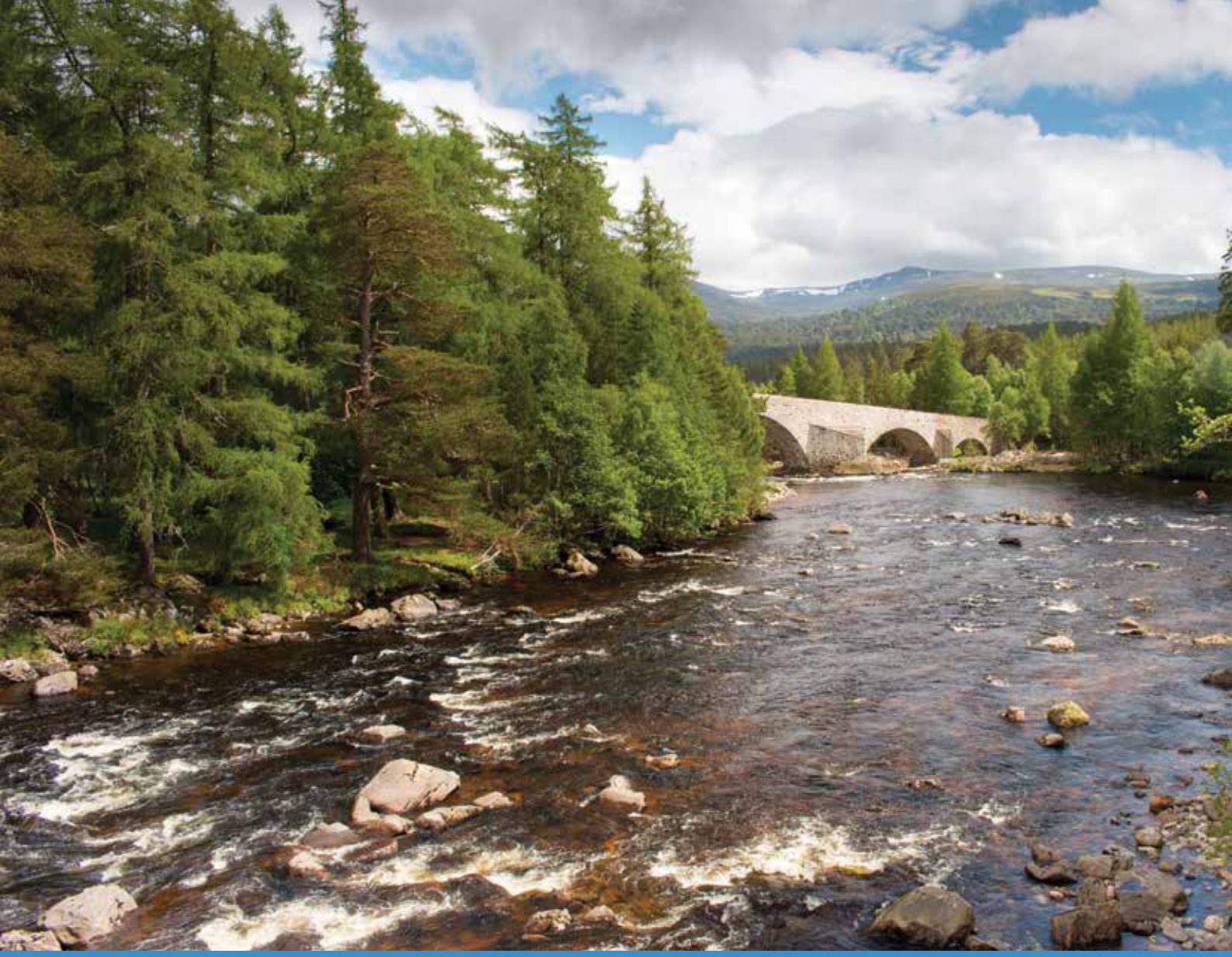

2017
ANNUAL REVIEW

Fisheries Management Scotland

STRUTT & PARKER

Contents

Fisheries Management Scotland is the representative body for Scotland's network of District Salmon Fishery Boards, the River Tweed Commission and Rivers and Fisheries Trusts and Foundations.

Our members work hard to safeguard the interests of Scotland's valuable and iconic wild freshwater fisheries, by promoting and delivering best practice in fishery management.

Conservation and sustainability are key to what we do. Effective, evidence-based management and stewardship of Scotland's wild fish stocks and their natural habitats forms a cornerstone. Our members monitor the health of our fish populations, fisheries and associated habitat and deliver actions to protect, conserve and enhance these natural resources.

Fisheries Management Scotland maintains a regular dialogue with government, agencies and other stakeholders to ensure the interests of our members and Scotland's wild freshwater fisheries are represented clearly.

Cover: Brig O'Dee. River Dee, Invercauld

Chairman's introduction

ALISTER JACK – *Chairman, Fisheries Management Scotland*

It is an honour to have been appointed as the first Chairman of Fisheries Management Scotland. I would like to thank Alasdair Laing, outgoing Chairman of ASFB and Andrew Wallace, Chairman of RAFTS, for the considerable time and energy they have devoted to the sector over the past years. They have navigated both organisations through largely uncharted territory, most recently during a particularly challenging period that has been dominated by the Scottish Government's Wild Fisheries Reform programme. Alasdair has been elected to the Fisheries Management Scotland Board, but Andrew will move on to new challenges. I wish him all the best for the future.

I would also like to welcome Alan Wells, who returns to our sector following his secondment to the Scottish Government. I am sure that his experience will be invaluable, and the greater understanding of the workings of government that he brings, so often difficult to comprehend for many stakeholders, will be of considerable benefit to our sector. Alan, alongside Brian Davidson, will face many challenges over the next few years, but I am confident that they will be equal to them.

Dr Chris Horrill will be leaving RAFTS at the end of March, when the organisation will either be formally decommissioned or put on ice. His vital contribution to the management of RAFTS over the last 3 years, during very challenging circumstances, must not go unrecorded. The orderly closure of RAFTS has only been possible as a result of an enormous amount of selfless hard work and professionalism by Chris, which the Board and members are extremely grateful for. Although not all will agree, the benefits of having fisheries management in Scotland represented by a single, professionally managed body will become clear over time, and some of the philosophy of the Fisheries Trusts network is now hardwired into the new organisation. This is a legacy which Chris, in a large part, can take the credit for. We would therefore like to thank him for his huge contribution and wish him well for the future.

Fisheries Management Scotland now shares an office with the Atlantic Salmon Trust, which this year will celebrate its 50th birthday. The two organisations share many of the same goals and I am sure we will enjoy a highly productive and mutually beneficial working relationship.

The recent announcement by Roseanna Cunningham – Cabinet Secretary for Environment, Climate Change and Land Reform – on Wild Fisheries Reform will be viewed differently across the sector. Some will see government stepping back from its original ambition as a serious missed opportunity, others will celebrate the retention of the DSFBs and the ruling out of a rod licence. As Alasdair and Andrew stated in the 2016 Review: 'It is becoming increasingly clear that, unless reliable additional funding sources can be found to augment the salmon levy, the proposed fisheries management organisation (FMO) network will be extremely hard to deliver'.

Whatever your view, it is clear that our community has, in good faith, diverted significant resources towards contributing to the reform process to date – although that time could have been spent in our key role of local fishery management – and we will endeavour to ensure that the considerable work undertaken by our sector will not be in vain. We hope that a re-focused programme of reform will prioritise those elements of the reform process that offer the greatest benefits to fisheries management and will result in a system through which local management is empowered and supported to achieve the best outcomes for fish and fisheries. Whatever the final result, Scottish Ministers are now duty-bound to unequivocally support the fisheries management system.

At the end of this review you will, as always, find information on the catches in 2016. Despite an improving spring run and a decent summer run in some rivers, of particular concern was the dramatic decline in the autumn run in many of our rivers. Whether this sees the start of a change towards runs dominated by salmon, rather than grilse, remains to be seen. However, it is increasingly clear that efforts must be redoubled to better understand and mitigate impacts in the marine environment that result in increased marine mortality.

Fisheries Management Scotland acknowledges and thanks the Fishmongers' Company for their support

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Fisheries Management Scotland

Dr ALAN WELLS – *Chief Executive, Fisheries Management Scotland*

It gives me great pleasure to be writing this article as the newly appointed Chief Executive of Fisheries Management Scotland, having returned from nearly two years on secondment to the Scottish Government.

Fisheries Management Scotland was established in November 2016 at the Annual General Meeting of the ASFB. It is now the representative body for Scotland's network of District Salmon Fishery Boards, the River Tweed Commission and Rivers and Fisheries Trusts and Foundations.

Fisheries Management Scotland is a lean organisation, with a staff complement of two: Brian Davidson (Director of Communications and Administration) and myself. 2017 is already shaping up to be very busy and the remainder of this article is intended to give a flavour of some of the activities and priorities we will pursue this year.

Priorities for 2017

As a representative body, high quality communications are vital in ensuring that we get our message across to decision makers. We have launched our new website (www.fms.scot) and are reviewing our overall communications strategy to ensure that we effectively represent Scotland's DSFBs and Fisheries Trusts.

Fisheries management is not just about managing fish, it is predominately about managing impacts, pressures and people – to ensure that the environment on which the fish depend is optimal. A key role for Fisheries Management Scotland is working in partnership with our members to ensure that the needs of our iconic fish species are recognised by decision makers and developers. We undertake much of this advocacy work directly with government and agency officials. As the representative body for Scottish fisheries management, we are uniquely placed to influence policy and speak with a unified voice for the needs of fish and fisheries.

Wild Fisheries Reform

As highlighted on page 6, the Scottish Government will take forward a programme of reform, and the intention is still to introduce a Bill to Parliament during the current session. Fisheries Management Scotland will engage with this process to ensure that the system empowers and supports local management to achieve the best possible outcomes for fish and fisheries.

North Atlantic Salmon Conservation Organisation (NASCO)

Fisheries Management Scotland have been granted observer status for NASCO and will attend the organisation's 34th Annual Meeting in Varberg, Sweden, in June 2017. There will be a theme-based special session on the risks and benefits to wild Atlantic salmon from hatchery and stocking activities, in addition to an evaluation of the 2017 Annual Progress Reports. The Annual Meeting of NASCO is a great opportunity to understand how common issues affecting Atlantic salmon across their range are being addressed in other countries.

Aquaculture

Managing interactions between salmon farms and wild migratory salmonids continues to be a challenge. Fisheries Management Scotland will establish a specific committee to inform our aquaculture policy. We will continue to push for a robust and effective regulatory framework, linked to the health and welfare of wild fish, an appropriate level of published information and an industry-wide protocol for monitoring interactions with wild fish.

In the ASFB/RAFTS Annual Review in 2014, we highlighted the potential for Aquaculture Stewardship Council (ASC) accreditation to make a positive contribution to managing aquaculture interactions. Marine Harvest now have two salmon farms accredited on the west coast and we will continue to monitor progress with interest. Fisheries Management Scotland are committed to engaging with Scottish Government and the aquaculture industry with a view to making meaningful progress. Without such engagement, we do not believe that such progress will be realised.

Beaver reintroduction

November 2016 saw the Environment Secretary announce that she is minded to allow beavers to remain in Scotland. We have now met with government and SNH and we focused on the importance of a robust beaver management plan. In many cases, it will be possible to remove or notch dams without requiring a licence. This is vital as the beaver-salmon working group was clear that dams associated with culverts and fish passes would need swift action. Fisheries staff are well placed to spot signs of beaver activity outside the natural range of the current populations and detect further illegal releases. We await further clarity on the status of any future illegal releases and, crucially, how any management undertaken by the fisheries sector will be resourced.

National bailiff coordination

Fisheries Management Scotland will continue to co-ordinate bailiff training and development in partnership with the Institute of Fisheries Management. In addition to the Annual Bailiff Seminar and examinations we will take forward a number of new training modules to ensure that our highly professional network of enforcement officers continues to demonstrate high standards of competence, and is able to access new skills and expertise as appropriate. These will be developed in partnership with the bailiff network through the Regulatory Enforcement Working Group. The group is also assisting Marine Scotland with a review of offences for consideration in new legislation.

Fisheries Management Scotland will continue to issue standardised and secure bailiff warrant cards for all bailiffs appointed by DSFBs and we are pleased that bailiffs appointed by Scottish Government now also receive these cards. In 2016 we (as ASFB) were invited to join the Partnership for Action Against Wildlife Crime (PAW) Scotland, having contributed to the poaching sub-group for several years.

Project development

Fisheries Management Scotland does not have the capacity to develop and deliver large collaborative projects on behalf of our members. However, we will explore alternative mechanisms that support our members' efforts to develop collaborative projects and help ensure the most appropriate route to deliver them.


ASFB & RAFTS: 2016 reviewed

BRIAN DAVIDSON – *Director of Communications and Administration, Fisheries Management Scotland*
DR CHRIS HORRILL – *Director, RAFTS*

2016 was a year of change and challenges. Considerable energy was focused on representing members' views and influencing the wild fisheries reform (WFR) process, as well as working through some significant change-management issues to restructure and strengthen the representative roles of ASFB and RAFTS for the future. Both organisations also achieved notable progress in a number of key areas and delivered some exciting and progressive projects.

Wild fisheries reform

A sizeable chunk of the ASFB/RAFTS resource was directed towards WFR during 2016. The first quarter was dominated by the members' response to the consultation on the proposed Wild Fisheries (Scotland) Bill, and associated strategy, which was launched in February 2016. A detailed written response was submitted in May 2016, following extensive consultation with the DSFB and Trust network. Significant time and energy was committed to this process through the Joint Working Group and local meetings with members. Further information on wild fisheries reform is on page 8.

Enforcement & training

The engagement of the bailiff network in Scotland has improved dramatically in recent years. Better communication and more direct involvement between the local bailiff network and ASFB has created a productive and positive environment for discussion, new activity and training. The Bailiff Development Group and the creative input of its members has re-energised fisheries enforcement in Scotland.

Important actions included co-ordination and delivery of the Annual Bailiff's Seminar with the Nith DSFB in March 2016 and various courses and events. The seminar included a session with Police Scotland on joint working and practical scenario-based training. Training on aspects of legal and illegal net operation, and management of evidence and exhibits was delivered in 2016. These events generated excellent feedback and further practical training will be developed in future.

Barrier easement works in progress on the Lanarkshire Avon.

Two bailiff examinations were held in 2016, and 30 candidates attended. A revised bailiff notebook was produced, together with guidance on legislation. Facilitation of further enforcement-related work, particularly training, will be a priority for Fisheries Management Scotland in 2017, and a number of modules are already being planned for delivery.

Projects and project development

Completion of barrier projects featured prominently, with two major barriers on the Avon Water, in South Lanarkshire, eased via rock ramps/fish passes. It is estimated that these works will have made almost 200km of habitat accessible to migratory fish. A further two barriers were also removed – the Creamery Weir in Dumfries & Galloway and Morsgail in the Western Isles.

The Almond catchment barriers present a significant project and RAFTS completed all pre-works actions for 5 out of 7 weirs in 2016. Work on the other two barriers is being completed with River Forth Fisheries Trust in 2017. The works phases will be delivered through a new project called Riverlife: Almond and Avon, which is described in greater detail on pages 10-11 of this review.

The Pearls in Peril (PiP) LIFE Project also delivered a number of physical works during the year. This included riverbank repair, restoration and re-naturalisation works at a number of sites, including the Spey, Dee, South Esk and Naver. The South Esk restoration work, which involved the removal of a total of 875m of boulder bank protection, and re-connection of three historic channels, was shortlisted for the Saltire Society Civil Engineering Award.

Further project programmes were completed by RAFTS and members on several other projects including strategic invasive non-native plant control; occurrence of pearl mussel glochidia on salmonids on the west coast; and Rivers and Lochs in the Classroom.

RAFTS also continued to work on formulating a Stage 2 bid to the Heritage Lottery Fund (HLF) for the Scottish Invasive Species Initiative. Work on this project has been complicated by a combination of spending reviews and the potential impacts of WFR. However, we expect the bid to be submitted in June 2017 and have agreed the transfer of project lead from RAFTS to SNH with both HLF and SNH.

Staff

A number of RAFTS staff moved on during the year. Rob Mitchell, the RAFTS Project Co-ordinator, took up a new position with SEPA. Rob was instrumental in delivering the portfolio of RAFTS barrier projects; we look forward to working with him in his new role in SEPA. Meryl Norris, the RAFTS Scottish Invasives Species Project Officer and Linda Kelly, the RAFTS Administrator, made a significant contribution in terms of project development and organisational management. The Pearls in Peril team – Lorna Wilkie, Flora Grigor-Taylor and Steff Ferguson – have all taken up new positions elsewhere, and we wish all those who made RAFTS a success the very best for the future.

Conservation limits: the biologist's perspective

BRIAN SHAW – *Senior Biologist, Spey Fishery Board*

The introduction of the conservation limits approach in November 2015 took most, including myself, by surprise. As a replacement for the ill-conceived kill licence proposals they were welcomed as long overdue by many, and as an unnecessary intrusion by others; clearly it was going to be difficult to please everyone.

The imposition and development of conservation limits brought to the fore three major issues – data, liaison and communication.

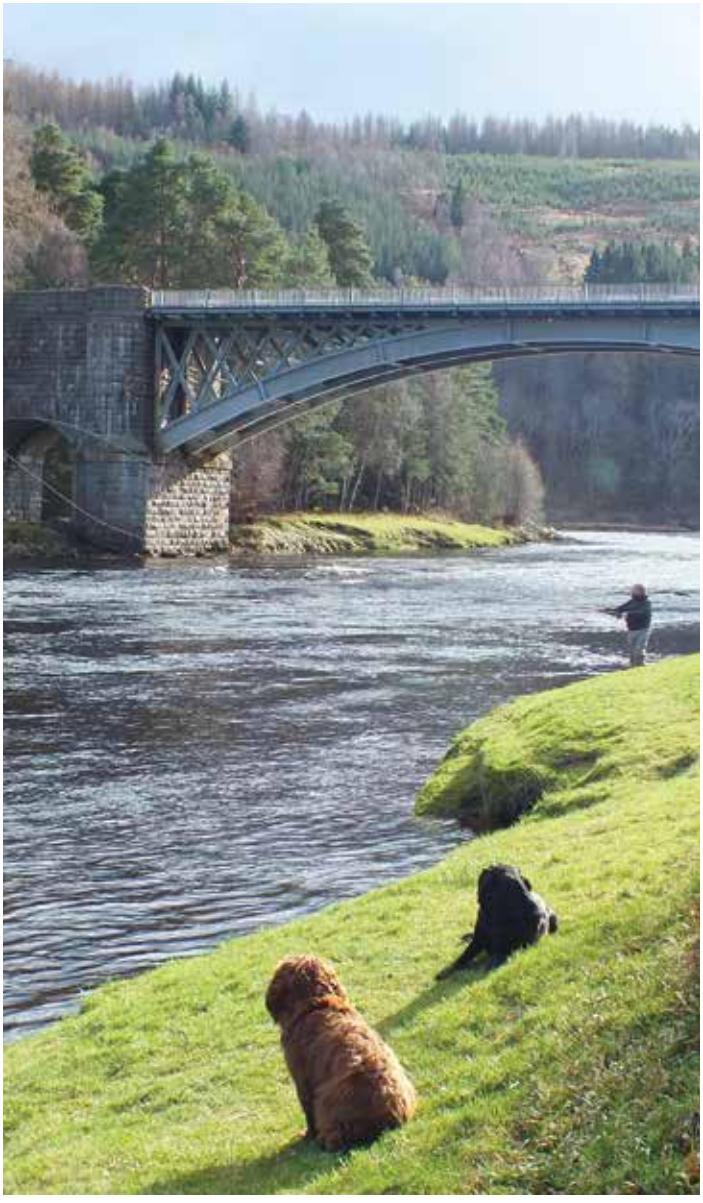
The initial paper published by Marine Scotland Science (MSS) to support the conservation limits consultation was littered with comments such as 'little information on variation', 'little direct evidence' and 'few accurate datasets' – a surprising state of affairs considering the significance of the Scottish salmon resource. After the initial scan to see where the Spey featured in the assessment we started to look more closely at the model. The model was basically an equation, and two factors that stuck out immediately on the Spey were 'wetted area' (essentially the surface area of the river) and 'grilse error', which refers to one sea winter grilse being mistakenly classed as salmon. The grilse error factor used in the model was based on data from the Spey in the late 80s and 90s, the heyday of the grilse. In recent years it is more likely that a small multi sea winter fish will be registered as a grilse than as a salmon, such has been the change in growth at sea. Even wetted area, a relatively straightforward matter surely, became an issue, as the figure used by MSS for the Spey was 26% greater than our in-house estimates.

This brings us onto the second issue – liaison. Joint working between local biologists in the Trusts and Boards and MSS in the centre had always been patchy; very strong and long established in a few areas and virtually non-existent in others. With the new fishery management structures proposed at the time, there was clearly a need for greater cohesion across the sector. One of the first steps was to establish the Marine Scotland & Local Biologist Liaison Group (MSLBLG), now thankfully shortened to the Salmon Liaison Group. A number of technical working groups were subsequently established, addressing elements of the model such as exploitation rates, grilse error and fish counters. The grilse error group, chaired by Gordon Smith (MSS), was able to work effectively across the sector, collating scale data culminating in the publication of a paper modelling the age structure of returning fish by region, month and year. Liaison and coordination across the sector has improved greatly and local biologists have utilised the increasingly direct lines of communication with the Scottish Government.

The last, and probably most important, issue is communication. Lines such as 'The upper whisker extends from the hinge to the highest value that is within 1.5 * IQR of the hinge, where IQR is the inter-quartile range, or distance between the first and third quartiles…' belong in scientific journals, not in public-facing documents. The publication of the estimated stock levels for each area in the 2017 assessment was a new development; not surprisingly most readers focused on the black line in the middle of the abundance graphs, ignoring the IQR! Publication of the stock level predictions in such a manner was controversial but, ultimately, it was an important step that will drive refinements to the model. In order to try and promote better understanding, a number of local biologists have been asked to produce the text to accompany the next assessment; hopefully it will be more accessible in future.

Developing a model (and it has to be a model due to the relative lack of river-specific data) to generate conservation limits for all salmon rivers in Scotland is a daunting task. It is important to say that the local biologists greatly appreciate the huge amount of work undertaken, by relatively few individuals within MSS, to take the process to this point. It has been a monumental piece of work, and ambitious; the desire to develop the process to a higher level is clear.

The process is not standing still. Scotland is an incredibly diverse country, with salmon present throughout, and this year a new working group will tackle the issue of egg deposition targets – an important step from the default value currently applied to all rivers. I have been tasked to set up a working group to define wetted areas, and other refinements are in the pipeline. It has been an interesting last couple of years and the process is not over yet. Wild Fisheries Reform may largely have come to an end, but the work on conservation limits will continue.



A fisher at Laggan, below Carron Bridge. Image: Brian Shaw.

Conservation regulations for salmon

STUART MIDDLEMAS, GORDON SMITH, JOHN ARMSTRONG AND KERRIE CAMPBELL – Marine Scotland

The Scottish Government has the responsibility to balance the conservation of Atlantic salmon with national and international commitments in relation to economic growth, environmental conservation and the development of green energy. A management system was therefore needed that meets these requirements while complying with the EU Habitats Directive and recommendations of NASCO[1]. The Thin review[2] of freshwater fisheries management recommended the introduction of a salmon kill licence at the earliest opportunity. Following detailed consultations, a 3-grade river categorisation was developed rather than specifying a 'bag limit'. A suitable approach for applying these measures has been established through a series of consultations, drawing widely on views and data from across the freshwater fisheries sector, including through the Salmon Liaison Group[3], which was formed to facilitate such interactions. This process applies a relatively light touch national regulation and prohibits deliberate killing of salmon by fisheries only in areas of low stock strength. However, local managers and anglers are welcome to apply their own limits on killing in other cases, if they feel that precaution is justified. Indeed, catch-and-release of salmon is widely practiced on a voluntary basis in Scotland.

Science

The underlying process of categorising rivers uses the best available scientific information and draws on modelling procedures developed internationally through ICES[4]. An assessment is made of whether sufficient salmon are likely to have entered a river in a given year to spawn enough eggs to exceed a predetermined target. First, the critical number of salmon eggs to achieve the target (usually expressed in terms of eggs per unit area) is estimated. This target is established from statistics obtained from all available stock-recruitment relationships for rivers at the same latitude as Scotland and information on the areas used by salmon. The second component is an estimation of the actual number of eggs produced by salmon. This uses information on rod catch, counts (and the relationship between these two parameters to estimate adult numbers), sex ratios and fish size, which itself affects the number of eggs per fish. The process is described in detail elsewhere[5].

