Fisheries Management Scotland

2020
ANNUAL REVIEW

Fisheries Management Scotland was formed in 2016 as the single representative organisation for the District Salmon Fishery Boards, River Tweed Commission and Fisheries Trusts and Foundations in Scotland.

We aim to:

- Promote and ensure the best fisheries management for the protection, preservation and development of Scotland's wild salmon and freshwater fish, along with their fisheries and environment.

- Represent the interests of our member organisations

FMS employs three staff – Dr Alan Wells (Chief Executive), Brian Davidson (Director of Communications & Administration) and Sean Dugan (Manager of the Scottish Fisheries Co-ordination Centre). We are grateful to Marine Scotland for facilitating the secondment of Aleksander Jasinski to Fisheries Management Scotland on a part-time basis.




Fisheries Management Scotland are grateful for the support received from Marine Scotland, Maritime Fisheries Fund and Crown Estate Scotland for project work undertaken by our members.

Cover image: Sea trout spawning in the Cairngorms National Park (photomerge). © Desmond Dugan

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Chairman's introduction

Richard Sankey
Chairman, Fisheries Management Scotland

2019 was an incredibly busy year for Fisheries Management Scotland. We have made a concerted effort to raise awareness of the critical situation that salmon face and have pressed the case for urgent action to save our wild salmon and make their conservation a national priority.

In September, we heard the incredibly sad news that Tony Donnelly had passed away. Tony had only recently taken up the post of director at the Cromarty Firth DSFB and Fisheries Trust. Tony was well known to our community, having previously worked at the Argyll Fisheries Trust and the River Annan Trust and DSFB. Tony was a passionate advocate for angling and conservation, a great friend to many in our community and he will be greatly missed. Our thoughts are with his family.

Our community faces many challenges. The official catch statistics for salmon and sea trout in 2018 were the lowest levels since records began. Whilst 2018 saw very dry conditions, figures for 2019, taken together with those of recent years, confirm this iconic species is now approaching crisis point. Declining rod catches have also had a significant impact on our fragile rural communities, reducing the ability of managers to raise money to support management and restoration activities. This aspect is discussed further on page 14.

The threats to our iconic fish species are complex and multifactorial and there is no single reason for the declines. However, it is important to emphasise how few of these pressures are under the direct control of fisheries managers. On that basis, Fisheries Management Scotland recognises the fundamental importance of working collaboratively with government and agencies to highlight and ultimately address these pressures. In our view, this engagement is crucial to delivering the long-term changes that are required to protect and enhance the environments on which our fish depend.

Fisheries Management Scotland has now been in place for three years, but a great deal has changed in that time. Our board has therefore instigated a strategic review of our operations, with a view to ensuring that we have the resources in place to effectively support our members' efforts to protect and enhance the aquatic environment. I am therefore delighted that we will be recruiting a new member of the team in 2020, to support the management of interactions between farmed and wild salmonid fish, with the aim of protecting and restoring wild salmonid populations. We are very grateful to Marine Scotland and Crown Estate Scotland, who have jointly agreed to fund this new post within Fisheries Management Scotland.

"Figures for 2019, taken together with those of recent years, confirm this iconic species is now approaching crisis point"

Another vital element of our strategic review is to examine the means by which fisheries management is funded. This was a key element of wild fisheries reform and it is vital that we develop a sustainable funding mechanism for local management.

Finally, at the time of writing we are in an uncertain period with the developing situation regarding the potential impacts of the Coronavirus (COVID-19) infection. We have taken the decision to postpone our annual conference for the safety of attendees, and we are monitoring the wider situation closely.

My thanks go to our board members, and staff Alan, Brian and Sean who do a fantastic job on behalf of our members to highlight and help to address the issues faced by our fish and their aquatic habitat.



Fisheries Management Scotland in 2019

Alan Wells, Brian Davidson & Sean Dugan

2019 was the International Year of the Salmon, which presented a unique opportunity for our community to raise awareness of the significant issues facing our iconic wild Atlantic salmon. Environmental change, and a range of human impacts across the Northern Hemisphere are placing salmon at risk across their natural range and this led us to call for salmon conservation to become a national priority.

Atlantic salmon, sea trout and other native migratory and freshwater fish species face a wide range of pressures in freshwater, coastal areas and on the high seas. We have long placed a focus on addressing those pressures which are under human control, and throughout this review, we revisit the key activities undertaken on behalf of our members.

It is important to emphasise that the vast majority of pressures which our fish face are not under the direct control of fisheries managers. A large proportion of our work is focused on engaging with Scottish Government and regulators to ensure that concerted and coordinated action to protect and restore our iconic fish species is prioritised. We therefore welcome the Government commitment to prepare and publish a Wild Salmon Strategy by September 2020 and we look forward to contributing to this process.

We delivered a week-long exhibition in the Scottish Parliament in May 2019, which allowed us to highlight the work of our members and raise awareness amongst MSPs of the issues facing our salmon and freshwater fish and the aquatic environment on which they depend. More recently, Fisheries Management Scotland and Scottish Land and Estates held a roundtable event and evening reception in the Scottish Parliament, sponsored by Michelle Ballantyne MSP, with a view to making salmon conservation a national priority. The opening address was delivered by Roseanna Cunningham, who reinforced the Scottish Government's focus on continuing to work with all key partners to safeguard the future of the species.

For the reasons set out above, we continue to prioritise the management of pressures which are under human control. Some of these, such as fish farming and enforcement, are covered in more detail on pages 10 and 18. Possible responses to the current climate emergency and biodiversity crisis are also explored through articles on native riparian woodland on page 4 and on invertebrate communities on page 12.

Fisheries Management Scotland members have worked with Marine Scotland to identify 12 groups of high-level pressures which salmon face. In order to gather information on these pressures, a suite of mapping tools has been developed to provide fisheries managers with a common platform to share local knowledge and to identify and quantify the primary factors limiting Atlantic salmon production in Scotland. Fisheries Management Scotland secured funding from the Scottish Government Maritime and Fisheries Fund to roll this process out across Scotland. At the time of writing the majority of Scotland's catchments have been assessed, thanks to our members' efforts. During spring 2020 outputs from this process will be made available for use by local managers. These will inform and target management action and also provide important evidence for policy development at a national level.

Loch Lubnaig. Photo: Jonathan Louis

Wild brown trout. Photo: Brian Davidson

Wild salmon migration at Buchanty Spout, Perthshire.
Photo: Sean Dugan

River Tweed, Cardrona. Photo: Brian Davidson

Predation, by both birds and seals, has received increasing attention in recent years. Tracking work undertaken on a number of Scottish rivers suggests that a high proportion of tagged smolts did not leave the rivers they hatched in, and this has placed a renewed focus on understanding what is happening. Fisheries Management Scotland has established a predation committee to assess the means by which predation pressure can be managed to protect our precious smolts as they are leaving the rivers, and adult fish on their return. We are delighted that the committee includes representatives from Marine Scotland Science, Marine Scotland Policy, Scottish Natural Heritage (SNH), Science and Advice for Scottish Agriculture (SASA), Centre for Ecology and Hydrology (CEH), Atlantic Salmon Trust and fisheries managers from across Scotland.

Fisheries Management Scotland continues to work to ensure that the roll-out of marine renewable energy developments in Scotland does not impact wild migratory fish. In addition to membership of the ScotMER Diadromous Fish Specialist Receptor Group, which is prioritising research needs for migratory fish, Fisheries Management Scotland also sits on the Moray Firth and Forth & Tay Regional Advisory Groups, which were established to oversee the completion of marine licence conditions relating to environmental monitoring before, during and after construction.

We have made a significant effort during 2019 to engage with SEPA, the licensing authority for a wide range of activities which have the potential to impact our aquatic environment. Fisheries Management Scotland sits on SEPA's Fish and Fisheries Advisory Group, and we have worked hard to emphasise the issues that our iconic fish species face and the actions that SEPA can take to address these. Our work with SEPA has focused on a number of key policy areas – including smolt passage, agricultural diffuse pollution and enforcement.

We continue to work with Marine Scotland Science to facilitate the delivery of the National Electrofishing Programme for Scotland (NEPS). The programme, which is run by Marine Scotland Science, is delivered at a local level by Fisheries Trusts and DSFBs. In July Marine Scotland published their assessment of the 2018 NEPS data alongside a web-based tool for fisheries managers which highlights catchment areas where juvenile numbers are sub-optimal to allow targeted conservation action[1].

Scottish Fisheries Co-ordination Centre and Fisheries Management Scotland continue to harness the considerable expertise of our members and partners to deliver an annual training programme. Training promotes best practice and helps to establish consistent approaches to data collection and fisheries management across Scotland. During 2019 we delivered or facilitated training courses relating to fisheries enforcement for Police Scotland and Crown Office personnel (Tay DSFB, River Tweed Commission and Forth DSFB), fish barrier assessment (University of Stirling), drone survey (Ayrshire Rivers Trust), mobile field mapping (SFCC), freshwater pearl mussel survey (Scottish Natural Heritage) and electrofishing (Galloway Fisheries Trust, Findhorn, Nairn & Lossie Fisheries Trust and Ness & Beauly Fisheries Trust).

2020 is looking to be another interesting year with novel challenges to address. We look forward to working with our members during the year ahead.

[1]More details at: https://www2.gov.scot/Topics/marine/Salmon-Trout-Coarse/Freshwater/Monitoring/ElectrofishingProgramme/References

Trout, salmon and native woodland

Sean Dugan
Fisheries Management Scotland

It is now 30 years since the International Panel on Climate Change drafted their First Assessment Report which predicted that: "an average global mean temperature increase of 3°C above today's value before the end of the next century... and an effective doubling of CO_2 in the atmosphere between now and 2025." During the heatwave of 2018, seven out of 10 Scottish rivers experienced temperatures that are known to cause thermal stress for Atlantic salmon, a situation that is likely to occur once every two years by 2050, according to the scientific consensus. Extreme precipitation events are also predicted to increase in magnitude and frequency.

Riparian vegetation not only provides shade but also purifies water and spawning gravel by buffering silt, chemicals and reducing diffuse pollution. Woodlands lock up carbon, help to regulate flows, provide bank stabilisation and habitat corridors for a wide range of native invertebrate, bird and animal species. Scotland's native woodland has diminished to less than 3 percent of its former range. An exact figure for the extent of native riparian woodland is difficult to calculate. However, a map overlay of current native woodland compared with Scotland's major rivers (as defined by Ordnance Survey) indicates that 59 percent of river segments do not have any native woodland within 100m.

Neil McKenzie, an early proponent of native riparian woodland observed that: "There are now no areas that contain relatively undisturbed natural forests or natural tree lines at the headwater burns of any river in Scotland. The most intact riparian woodland tends to be located in steep riverbanks which are inaccessible to browsing animals and are not suitable for intensive agriculture."

Grey wagtail. Leaf input from deciduous trees provides one of the most important food resources to the freshwater ecosystem. Photo: Desmond Dugan.

Natural riparian woodland regeneration after a reduction in deer grazing pressure River Nethy. Photo: Desmond Dugan

Fisheries Management Scotland will continue to push for a joined-up land-use strategy to guide improvement in river and wetland habitats for native fish species. Large-scale restoration projects, such as the upper Dee riparian scheme, are now in progress and we are exploring means to make forestry grant schemes accessible for such projects and to actively promote native riverbank woodland. If the landscape-scale change required to restore riparian woodlands is to be realised, all parties must work together in partnership for the protection of our aquatic environment.

Riparian woodland meeting

In February 2020 fisheries biologists from 23 districts, government colleagues and a range of native woodland professionals gathered at Faskally, by Pitlochry, to discuss native riparian woodland restoration. Nature communicator Peter Cairns provided a call-to-arms for landscape-scale environmental restoration. Jeremy Roberts outlined a unique partnership called Cairngorms Connect, which involves multiple landowners restoring a vast area of the upper River Spey catchment. These presentations were followed up by a sequence of guest speakers including Woodland Trust, Marine Scotland Science and Scottish Wildlife Trust.

Three of our member Fisheries Trusts presented a range of ongoing riparian restoration work, followed by workshop discussion sessions covering five key themes. Further details of the meeting and native woodland resources are available on the Fisheries Management Scotland website.*

* http://fms.scot/events/sfcc-biologists-meeting/riparian-woodland-meeting/

Alder seed being collected for riparian woodland expansion further upstream. Photo: Desmond Dugan

Faye Jackson, Marine Scotland Science speaking at the SFCC Riparian Woodland Restoration meeting. Photo: Sean Dugan

Native woodland provides habitat for many species. Photo: Sean Dugan

Letting the fish find their way

Alison Baker
Forth Rivers Trust

Brian Shaw
Spey Fishery Board

Two prestigious projects which are set to benefit fish populations in the Forth and Spey catchments were shortlisted for the 2019 Nature of Scotland Awards.

