers have had on the ecology of the Spey and the species within it, including salmon and sea trout. In particular, SEPA has historically looked at each water transfer or abstraction in isolation and the board has implored SEPA to take, instead, a holistic approach to the management of water resources across the catchment, in order to appreciate the cumulative effect of these diversions.

Possible remedial measures

Following the WFD, SEPA has classified each body of water in Scotland as either 'good', 'moderate', or 'poor' – with the latter requiring remedial action. They have deemed the section around the Spey Dam as 'moderate', but the board has disputed this as we believe it should be classified as 'poor' and thus qualify for remedial measures. In partnership with Fish Legal, the board has also established a dialogue with SEPA and Rio Tinto Alcan, challenging them on the licensing and operation of Spey Dam. The board maintains that the water regime at Spey Dam is inadequate to allow adult salmon to migrate up to and above the dam to spawn in the headwaters of the river, or to allow smolts to migrate downriver to the sea. Although a separate issue in itself, this is inextricably linked to the SSE proposals because the inadequate compensation flow from the dam may well be contributing to the inability of fish to ascend to and descend from the Truim and Tromie. Any attempt by SSE to further reduce flows down these significant tributaries will compound the problem even further.

Conclusions

These are complex proposals which have required the board to look beyond water abstraction levels and into the realms of assessing water flows and their impacts upon migratory fish. Taking more water from parts of one SAC catchment (the Spey) in which salmonids are present in order to re-water a part of a different SAC (the Tay) where fish are absent today, and other areas of that catchment where they have never been present, appears incongruous. This is particularly clear when one considers that the upper Spey catchment is already under pressure from other substantial abstractions. Now, however, we must wait to see what SEPA decide.

Photo: Paul Kemp, International Centre for Eco-hydraulic Research

Beavers and salmon – a way forward?

ANDREW WALLACE - *Managing Director ASFB & RAFTS*

The announcement, in 2008, that the Scottish Government was considering a trial introduction of Eurasian beavers *(Castor fiber)* was met with deep concern by the freshwater fisheries management community.

Scottish fishery boards and trusts have made a considerable virtue of removing obstacles to salmon migration and re-establishing extensive reaches of riparian habitat to assist the salmon's plight and to improve the quality of the aquatic environment. So it was perhaps not surprising that concern was voiced about the prospect of having to deal with – on top of all the other problems – a large, promiscuous mammal that has a well-known taste for riparian vegetation and for building complex dams across rivers.

What followed the announcement was a passionate, highly polarised and very public debate about the wisdom of the idea. But the Scottish Government ultimately approved the trial and, in May 2009, the first beavers were duly released in the Knapdale Forest in southern Argyll. The trial period will end in 2014, at which point a decision will be made on the future of beavers in Scotland.

Past problems aside, we must now focus on how the various parties have, from a pretty unpromising start, found a modus operandi in which the pro-beaver lobby, the state and the fisheries sector can all have a degree of confidence.

The over-riding point of principle for the fisheries sector is that, unless the Government can demonstrate that beavers will not unduly compromise the ecology and economy of our migratory salmonid fisheries, it would be irresponsible to continue with the project. Indeed, we believe that the European Habitats Directive, which affords a high level of protection to salmon in many of our major Scottish rivers, obliges the Government to assess this risk carefully. The key question, therefore, is how this assessment can be accurately made.

The Scottish Government, assisted by Scottish Natural Heritage (SNH), have risen to this challenge by setting up the Beaver-Salmonid Working Group, ably chaired by Professor Roger Wheater, who has the complementary qualities of being a former vice-chair of SNH, a Tweed Foundation Trustee and an eminent zoologist. The group, involving SNH, RAFTS/ASFB, the National Museums of Scotland, the Scottish Government and their scientific advisers, is now working to develop a theoretical model that will look at the potential overlap of existing salmon habitat with potential beaver habitat. Once the approximate extent of this overlap has been established the group can then have a more detailed look at how this might impact salmonid populations. Five catchments have been identified (Tweed/North Esk/Conon/Argyll/Ayrshire) in which to apply this model. These broadly reflect the different river types in various parts of Scotland.

It is hoped that this model will, in time, help inform all parties of the potential level of interaction between the two species, should beaver introduction be considered seriously. Further work could then be done to assess the negative (and possibly positive) effects of these interactions.

The problem with the debate to date has been that all the evidence assessed has emanated from Europe and North America. While the experiences of these areas may have some relevance to the Scottish situation, it is only when we establish exactly how beavers will interact with Scotland's very specific ecological, economic and social environment that we can make truly informed decisions about the future of a creature that, once at large, will almost certainly become established throughout the UK.

The working group's job is to assess whether the risks of a wide-scale release are unacceptably high. It may also lead us to commission further work.

ASFB and RAFTS are committed to using a logical, methodical and evidence-based approach to assessing the risks and rewards of re-establishing beavers in Scotland. We believe future generations will not judge us kindly unless we do this work now and we also believe that European law obliges us to take this measured approach. It is a credit to some of those who are manifestly supportive of the presence of beavers in Scotland that they have also been willing to adopt this principle.

Eventually it will be politicians who decide the future of the Scottish beaver, but it would be an act of folly if they did not consider all the potential problems extremely carefully. We need to constantly remind ourselves that their eventual decision will not only effect this generation but also those who may have to live with an established population of these extremely dynamic environmental engineers in 50 years' time.

Beaver dam in Perthshire. Photo: Bob Laughton

RAFTS - the boat that floats

CALLUM SINCLAIR - *Director, RAFTS*

RAFTS has come a long way since its formation in 2005 and perhaps now is a good time to reflect on where we have come from and where we might be going. There have been major changes and developments year on year and the RAFTS vessel at the end of 2010 is very different to the one which quietly departed the quayside in 2005 having emerged from the Association of West Coast Fisheries Trusts.

The RAFTS crew

The family of fisheries trusts now in place in Scotland is very much more comprehensive than was the case in 2005 and new trusts have set sail every year. In 2010 we welcomed the River Ythan Trust to the fold and we understand there is now some momentum behind the formation of a trust in Orkney. Currently there are 25 RAFTS members, covering the vast majority of Scotland and all contributing to the better management and understanding of our freshwater catchments and their fish stocks. At a time when other bodies are in phases of contraction, the network of staff and expertise and knowledge offered by the trusts and RAFTS is increasingly valuable and valued.

Rivers and catchments without trusts are now very much the exception to the rule and the trust model now clearly works in a range of situations and variable forms to suit local needs and to reflect the fish and fisheries of each area. The flexibility available is surely one of the reasons trusts have emerged across Scotland and been found to be sustainable. While RAFTS, of course, welcomes further new trust developments we are very conscious that each trust must have strong local support and impetus to initially form and subsequently thrive. This really means that the drive to form new trusts should come from local support and enthusiasm rather than some more actively evangelical selling of fisheries and rivers trusts by RAFTS. Where and when that local enthusiasm exists we will offer help and support to the formation of any new trust.

RAFTS' own staff resource has expanded in line with its growth as an organisation. The majority of staff are funded directly or indirectly by project income streams and costs to members remain largely as they were at the launch of RAFTS. Within this model RAFTS is able to offer significantly greater help and support to members now than at any time in the past.

What the trusts and RAFTS are doing

RAFTS and the individual fisheries trusts are, quite simply, doing more, doing it more often and – we feel – doing it better than they were in the past. Each trust, rightly, makes its own decisions as to local priorities and projects they wish to pursue and deliver. In support of, and complimentary to, this local action RAFTS has been able to bring trusts together in a number of national programmes – eg fishery management planning, biosecurity planning – while there are also a number of regional projects involving groups of trusts. The latter includes barrier assessment, invasive plant control, management schemes to support Water Framework Directive implementation or work to assess American signal crayfish distribution. The most important thing is that funding routed through RAFTS to trusts must meet some key criteria:

- Do the trusts want to do the work?
- Does the work match with local trust priorities?
- Can RAFTS co-ordinate and manage the work with the trusts?

When the answers to these criteria are positive then RAFTS and the individual trusts can provide a useful and effective delivery mechanism for a wide range of work.

Increasingly, public sector bodies are looking for innovative and strong partnerships to deliver necessary projects. RAFTS, providing effective and strong project management and co-ordination, and trusts, providing skilled and efficient local staff and resources, combine to provide such partnerships and we are now seeing a range of projects of that ilk coming together. Some, such as the FASMOP genetics work, are reported elsewhere whilst the overall portfolio is increasingly comprehensive and impressive.

Our capacity to prepare applications and secure funding and co-ordinate resultant projects is an area where RAFTS has invested heavily in terms of its own staff. This investment is delivering significant benefits. In 2010 RAFTS is anticipated to have a turnover of around £1million. The large majority of this turnover is associated with project funding to support work and activities delivered by our members. This allows us to distribute funding to members to help them to do the things they actually want to do and which they have prioritised themselves.

Through the telescope – looking ahead

We are sailing RAFTS through some choppy financial waters and there will, undoubtedly, be times when we are challenged and tested financially and in other ways. Individual trusts must also become increasingly astute and effective in securing support, philosophical and financial, for what they do when many funders and partners themselves are fiscally stressed and stretched. The next few years will be testing but RAFTS is in good health to pass these examinations and to remain robustly afloat.

We are all aware of the issues and competing users of the environment with whom we must work and, on occasion, disagree with. We should tackle these pirates with confidence, knowledge and evidence; look to change policy where it needs to be changed; and find accommodations where these can and must be found. As a sector, wild fish and fisheries must become better organised and increasingly prepared to fight its corner. We believe RAFTS and fisheries trusts have an important part to play in this.

Our people, employed by both RAFTS and trusts individually, provide a strong crew with a wide range of skills and talents. With fair winds we remain optimistic that RAFTS and individual fisheries and river trusts across Scotland can make a telling and important contribution to the protection of Scotland's iconic wild fish and fisheries and, more widely, to our important natural and native biodiversity.

The Scottish Country Sports Tourism Group (SCSTG)

VICTORIA BROOKS - *Project co-ordinator, SCSTG*

Background

The SCSTG was established in 2004 to look at the potential of Scotland's country sports and how to develop them for tourism. The ASFB is one of the founders of the group as well as one of its key funders and is actively involved in several of our angling initiatives. Other members include BASC, ADMG, ASFB, SEBG, VisitScotland, Scottish Enterprise, SNH, SCAET, SGA, SRPBA and HIE.

The group is assisting the angling industry by actively promoting awareness of Scotland as a unique world class fishing destination – a factor that has been drawing visitors from far and wide ever since the Victorian era. Now, in the age of mass travel, Scotland is ripe to attract more visitors interested in country sports, which it is currently doing with great success. However, while bringing in new customers is useful, it is even more important to the economy that they return, so we are keen to ensure that visitors receive truly world class service.

Initiatives

As a result the SCSTG have developed the Excellence in County Sports Customer Care Course, which aims to make ghillies more aware of the importance of customer relations. We also endeavour to ensure good service and facilities, which will in turn encourage repeat business and assist in creating new jobs in rural areas.

Another key remit of the group is to destroy the myth that salmon and trout fishing are both expensive and elitist pursuits. Consequently, the group are intent on encouraging newcomers from all backgrounds to try their hands at these skills through the development of the Country Sports Experience, which is aimed specifically at beginners.

This is a half-day session which includes an educational element – as well as learning the basics about to different types of angling and the different species out there, customers will also find out how fishing fits into Scotland's wetland management and how it can benefit our wildlife. They will also be given information on where they can book fishing if they so choose. The pilot is currently taking place in Perthshire and Angus and we are hoping other regions of Scotland will soon take part in similar schemes.

Marketing opportunities

Our website (www.countrysportscotland) was developed two years ago and is becoming increasingly popular with estates and sporting providers throughout Scotland. They advertise their sport through the site and the visitor can then book directly with the provider. The SCSTG are encouraging fisheries to sign up to make our database as comprehensive – and thus as popular – as possible, and fishing providers are currently being offered a listing for just £60 until June 2012, including unlimited listings in the very popular 'sporting offers' section.

The site has thousands of visits per month – a volume that is currently rising at a staggering rate of over 40 per cent every four weeks.

Meanwhile, international pages in Italian, German, Danish, Spanish, French and possibly Russian are to be developed this year to attract more anglers from overseas.

The web portal also has a news and events section and we are asking fisheries in Scotland to contact us with any exciting or relevant updates.

Summary of achievements

In the seven year period that the group has been in operation it has made significant progress in the following:

- The development and running of a customer care course aimed at gamekeepers, ghillies and stalkers.
- Establishing a pilot project in Assynt to assist and develop wild brown trout fishing in a rural area, which was accompanied by a booklet, 'Trout fishing in Assynt'. Permit sales have increased since the start of the project 4 years ago.
- Exhibiting at the Jagd & Hund (fishing, hunting and shooting exhibition) in Dortmund, Germany, to promote Scotland as a world class unique country sports destination.
- Producing a DVD, 'Scotland a Unique Country Sports Destination', to assist the tourism industry.
- Creating taster sessions for newcomers wanting to try fishing, shooting or stalking for the first time, through the Country Sports Experience.
- Creating a website that represents Scotland and its country sports and is a much needed tool for the industry.

Opening day...


Invasive non native species

DR CHRIS HORRILL - *RAFTS Project Manager* & ELIZABETH CLEMENTS - *RAFTS Project Co-ordinator*

In the last review we described the broad aims and outputs of RAFTS' Biosecurity and Invasive Non Native Species Programme. Since then significant progress has been made – particularly concerning biosecurity planning and the implementation of control/eradication programmes for certain riparian plants and mink.

During 2009 three pilot plans – for the Esks Rivers Fisheries Trust, the Argyll Fisheries Trust and the Deveron, Bogie and Isla Fisheries Trust – were finalised. These provided the template for the biosecurity plans of ten trusts that were finalised during the first half of 2010. At present, biosecurity plans for a further nine trusts are in varying stages of completion and it is envisaged that, by March 2011, there will be a total of 22 biosecurity plans, covering over 85 per cent of Scotland. In addition to the original Biosecurity Planning Project, there are currently five biosecurity and/or INNS projects being implemented through the RAFTS Biosecurity and INNS Programme, with a total value of £3 million (Table 1). This does not include a number of other INNS projects being implemented by individual trusts or boards – such as by the Deveron, Bogie and Isla Fisheries Trust, the River Annan Trust and the Nith Catchment Fisheries Trust – which will significantly increase the total value of projects being implemented by trusts and boards across Scotland.

The four invasive non native riparian plant species (INNPS) eradication/control projects involve 12 trusts, with total economic values ranging from £125,000 to £1,195,000. These projects support a catchment-based approach to the eradication of local populations of INNPS that are widespread across Scotland, such as Japanese knotweed, Himalayan balsam and rhododendron. In addition they also target giant hogweed and Himalayan knotweed. These may have restricted distributions at present, but could cause widespread problems in the future if not controlled. This approach to control and eradication also implements a key strategic element of the GB Invasive Non Native Species Framework Strategy .

RAFTS, along with 13 individual trusts in the north and northeast of Scotland, is also a partner in the Strategic Control of Mink in Northern Scotland initiative, alongside Scottish Natural Heritage, the University of Aberdeen, the Scottish Wildlife Trust and the Cairngorms National Park Authority. This is an ambitious initiative to establish local management frameworks for the control of mink in the north and northeast Scotland.

The success of biosecurity planning in Scotland has also generated considerable interest in formulating similar plans in England, Northern Ireland and the Republic of Ireland, as well as a potential coastal marine plan for the Firth of Clyde. RAFTS and the Association of Rivers Trusts (ART) have also teamed up to support the formulation of pilot biosecurity plans by the South Cumbria and West Country Rivers Trusts.

In summary, biosecurity planning by trusts has not only contributed to a strategic, large scale approach to INNS management in Scotland, but its catalytic impact has generated interest in similar planning further afield. Over the next year RAFTS and ART will be working to further extend biosecurity planning in the UK, and RAFTS will continue to work to expand the extent of its strategic interventions in Scotland. A key part of this work will be to develop local capacity to address INNS issues – after all, we feel that a broad range of stakeholders and institutions have a part to play in the future management of these dangerous species.

Although there has been considerable progress in the last few years, there is a constant need for all of us to be alert to the dangers posed by INNS such as the 'killer shrimp' and quagga mussels, as well as parasites like Gyrodactylus. Once a system is infested then the impacts can be catastrophic and the cure expensive, difficult and possibly unsuccessful, so prevention is the preferred – if not only – option.

To avoid the worst case scenarios boards and trusts must continue to support and work closely with each other as well as with key governmental and non-governmental agencies for the benefit of all our rivers and their users.

Table 1: Summary of currently active major INNS projects

Project/Initiative	Value (£)	Duration
The Biosecurity Planning Project	308k	2008-2011
Invasive Non Native Plant Species Control Phase 1	314k	2009-2012
Invasive Non Native Plant Species Control Phase 2	486k	2010-2014
Controlling priority invasive non native riparian plants and restoring native biodiversity	1.195m	2010-2014
Interim Mink Control Project	125k	2010-2011
Strategic Mink Control in Northern Scotland:	919k	2011-2013

A captured and unamused mink. Photo: GBNNSS

The Riverfly Partnership

LOUIS KITCHEN - *Riverfly Officer*

As any seasoned game fisher knows, you need to use the right flies to catch fish. This is not only true for fishing flies, however, as good sport also relies on a plentiful supply of the insects on which the imitations are based. This factor is the basis for the work of the Riverfly Partnership (RP), a network of more than 60 organisations that seeks to improve fishing conditions by protecting the water quality of our rivers, furthering the understanding of riverfly populations, and actively conserving the habitats of these invaluable insects.

Our interest is concentrated on three groups of common river invertebrates – up-wing flies, stoneflies and caddisflies. These are particularly sensitive to threats posed by pollution or habitat degradation and we often refer to them as 'the canaries of our rivers' – by studying their populations we can get a good idea of river health. Invertebrate studies are widely used by SEPA and the other statutory bodies in the UK as indicators of water quality. However, their monitoring is neither comprehensive nor year-round, so there is always a risk of pollution incidents going unnoticed. As anglers are quick to pick up on changes to a river's ecosystem, it makes sense that there should be a scientifically robust way for fishermen to monitor the waters where they fish.

The Angler's Monitoring Initiative (AMI), which was launched by the RP in 2007, is primarily aimed at fishermen, but is also open to anyone interested in conserving their local river environment. Participants are trained to sample and identify certain riverfly groups and use data from this to identify severe degradations in water quality. This takes place as regularly as possible, ideally every month, and the data is then shared with the relevant statutory bodies, who can then take action if any incidents are discovered.