There is a long history of fisheries management and science in Scotland at local and national levels providing a body of evidence to establish estimates for each of the components ('parameters') in calculations of conservation grade. Sources of data are listed in Table 1. These data are combined in a process termed Monte Carlo simulation, which integrates ranges of each parameter. The output of the process is not an absolute number but a probability distribution, reflecting the uncertainty and variation for each parameter.

Grading

Rivers in which the spawning target has less than 60% chance of being achieved are given grade 3 categorisation and subject to a ban on killing. When the spawning target has a 60% to 80% chance of being achieved, grade 2 is allocated and killing may continue if measures are put in place locally to increase status. Rivers and stocks with higher conservation status are grade 1 and killing may occur subject to local control.

Future developments

The modelling process will be further refined by the inclusion of additional information, for example, data on regional variations in parameters. There are two key priority areas for improvement. At present egg targets are derived as a median (near the average) value from the available stock-recruitment curves. Additional data and analysis may allow targets to be tuned to specific types of river. Secondly, introduction of more strategically located salmon counters will improve estimates of numbers of returning salmon. Additional methods, such as snorkel surveys, may be developed and validated as estimators of salmon numbers on some rivers. Furthermore, direct measurement of exploitation rates by marking of salmon in lower river fisheries and monitoring their subsequent recapture might improve precision of estimates of salmon numbers.

Work is underway to determine the feasibility of using assessments of numbers of juvenile salmon as a second estimator of stock status[6]. This approach will inevitably include uncertainties but would allow greater use of data in assessing conservation status.

Fig. 1. Integration of parameters to determine attainment of conservation targets

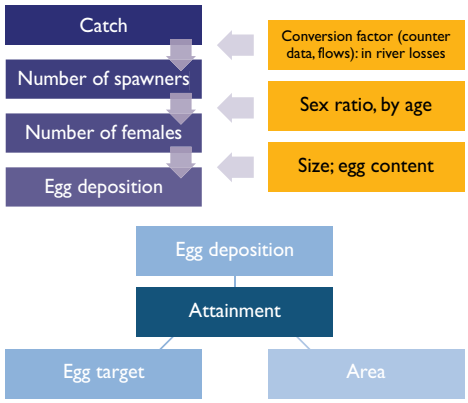


Table 1. Information sources for conservation regulations gradings

DATA	SOURCE
Catch data	Individual fisheries via Marine Scotland Science
Counter data	Marine Scotland Science, Scottish Power and Scottish and Southern Electricity.
Flow	SEPA
In-river losses	from Webb 1998 and Milner et al. 2000.
Sex ratio	Marine Scotland Science.
Ages and sizes of adult salmon	MSS, plus Galloway, Kyle of Sutherland, Ness and Dee, Naver, Spey, Tweed and West Sutherland Fisheries Trusts and Foundations.
Egg content	Cromarty Firth Fisheries Trust; Marine Scotland Science; Spey Foundation; Tweed Foundation and University of Glasgow.
Egg target	from Crozier et al. 2003.
Salmon distribution (Area)	Argyll, Ayrshire, Galloway, Kyle, Lochaber; Ness & Beauly, Nith, Outer Hebrides, Annan, Dee, Spey, Esks, Tweed, West Sutherland and Wester Ross Fisheries Trusts and Foundations.

[1] North Atlantic Salmon Conservation Organisation
[2] http://www.gov.scot/Topics/marine/Salmon-Trout-Coarse/fishreview/WFRFinal
[3] http://www.gov.scot/Topics/marine/Salmon-Trout-Coarse/fishreform/licence/MSBiologist
[4] International Council for the Exploration of the Seas
[5] http://www.gov.scot/Topics/marine/Salmon-Trout-Coarse/fishreform/licence/status/limits
[6] http://www.gov.scot/Topics/marine/Publications/stats/Science/SMFS/2016/0730

Wild fisheries reform – where now?

Dr ALAN WELLS – *Chief Executive, Fisheries Management Scotland*

This time last year the fisheries management sector was in the process of considering the Scottish Government's proposals for wild fisheries reform. The Scottish Government had reaffirmed their commitment to modernise our fishery management structures and to establish the foundations of a more secure and sustainable future for our sector. However, the situation has changed quite markedly since last year – more on this below.

It is worth remembering that the wild fisheries reform programme was initiated back in 2011. Since then, we have contributed to the Aquaculture and Fisheries (Scotland) Bill in 2013, the independent Wild Fisheries Review in 2014, two major consultations in 2015 and 2016 and individuals from across our sector have participated in formal stakeholder meetings across the country, informed by thinking developed through the ASFB and RAFTS Joint Working Group. In addition, countless meetings have taken place at a local level, and our member DSFBs and Trusts have often been on the front line of explaining the proposals to anglers and other interested stakeholders. Further information on the reform programme to date can be viewed on our website.[1]

Fisheries Management Scotland and our members played a key role in the formal process of reform. In addition to the Stakeholder Reference Group, which was established in 2015 to advise the Scottish Government, five working groups were established in 2016 to provide further expert input to key subject areas: Regulatory Enforcement; Change Management and Transitional Arrangements; Training and Continuing Professional Development; Fisheries Management Planning Template; and Promotion and Development. Fisheries Management Scotland are represented on all of these advisory groups.[2]

Scottish Government announcement

On 3rd February 2017, the Scottish Government announced that the ambition of wild fisheries reform would be far less than previously anticipated. Proposals for anglers to make a direct financial contribution to management, and to broaden the levy to freshwater fisheries will not be taken forward, and the proposed Fisheries Management Organisations, and the associated duties to deliver all-species management, will not now materialise. Finally, the proposal to make fishing for, taking or killing freshwater fish (other than salmon and sea trout) without legal right or written permission a criminal offence, will not be taken forward.

However, we understand that the Scottish Government will take forward a new Bill which will replace the existing legislation. The National Strategy and local Fishery Management Plans will remain a key element of the proposed changes. While it will not be mandatory for local management to deliver an all-species remit or to promote angling, it remains an aspiration to move the promotion and development proposals forward. The Scottish Government will encourage and help to facilitate voluntary DSFB and possibly Fisheries Trust mergers, and existing legislative provisions which may act to inhibit this will be reviewed. Finally, the Scottish Government has indicated that they will examine proposals for conservation measures for freshwater species, particularly brown trout and pike.

At the time of writing, we are just beginning to understand the range of views across our sector. We represent a diverse community, with diverse views. Some are comfortable with this outcome and would argue it indicates that the current system remains largely fit for purpose. Others are incredibly disappointed and consider this to have been a huge missed opportunity. Perhaps the most frustrating aspect of this announcement is the fact that funding a reformed system of fisheries management remains the crucial barrier to progress. We have consistently highlighted that the current fisheries management system is underfunded, and provision of a stable source of core funding is a crucial element of the reform process. We will continue to emphasise that it is not reasonable to place additional burdens on current management structures without providing financial support. The identification of new and stable funding for the system – from both public sources and innovative partnerships with industry – will be key, if substantive reform and change is to be delivered across Scotland.

Many within the fisheries management sector were also very disappointed that the announcement appeared to place more value on the views of anglers than on the views of managers. The 2016 consultation did not pose a specific question about a rod licence – indeed the document made clear that additional means of funding the system would be explored further through an online dialogue approach. Such an approach would have allowed the potential benefits to anglers of additional funding to be fully explored (for example, many anglers have expressed the desire to see more protection of stocks, and all seem to recognise that participation has been on a downward trend for some years). It is therefore very disappointing that a potentially significant source of income has been discounted without fully scrutinising the potential benefits of such an approach.

The regulatory enforcement working group expressed the unanimous view that fishing without right or legal permission should be made a criminal offence for all species, and viewed this as an essential mechanism for protecting fisheries. We do not accept that this is about criminalising individuals, but rather it is about ensuring that the enforcement of fisheries law is consistent and understandable. It would also have provided water bailiffs with an important tool to protect both freshwater fish and salmon and sea trout. Such a system has worked well in the Solway for decades. We accept that there is a need to provide better information as to where written permission can be obtained and to ensure that access to fishing opportunities should be maintained and enhanced. Indeed, that would have been a key role of fishery development officers employed by the proposed Fishery Management Organisations. We understand that a number of angling clubs are now interested in applying for Protection Orders, in order that they can adequately protect the fisheries that the future survival of those clubs rely on.

[1] http://www.fms.scot/wild-fisheries-reform/
[2] More information at: http://www.gov.scot/Topics/marine/Salmon-Trout-Coarse/fishreform/groups

These are vital elements of the reform process which should not have been discounted without further consideration.

It is important to emphasise that our sector has diverted significant resources towards contributing to the reform process to date. The Stakeholder Reference Group, and the five specific working groups, have all benefited from significant input and investment of time from across our community. This also represents a significant opportunity cost, as that time was diverted from other activities. It is also worth noting that the fact that the Wild Fisheries Reform process was in progress has resulted in funding opportunities being lost, particularly for Fisheries Trusts. Some key funding bodies have been reluctant to fund projects due to uncertainty as to whether the project partners would still be in existence to deliver the desired outcomes.

The future of wild fisheries reform

Significant elements of the wild fisheries reform programme do not need legislation to take forward. Good progress has been made on regulatory enforcement, training and fishery management planning and we retain an ambition to ensure that Scotland maintains and builds upon its world class fisheries. Much of this work can be progressed further without legislation and the need to encourage and develop participation in angling for all ages should be evident to all. The current decline in angling participation is not inevitable – other countries have addressed this issue, and we can too. We hope that the working groups will continue, but with a focus on identifying funding streams to realise the ambition to date.

Too often in the past the current system of fisheries management has received only grudging support and the important role of DSFBs and Fisheries Trusts in protecting fish and fisheries and the habitats on which they depend has been undermined. We consider that local fisheries management, if properly empowered, trusted and supported by government and agencies, can deliver huge benefits to Scotland.

Fisheries Management Scotland, and our members, are committed to working constructively with the Scottish Government to ensure that we achieve the best outcomes for fish and fisheries from this process. We will work to ensure that the refocused programme of reform considers the progress made to date, and prioritises those elements of the reform process that offer the greatest benefits to fisheries management. Crucially, the resulting modernised local management system must be fully supported to achieve our ambition of delivering the best outcomes for fish and fisheries, including addressing the wide range of pressures currently impacting fish stocks. If we can achieve those outcomes, wild fisheries reform might justifiably be judged as a success.

RiverLife: connecting wildlife and communities to their rivers

ALISON BAKER – *Forth Fisheries Trust*

The condition of the environment in which freshwater fish spend various stages of their lives is critical to the protection of all parts of the lifecycle of fish species.

The River Forth Fisheries Trust considers that it can best meet its primary objective of conserving and enhancing freshwater fish and their environments within the catchment by ensuring that the river habitats and associated ecosystems are in the best possible condition they can be. Many of the rivers of the Forth District are within the Central Belt – the industrial zone of Scotland, where shale oil mining, mills and other industries have left a legacy which continues to affect the health of the rivers and their ecosystems today. Damage to the rivers caused by human intervention over 300 years includes constructing barriers to fish passage, straightening channels, dredging and loss of riparian and in-stream habitat. With approximately 25% of Scotland's population living in the Forth District, pressures on the rivers continue today, primarily from housing and infrastructure development. So how does the River Forth Fisheries Trust propose to address these issues and begin to improve the quality of the fishery throughout the District?

An obvious, but often forgotten, point in the world of fisheries management is that we cannot manage the fishery without managing the river, we cannot manage the river without managing the land and we cannot manage the land without active interaction with the people who use the land. This approach is at the heart of a new project being undertaken by the Trust, called RiverLife: Almond and Avon. At first, the vision of the RiverLife Project – to reconnect wildlife and communities to their local rivers – may seem a world away from fisheries management and have little to do with enabling the Trust to conserve and enhance freshwater fish and their environments. However, it is increasingly evident that this approach is required to ensure the long term sustainable management of our rivers and their associated fisheries.

Funded by the Scottish Government, the Scottish Environment Protection Agency (SEPA) and the Heritage Lottery Fund, RiverLife: Almond and Avon is a £6.7 million project running from 2016-2020. Working in collaboration with the two main Local Authorities – City of Edinburgh and West Lothian – the project will undertake improvements to the Almond and Avon Rivers in the Lothians to reduce the impacts of historic pressures on the rivers and raise awareness of the richness of the rivers and their importance to the local communities. While firmly based on the need to improve the environment for freshwater fish, the project will provide the basis for a better understanding of the interlinks between all wildlife living on, and in, our rivers and also how the river can interact positively with those living near it.

As part of the RiverLife project, major engineering works will be undertaken to seven weirs on the River Almond, which together have a cumulative effect on the ability of fish to migrate up and down the river. This includes not only the anadromous fish such as Atlantic salmon and sea trout, but also eel and lamprey and brown trout migrating within the river system. The works will open up 234km of additional habitat and provide the basis for a sustainable fishery for the future. In conjunction with this, habitat improvements will be undertaken on tributaries and monitoring systems will be put in place to show the improvements made. Counters will be installed in the lowest and highest fish passes to monitor adult returning fish and to undertake smolt counts.

A major engineering project is also planned for the Bathgate Water, a tributary of the River Avon which runs through the town of Bathgate – once the centre of a brickwork and chemical industry. The river has been 'lost' in historic and current urban development and downgraded due to straightening and over-widening. The Bathgate Water currently has no invertebrates or fish life and, with no flow, resembles a ditch more than a river. It is, however, an important tributary of the River Avon and part of the plan to provide additional areas of habitat for fish in the catchment. Major restoration works are planned for the Bathgate Water, which will create a more sinuous and natural channel by restoring channel morphology. Ultimately the intention is that the works will re-naturalise in-channel physical processes and habitats, allowing life to return to the Bathgate Water.

Further up the Avon catchment the project will work with landowners to look at solutions to improve in-stream conditions with woody debris and re-profiling of banks to address sections of dredging, deepening and over-widening, as well as working to address concerns of land drainage issues and flooding. This part of the Avon annually has spawning migratory salmon as well as resident brown trout and the proposed work will provide additional habitat. It is hoped that the work will act as a demonstration site and that other landowners will see the dual benefits of the land management practices demonstrated by the project for both themselves and the wildlife.

Alongside the capital works, a crucial goal of the project is to reconnect the communities to their local river. By re-establishing this connection, the intention is that the project will secure ongoing stewardship of the rivers, ensuring a sustainable management solution for the river and the riparian corridor beyond the life of the project. Training is a key aspect of RiverLife and it is hoped that by offering training opportunities in, for example, electrofishing, invasive non-native species management and pollution monitoring, communities will be empowered to take an active role in looking after their local river. The Community Engagement Officer and Volunteer Coordinator are a key part of the RiverLife team and they will work with a wide range of groups and individuals who traditionally have not engaged with their river. From pop-up exhibitions, to river trails and work with local schools there will be a wide range of events and activities to help engage with the local communities. The engagement not only includes support for the practical application of improvement, but also training and support for local groups to help them continue with the management of the rivers once the projects are finished. This includes governance/committee running as well as media/PR and funding support and training and has already started with a small grants scheme to help both existing and new groups.

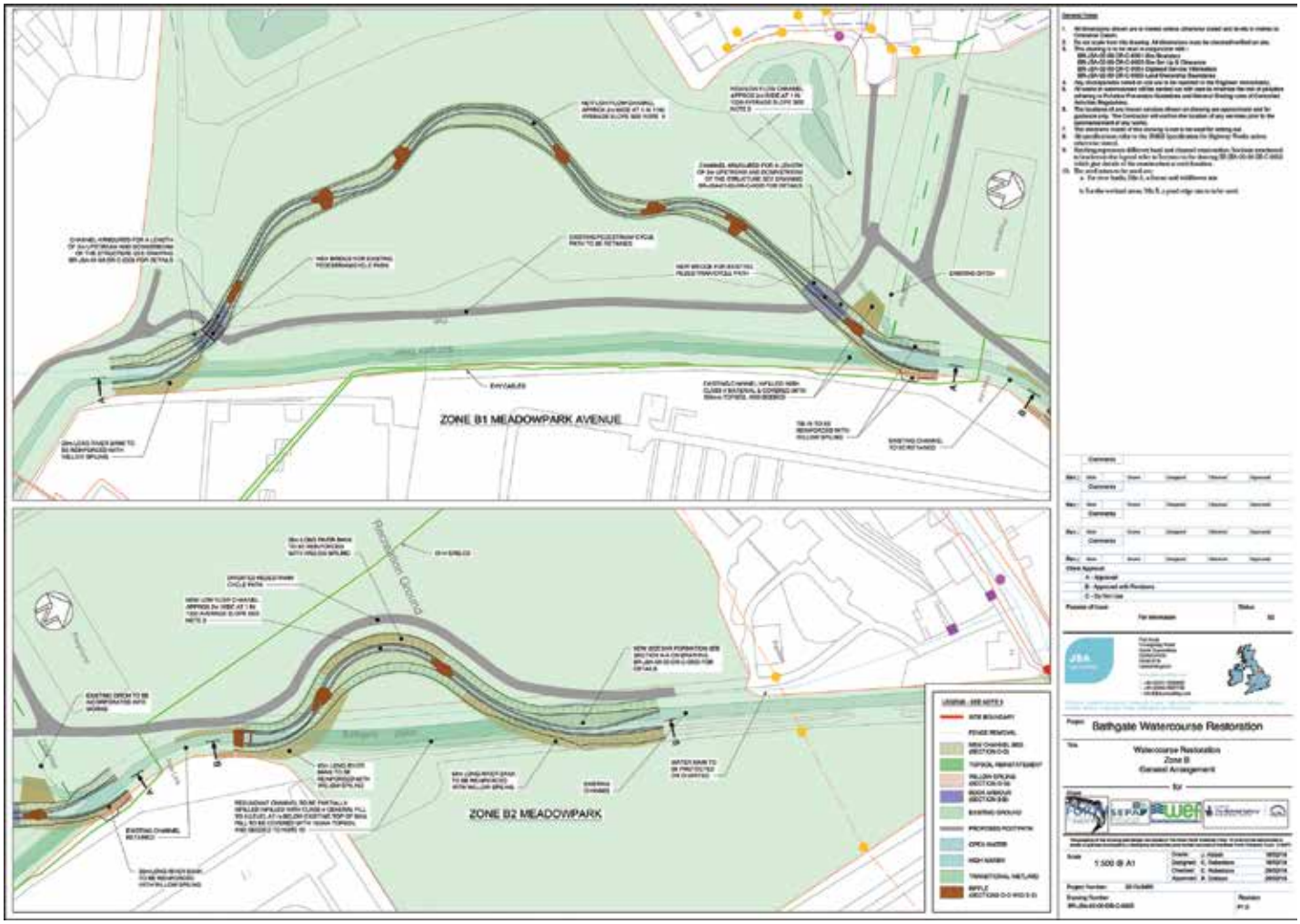
RiverLife is a step-change for the Trust. At a time when the only 'core' funding for fisheries management comes from the salmon fishing levy, it is key in areas where salmon fishing is not necessarily the most economically dominant type of fishery, that a wider view of fisheries management is taken. The project is fully funded from sources which, while having an interest in the improvement of the rivers (for compliance with Water Framework Directive requirements, for example), do not have an interest in operational fisheries management and are not traditional funders of fisheries management in its narrowest sense. The project has provided the ability to work more closely with all those that will benefit from the work (and not just anglers) and has allowed for an approach which has wider benefits and acknowledges that fisheries management cannot just exist as a standalone management operation but is reliant on a wide range of factors and interests for it to succeed.

Critically for the management of the Forth Fishery, it will provide a platform for sustainable improvements and ongoing management, which is funded separately from the salmon levy, which is not sufficient to allow the Forth District Salmon Fishery Board to undertake improvements across the District to a level it would wish. The work to the two catchments will improve not only the salmon fisheries of both rivers but also the brown trout fishing and will support the other fish species such as lamprey and eels, which have little economic value. The improvements to these fisheries will have only minimal economic benefit to the District's 'economic value' but the process of engagement will ensure that the rivers on which these fisheries operate will have a high social and recreational value, benefitting a wider range of users and communities.

Through the RiverLife Project, fisheries management is part of an integrated project which will be delivered in collaboration a wide range of stakeholders. This approach will allow the River Forth Fisheries Trust and its partners to all achieve a variety of objectives, both local and national, to improve the condition of the rivers and fisheries on the two rivers. It will put in place a sustainable solution for the future management and wellbeing of the rivers of the Almond and Avon Catchments which ultimately will ensure freshwater fish and their environments are conserved and enhanced.

The Bathgate Water – currently not only a sterile environment for wildlife but cut off and unattractive to the people of Bathgate, presenting an opportunity to reconnect both people and wildlife.

Fair-a-Far Weir at Cramond, Edinburgh – a barrier to fish passage, a well-loved landmark and a historical structure. All need to be balanced when considering works.



Bathgate Water – a vision and opportunity for improvements to both the ecology and providing a more attractive space that the local community want to manage for the future.

What has happened to the autumn run?

DR DAVID SUMMERS – *River Director, Tay DSFB*

As mentioned several times throughout this review, there is now a widespread concern about the autumn run on many Scottish rivers. While this article focuses on the situation on the Tay, a poor autumn appears to have affected all rivers that normally experience true autumn runs. However, while clearly alarming, such an event is not a complete surprise – a similar situation has existed at least once in the past.

While the spring of 2016 was again encouraging on the Tay, the autumn was one of disappointment. Figure 1, which shows the reported salmon catch on the lower Tay in the period between 1 September and 15 October for every year since 1986, puts this into perspective – with 2016 being the poorest autumn in the 21-year series. However, because most of the fish caught last autumn were coloured, and silver fish were lacking, even these figures may downplay the duality of the season.

Figure 2 presents Tay District rod catches for the months of August, September and October – from 1952, when the government started collecting such statistics, until 2016. Autumn catches were much lower in the 1950s. Of course, angling effort on many Tay beats may have been lower, and there were also big net fisheries operating in the estuary and along the coast. 2016 was the first year when there were no such fisheries operating at all.

The lack of fresh autumn fish in the 1950s was also a national phenomenon. In 1956, GPR Balfour-Kinnear wrote in *Trout & Salmon:* 'the Spey does not have any appreciable autumn run, and the autumn runs on the Tay and the Dee are also negligible...these rivers are not… worth fishing after the summer'. But, in the late 1970s, John Ashley-Cooper wrote of the Tay, that the 'autumn run, or perhaps the late summer run would be a truer designation, has increased beyond all recognition during the past twenty years. At any time from mid-August onwards the lower river starts to stock up with fish…By mid-September their number runs into thousands, and this increase continues up to the end of the season'. Of the Tweed, he said it still had 'the genuine autumn run, so much renowned in our grandfathers' days...the autumn fish, approaching extinction as they were in the 1940s, have been steadily increasing in numbers over the past twenty years'.

That autumn fish actually declined in the early 20th century, before recovering decades later, is confirmed by both catch data and commentators. Richard Waddington stated in 1947 that 'autumn fishing proper, for fish that have run into the river during September and October, is virtually non-existent in the rivers of the north-east of Scotland today. In the Dee and the Spey even the odd autumn fish is a rarity now. In the Don there is still a very small run, a mere shadow of its former self'.

Catch data from the Stobhall and Taymount beats go back to the 1920s and 1930s. While not quite long enough to go back to the better days of autumn fishing, they do confirm low autumn catches in the few decades before government statistics started in 1952. However, the average fish caught in September on Stobhall in the 1930s weighed 18lb. Average weights fell progressively thereafter, dropping to a mere 9.3lb in the early 2000s. In the early part of that period, most of the fish caught in the late autumn – which may well have been coloured – were larger 'salmon', with relatively few grilse. The proportion of grilse increased over time, and they became the majority by the 1970s – although many of these large, late grilse would have been thought of as 'salmon' by anglers.

This previous period of autumn grilse scarcity occurred approximately from the 1920s to the 1950s. However, when grilse recovered strongly in the 1960s, it was in August that the strongest runs occurred initially, becoming progressively later through the 1970s into the 1980s. But, when there was that lack of later running fish, spring salmon were at their most abundant, not just on the Tay, but elsewhere too. So, what was going on then? Are we now witnessing something similar?