The Howden Bridge Weir

Barriers to fish passage have a significant impact on fish populations – not just Atlantic salmon but also any fish species which needs to migrate within a river system. Ensuring that all species of fish can move upstream and downstream at all water levels is a challenge, particularly in the middle of an urban area such as Livingston. The creation of a "natural" rather than "technical" solution at Howden Bridge by means of a low gradient rock ramp is an ecologically robust and sustainable solution which was recognised by being Highly Commended at the recent Nature of Scotland Awards.

If we are to find long-lasting solutions to support our fish populations, these need to ensure that we do not limit the ability of these species to move through a river system as easily as possible, as well as allowing sediments, nutrients and invertebrate species to develop and reconnect missing in-stream habitat.

The work at Howden Bridge Weir is part of the RiverLife: Almond & Avon project and was undertaken by West Lothian Council, supported by the Forth Rivers Trust, while the funding was provided by the Scottish Government and the National Lottery.

Tamdhu Fish Pass

The highly successful Tamdhu Fish Pass, in the Knockando Burn, was fine example of collaboration across sectors, although at the heart of it was the Tamdhu Distillery manager, Sandy MacIntyre. This particular weir was over 4m high, and steep. It looked like an insurmountable challenge, but the potential gains were considerable – as a pass could open up several miles of excellent habitat. This project was delivered through the coincidence of a company willing to go the extra mile, the right expertise, helpful regulation and dogged determination. Tamdhu Distillery didn't have to address the fish passage issues until 2027 but they chose to act early, setting the standard for others.

The "Alaskan steep" fish pass that was installed was an immediate success. In the two spawning seasons since installation in 2018, numerous sea trout have spawned above the weir and salmon were seen in 2019. The Tamdhu Fish Pass was shortlisted in the business category of the Nature of Scotland Awards. The judges commented on the collaborative nature of the project and recognised the "can-dhu" spirit of Tamdhu Distillery. The organisations involved were Tamdhu Distillery, Envirocentre, Aberlour Engineering, K Rattray and Son, Mark StrathDee Ltd, SEPA, Knockando Estate and the Spey Fishery Board.

Howden Weir rock ramp

Howden Weir rock ramp

Tamdhu fish pass

Silver fish on the silver screen

Richard Davies
Outer Hebrides Fisheries Trust

We are a highly visual species. Over 30 percent of our cortex is dedicated to sight, compared to only 3 percent for hearing. Images create emotional connection and help sell an idea better than any other medium. In the simplest example, how much easier is it to follow catch trends in a graph than in a written format? Video, in both aerial and underwater technologies, has become available on a hobbyist's budget and this has opened up the hidden world of the salmon to us all.

I started out recording salmon for my first film project, *Atlantic salmon – a life on the edge*, in 1996. The challenges of un-evolved technology made it very difficult and time-consuming. Thankfully, technology has moved on at an extraordinary pace and some behaviours have become easy to record with cameras positioned in likely areas for action.

In a world dominated by statistics and data, it is not only worthy to observe nature for the pure joy of doing so but also so that we can share it with others through film. And it's even better if some of what is recorded is of management value.

I once filmed a hen salmon being courted by more than 20 mature parr. It was a fish from a hatchery in France and was 20km above the highest point any fish had ever been stocked. The footage was immediately taken to the local politician to help maintain funding for the restoration project. It provided evidence that the project was working and was proof a politician could understand. Likewise, here in Scotland, video footage often helps dispel any doubts sceptics might have over written reports that don't fit their prejudices.

Shoaling salmon waiting for rain, Thurso bay, 2018. Photo: Richard Davies

With underwater cameras it's possible to identify individual fish by their markings, assess the proportion with predator damage and the condition fish are in. From above it is possible to count how many fish are in a shoal approaching a river mouth, as shown in the example above. From the shore you only see two splashes.

I cannot emphasise enough how important visualisation is in catching the attention of stakeholders and passing on messages important for the future of salmon in Scotland. The interests of the fish, with no voice of their own, are up against the interests of large corporate lobbyists and stakeholders with potentially contradicting demands on the environment. It's time we got our act together.

Paul Hopper, our Fishery Trust biologist, took this last image. For all the wrong reasons, it is maybe the most famous salmon of all time, having been decimated by sea lice in Loch Roag in 2018. A picture can tell a thousand words.

A shoal of salmon navigating the Caithness coast, 2015.
Photo: Richard Davies

A sea lice-infested wild salmon in the Outer Hebrides, 2018.
Photo: Paul Hopper

Habitat improvement: the Galloway way

Jamie Ribbens
Galloway Fisheries Trust

As we all know, salmon stocks across Scotland have been struggling in recent years. The possible reasons for these declines are numerous and varied, and result in much debate and discussion.

The Galloway Fisheries Trust's (GFT) priority is to help the local rivers to naturally produce the healthiest and fittest (ie best adapted to the local conditions they have to experience) salmon smolts possible. This should give them the best chance of survival in the hostile marine environment and aims to maximise the numbers of returning adult grilse and salmon.

The number of salmon smolts which could be produced from Galloway rivers is limited by many pressures. These include acidification, commercial conifer forestry, poor water quality, impassable man-made dams, invasive non-native species, predation and degraded habitats. It is essential to complete studies – such as electrofishing surveys, habitat surveys, barrier assessments and water quality monitoring – and to use data from fish counters to ensure that restoration programmes are carefully planned and prioritised to give the greatest potential benefit to the salmon populations. We work on the principle of evidence-based management and we recently devised a model using a range of data to help prioritise where we need to focus our efforts to improve the salmon populations in each river catchment. Effective delivery of habitat improvements will require collaboration between a range of organisations and stakeholders.

Our key priority is to address the low pH problems (acidification) affecting around 200km of watercourses in the conifer afforested headwaters of the Bladnoch, Cree, Fleet and Kirkcudbrightshire Dee. Restructuring the conifer forests to higher environmental standards has helped and GFT has successfully added limestone gravel to produce buffered spawning beds on the Cree to help protect eggs from acid flushes. Restoring key sensitive upland deep peat areas is required now, by removing conifers from sensitive areas and blocking drains so that water quality can recover.

GFT also plays an important role advising on large scale construction works, such as building windfarms, to protect surrounding waters and their ecology.

The removal of man-made barriers has opened up many kilometres of burns across Galloway for a range of migratory fish species, including salmon. Improving both instream and riparian habitats is important and recently GFT has been placing boulders into previously dredged areas and planting bankside trees to help combat future climate change issues. The Kirkcudbrightshire Dee is severely impacted along its length by the Galloway Hydro Scheme, built in the 1930s, with salmon stocks now critically low. GFT are working closely with the new owners Drax on some exciting projects required to save the Dee salmon.

Adding limestone rock to the River Cree

Blocking drains to restore important peatlands

Ferox trout: managing the myth

Alan Kettle-White
Argyll Fisheries Trust

In the brave new world of evidence-based fisheries management we rely on the collection and analysis of data on the fish, the pressures on them and their habitats to inform decision making. Improvements in genetic screening, tagging and tracking technology have helped us to fill these knowledge gaps. However, this resource-hungry, evidence-based approach is largely restricted to the management of high profile and economically valued species such as Atlantic salmon.

While ferox trout have long been distinguished as different to the more common brown trout, only a few notable specimens are usually caught each year in Scottish lochs, making them something of a myth to most anglers. Until relatively recently they have swum below the radar of most fishery managers too. Their limited distribution in our larger lochs, their rarity and their ecological status as an apex predator make them susceptible to a range of pressures such as over-exploitation, loss of prey fish (such as Arctic char) or vital spawning habitat.

A small group of specialist anglers, known as the Ferox 85 study group, has worked for over three decades to gather information on these mythical fish. This has improved our understanding of the differences in growth, diet and longevity in different waters across Scotland, as well as their movements in large lochs. More recently, scientists operating under the direction of Professor Colin Adams (Glasgow University) and local fishery biologists have also worked on ferox trout, building our knowledge base further.

The ferox trout of Loch Awe have fascinated me for over 25 years – both as an angler and as a fisheries biologist in Argyll. Their record-breaking size has meant they are targeted by specimen hunters. The era of ferox trout ending their days in a glass case is hopefully over, but higher numbers of smaller ferox may be taken unknowingly by anglers as part of the brown trout fishery. Angler-run tagging studies highlighted that rod-caught ferox usually survive capture if handled sympathetically, some tagged ferox being re-caught on more than one occasion over several years. The mark-recapture tagging study on Loch Awe suggested that there are less than 200 ferox present in a very large loch. The Glasgow University scientists analysed samples of genetic material and scales collected by anglers and Argyll Fishery Trust and were able to determine that brown trout in Loch Awe rarely grow bigger than 16 inches.

Using this information, the Loch Awe Improvement Association has introduced a new by-law to allow the taking of a limited catch of brown trout between 10 and 16 inches. This "slot limit", derived from scientific study, will help better protect ferox trout from accidental exploitation while allowing sustainable exploitation of the more numerous brown trout. This initiative is surely an example of how evidence-based management can separate the myth from the reality.

A 28lb ferox tagged and released in 2014. Photo: Alan Kettlewhite

A 14.5lb ferox in peak condition . Photo: Alan Kettlewhite

Finfish farming

Alan Wells
Fisheries Management Scotland

Last year I provided an update on our advocacy work related to finfish farming with a sense of optimism. The Scottish Government had published their response to the parliamentary committee inquiries, and we were working through the Scottish Government's Salmon Interactions Working Group to ensure that the necessary regulatory changes are put in place for the protection of wild fish from the impact of sea lice, escapes and disease transfer. While there has been justifiable frustration, which we share, at the length of time that this process has taken, at the time of writing I am firmly of the view that this process will result in a regulatory system that meets the tests of being robust, transparent, enforceable and enforced.

The Interactions Working Group is chaired by John Goodlad and includes members from Fisheries Management Scotland, Scottish Salmon Producers Organisation, British Trout Association, Scottish Environment LINK, Marine Scotland, Marine Scotland Science, SEPA, SNH and a representative of the local authorities. While the process was challenging at times, the members of the group approached the process in a constructive and professional manner, with a view to making substantive and meaningful progress. It has also led to a far greater understanding of the basis for the sometimes-entrenched positions adopted by the wild and farmed sectors. At the time of writing we have completed what is scheduled to be the last meeting of the group, and the report and recommendations are being finalised for publication. The next phase will be to implement the recommendations and ensure that changes to the aquaculture regulatory system are delivered without delay.

During 2019 we have continued to work with our Fish Farming Committee to develop and refine our input to the Salmon Interactions Working Group. In addition, a major part of our work is to support our members in their engagement with the aquaculture planning process, with a view to protecting salmon and sea trout. As we reported last year, formal requirements for monitoring impacts on wild salmonids are increasingly being included as a planning condition through an Environmental Management Plan (EMP). Marine Scotland now expect an EMP to be delivered as a condition of any consents for marine aquaculture planning applications. We have now supported our members in agreeing a number of excellent EMPs which set out the monitoring that must be undertaken and the adaptive actions that should be undertaken, should any negative impacts be detected. Whilst the EMP process is not perfect, and has not been consistently delivered across the industry, there is great merit in integrating the positive aspects of this approach in the future regulatory system.

We are delighted to be in the process of recruiting an Aquaculture Interactions Manager. This role has the purpose of supporting our members in their efforts to manage interactions between farmed and wild salmonid fish, with the aim of protecting and restoring wild salmonid populations. This is a vital element of Fisheries Management Scotland's work, particularly in

A post-smolt sea trout showing signs of lice infestation. Photo: Richard Davies

The Outer Hebrides Fisheries Trust sweep netting to monitor sea lice on sea trout post-smolts. Photo: Richard Davies

the context of declines in Scotland's Atlantic salmon and sea trout populations and we are extremely grateful to Marine Scotland and Crown Estate Scotland for supporting this important role.

In January, Environment Secretary Roseanna Cunningham announced £750,000 of funding for a major project which will be delivered in partnership between Fisheries Management Scotland, Atlantic Salmon Trust and Marine Scotland Science. The project will involve a number of rivers on the west coast of Scotland with a view to improving our understanding of the migratory pathways used by our juvenile Atlantic salmon smolts. This has long been recognised as an important knowledge gap in our management of this iconic species and we are very grateful for the support for this important work. We anticipate that this project will provide vital information to the spatial planning process being developed by a Technical Working Group, tasked by the Scottish Government with developing a practical framework for assessing the level of risk posed to wild salmon and sea trout. This spatial planning framework will be an important component of the changes to regulation agreed by the Salmon Interactions Working Group.