The initiative has proved its worth in uncovering pollution incidents and participants come across situations which require the attention of the statutory bodies every year. One of the most important outcomes is that incidents can be discovered in time to limit the damage; indeed the visible presence of a monitoring group can be a strong deterrent to potential polluters. However, there have been several cases where more serious problems have been uncovered, and three polluters have already been successfully prosecuted after incidents discovered by AMI volunteers.

There is an ever-expanding network of AMI Groups, covering much of England and Wales, but one of the challenges is how to further develop the scheme in Scotland. It will be important that we improve our support system to meet demand as we train more and more volunteers. As well as a network of volunteer groups, we are looking to establish local AMI Hubs to co-ordinate regional activity, working with some of the organisations, such as RAFTS, that are signed up to the RP. For now we are seeking the funding to implement our strategy; in the meantime we will be continuing to train volunteers. We already have one Scottish workshop booked for the spring, on the River Almond in West Lothian, and others are currently being discussed.

Aside from the AMI, there are plenty of ways to get involved in insect conservation and we encourage anyone who is spending time by the river to take an interest in the species living there. The Riverfly Recording Scheme, an RP partner, would be interested in collating records of these insects – important information on their distribution which is used to inform conservation policy. Specimens can be sent in to these schemes for identification, and there are several good guides published by the Field Studies Council alongside the RP. In addition to this the partnership has produced several postcards to help record species of particular conservation concern. Details of postcards, recording schemes, identification guides and more information can be found at www.riverflies.org.

CASE STUDY

George Mackintosh – Secretary Slamannan Angling and Protective Association

'In March 2009, Slamannan Angling and Protective Association, as part of our habitat improvement on the river Avon, organised a one-day AMI workshop, funded by Falkirk Environmental Trust and Falkirk Council. We all thought this was very informative and we were soon identifying the main groups of invertebrates. We agreed to start monitoring at six different sites on the Avon and have been recording once a month ever since, weather permitting.

'The advantage of taking samples and recording them is that we can pick up incidents of pollution very early, and report directly to SEPA. Sampling is also a very good guide to all anglers as you have an insight into the flies and nymphs that fish feed on. We have passed all of the relevant contacts for funding and setting up workshops to many other groups, such as the River Carron Fisheries Monitoring Group, who have since begun their own AMI programme. We encourage all angling clubs to participate in the AMI as this is the best way to protect our rivers from pollution and monitor the health of our rivers in Britain'.

Photo: Louis Kitchen

FASMOP - applying genetics to the practical management of salmon

MARK COULSON - *Molecular Geneticist, RAFTS*

What is FASMOP?

While it may sound like a cleaning product, FASMOP (Focusing Atlantic Salmon Management On Populations) is an exciting, Scotland-wide project that uses genetics to help understand differences in Atlantic salmon populations between – and within – rivers, in order to better inform local management and conservation efforts.

FASMOP is a partnership between RAFTS, Marine Scotland and individual fisheries trusts and boards. It is funded by the Scottish Government, participating trusts, boards and SNH. This partnership and its near national coverage represent an unprecedented co-ordination of effort and interest from both the public and private sectors and will be fully integrated with ongoing SALSEA-Merge and internal Marine Scotland projects, allowing for a wealth of information that is greater than the sum of its parts.

The project began in earnest in May 2009 and has since analysed thousands of samples of salmon from all 24 trusts taking part in the wider fisheries management planning programme. It is developing and refining cutting-edge, genetic technologies for application to specific fisheries management objectives and questions.

What can genetics do for salmon management?

The main objective of FASMOP is to establish 'genetic maps' for rivers with the aim of determining how many genetically different breeding populations of salmon exist. For instance, we might want to know if the fish in upper and lower parts of the catchment are different breeding populations, or whether salmon from each tributary of a river are genetically distinct. Furthermore, we may wish to know how different salmon in neighbouring systems actually are.

Identifying different breeding groups allows for local, targeted management policies. To date, FASMOP has provided each trust with an initial overview of the genetic analysis based on the first two years of samples collected. These results have demonstrated a wide variety of outcomes – some systems are well on their way to defining their genetic map, while many others require more time, investment and even new genetic tools.

Once a genetic map is developed, it can be used in a variety of management-based applications. The most widespread interest is to determine the origin of rod-caught adults returning to the river. By obtaining a genetic fingerprint of each adult returning, we can compare their genetic signature against each of the baseline samples and establish where each individual is most likely to have originated. Another application may be to identify the origins of fish in recently recolonised rivers, such as the Clyde.

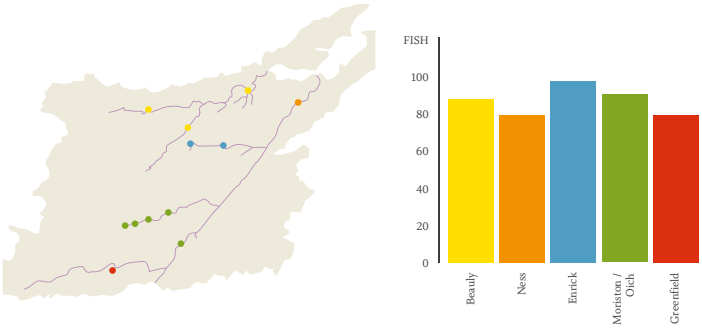


Figure 1. A genetic map from the Ness & Beauly Fisheries Trust. Sites with the same colour are genetically more similar to one another. The panel on the right shows the proportion of individuals from each of the coloured groups that could be genetically assigned back to that group.

Answering management questions

Two particularly high-profile management applications are being considered through FASMOP. The first uses genetic paternity and maternity testing to assess the contribution of hatchery stocking to the rod catch, which is currently being tested with the Spey Foundation.

To date, we have produced a genetic fingerprint for all broodstock used since 2003 and just over 700 rod-caught fish since 2007. By comparing the genetic fingerprints from the two groups we are able to assign, with great certainty, parentage to any offspring produced in the hatchery. So far, a small proportion of the total rod catch has been genetically identified as hatchery-origin and confirmed by breeding records. Analysis of samples from 2010 is currently underway and conclusions will be reached in the coming months. The application of this tool has huge potential to quantify the hatchery contribution to rod catches both on the Spey and elsewhere.

The second application uses genetics to differentiate between wild and farmed fish. With current genetic markers, we can reasonably identify direct escapees and have done so for a few west coast trusts. However, collaboration with a Norwegian group, CIGENE, allows us to utilise a new, more powerful set of markers that will more reliably identify the origins of individual fish. This aspect of the project will develop these markers, in a Scottish context, to allow widespread sample screening and possibly identification of individuals of not only pure, but also mixed, ancestry. The future application of this tool, particularly in west coast catchments, is likely to be powerful in assessing the presence of non-native genetic strains in wild fish populations and informing related management and policy debates.

What next?

FASMOP is working with CIGENE and the project partners to develop a more comprehensive set of markers to use in Scotland. This will allow for increased genetic resolution in rivers where we have currently low or poor definition. This work is very much at the leading edge of DNA technology and will ensure that current and future projects can make use of the best genetic tools available. With the ongoing commitment of the partners we are confident that genetics can make an ever more important contribution to fisheries management and to the maintenance, improvement and protection of one of Scotland's most valuable and iconic natural resources.

Fisheries conservation - educating the next generation

Jamie Ribbens - *Galloway Fisheries Trust*

Education, training and raising awareness are all key aspects of the work of Scotland's fisheries trusts and are vital to ensure that the next generation has an interest in fisheries conservation. In recognition of this, the Galloway Fisheries Trust (GFT) has been running an award-winning 'Salmon in the Classroom' (SITC) project in local primary schools since 1991. Twenty years later, it remains ever-popular, and has since been adopted elsewhere.

The GFT's project is delivered in three parts. The first takes place in the spring, when a biologist visits the school to introduce a wide range of salmon-related issues – including lifecycle, habitat requirement, fisheries, threats, bio-security and measures which can be undertaken to ensure the long term survival of salmon populations.

This visit ends with the biologist setting up a tank in which 100 native salmon eggs are left to hatch under the care of the class. To achieve good survival rates it is important to mimic the conditions the eggs would experience in the river, so the pupils must keep them cool and dark. The double tank systems have been designed to keep the eggs and fish in one side while the second tank is used to cool the water. The pupils need to ensure a stable temperature by means such as adding ice packs, while small aquarium pumps circulate the water around both tanks. The children also need to monitor the health of their eggs and devise methods to remove any dead eggs before these contaminate the rest. When the eggs hatch the alevins are able to live for a few weeks on their yolk sac, under observation from the children.

The second part of the project allows the pupils to participate in releasing the young salmon into a local burn before travelling to the GFT hatchery where they see hatching units on a far greater scale. On the same day, the children tour a commercial rainbow trout farm. This part of the project offers a good insight into the conservation goals behind wild fish hatchery operations (for combating the effects of acidification etc) compared to rainbow trout farming for commercial production.

The final stage takes place in the summer and sees the children returning to the same burn where they released their alevins. Here pupils can watch GFT staff electro-fishing to collect a sample of the species living in the burn. The captured fish are put into buckets and the children have an opportunity to see and hold them. This hands-on part of the project is often the most fun and ably demonstrates the different juvenile stages of the salmon lifecycle. It also offers a fascinating insight into the other creatures – such as brown trout, eels, lamprey larvae, and invertebrates – that live in the burn.

The project is relatively easy to run, is enjoyed by both teachers and pupils, and fits well into the school curriculum. As a result, variations of the idea have been successfully rolled out across most of Scotland, and these are usually delivered by local trusts or boards – often with the financial support of SNH. Particularly impressive are those schemes run by the Clyde River Foundation (CRF) in the Glasgow area – Clyde in the Classroom, Carron in the Classroom, Fish go to School and Kids and the Kelvin. These are based on the lifecycles of the brown trout and sea trout and, since 2001, a total of 13,757 pupils from 516 schools have taken part.

Other trusts have run similar schemes, some involving different species. The Loch Lomond Fisheries Trust, for example, created a world's first when they started the Powan in the Classroom project in their local primary schools. Specially designed simple hatcheries are provided to the schools to hatch powan eggs and the resulting fry are then returned back to Loch Lomond. The project has been used to raise the profile of these rare fish in the local community.

The full range of primary school education projects run by the trusts is increasingly recognised by educational authorities as playing an important role in the school curriculum. Many fishery organisations continue to expand their school projects and various new schemes, including increasing numbers of projects with secondary schools, are being planned to ensure we all continue to play an important role in the education of Scotland's young people.

Further information

GFT and SNH have developed a website to support schemes such as SITC, which aims to assist both those involved in running and participating in the projects. Advice is provided via the website and various images, talks and teaching aids can be downloaded. This also provides contacts for all fisheries trusts and boards running SITC or similar schemes across Scotland.

www.gallowayfisheriestrust.org
www.clyderiverfoundation.org/index_files/Page404.htm
www.llft.org/Activities/LLFT_Activities.htm
www.snh.org.uk/salmonintheclassroom/

Educating the next generation. Photo: Galloway Fisheries Trust


Setting the record straight

ANDREW RETTIE, Strutt & Parker and ROBERT SCOTT-DEMPSTER - *Gillespie Macandrew*

In just the same way that the occasional fishy story may be a little exaggerated it is not uncommon for myths and misunderstandings – often pedalled in the hut over a good lunch – to prevail in relation to some of the more esoteric management and legal arrangements surrounding the ownership and management of salmon fisheries. To help put the record straight, we answer, from our respective professional perspectives, questions which address some of the key issues involved.

What is the relationship between salmon fishing rights and trout fishing rights and why is this important?

RSD – Salmon fishing rights can be owned as a separate legal title entirely independently of the ownership of the river or its banks, while trout fishing rights are a pertinent of riparian ownership. Within the right to fish for salmon is the lesser right to fish for trout, so it is possible to have two proprietors with fishing rights in the same stretch of water. If the salmon proprietor and the trout proprietor wish to fish at the same time the salmon proprietor has precedence.

AR – When applying a value to salmon fishings, a valuer establishes whether the river bank is owned by the proprietor of the salmon fishings and thereby if the trout fishing rights are controlled. I would certainly apply a discount factor in the event that the river bank is owned separately from the salmon fishing rights. The key factor is control and, if the proprietor of the salmon fishing is not the riparian owner, it may deny them the right to prune/remove overhanging branches to assist casting or from carrying out any other in-river works, such as the construction of croys and groynes, even if the latter have been approved by SEPA.

If I only own single bank salmon fishing what part of the river am I entitled to fish?

RSD – This was decided in the famous case of Fothringham v Passmore, which involved a dispute between two opposite bank proprietors on the River Tay at Stenton. The court ruled that you are only entitled to wade or take a boat as far as the centre line (medium filum) of the river, but you may cast as far across the river as you like.

AR – This is something we come across a lot. In a number of cases on big rivers such as the Tay, the Tweed and the Spey reciprocal agreements have been in place for a long time. Examples include a daily rotation between the right and the left bank ownership so that anglers can, in practice, enjoy double bank fishing without the hindrance of people casting from the other side.

If I share loch bank frontage with other proprietors and we have shared fishing rights, how are these to be exercised over the loch?

RSD – If you are a loch riparian proprietor or you have salmon fishing rights in a loch then you are entitled to fish from your own stretch of bank or, if fishing from a boat, then you are entitled to fish over the whole surface of the loch. If an amicable arrangement cannot be reached between the different users then any party with fishing rights can apply to the court for a binding arrangement to be imposed on all parties.

AR – From a salmon fishing perspective, there are a number of hill lochs connected to river systems, especially in the north of Scotland and the Hebrides. Indeed, on estates such as Amhuinnsuidhe on the Isle of Harris, loch fishing is not only very popular but can be very prolific for salmon and sea trout as well as brown trout.

In most cases there is a commitment by the owners of the salmon rights and the riparian proprietors (if different) to limit the number of boats on the loch. This is important to ensure the loch is not overfished and to have in place a workable control from the point of view of managing the loch and its related river system in accordance with good practice.

From a valuation perspective, outright ownership of a whole loch is certainly greater than shared ownership.

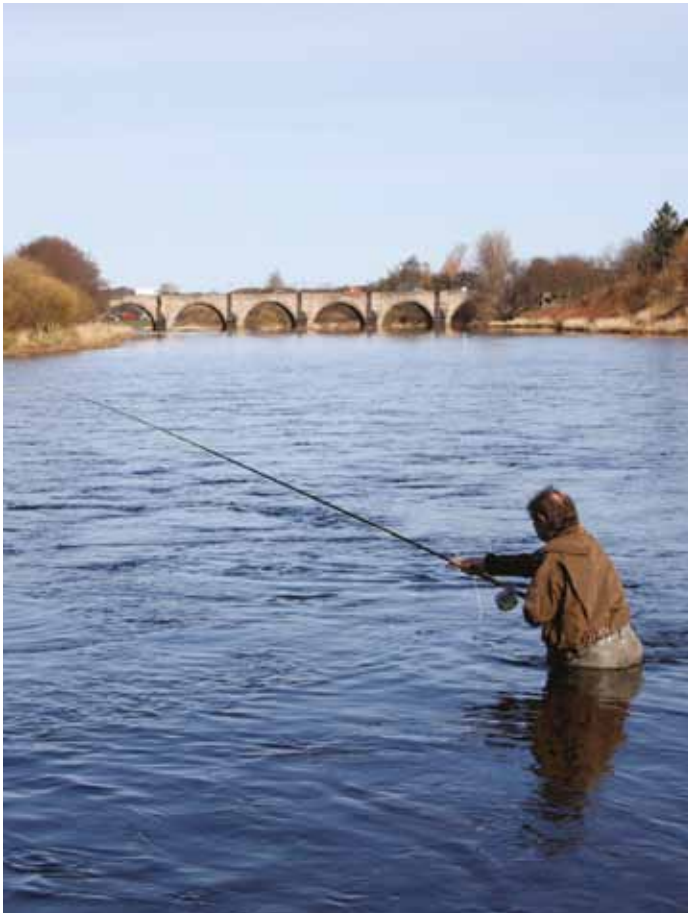


Photo: Andrew Graham-Stewart

What are the risks if a salmon fishing beat runs through croft land?

RSD – The Land Reform (Scotland) Act 2003 introduced the right for crofting communities to buy out the underlying ownership of land which is subject to crofting rights. Additional rights were also included to allow any salmon fishing rights to be acquired as part of such a purchase if they lie within or abut the croft land being acquired. This right applies to salmon fishing rights irrespective of whether they are owned by the proprietor of the land being acquired.

To protect against this risk many salmon fishing proprietors were advised to lease the salmon fishing rights to a friendly entity so that the leasehold rights would prevail even if the ownership was acquired. The Crofting Reform Act 2007 closed this loophole by giving the crofters the right to acquire the leasehold interest. Consequently this approach is no longer effective.

AR – Since the introduction of land reform legislation at the beginning of the century this has become a topical issue in those northern and western parts of Scotland (including the islands) affected by crofting tenure.

When asked to value a beat of salmon fishings that flows through or abuts crofted land, considerable caution must be exercised. From a practical perspective owners and potential investors in such beats are naturally concerned at the loss they may suffer. However, in reality I am not aware of any crofting community who have the financial muscle, nor indeed the willingness, to want to own and manage a beat of salmon fishings which might be worth £1-£3 million.

Is there anything I can do to prevent rafters and canoeists from coming down the river and disrupting the fishing?

RSD – This is a complicated area of law, due the interaction of the access rights introduced by the Land Reform Act and the common law position surrounding public rights of navigation.

The access rights introduced by the Land Reform Act permit the general public to take access over inland waters (which include non-tidal lochs and rivers) in any non-motorised vessel. The right has to be exercised responsibly, so only if the usage is considered irresponsible would it be possible for measures to be taken. In the first instance the Local Authority should be exhorted to use the powers afforded to them under the Act to make a byelaw regulating the usage so as to minimise the nuisance. Unfortunately the Local Authority has discretion as to whether a byelaw should be made and the position becomes complicated if they will not do so. There are other options open to proprietors, but they are likely to involve court action so specific legal advice is likely to be necessary.

AR – There are certain rivers in Scotland that attract a large number of canoeists and rafters – particularly where there is some exciting fast water for such sport. From a practical perspective, it is essential that salmon fishermen, ghillies and owners co-exist with others who use the river. Whilst it would be preferable that canoeists and rafters use the river outwith the salmon season, they particularly enjoy their sport in the summer months.

Accordingly I recommend tolerance and dialogue. This is likely to lead to a more harmonious position and has in some cases resulted in canoeists and rafters voluntarily agreeing to leave the river unmolested at peak fishing times.