There is obviously a limit to what relevant information is available from that period. But what can be said is that the period from approximately the 1920s to the 1940s/50s was a period when sea temperatures increased across the areas where salmon are known to feed – ie from the Norwegian Sea across to west Greenland. It is also well-known that other biological changes occurred that were readily observed. For example, the cod population expanded massively off west Greenland and pilot whales penetrated further and further up the west Greenland coast year on year before World War II. Herring were abundant in the Norwegian Sea at this time. In the western English Channel, colder water plankton species disappeared in the 1920s, only to switch back again in the 1960s. In the North Sea, the productivity of gadoids – fish of the cod family, particularly haddock – was lower in the decades before 1960 than it became in the 60s, 70s and early 80s, before falling again.

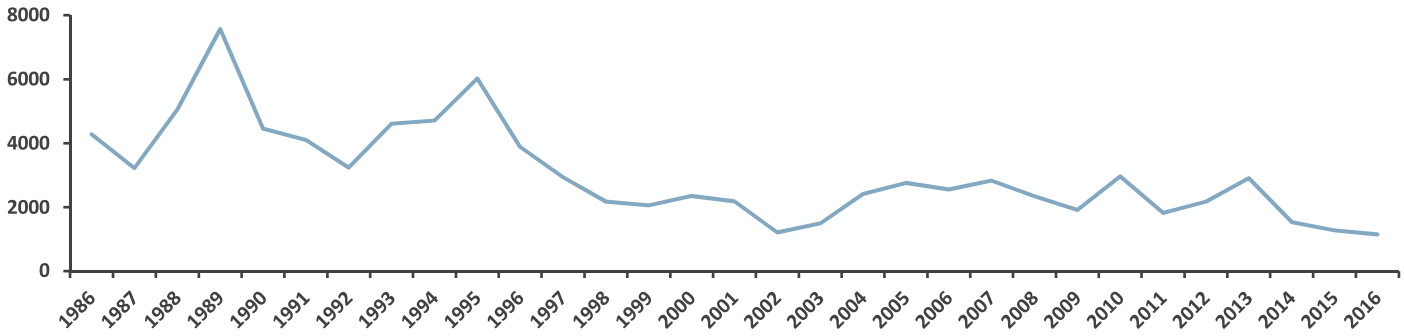


Figure 1. Reported catches of salmon from the lower Tay between 1 September and 15 October, 1986 – 2016. (Data were either reported to government or directly to TDSFB).

2016's autumn catch was dominated by coloured salmon, such as this 24lb salmon, which was landed by Geoff Coates in September on the the Kercock beat.

Fresh salmon such as this pair made up the bulk of the Tay's autumn catch until recently.

However, one gadoid mostly associated with the west and south west of the British Isles, hake, declined in the North Sea after the 1950s, only to increase again in the last few years.

So, what similarities might there be between the earlier episode and the present time? Temperature data show we are, once again, experiencing a period of increased sea temperatures, both around the British Isles and to the north of us – in fact, all the way to the Arctic ice, which is in retreat. The extent of Arctic sea ice in January 2016 was the lowest of any January since satellite recording began in 1979. This has had clear biological consequences too. For example, in recent years mackerel have moved much further north than ever recorded. Herring are once again much more widespread in the Norwegian Sea. The increase in hake in the North Sea has already been mentioned.

Of course, it is not to say that we are necessarily seeing an exact repeat of an event that took place in the first half of the 20th century. Ocean climate may be changing, but it is affected by many complex factors and these might not be operating in the same way as occurred in the 1920s. A new feature of the present appears to be a large 'blob' of cooling water still far to the west of the British Isles that some speculate may be a consequence of a weakening in the northwards flow of the Gulf Stream. What if this cool zone continues to expand and reach areas of importance for salmon? This may create a wholly new set of biological circumstances, either good or bad.

But why might the changes in the ocean environment affect different types of salmon differently and perhaps even cause switches between the dominance of autumn and spring fish? The exact mechanisms behind this still involve much speculation. What is probably not true is that former autumn fish merely just 'decide' in some physiological way to come back as springers instead. A more likely mechanism is that fish with a genetic propensity for autumn return are currently suffering a greater level of mortality at sea, while spring salmon are faring better.

It has been suggested that, because spring salmon spend longer at sea, they have a greater ability to reach more distant feeding grounds at a time when warmer conditions prevail. Furthermore, if such differential marine mortality trends continue in a particular direction for long enough, one type of fish might conceivably expand its spawning range within a river, further suppressing others. It has also been suggested that during such conditions pre-grilse might – owing to reduced growth and condition – not mature as grilse but remain at sea for longer, if they survive. There may be truth in this too, but while 'early' grilse may well come back as spring salmon it is unlikely they return as autumn fish.

In conclusion, it is very hard to predict what will happen. There are plenty of possibilities but – as yet – precious few answers. Will this be the start of a new 50-year episode or will it just be a blip which changes to a different trend in a year or two? After all, things were very different only a few years ago. Or, might there be a big increase in spring salmon? As has been described elsewhere in this review, there have been some signs of improvement in spring salmon on the Tay. However, this has really only been in the actual spring months. In last century's most notable episode of spring salmon abundance, 'winter' springers were common, but these still seem to be at their lowest ebb. Given such complexities, only time will tell what happens in the years and decades ahead.

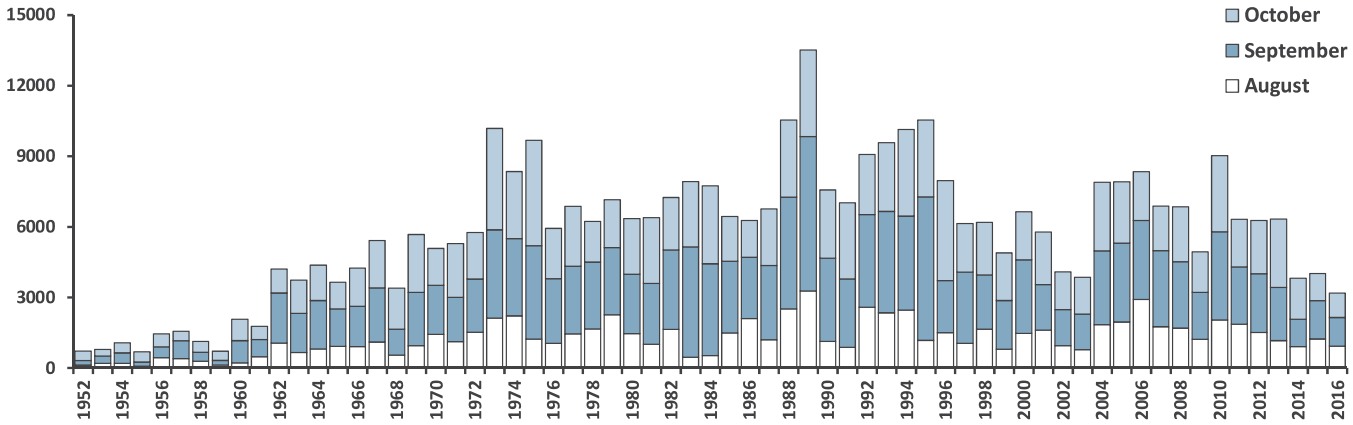


Figure 2. Reported rod catches of salmon in August, September and October, Tay District, 1952 – 2016. (Data were either reported to Government or directly to TDSFB).

Fish tracking: the river and beyond

DR LORRAINE HAWKINS – *Trust Manager, River Dee Trust*

The River Dee's catches have taken a downwards turn since 2011, with 2015 being the lowest in over 60 years of records. It also appears that the Dee is not alone, with low catches a theme in Northeast Scotland over the last five years. This trend has sparked the suspicion that perhaps there is a regional issue affecting our salmon stocks, operating in the coastal or near-shore area.

We should all be familiar by now with the fact that salmon survival at sea has declined massively in the last 40 years, and perhaps also understand that the likely culprit is changing ocean temperatures, which are affecting the ability of salmon to find food, grow and thrive. But, with little understanding of the salmon's journey at sea, it is more speculative as to when this mortality is occurring. Our suspicions were turned to the initial stage of the salmon's marine migration, and certainly there are published studies that highlight this as a time of potentially high mortality, be it as a result of inshore predation, or anomalous ocean temperatures at the crucial time of sea entry.

We revisited our Fisheries Management Plan, and laid out a new focus on the estuarine and inshore habitats. Until now, our focus for management has been almost entirely within the river. The idea of working in these new environments was a little daunting! But, given that survival of salmon at sea is now estimated to be only a few per cent, imagine the benefit – in the form of extra returning fish – that could be accrued by even a one per cent improvement in survival rates. This large challenge was met by the joint efforts of the Dee's Trust and Board.

Beltie smolt trap in action near Banchory.

A salmon smolt.

Acoustic tracking was determined to be the best method for finding out the fate of salmon smolts as they leave the Dee and enter into the marine environment. On leaving this river, the smolts have the task of navigating through one of the busiest ports in the UK, Aberdeen Harbour. We also considered this part of the smolts' journey to be a bit of a 'predator gauntlet', with seals, goosanders and dolphins visible from the surface, and presumably numbers of predatory fish lurking below. As this was an unfamiliar field, and unfamiliar technology, we developed a three-year programme of work, with the first year very much the pilot phase. The plan was to start in the lower river and work outwards into the marine environment each year. The substantial funding was provided by the Dee DSFB and the technical aspects were delivered by the Trust, with joint manpower to deliver a fully-supported project.

2016 saw the initiation of the pilot phase, and at the start of the year the Trust organised – collaboratively with the Atlantic Salmon Trust – a two-day workshop to learn about ongoing acoustic tracking studies and a 'lab' day to practice tagging techniques. We benefitted massively from advice from experts, industry, North America's Atlantic Salmon Federation, Glasgow University and Marine Scotland.

As a pilot year, we aimed to tag 50 salmon smolts. These smolts were captured in rotary screw traps in late April and the trained tagging team fitted tic tac-sized acoustic tags into the bellies of 50, 4-5" long, smolts. After a few hours of recovery in an aerated cool box, the tagged fish were then released downstream of the trap to continue their journey – 22 miles of river before they reached the harbour.

Unbeknown to the smolts, the tags in their belly emit a sound, on a frequency range that neither us nor they could hear. The sound is emitted every 30 seconds, and the battery within the tag enabled this sound to be produced for the next ten weeks. The sound of the tags was picked up by underwater receivers, which we had positioned in the river and harbour in the previous month.

These receivers have a hydrophone which detect noise on the specific frequency, and the computer part of the receiver is able to decipher the code within the sound. It then records the code, along with the date and time that it is detected. The sound from each tag produces a unique code, so we could follow, for example, smolt 73901 as it migrated down-river and through the harbour, and know exactly when it reached each of the locations.

Despite being a pilot year, we learned a lot, and had a few surprises too. The first – good – surprise, was that all smolts moved quickly through the harbour area, with no losses, and only a single fish straying into the docking area, before it too resumed its seaward migration. Having spent time in the harbour on a small boat to test the sound levels prior to starting this study, we knew exactly how massive and noisy the vessels (which are up to 168-metres long) were, and how predators could perhaps take advantage of this background noise to take their pick of the smolts. But this did not appear to happen.

A dredger in action in Aberdeen Harbour.

The second – less good – surprise, was that 26% of the tagged smolts never made it to the estuary, as they died in the lower river. This equated to a mortality rate of 0.78% per km migrated. This was rather unexpected, and obviously concerning. However, on reflection, this does offer some hope – a problem in the river seems to be a more fixable problem than one in the marine environment. It is not clear if this mortality level is a one-off or a typical occurrence, although interestingly, a similar study on the River Deveron in 2016 found an almost identical rate of in-river mortality.

Of course, we don't know what the in-river mortality was caused by at present. We consider that there are two likely explanations – either predation or delayed lethal effects from the tagging. Consistent with both possibilities, larger smolts had a greater chance of survival. Unsurprisingly, this pilot study did not provide all the answers in a single year, but has enabled us to develop further lines of enquiry. In 2017 and 2018 we will tag 100 smolts each year. We will expand tracking into further reaches of the harbour, but following on from the findings, we will focus on in-river survival, by comparing smolts tagged in the upper river and lower river. This will enable to us to determine whether mortality is caused by predators or by effects of tagging, as well as highlighting smolt run patterns in different parts of the catchment.

To summarise, we found that acoustic tracking is (1) expensive, (2) technical and (3) requires significant data analysis. From these points, the benefits of collaboration are clear. This work required significant staff and financial resources from the Board and Trust, and good support from Aberdeen Harbour Board. For those considering acoustic tracking, developing collaborations and industrial partnerships would be a sensible way to go.

On the Dee, we are grateful for the support we have received from Marine Scotland – particularly staff from both Pitlochry and Torry, who have made it possible to expand this project and contribute to joint research. 2017 should be a fascinating year as, working in partnership with Marine Scotland, 35 acoustic receivers have been installed 4 km beyond Aberdeen Harbour, in a semi-circular array, so that a first indication of direction of smolt migration can be gleaned. Step-by-step, we can hopefully piece together the route of, and the threats to, smolts and post-smolts on their epic migration.

Aberdeen Harbour proved to be surprisingly easy for smolts to negotiate.

Promoting the stewardship of a recovering river

DR GEMMA JENNINGS – *Community Engagement Officer, Clyde River Foundation*

The Clyde is a fine example of a 'recovering river' – salmon were once extinct due to pollution and man-made structural changes, but it now boasts a significant fishery, managed by anglers from at least 18 different clubs, the majority under fishing agreements from The Crown Estate.

In a catchment that is home to a third of Scotland's population, the challenges and opportunities for fishery management across the system are closely linked to its 1.7 million human inhabitants. With that in mind, the Clyde River Foundation (CRF) has developed a broad programme of education and community engagement to promote stewardship and help ensure a healthy future for this mighty river.

In early January 2017, the CRF welcomed its 25,000th participant to Clyde in the Classroom, at one of three project launch days held on the banks of the Clyde, at Glasgow Science Centre. This milestone was short-lived; the following day, the 26,000th participant walked through the doors. For a project that started out with just five Glasgow schools in 2001, Clyde in the Classroom has grown to become the biggest freshwater education project in the country and has now engaged children from 394 schools (70% of those in the catchment), with extensive coverage across all eight of our local authority areas.
The CRF cannot take credit for the idea of raising salmonids in schools; our project was adapted and scaled-up from the Galloway Fisheries Trust's Salmon in the Classroom project, but the scale and reach of Clyde in the Classroom are unique. This year over 1,200 pupils from 47 classes around the catchment are raising brown trout in class thanks to our supporters, including the main project sponsor, The Crown Estate Scotland Portfolio.

Educating P1 to PhD

Clyde in the Classroom is just one of many education projects delivered by the CRF. The programme spans Primary 1 to PhD and includes training opportunities for students; currently the CRF is hosting a University of Glasgow Marine and Freshwater MSc student on a year-long placement. Secondary education links have been developed through Trout at Transition, in partnership with the Biggar High School learning community and Holly Keasey, an artist specialising in water-themed work. This project involves a sustainable effort from the CRF, taking some 120 S1 pupils annually to assess the state of three upland tributaries, and is now part of the Royal Society Partnership Programme.

Children meet fish from the Ebroch Burn in Kilsyth.

Caring for the Clyde

Glasgow Airport's FlightPath Fund has invested in Flying Fish, a project that aims to connect every Primary 6 pupil in communities surrounding the airport with their local river. To date, 27 schools have participated in rolling spring/autumn sessions and the programme will pick up where it left off this autumn.

Measuring the health of the Gruggies Burn (Healthy Rivers, Healthy Communities).

Pupils monitor a brown trout hatchery in Clyde in the Classroom.

A partnership with the Greggs Foundation has enabled the CRF to focus education efforts in areas where access to funding may otherwise restrict participation. First up was Healthy Rivers, Healthy Communities – a river adoption project that encouraged five schools to take an active role in the stewardship of their local river environment. Currently, a further 13 primary schools are participating in Fish in Schools, which aims to inspire scientific learning and improve environmental awareness with the help of a classroom hatchery. Each of the schools rank highly on the Scottish Index of Multiple Deprivation (SIMD) and have not previously participated in a CRF project.

As well as securing funds from large organisations to deliver large projects, the CRF is always keen to develop smaller, bespoke engagement activities. For example, a recent partnership with the Lamington and District Angling Improvement Association enabled the CRF to deliver a Meet Your River day for the whole of Lamington Primary School and an evening 'guddle' for the local community.

Salmon Homecoming for the Avon Water

Almost 500 children from 21 primary schools across the Avon Valley are currently taking part in Salmon Homecoming to celebrate the anticipated return of Atlantic salmon to the upper reaches of the Avon Water following the completion of the Avon Barriers project. Salmon Homecoming is funded by the Heritage Lottery Fund-supported Clyde and Avon Valley Landscape Partnership (CAVLP) and the Greggs Foundation. It will culminate in four celebratory public engagement events across the Avon Valley in May/June. Keep up to date by following us on Twitter (@ClydeRF) and Facebook (/ClydeRiverFoundation).

The CRF receives no core funding to deliver its education portfolio, raising the funds from charitable donations, contributions from the schools themselves and sponsorship. So far, this has enabled us to bring the science and management of the Clyde to over 30,000 children.
To find out more, or if you are interested in promoting the continued stewardship of the Clyde as a project supporter, please contact Dr Gemma Jennings at gemma.jennings@glasgow.ac.uk.

Poaching on the River Tweed: opportunists or organised crime?

EDDIE WEATHERLY – *Superintendent, River Tweed Commission (RTC)*

Historically, much of the bailiffing on the River Tweed was *reacting* to the abundance of poachers, often acting in gangs, who would take every opportunity they could to use gill nets to illegally take salmon and sea trout. Bailiffs who have worked for the RTC for over 30 years can recall nights on the beach around Berwick when, trying to arrest illegal netters, they would be obstructed by large crowds of people in an attempt to allow the poachers to escape.

Today we are presented with a different picture, and bailiffing on Tweed has evolved, now dominated by intelligence-led *proactive* investigations to combat those individuals who have, over many years, made a significant amount of money by laundering illegally taken salmon and sea trout through legal commercial net fisheries. These fish then find their way into the markets, from where they are sold on to high-end restaurants in some of the most affluent parts of the UK.

For example, having amassed some promising intelligence, Tweed Water Bailiffs visited Billingsgate Market in London during May 2015. Trading does not begin until 5am, but activity goes on all through the night, with a constant stream of deliveries. The Water Bailiffs were able to observe and locate a number of pallets from Scotland and one, in particular, containing fish boxes marked as being from Eyemouth.

Fish heads from overnight poaching.

Working with Corporation of London Market Inspectors, when the market opened, the Bailiffs examined two fish boxes from Eyemouth in the presence of the receiving merchant (the buyer). Both boxes were full of very badly net-marked fish, which had clearly been illegally taken using gill nets, and were therefore seized.

It transpired that those fish had been gill netted in the East Lothian Tyne, at Haddington, by one of the most prolific poachers on the east coast of Scotland. He had left them outside an address for one of the commercial net fishery operators on Tweed to collect and take into a local fish merchant in Eyemouth, having recorded the fish through his own Catch Record Book as being caught legally in his fishery. The fish were then sold on to a larger merchant in Eyemouth, who arranged the transportation to Billingsgate.

The poacher was paid cash, at £8/lb – therefore a 10lb spring fish was worth £80 cash-in-hand to him. Had that fish reached its intended end user, a City of London restaurant, based on servings and menu prices, it was valued for Proceeds of Crime at between £450 - 500.

The impact that this seizure had on the laundering process was dramatic, and it was the first time I heard a buyer in Billingsgate demanding that Scotland should follow the English system and tag all fish. There are many markets throughout the UK where the demand for these spring fish, and the cash rewards available, make the risk of being caught worth taking. However, the introduction of a tagging system, which would allow the end user to identify when and where the fish was caught, will certainly help in making such practices more difficult. Added to that, of course, are the respective punishments along the laundering chain: from poacher to restaurant, with the latter perhaps risking most, in that The Food Standards Agency would be looking towards a penalty that could potentially have huge implications for their business.

CASE STUDY

GARETH BOURHILL
Secretary, Loch Lomond Angling Improvement Association

In late autumn 2015, one of our water bailiffs was on a regular patrol on the Auchengaich, one of the major spawning burns in the Loch Lomond catchment – both looking for persons who target spawning female fish in order to take their eggs, and to gauge numbers of returning salmon.

On this particular day his attention was alerted, not by a poacher but a full squad of military personnel who, obviously on a training exercise, were marching up the middle of the burn. It is an offence to disturb spawning fish and redds, but a quick word with the officer in charge has now led to the start of a very close working relationship with the MOD.

The Auchengaich Burn.

The officer could not believe that such a small burn was so important a habitat and a few days later we were contacted by Sgt John Simpson of the MOD Police. The burn rises in MOD property and, through Sgt Simpson, we were able to inform the military of times of year when redds are cut and salmon eggs vulnerable, so he could liaise with military staff who coordinate field exercises in the area.

The incident also led to the Loch Lomond Angling Improvement Association (LLAIA) bailiffs being invited by Sgt Simpson to a wildlife crime training day. Alongside attendees from the RSPB, SSPCA and SNH our bailiffs were able to gain valuable knowledge on the persecution and illegal activities around raptors and examples of illegal and legal traps and illegal baits. With our catchment area also home to a number of raptors, our ability as extra eyes on the ground may just spot illegal activities not directly involved with fisheries and gather information that can lead to successful arrest and prosecution by other agencies. Our water bailiffs were also able to explain their involvement and powers in the catchment, so with other agencies aware of what we are looking for, we can all perhaps help each other. This partnership working is in its infancy and we look forward to further engagement with the MOD Police.

Net-marked fish seized at Billingsgate.

Engaging young anglers

DEBBIE PARKE
Fishery Biologist, Nith Catchment Fishery Trust

For many years now, Trusts and Boards throughout Scotland have run numerous education programmes to engage young children in subjects such as the aquatic environment and wild fisheries. These have taken many different guises, from the well-known Salmon in the Classroom to one-off angling sessions, with local schools and groups receiving them well. However, the size and success of these projects is often dictated by the funding and resources available to local fishery organisations.

In 2012, the Nith Catchment Fishery Trust attracted funding from Axis 4 of the European Fisheries Fund that enabled us to develop a grass-roots education initiative called Fishing for the Future. As a sport, fishing is generally under-represented by young people, and local angling associations and fisheries are feeling the effects of this as the number of people fishing declines year-on-year. The aim of Fishing for the Future was to engage young people by providing them with a knowledge of, and respect for, the aquatic environment – imparting skills so that they could develop an interest in angling and conservation.

Fishing for the Future combines indoor sessions with field trips designed to engage children of all abilities. The lifecycle of the Atlantic salmon forms a perfect basis to tell a story that provides an insight into different aquatic environments, from the river to the sea, introducing some of the other wildlife encountered along their journey and the interactions between humans and nature. The sessions are tailored to suit each school and contain various activities including electrofishing demonstrations, fish anatomy and dissection, handling and identifying fish, sampling for aquatic invertebrates, habitat creation, invasive species, exploring the coast and, of course, an introduction to angling. An exciting aspect of these sessions is that they can be adapted to suit any age group or ability, from pre-school to Advanced Highers.

Because of the project, local angling communities have benefited from a small increase in the number of young people purchasing angling tickets, but we knew more could be done to assist children make the leap from interest to action. This inspired the formation the Nith Youth Angling Club, a group of interested young people who come together once a month, normally on a Saturday, to try a different method of fishing. The Nith Catchment Fishery Trust currently raises funds on an annual basis to pay for angling instruction, transport and equipment, but we are hopeful that this club will evolve over time and become self-sustaining. This step is vital to provide children with a safe pathway to pursue this sport further.

Outdoor education is an important part of Scotland's Curriculum for Excellence and is now a key theme within the education system, with schools having to demonstrate that they include it in their lesson plans. However, teachers often find it difficult to deliver this objective and increasingly rely on assistance from outside organisations. When delivering some of the outdoor sessions, one aspect that always delights me is how quickly children who have never been into the countryside or had the opportunity to paddle around in a burn engage with the activity and gain so much from it. Developing this connectivity with the natural environment is a recognised priority and giving these children a sense of ownership and respect can only result in a better future. After all, these children are the next generation of politicians, policy deciders, scientists, business owners, farmers and conservationists.

The importance of this grassroots approach to encouraging young people into angling was recently highlighted during the Wild Fishery Reform and, as a result, a working group was set up to develop a 5-year action plan for the development and promotion of angling across Scotland. This group has representation from a broad range of organisations throughout Scotland including the Scottish Gamekeepers Association, Countryside Learning and FishPal. Ross McDonald from the Dee DSFB and I sit on the group and represent the Trust and Board network. Despite the recent announcement by Scottish Government that they are not going ahead with restructuring fisheries organisations, they are still keen to develop a 5-year plan that includes developing a national website promoting all angling activities throughout Scotland. I would encourage any Boards or Trusts to contact Ross or myself if you would like to feed into the process.