In June 2019, Fergus Ewing, Cabinet Secretary for the Rural Economy, announced a number of changes to the aquaculture regulatory regime, including: new legislation that will require all marine fish farms to report a weekly sea lice number to the Scottish Government's Fish Health Inspectorate, one week in arrears; a reduction in the reporting and intervention thresholds for sea lice from three and eight average adult female lice per fish to two and six, respectively, and a further reduction to two and four average adult female lice per fish after 12 months; and the Scottish Government will explore how to introduce third-party independent checks on fish farms' sea lice counts.

Despite the positive progress highlighted above, there remains a significant job to do to ensure that our precious wild salmon and sea trout are protected. While the industry has made considerable progress in many areas, problems remain – particularly in relation to sea lice and escapes.

Regardless of the underlying reasons for these issues, it is important that the Scottish Government and industry quickly move to a position where we can achieve compliance with our international commitments, agreed through the North Atlantic Salmon Conservation Organisation – 100 percent of farms must have sufficiently effective sea lice management for there to be no increase in sea lice loads or lice-induced mortality of wild salmonids attributable to the farms, and 100 percent of farmed fish must be retained in all production facilities. Achievement of these commitments will be the real indicator of success.

Freshwater life in hot water

Craig Macadam
Buglife

The eyes of the world are on Scotland this year, with the Conference of the Parties to the UN Framework Convention on Climate Change (UNFCCC) set to take place in Glasgow in November.

The UNFCCC was adopted in 1992, with signatories committing to reduce atmospheric concentrations of greenhouse gases with the goal of "preventing dangerous anthropogenic interference with Earth's climate system". Twenty-eight years later and, despite ambitious targets for reducing emissions, climate change is still regarded as a major driver of biodiversity loss globally.

Most recent predictions are that temperatures will rise as a result of climate change and there will be changes to precipitation patterns – these will inevitably have an impact on invertebrate populations and, by extension, aquatic ecosystems and fish.

Freshwater invertebrates are particularly at risk, firstly because warmer water holds less of the dissolved oxygen that they need to survive, and secondly because changes to rainfall, evapotranspiration and flow rates will profoundly affect habitat continuity and availability. Indeed, with the majority of species having relatively short life cycles and good powers of mobility they are likely to be one of the first groups to show the impact of a changing climate.

The most obvious effect will be changes in the distribution of species. Cold-loving species will retreat northwards and uphill, while warm-loving species will increase their range in the UK – this could have a number of implications for the different species of fish in freshwater and the specific species of invertebrates they rely on.

An analysis of European caddisfly species traits found that the biggest potential impact from climate change was likely in southern Europe, with up to 30 percent of the fauna in the Iberic-Macaronesian region being potentially endangered by climate change. In Wales a 3°C rise in temperature was found to result in a 10-43% reduction in macro-invertebrate abundance in upland circumneutral streams, and lead to the local extinction of gold-ringed dragonfly *(Cordulegaster boltonii)*, biting midges *(Ceratopogonidae)*, and a caddisfly *Rhyacophila munda*. Surveys have also shown that the upland summer mayfly *(Ameletus inopinatus)* – a predominately montane species restricted to cold water streams – has disappeared from lower altitudes and seems to be being pushed further and further upstream as water temperatures rise. European research using climate change models has shown that the geographical range of this species is likely to contract, with remaining populations of *A. inopinatus* by 2080 being restricted to the Alps, Scandinavia and parts of the Scottish Highlands such as the Cairngorms.

Upland summer mayfly *(Ameletus inopinatus)*. Photo: Stuart Crofts

Clunie Water. Photo Craig Macadam

Research in the upper River Dee catchment suggests that reduced snow cover results in colder water temperatures during winter in upland streams and a mismatch in phenology. Without an extended period of snow cover, which insulates the watercourse, invertebrate species may develop more slowly, and without an extended period of meltwater streams may also dry up more quickly.

If species are unable to adapt to these changing conditions they will be lost from the watercourse. Invertebrate species most likely to be affected are those that are long lived with short adult stages, and that are restricted to headwaters or upland areas where the impacts of warming temperatures will be most profound. In Scottish freshwaters stoneflies are most at risk, with a third of the species found here predicted to be affected. The loss of these species, and others, would have a profound effect on our rivers and lochs, not just in terms of their natural and cultural value, but also because of the ecosystem services these species provide, including to juvenile salmonids.

The climate emergency and biodiversity crisis are intrinsically linked and we need strong, decisive action to tackle both. Reductions in emissions will only go part of the way to solving the problem. We also need to restore habitats across Scotland to ensure that our freshwaters, and the species that inhabit them, are as resilient as possible to the effects of climate change, now and into the future.

"Freshwater invertebrates are particularly at risk because warmer water holds less of the dissolved oxygen that they need to survive"

The economic impact of declining catches

Roger Knight
Spey DSFB

It is now widely accepted that our iconic Atlantic salmon is in crisis. The numbers of adult salmon returning to our rivers has been steadily declining in recent decades, with the situation further south in an arguably even more perilous state. Rod catches increased from 41,000 to 111,000 between 1952 and 2010, but with a high degree of volatility. There were sharp declines in rod catches thereafter, and although there was a slight recovery in 2015 and 2016, they fell to 37,000 in 2018 – the lowest since records began in 1952.

For many rivers in Scotland, though, it has also brought with it another decline which is having a much broader impact; a diminishing number of visiting anglers, with a consequent impact on local, often fragile, rural economies.

Following an initial discussion between Scottish Enterprise and a fisheries owner on the River Tweed, the directors of some of the bigger rivers, and of Fisheries Management Scotland, met with Scottish Enterprise to explore what could be done to address these impacts on the rural economy. Scottish Enterprise subsequently commissioned two consultants – one to investigate the impact of the decline in salmon numbers on rural businesses; and the other to produce some creative thinking around opportunities for Scotland's rivers. There results were published in August 2019.

Impact on rural businesses

The consultants found that falling catches were not the only pressure on the freshwater fisheries sector; it was also being confronted by other significant challenges. Changes in the demographics of the anglers were also apparent, with ageing anglers not being succeeded by younger and more diverse participants – and those that did come through had different expectations and requirements than their predecessors, particularly in an age when information is instant and worldwide opportunities are readily available and accessible. Even if catches improve, the consultants noted, fisheries will be facing a market with different aspirations and expectations from those of the past.

The fisheries have borne the brunt of the economic impact, with rods on some beats becoming available for the first time. On other rivers, rod vacancies have only partially been filled, or have been let at a reduced price in order to sustain tenant loyalty and keep booking numbers up.

The consultants found that the change in market conditions had been met by a broad variation in adaptation; some innovative fisheries were in the vanguard and had remained profitable, while others recognised the signs but were unsure how or lacked the capacity to respond. Elsewhere there was inertia, as the most lucrative parts of their businesses had functioned so well for so long.

Ghillie Davy MacIntosh prepares to land another fine fish on the River Spey. Photo: Mark Melville

Outside the fisheries sector, the brunt of the economic impact was borne by accommodation providers; some has diversified to alternative forms of tourism, but for those less flexible or tied to niche markets, the impact had been significant. For those of us in fisheries management, meanwhile, the falling revenues have resulted in considerable additional pressure on the assessments levied by District Salmon Fishery Boards – the primary funding mechanism for fisheries management in Scotland.

Opportunities for Scotland's rivers

For the consultants charged with looking at opportunities for our future, it was reported that the present fixation on catch numbers was suppressing the valuation of fisheries, while also restricting the development of alternative fishing experiences. Rod licensing was suggested as one possible source of independent funding for conservation which would also provide valuable data on angler participation.

Many of the suggestions in this report related to marketing, PR and development, although it recognised that all of this needed to be funded. A licensing scheme or commission from online bookings might provide for this, particularly as the latter has grown considerably in recent years and changed the way in which fishing has traditionally been booked.

Communication and collaboration are other key themes of the report – recognising the challenges posed by the diversity of stakeholders and fisheries across our sector. It suggested that development/marketing officers at both local and national levels could increase engagement across our sector and gain support from local enterprise, particularly through "planning to succeed"-type workshops, which had worked well in other sectors. These development/marketing officers would also be able to do more to promote and celebrate our successes, offering positive case studies of businesses which are succeeding despite low catch conditions.

In the meantime, the report strongly recommended the need to expand our audience; target new markets, improve facilities, break down barriers (especially where beginners are concerned) and put the customer first. To do this, we need to improve and develop our branding and marketing, promoting the whole fishing experience – "there's more to fishing than catching fish" was one popular phrase. Crucially, we need to take ownership of national and regional marketing strategies, with support from Visit Scotland, to mount a campaign on our behalves. For all of this, it was suggested that a dedicated and independent website for all of Scotland's rivers would be an invaluable start.

There is no doubt we live in changing – and challenging – times, but we need to change with them and challenge existing perceptions.

Angling for new recruits

Ian Robertson
Countryside Learning Scotland

The Scottish Angling National Development Strategy (SANDS) is a joint initiative between Fisheries Management Scotland and Countryside Learning Scotland, with financial support from Marine Scotland.

The demographic of anglers is ageing, with most clubs comprising of males with "nae hair, grey hair or both". With declining fish populations resources are increasingly focused on the current environmental challenges. However, if the angling community does not rise to the challenge of engaging new participants there may be no future advocates for our fish, with a serious reduction in the positive social contribution of angling.

There are many local initiatives engaging small numbers of people in the sport. If angling is to grow, our target should be to engage new anglers within a national strategy that supports good practice across the angling community - the SANDS programme is designed to support this.

Angling - the product
Angling has many benefits - it engages young people with the outdoors and improves self-esteem. It provides a range of physical activity for all ages and fitness levels, improving health and wellbeing in our increasingly inactive population. Through engagement with our water environment angling provides a much-needed environmental education opportunity, particularly with increased awareness of climate and environmental issues. Angling provides opportunities to engage in a diverse number of related activities, including fly tying, making tackle, careers in water biology or casting competitions. Given its diversity, angling is a good product, so why are we struggling for new participants?

Barriers to growth
Angling provides many opportunities for people to participate well into their senior years, with few real physical barriers. Whilst this is a major positive in relation to physical activity, longevity of participation also has some drawbacks when it comes to anglers giving their time to help grow the sport for the next generation. When anglers have spare time, they want to go fishing!

In the 1980s most sports began a structured programme of development through their club systems. However, angling did not invest in this crucial area and we are significantly behind other sports and engaging

young people with any particular sport is now a highly competitive field.

The solution
The SANDS initiative is focused on delivering growth through the District Salmon Fishery Board and Fishery Trust Network. The initiative is now coming to the end of its second year of funding from Marine Scotland.

The project has taken a flexible approach due to the diverse geography and demographics of each catchment. Some catchments will engage local angling clubs as the primary route for delivery, whereas others have driven the programme through other means. Local steering groups will drive development and these may differ in each area, with overall governance lying firmly with the local board or trust. Ten areas are actively engaged in the national structure. The Aberdeenshire Dee, Don and Deveron are developing a delivery plan for 2020, following a successful first year in 2019. The Nith catchment trust are delivering an ongoing programme of angling development. Others now in the process of recruiting steering groups include the Tay, Spey, Esks, Kyle of Sutherland and Northern Scotland. Argyll and the Outer Hebrides are currently looking to engage local angling clubs in the process and the Forth, Annan, Loch Lomond, Ayrshire and Conon are in the early stages of engagement.

The foundations for a national grassroots development template that can be delivered across Scotland are in place. With further funding, we hope to be able to begin delivery of the growth programme and realise the range of positive benefits which greater participation in angling will bring to a diverse cross section of Scottish society.

The International Year of the Salmon

Brian Davidson
Fisheries Management Scotland

The International Year of the Salmon (IYS) has inspired Fisheries Management Scotland and our members to deliver key messages reflecting our deep concern about the challenges facing Scotland's salmon stocks. At the same time, it has helped to raise awareness of how our members are addressing these challenges.

Our focus was to harness the power of IYS in order to amplify a simple message: *Environmental change, and a range of human impacts across the Northern Hemisphere, are placing salmon at risk across their natural range. The latest catch figures, the lowest on record, taken together with those of recent years, confirm this iconic species is now approaching crisis point*.

Through a series of themed IYS activities, we have deployed a consistent message about pressures faced by salmon in Scotland and why conservation of this iconic species must now become a national priority. Our project, *What do wild salmon mean to me*, was a way of delivering a powerful and passionate message about the significance of salmon to people from a broad spectrum of society. The message was articulated through a series of personal stories, demonstrating the importance of salmon from cultural, heritage, angling, scientific and literary perspectives. These stories helped a wide range of people to identify with the plight of salmon.

This provided the foundations for a further two key events in 2019. At our annual conference, in March 2019, we used IYS to bring over 160 people together from a range of countries whose rivers support populations of wild Atlantic salmon. It allowed us to share and develop knowledge, raise awareness and focus on how key pressures on wild salmon are being addressed and prioritised.