If it is intended to have 'multi-ownership' of salmon fishing rights, what are the principal issues?

RSD – Shared ownership can be achieved in a number of different ways. Pro indiviso ownership (common ownership) entitles all the co-owners to equal undivided usage of the asset and a right to sell their percentage share when and to whomsoever they choose. Alternatively it is possible to structure the ownership as a timeshare or equivalent arrangement whereby the 'ownership' rights are restricted to a period of time.

There are significant issues with both types of ownership. In the case of the former it is almost always essential to have a tightly drafted agreement which regulates management, usage and exit. Failure to put such an arrangement in place can lead to one party approaching the court to force a division or a sale of the whole against the will of the others.

In the case of timeshare ownership it is vital that the scheme is soundly constituted. A number were originally set up on a defective basis and Gillespie Macandrew has played a significant part in resolving these problems. The other key concern is how the management is handled (voting etc) and the setting of the management charges. If, say, your timeshare week is un-saleable due to its poor catch record then you may find yourself with an ongoing liability you cannot escape from.

AR – Strutt & Parker was at the forefront of the introduction of pro indiviso ownership for salmon fishings in Scotland (say, four to six owners having an equal share in a beat) as well as timeshare ownership, whereby – hopefully likeminded – individuals own specific weeks within the open season.

Both pro indiviso and timeshare structures have been in place sufficiently long to be understood in practical terms for the enjoyment of all concerned. I do, however, have considerable sympathy for ghillies on beats which are timeshared – as, in essence, they can have a different employer for every week of the season.

Photo: Andrew Graham-Stewart

Marine history of migrating salmon

NORA HANSON & PROFESSOR CHRIS TODD - *University of St Andrews*

While decades of research have helped to elucidate many aspects of the marine life of Atlantic salmon, much of the detail remains a mystery. One sea-winter (1SW) salmon from southern European rivers typically migrate north along the continental shelf edge up into the Norwegian Sea, where they overwinter before returning south the following summer or autumn. Marine mortality of salmon apparently remains high in the North Atlantic, despite heavily restricted marine fisheries and conservation programmes in freshwater fisheries. In addition to declines in abundance, the overall body condition of returning 1SW fish remains poor, which both reflects a deterioration in ocean feeding opportunities for salmon and affects their ability to migrate upstream and produce eggs. The prevalence of 'skinny' fish appears related to anomalously high temperatures in the eastern North Atlantic and we suspect that this is due to changes in the distribution, quality and quantity of prey species.

However, more information on the marine history of individual salmon is still needed. We have applied various methods to study returning adult 1SW fish caught in a monitoring programme on the north coast of Scotland. Along with several other tissue samples, we remove their otoliths. These are used for hearing and balance and contain deposits of sequential layers of calcium carbonate. These rings or layers can be counted to determine the age of the fish and we can also use chemical signals within the layers to study the marine history of the individual. In particular, we can provide proxy measurements of the ambient water temperature at the time a specific layer was deposited, as well as a proxy measurement for salmon metabolism.

The region within the otolith corresponding to the period of smoltification and first emigration to sea is apparent in our data as a rapid increase both in oxygen and carbon isotopes (Fig. 1). Accordingly, we can use this point as a 'start' date to compare against the final sample points at the very edge of the otolith, which correspond to the time when the adult fish was caught. Although we do not know the exact date when a given smolt left freshwater, we use May 15th because this approximates peak smolt emigration in Scotland.

Reading the spacing between circulus rings on fish scales provides timelines of approximate thermal and metabolic histories which can then be compared between fish with different body conditions. Our estimates in Fig. 2 are conservative but, despite our present inability to estimate the precise water temperature, it is clear that relative differences between fish of differing condition factors remain informative.

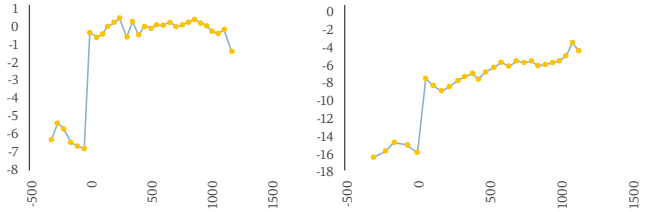


Figure 1: The pattern of oxygen and carbon stable isotope (chemical signal) values obtained from the otolith of a single 1SW salmon. The sharp upward transition corresponds to the time of smolt emigration and the start of the marine life stage.

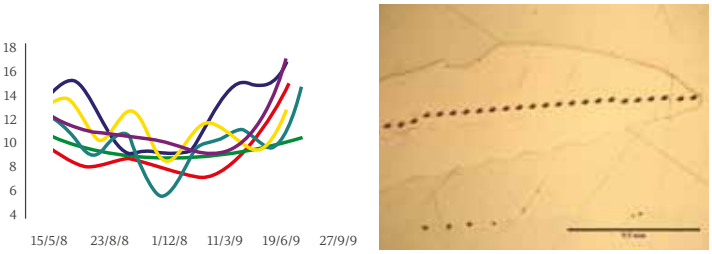


Figure 2: Smoothed values of the variation in temperatures in relation to date estimated from otolith oxygen isotope values from scales for seven 1SW salmon (left) and a photograph of the SIMS sample spots along the section of an otolith.

It is known from high-seas fishery data and research vessel catches that salmon at sea occupy waters of a relatively narrow temperature range: but it is apparent from our results (Fig. 2) that individual fish followed different migration trajectories and destinations, as evidenced by their contrasting temperature histories. Plankton and forage fish distributions in the ocean environment are extremely patchy, and slight changes in water temperature may mean the difference between salmon finding a good feeding location or essentially starving for a period. There is, therefore, an element of chance involved in fish locating good quality feeding areas. But one concern is that recent ocean warming has driven systematic geographic changes in the distribution of prey. 1SW salmon may well still be migrating to the 'right' areas of the Norwegian Sea, but their prey may have moved further north to avoid warmer waters. It seems likely, therefore, that individual behaviour at sea has a large impact on the conditions of returning fish. It also has to be stressed that we can sample only those that survive to return. Nonetheless, these survivors carry crucially important clues.

We are extending the use of this indirect analytical technique to study the migratory histories of MSW salmon that travel much farther – as far as West Greenland. While there always will be uncertainties and caveats associated with using proxy measurements (rather than tagging studies and at-sea capture), these analyses can be a cost-effective method to glean invaluable information from otherwise overlooked structures. It is our hope that the chemical signals locked within both otoliths and scales (which can be non-lethally sampled) will continue to add pieces to the intriguing puzzle of Atlantic salmon migration, and facilitate our understanding of how this charismatic species responds and adapts to climate change.

We are sincerely grateful to the ASFB, the Atlantic Salmon Trust, the Worshipful Company of Fishmongers and the Natural Environment Research Council for their continued support.

Catch and release: best practice

BRIAN DAVIDSON - *Operations Director, ASFB & RAFTS*

Anglers increasingly release the salmon they catch and, as more people choose to return them, the more important it becomes for the fish to be handled correctly – if best practice is followed, the vast majority of released salmon will survive to spawn. As a result the ASFB is co-ordinating the dissemination of some simple advice to help maximise the safe return of fish. This encompasses a range of recommendations – from preparatory actions prior to fishing, to using tackle which will minimise damage, to advice on landing and handling fish.

Crucial in producing this advice was expert input from ghillies and boatmen. Robert White, who manages the Stanley fishings on the Tay, said 'it is extremely important that anglers understand how to handle fish correctly. Inappropriate tackle or poor handling technique can jeopardise the safe return of salmon – I fully welcome clear and unambiguous guidance in this respect.'

A major leaflet campaign will be launched to disseminate this information during 2011, and the key elements of it are as follows:

• Consideration before fishing a pool is important – always identify where a fish can be safely landed without risk of damage on rocks or stones. If fishing alone, take a net. Traditional large mesh nets can cause split fins and tails. It is much better to use a rectangular soft knotless net with smaller mesh size and a shallow, wide bottom to allow the fish to lie flat. Knotless mesh is a legal requirement.

• Barbless hooks are strongly advised, while single and double hooks should be used instead of trebles. There is also less risk of damage with smaller hooks. If spinning, damage can be limited by using a single hook sliding rig, similar to a tube fly set-up, on Rapalas and other lures.

• If worm fishing, skill is required to ensure that fish do not swallow baits. Using circle hooks will reduce the chances of deep hooking. In some areas there are legal prohibitions on worm fishing.

• Always use as strong a leader as possible. This will ensure the fish can be brought to the net quickly and safely so can be released before becoming exhausted.

• Never lift your salmon from the water by its tail or gill cover. Fish should be kept in the water if at all possible. Avoid taking them onto the bank or dragging them over stones or gravel.

• If fishing from a boat, row to the bank to land the fish where possible. If the fish is landed in the boat, ensure it is laid on a flat, wet surface for unhooking. A soaking wet towel or unhooking mat is ideal for this purpose. Laying the fish upside down will often calm it for unhooking. Fish produce most of their energy from their tails, and so holding down the tail on a flat surface will keep a fish still.

• Have long-nosed forceps or a similar tool close to hand for prompt hook removal. If you want a photo of your salmon before release have your camera ready – for example, on a neck lanyard. If fish are deep-hooked, particularly in the gills, it may not be possible to remove the hook, so snip the line close to the hook instead. This will cause less harm than removing the hook.

• Only lift the fish from the water for the minimum time necessary. If you choose to photograph your fish, keep it in – or briefly just above – the water. Support the fish gently under the belly and loosely hold the wrist of the tail. If you have to weigh the fish, use a weight net, or scales hooked onto a conventional net.

Contrary to popular belief, even if a fish is bleeding heavily, it can have a good chance of survival. Do not kill a fish simply because it is bleeding. If a fish is going to die from blood loss, it will do so very quickly. Fish should be allowed to recover and returned in steady clean water, but not in a fast flow. Recovery may take some time. In the words of Kenny Jack, the boatman at Hendersyde, on the Tweed, 'just because a fish is bleeding, it does not mean it should be condemned to death – give it a chance by putting it back. If all bleeding fish died, the Tweed would be full of dead fish in the autumn'.

Many anglers like to measure their fish but this should be done in the water, wherever possible. Take a tape measure or mark up your wading staff or the butt section of your rod as an easy indicator. A good general guide for differentiating between grilse and salmon after mid-June is 28". Weight can be estimated from length, for example by using the popular length-to-weight conversion tables. Fish should be measured from the nose to the fork of the tail.

Copies of the new guidance leaflet are available free of charge from the ASFB/RAFTS office, or by downloading the leaflet from the ASFB or RAFTS publications page on their respective websites.

Photo: Andrew Graham-Stewart

Reporting a fish escape incident

BOB YOUNGER - *Solicitor with Fish Legal*

In order to give DSFBs an outline of how best to deal with an escape from a fish farm, Fish Legal have drawn up the following guidance.

Precautionary measures

1. Establish contact with those farms which have the potential to spill fish into local rivers and ask for details of their biosecurity measures and contingency plans.

2. Carry out routine monitoring and surveillance of waters around the fish farm to establish a baseline for comparative purposes should there be an escape.

Notifications

1. Any escape or suspected escape must be reported to the Scottish Government and the relevant board and trust. It should also be reported to SEPA if the incident has occurred in fresh water.

2. If you suspect that there has been an unreported escape then immediately contact the Scottish Government at escapes@scotland.gsi.uk

3. Alert all fishing clubs or syndicates within the affected area to record all catches of fish likely to be of farmed origin.

Collection of evidence

1. Collection of samples: Fish suspected to be from the farms should be killed and preserved as potential evidence. Freeze the fish if it is not possible to have them analysed within a short period of time. Please remember to record the time and date when the sample was taken and exactly where it was taken from. It is also advisable to have a photographic record of the fish.

2. Witness statements: Record the precise details of who was present when the escaped fish were first reported, along with the time of catch, location and any other relevant information.

3. Expert report: It is very useful to commission an electric fishing survey of the affected waters with a view to establishing the potential number and distribution of escaped fish. This report may provide compelling evidence as to the origin of the escaped fish and help establish liability.

4. Marine Scotland Science (MSS): when MSS come to examine the evidence of an escape take notes of everything that happens on the day of the inspection – logging who attended and what they did and said. MSS will then generate a report which should be obtained as soon as possible, as this may well help to establish liability.

Photo: Andrew Graham-Stewart

Duties of the board

1. To investigate the source or perpetrator of the damage. Unless there is more than one fish farm in the area the source of the escape may be obvious. It may be worth a direct approach to the fish farm in question – although there is unlikely to be any admission of guilt at an early stage, it is important that the farmer is urged to address the bio-security issue as a matter of urgency.

2. The board should seek to take remedial action as soon as it is aware of the problem. It is recognised by the Scottish Government that escaped fish may occupy valuable wild habitats or inter-breed with wild fish, threatening their genetic variability and natural viability. In addition, there is concern regarding the spread of fish disease and pathogens from farmed to wild populations. Thus the board should facilitate attempts to remove the farmed fish by electro-fishing if practicable. The costs of this may be claimed in any legal action and should be 'invoiced' to the proprietors whose waters are affected (see below).

3. The board should investigate the possibility of a legal action against the fish farmer. The escape of farmed fish into river or loch may form the basis for a legal action in 'nuisance', if it can be shown that the escape has spoiled the owner's enjoyment of his property. This should be straightforward if liability can be established for the escape. The boards as statutory bodies do not have title and interest to bring proceedings at common law so any potential legal action is best taken by a willing fishing proprietor. If the board follows all the steps above then the information collected will help build a solid evidential basis for any potential legal action. A successful legal action by a proprietor will entitle them to claim damages to cover the costs of expenses suffered as a result of the nuisance. It will thus be advisable for relevant costs to be paid by the proprietor, with reimbursement by the board on a discretionary basis.

If the board is a member of Fish Legal we will advise on the best way forward and assist in negotiations with the fish farmer on behalf of the board and the affected proprietors. This will hopefully result in an admission of liability and the payment of compensation for all direct losses caused by the incident. More importantly, any successful prosecution should act as a further incentive for the aquacultural operator to tighten their biosecurity measures.

2010 – a season of extremes

ANDREW WALLACE - *Managing Director, ASFB & RAFTS*

Starting on a positive note, 2010 will almost certainly see the highest rod catch ever recorded in Scotland. The Tweed, with its astonishing declared catch of 23,219 salmon and grilse, is a demonstration of how sound long-term management and decent marine survival can deliver remarkable results. Other rivers also turned in encouraging catches – including the Dee, which had the best catch for 30 years and the Thurso which, at 3505, also had a record year.

However salmon optimism is a dangerous condition and had I been writing this report last June, the summary would have been one of considerable gloom – for the spring run, with few exceptions, was extraordinarily weak. Efforts must therefore continue to ensure that, on basic precautionary grounds, exploitation by rods of these early running fish must be kept to an absolute minimum. Encouragingly, the overall 2009 catch & release figures were 67 per cent, while the release rate for spring fish was 82 per cent.

From July onwards Scotland experienced robust runs of reasonably conditioned grilse and salmon. Positive trends in the sea trout fishery also continued throughout much of the east and north, which is encouraging after several worrying years. However, restraint by sea trout anglers in catchments where there are problems may possibly be even more important, as repeat spawning is more likely and larger, fecund fish are so important for recruitment.

The picture in the southern part of the west Highlands was less encouraging, with very low counts at the Awe barrage and a weak grilse run on the Lochy. These two flagship west coast rivers continue to struggle, doubtless hampered in part by their locations at the end of fjordic sea-lochs that are filled with fish farms. The continuing failure by the salmon farming industry to even accept that such inappropriately-sited farms constitute a problem remains a source of intense frustration for fisheries managers in this part of Scotland.

In any year of remarkable catches there tends to be a variety of reactions –including a euphoric amnesia about previous poor years – but sensible salmon managers try to avoid drawing too many conclusions from any one year's catch: most have learnt that the hard way.

Trends are what we are looking for and there is no doubt that, in some systems, there are grounds for optimism. We do, however, have to be cautious about what catches are telling us about fish stocks – angler effort and conditions all play their part in distorting catch data. On top of this it is essential, when drawing comparisons with the past, that we compare like with like. In the late 1960's about 500,000 fish were caught each year in Scottish nets before they had entered our rivers. There was also a catch of over 3000 tonnes at Greenland and the Faroes. In 2010 the declared Scottish net catch is likely to have been a comparatively modest 10-15,000 fish.

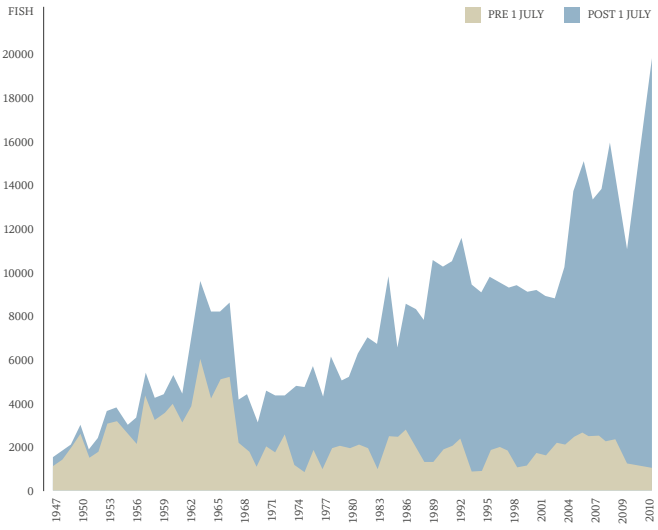
Therefore, despite strong grilse and summer salmon runs in many parts of Scotland in 2010, salmon are still nowhere near as abundant as 50 years ago. Marine survival remains the most significant driver of abundance and the challenge for managers remains to ensure as much of our salmon producing habitat as possible is accessible; that water quality and quantity and aquatic habitat are kept in top condition; and that exploitation by rods, nets and predators on threatened stocks is kept as low as possible. It is not much more complex than that.

When marine conditions favour salmon, as they clearly did for some stocks in 2009/10, then our fisheries will reap the rewards. But, given the extremely unpredictable nature of our marine environment, particularly in these days of shifts in climate, a cautious approach – even against a background of record catches – is the only sensible position to adopt.

Tweed

Nick Yonge - *Director, Tweed Commission and Foundation*

2010 was an unusual season: whilst there was a relatively low spring salmon rod catch of 1,445 fish (91% of which were returned), a large sea trout run was followed an exceptional autumn salmon run. 10,039 sea trout were declared, of which 7,418 were caught by net and 2,621 by rod. Meanwhile 31,321 salmon were declared, of which 8,102 were caught by net and 23,219 by anglers – the latter being an unprecedented figure. All parts of the river enjoyed good salmon catches in the autumn, particularly the lower reaches, and all catchments had total salmon rod catches better than their five year averages, some significantly so. The nets also had a particularly good year, with catches of both salmon and sea trout surpassing even 2000's bumper season.