Holywood primary.

A sport, not a business

ANDREW RETTIE – *Strutt & Parker*

I first started fishing for salmon in my early 20s, just before I got married. I had a wonderful day on the Rutherford Beat, mid-Tweed, and, during supper that evening, one of the co-owners remarked to me: 'Andrew, salmon fishing is a tremendous sport. If you keep at it during the rest of your life, you will have the most enormous pleasure. Beware, however, it can take you all over the globe and the amount of new equipment available is capable of bankrupting you!'

Those words of advice were given to me by a man who I admired hugely and they have proven to be prophetic. I did catch the bug, and have been lucky enough to fish many rivers in Scotland, as well as enjoying overseas trip to fish for sea trout on the Rio Grande and Rio Gallegos in Argentina; for Atlantic salmon on the Ponoi, Acha and Umba on the Kola Peninsula; and, for the last eight years, visits to Iceland.

What I have learned above all else is that fishing really is a sport. I have been lucky enough to have stayed in many lodges across the world and I cannot think of any holiday that has not involved like-minded souls (from many countries). Fishing folk are clubbable!

There are some main differences, of course. In Iceland, most rivers have an open season of about 12 weeks; whereas in Scotland some of the bigger rivers (Tweed, Dee, Spey, Tay) have an open season of around 40.

Is it too simplistic to say that the healthy stocks of salmon that return to the Icelandic rivers each year are due to the considerably reduced fishing effort compared to the Scottish rivers? Are the owners of beats on Scottish rivers prepared to contemplate, say, a three or four-month open season during the summer? One thing is for sure, if man is denied his sport then the rental levels for a much reduced fishing effort in Scotland would increase (probably substantially).

Going back to the words of advice given to me in the early 1980s, we must not forget that fishing is a sport and we have to resist the perhaps understandable desire to run our beats as very commercial businesses that are driven to deliver profits on the annual trading figures or, at worst, break even.

It is logical that sporting pastimes should take place when anglers have downtime for recreation. I would like to see a system introduced in Scotland whereby the week is split into two sections:

Section 1: Monday, Tuesday and Wednesday.
Thursday to be treated as the day off for the ghillie/boatman.

Section 2: Friday, Saturday and Sunday.

If a fishing party particularly wants to take the whole week then they still have the opportunity to do so. I believe that, from my experience in Iceland, there would be a tremendous take-up of lets for three-day fishing packages in Scotland, and it is entirely logical that the revenue from rents for a Friday, Saturday and Sunday (including two days out of the downtime of a weekend) would be greater than the beginning of the week.

Interestingly, and pleasingly, the buyers in the market at present for beats on Scottish salmon rivers are all looking for fun, and not a yield or return on their investment.

Andrew Rettie with a 93cm salmon (returned) caught on the River Kjarra in Iceland, August 2016.

2016 – a season of two halves?

ALASDAIR LAING – *Chairman, Findhorn DSFB*

Extrapolating the hard numbers of the 2016 salmon catch into an impression of actual abundance is not an exact science, but catch data, even where imperfect, is the best tool we have at present. It is possible to identify common factors and themes which may have influenced catches.

There are influences that change year by year and over which we have little or no control – regional and local weather conditions, wider climatic factors, changing run timings, angler quality and effort, and of course basic abundance of fish. But it is perhaps more interesting to think a bit about the influences in which we humans play a part, or which just may be cyclical in nature.

The Scottish Government's moratorium on coastal fisheries has meant that Scottish net catches will have been markedly down in 2016. One would expect this to have resulted in higher return rates to affected rivers.

It was generally felt that angling pressure was somewhat diminished on some of the rivers whose conservation status resulted in mandatory catch & release, while many of the Category 1 and 2 rivers maintained healthy voluntary return rates.

Spring and early summer catches of salmon in many rivers were encouraging. While many rivers were below their 10-year average (some significantly), catch proportions appear to have shifted towards the spring and have shown an increase in individual fish size. This gives some very speculative and tentative room for optimism about the status of early running stocks of salmon, and just might demonstrate a victory for the high voluntary release rates promoted by DSFBs.

As ever, salmon fishing in Scotland is unpredictable and some of the northern rivers demonstrated superb fishing – the Naver and Thurso exceeded their 10-year averages and the average size of salmon was also higher; while the Ness and Wick maintained their averages and enjoyed good fishing in spring and early summer.

There was widespread acceptance that the autumn run, was either seriously diminished or nearing a complete failure (as is described in more detail on p.12-13). This was alarming and the accepted wisdom was that most of the fish were already in the rivers by September. Late summer and autumn catches were characterised by old, coloured fish, even on our classic and renowned autumn rivers, such as Tweed, Nith and Annan. While the very low water in summer and early autumn might explain the initial lack of catches, fish will generally start to run as the autumn progresses – water or not. The flip-side to this, referred to above, was the apparent improvement in earlier running fish in some rivers. This appears to have been a gradual trend over the past few years, and even manifested itself in rivers which have never been known for spring/summer fish, such as the East Lothian Tyne. 2016 saw the River Spey's best June catch since 1955 and its worst September catch since 1961. Are we starting to see a cyclical shift?

The west coast demonstrated a broadly similar tend and showed a large reduction in grilse catches. The Awe counter data was 46% of the previous year and 52% of the 5-year average – which was mirrored almost exactly by the decline in rod catch for the year. The spring data for the counter was double the 5-year average and was confirmed by significantly better spring fishing on the system. The Lochy fared likewise – it performed well in late spring, but late summer and autumn were disappointing, with very few grilse entering the system – the catch was 92% salmon and only 8% grilse.

The cyclical nature of salmon catches and dominance of different stock components is not a new phenomenon, as long-term catch records from our rivers have shown. It is not yet clear whether recent seasons indicate the beginning of a period of spring and summer stock dominance over autumn. Overall, there does seem to be a higher incidence of earlier, larger fish at the expense of summer grilse, but it is not possible to predict whether this trend will continue.

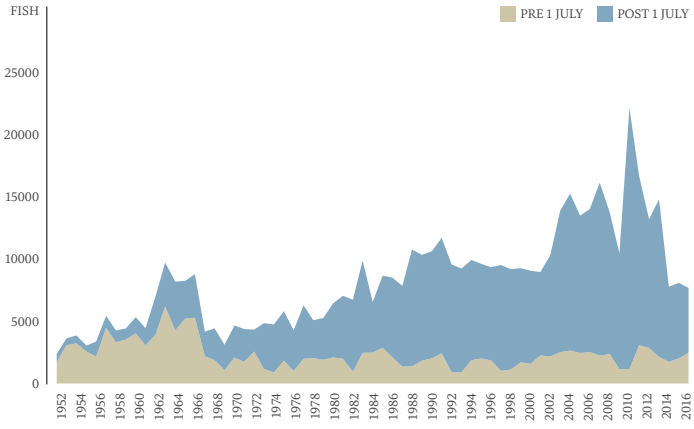
Tweed

Nick Yonge – *Clerk, River Tweed Commission and Director, Tweed Foundation*

While overall salmon catches were similar to the previous two years, the decline in the autumn continued. The spring run again showed a slight improvement on the 5-year average and was similar to that of the last 15 years, continuing until July. However, there was another marked decline in the grilse run and catches from August onwards were lower, particularly at the very end of the season. Sea trout catches also declined, while brown trout catches were good, with more large caught fish in some areas. Two in-river net fisheries remained operational, although only one these killed salmon. The other – which was used purely for research – operated on a catch and release basis. Fisheries continued to comply with the Tweed Spring Salmon conservation scheme, extending the catch and release period beyond April 1st. Under an additional scheme for the tributaries and Upper Tweed, payments were made to fisheries that agreed by contract to measures that would not otherwise be mandatory.

	2016 total	pre Jul 1	post Jul 1	Total nets	10yr average	Release rate	Largest fish
Salmon	7,680	2,477	5,203	541	13,178	99/79/85%*	36lb
Sea Trout	1,450	n/a	n/a	n/a	1,976	57%	n/a

*Season dates: 1 Feb – 30 Nov. * spring / summer / overall.*



TWEED ROD CATCH STATISTICS 1952-2016
SOURCE – RIVER TWEED COMMISSION

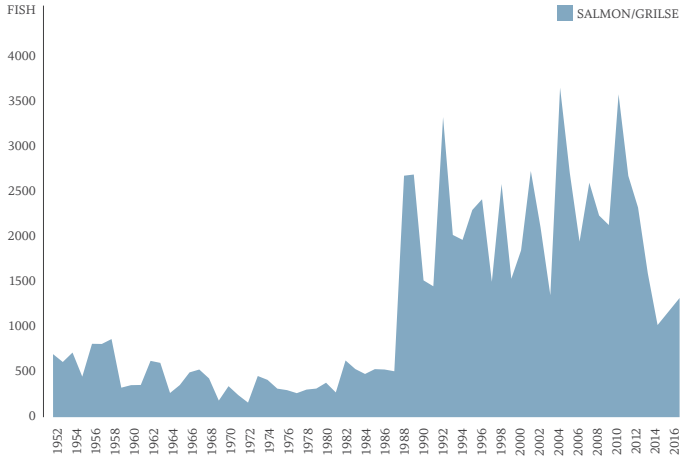
Forth

Alison Baker – *Forth Fisheries Trust*
Fen Howieson – *Chairman, Forth DSFB*

Catches have been slightly improving for the last 2 years, after the worst season of the decade in 2014, although 2016 was still under the 5-year average. The spring run was relatively good, with 131 fish caught, but this was followed by difficult fishing due to a lack of precipitation throughout the summer. Fortunately, the water rose a few times in September allowing good fishing. In October precipitation remained low and fishing quite tricky, but the catch return for the month was relatively good, with 347 salmon caught. Results within the District contrasted – the Allan produced a heartening 317 salmon and 41 sea trout, but the Teith and Forth were below their 5-year averages. Work continues to improve fish passage on a number of rivers affected by the legacy of historic mills. Due to the high level of infrastructure and continuing development within the District the cumulative impacts may be having an effect on many catchments, both in terms of the temperature of the water and flow. Land management has an increasing impact on the rivers and fisheries.

	2016 total	pre Apr 1	post Apr 1	Total nets	10yr average	Release rate	Largest fish
Salmon	1,290	131	1,156	11	2,043	100/91/92%*	32lb
Sea Trout	238	n/a	n/a	6	737	92%	n/a

*Season dates: 1 Feb – 31 Oct. * spring / summer / overall.*



FORTH DISTRICT ROD CATCH STATISTICS 1952-2016
SOURCE – FORTH DSFB

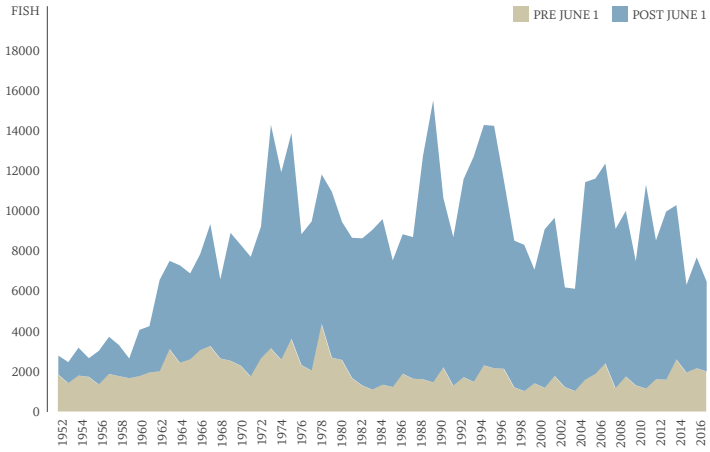
Tay

Dr David Summers – *Director, Tay DSFB and Tay Foundation*

In something of a reversal of recent trends, it was the first half of the season that gave encouragement and the second that was the let down. Although catches didn't really pick up until mid-February, the Tay fished consistently for the rest of the spring, with a better showing of 3SW fish than was the case a decade or so ago. June was also reasonable. However, from August onwards, catches were among the lowest recorded since the 1950s and included very few fresh run fish. Late run grilse seemed particularly absent, but greater than usual numbers of larger coloured salmon were caught, which helped to provide anglers with some interest despite the lack of fresher grilse. It has been a matter of some speculation as to when those big fish sneaked in unseen. On a positive note, 2016 finally saw agreement reached on flow restoration in the upper River Garry, a flagship WFD project. In December SSE commenced work by breaking down Struan Weir, a barrier built to stop salmon ascending the river during spates. Engineering work on intakes is due to start in the spring.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	6,542	2,017	4,525	n/a	8,863	94/84/88%*	34lb
Sea Trout	747	n/a	n/a	n/a	1,228	88%	n/a

*Season dates: 15 Jan – 15 Oct. * spring / summer /overall.*

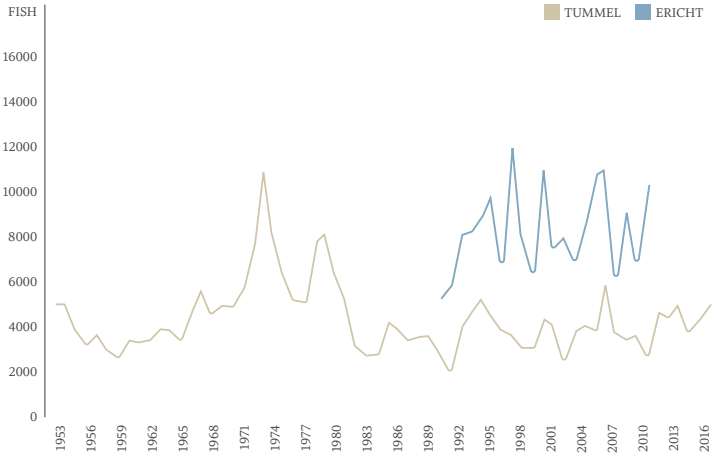


TAY ROD CATCH STATISTICS 1952-2016
SOURCE – TAY DSFB

Tay catchment counters

Dr David Summers – *Director, Tay DSFB and Tay Foundation*

The total count on the Tummel at Pitlochry was 5,321 – the second best in the last ten years and the fourth best since the 1970s/early 80s. The increase was helped by particularly high counts in May and June. The total count to the end of June was the highest since 1978 and only beaten before that in 1952, 1953, 1954 and 1973. Of course, back then, there were nets, no catch and release and no stocking of the upper Garry, so these comparisons are not completely valid. Nevertheless they are obviously encouraging.



RIVER TUMMEL (PITLOCHRY) UPSTREAM COUNT 1953-2016
SOURCE – SSE
RIVER ERICHT UPSTREAM COUNT 1990-2010
SOURCE – TAY DSFB

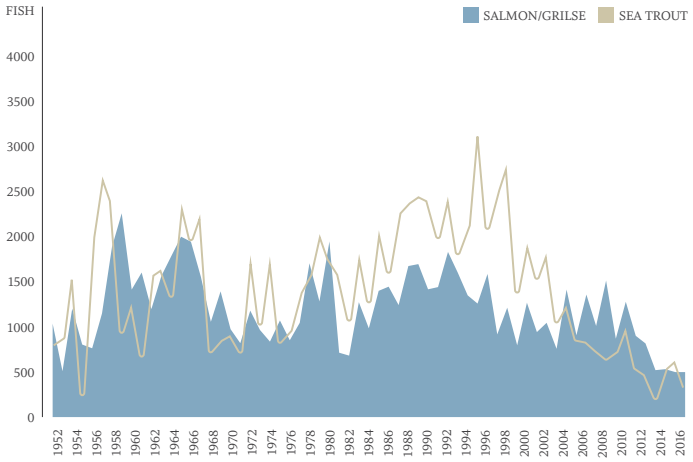
South Esk

Dr Marshall Halliday – *Esk Fishery Board and Trust*

The 2016 total rod catch was disappointing, with a poor grilse run and low numbers of sea trout. The spring salmon run seemed to be reasonable, if not improved, but the salmon ran straight through the system, leading to lower catches in the usual prime beats, while the beats in Glen Clova did fish better in April/May. The Esk Rivers & Fishery Trust is undertaking a major restoration project on the Pow Burn, part of which was completed in 2016, while the rest is due to be finished in late spring 2017. This involves in-channel measures and the creation of reaches with 2-stage channels. The EU Pearls in Peril project was completed in 2016 and major beneficial changes in the river morphology have occurred, accelerated by Storm Frank. Overall, however, the increasing prevalence of major floods has probably accounted for a decrease in fry densities, as shown by e-fishing surveys. Measures to try and reduce the high flows are being developed and it is hoped that funding to undertake major contour tree planting in Glen Clova will be confirmed in 2017.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	495	60	435	n/a	1,031	99/80%*	n/a
Sea Trout	334	n/a	n/a	n/a	700	77%	n/a

*Season dates: 16 Feb – 31 Oct. * spring / overall.*



SOUTH ESK ROD CATCH STATISTICS 1952-2016

SOURCE – ESK DSFB

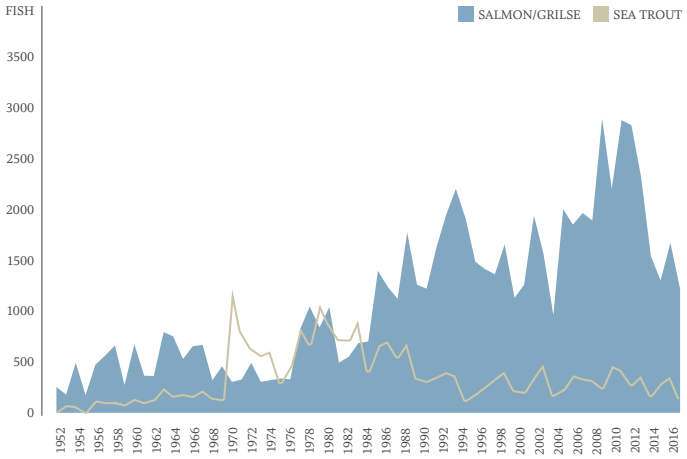
North Esk

Dr Marshall Halliday – *Esk Fishery Board and Trust*

The spring run was better in 2016 and major runs of salmon appeared in the first 10 days of May and towards the end of the month. Sea trout were disappointing. The Board maintained its catch and release recommendations – extending the statutory ban on killing salmon from 30th April with voluntary measures until 15th June. This included sea trout. The Scottish Government also closed the coastal net fisheries, with a review due after 3 years, although the net and coble fishery operation was maintained. Morphie Dyke continued to deteriorate and accelerated the ascent of early running salmon into the middle beats. The Board hopes to be able to negotiate a buy-out of the net and coble fishery, which would result in its permanent closure after the 2018 season.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	1,229	271	958	n/a	2,398	99/83%*	32lb
Sea Trout	145	n/a	n/a	n/a	405	69%	n/a

*Season dates: 16 Feb – 31 Oct. * spring / overall.*



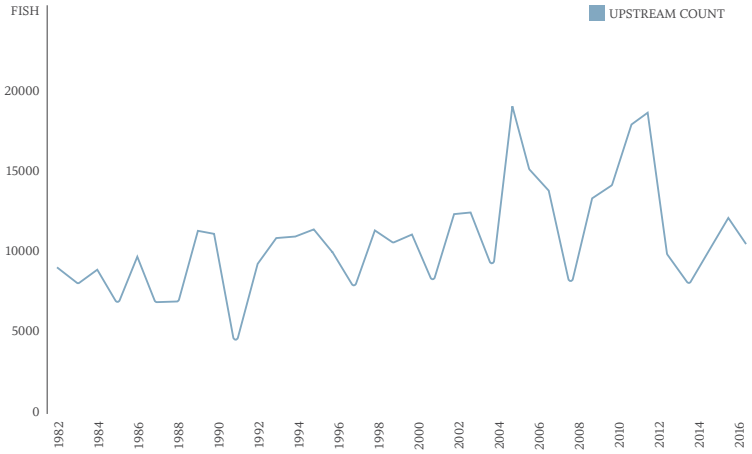
NORTH ESK ROD CATCH STATISTICS 1952-2016

SOURCE – ESK DSFB

Logie counter (North Esk)

Dr Marshall Halliday – *Esk Fishery Board and Trust*

The spring run was better in 2016 and major runs of salmon appeared in the first 10 days of May and towards the end of the month. Sea trout were disappointing. The major feature of 2016 was a lack of grilse from the end of the first week in August although the grilse run in July was reasonable. The poor numbers were extremely noticeable in the Logie counts for the autumn and early winter. The overall count was 10,371 although this may be a slight underestimate due to missing data in December 2015-January 2016, due to flood damage and the fact that, from October 2016 onwards, only two out of three channels were being counted.



NORTH ESK UPSTREAM COUNT 1981-2016

SOURCE – MARINE SCOTLAND SCIENCE

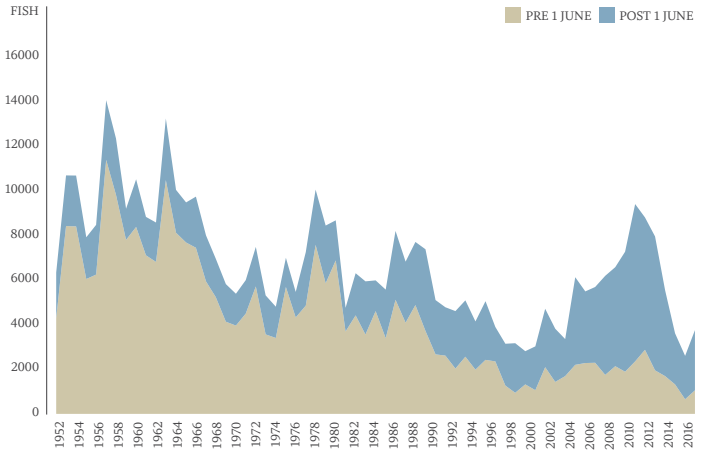
Dee

Mark Bilsby – *River Dee Director*

To cap off a very difficult 2015 season Storm Frank hit at the end of December, causing a 1-in-500-year flood and the devastation that goes with it. The community around the river was truly amazing and pulled together to start the process of cleaning up and repairing the damage. Their hard work paid off and the fishery was able to open on February 1st, although the work is still continuing to this day. Despite the difficult start to 2016 the catches picked up compared to 2015 and reflected the better number of fish in the catchment. Meanwhile a smolt tracking programme (see p12) was piloted and has helped our understanding of what is happening to our fish as they start their migrations. Following the poor catches in 2015, the Board decided to commission an independent report into the use of hatcheries as a fishery management tool on the Dee in terms of design, operation, potential fish returns and cost. The clear outcome was that a hatchery was not currently a suitable tool. The Board consulted with all the river proprietors and there was an overwhelming consensus to continue working to improve the river, understanding fish survival at sea while protecting the survivors and sensibly managing predators.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	3,703	1,035	2,668	n/a	6,276	99%	23lb
Sea Trout	1,032	n/a	n/a	n/a	1,693	98%	5lb

Season dates: 1 Feb – Oct 15.



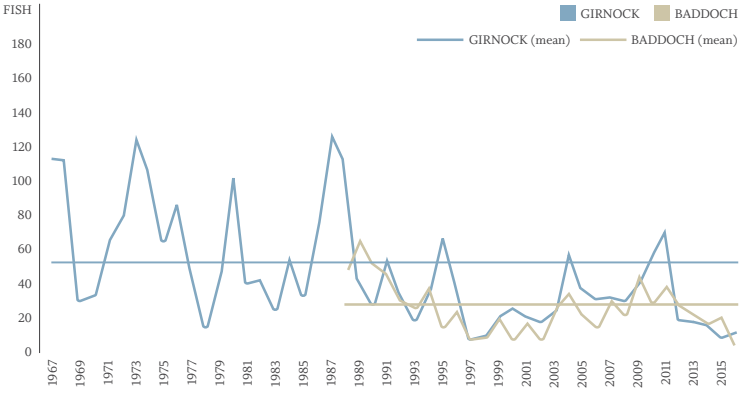
DEE ROD CATCH STATISTICS 1952-2016

SOURCE – DEE DSFB

Girnock and Baddoch fish traps (River Dee)

Freshwater Fisheries Laboratory – *Marine Scotland Science*

Marine Scotland Science Freshwater Fisheries Laboratory operates two traps on upper tributaries of the Aberdeenshire River Dee (Girnock and Baddoch burns). These tributaries are dominated by early-running spring salmon (multi sea winter fish), the stock component that has been of most concern in recent decades. Although numbers of male and female salmon caught at the traps show similar temporal trends, female numbers are plotted as they are considered the fundamental spawning component. The five females caught in the Baddoch trap and 15 females caught in the Girnock trap in 2016 represent 18% and 25% of the long-term means respectively. However, it should be noted that the mean count at the Baddoch is over a shorter time period and does not include the period of high adult returns observed in early years at the Girnock. For further information on the Girnock and Baddoch fish traps, see: http://www.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Monitoring/Traps



GIRNOCK & BADDOCH FEMALE UPSTREAM BURN TRAP COUNTS 1966-2016

SOURCE – MARINE SCOTLAND SCIENCE © Crown copyrightt

Number of adult females returning to the Girnock and Baddoch traps on Deeside. Long-term mean values are shown for each site.