The second key event was a week-long Fisheries Management Scotland exhibition in the Scottish Parliament, during May 2019. The exhibition generated significant interest and we were visited by 61 MSPs, as well as researchers and staff from the Scottish Parliament Information Centre. The event not only raised the profile of the work of our members but also allowed us to help engage MSPs with fish and fisheries interests in their constituencies.

Wild Salmon Watch (see image) was our fourth IYS initiative and aimed to encourage families to try to spot a wild Atlantic salmon during the October school holidays. Important viewing places were identified and social media used to highlight the opportunities for the public to view wild salmon migration.

In January 2020 Michelle Ballantyne MSP sponsored a parliamentary event which we delivered in partnership with Scottish Land and Estates. This multi-stakeholder roundtable discussion and evening drinks reception brought together a wide range of organisations from the public sector and the NGO network. It generated significant interest among MSPs, as well as extensive media coverage of the current issues facing salmon.

Finally, in response to a call for education and outreach projects, we have been awarded funding from IYS to develop a series of films about salmon fisheries management and conservation. This will provide an educational resource to improve the understanding of the importance of salmon and to raise awareness of current threats to the survival of the species. The project will deliver a series of bite-sized videos to describe, in layman's terms, the life cycle of the Atlantic salmon, current threats to its survival and how fishery managers are addressing these threats.

What is clear from our proactive engagement activities is that the current issues facing Atlantic salmon are beginning to resonate with those who have the power to drive change. The legacy of IYS must be to galvanise efforts to reverse the decline of Atlantic salmon numbers.

Observing wild salmon migration, Perthshire. Photo: Sean Dugan

Prioritising fisheries law enforcement

Brian Davidson
Fisheries Management Scotland

Fisheries law enforcement continues to be a key priority for Fisheries Management Scotland and our members, particularly in the context of heightened conservation concerns for Atlantic salmon. It is critical that Scotland's fish receive protection, both through legislation which is fit for purpose and by effective and well-coordinated operational activity on the ground.

In 2019 the Fisheries Management Scotland Enforcement Committee developed a strategy that provides a framework for identifying enforcement priorities, allowing resources to be allocated accordingly.

The priorities fall into four broad themes:

- Identifying priorities for legislative change to improve enforcement capability.
- Developing and promoting best practice in relation to enforcement delivery.
- Improving awareness of fish crime, which is now recognised as a specific wildlife crime priority.
- Developing and delivering a framework of training and continuous professional development.

The work within each of these priorities cannot be delivered in isolation, and Fisheries Management Scotland worked closely with its members, Scottish Government, Police Scotland and Crown Office Procurator Fiscal Service on a range of areas during 2019.

The current fisheries legislation is complex and often poorly understood, and we have identified a number of priorities to address these issues. We are working with Scottish Government to take these ideas forward so that they can be considered when the next opportunity for legislative change arises. Of more immediate concern are the current penalties for fisheries offences. Salmon poaching comprises 19 percent of all wildlife crimes – the joint largest element of all nine recorded wildlife crime categories. Despite this, fish crime has the lowest average fine, at £218. The Animals and Wildlife (Penalties, Protections and Powers) (Scotland) Bill is currently being considered by the Scottish Parliament and provides scope for increased penalties for a range of wildlife offences. We are considering the most effective way to progress this, either through the Bill, or via the forthcoming wild salmon strategy.

As set out above, the current fisheries legislation is complex and therefore it can be challenging for Police Scotland and Crown Office Procurator Fiscal Service to progress cases. On that basis, together with Fisheries Management Scotland members, we facilitated four training days on the Tay and Tweed systems, with the specific objective of increasing understanding of fish crime with key individuals responsible for addressing wildlife crime. Feedback has been very positive and these days will serve as a model for delivering future training to these agencies. Further training for our own enforcement staff continues on a variety of fronts, including the annual enforcement seminar, which last year focused on transfer of knowledge through a series of workshops on technology, conflict management and a prosecution case study.

Strategic discussions on fisheries enforcement continue to take place with Scottish Government and Police Scotland through a range of channels, including the Partnership Against Wildlife Crime.

Training delivered to Police Scotland & Crown Office Procurator Fiscal Service

Highlighting illegal fishing hotspots, Tay system

Review of 2019 catches

It has been well documented that salmon and sea trout catches in 2018 were the lowest since records began in 1952. The catch information we have available from our members for 2019 indicates that catches have marginally improved, probably due in part to improved fishing conditions – cooler temperatures and a wetter year – compared to the drought experienced in 2018. Atlantic salmon stocks are presently facing considerable pressure due to a range of factors. Despite this, Scotland remains capable of supporting good angling opportunities throughout the year, across a diverse range of river systems.

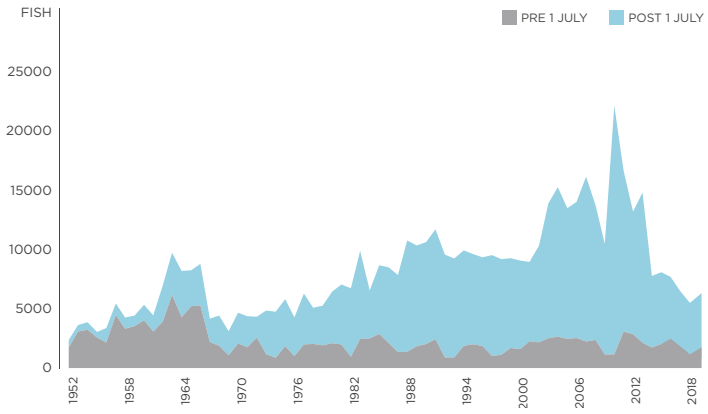
TWEED

Fay Hieatt
Clerk, River Tweed Commission and Director, The Tweed Foundation

Salmon catches showed a modest increase, although autumn numbers were low. Sea trout catches increased over four-fold, partly attributable to the closure of the NE Drift Net Fishery. Brown trout catches were also above average in nearly all areas. Avian predation and smolt survival have the highest priority. Tweed participated in a Marine Scotland dietary analysis study on fish-eating birds. In tandem with avian predation control measures, a pilot smolt tracking study was undertaken and will be expanded next year to ascertain the extent of smolt loss in-river and inform future management.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	6,382	1,925	4,457	336	11,000	98/81/86%*	34lb
Sea Trout	2,176	n/a	n/a	n/a	1,930	64%	n/a

Season: 1 Feb – 30 Nov. **Spring/rest of season/overall.*



TWEED ROD CATCH STATISTICS 1952-2019
SOURCE – RIVER TWEED COMMISSION

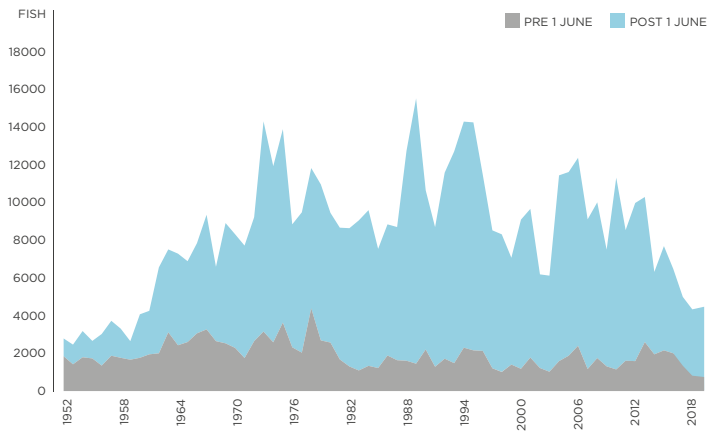
TAY

Dr David Summers
Director, Tay DSFB and Tay Foundation

The overall catch was relatively low in historic terms but marginally better than 2018. Spring catches suffered from a weak 2SW run, but the recent trend of more, larger, 3SW springers continued. Summer catches were better than in 2018, because of better conditions and more grilse. However, higher water meant that catches were down in September. The returns of PIT-tagged fish indicate poor marine survival, so the board is recommending 100 percent catch and release for the entire season for the first time. On a more positive note, the recently re-watered River Garry is now producing significant numbers of smolts from the board's restoration stocking work and returning adult salmon are spawning too.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	4,524	896	3,646	n/a	7,928	97/93/93%*	30lb
Sea Trout	1,315	n/a	n/a	n/a	1,161	94%	n/a

Season: 15 Jan – 15 Oct. **Spring/rest of season/overall.*

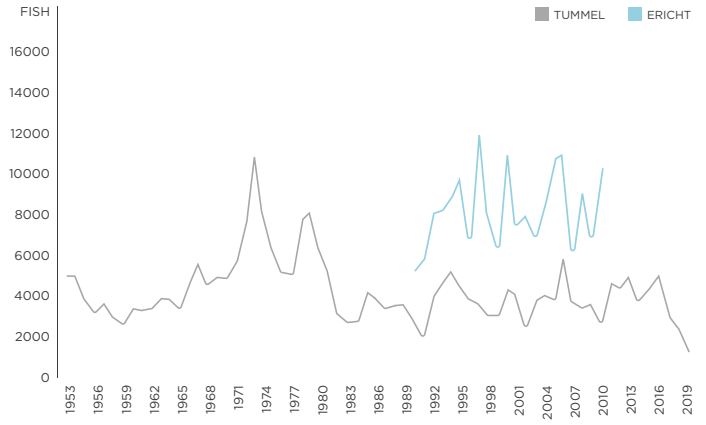


TAY ROD CATCH STATISTICS 1952-2019
SOURCE – TAY DSFB

TAY COUNTER

Dr David Summers
Director, Tay DSFB and Tay Foundation

The count on the River Tummel at Pitlochry was the lowest on record but we think this is at least in part due to issues with the counter – counts have been low since the summer of 2018, when SSE replaced the device with a new, hopefully more advanced, type. However, information from PIT tag returns and observations by anglers and fisheries staff fishing for hatchery broodstock above the dam suggest that salmon numbers are holding up. As a result, SSE are looking into the accuracy of their counter.



RIVER TUMMEL (PITLOCHRY) UPSTREAM COUNT 1953-2019
SOURCE – SSE
RIVER ERICHT UPSTREAM COUNT 1990-2010
SOURCE – TAY DSFB

SOUTH ESK

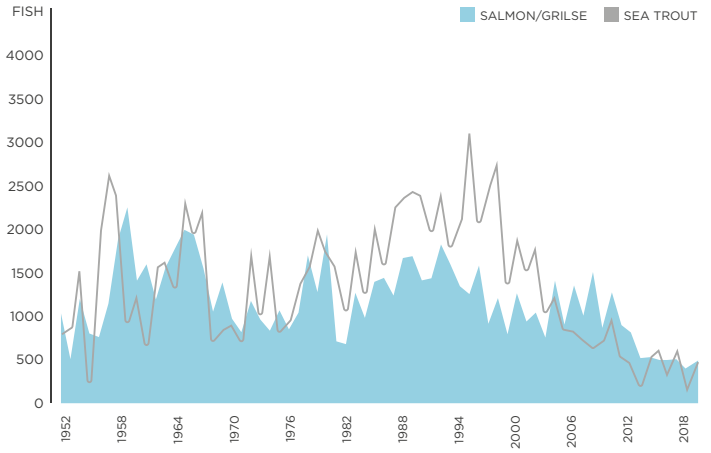
Craig MacIntyre
Esks Rivers Director

The 2019 season was a mixed bag. Run timings followed a similar trend to those on the North Esk, with the main runs of salmon taking place in July and August. However, upper beats did well early in the season, due to salmon swimming straight though the lower sections. With good water heights for fishing throughout the season, fish were seen throughout the river, but catches were – ultimately – disappointing once again.

Provisional figures

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	494	n/a	n/a	n/a	723	92%	n/a
Sea Trout	446	n/a	n/a	n/a	538	86%	n/a

Season: 16 Feb – 31 Oct.



SOUTH ESK ROD CATCH STATISTICS 1952-2019
SOURCE – ESK DSFB

NORTH ESK

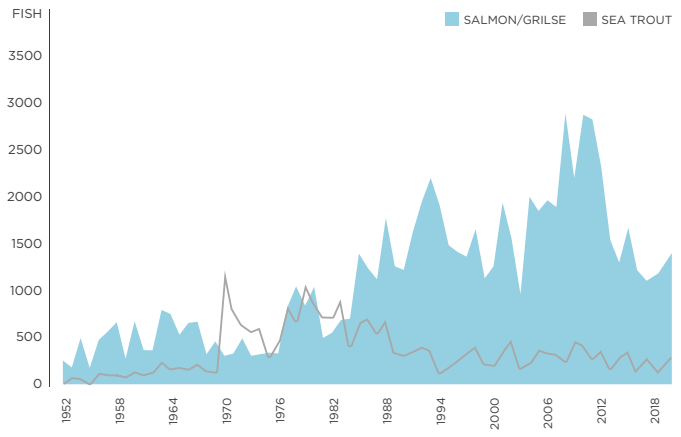
Craig MacIntyre
Esks Rivers Director

As with recent years, the run timings followed the trend of low numbers during spring and autumn, with the main runs of salmon appearing through the summer. River levels were good throughout the season, with rain never more than a week away. There were some fantastic runs of salmon in July and August, with some ghillies commenting they had never seen so many fish in the river. 2019 was the first season with no in-river nets operating and we recorded a 20 percent increase in fish over the counter, a 20 percent increase in salmon catches and decent sea trout catches.