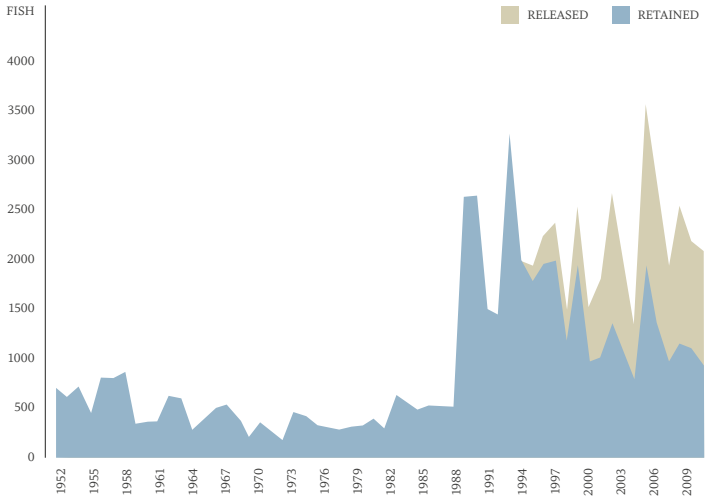


TWEED SALMON ROD CATCH STATISTICS 1947-2010
SOURCE - TWEED COMMISSIONERS

Forth

Patrick Fothringham - *Director, Forth DSFB*

It was an excellent season for almost all of the rivers in the district, although the spring fishing was generally poor. Early summer brought in strong sea trout runs and the late summer and autumn salmon fishing was for the most part impressive. We do not yet have district-wide figures but Stirling Council's fishery on the Forth recorded the largest rod catch for any beat in Scotland in 2010, with 1351 salmon, 70% of which were returned. The River Almond in Edinburgh more than doubled its previous rod-caught record, with over 50 salmon and the Devon also had an exceptional year, where more than 70 salmon were caught. The Allan Water reported that catches were approximately 50% up on those made in 2009, whilst the Carron reported good numbers of fish despite low water conditions. It is encouraging that catch and release rates of both salmon and sea trout appear to be improving throughout.

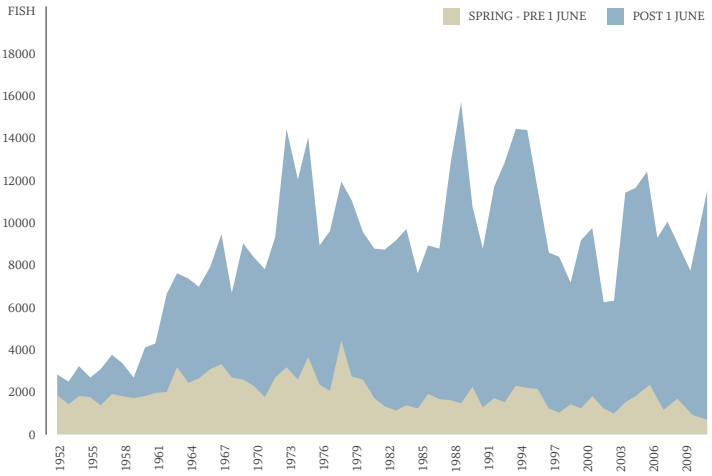


FORTH DISTRICT ROD CATCH STATISTICS 1952-2009
SOURCE - FORTH DSFB

Tay

Dr David Summers - *Tay DSFB and Foundation Director*

2010 was very much a season of two halves. Following the relatively poor grilse run of 2009, spring catches were disappointing, although it was very pleasing that anglers heeded the board's conservation code and released approximately 90% of springers caught. However, the summer grilse run commenced several weeks earlier than it has done for several years, and from late July to the end of the season much better catches were had on the back of a good autumn grilse run, particularly in the lower Tay. At the time of writing the reported catch stands at 11,373 but the final catch will certainly exceed 11,500, making it the best season since 2006 and the best autumn since 1995.

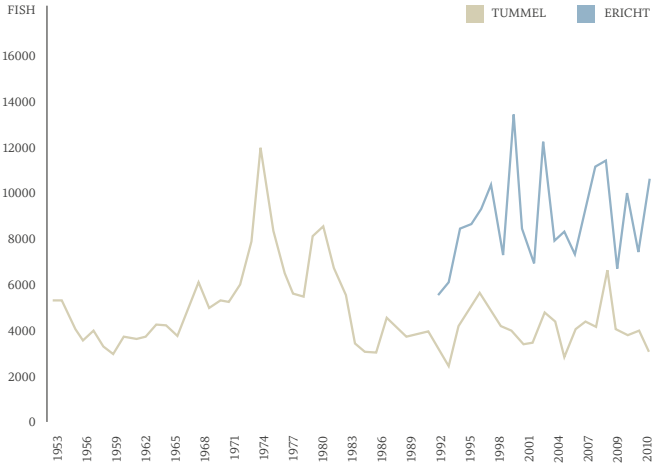


TAY SALMON ROD CATCH STATISTICS 1952-2010
SOURCE - TAY DSFB

Tay catchment counters

Dr David Summers - *Tay DSFB and Foundation Director*

Although the spring count was down, the overall count on the River Ericht was high, reflecting a much better grilse run in 2010. There is some uncertainty regarding the accuracy of the early part of the count at Pitlochry Dam but the count of both spring salmon and summer grilse was nevertheless low. The poorer spring count reflected the general situation but the relatively poor grilse count at Pitlochry contrasted with good runs on the Ericht and other Tay tributaries, notably the River Almond which had its best run in over a decade. It may be that the Tummel is suffering the effects of an extremely destructive spate in December 2006.

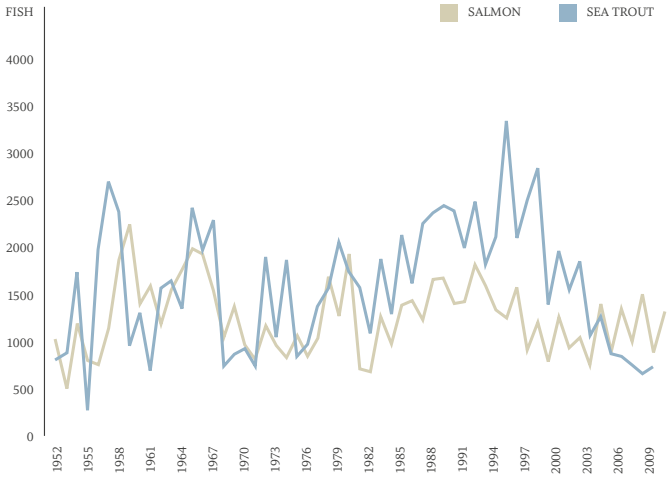


RIVER TUMMEL (PITLOCHRY) UPSTREAM COUNT 1953-2010
SOURCE - SCOTTISH & SOUTHERN ENERGY
RIVER ERICHT UPSTREAM COUNT 1990-2010
SOURCE - TAY DSFB

South Esk

Dr Marshall Halliday - *Esk Fishery Board and Trust*

Apart from a dry spell in May, angling conditions were generally favourable. Early-running salmon were exceptionally scarce, reinforcing the need for conservation measures to protect this valuable stock component. However, from July onwards, runs of grilse improved. The grilse run began in early July, much closer to historical run-timings and continued well into the back end of the season. The overall rod catch was reasonable when compared to the last decade and an improvement on 2009. Sea trout continued to improve and probably benefited from another cold winter. However, this was also the first year when the netting interests released the bulk of their catch (only damaged sea trout were killed). With another cold winter almost behind us, prospects for another good sea trout year are on the cards.

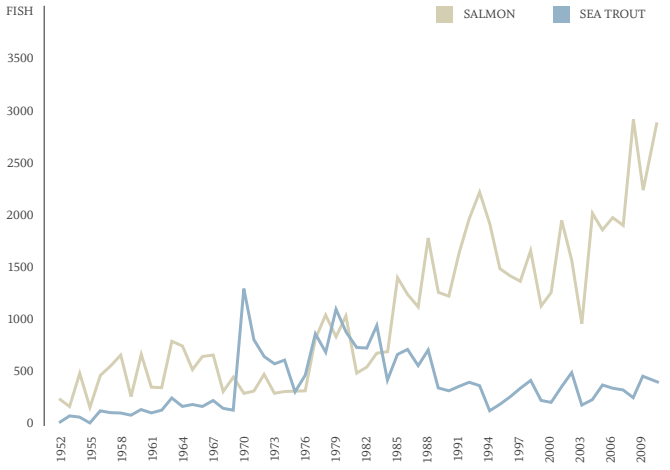


SOUTH ESK ROD CATCH STATISTICS 1952-2010
SOURCE - ESK DSFB

North Esk

Dr Marshall Halliday - *Esk Fishery Board and Trust*

Rod catches in 2010 were among the highest in the time series, but this was due largely to high catches from July onwards. Early-running salmon were limited and the main salmon runs began in late May, while the grilse began to arrive in early July. Grilse runs were better than of late, and generally arrived at more traditional times. However, despite the improved numbers, grilse remained small when compared with five or so years ago. Sea trout catches did not really reflect the improved sea trout runs which were experienced this year – perhaps due to higher river levels. The generally higher rod catches are probably a reflection of the considerable reduction in exploitation by netsmen within the North Esk District.

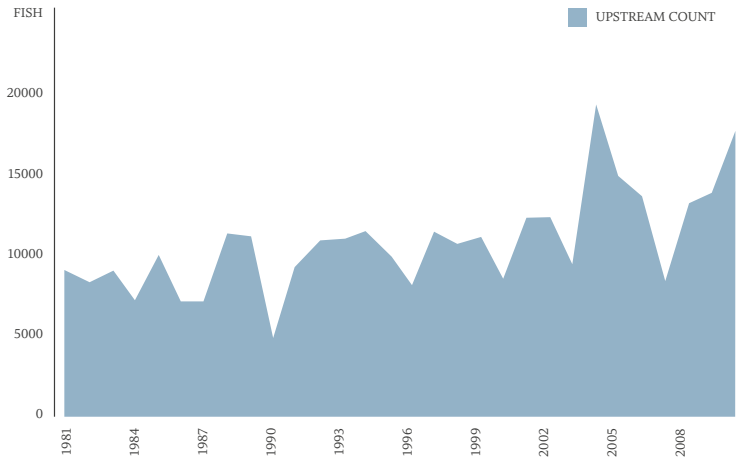


NORTH ESK CATCH STATISTICS 1952-2010
SOURCE - ESK DSFB

Logie counter (North Esk)

Dr Marshall Halliday - *Esk Fishery Board and Trust*

The total upstream count is among the highest on record for the river. However, the early running stocks were poor until late May, when improved flows coincided with a significant run of salmon. From then on numbers improved considerably with a traditional start to the grilse run in early July and continuous high numbers of fish ascending Logie for the remainder of the season. The improvement in upstream counts is undoubtedly due to a very significant reduction in exploitation. The counter is a valuable asset to gauge the strengths of the various run-timing groups and the Esk Board is grateful for the work carried out by Marine Science Scotland.

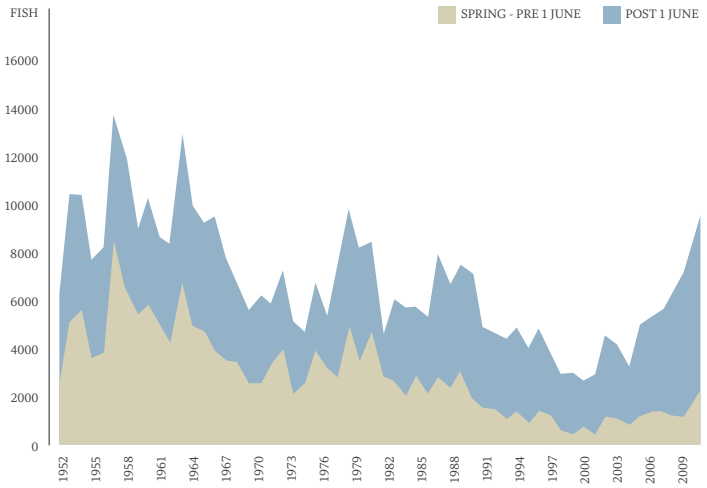


NORTH ESK UPSTREAM COUNT 1981-2010
SOURCE - MARINE SCOTLAND SCIENCE

Dee

Mark Bilsby - *River Dee Director*

2010 was a very good year for most beats. Although the river did not thaw until mid-March, when the grue subsided the fishing took off, producing a total of 2,324 spring salmon, the best for 15 years, by the end of May. The runs of fish then kept coming, aided by good levels of snowmelt, followed by a damp summer. The total rod catch of 8,391 before the traditional end of the season was the best return for 30 years, while an additional 898 salmon were caught in the first two weeks of October as part of the three-year trial season extension. Sea trout catches also rallied well, with a total of 3,088 fish caught, the second highest rod return on record. The voluntary conservation code, now in its sixteenth year of operation, resulted in 98% of all salmon and grilse being returned, together with 93% of sea trout.

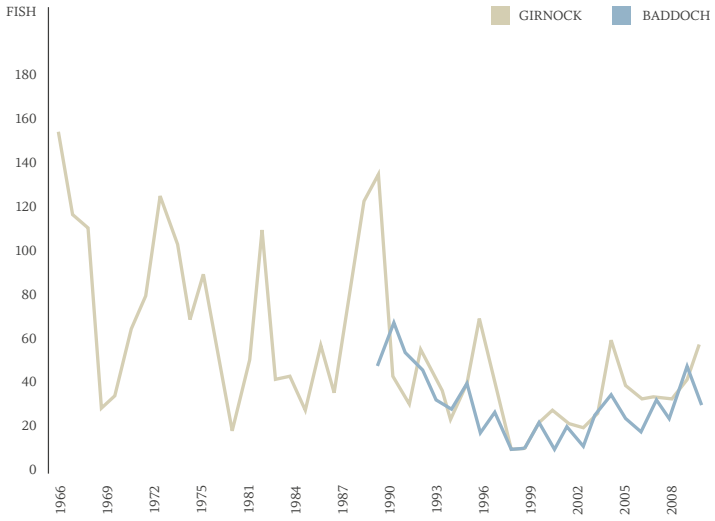


DEE SALMON ROD CATCH STATISTICS 1952-2010
SOURCE - DEE DSFB

Girnock and Baddoch counters (River Dee)

Iain McLaren - *Marine Scotland Science*

Interestingly, despite the rise in rod catches on the main river, the traps on these two small tributaries have not shown anything like the corresponding rise in salmon. This is because the rod catch is composed of an aggregation of all the individual populations of the river, so one need not expect a direct correlation. Indeed, these traps largely reflect the numbers of spring-running MSW females, while it is the increase in summer and autumn numbers that have been largely responsible for the recent improvement in overall rod catches. However, it is encouraging to note that, while the increases at the trap sites have not been anything like as dramatic as the rise in rod catches, they have both shown a general upwards trend in the last 10 years. This directly reflects a modest improvement in the prized spring-running component of the Dee stocks.

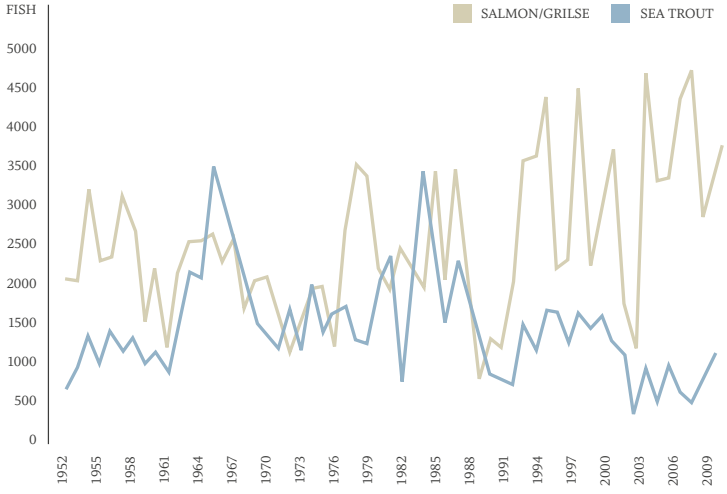


GIRNOCK & BADDOCH FEMALE UPSTREAM BURN TRAP COUNTS 1966-2010
SOURCE - MARINE SCOTLAND SCIENCE

Deveron

Richard Miller - *Senior Biologist, Deveron, Bogie and Isla Rivers Charitable Trust*

Last season saw 4,028 salmon and grilse caught, which was a significant increase on 2009's total of 2,843. Spring catches decreased slightly – from 115 to 91 before the end of April – largely due to limited angler access in the snow. Summer catches were lower than average, but late August brought ideal conditions and catches increased steadily, while September and October produced tremendous catches, with fish up to 30lb. The sea trout catch increased from 759 to 1354, ranging from 3lb to 15lb, of which over 70 per cent were returned. The board recommend that all salmon caught before 31st May are returned in 2011 to help conserve fragile spring stocks and all sea trout under 10" and over 3lb, as well as those caught after 31st July, will continue to be returned.