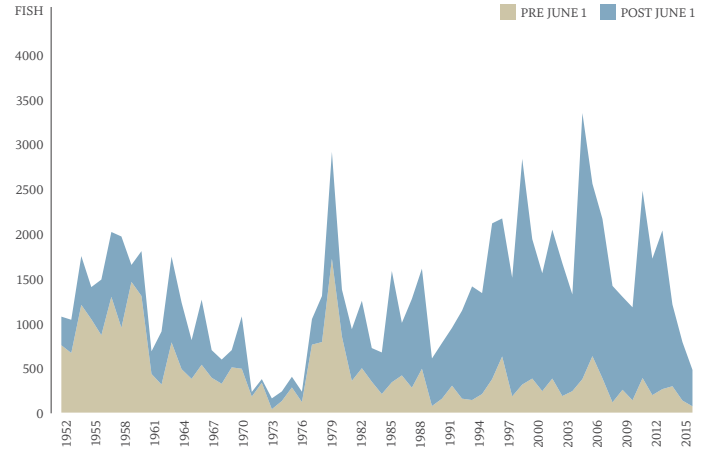
Don

Mark Bilsby – *River Don Director*

Overall, it was a slightly more encouraging spring period, with over 60 fish reported caught by the end of May. Unfortunately, the summer and autumn grilse and salmon failed to materialise in any great number, although they were generally in good condition. The low number of anglers on the river also did not help, and the two factors meant that the catches were down on all beats. The catch figures for 2016 are currently being collected but it looks like the river will return less than 500 salmon and grilse. When conditions suited, brown trout anglers enjoyed good sport through April, May and into June, with trout up to 7.5lb being landed. Catch and release of these bigger fish is regarded as the norm now on the river, with many specimen trout being landed again later in the year. Dry fly enthusiasts were reporting large hatches of flies, mainly large dark olives, enticing the trout onto the surface, and fishing conditions helped attract anglers from all over the country and abroad. The Board is very active in trying to restore fish numbers and rod catches and details can be found at www.riverdon.org.

	2015 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	475	69	406	n/a	1,452	97/86/89%*	20lb
Sea Trout	177	n/a	n/a	n/a	362	85%	9lb

*Season dates: 11 Feb – 31 Oct. * spring / summer / overall.*



DON ROD CATCH STATISTICS 1952-2015

SOURCE – DON DSFB

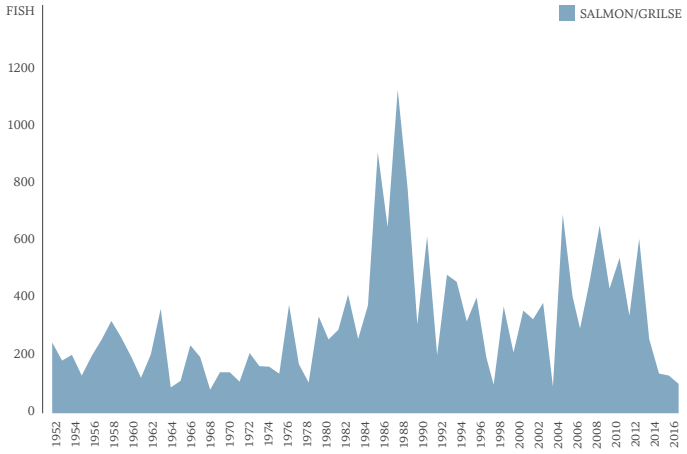
Ythan

Mark Andrew – *Ythan DSFB*

2016 proved to be another poor year for salmon, perhaps influenced in part by the low water conditions that were experienced through much of the season, for salmon were at least seen to be running after the season had ended, when water conditions improved. It was a reasonable year for sea trout, and an exceptionally good one for finnock, all of which were returned to the river. Ongoing diffuse pollution of the river and tributaries by agricultural run-off and drainage from industrial estates remains a major concern, but only 1 recreational net operated for sea trout. For 2017 we have set a bag limit of one salmon per rod.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	101	1	c.100	0	c.320	76%	34lb
Sea Trout	c.800	n/a	n/a	20	c.1320 (including finnock)	97%	15lb

Season dates: 11 Feb – 31 Oct.



YTHAN ROD CATCH STATISTICS 1952-2016
SOURCE – YTHAN DSFB

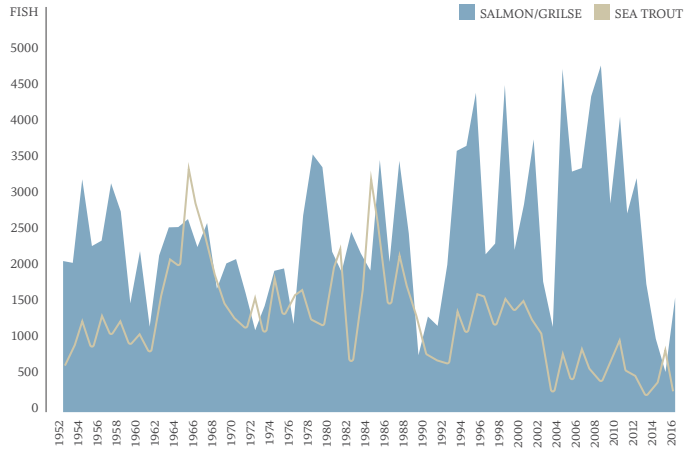
Deveron

Richard Miller – *Director, Deveron DSFB & Deveron, Bogie & Isla Rivers Charitable Trust*

The salmon and grilse rod catch was up 59% from the previous year but still well below the long-term average of 2,468. Spring salmon catches increased from the previous year to 100 salmon by the end of May, with 85% returned to the river, aided by the Chivas Regal spring salmon conservation scheme. A notable salmon of 34lb was successfully caught and released during October, which secured the Morison Trophy. The sea trout catch decreased by 24%, from 584 to a total of 444, of which 97% were returned. For the 2017 season, the Scottish Government has classified the Deveron as a Category 1 river, whereby current levels of salmon exploitation are thought to be sustainable. The Board aims to preserve this status and ask that the River Deveron Conservation Code For Salmon & Trout 2017 (found at www.deveron.org) be adhered to by all anglers. During 2016 the Deveron, Bogie and Isla Rivers Charitable Trust acoustically caught, tagged and released 50 smolts in the upper Deveron so they could be tracked down the river and through the estuary. A full report of the findings can be found in the news section of www.deveron.org.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	1,563	107	1,456	n/a	2,745	85/80/80%*	34lb
Sea Trout	444	n/a	n/a	n/a	620	97%	15lb

*Season dates: 11 Feb – 31 Oct. * spring / summer / overall.*



DEVERON ROD CATCH STATISTICS 1952-2016
SOURCE – DEVERON DSFB

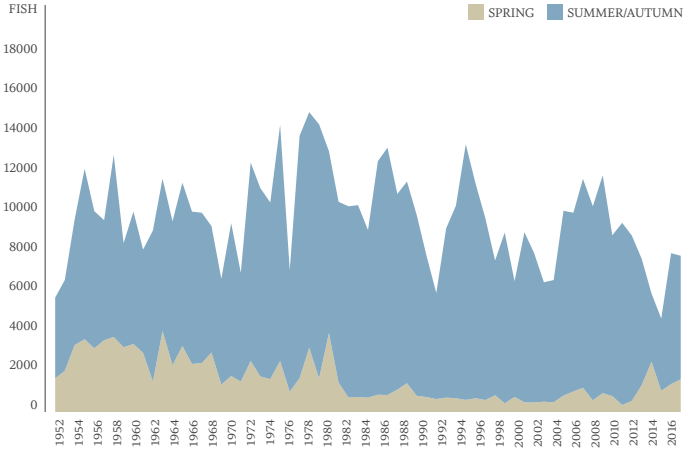
Spey

Roger Knight – *Director, Spey Board and Foundation*

The 2016 season can best be described as being like the curate's egg – good in parts. Expectations were high, following the 70% improvement in 2015. However, despite a very promising start, the second half of the season was a disappointment. By the end of June we were around 1,000 fish ahead of the same period in 2015. Catches then declined from mid-July and we ended the year with 96 fewer salmon and grilse, and 857 fewer sea trout. The Board remains concerned by significant water abstraction in the catchment, particularly at Spey Dam, 12 miles from the source, from where significant volumes are diverted to Fort William. The impact of the abstraction and its associated infrastructure is severe, with minimal numbers of salmon fry recorded above the dam in 2016 and none in previous years. The Board continues to engage positively with SEPA over this issue and is encouraged by the promising relationship being developed with the new owners of Spey Dam, Liberty House Group and Simec. The Board looks forward to working closely with them to deliver significant improvements in this uppermost part of the river.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	7,632	1,591	6,041	n/a	8,118	94%	27lb
Sea Trout	1,318	n/a	n/a	n/a	2,000	77%	13lb

Season dates: 11 Feb – 30 Sep.



SPEY ROD CATCH STATISTICS 1952-2016
SOURCE – SPEY DSFB

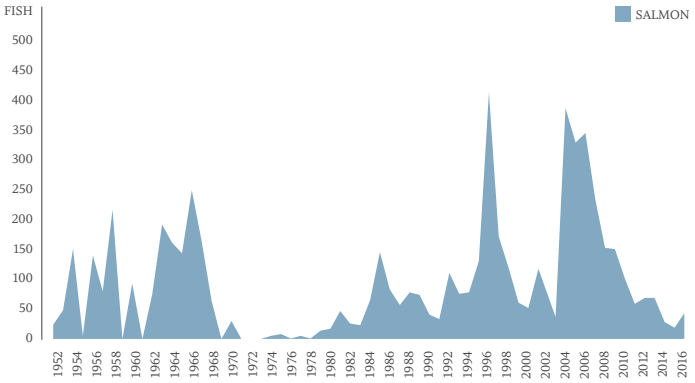
Lossie

Valerie Wardlaw – *Administrator, Findhorn, Nairn & Lossie Fisheries Trust*

2016 was a much better season than the previous year, with the salmon and sea trout catch above the 5-year average, despite very few anglers. Anglers reported seeing good numbers of fish throughout the system, including multi-sea winter fish, grilse in the upper river in August and a very good late finnock run. The main grilse run was late in October. Redds were seen in the middle and upper river in good numbers. All beats are now accessible to anglers with the completion of the Elgin Flood Scheme. Juvenile fish surveys found good numbers and distribution of juvenile salmon and sea trout throughout the system. The control of giant hogweed and Japanese knotweed continued in the upper catchment, but remains severe. Barriers to fish passage on the weirs in the Linkwood Burn continue to be addressed and wind farm developments continue to be monitored. Mink monitoring continued, with one mink caught. The Lossie is a Grade 3 river and the 100% catch and release regulations for salmon were complied with.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	43	0	43	0	99	100%	n/a
Sea Trout	52	n/a	n/a	0	128	71%	n/a

Season dates: 25 Feb – 31 Oct.



LOSSIE ROD CATCH STATISTICS 1952-2016
SOURCE – FINDHORN, NAIRN AND LOSSIE FISHERIES TRUST

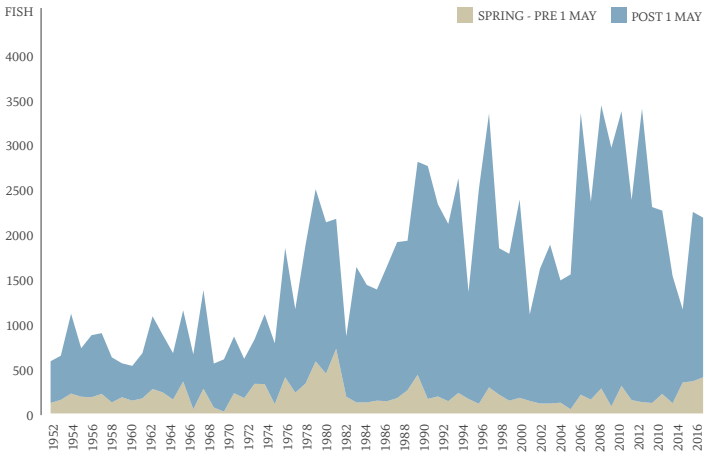
Findhorn

Valerie Wardlaw – *Administrator, Findhorn, Nairn & Lossie Fisheries Trust*

The first spring salmon was caught on 18th February and weighed in at 18lb. Constant good water levels during the spring allowed salmon to move upstream, resulting in an average spring run. Catches of summer salmon and grilse were good until August, when river levels dropped, having a significant effect on rod catches for the rest of the season. This resulted in an overall catch slightly below the 10-year average for salmon and sea trout. In mid-October there was a good run of fish after a decent amount of rain and in November further small grilse entered the river. Juvenile fish surveys revealed salmon and trout were well distributed throughout the tributaries. Most tributaries showed a substantial improvement in juvenile salmon numbers after the losses from the large spate in August 2014, although juvenile trout numbers are still low, due to loss of bank cover. INNS plant control continued, with intensive treatment upstream of the A96, but infestations are still severe. Mink monitoring continues, with one mink captured. Major developments such as wind farms, trunk roads and overhead power line upgrades continue to be monitored.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	2,197	404	1,793	n/a	2,403	92/85/86%*	28lb
Sea Trout	137	n/a	n/a	n/a	164	92%	6lb

*Season dates: 11 Feb – 30 Sep. * spring / summer / overall.*



FINDHORN ROD CATCH STATISTICS 1952-2016
SOURCE – FINDHORN DSFB

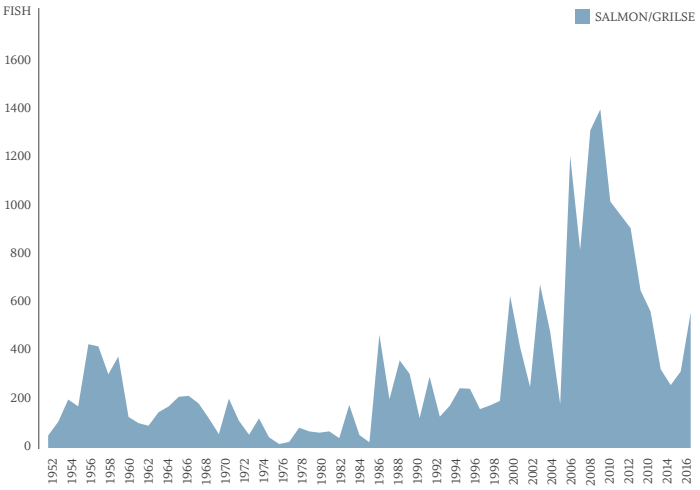
Nairn

Valerie Wardlaw – *Administrator, Findhorn, Nairn & Lossie Fisheries Trust*

The season started with an average catch of spring fish due to poor river levels, cold conditions and few anglers. Better water levels in May and June produced improved catches and August produced a lovely fish weighing 17lb. Overall the catch was much better than last year, due to a threefold increase in the numbers of grilse caught. Recent trends have been for an improved spring run, a moderate run of summer salmon, a later-than-normal grilse run and a late run of autumn salmon. Salmon were a good average size, with many fish exceeding 8lb, but grilse were small. A smolt trap was operated on the main stem from March to May and results indicate a very productive and healthy river, with over 8000 salmon smolts, 800 trout and 400 parr counted. Crayfish control by the Nairn AA continued, while habitat improvement works in the upper Nairn should start in 2017 and options for improving the Cawdor weir fish passage are in development. The Nairn was assigned Category 2 status in 2016, but has been upgraded to a Category 1 for 2017. The release rates have been improving year-on-year.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	561	37	524	n/a	700	78/74/75%*	17lb
Sea Trout	99	n/a	n/a	n/a	79	88%	8lb

*Season dates: 1 Mar – 7 Oct. * spring / summer / overall.*



NAIRN ROD CATCH STATISTICS 1952-2016
SOURCE – NAIRN DSFB

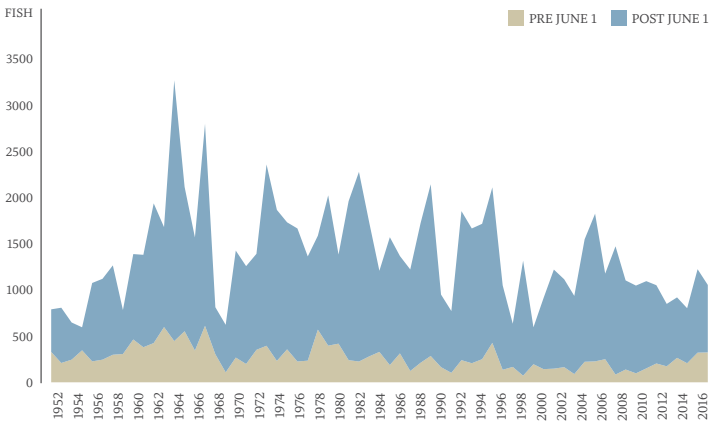
Ness

Chris Conroy – *Director, Ness DSFB*

Provisional returns indicate the best spring salmon catches for 21 years and good numbers of early summer salmon. The back end of the season did not fare quite so well though, with disappointing catches of grilse and autumn salmon. This seems to be the result of a general switch from grilse to MSW dominated catches. Despite this, total catches for the season were good, with the 1,054 fish reported to date representing the second highest catch for six years. Particular successes this year include the pragmatic 'dual grading' of conservation limits in the District, the entire system having been classed as Category 3 in 2016. A new conservation policy has been put in place by the Board to meet the requirement for reduced exploitation in Category 2 waters, details of which can be found on the Ness DSFB webpage. The Upper Garry Restoration Project is also coming together well after a couple of difficult years. This project aims to restore a self-sustaining wild salmon population to the upper Garry through carefully targeted and linked enhancement initiatives. These encompass habitat improvement and stock rehabilitation through supportive breeding and supplementary stocking.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	1,054	324	730	0	1,044	100%	25lb
Sea Trout	91	n/a	n/a	0	69	49%	n/a

Season dates: 15 Jan – 15 Oct.



NESS ROD CATCH STATISTICS 1952-2016

SOURCE – NESS DSFB

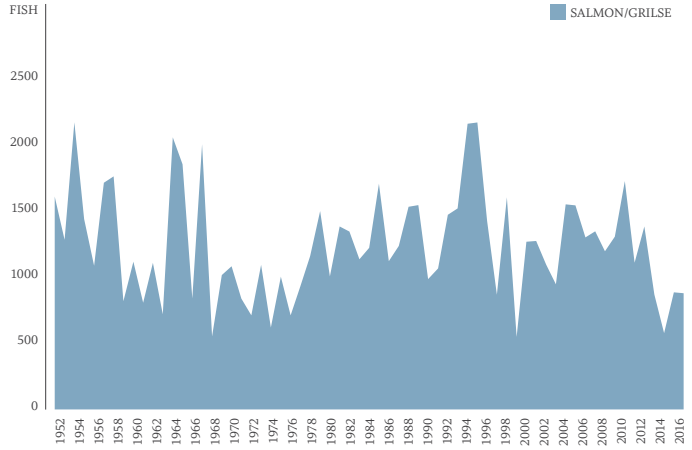
Beauly

Alastair Campbell – *Clerk, Beauly DSFB*

The catch was very similar to 2015 in total numbers, with encouraging spring catches once again and a slightly earlier grilse run with good numbers. However, as with many recent years, poorer fishing conditions caused by a warm, dry spell restricted autumn catches. Encouragingly, the below average salmon catch was not reflected in the dam counters, which recorded above average fish passage. Another positive was the significant increase in the sea trout catch, although the precise reasons are unclear – it remains to be seen if this is a one-off or the start of a trend. Some beats saw a drop in fishing effort, as a consequence of the river being given Category 3 conservation status, but following a review, this has been upgraded to a Category 2 for 2017. The Beauly Board once again joined with the Ness Board to negotiate with the proprietors of coastal netting rights a moratorium on commercial netting in the Inner Moray Firth.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	871	50	821	n/a	1,123	100%	n/a
Sea Trout	1,135	n/a	n/a	n/a	370	100%	n/a

Season dates: 11 Feb – 15 Oct.



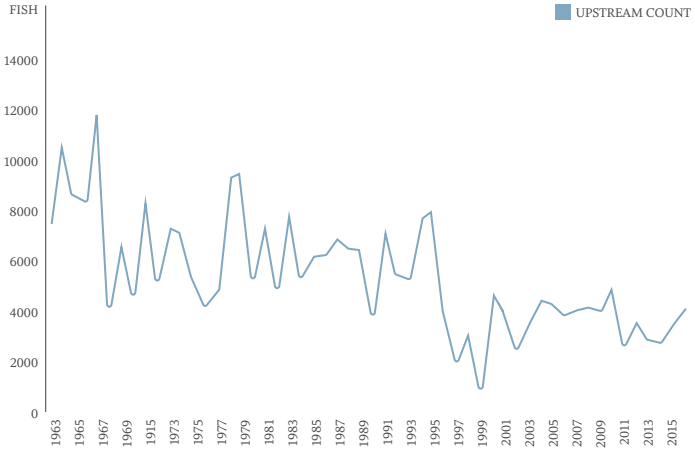
BEAULY ROD CATCH STATISTICS 1952-2016

SOURCE – BEAULY DSFB

Beauly counter

Alastair Campbell – *Clerk, Beauly DSFB*

Encouragingly, the below average salmon catch in 2016 was not reflected in the dam counters, which showed that the number of fish entering the system was well above recent averages. Indeed, the counter at Aigas recorded the ascent of 4,183 salmon – up from 3,905 in 2015 and considerably over the 5-year average of 3,273. Meanwhile, the counter at Beannachran, near the top of the Farrar, recorded 301 fish – up from 251 the previous year and above the 5-year average of 277.



BEAULY (AIGAS) UPSTREAM COUNT 1963-2016

SOURCE – SSE

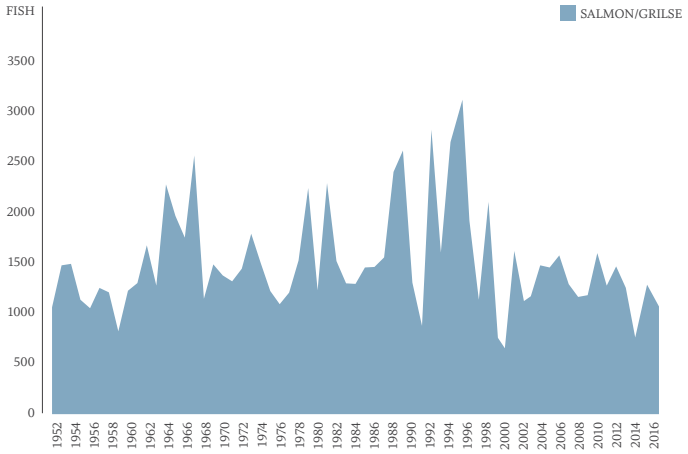
Conon

Simon McKelvey – *Cromarty DSFB*

The season started with a reasonable spring run, followed by a strong early summer multi-sea winter salmon run. There was a run of very small grilse which arrived in July and August, some of which were so small that they passed through the screens at the Loch na Croic fish trap. The last month of the season had very little rainfall and there was also a lack of late running grilse. During broodstock collection on the Blackwater, scales were taken from a large sample of salmon and grilse. Scale reading confirmed that this year's grilse run was dominated by small early summer fish with a lack of the larger late runners. The hydro fish counters give a good indication of stock abundance. The count through Tor Achilty Dam by early November was 1,603, which was the highest since 1979 and well above the 5-year average of 1,211. Counts at Meig and Luichart were both double the 5-year average.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	1,068	141	927	n/a	1,236	98/82/85%*	27lb
Sea Trout	223	n/a	n/a	n/a	n/a	n/a	5lb

*Season dates: 11 Feb – 30 Sep. * spring / summer / overall.*



CONON ROD CATCH STATISTICS 1952-2016

SOURCE – CONON DSFB

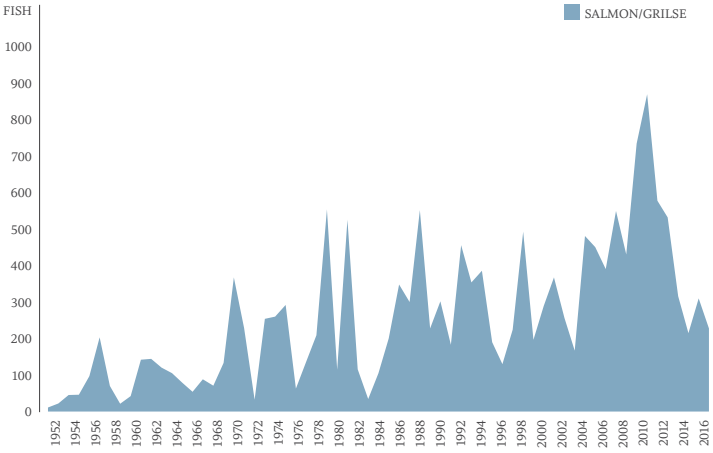
Alness

Roger Dowsett – *Novar Fishings Manager*

Catches of MSW salmon in late May suggested that the spring run was reasonable. Grilse first appeared in mid-July, and there was a significant run in early August, a week or two earlier than in the last few years, although low angling effort meant early season catches were not as high as they might have been. It was the fourth dry summer in succession and, during the prime weeks of mid-August through September, there was almost no rain at all, and catches were very low. Although wetter, October was extremely mild, and this did little to improve taking behaviour. The poor catches made it difficult to assess overall stocks, but there were no shortage of fish showing. These were predominantly grilse, however, and catch statistics also suggest the summer/autumn salmon component to be lower than in previous years. There were numerous reports of large numbers of MSW salmon seen ascending the weir in Alness even into early December. No progress has been made in resolving the barrier to salmonid migration on the Allt na Seasgaic, caused by a poorly designed road culvert on what was previously one of the most important spawning burns on the entire system.