Provisional figures

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	1,407	n/a	n/a	n/a	1,910	88%	25lb
Sea Trout	264	n/a	n/a	n/a	446	92%	6lb

Season: 16 Feb – 31 Oct.

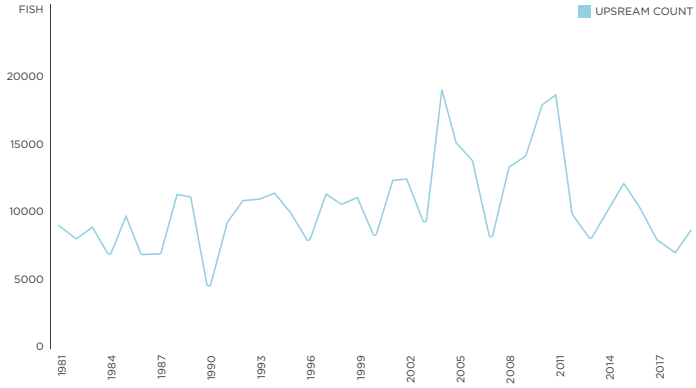


NORTH ESK CATCH STATISTICS 1952-2019
SOURCE – ESK DSFB

LOGIE COUNTER (NORTH ESK)

Craig MacIntyre
Esks Rivers Director

The total upstream count over the Logie fish counter was 8,928 to the end of November, up by 20 percent from the previous year, but below the five-year average of 9,419. The main runs of salmon were in July and August, with relatively low numbers of fresh fish running in September and October.



NORTH ESK UPSTREAM COUNT 1981-2019
SOURCE – MARINE SCOTLAND SCIENCE

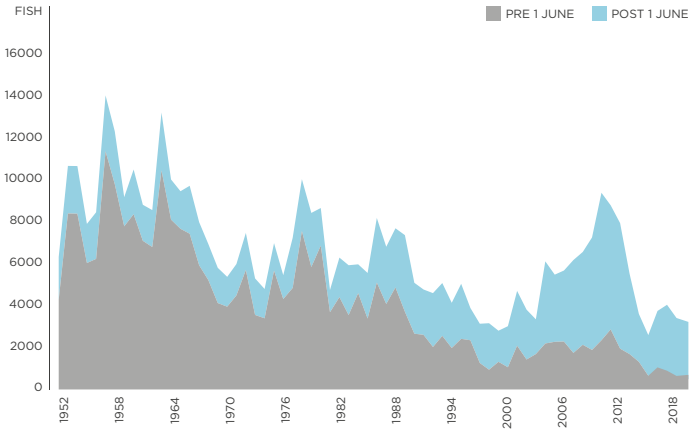
DEE

Lorraine Hawkins
River Dee Director

2019 was the sixth consecutively low year for salmon catches, despite generally good angling conditions. There were noticeably more grilse in the summer, but from late August there were few fresh fish entering and a clear drop in autumn catches. Decades of monitoring by Marine Scotland Science in the upper Dee show that adult salmon declines correspond with fewer smolts now being produced. On top of that, tracking work shows high losses of smolts in the river each year. Going forward, the board and trust are doing more habitat restoration to ensure those smolts that do go out to sea are fit and have the best chance of survival.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	3,173	682	2,491	n/a	5,581	100/99/99%*	29lb
Sea Trout	804	n/a	n/a	n/a	1,520	100%	n/a

Season: 11 Feb – 15 Oct. **Spring/rest of season/overall.*

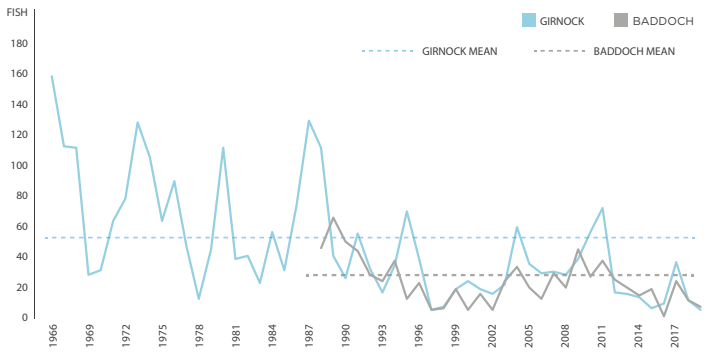


DEE ROD CATCH STATISTICS 1952-2019
SOURCE – DEE DSFB

GIRNOCK AND BADDOCH (RIVER DEE)

Ross Glover
Freshwater Fisheries Laboratory,
Marine Scotland Science

Marine Scotland Science Freshwater Fisheries Laboratory operates two traps on upper tributaries of the Aberdeenshire 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 in the traps show similar temporal trends, female numbers are plotted as they are considered the fundamental spawning component. The 11 females caught in the Baddoch trap and nine females caught in the Girnock trap in 2019 represent 40 percent and 18 percent 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.



GIRNOCK & BADDOCH FEMALE UPSTREAM BURN TRAP COUNTS 1966-2019
SOURCE – MARINE SCOTLAND SCIENCE © Crown copyright

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

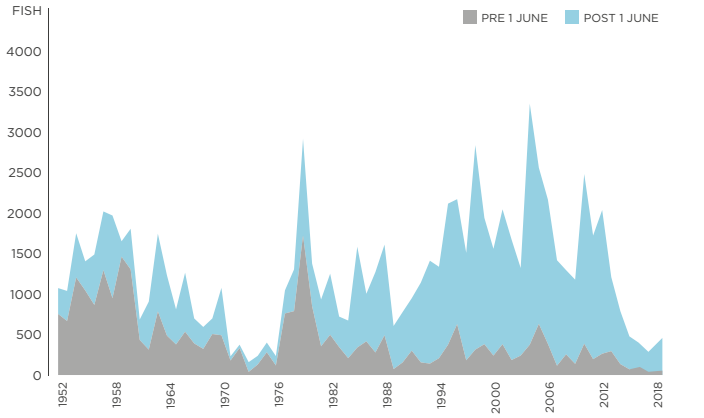
DON

Lorraine Hawkins
River Don Director

Although the final figures for the season are not yet available, the spring of 2019 saw close to 200 salmon caught, the best for many years. A good grilse run was then seen, although it tailed off in September, as did catches of fresh fish. The total tally for 2019 is likely to be around 800 salmon, which surpasses the previous five years. The low catches over the previous five years have led to noticeably lower fishing effort, making the relative improvement more impressive. The Don remains a Category 3 river, and electrofishing surveys show low juvenile stocks throughout the catchment. It is an absolute requirement that juveniles have as smooth a transition as possible to become smolts and head to sea. The first stage is to make their habitat as good as possible.

	2018 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	450	50	400	n/a	1,149	100%	25lb
Sea Trout	60	n/a	n/a	n/a	293	n/a	n/a

Season: 11 Feb – 31 Oct.



DON ROD CATCH STATISTICS 1952-2018
SOURCE – DON DSFB

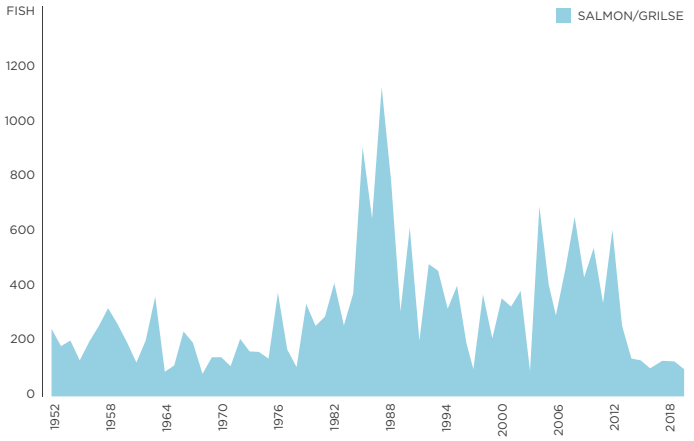
YTHAN

Mark Andrew
Ythan, DSFB

Water was a little more plentiful than in 2018, leading to an improvement in salmon catches, particularly in the upper beats. The sea trout catch was slightly down in the estuary – partly as numerous hooked fish are skilfully removed and eaten by seals. There is no doubt that the estuary seals are having a negative effect on fishing throughout the river, with many spotted in pools where control is strictly limited by the proximity of houses. Methods to scare the seals downstream will be tried but these will have to develop further, as the seals rapidly adapt. Sadly our chairman, Robert Dey, suffered a fatal stroke at the end of January. He will be greatly missed.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	130	0	130	n/a	250	100%	n/a
Sea Trout	1,100	n/a	n/a	20	1,627	85%	n/a

Season: 11 Feb – 31 Oct.



YTHAN ROD CATCH STATISTICS 1952-2019
SOURCE – YTHAN DSFB

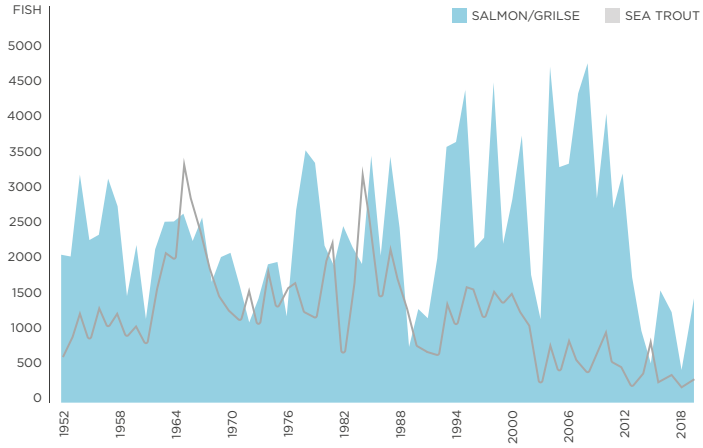
DEVERON

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

The total salmon catch was up considerably from 475 the previous year but is still down on the long-term average. Of the 1,502 salmon and grilse caught, 88 percent were returned. Spring salmon catches (to the end of May) were 90, of which 93 percent were returned. The sea trout catch was 286, an increase of 39 percent from the 206 caught in 2018. A commendable 97 percent were returned by rods, in line with the Deveron Angling Code. Ten beats reported brown trout landings, which amounted to a total of 1,167. The fixed engine netting stations did not operate during 2019. The Deveron has been reclassified as a Category 2 for the coming 2019 season.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	1,502	90	1,412	n/a	1,852	93/88/88%*	25lb
Sea Trout	286	n/a	n/a	n/a	516	97%	8lb

Season: 11 Feb – 31 Oct. **Spring/rest of season/overall.*



DEVERON ROD CATCH STATISTICS 1952-2019
SOURCE – DEVERON DSFB

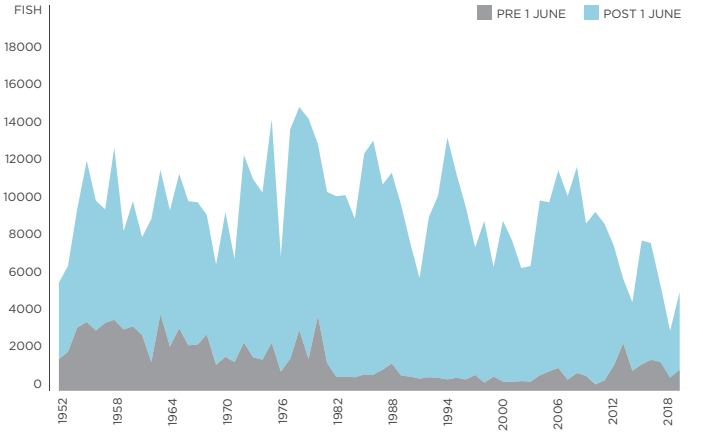
SPEY

Roger Knight
Director, Spey Board and Foundation

2019 saw a 60 percent increase in salmon and grilse compared to the previous year. It was also a much wetter year than 2018, with regular rainfall supplanting the lack of snowmelt in the spring and sustaining water levels throughout the summer. The board remains concerned by the significant levels of water abstraction, particularly in the upper catchment at Spey Dam, where substantial volumes are diverted to Fort William, severely impacting the upper Spey salmon population. The board regularly meets with representatives of both the international energy group GFG and SEPA, and a survey of the dam's fish pass was undertaken in 2019.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	5,090	1,084	4,006	n/a	6,453	98%	36lb
Sea Trout	1,623	n/a	n/a	n/a	1,986	86%	13lb

Season: 11 Feb – 30 Sep.