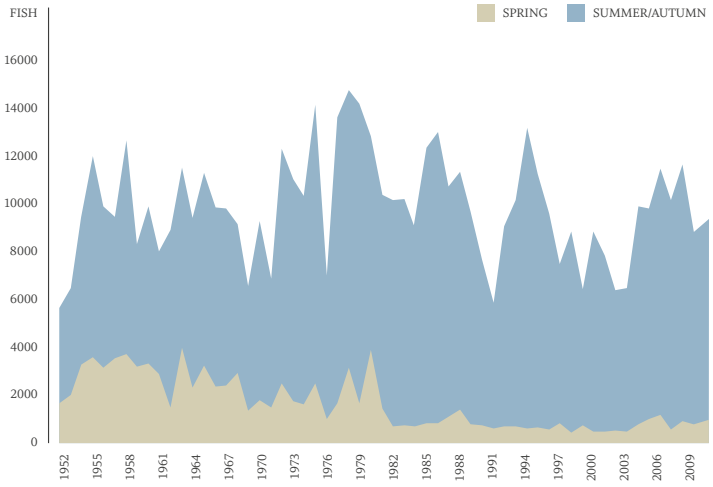


DEVERON SALMON AND SEA TROUT STATISTICS 1952-2010
SOURCE -DEVERON DSFB

Spey

Roger Knight - *Director, Spey Board and Trust*

2010 saw a total of 9,231 salmon and grilse caught by rods, slightly up on the 2009 total and included the winner of the Savills Malloch Trophy (a 36-pounder from Delfur). Adoption of the river's successful voluntary catch and release policy increased again, with 81% of salmon and grilse returned. The early season was slow and by the end of June just over 2,000 fish had been caught. However, the grilse soon arrived in numbers and catches improved significantly, although fewer two sea winter fish in 2010 and a weak grilse run in 2009 would indicate a problem with the 2008 smolt run. Sea trout numbers were significantly up on previous years with 3,290 caught, of which 68% were voluntarily returned. For full details, see the Annual Report at www.speyfisheryboard.com

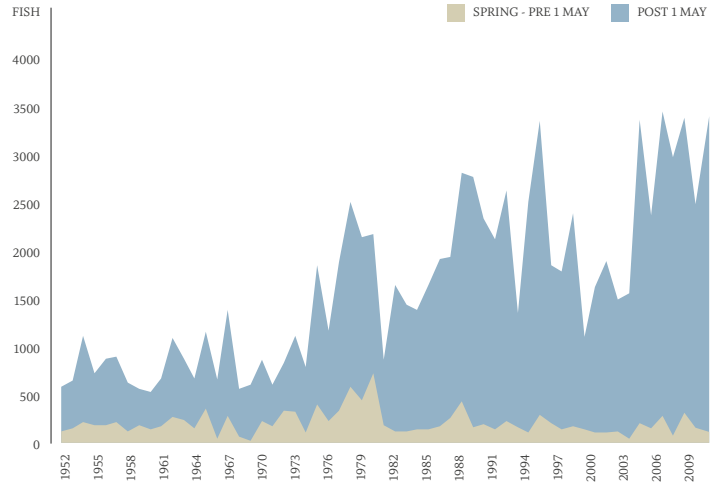


SPEY SALMON ROD CATCH STATISTICS 1952-2010
SOURCE - SPEY DSFB

Findhorn

Alasdair Laing - *Chairman, Findhorn DSFB*

2010 proved to be a season of contrasts – in May and June the MSW salmon simply were not there and the grilse were but few; yet by the end of September we were close to a record year with 3420 caught, and the middle of the river faring particularly well. There is, however, no reason for complacency. While the total catch has remained pretty consistent, the proportion of salmon caught in the spring now represents only 11.5% of the catch, down from 27% in 1980. Almost all of the catch increase has come from the grilse run, with the long term average rising from 88 in 1961 to 1195 in 2010. A release rate of 73% and long term monitoring of juvenile populations both indicate a satisfactory situation, although this year it was difficult to find big hen fish to strip for the hatcheries – with the ratio between cocks and hens approximately 20:1.

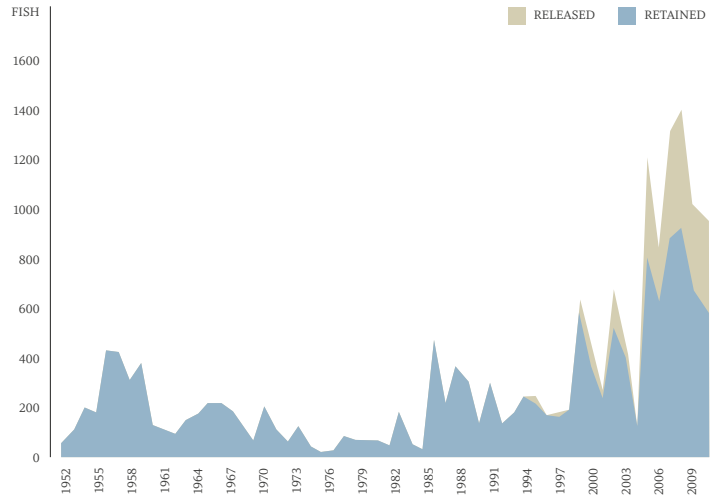


FINDHORN SALMON ROD CATCH STATISTICS 1952-2010
SOURCE - FINDHORN DSFB

Nairn

Peter Loutit - *Nairn DSFB*

Although water levels were consistently good, spring catches were at best patchy. Matters did not improve until towards the end of July, when the grilse run started about a month later than usual. Despite this, the numbers and quality of grilse were the best seen for many years. Larger fish were also in evidence, with salmon of 14, 17, and 18lb caught. Consequently the year ended on a high note and, overall, it was one of the better seasons for some time. On a less upbeat note, sea trout numbers have been a shadow of the past. As a result, the board has been advocating that all sea trout be returned. In the same vein, restraint has been urged in terms of salmon catches and a code of practice is to set out a formal catch and return policy.

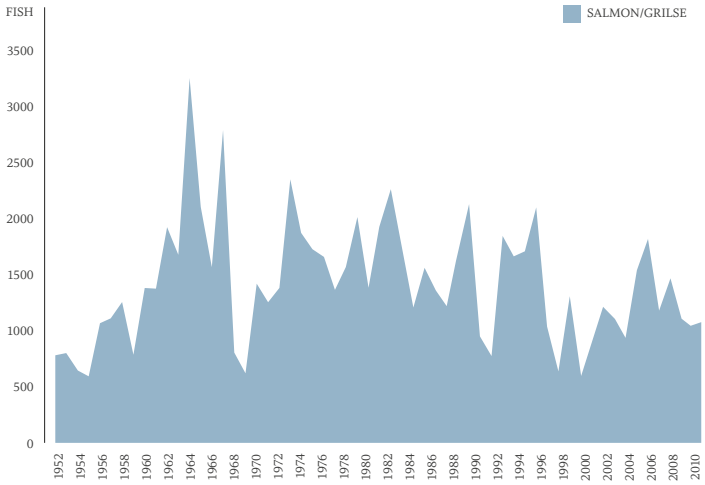


NAIRN ROD CATCH STATISTICS 1952-2009
SOURCE - NAIRN DSFB

Ness

Graham Mackenzie - *Ness DFSB*

The season got off to a very slow start, with few salmon being caught before late March. As usual the Moriston estuary beat was the place to be in the spring with a respectable 84 salmon being caught. Sadly the decline of the famous River Garry continues along with the Oich (its access river to Loch Ness) produced less than 50 salmon. Anglers on the River Ness and Loch Ness had good summer fishing from July onwards, however. Boats on the loch landed around 400 salmon and the Ness Castle beat on the river, for example, increased its catch to 221 salmon for the summer season, with a very creditable 84% of these being returned. The largest salmon, at 30lb, was caught on the fly on the Inverness Town Water in July.



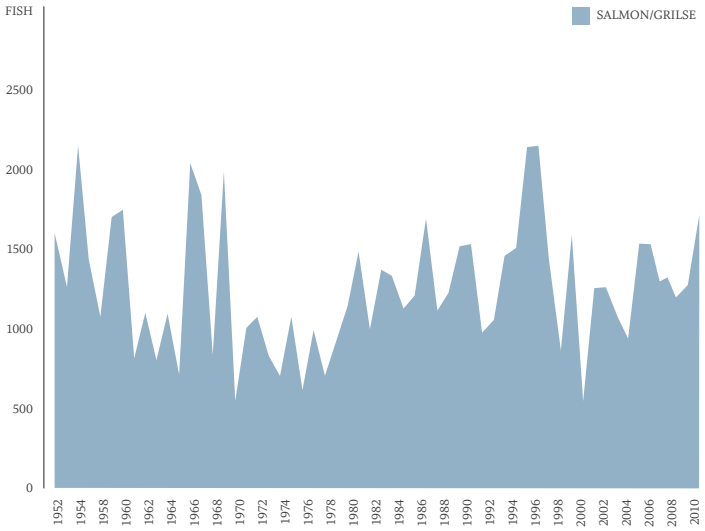
NESS ROD CATCH STATISTICS 1952-2010
SOURCE - NESS DSFB

Beauly

Nick McAndrew - *Chairman, Beauly DFSB*

2010 was an excellent year on the Beauly system. The Lower Beauly Syndicate had a total catch of 891 (77 per cent returned), which compares favourably to the 10-year average of 698, while 118 (86 per cent returned) were caught on the Upper Beauly – exactly double last year's catch. One notable fish, measuring 38 inches and estimated at 45lbs, was caught in October in the Ferry Pool by Brian Smee.

As is always the case on the system, river levels varied greatly due to hydro generation, but there was no shortage of water on the whole. The hatchery closed last year for a period of at least three years, so we will have to wait and see whether this has any noticable effect in the future.

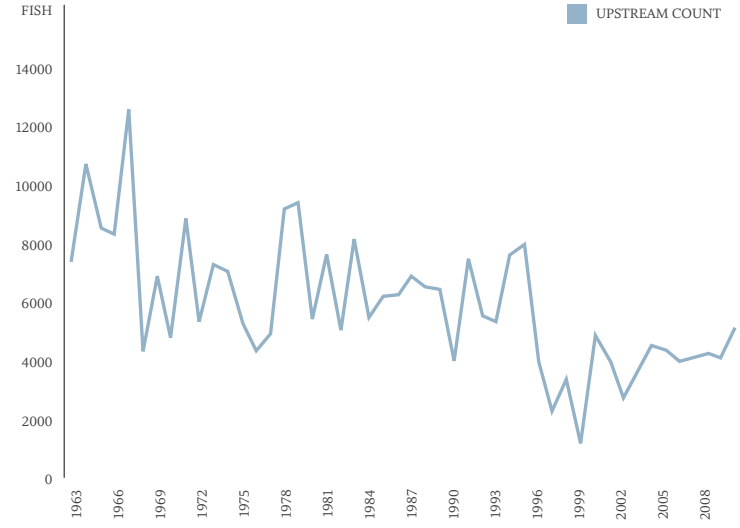


BEAULY SALMON ROD CATCH STATISTICS 1952-2010
SOURCE - BEAULY DSFB

Beauly counter

Nick McAndrew - *Chairman, Beauly DFSB*

Some 5,140 fish were counted through the Aigas Dam – a considerable improvement on the 5-year average of 4,116 – which resulted in good catches on the Glass and the Farrar. The former saw a provisional total of over 350 fish landed, while the Culligran beat on the Farrar produced 118, plus around 20 more on Struy.

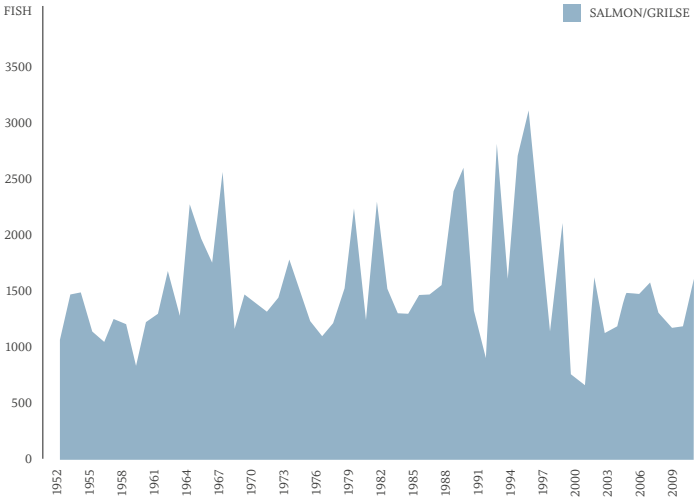


BEAULY (AIGAS) UPSTREAM COUNT 1963-2010
SOURCE - SCOTTISH AND SOUTHERN ENERGY

Conon

Simon McKelvie - *Conon DSFB*

The grilse run arrived earlier and in greater numbers than in recent years. With another wet summer fish moved quickly upstream. As a result some beats had catches only slightly better than last year, while others landed more than double last season's catch. With some returns still to come in the catch stands at 1,620 – compared with 1,187 for 2009 and the 1952- 2005 average of 1,522. Other more reliable indicators of stock abundance such as broodstock trapping also show a strong grilse run. Catches at the Blackwater trap were 50% higher than in 2009 and 30% above the 20 year average. There is also a clear increase in the numbers of MSW fish returning to the system, with record numbers caught in the Blackwater trap again. Major works to restore access for salmon to the upper reaches of the River Meig took place this summer, supported by the Cromarty Firth Fishery Trust and a local estate. With cooperation from Scottish and Southern Energy adult salmon are now returning to the upper reaches of the River Orrin after an absence of 50 years.

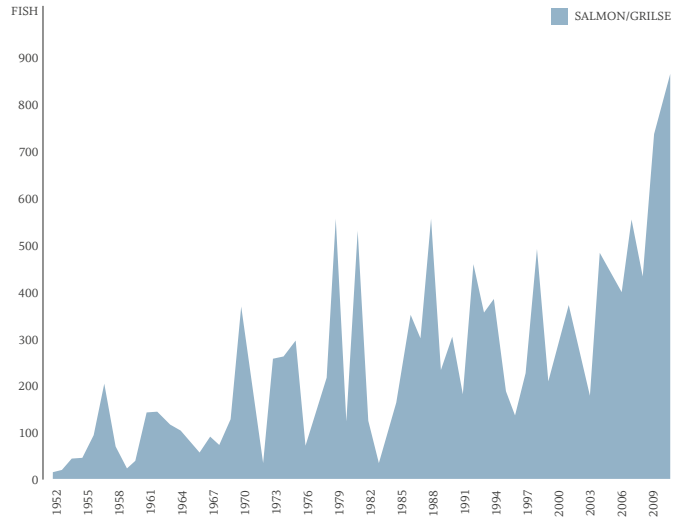


CONON ROD CATCH STATISTICS 1952-2010
SOURCE - CONON DSFB

Alness

Roger Dowsett - *Novar Fishings Manager*

2010 was another superb season. The spring run was late due to a particularly dry May, and most fish rushed through on the first available spate in early June, but the first grilse appeared in early July – two to three weeks earlier than in recent years. A wet summer ensured regular spates throughout, and catches from August through October were excellent. The total rod catch was over 870 salmon and grilse: the Novar Fishings produced 557 fish, the second highest on record (71% returned); 70 fish were landed on Kildermorie Estate's waters (49% returned), most caught by Alness Angling Club (AAC) members; and a further 244 were caught by the AAC on their own beats (35% returned).

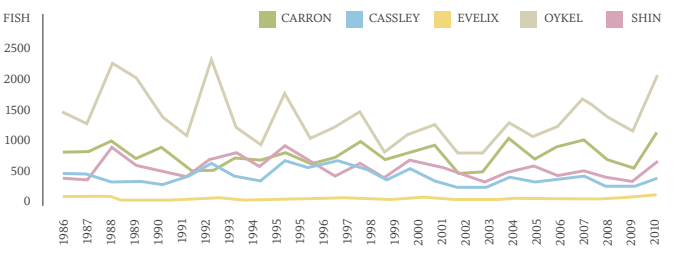


ALNESS SLAMON ROD CATCH STATISTICS 1952-2010
SOURCE - CROMARTY DSFB

Kyle of Sutherland

Robbie Douglas Miller - *Chairman, Kyle of Sutherland DSFB*

The 2010 season will be remembered for the days fishermen dream of! It was from a cold and frosty start that great things were to come, as the opening day of the season found all Kyle rivers frozen from bank to bank. The early running MSW fish were slow to get going, despite some good individual weeks in April and May, but it was the grilse run, coinciding with some very favourable weather conditions, that will be remembered for years to come by those lucky enough to have been fishing at this time. All of the Kyle rivers enjoyed a terrific month in July with records tumbling as the weeks went by. By the time the season ended nearly all proprietors, tenants, guests, ghillies and helpers were feeling that 2010 was a year to remember.



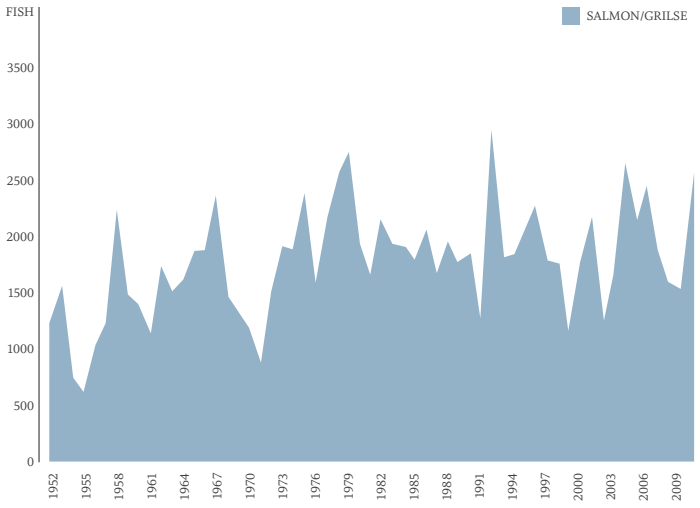
KYLE OF SUTHERLAND ROD CATCH STATISTICS 1986-2010
SOURCE - KYLE DSFB

Helmsdale

Michael Wigan - *Helmsdale DSFB*

The season started with an ordinary spring, but by late May catches started to build and continued with a steady run of salmon recorded over the fish counter, especially at night, without any significant interruption. By August and September the river was brimming with fish, and catches were exceptionally high. The overall catch for 2010 was excellent, reaching a total for the beats of 2,570, excluding sea-trout. Four out of five fish were returned.

Scale-reading revealed an interesting point: MSW fish weighed as little as four pounds, whilst some fish up to 9lb proved to be grilse – so grilse and MSW salmon could not be distinguished by weight. At broodstock capture it was found that hens had slightly lower-than-normal egg counts. Seal damage was minor and no farm fish were recorded.

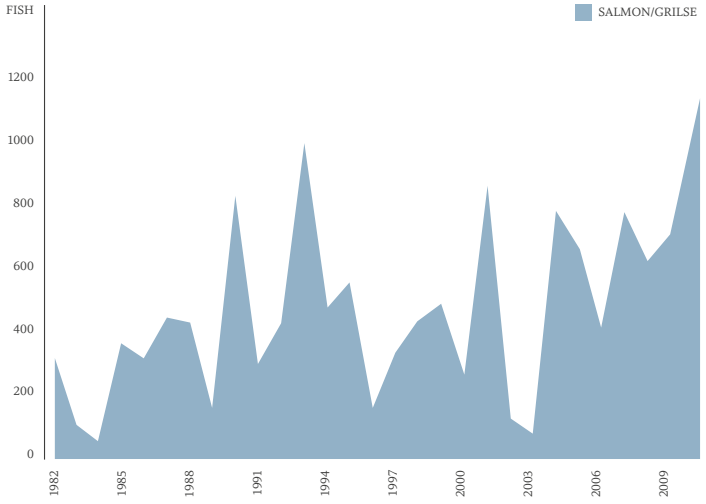


HELMSDALE ROD CATCH STATISTICS 1952-2010
SOURCE - HELMSDALE DSFB

Wick

John Mackay - *Wick Angling Club Secretary*

The season's total of 1,122 salmon and grilse is a record and is well above our 10 and 5-year averages of 622 and 743 respectively. The catch and release percentage is also steadily increasing and is now 37 per cent, with all fish caught in October returned. The Wick is a spate river with the bulk of the catch made during the grilse run from July to September. This season the fishing was particularly good in August and September – with 839 of the total caught. The grilse size was again very small this year and the average was 4.5lb, with 30 fish in the 1.5 to 2.5lb range. Sea trout have never featured much in our catch and only 25 were landed this year. We suspect that our trout do not need to migrate to sea because of the rich feeding in both the river and Watten Loch.