	2016 total	pre Jun 1	post Jun 1	Total nets	5yr average	Release rate	Largest fish
Salmon	228	10	218	n/a	322	100/87/88%*	23lb
Sea Trout	42	n/a	n/a	n/a	61	98%	4.5lb

*Season dates: 11 Feb – 31 Oct. * spring / summer / overall.*



ALNESS ROD CATCH STATISTICS 1952-2016

SOURCE – CROMARTY DSFB

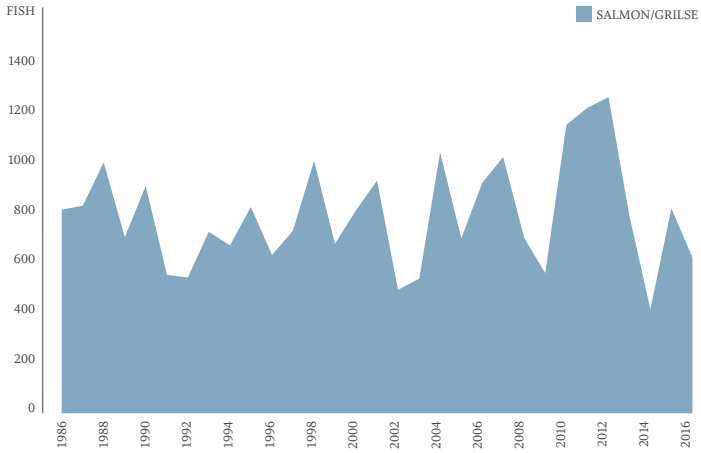
Carron (east coast)

Keith Williams – *Director, Kyle DSFB*

The Carron yielded the only January salmon reported in the Kyle of Sutherland District. A steady trickle of spring fish featured in the catches during February and March, while April and May were the best of the spring months. Overall, spring catches in 2016 were marginally ahead of 2015. Grilse started to feature in catches during May and, in common with other Kyle rivers, reports of grilse catches in June and early July were quite encouraging, although it quickly became apparent that the initial runs were not going to be sustained. As has been the pattern in recent seasons, September turned out to be a largely dry month. Overall, numbers of salmon and grilse caught were down on 2015's figures, with sea trout numbers slightly up. During the summer a localised thunderstorm in the upper reaches of the catchment resulted in a major landslip. Due to the fact that there was little rain elsewhere in the catchment, heavily discoloured water moved very slowly down the Carron before reaching the sea. This led to concern that fish kills may have occurred. However, electro-fishing by Kyle DSFB staff in the period after the event demonstrated that the expected year classes of juvenile salmon and trout were present.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	618	209	409	n/a	n/a	98/93/95%*	n/a
Sea Trout	69	n/a	n/a	n/a	n/a	88%	n/a

*Season dates: 11 Jan – 30 Sep. * spring / summer / overall.*



CARRON ROD CATCH STATISTICS 1986-2016

SOURCE – KYLE DSFB

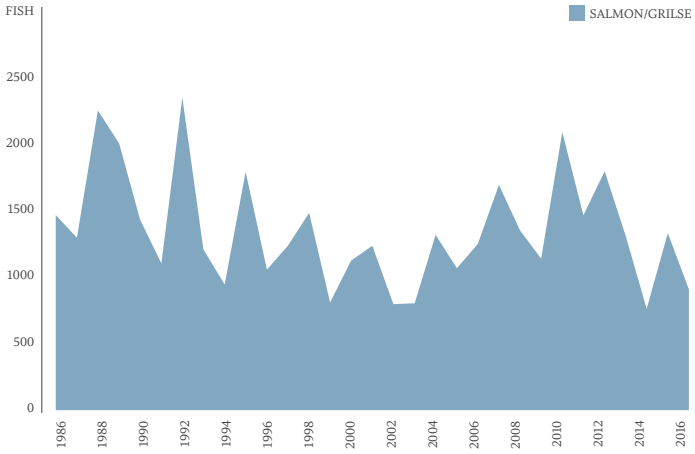
Oykel

Keith Williams – *Director, Kyle DSFB*

Spring catches were down on 2015 numbers, with the bulk of the catch being taken in April and May. In contrast to the 2015 season, salmon appeared to pass falls which act as natural temperature barriers relatively early and upper beats were able to catch some fish in May and June. As was the case with neighbouring rivers, grilse runs were not sustained and the latter part of the season petered out. This was partly due to a largely dry September, although fish were known to be lying in the Kyle waiting for water. Sea trout numbers were up on 2015 figures and some good sized fish were taken on beats spread throughout the whole system. Work on the LIFE Pearls in Peril project continued during the year, with riparian tree planting, ditch blocking and forestry removal being undertaken by the project partners, including Kyle DSFB, SNH and Forestry Commission Scotland.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	903	131	772	n/a	n/a	99/94/95%*	n/a
Sea Trout	n/a	n/a	n/a	n/a	n/a	n/a	n/a

*Season dates: 11 Jan – 30 Sep. * spring / summer / overall.*



OYKEL ROD CATCH STATISTICS 1986-2016
SOURCE – KYLE DSFB

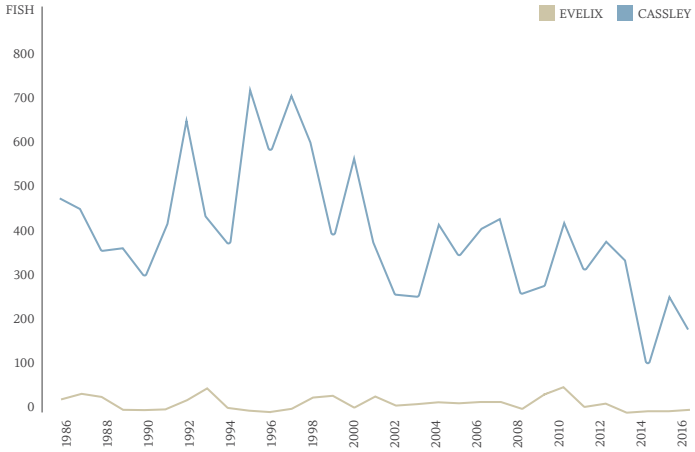
Evelix & Cassley

Keith Williams – *Director, Kyle DSFB*

Spring salmon catches on the Cassley were broadly similar to 2015, with May providing the best of the spring fishing. Preliminary figures from the fish counter operated by SSE at Duchally suggest that numbers of fish using the fish pass were down on 2015 and also lower that the 5-year average. As with the Shin, it was noticeable that the salmon and grilse running the Cassley in 2016 appeared to be in a particular hurry, with peak numbers being recorded in July. This phenomenon is in sharp contrast to 2015 when salmon and grilse appeared particularly reluctant to enter the headwaters of the Cassley and Shin systems. The Evelix is considered to be a late river and relies on good water levels in the final months of the fishing season. Salmon, grilse and sea trout were caught from July onwards, albeit in modest numbers. The relatively dry September did not help catches in the Evelix, as typically the bulk of the fishing effort takes place at the tail of the season.

	2016 total	pre Jun 1	post Jun 1	total nets	10yr average	Release rate	Largest fish
Salmon	182	75	107	n/a	n/a	100/94/96%*	n/a
Sea Trout	2	n/a	n/a	n/a	n/a	100%	n/a

*Season dates: 11 Jan – 30 Sep. * spring / summer / overall.*



EVELIX & CASSLEY ROD CATCH STATISTICS 1986-2016
SOURCE – KYLE DSFB

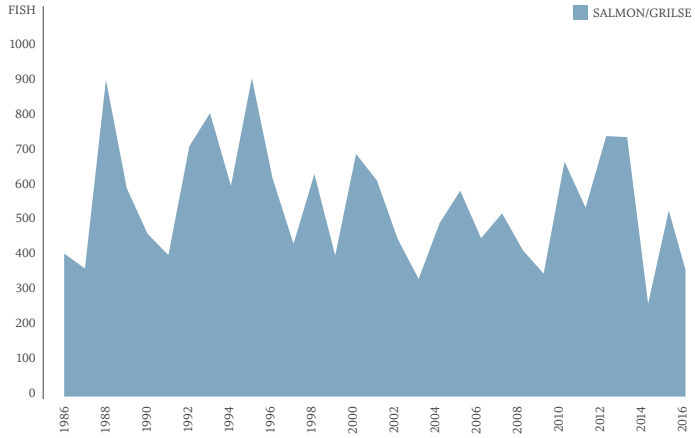
Shin

Keith Williams – *Director, Kyle DSFB*

The 2016 season got off to a fine start, with two fish caught in February – somewhat earlier than would be considered the norm in recent years. Spring catches were on a par with 2015, peaking in May. Overall, season catches of salmon and grilse were down on the 2015 figure, but provisional figures from SSE's fish counter at Lairg paint a more positive picture, with indicative numbers up on the 5-year average. An interesting feature of the 2016 fish counter data is that the bulk of the run entered the upper catchment much earlier than in 2015, and indeed earlier than has been the case for a number of years. It is hoped that the increasing numbers of fish reaching the headwaters of the Shin is in response to the considerable conservation efforts being undertaken by SSE, SEPA and the Kyle DSFB. Concerns in respect of downstream smolt passage remain, however, and the focus of mitigation efforts is now turning towards trapping smolts and releasing them downstream of the dams. A small number of broodstock were collected after the season end, with the intention of stocking their progeny into the upper catchment in the spring of 2017.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	359	44	315	n/a	n/a	100%	n/a
Sea Trout	0	n/a	n/a	n/a	n/a	n/a	n/a

Season dates: 11 Jan – 30 Sep.



SHIN ROD CATCH STATISTICS 1986-2016
SOURCE – KYLE DSFB

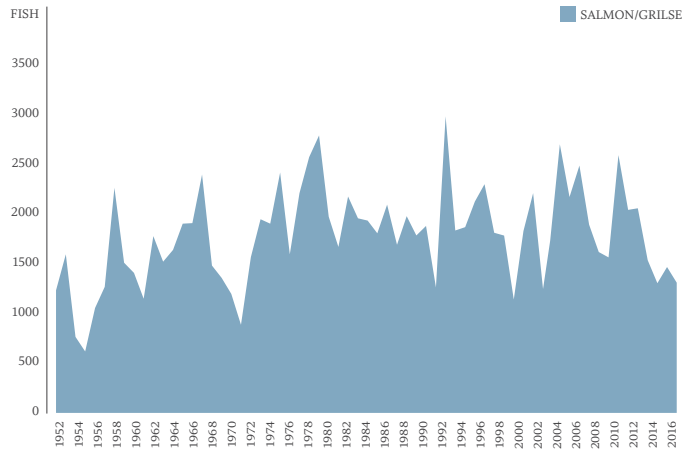
Helmsdale

Michael Wigan – *Manager, Helmsdale DSFB*

The season was unusual for the lack of rain in August and September, leading to low catches in the last seven weeks of the season. Prior to that extreme mid-summer downpours caused a fair bit of siltation. Catch and release levels, at 95% for the whole season, are as high as they're ever likely to get.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	1,298	278	1,020	n/a	1,692	100/95%*	24lb
Sea Trout	n/a	n/a	n/a	n/a	n/a	n/a	n/a

*Season dates: 11 Jan – 30 Sep. * spring / overall.*



HELMSDALE ROD CATCH STATISTICS 1952-2016

SOURCE – HELMSDALE DSFB

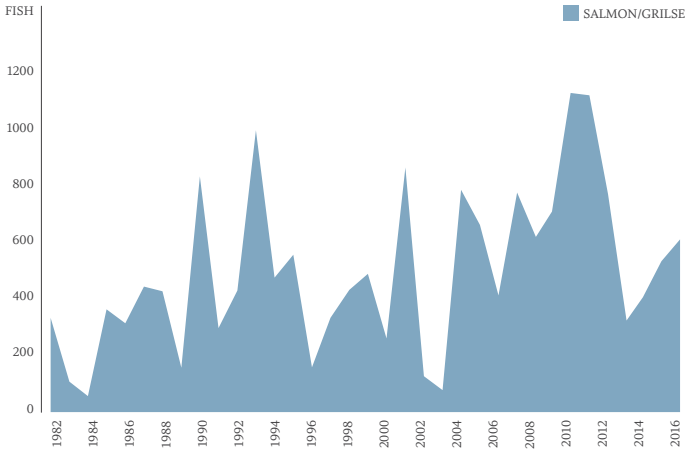
Wick

John Mackay – *Secretary, Wick Angling Club*

2016 was a good season with a 15% catch increase over last year and climbing up towards our 10-year average. The river fished well in July and August, with 435 fish caught in those months, but then the season fizzled out from the beginning of September, due to a prolonged drought which persisted until the end of the season.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	607	21	586	n/a	697	5/26/26%*	15lb
Sea Trout	2	n/a	n/a	n/a	n/a	n/a	6lb

*Season dates: 11 Feb – 12 Oct. * spring / summer / overall..*



WICK ROD CATCH STATISTICS 1982-2016

SOURCE – RIVER WICK

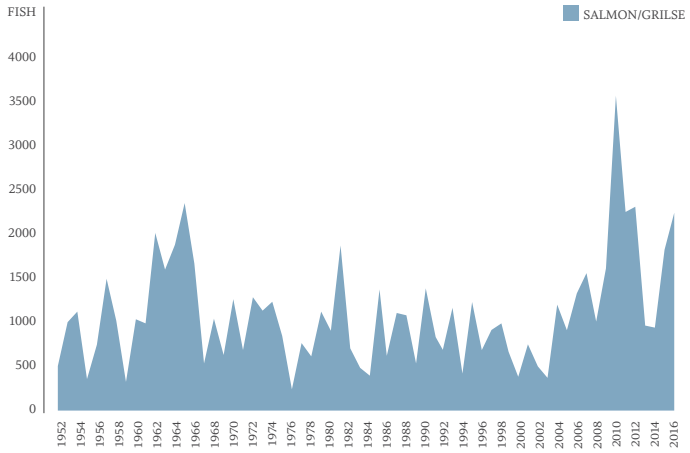
Thurso

Tim Hawes – *Thurso River Manager*

2016 produced a very good season on the Thurso, with 2,203 fish – 456 above the 10-year average. Although the season was slow to get going, the spring fishing was very good through to the end of May. The grilse arrived early and this contributed to an exceptional July, with over 400 fish being landed in the first week. We then saw another run of larger grilse arriving in early August. Towards the end of August and throughout September the temperature of the river rose and sport slowed, but during the last two weeks, as the river cooled, the sport picked up. Whilst we had a very good salmon run, the number of sea trout caught was down on last year. The Thurso does not have a big run of sea trout and the majority are caught by salmon anglers, but it is disappointing to see the numbers fall. It was clear that as we watched the fish spawning, there were large numbers of salmon throughout the system, which can only bode well for future years.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	2,203	303	1,900	n/a	1n747	95/93/93.5%*	27.5lb
Sea Trout	12	n/a	12	n/a	n/a	25%	4lb

*Season dates: 11 Jan – 5 Oct. * spring / summer / overall.*



THURSO ROD CATCH STATISTICS 1952-2016

SOURCE – THURSO RIVER MANAGEMENT

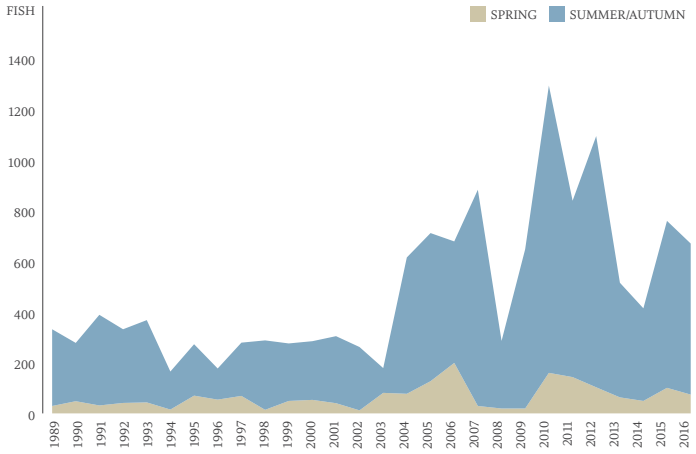
Halladale

John Salkeld – *Halladale Partnership*

The spring run was encouraging, with reasonable water in April and May, and continued till mid-June as usual. The grilse run started slightly earlier than of late, in early June, peaking in July, then petering out early in August. Summer salmon continued to run in reduced numbers in July and August. However, salmon made up 41% of the overall catch, which was the highest percentage since detailed records began 25 years ago – it appears that salmon numbers are gradually increasing, while grilse numbers are waning. Rod catches were particularly disappointing in September, with only 54 fish caught in the month – a mere 25% of the previous 5-year average. Previous concerns about extensive felling in the upper reaches have largely been allayed by a very constructive attitude from the RSPB, which is an excellent example to others. The catch and release code for 2017 will remain the same as for 2016.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	684	75	609	n/a	765	99/83/86%*	20lb
Sea Trout	8	n/a	n/a	n/a	5	n/a	2.5lb

*Season dates: 12 Jan – 30 Sep. * spring / summer / overall.*



HALLADALE ROD CATCH STATISTICS 1989-2016
SOURCE – HALLADALE PARTNERSHIP

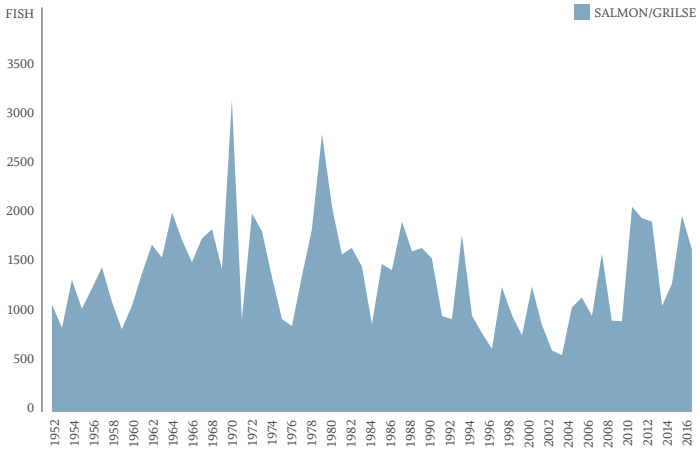
Naver

Matthew Heeps – *Head Bailiff & Fishery Manager*

A pleasing total of 1,604 salmon and grilse was recorded across the Naver catchment during the 2016 season, bettering the current 10-year average by over 50 fish and representing a very solid return following an exceptional 2015 season. Guests chasing springers were treated to some fine sport, with the average fish weighing over 10lb, and several fish in excess of 20lb being brought to the bank. The summer grilse run and autumn fishing also proved productive, despite weather conditions being testing at times for the angler. The river recorded new highs in terms of catch & release, with 100% of spring fish and 93.2% of all the fish banked across the season returned.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	1,604	487	1,117	n/a	1,549	100/90/93%*	31lb
Sea Trout	196	n/a	n/a	n/a	n/a	n/a	3lb

*Season dates: 12 Jan – 30 Sep. * spring / summer / overall.*



NAVER ROD CATCH STATISTICS 1952-2016
SOURCE – NAVER MANAGEMENT

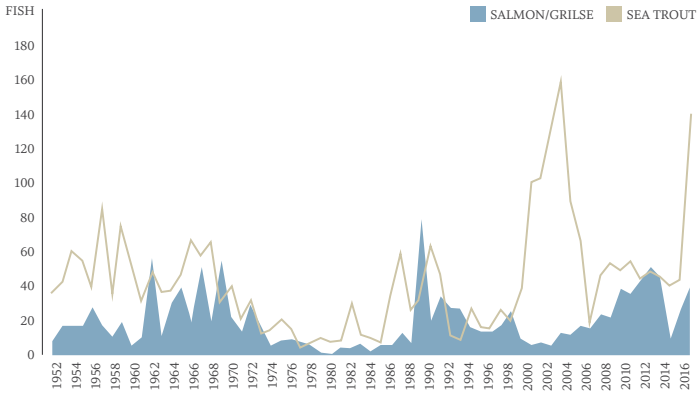
Polla

Charles Marsham – *Chairman, North and West Sutherland Board and Trust*

The season yielded 8 salmon and 32 grilse, a marked improvement on the last two seasons and well over the 10-year average. Although some of the grilse were small, most were very fat. The sea trout catch was very encouraging, with 140 sea trout – the second most prolific year since records began in 1952 – and most of these were in excellent condition, averaging about 2lb 12oz apiece.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	40	0	40	n/a	29	n/a	19lb
Sea Trout	140	n/a	45	n/a	49	n/a	10lb

Season dates: 15 Feb – 30 Sep.



POLLA ROD CATCH STATISTICS 1952-2016
SOURCE – NORTH AND WEST SUTHERLAND DSFB

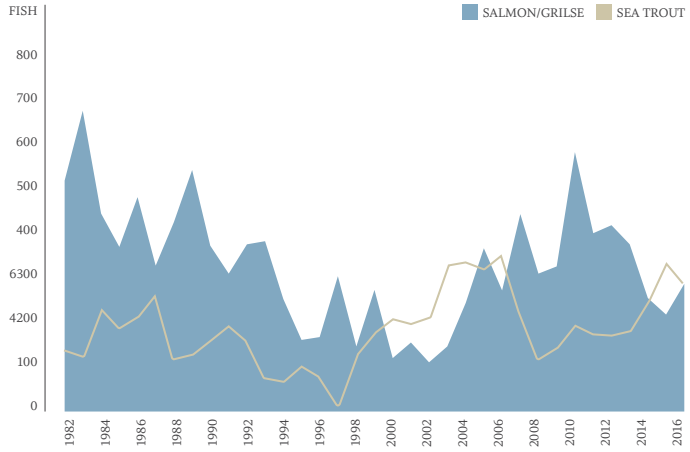
Dionard

Jim Allingham – *North and West DSFB*

The season starts on 11th February, but nothing enters the river until mid-May, if there is sufficient water. It is very rare for anything to be caught in May and 2016 was no exception. The river suffered from periods without rain again in 2016 but generally fished well when there was sufficient water. There are no hard and fast catch and release rules, but the impressive C&R rates reflect the responsible attitude to conservation held by those who enjoy the privilege of fishing the River Dionard.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	287	n/a	n/a	n/a	316	92%	23lb
Sea Trout	292	n/a	n/a	n/a	206	99%	8lb

Season dates: 11 Feb – 31 Oct.