SPEY ROD CATCH STATISTICS 1952-2019
SOURCE – SPEY DSFB

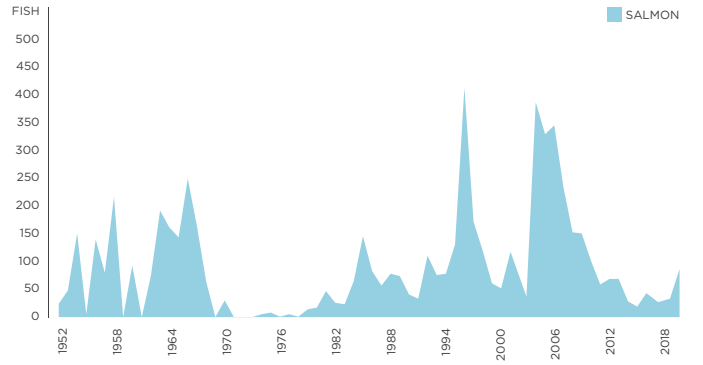
LOSSIE

Valerie Wardlaw
Administrator, Lossie DSFB

The Lossie had good water levels throughout the season, and from June onwards there was steady fishing, with good catches. The angling effort on the Elgin AA beats has increased – reflected in the increased catch figures, with salmon catches more than double and sea trout catches four times more than 2018. The sea trout catch has nearly recovered to the 2010 level, prior to the Elgin flood alleviation works, when membership of Elgin AA was four times what it was in 2019. Two fish passes have been installed on the Linkwood Burn, opening up miles of good spawning habitat for the first time in 60 years. Control of invasive non-native Japanese knotweed continued from Dallas downstream to the outskirts of Elgin.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	85	1	84	n/a	62	100%	20lb
Sea Trout	147	n/a	n/a	n/a	80	60%	3lb

Season: 1 Apr – 31 Oct.



LOSSIE ROD CATCH STATISTICS 1952-2019
SOURCE – FINDHORN, NAIRN AND LOSSIE FISHERIES TRUST

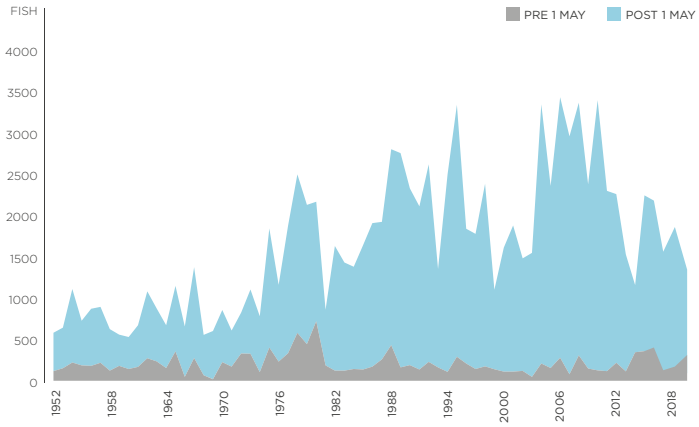
FINDHORN

Valerie Wardlaw
Administrator, Findhorn DSFB

There was a prolonged spring salmon run, resulting in spring catches three times higher than in 2018, but the grilse catch was down by over 50 percent. There were improved catches around Drynachan and Moy during the summer, reflecting increased angling effort. The good water levels in the autumn enabled fish to swim upriver to spawn without hindrance. Overall the catch for 2019 was down to 72 percent of the 2018 catch and 64 percent of the 10-year average. Control of invasive non-native plants continued, with intensive treatment by contractors above the A96 reducing Japanese knotweed and giant hogweed densities in that area. However, downstream of the A96 these plants are still dense.

	2019 total	Pre May 1	Post May 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	1,342	319	1,023	n/a	2,106	93/86/88%*	23lb
Sea Trout	92	n/a	n/a	n/a	115	80%	6lb

Season: 11 Feb – 30 Sep. **Spring/rest of season/overall.*



FINDHORN ROD CATCH STATISTICS 1952-2019
SOURCE – FINDHORN DSFB

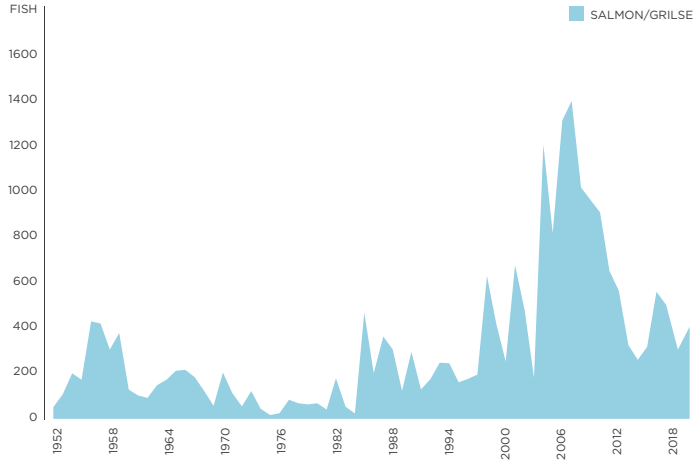
NAIRN

Alastair Skinner
Nairn River Bailiff

The season started with an average run of spring fish, followed by a poor run of summer salmon and grilse. The river was fishable for most of the 2019 season, an improvement on 2018, which was plagued by low water levels. Major floods in July and August caused considerable bank erosion, as well as landslides on the upper Nairn, which caused the river to turn milky. SEPA was contacted due to the possibility of contamination. Six sites were electro-fished, mainly with encouraging results. Control of invasive plants continued, leading to a reduction in their densities. Mink were spotted on the lower beats and traps set, while an increased number of sawbill ducks were spotted on the lower river.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	394	26	368	n/a	n/a	82%	7lb
Sea Trout	43	n/a	n/a	n/a	n/a	85%	7lb

Season: 1 Feb – 7 Oct.



NAIRN ROD CATCH STATISTICS 1952-2019
SOURCE – NAIRN DSFB

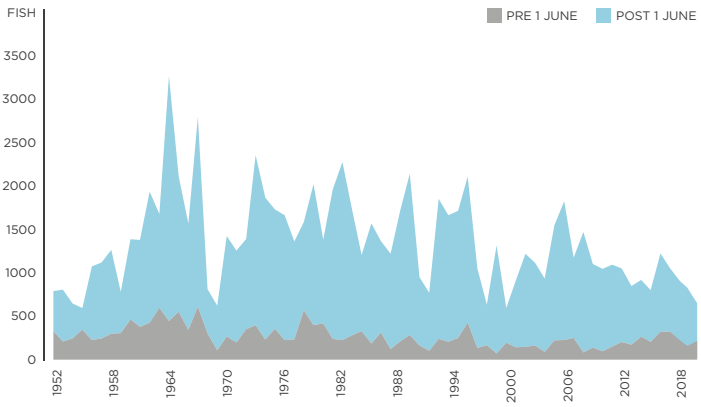
NESS

Chris Conroy
Director, Ness DSFB

The 2019 season was challenging, with little improvement in catches of MSW salmon and a significant decline in catches of grilse. Only the spring component showed any promise, although modest, with catches remaining below both the five- and ten-year averages. The Moray Firth Tracking Project is helping to identify pinch points where smolts are lost and determine how we can help more to survive. We are working with SSE and others to kick-start a self-sustaining salmon population in the Upper Garry System, by way of a ground-breaking restoration stocking programme. Following the installation of a fish pass at Cean-na-Croc Heck on the River Moriston, the recovery of a salmon population that was absent for 44 years is occurring.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	723	223	500	n/a	946	100/92/94%*	25lb
Sea Trout	64	n/a	n/a	n/a	72	89%	n/a

Season: 1 Feb – 30 Sept. **Spring/rest of season/overall.*



NESS ROD CATCH STATISTICS 1952-2019
SOURCE – NESS DSFB

BEAULY

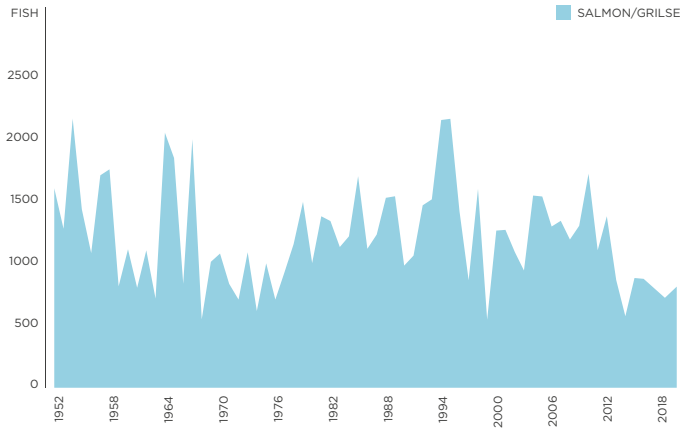
Alastair Campbell
Beauly DSFB

Spring catches were slightly above average on the Beauly. Overall catch numbers were consistent with recent years, showing a slight improvement on 2018. However, the dam count information available – though not comprehensive due to issues with new count software – indicates a below-average run of fish in 2019. The board continues to work closely with SSE and SEPA to reduce the impact of hydro infrastructure on smolt and kelt movements on the Beauly.

Provisional figures

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	788	77	711	n/a	975	100/96/96%*	n/a
Sea Trout	957	n/a	n/a	n/a	514	n/a	n/a

Season: 11 Feb – 15 Oct. **Spring/rest of season/overall.* **Provisional



BEAULY ROD CATCH STATISTICS 1952-2019
SOURCE – BEAULY DSFB

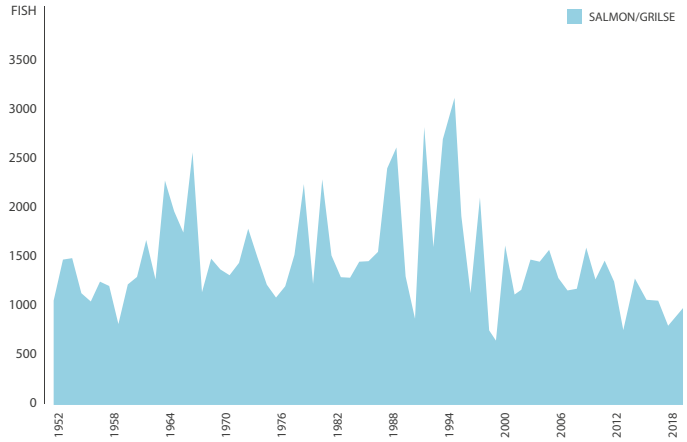
CONON

Neil Wright
Clerk, Cromarty DSFB

A good number of fish were seen throughout the season but the water was high and fish tended to run quickly. Despite this the total catch was better than in 2018 and included a 32lb salmon – the heaviest to be caught on the river for a few years. On the Blackwater, which is dominated by a summer grilse stock linked to the SSE compensatory hatchery, the fish trap count was 635, up from with 592 in 2018. The grilse were noticeably smaller but they were in good condition, with more than 1 million eggs being laid down in the hatchery. Management priorities include reducing predation at hydro impoundments via the trapping and trucking of smolts, restoring the nutrient status of upper and middle catchments and the restoration of riparian habitats to safeguard juvenile fish.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	931	n/a	n/a	n/a	n/a	94%	32lb
Sea Trout	167	n/a	n/a	n/a	n/a	90%	n/a

Season: 11 Feb – 30 Sep.



CONON ROD CATCH STATISTICS 1952-2019
SOURCE – CROMARTY DSFB

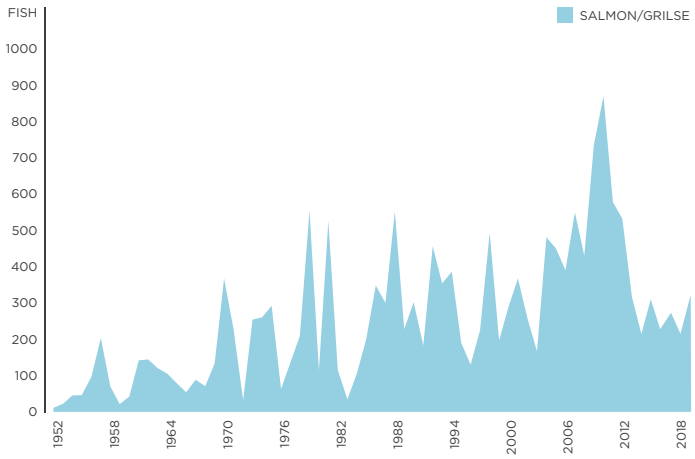
ALNESS

Roger Dowsett
Manager, Novar Fishings

A good number of spring fish were seen in the Alness and there were decent catches into the early summer. However, these tailed off later in the season, a period which was characterised by heavy rain and high water. A number of diseased fish were found on the lower part of the river but this did not seem to spread and remained isolated. The board is supporting a smolt capture project on the Alness which should reveal interesting insight on the migration of fish within the whole river system. Riparian planting continues to be promoted within the region. The weir on the Alness is being reviewed with the owners and improvement works are likely to start later this year.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	327	n/a	n/a	n/a	429	95%	32lb
Sea Trout	38	n/a	n/a	n/a	63	93%	n/a

Season: 11 Feb – 31 Oct.