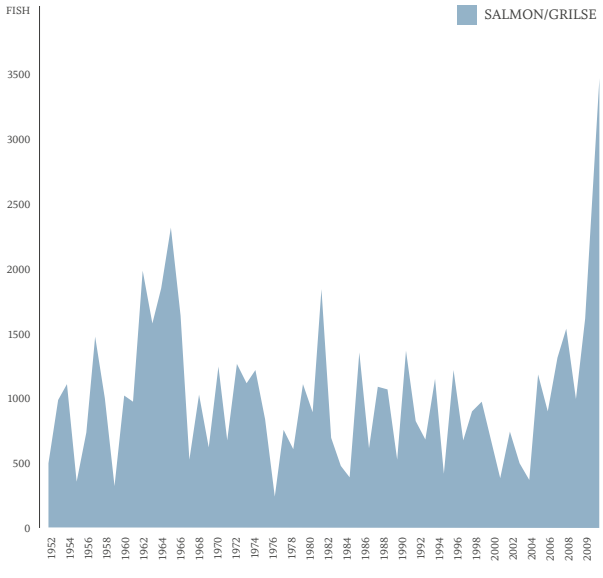


WICK SALMON ROD CATCH STATISTICS 1982-2010
SOURCE -RIVER WICK

Thurso

Eddie McCarthy - *Thurso River Manager*

The total from beats 2-13 was 3,022 while the Association Water and the private beat yielded 483 between them, making it the best year – by over 1,000 fish – since records began in 1896. Eighty per cent of the catch was voluntarily returned. The first fish was taken on 2nd February, while by March good numbers of fish were being caught and even seen entering the loch. April and May yielded good numbers too, while the grilse started to arrive in early June and continued through to the end of the season. Generally they were in very good condition. Another majestic smolt migration started in early April and quickly petered out, but immense numbers of smolts were seen in May, while another run began in late August.

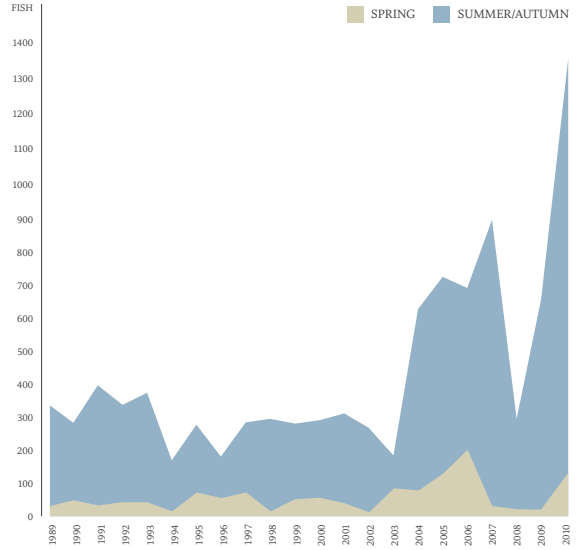


THURSO SALMON ROD CATCH STATISTICS 1952-2010
SOURCE - THURSO RIVER MANAGEMENT

Halladale

John Salkeld - *Halladale Partnership*

The Halladale total was 1,320 salmon and grilse, smashing 2007's record of 910, and more than doubling 2009's total. The season once again started slowly although, with 163 salmon caught before 15 June, it was our second best year on record for springers. Water levels were mostly good from mid-July until the end of the season, helping to produce some memorable weeks. The best of these was the third week in September, which produced 242 salmon – a decent annual total 10 years ago! It seems there was a higher than normal proportion of summer salmon, up to 22lb, while a number of 6lb fish in good condition turned out to be 2SW on scale reading. Seventy-six per cent of the catch was returned.

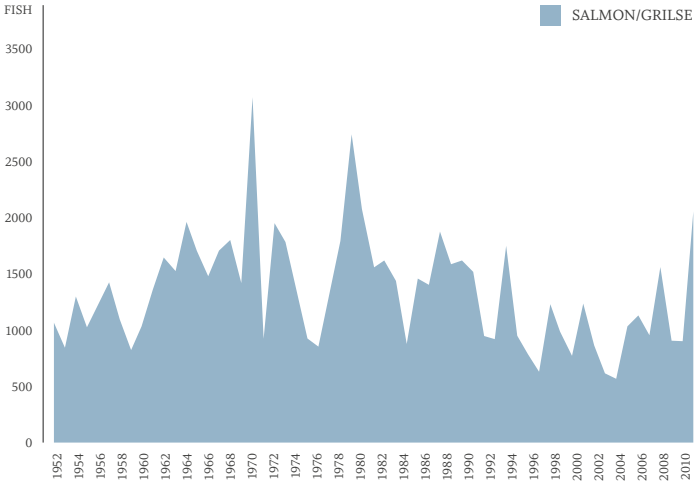


HALLADALE SALMON ROD CATCH STATISTICS 1989-2010
SOURCE - HALLADALE PARTNERSHIP

Naver

Chris Conroy - *Superintendent and Biologist, River Naver Fisheries*

Conditions made fishing difficult throughout January and February, with large parts of the river completely frozen over. The first fish was reported on 17th February, after which catches steadily increased. By the end of April it was clear that 2010 had produced an excellent 164 spring salmon. Strong catches continued throughout the summer, producing a total of 2,022 fish across the Naver District (1,000 MSW salmon and 1,022 grilse). The overall release rate for the district was 82% and the largest fish was 32lb. Sea trout catches were good with a total of 298, up to 5.5lb, recorded. In summary, 2010 was an exceptional year with the best salmon catches for 31 years.

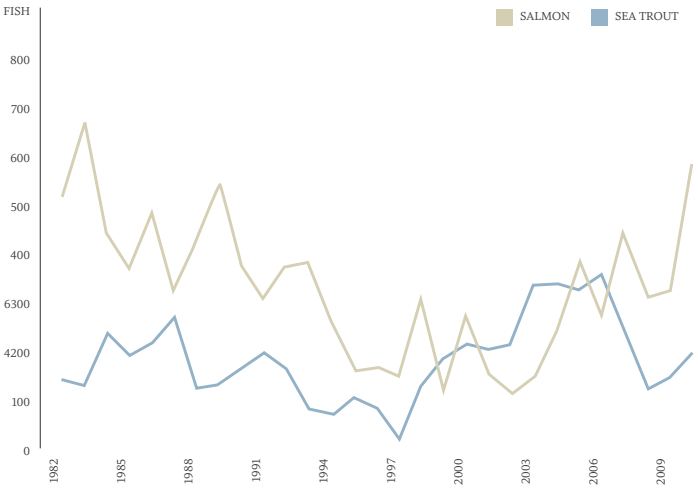


NAVER SALMON ROD CATCH STATISTICS 1952-2010
SOURCE - NAVER MANAGEMENT

Dionard

Jim Allingham - *North and West DSFB*

Like many other northern rivers, the Dionard enjoyed a better season in 2010. The usual spring drought broke on July 4th and from then onwards the river was in fishable order for most of the season. Fish arrived at the beginning of July, earlier than in many recent years. Only a very few bleeding vents were seen, and the average weight was slightly better. Scale readings reveal that there were a number of 2SW summer salmon weighing as little as 3.75lbs, but there was a greater proportion of salmon over seven pounds than usual. The salmon catch has been the best since the advent of salmon farming and anglers have returned about 79 per cent. The sea trout return was slightly better than in 2009 but well below the best recent level. Almost all were safely returned.

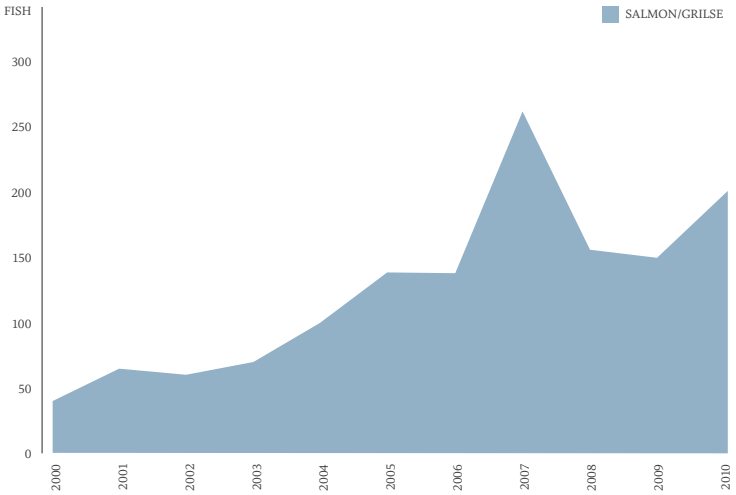


DIONARD ROD CATCH STATISTICS 1982-2010
SOURCE - NORTH AND WEST DSFB

Snizort

Derek Dowsett - *Snizort River Manager*

There were several long dry spells but, despite the conditions, high numbers of salmon were seen right the way through the season. The fish were generally in good condition, averaging about 8lb, with very few poorly-fed specimens. Evidence of sea lice or fin damage was minimal and, encouragingly, no fish farm escapees were reported. There were unusually high numbers of fish over 15lb, with many being well fed hens, and there were several over 20lb. The season's total of 204 was the best in the last six years and 97 per cent of the catch was returned.

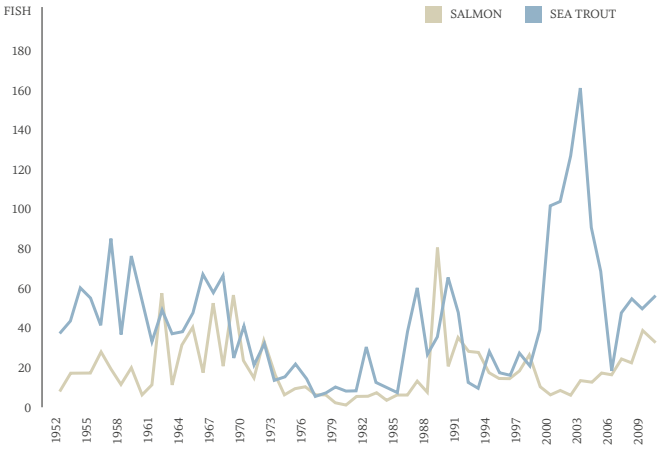


SNIZORT SALMON ROD CATCH STATISTICS 2000-2010
SOURCE - SKYE DSFB

Polla

Charles Marsham - *Chairman North and West Sutherland Board and Trust*

The 2010 season yielded 36 salmon and grilse and 55 sea trout, a decent return for a little spate river that is only fished for 3 months by two rods. Sixty per cent of the catch was returned. Although sea trout numbers have dropped considerably since they peaked in 2003, there were some very good sized fish caught this year, including four over 7lb. Meanwhile the smaller grilse, in the 3-4lb range, ran earlier than usual, even in low water conditions.

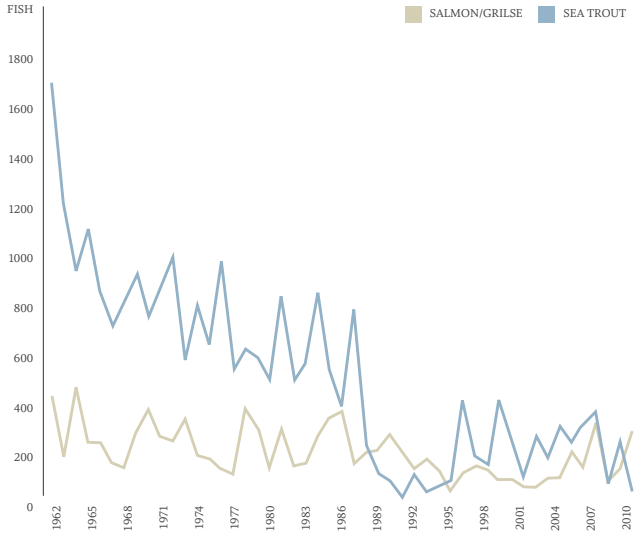


POLLA SALMON AND SEA TROUT ROD CATCH STATISTICS 1952-2010
SOURCE - NORTH AND WEST SUTHERLAND DSFB

Laxford

Shona Marshall - *Biologist, West Sutherland Fisheries Trust*

The 2010 season was the second best year for salmon since 1987 – yielding a rod catch of 305, up to 28lb. The first fish was caught in March but there was then a blank period until May. Good water levels meant that catches remained relatively constant throughout the summer. There was an encouraging 78 per cent release rate within the river. Sea trout numbers, on the other hand, were poor and the total of 62 was one of the smallest catches on record. The largest sea trout from Loch Stack weighed 3 lb 10 oz, but two thirds of the overall catch were finnock. The low catch, coupled with the appearance of thin finnock and sea trout, is of concern and goes against recent trends.

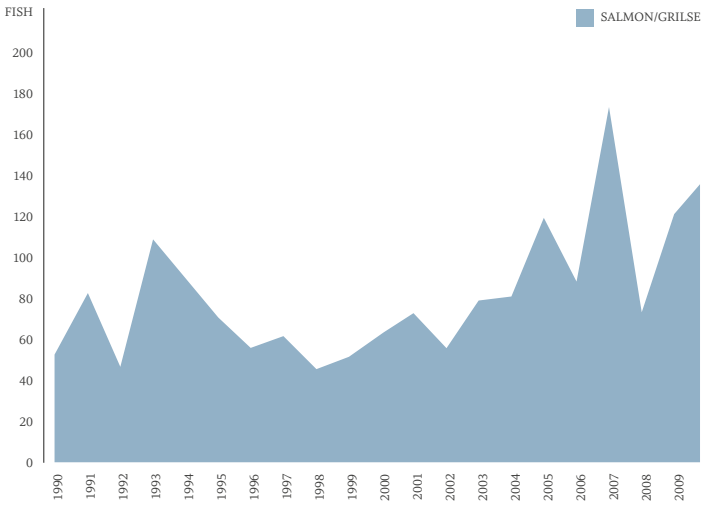


LAXFORD ROD CATCH STATISTICS 1962-2010
SOURCE - WEST SUTHERLAND FISHERIES TRUST

Little Gruinard

Graeme Wilson - *Manager, Little Gruinard*

135 salmon and grilse, up to 16lb, were caught between June and the end of September, making it the second best year since the van Vlissingen family have owned the river. July and August were the most prolific months, while September was comparatively poor compared to the last few years. Mink made their first appearance in the system, although they seem to have been fairly swiftly dealt with, with seven being caught in quick succession and no more seen! Although sea trout remain scarce some excellent brown trout, up to 4lbs, were caught, even though they are not often fished for. All the salmon were returned, in line with the river's policy, and all in all there appears to be a good head of fish are in the river and loch.

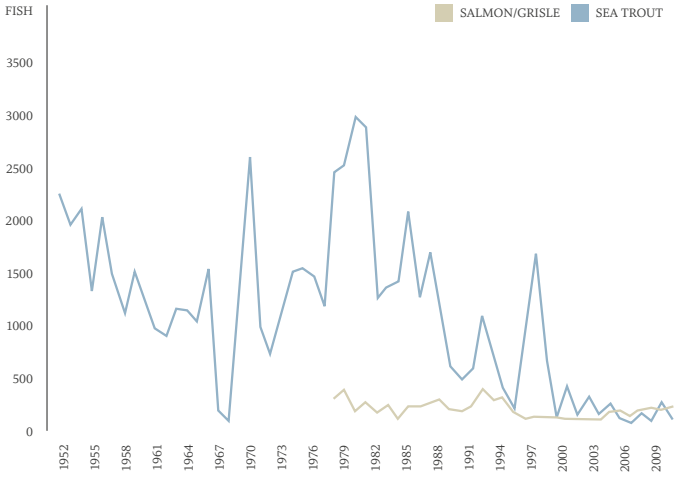


LITTLE GRUINARD SALMON ROD CATCH STATISTICS 1990-2010
SOURCE -LITTEL GRUINARD MANAGEMENT

Ewe & Loch Maree

Peter Cunningham - *Biologist, Wester Ross Fisheries Trust*

Although the official figures for 2010 are not yet available, the final salmon and grilse total is likely to be around 240 fish – about double that of ten years ago. The vast majority of these were returned, and included one of 21lb, while a kelt carcass of 48 inches was reported this January. In recent years few boats have fished Loch Maree so sea trout catch figures are not comparable with those of the past. Sea lice levels in Loch Ewe were low, with no reports of heavily lice-infected fish. WRFT and Ewe proprietors have for several years supported a programme to restock a large area of nursery habitat for salmon in the Bruachaig, using progeny of native salmon taken from the Kinlochewe River nearby, and this year we anticipate the largest smolt run from this part of the system for over a decade.

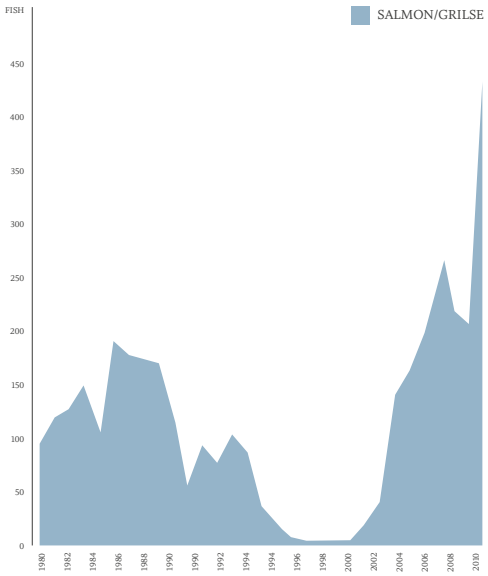


RIVER EWE SALMON ROD CATCH STATISTICS 1978-2010
LOCH MAREE SEA TROUT ROD CATCH STATISTICS 1952-2010
SOURCE - WESTER ROSS FISHERIES TRUST

Carron (Wester Ross)

Bob Kindness - *Carron River Manager*

The 2010 season was outstanding, although it got off to a slow start, and July, August and most of September saw fresh salmon entering the river continuously. Catches held up well until the end of October, by which time 419 salmon and grilse had been caught (at close to one fish per full rod day), eclipsing the previous record catch of 262 in 2007. The 5-year average has now risen to 261 (6 in 2001) and the biggest salmon caught was 28lb. Full catch and release is still practised, although a small harvest was taken of tagged (stocked) fish. Sea trout catches were on a par with last season, at 195, representing another excellent year. The salmon stocking strategy developed over the last 10 years has not only restored the river but has taken rod catches to a level never experienced before.