DIONARD ROD CATCH STATISTICS 1982-2016
SOURCE – NORTH AND WEST DSFB

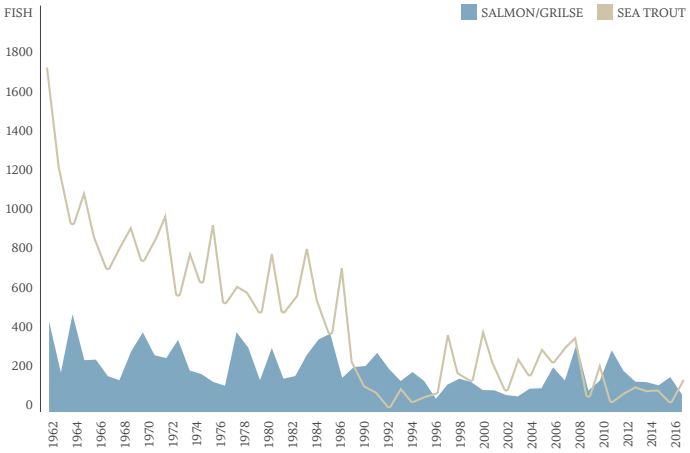
Laxford

Shona Marshall – *Biologist, West Sutherland Fisheries Trust*

Salmon catches were the 4th lowest since 1957. The first salmon taken was relatively late for the system and June was quiet until the rains came in the last week. Most fish were taken in July and August, reflecting historic patterns of the grilse run, and also the presence of water during these two months. Sea trout catches were better than those of salmon, although still historically low. The ongoing restructuring and development of woodland close to riparian waters should result in improvements to riparian zones and water quality in the long term. During 2016 the Laxford system was given Category 3 status and therefore subject to mandatory catch and release of salmon. While this category has been altered for 2017, the following measures will be introduced: all fish must be returned; fly and dapping only; no use of treble hooks; barbless hooks only.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	87	7	80	n/a	185	100%	19lb
Sea Trout	166	n/a	n/a	n/a	150	100%	5lb

Season dates: 1 Mar – 30 Sep.



LAXFORD ROD CATCH STATISTICS 1962-2016
SOURCE – WEST SUTHERLAND FISHERIES TRUST

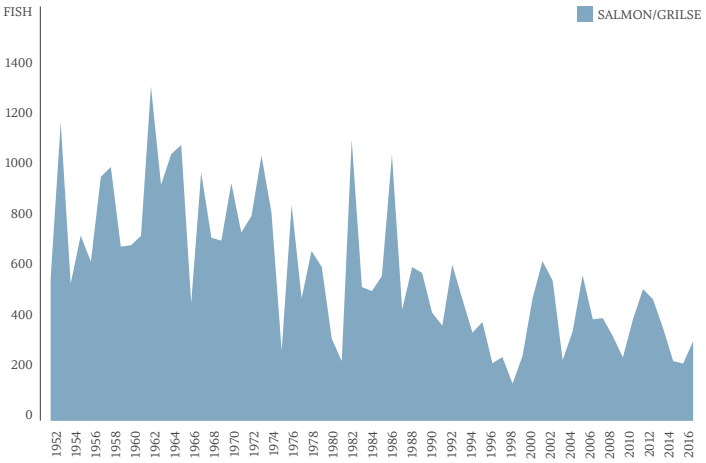
Grimersta

Jason Laing – *Grimersta Estate Manager*

The system experienced a really encouraging first half of the season, with the best return for June since 2005, the best return for July for five years, and plenty of decent shoals visible in the sea lochs. However, the second half of the season was disappointing. Water levels were good throughout, reaching 4' 3" on the Loch Charrason gauge in early August. By late July many fish were starting to run through to Loch Langabhat. Thereafter some fish will have dropped back down the system, but those that did were seemingly reluctant to take. Although fresh fish were encountered into October there did not appear to be a significant "top-up" run in the latter part of the season. Sea trout numbers were down in comparison with recent years, but unusual water levels may have been a factor in catches and the size and condition of sea trout continues to improve. We continue to work to achieve consensus on fisheries management throughout the wider Langabhat catchment.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	313	3	310	n/a	350	100/88/88%*	18lb
Sea Trout	150	n/a	n/a	n/a	251	100%	3lb

*Season dates: 11 Feb – 15 Oct. * spring / summer / overall.*



GRIMERSTA ROD CATCH STATISTICS 1952-2016
SOURCE – WESTERN ISLES DSFB

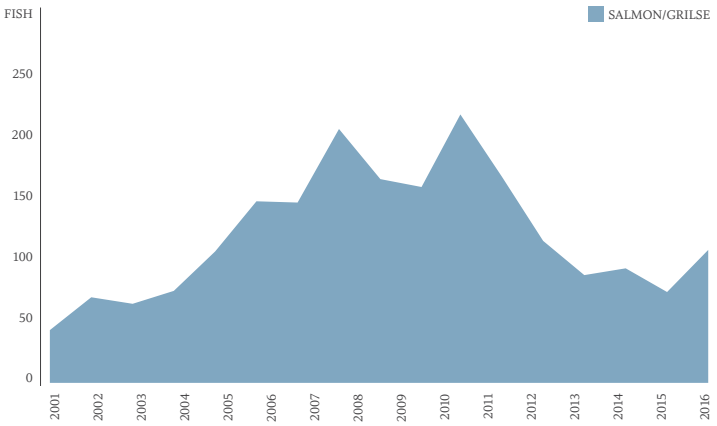
Snizort

Derek Dowsett – *Snizort River Manager*

Although the salmon catch for 2016 was up 46% on the previous poor season, the weather conditions for the last three weeks gave few spates, so the season didn't really fulfil its early promise. The last four consecutive years have experienced far fewer seasonal spates, but sightings of salmon moving up the river indicated good numbers in each year. The river is now designated as Category 3 by Marine Scotland, but for the last 12 years a full catch and release regime has been in operation anyway. The sea trout catch was markedly down in 2016 and has declined over the past four seasons. There is a possibility that prolonged spells of heavy rain throughout the last four winters may be causing redd wash-out in the catchment. Particularly worrying is the fact that Loch Snizort can no longer be used in future as a control site for scientific research (eg sea lice monitoring) as two sites in the loch have been approved for new aquaculture operations and one is already under construction, despite strong objections lodged by Skye DSFB and other stakeholders.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	101	0	101	n/a	130	98%	22lb
Sea Trout	34	n/a	n/a	n/a	58	98%	3lb

Season dates: 10 Feb – 15 Oct.



SNIZORT ROD CATCH STATISTICS 2000-2016

SOURCE – SKYE DSFB

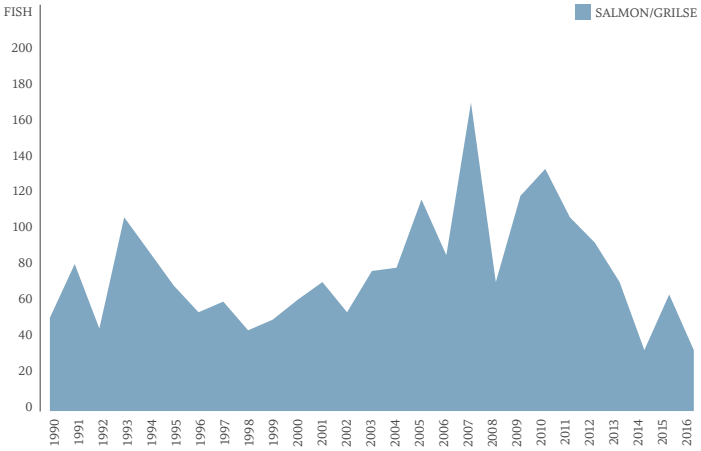
Little Gruinard

Brian Fraser – *Manager, Eilean Darach Estates*

The runs of fish arrived early in June and in good numbers. We all thought this was a positive sign for the rest of the season after the local fish farms reporting zero numbers of sea lice the year before but our excitement was short lived as virtually no further runs of fish arrived. Despite good water, we had a very poor season which ended very disappointingly with the joint lowest recorded catch since records began in 1952, matching 2014's total.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	34	0	34	n/a	n/a	100%	14lb
Sea Trout	0	n/a	n/a	n/a	n/a	n/a	n/a

Season dates: 11 Feb – 31 Oct.



LITTLE GRUINARD ROD CATCH STATISTICS 1990-2016

SOURCE – LITTLE GRUINARD MANAGEMENT

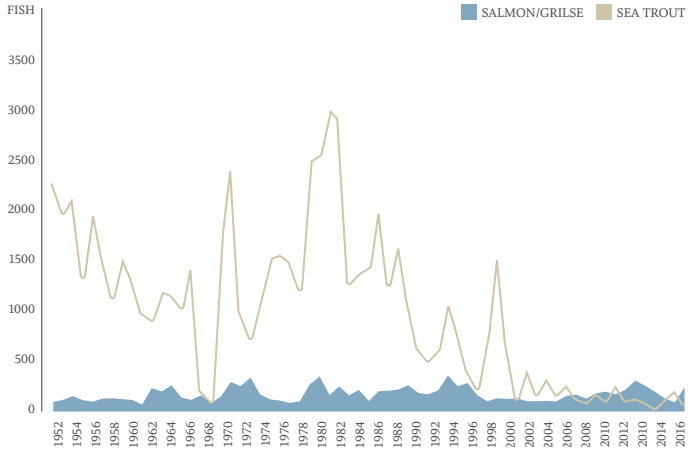
Ewe and Loch Maree

Peter Cunningham – *Biologist, Wester Ross Fisheries Trust*

For salmon, the season was an extraordinary one. River Ewe ghillie, Ray Dingwall, said the season got off to a good start, with good fishing in May and June and the best fishing in July for many years. However, from August onwards catches were poor, with few fresh fish. Sea trout were particularly scarce in the River Ewe. However, there were good catches of sea trout at the south end of Loch Maree, including some larger fish lost. Loch Maree Hotel waters were lightly fished compared to earlier years; brown trout catches outnumbered sea trout. Coulin Estate is leading the way with habitat improvement and is currently developing a third riparian woodland enclosure along the farmhouse burn, an important sea trout spawning burn. Hydropower schemes are currently under construction within the upper Bruachaig River above Kinlochewe, in the Grudie River and at Garbhaig above Loch Maree. A seal was seen in Loch Maree and many others in the Ewe estuary. There was no evidence of heavily sea louse infested sea trout within the system – the nearest salmon farm was in the first year of the production cycle – but there are proposals for three new 2,000 tonne salmon farms in the Summer Isles area.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	264	14	250	n/a	n/a	100%	23lb
Sea Trout	50 (est.)	n/a	n/a	n/a	n/a	100%	2.5lb

Season dates: 11 Feb – 31 Oct.



RIVER EWE AND LOCH MAREE ROD CATCH STATISTICS 1952-2016

SOURCE – WESTER ROSS FISHERIES TRUST

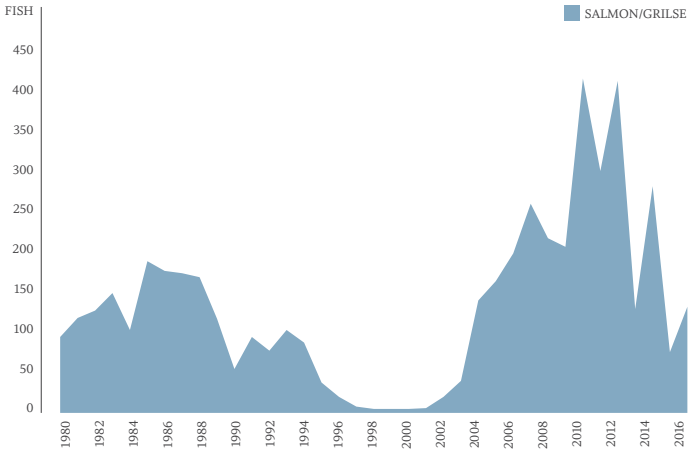
Carron (West Coast)

Bob Kindness – *Carron River Manager*

A few double figure salmon were caught in June, before reasonable numbers of grilse started to run during July and early August. Most of these fish ran through the lower beats to Loch Dughaill avoiding capture, perhaps anticipating the dry conditions that were to follow. From mid-August to the end of the season there was an almost complete lack of fishable water, reflecting very poor catches. At times, good numbers of sea trout and finnock appeared in the sea pools but these fish also moved quickly up the river to the safety of Loch Dughaill. Winter spates continue to occur, resulting in gravel movements and the potential for redd wash-out, although the stocking programme continues to mitigate such losses and a 100% catch and release policy continues to operate for all fish.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	133	0	133	n/a	245	98.5%	24lb
Sea Trout	64	n/a	n/a	n/a	120	100%	5lb

Season dates: 15 Feb – 31 Oct.



CARRON (W.COAST) ROD CATCH 1980-2016

SOURCE – RIVER CARRON MANAGEMENT

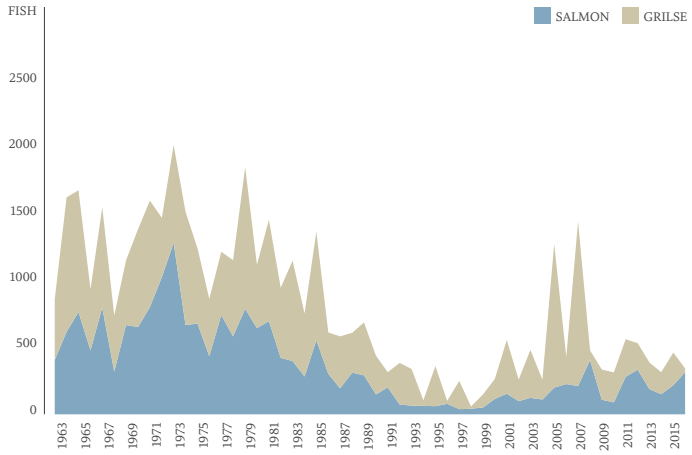
Lochy

John Veitch – *Lochy River Manager*

May through July delivered some excellent fishing on the whole river, but August and September were disappointing, with very few grilse entering the system. October produced some good fishing and some lovely big autumn salmon. The most impressive aspect of the season was the average size of fish – 13lb across the whole season and over 15lb from May-July – and the catch was 92% salmon and only 8% grilse. Thirty fin clipped fish were caught, which equates to almost 9% of the total catch return. An additional 30% of the 2014 hatchery smolts were not clipped but would have returned as 2SW salmon in 2016 and grilse in 2015, so the actual hatchery contribution to overall catch must be around 11%.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	445	42	303	n/a	520	100/97/97%*	40lb
Sea Trout	65	n/a	n/a	n/a	157	100%	4lb

*Season dates: 15 Feb – 31 Oct. * spring / summer / overall.*



LOCHY ROD CATCH STATISTICS 1963-2016

SOURCE – LOCHY ASSOCIATION

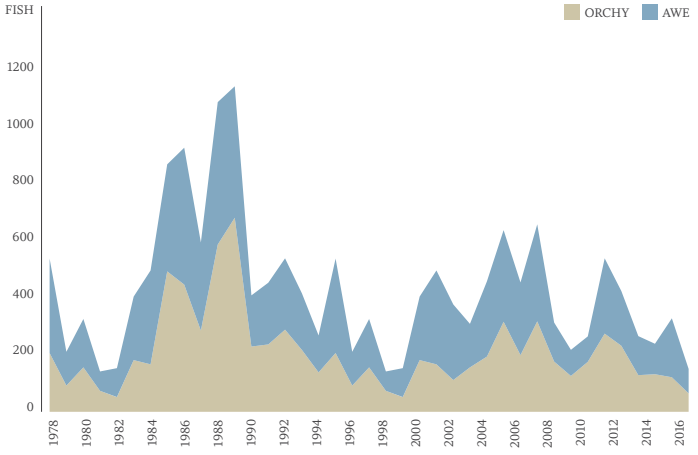
Awe and Orchy

Roger Brook – *Chairman, Argyll DSFB*

The total catch of 149 salmon was 45% of the previous year, which precisely mirrors the decline in the number of fish in the river as monitored by the Awe counter. The spring fishing in May was particularly good on the Awe, as we had a run of fish that has only been exceeded twice before in the last 50 years. Once these fish stopped taking, the season was very poor, as the grilse never came. Catches tailed off quickly and the season will be remembered as being very disappointing. A programme to monitor the smolt run has begun with cooperation from Marine Scotland Science, the Hydroboard and the Argyll Fishery Trust. Better understanding of the migration of these fish should help us to protect them from the dangers associated with hydro generation, predation and aquaculture.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	149	50	99	n/a	339	100%	n/a
Sea Trout	0	n/a	n/a	n/a	n/a	n/a	n/a

Season dates: 11 Feb – 31 Oct.



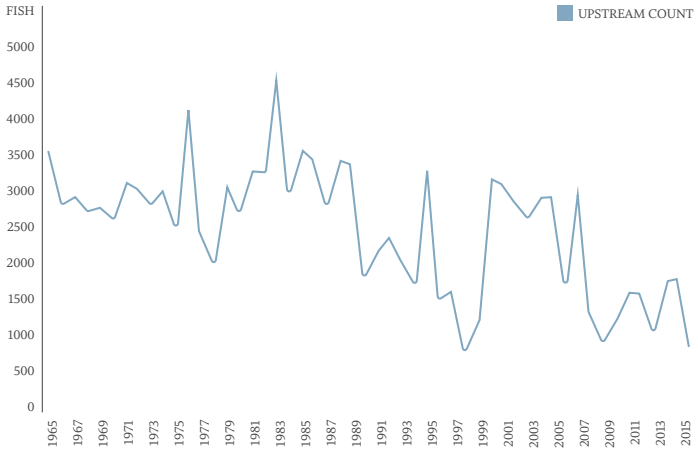
AWE & ORCHY ROD CATCH STATISTICS 1978-2016

SOURCE – ARGYLL DSFB

Awe counter

Roger Brook – *Chairman, Argyll DSFB*

The total run of fish through the Awe counter was 807 – 46% of the previous year and 52% of the 5-year average. This figure on its own is very disappointing, while a detailed breakdown of the figure is very puzzling. The count up to the first week of June was double the 5-year average and from then onwards only 25% of the 5-year average returned. There was an almost complete failure of the grilse run. Much is being said about a return to a pattern of early running salmon instead of the summer run of grilse. However, we had a healthy run of grilse in 2015 and the early run of fish in May were salmon. Where they came from is a puzzle.



AWE BARRAGE UPSTREAM COUNT 1964-2016

SOURCE – SCOTTISH AND SOUTHERN ENERGY

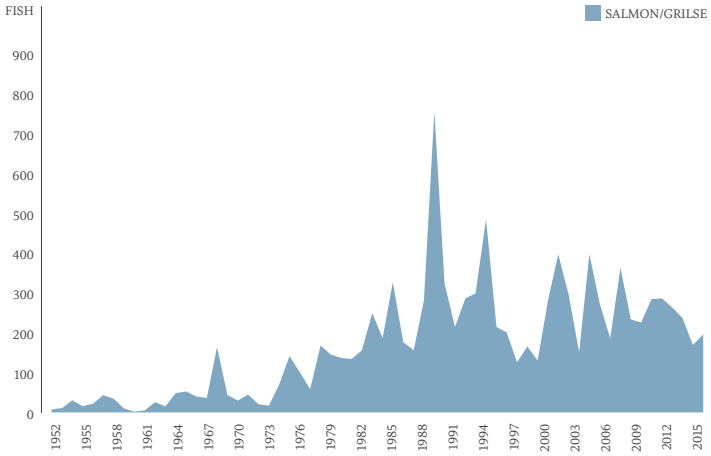
Irvine and Garnock

Stuart Brabbs – *Ayrshire Rivers Trust*

The full returns for 2016 were not available at the time of writing: Kilwinning AC, on the Garnock, were the only club on either river to submit an official return and accounted for half of the reported total salmon catch from both rivers, with 97 salmon. Meanwhile the Irvine anglers talked of reasonably good catches throughout most of the season but these failed to materialise in the overall figures provided to Marine Scotland Science. This makes it impossible to assess the true picture of salmon runs on either river. There is an active bailiff force on the river yet, despite this, poaching continues to be a serious threat, particularly in the tidal waters below the weir.

	2015 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	198	0	198	n/a	257	65%	25lb
Sea Trout	220	n/a	n/a	n/a	104	n/a	3lb

Season dates: 15 Mar – 15 Nov.



IRVINE/GARNOCK – ROD CATCH STATISTICS 1952-2015

SOURCE – AYRSHIRE RIVERS TRUST

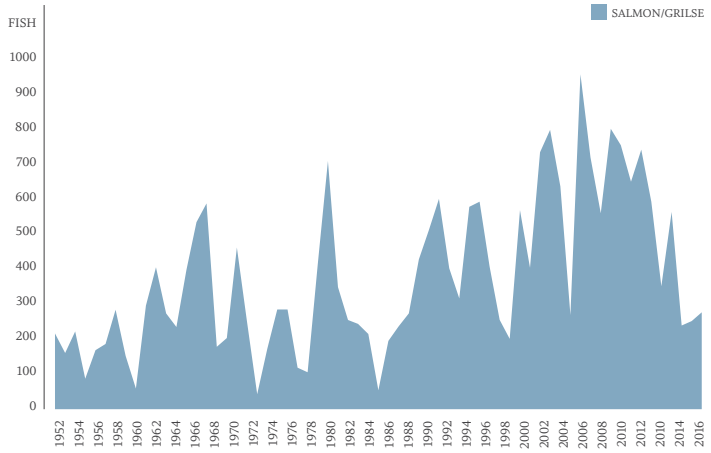
Ayr

Stuart Brabbs – *Ayrshire Rivers Trust*

The season didn't really get under way until late June, when good numbers of MSW salmon were encountered. Disappointingly, the grilse failed to materialise in great numbers, so catches dipped in August and September. Many of the fish that were encountered were of a good size and the largest reported was estimated to be well over 25lb, which came from the Annbank Club stretch. October was the most productive month, but few fresh fish were to be seen. The Ayr was a Category 3 river in 2016, so the release rate rose to 100%, which can only benefit stocks, although the measure also appeared to drive considerable numbers of anglers from the river, and clubs reported memberships well down on previous years. Easing barriers continues to be a priority for both Trust and Board and efforts continue in this respect. The fish pass at Catrine appears to have been improved, but only once the Vaki counter issues are rectified will we know how this performs and what impact the hydro scheme has on run timing.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	274	1	273	n/a	509	100%	25lb
Sea Trout	9	n/a	n/a	n/a	n/a	100%	3lb

Season dates: 11 Feb – 31 Oct.



AYR ROD CATCH STATISTICS 1952-2016

SOURCE – AYRSHIRE RIVERS TRUST

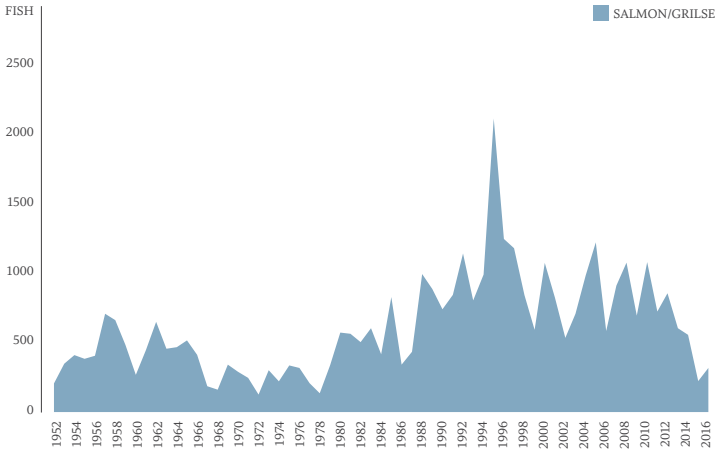
Doon

David Cosh – *River Doon DSFB*

Another woeful year, it is apparent that the west coast rivers have been sacrificed to the benefit of the fish farms – even the fish farmers themselves are complaining that sea lice are out of control and costing them money. One company reported losses of £12.7 million in their third quarter due to "unprecedented levels of mortality" and another's annual accounts said they had serious problems with sea lice in Scotland. It would appear that early fish on the Doon are on a slight increase, albeit from a low base, summer fish in decline and autumn fish virtually gone. Ayrshire Rivers Trust report fewer fry in the lower river, and our bailiffs find it harder each year to collect broodstock, although 3,000 fed fry were released in the Culroy Burn in July. The Board, recognising the problem, are requesting 100% catch and release for 2017, even though the Doon was given Category 1 status.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	316	0	316	n/a	760	78%	22lb
Sea Trout	15	n/a	n/a	n/a	n/a	100%	n/a

Season dates: 11 Feb – 31 Oct.