ALNESS ROD CATCH STATISTICS 1952-2019
SOURCE – CROMARTY DSFB

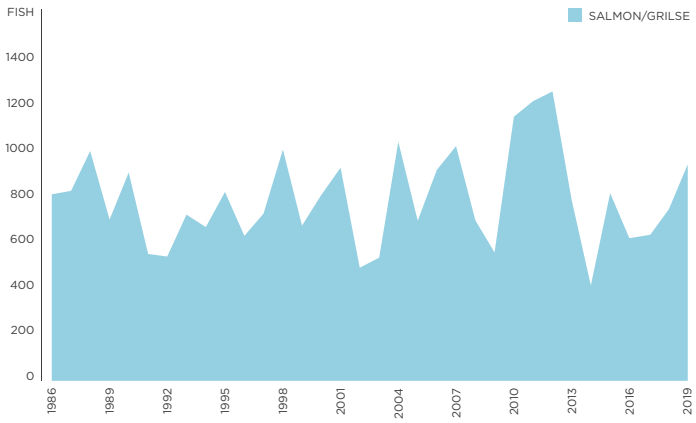
CARRON (EAST COAST)

Keith Williams
Director, Kyle DSFB

Conditions in the spring were generally not as favourable as those of 2018, due to less snowmelt, but fishing was again productive. The summer was characterised by plentiful rainfall and good river heights, and catches were largely good for the remainder of the season. A small-scale radio tracking project was undertaken, which aimed to improve knowledge of how salmon were using the upper reaches of the system. Seven salmon were tagged and none successfully accessed the area upstream of Glencalvie Falls. One tagged fish remained in the vicinity of the falls until late autumn prior to leaving the Carron and migrating to the River Shin. The project was funded by SSE and is likely to be extended in 2020.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	745	274	471	n/a	n/a	98/99/99%*	n/a
Sea Trout	25	n/a	n/a	n/a	n/a	88%	n/a

Season: 11 Jan – 30 Sep. **Spring/rest of season/overall.*



CARRON ROD CATCH STATISTICS 1986-2019
SOURCE – KYLE DSFB

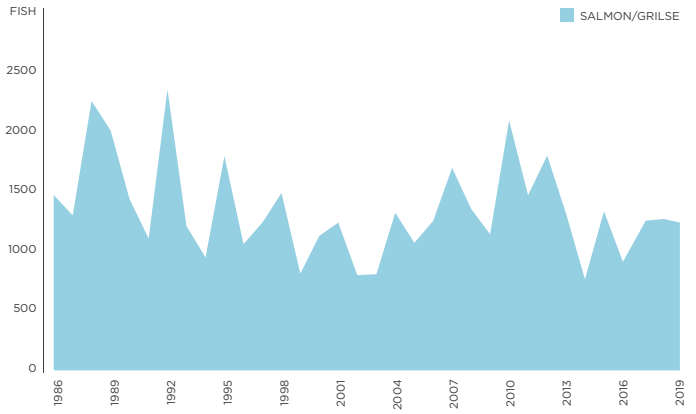
OYKEL

Keith Williams
Director, Kyle DSFB

Spring catches on the Oykel were higher than in 2018. The first fish of the season was caught in February. April and May have been the pick of the spring months in recent years and 2019 proved to be no exception, with May being the best month in this instance. Water levels were typically good for most of the season and in the final months it appeared that the fish were often only taking well in the highest water conditions. On 25 September a salmon measured at 50" was caught and safely returned in the Crask Pool of the Upper Oykel. As is often the case under such circumstances there has been a considerable amount of conjecture as to the likely weight of the fish. However, there can be no doubt that it was one of the largest salmon – perhaps the largest salmon – ever caught on the Oykel.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	1,247	172	1,075	n/a	n/a	99/97/98%*	n/a
Sea Trout	91	n/a	n/a	n/a	n/a	92%	n/a

Season: 11 Jan – 30 Sep. **Spring/rest of season/overall.*



OYKEL ROD CATCH STATISTICS 1986-2019
SOURCE – KYLE DSFB

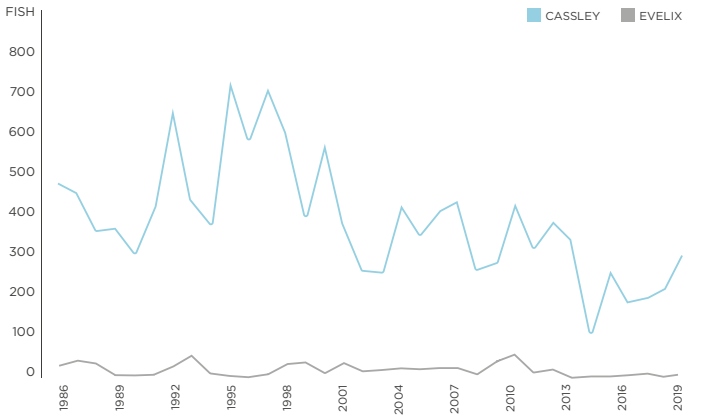
EVELIX & CASSLEY

Keith Williams
Director, Kyle DSFB

The Cassley had seven salmon in the book by the end of March and overall spring catches until the end of May were an improvement on 2018 figures. The most productive month on the Lower Cassley was May, with 54 recorded. In contrast to 2018 there was little shortage of rainfall for the season and the combined catch for all the Cassley beats was an improvement on the previous season. Fish counter figures from Duchally in the upper catchment were a slight improvement on the 2018 figure but still below the five-year average and this remains a concern. It is anticipated that potential issues such as smolt passage can be investigated in the future. A modest number of salmon and grilse were caught on various sections of the Evelix, mainly towards the end of the season.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	292	77	215	n/a	n/a	100/96/97%*	n/a
Sea Trout	5	n/a	n/a	n/a	n/a	100%	n/a

Season: 11 Jan – 30 Sep. **Spring/rest of season/overall.*



EVELIX & CASSLEY ROD CATCH STATISTICS 1986-2019
SOURCE – KYLE DSFB

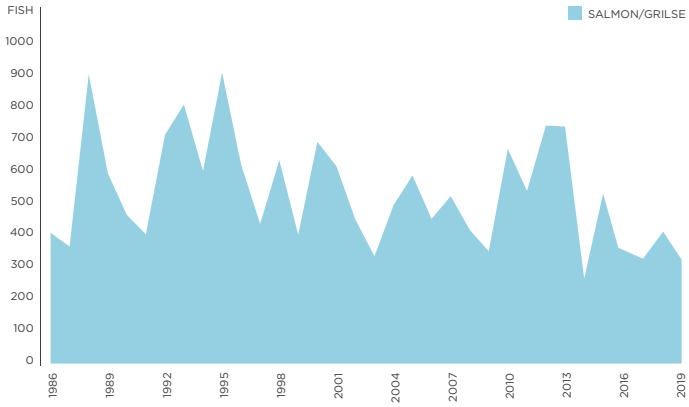
SHIN

Keith Williams
Director, Kyle DSFB

The best month of the early fishing season was May. The total catch for the spring was just one below the total for 2018. Fishing later in the year was reported as being difficult at times, with the fish apparently reluctant to take. Due to the problems related to smolt passage at SSE dams, the Shin proprietors adopt a voluntary 100 percent catch and release policy. A total of 79 adult fish previously tagged as smolts were automatically detected passing through Shin Diversion Dam. The combined total of smolts captured in the Tirry and Fiag traps as part of mitigation efforts was a little over 7,400 and represents the second highest total in the time series.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	329	42	287	n/a	n/a	100%	n/a
Sea Trout	0	n/a	n/a	n/a	n/a	92%	n/a

Season: 11 Jan – 30 Sep.



SHIN ROD CATCH STATISTICS 1986-2019
SOURCE – KYLE DSFB

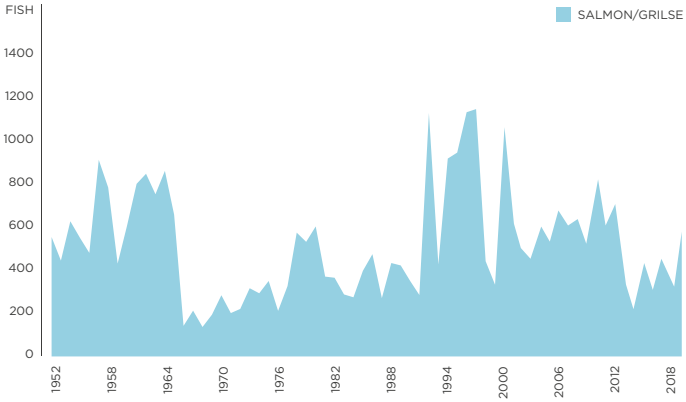
BRORA

Neil Wright
Clerk, Brora DSFB

There was a good spring run until the end of May, with catches in April at their highest level and catches in May their second highest level for 10 years. However, this was followed by a poor grilse run, with rod catches mirroring the low figures on the counter, and very few fish arriving in July and August in particular. New regulations have been issued by the board to ensure that the largest and smallest sea trout are returned.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	552	n/a	n/a	n/a	575	82%	20lb
Sea Trout	239	n/a	n/a	n/a	301	90%	7lb

Season: 1 Feb – 15 Oct.



BRORA ROD CATCH STATISTICS 1952-2019
SOURCE – BRORA DSFB. MARINE SCOTLAND SCIENCE © Crown copyright

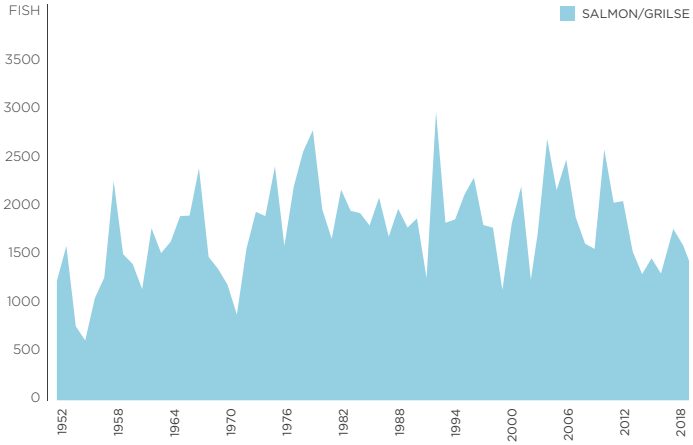
HELMSDALE

Michael Wigan
Manager, Helmsdale DSFB

A four-month drought, starting in May, lowered summer catches, but the overall total was sustained by releasing water through the summer from Badanloch Dam. Voluntary conservation measures consist principally of local angler assistance – with 20 nominated anglers taking part in rod and line capture of broodstock for a hatchery operation that produces 160,000 fry for reintroduction to the system each year.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	1,420	405	1,015	n/a	1,681	100/96/96%*	24lb
Sea Trout	152	n/a	n/a	n/a	n/a	48%	5lb

Season: 11 Jan – 30 Sep. **Spring/rest of season/overall.*



HELMSDALE ROD CATCH STATISTICS 1952-2019
SOURCE – HELMSDALE DSFB

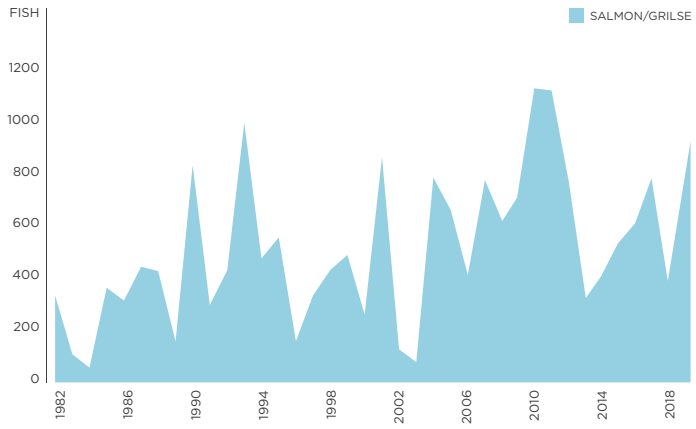
WICK

John Mackay
Secretary, Wick Angling Club

2019 was our fourth best year on record, but it started slowly – with only 69 fish to the end of June. However, the rain came in July and the river fished well until the end of the season, including some outstanding days' catches. There were plenty of fish throughout the system, which was confirmed at spawning. September was the most productive month, yielding 301 fish. One point of interest was the number of large salmon, up to 20lb, which is unusual for the Wick.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	903	15	888	n/a	692	13/46/45%*	19lb
Sea Trout	5	n/a	n/a	n/a	5	n/a	2.5lb