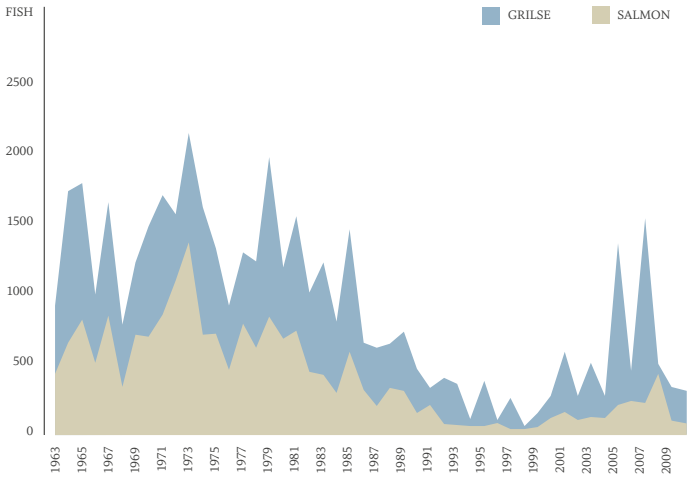


CARRON (W.COAST) SALMON/GRILSE ROD CATCH 1980-2010
SOURCE - RIVER CARRON MANAGEMENT

Lochy

John Veitch - *Lochy River Manager*

2010 was a disappointing season – not only did we see yet another poor grilse run but weather and water conditions conspired against us at key points in the season. This depressed catches and, indeed, anglers. We endured the driest spring in 50 years, which all but ruined the fishing in May and June. And, although July's catches beat the 5-year average for the month, August through to October saw nothing like the numbers of grilse and summer salmon we would expect. The total (Lochy beats 1-4 and club beats) accounted for only half the current 5-year average, with the grilse numbers being most affected, while MSW salmon numbers were almost on a par with our 5-year average. Many of the grilse had red vent but in general the quality and size of the fish was good – averaging 5.1lb for grilse and 12.2lb for salmon – indicating that those fish that made it back were not undernourished. Around 90 per cent of the rod catch was returned.



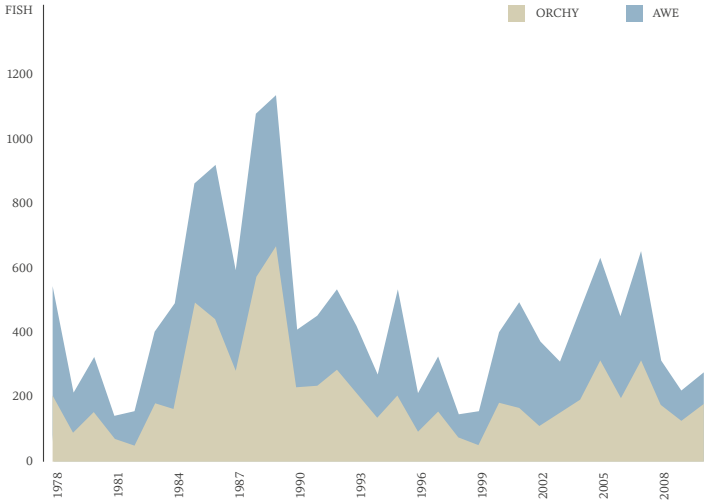
LOCHY SALMON ROD CATCH STATISTICS 1963-2010
SOURCE - LOCHY ASSOCIATION

Awe and Orchy

Roger Brook - *Chairman, Argyll DSFB*

It seems that the further south the fisheries are on the west coast, the more they are suffering, and this appears to be related to the number of fish farms that migratory species have to pass before they reach the open ocean.

There is enough water for fish to run the Awe at all times and it is evident that the fish from different parts of the system return simultaneously. We can see this because the catches from different parts of the river system are significantly different. Some beats are doing as well as they ever have, while others are well down on their average. This indicates that the run timing of the different genetic groupings of fish may have an important bearing on their chances of survival.

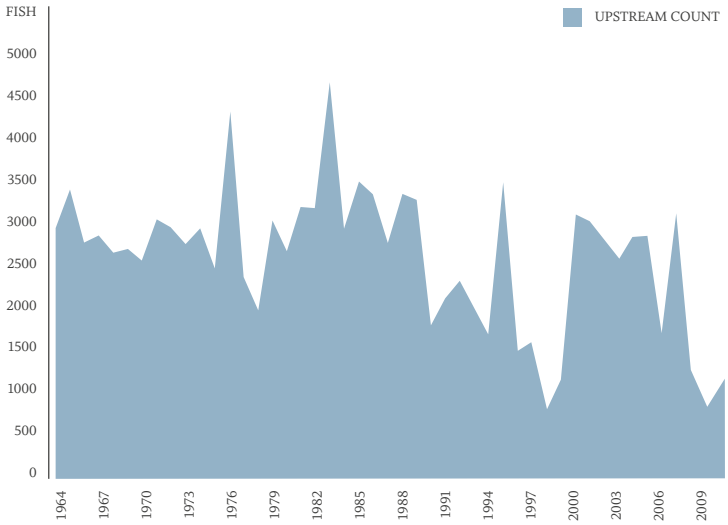


AWE & ORCHY SALMON ROD CATCH STATISTICS 1978-2010
SOURCE - ARGYLL DSFB

Awe counter

Roger Brook - *Chairman, Argyll DSFB*

The decline in numbers of fish recorded by the Awe Barrage counter continues. The count for the year will be about 1,200 fish, compared with the target of 3,000. There were a few spring fish, as is normal, but the grilse run was about half of the expected numbers.

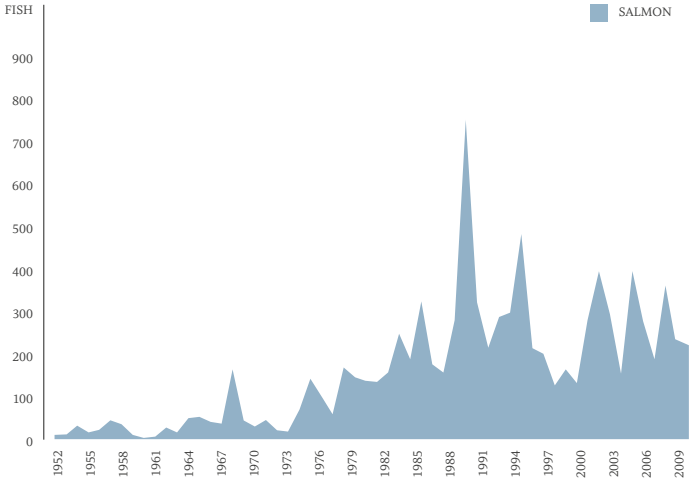


AWE BARRAGE UPSTREAM COUNT 1964-2010
SOURCE - SCOTTISH AND SOUTHERN ENERGY

Irvine and Garnock

Brian Shaw - *Biologist, Ayrshire Rivers Trust*

The final catch returns are not yet available, but the general feeling is that 2010 was a good season on the Irvine. The middle and upper beats benefited from the decent water conditions and club members enjoyed good sport. The Annick Water is the largest tributary of the Irvine and the only tributary where there is any real salmon fishing. Club members had good fishing here in late October and the first two weeks of November. Fish passage improvements in the Kilmarnock Water have been deferred until 2011 but, when combined with the new road bridge to replace the Dean Castle Ford, this will open up access to a huge area of excellent juvenile habitat.

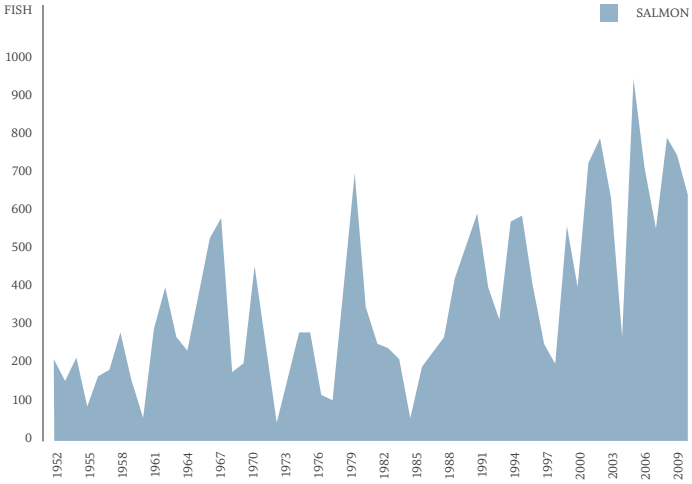


IRVINE/GARNOCK - SALMON/GRILSE ROD CATCH STATISTICS 1952-2009
SOURCE - AYRSHIRE RIVERS TRUST

Ayr

Brian Shaw - *Biologist, Ayrshire Rivers Trust*

Returns were not available by the print deadline, but reports indicate an average season. There were a lot of small grilse of 2-3lb in catches, while the lack of big spates during August held many fish in the middle river and shortened the season in the upper beats. Low water conditions also prevailed during the spring, with no spates for three months after the first week of April. The smolt run was impressive, although this may be due to delayed migration caused by the low water conditions. Overall rainfall figures show that 2010 will be the driest year since 2003. Liaison between fishery interests and industries such as opencast mining continues to improve to the benefit of the river.

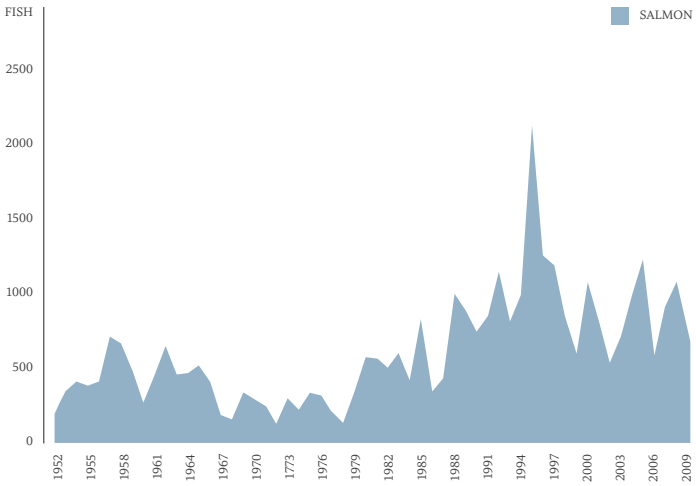


AYR SALMON/GRILSE ROD CATCH STATISTICS 1952-2009
SOURCE - AYRSHIRE RIVERS TRUST

Doon

Brian Shaw - *Biologist, Ayrshire Rivers Trust*

Catches were a great improvement on 2009 and the total for the season should end up above the ten year average of 853. The middle and upper river fished better than the lower beats: the fish arrived in big runs which went upstream very quickly. The 2010 runs also seemed earlier than in recent years, with one upper river beat enjoying the best July catches for many years. In the last week of August there was a great run of fish providing spectacular sport in the Dalrymple area. As with the other Ayrshire rivers there were few big fish, however, the best being 24lb. The SavetheDoon campaigners ran a great campaign against the proposal from Scottish Power to reduce the compensation flow in the river, we will hear in 2011 if it was successful.

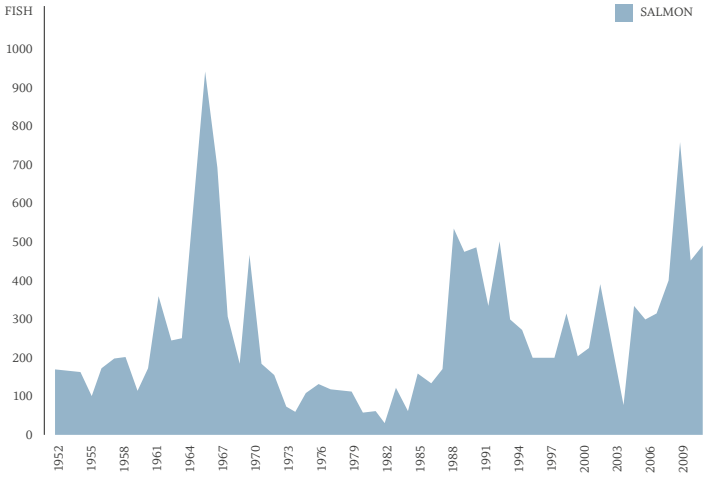


DOON SALMON/GRILSE ROD CATCH STATISTICS 1952-2009
SOURCE - AYRSHIRE RIVERS TRUST

Girvan

Brian Shaw - *Biologist, Ayrshire Rivers Trust*

It was another good year, with the rod catch of salmon and grilse around 450 – comfortably above the ten year average of 343. The Girvan is a spate river and when there was water there was good sport. August was dry and some beats blanked that month, but better water conditions in September and October led to good catches. Approximately 60% of the fish were returned – a creditable figure for a river with such a variety of beats. The Girvan still has a small run of spring fish and a few were landed in April. Sea trout catches remain very low, although there were more decent sized fish caught in 2010 than in recent years.

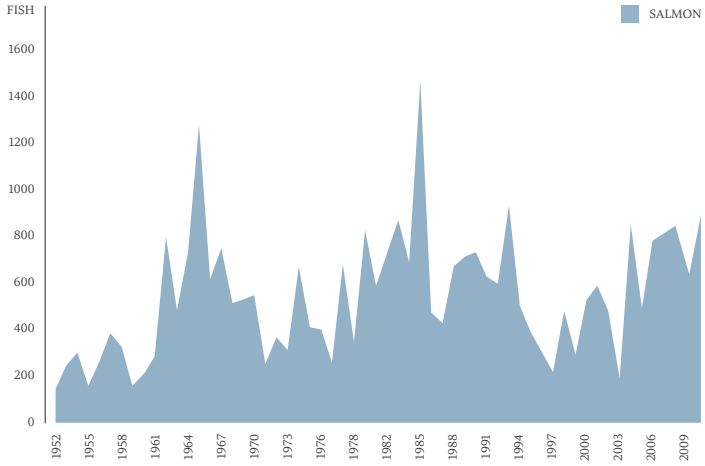


GIRVAN SALMON/GRILSE ROD CATCH STATISTICS 1952-2010
SOURCE - AYRSHIRE RIVERS TRUST

Stinchar

Brian Shaw - *Biologist, Ayrshire Rivers Trust*

The 2010 catch was about 760, above the ten year average of 615. However, although the Stinchar is noted for its big fish, few fish over 20lb were reported this year. A lot of small grilse featured in the catches – one angler had a run of 13 fish before landing one over 5lb. Timing is everything on the Stinchar and those lucky enough to be fishing when conditions were right enjoyed excellent sport. Catch and release is increasingly practised on the river, with almost 60% released in 2010. Sea trout catches continue to be very poor, although few anglers now fish specifically for them.

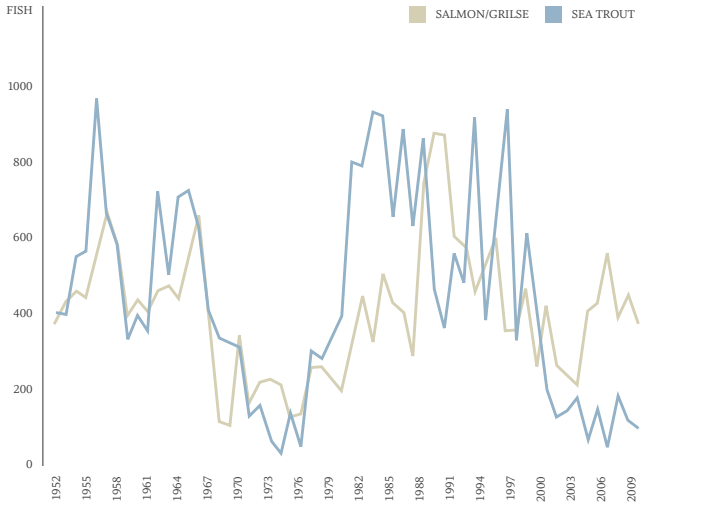


STINCHAR SALMON ROD CATCH STATISTICS 2000-2010
SOURCE - AYRSHIRE RIVERS TRUST

Cree

Galloway Fisheries Trust

2010 was a good year, although most fish were caught at the back end, especially in the lower river. Disappointingly, the main tributary of the Cree, the Minnoch, had a poor start in the spring, despite a bumper catch of more than 50 springers on one beat in 2009. However, this could partly be attributed to poor fishing conditions for much of the early season. The Minnoch also had a less than average back end, again perhaps due to lower water. The lower Cree fished well but, as seen in previous years, the majority of fish were not seen until the end of July, after which good numbers were caught. Since 2005 the lowest beat on the Cree has seen its three highest catches in the last 20 years. It was noted in the Cree and, especially in the Minnoch, that a proportion of the fish were small.

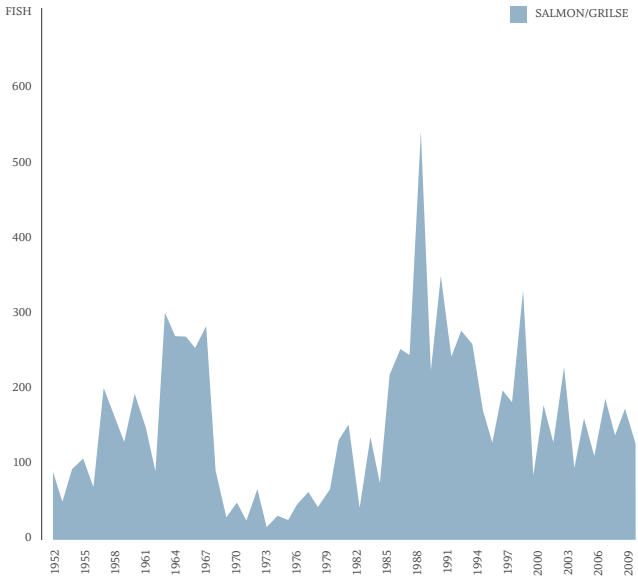


CREE ROD CATCH STATISTICS 1952-2009
SOURCE - GALLOWAY FISHERIES TRUST

Bladnoch

Galloway Fisheries Trust

The Bladnoch had an average season but was initially poor, with only low numbers of springers caught. The river experienced low water for much of the season and this caused many fish to be held up in lower beats and the tidal section fished fairly well. However, reasonable numbers of fish were to be caught towards the back end when some higher water permitted better angling conditions. The Tarf, the main tributary of the Bladnoch, appeared to fish less well in 2010, particularly at the back end, but this may have been partly due to low fishing effort.