DOON ROD CATCH STATISTICS 1952-2016
SOURCE – AYRSHIRE RIVERS TRUST

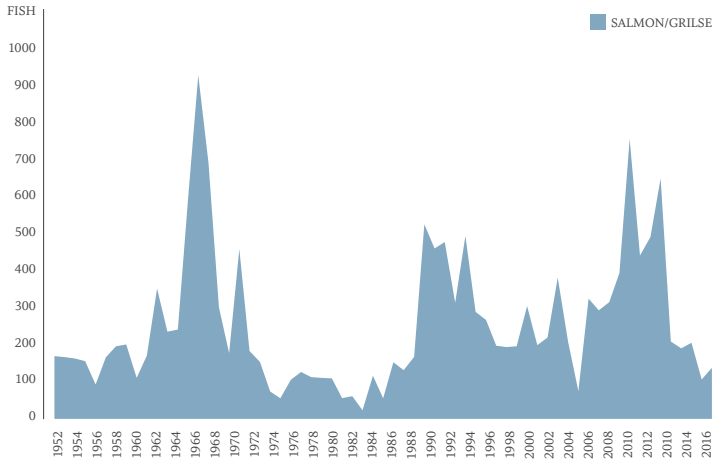
Girvan

Stuart Brabbs – *Ayrshire Rivers Trust*

The Girvan produced Ayrshire's first salmon in April, but springers proved few and far between. Overall, the 2016 season was disappointing and the river suffered from long periods of low water. Being a spate river, this isn't conducive to good sport but perhaps more worrying was the lack of salmon, and in particular grilse, returning to the river. August was the most productive month and every rise in water brought more salmon into the system, but grilse were notably scarce. By October, catches dwindled, but perhaps a lack of anglers was as much responsible as a lack of fish, as there were reports of good numbers of salmon going over the Dykes in the lower river. While weather hasn't helped the fishing in recent years, the numbers of salmon returning to the river has undoubtedly declined. Juvenile stocks remain encouraging in middle and upper reaches, but that won't continue indefinitely should marine survival continue to decline. The Board, in conjunction with Ayrshire Rivers Trust and landowners, is actively working to reduce diffuse pollution and great efforts are being made to address severe erosion using willow spilling and other green methods.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	140	5	135	n/a	377	0/72/69%*	15lb
Sea Trout	95	n/a	n/a	n/a	n/a	99%	3lb

*Season dates: 25 Feb – 31 Oct. * spring / summer / overall.*



GIRVAN ROD CATCH STATISTICS 1952-2016
SOURCE – AYRSHIRE RIVERS TRUST

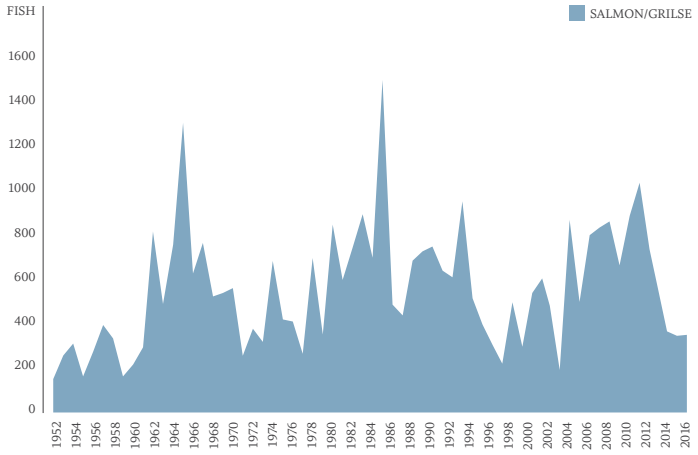
Stinchar

Stuart Brabbs – *Ayrshire Rivers Trust*

The Stinchar started well, with a few salmon showing up in May and June to the few rods venturing out. July was a good month and it was noted that the size of fish was above average and consisted mainly of MSW salmon.
As elsewhere in Ayrshire, the grilse run was very poor and August catches reflected this. When there was water, there was always a chance of a fresh fish, but the Stinchar fishes best when falling back from large spates and there were very few of them all season. Rods reported good numbers of fish in the river but the lower beats failed to find their share, as most salmon ran straight through to middle and upper reaches. There were a few nice sized sea trout about but the reported catch at the end of the season fails to reflect this, and perhaps the art of night fishing is rarely practiced these days. The Board issued a new code of conduct in 2016 to bolster and encourage conservation, in light of the river being given Category 2 status by the Scottish Government, and this helped us achieve an 87% release rate this year.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	341	5	336	n/a	663	87%	n/a
Sea Trout	45	n/a	n/a	n/a	n/a	100%	n/a

Season dates: 25 Feb – 31 Oct.



STINCHAR ROD CATCH STATISTICS 1952-2016
SOURCE – AYRSHIRE RIVERS TRUST

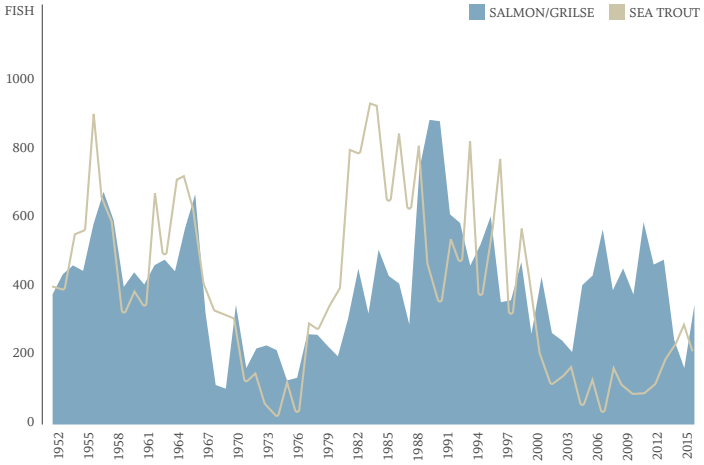
Cree

Terence Flanagan – *Chairman, Cree DSFB*

Although exact figures are not currently to hand, it appears that the rod catch for the 2016 season was approximately 250 salmon and 175 sea trout. Given that angling effort was much reduced, due to the river's Category 3 status, the result is satisfactory. The season was similar to 2015, in that there were good numbers of spring fish and catches dropped off quickly from the end of August. Again, there were good numbers of salmon in the spawning burns after the season closed and the Hatchery and Habitat Trust experienced the easiest hatchery broodstock collection ever. It is expected that it will have been a successful spawning season for the wild fish too, given the absence of the damaging floods which occurred last winter. A programme of environmental improvements continues, including the removal of self-seeded Sitka spruce close to various spawning burns and re-planting with native broadleaf trees. The River Cree DSFB conservation code was made more restrictive for the 2016 season but has been relaxed for 2017 in view of the change in classification of the river to Category 1. No nets were operated in the estuary during the 2016 season.

	2015 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate*	Largest fish
Salmon	345	41	304	67	n/a	98/73/73%	n/a
Sea Trout	214	n/a	n/a	n/a	n/a	86%	n/a

*Season dates: 1 Mar – 14 Oct. * spring / summer / overall.*



CREE ROD CATCH STATISTICS 1952-2015
SOURCE – GALLOWAY FISHERIES TRUST

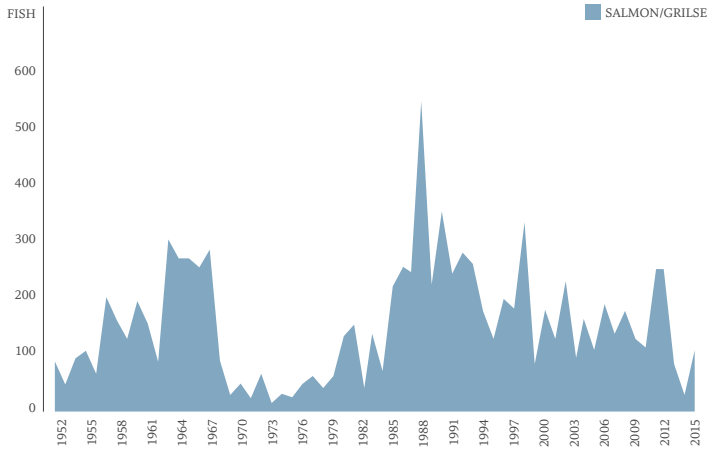
Bladnoch

Galloway Fisheries Trust

The first Bladnoch salmon to be caught was notably late this year, entering the records some two months after opening day – possibly the result of diminished fishing effort due to the Category 3 status of the river. Overall, the spring months were very quiet, with only the odd salmon coming off Mochrum Park. Fishing effort at this time was disappointing, particularly upon Clugston water, although there was rejuvenated activity in the upper reaches of the Bladnoch, particularly on the Tarf, where a newly established Kirkcowan Angling Club began regularly fishing and recorded 25 salmon/grilse, the largest of which was a 20lb hen. By October, the river was very low, until week three when most of the month's catches were made. The main concern on the Bladnoch is acidification in the headwaters. A programme of conifer removal and peatland restoration is being undertaken to improve water quality and, in recent years, salmon have been starting to return to some of these areas. The river has been given Category 2 status for the 2017 season.

	2015 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate*	Largest fish
Salmon	107	19	88	n/a	145	100/88/90%*	14lb
Sea Trout	0	n/a	n/a	n/a	1	n/a	n/a

*Season dates: 11 Feb – 31 Oct. * spring / summer / overall.*



BLADNOCH ROD CATCH STATISTICS 1952-2015
SOURCE – GALLOWAY FISHERIES TRUST

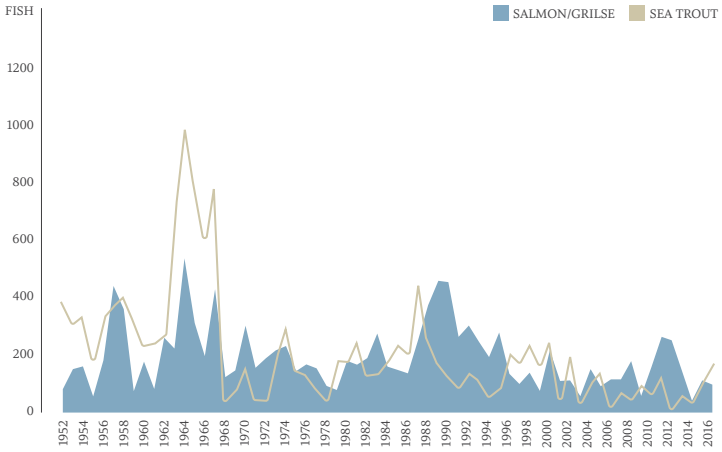
Luce

Galloway Fisheries Trust

A series of small rises in mid-June signalled the start of the fishing season and some lovely fresh sea trout of 2-4lb were among the first catches. Rainfall was more evenly spread in July and salmon entered the catches in week two. In August, reports of plenty of fish in the river were supported by one angler, who caught 6 grilse and salmon on August 13th. A 16lb salmon was recorded on August 22nd, before the river dropped away to summer low flows. Conditions in September improved by mid-month but, overall, salmon catches were disappointing, although a 30lb specimen was caught on September 26th. For the second year running October was unseasonably dry, with only one measurable spate recorded in week three. 97 salmon and grilse were recorded in 2016 which was slightly short of the 2015 figure. For sea trout, catches were evenly spread across the summer months and sport continued during the autumn, providing a catch return of 175, which was a welcome improvement on recent years. Control of Japanese knotweed continues across the lower and mid-river, where it used to be a major cause of bank erosion, and the coverage has been reduced from 1,712 m^2 in 2013 to 398 m^2 in 2016.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	97	0	97	n/a	142	100%	30lb
Sea Trout	175	n/a	n/a	n/a	105	87%	6lb

Season dates: 25 Feb – 31 Oct.



LUCE ROD CATCH STATISTICS 1952-2016
SOURCE – GALLOWAY FISHERIES TRUST

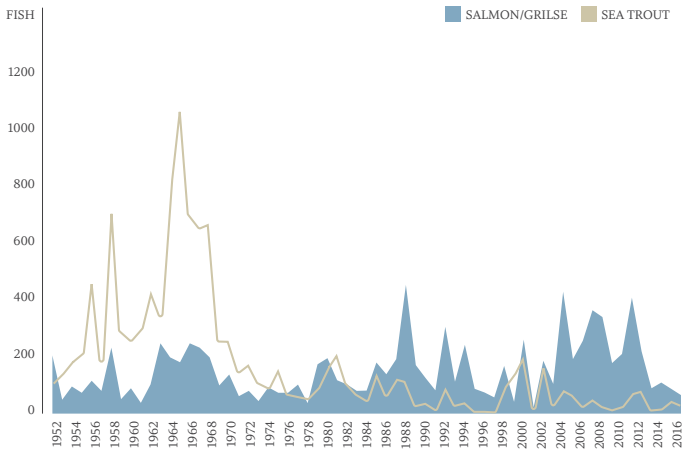
Urr

Will Marshall – *Secretary, Dalbeattie Angling Association*
Kenny Irving – *Chairman, Castle Douglas Angling Association*

Salmon used to run the Urr in November, indeed it was famous for its late running fish, but the main run now appears to happen in September and October, with some fish running in August if the weather permits. 2016's dry October and November meant low water and no real spates to allow fish to run in any numbers. Decent catches were made in August when water levels were good, while most of the fish in July/August were in double figures, with few grilse to be seen. Angling pressure has been exceedingly light, partly due to low rainfall, leading to probably only 20 or 30 fishable days all season, but also due to reduced membership of the angling associations – Dalbeattie AA lost about a third of its membership on the announcement of the Category 3 status for the river and there are fears this trend could continue. Signal crayfish have been found in Buittle reservoir and a programme of works to eradicate them has been undertaken by Scottish water, in close consultation with the Angling Associations. This would appear to have been a great success, but gravel build-up in some stretches of the river poses another concern.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	61	1	61	n/a	n/a	100%	24.5lb
Sea Trout	34	n/a	n/a	n/a	n/a	78%	4.5lb

Season dates: 25 Feb – 30 Nov.



URR ROD CATCH STATISTICS 1952-2016
SOURCE – GALLOWAY FISHERIES TRUST

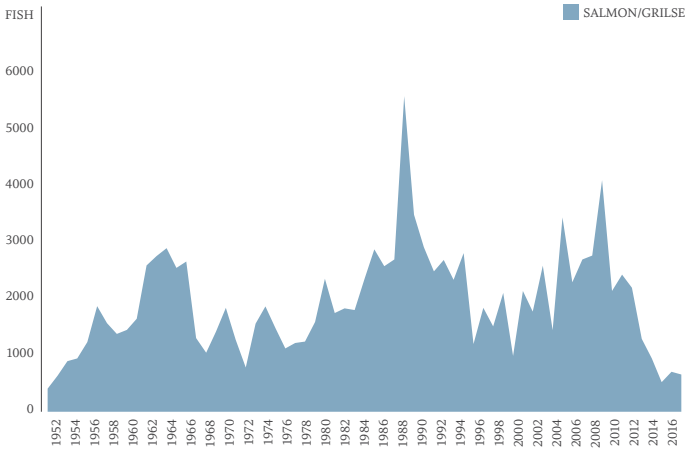
Nith

Jim Henderson – *Fishery Director, Nith DSFB*

The main salmon run occurred from July to October, peaking in September. This has been the case for the last few years, with the run times becoming earlier, resulting in a weaker back end. There was a distinct lack of anglers on the river, a decline which has been noticeable in recent years. Traditionally, the Nith's most productive time for sea trout fishing has been June to mid-July, unfortunately, we experienced high flows during this period, although these resulted in productive sea trout fishing in the upper river. The Board is considering installing a fish counter within the catchment in order to make sure that our conservation limits are accurate. It is felt that this will be a useful tool for the future management of salmon stocks. As the Nith was classified as a Category 3 river for the 2016 season, 100% catch and release was practiced for salmon.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	655	33	622	163	2,248	100%	19lb
Sea Trout	866	n/a	n/a	348	1,090	78%	10lb

Season dates: 25 Feb – 31 Nov.



NITH ROD CATCH STATISTICS 1952-2016
SOURCE – NITH DSFB

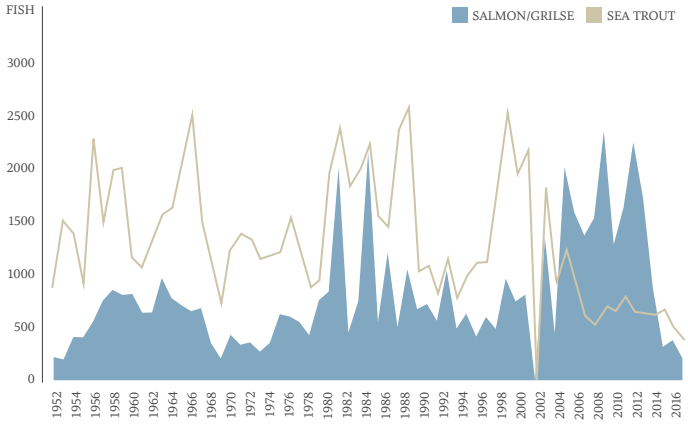
Annan

Antony Donnelly – *Director, Annan Board and Trust*

There were promising signs as salmon congregated in the Solway during a prolonged dry spell from late May until the end of June. Despite the low water, sea trout crept their way up the system and were well distributed throughout the main river by late June. Salmon fishing conditions were good throughout summer, with regular small lifts in water. Fishing peaked in early August, boosted by the arrival of reasonable grilse numbers in late July. After mid-August runs appeared to cease and the last fresh salmon was recorded on August 15th. Without question our Category 3 designation had a significant negative influence on angler numbers, but our electrofishing results reflect the same downward trend as rod and line catches, with declining juvenile densities encountered for the sixth consecutive year. We are particularly concerned about two key areas of the catchment which are suffering from ongoing morphological pressures. On a more positive note, SEPA is now actively pursuing a solution to the migration issues at Milnby Weir at the foot of the river. The Scottish Government made a dispensation for the Annan Burgh haaf net fishery to retain a quota of salmon and Marine Scotland intend to use samples from these to gather local information on fecundity.

	2016 total	pre Jun 1	post Jun 1	Total nets	10yr average	Release rate	Largest fish
Salmon	208	8	110	35	863	100%	16lb
Sea Trout	383	n/a	n/a	n/a	580	100%	8lb

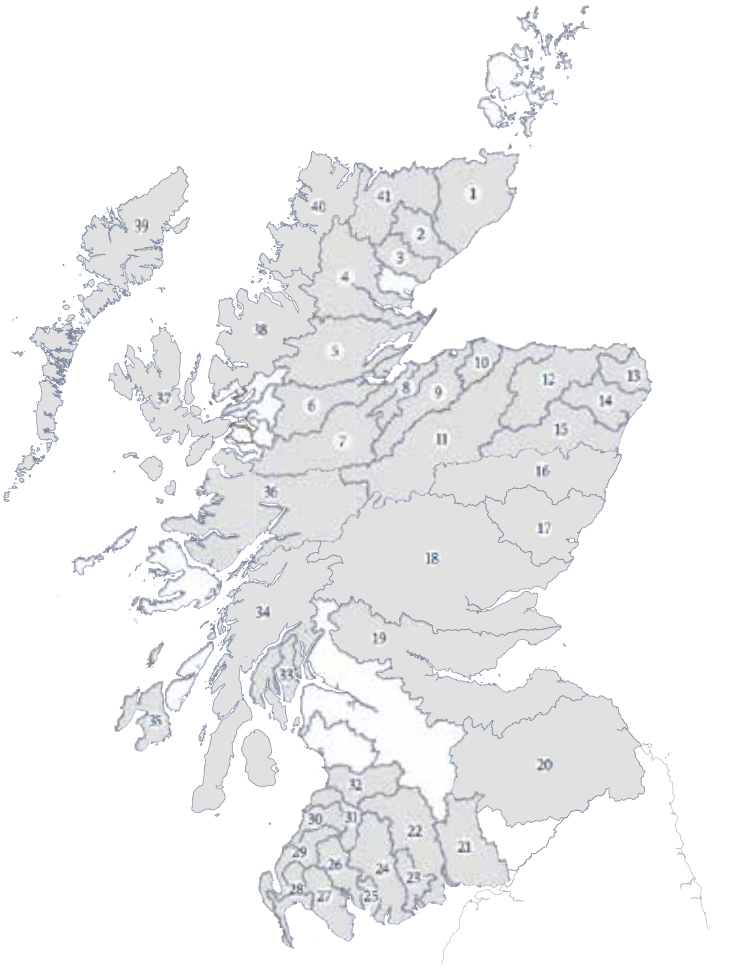
Season dates: 25 Feb – 15 Nov.



ANNAN ROD CATCH STATISTICS 1952-2016
SOURCE – ANNAN DSFB

Salmon Fishery Districts

1 Caithness
2 Helmsdale
3 Brora
4 Kyle of Sutherland
5 Cromarty
6 Beauly
7 Ness
8 Nairn
9 Findhorn
10 Lossie
11 Spey
12 Deveron
13 Ugie
14 Ythan
15 Don
16 Dee (Aberdeen)
17 Esk
18 Tay
19 Forth
20 Tweed
21 Annan
22 Nith
23 Urr
24 Dee (Kircudbright)
25 Fleet (Kircudbright)
26 Cree
27 Bladnoch
28 Luce
29 Stinchar
30 Girvan
31 Doon
32 Ayr
33 Eachaig
34 Argyll
35 Laggan and Sorn
36 Lochaber
37 Skye
38 Wester Ross
39 Western Isles
40 North and West
41 Northern



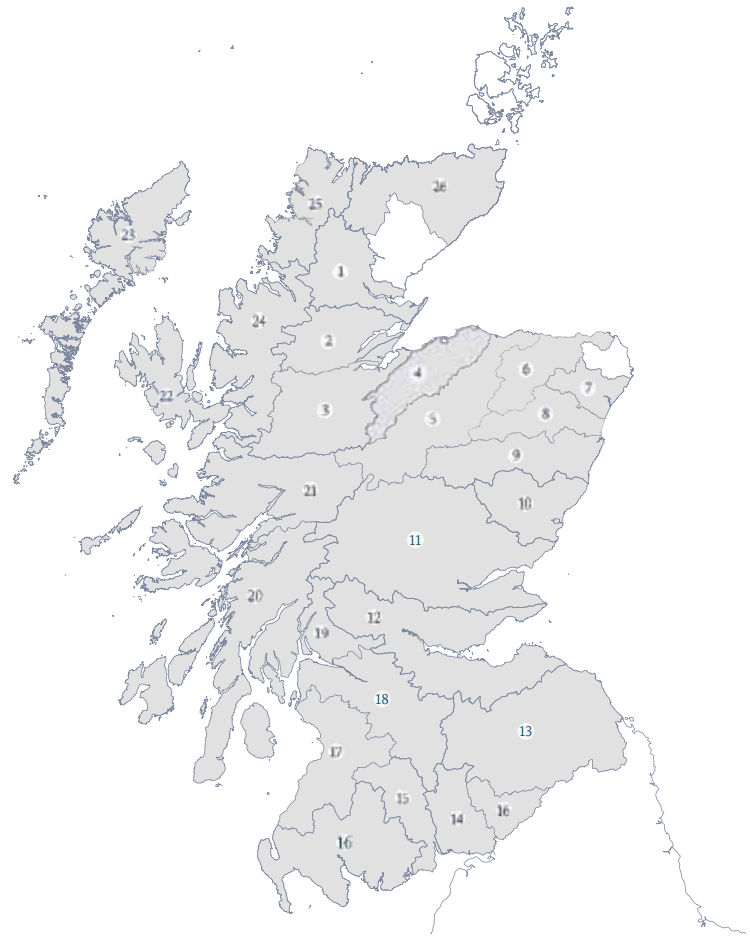
Sources:

Salmon Fishery Districts – Scottish Government 2006.

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

Fisheries Trusts

1. Kyle of Sutherland Fisheries Trust
2. Cromarty Firth Fisheries Trust
3. Ness & Beauly Fisheries Trust
4. Findhorn, Nairn & Lossie Trust
5. Spey Foundation
6. Deveron, Bogie & Isla Rivers Charitable Trust
7. River Ythan Trust
8. River Don Trust
9. River Dee Trust
10. The Esks Rivers Fisheries Trust
11. Tay Foundation
12. Forth Fisheries Trust
13. Tweed Foundation
14. River Annan Trust
15. Nith Catchment Fisheries Trust
16. Galloway Fisheries Trust
17. Ayrshire Rivers Trust
18. Clyde River Foundation
19. Loch Lomond Fisheries Trust
20. Argyll Fisheries Trust
21. Lochaber Fisheries Trust
22. Skye Fisheries Trust
23. Outer Hebrides Fisheries Trust
24. Wester Ross Fisheries Trust
25. West Sutherland Fisheries Trust
26. Flow Country Trust



Sources:

Fisheries Trust Boundaries, SG MS and SEPA (2011).
Some features of this map are based on digital spatial data
licended from Centre for Ecology and Hydrology, © NERC.

Scottish Government Marine Scotland GIS team, February 2012, gj0627.

Scotland's DSFBs and Fisheries Trusts

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