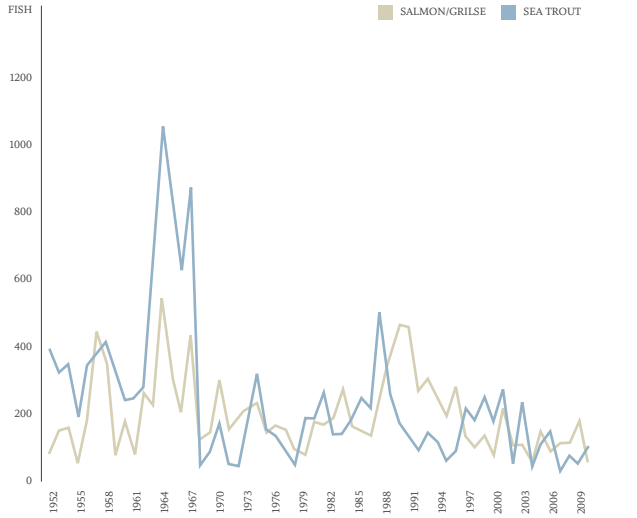


BLADNOCH ROD CATCH STATISTICS 1952-2009
SOURCE - GALLOWAY FISHERIES TRUST

Luce

Galloway Fisheries Trust

The Luce had a reasonable season, although more salmon were caught than in the previous few years. Fish were thought to be larger, however, and unlike on some other Galloway rivers there were no reports of small salmon. Indeed, several double figure fish were caught along with a few of over 20lb. The river suffered from less water than usual, which may have gone against the catch numbers. Salmon were also taken on the Cross Water of Luce which appears to be fishing relatively well compared to 20 years ago. Sea trout numbers across the catchment were very poor again, although many fish around the 6 to 7lb mark were noted.

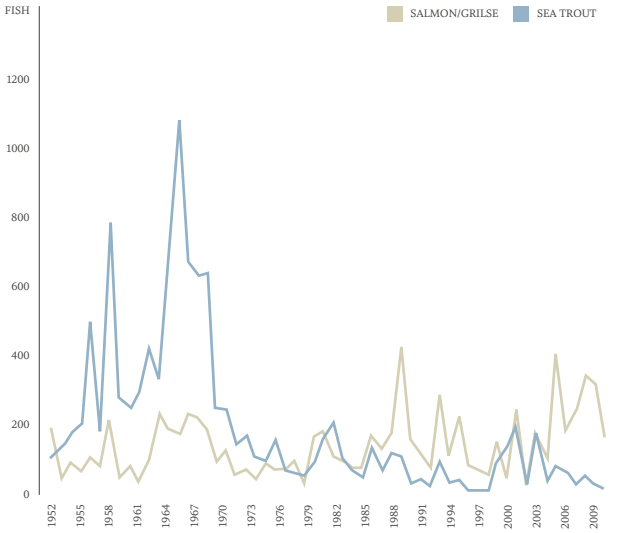


LUCE ROD CATCH STATISTICS 1952-2009
SOURCE - GALLOWAY FISHERIES TRUST

Urr

Richard Bellamy - *Chairman, Dalbeattie Angling Association*

The 2010 season was fairly close to the standard of recent years, with a reasonable run of summer grilse followed by an autumn run of grilse and occasional MSW salmon. What stands out is the weather pattern, as water levels dropped steadily from late summer into early autumn, followed by a month of high water from late October, then hard frosts over the final ten days of November. The high water encouraged fish to run through the bottom beats, but also unsettled them, so that many more were seen than caught. Nonetheless the total rod catch of about 300 was roughly 10% higher than the 5-year average. The river remains in good health, although the increasing tendency towards extremes of weather, whether drought or flood, is a worry for the future.

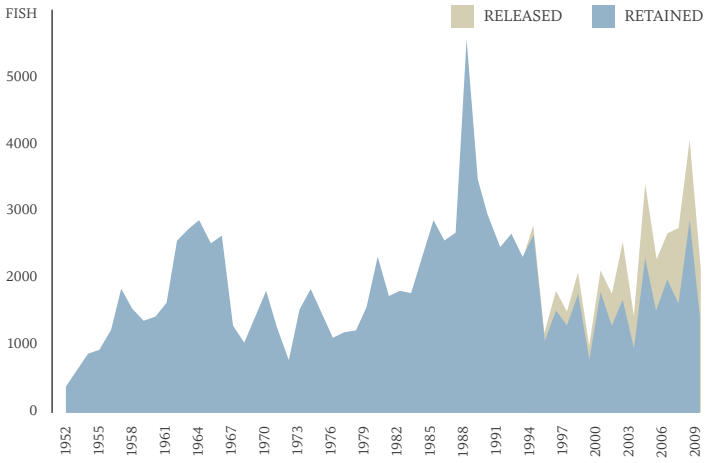


URR ROD CATCH STATISTICS 1952-2009
SOURCE - GALLOWAY FISHERIES TRUST

Nith

Jim Henderson - *Director, Nith Board and Trust*

Although the final total is not yet available I would sum up the season as average – some beats on the lower river recorded good catches whilst others were merely mediocre. A salmon of 27lb was recorded on Portrack Estate and many larger fish have been seen in the river during November. Fishers continue to do their bit for conservation by returning large sea trout and it is pleasing to see that sea trout numbers have increased again this year. The board continue with their participation in research into sea trout via our involvement with the Celtic Sea Trout Project and it is hoped that a better understanding of this species will enhance our management of them in the future.

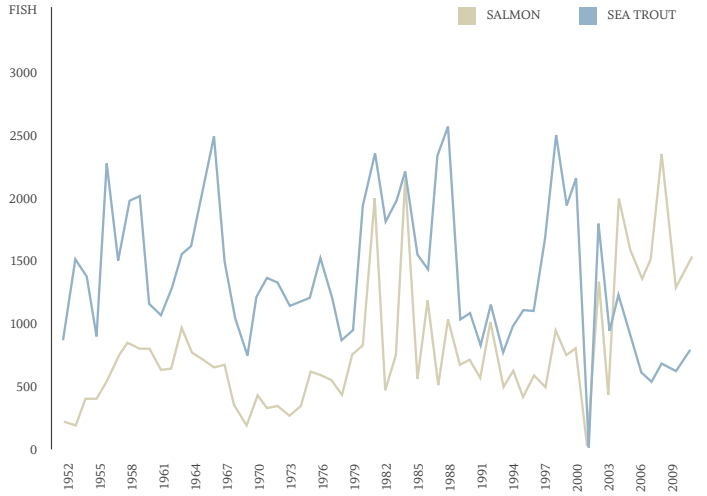


NITH SALMON ROD CATCH STATISTICS 1952-2009
SOURCE - NITH DSFB

Annan

Nick Chisholm - *Director, Annan Board and Trust*

The provisional total for the rod catch is 1140 salmon, 495 grilse and 800 sea trout, with 51% of salmon and grilse and 82% of sea trout returned. The combined net catch was 86 salmon, 378 grilse plus 60 farmed fish escapees and 474 sea trout. The brown trout fishing in the spring was superb and the largest trout of the year was 9.5lb – a benefit of a 6-year policy of catch and release. The summer sea trout fishery was a little better than in recent years, although they are now running in from the sea in almost every month of the season and many fresh fish are now caught in September and October. Most of the grilse and salmon were in splendid condition, although there was a run of very small fish in early October.



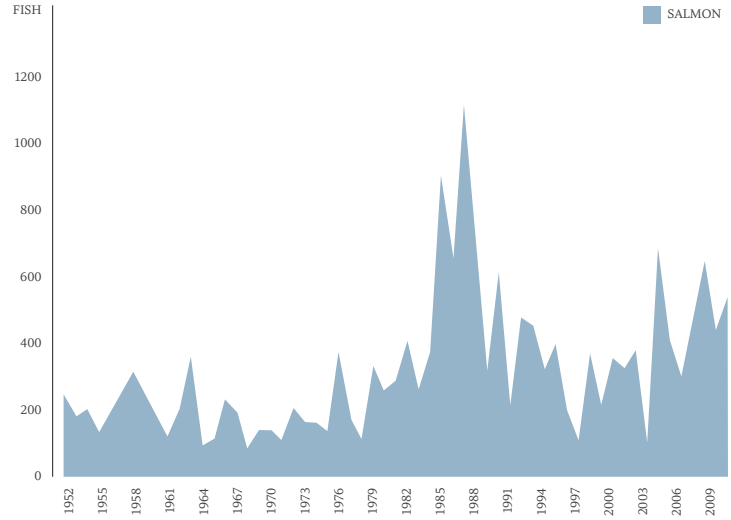
ANNAN SALMON AND SEA TROUT ROD CATCH STATISTICS 1952-2010
SOURCE - ANNAN DSFB

*Ythan

Mark Andrew - *Ythan DSFB*

Sea trout catches improved considerably after a slow start to the season, with the overall total (including finnock) amounting to around 2,200. A good proportion of these were caught in the estuarial waters and, in general, the sea trout were of good size and quality. The salmon catch was fairly typical for recent years, with around 500 fish landed, mostly towards the end of the season. Around half of these were grilse. Encouragingly, the number of fish being returned by anglers is increasing and amounted to 64% of salmon and grilse and 68% of sea trout, while all finnock are being returned.

* Recently received



YTHAN SALMON/GRILSE ROD CATCH STATISTICS 1952-2010
SOURCE - YTHAN DSFB

Fisheries management in Scotland – facts and figures

Number of District Salmon Fishery Boards	41
Total capital value of Scottish salmon fisheries	£425,000,000
Total rateable value of salmon fisheries in Scotland – 2010	£5,412,105
Funding raised by DSFBs in 2010	£3,589,128 Rods: £3,541,682 (98.7%) Nets: £47446 (1.3%)
Further project and other funding raised by DSFBs	£490,943
Total	£4,080,071
Legislation governing Boards	Salmon & Freshwater Fisheries (Consolidation) (Scotland) Act 2003 www.opsi.gov.uk/legislation/scotland/acts2003/asp_20030015_en_1 Aquaculture and Fisheries (Scotland) Act 2007 http://www.opsi.gov.uk/legislation/scotland/acts2007/asp_20070012_en_1
Number of water bailiffs trained under the ASFB/IFM SVQ accredited qualification	282
Annual value of salmon fisheries to Scottish economy (Scottish Government statement 2008)	£120m
Number of days salmon fishing per annum	545,000
Number of people employed in Scottish freshwater fisheries (FTE)	2,800
Number of Scottish charitable fisheries research trusts	25
Number of people employed by Fisheries Trusts & Foundations	Salaried – 60 (Estimated full time equivalents) Volunteers – 60 (Estimated full time equivalents)
Percentage Board areas covered by Trusts in 2010 (exc. Northern Isles)	81%
ASFB turnover 2009 RAFTS turnover 2009 (Gross Income)	£113,470 £1,099,453 (£977,421)

RAFTS funds distributed to Fisheries Trusts 2010 (2009)	£506,544 (£313,417)
ASFB office bearers and Executive Committee	President: Lord Nickson KBE Vice-President: Sir Robert Clerk Bt Chairman: Alan Williams Executive Committee: Ian Scott (Dee) Andrew Douglas-Home (Tweed) Sir Edward Mountain (Spey) David Summers (Tay) Roger Brook (Chair RAFTS) Giles Curtis (Outer Hebrides)
RAFTS board	Chairman: Roger Brook Board: Alan Williams (Chair ASFB) Brian Shaw (Ayrshire) Mark Bilsby (Dee) Roger Knight (Spey) Nick Yonge (Tweed) Mary Nicolson (Galloway) Shona Marshall (West Sutherland) Simon Scott (Outer Hebrides)
ASFB staff	Managing Director – Andrew Wallace Policy & Planning Director – Alan Wells (from January 2011)
Shared staff	Operations Director – Brian Davidson (from January 2011) Office Manager – Stephen Harris Press Officer – Andrew Graham-Stewart Legal Advisers – Fish Legal (formerly ACA) Gillespie Macandrew WS
RAFTS	Director – Callum Sinclair Project Development Manager – Chris Horrill Project Co-ordinator – Elizabeth Clements (from November 2010) FASMOP Genetics Project: - Lucy Webster (to December 2010), Mark Coulson, Anja Armstrong (part time) Mink Control Project (interim) – Sarah Atkinson, Helen Gray (part time), Lois Canham (part time to December 2010)
ASFB / RAFTS office	Capital Business Centre, CBC House, 24 Canning Street, Edinburgh EH3 8EG Tel: 0131 272 2797 Fax: 0131 272 2800 Websites: www.asfb.org.uk www.rafts.org.uk

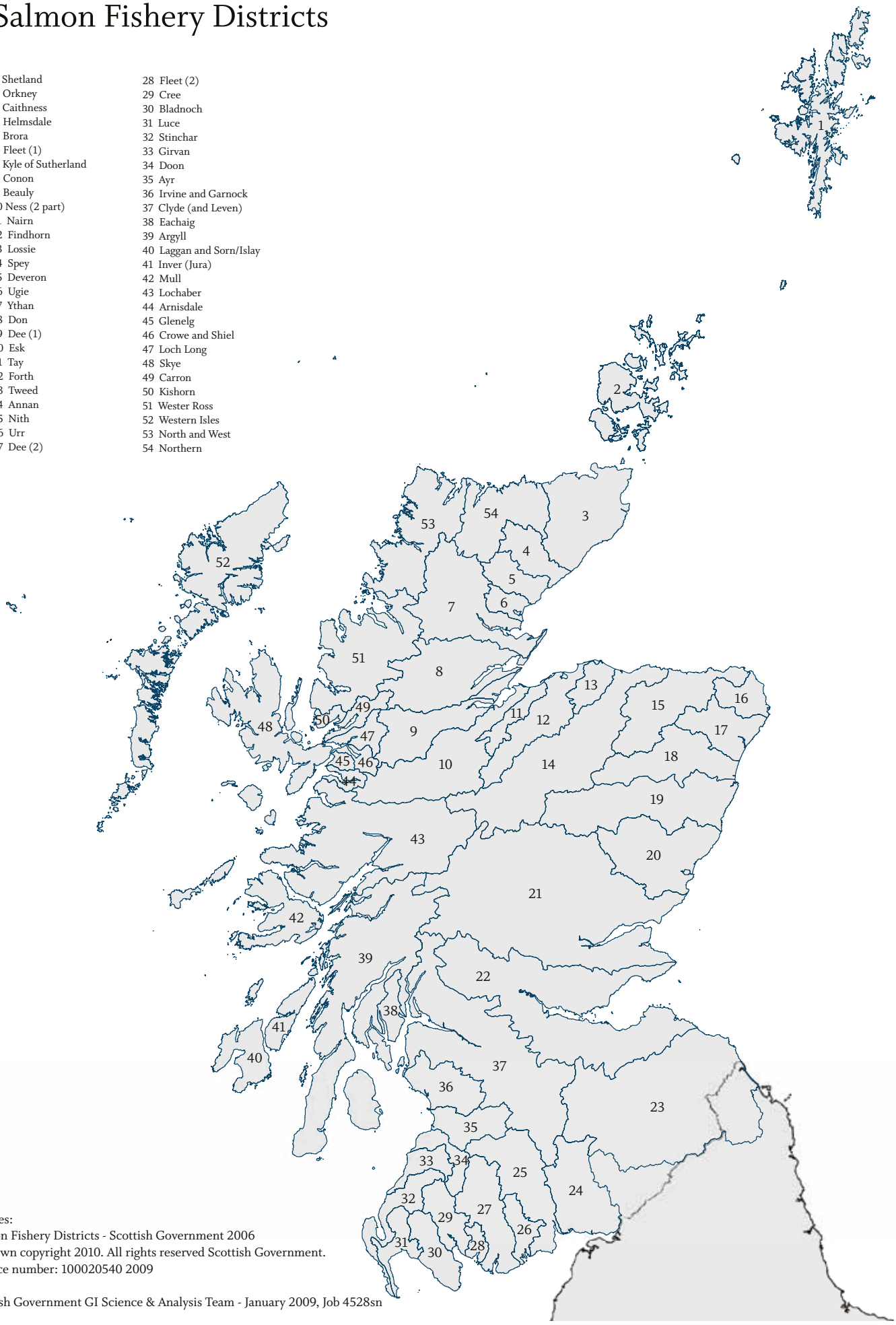
Number of salmon caught	Rods 2009	Released (67%)	Spring salmon released	Rods 2008	Released	Spring salmon released	Nets 2009	Nets 2008
	72595	48367	82%	85929	53038	78%	8206	15660

Number of sea trout caught (2009)	Rod 2009	Released (66%)	Rods 2008	Released (56%)	Nets 2009	Nets 2008
	8195	15530	17243	9631	3742	5542

Total netting effort (2009)	Fixed engine: 161.5 trap months Net & Coble: 63.5 crew months
Number of DSFB Staff	Full time: 65 Part time:95 Voluntary: 30

Salmon Fishery Districts

1 Shetland
2 Orkney
3 Caithness
4 Helmsdale
5 Brora
6 Fleet (1)
7 Kyle of Sutherland
8 Conon
9 Beauly
10 Ness (2 part)
11 Nairn
12 Findhorn
13 Lossie
14 Spey
15 Deveron
16 Ugie
17 Ythan
18 Don
19 Dee (1)
20 Esk
21 Tay
22 Forth
23 Tweed
24 Annan
25 Nith
26 Urr
27 Dee (2)
28 Fleet (2)
29 Cree
30 Bladnoch
31 Luce
32 Stinchar
33 Girvan
34 Doon
35 Ayr
36 Irvine and Garnock
37 Clyde (and Leven)
38 Eachaig
39 Argyll
40 Laggan and Sorn/Islay
41 Inver (Jura)
42 Mull
43 Lochaber
44 Arnisdale
45 Glenelg
46 Crowe and Shiel
47 Loch Long
48 Skye
49 Carron
50 Kishorn
51 Wester Ross
52 Western Isles
53 North and West
54 Northern



Sources:
Salmon Fishery Districts - Scottish Government 2006

Licence number: 100020540 2009

Scottish Government GI Science & Analysis Team - January 2009, Job 4528sn

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www.rafts.org.uk

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