Season: 11 Feb – 12 Oct. **Spring/rest of season/overall.*



WICK ROD CATCH STATISTICS 1982-2019
SOURCE – RIVER WICK

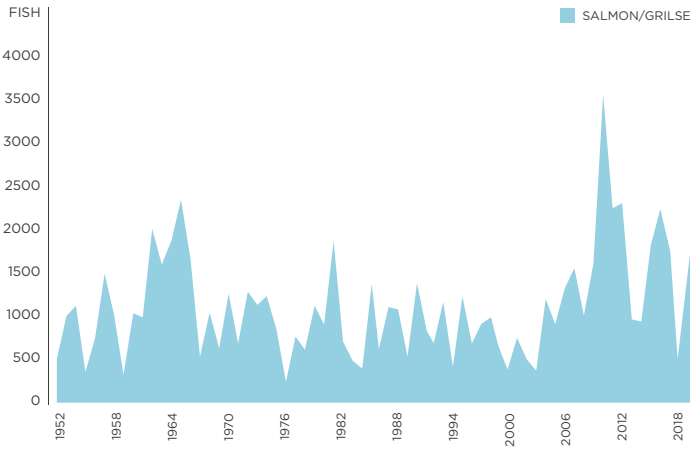
THURSO

Tim Hawes
Thurso River Manager

It was a very good season overall, with a catch return above the 5- and just under the 10-year average. The spring run was slow to start and numbers were down on previous years, but the grilse run was strong and with good water they had no problems running the river. A lot of rain at the end of September gave us a very strong finish. Early in the season we did see a number of fish showing red marks and fungus, which was also seen in many other rivers, but the numbers were small and, as the season progressed, no more of these fish were reported.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	1,774	123	1,651	n/a	1,739	100/94/94%*	27lb
Sea Trout	n/a	n/a	n/a	n/a	n/a	n/a	4lb

Season: 11 Jan – 5 Oct. **Spring/rest of season/overall.*



THURSO ROD CATCH STATISTICS 1952-2019
SOURCE – THURSO RIVER MANAGEMENT

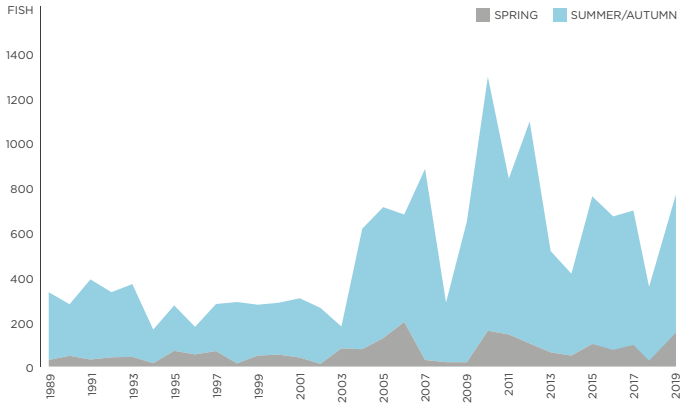
HALLADALE

John Salkeld
Halladale Partnership

It was the fifth best season on record in terms of salmon catches, but this might have been helped by the comparative abundance of water. The move away from grilse to a higher percentage of salmon (335 salmon v 457 grilse) appears to be continuing, while a surprising number of sea trout were caught, although not yet a significant number overall. On the down side the river suffered from the occurrence of some disease, but with only two or three disease-related mortalities identified it was not as bad as some north coast rivers.

	2019 total	Pre June 1	Post June 1	Total nets	5yr Av	Release rate	Largest Fish
Salmon	792	160	632	n/a	664	97/85%	n/a
Sea Trout	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Season: 12 Jan – 30 Sept. **Spring/overall.*



HALLADALE ROD CATCH STATISTICS 1989-2019
SOURCE – HALLADALE PARTNERSHIP

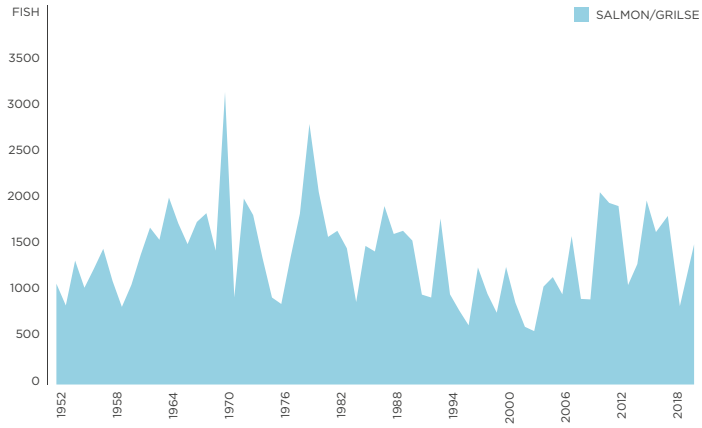
NAVER

Richard Wright
Bailiff, River Naver

The season total was a relief after the drought of 2018. The fishing started off well, with the first fish – of 16lb – landed on 19 January. It was the first of many spring fish and a scale sample showed it to be a repeat spawner, having spent two years at sea before first returning, then another after it initially spawned. Scales taken from a sample of 100 fish showed that 11 percent of these early spring fish are repeat spawners. We had 338 salmon and six grilse landed throughout the catchment before 1 June, as we got into June numbers of grilse in the 3-5lb range started to show and by the end of the season we had 660 grilse. Summer salmon numbers were pretty steady, with 473 captured after 1 June. Sea trout numbers were above the recent average.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	1,477	334	1,113	n/a	1,570	98/93/95%*	23lb
Sea Trout	183	n/a	n/a	n/a	281	98%	3lb

Season: 12 Jan – 30 Sep. **Spring/rest of season/overall.*



NAVER ROD CATCH STATISTICS 1952-2019
SOURCE – NAVER MANAGEMENT

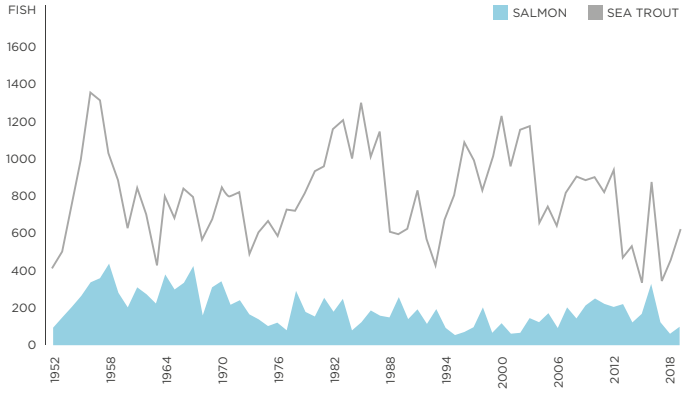
HOPE

Andrew Adamson
Wildland Ltd Estate Manager

The River Hope, whilst not suffering the same droughts of 2018 still had several months of lower water in 2019 which offered some tricky conditions. There were no surprises this year with the grilse run and we still saw an increase in salmon and grilse catches compared to 2018. The sea trout fishing in the loch didn't bring the large numbers of 2018, but their average weight was up, probably due to the high numbers of finnock in 2018. We still operate a 100 percent catch and release policy on all Wildland estates, which will hopefully help to improve stocks for the future. Boats on Loch Hope are still available through our cottages (www.wildland.scot), the Tongue Angling Club, and by staying at the Altnaharra Hotel.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	94	n/a	n/a	n/a	n/a	100%	14lb
Sea Trout	606	n/a	n/a	n/a	n/a	100%	n/a

Season: 11 Feb – 31 Oct.



HOPE ROD CATCH STATISTICS 1952-2019
SOURCE – WILDLAND LTD. MARINE SCOTLAND SCIENCE© Crown copyright

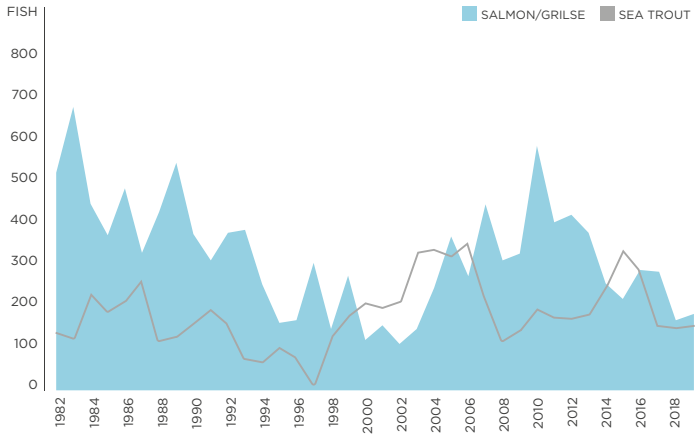
DIONARD

Peter Routledge
River Dionard Committee of Management

Last year was below the five-year average but slightly better than 2018 which was a very dry year.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	183	0	183	n/a	n/a	89%	12lb
Sea Trout	156	n/a	n/a	n/a	n/a	95%	8lb

Season: 1 Feb – 15 Oct.



DIONARD ROD CATCH STATISTICS 1982-2019
SOURCE – NORTH AND WEST DSFB

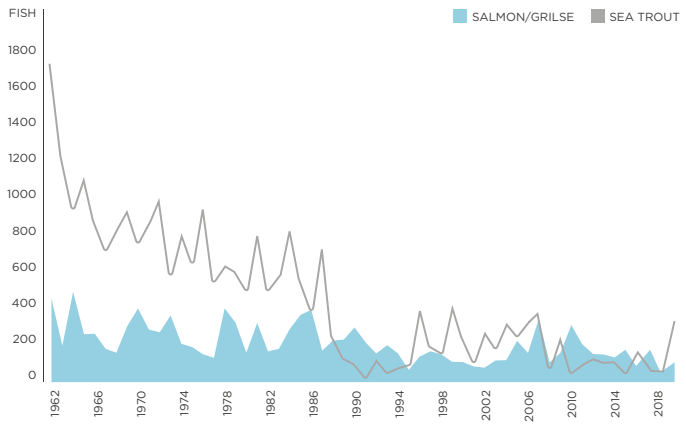
LAXFORD

Shona Marshall
Biologist, West Sutherland Fisheries Trust

Both salmon and sea trout catches were better than 2018, although the former was the ninth lowest recorded catch and the latter the 26th lowest. The most prolific months for salmon were July and August, while sea trout were also taken in numbers in September. The ongoing restructuring and development of woodland close to riparian waters should result in improvements to riparian zones and increased water quality in the long term. Removal of barriers has been started, in line with recommendations in the Laxford Management Plan (WSFT). Further works are being considered and a schedule of planned works based on the plan is being produced.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	114	5	109	n/a	159	100/98/98%*	20lb
Sea Trout	285	n/a	n/a	n/a	119	100%	2lb

Season: 1 March – 30 Sep. **Spring/rest of season/overall.*



LAXFORD ROD CATCH STATISTICS 1962-2019
SOURCE – WEST SUTHERLAND FISHERIES TRUST

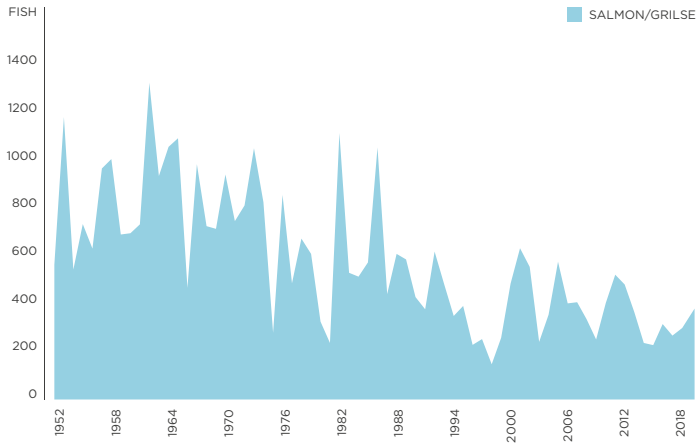
GRIMERSTA

Jason Laing
Grimersta Estate Manager

Although we did not pick up many spring fish in 2019 the grilse run again seemed to arrive relatively early – in mid/late May. We had a fairly dry May but overall one of the wettest seasons for many years. A fairly high percentage of the fish ran through to Loch Langavat but – overall – we had a decent year in terms of catches, the best since 2013. The fish were not particularly large but were, on the whole, in very good condition. There were fewer issues with sea lice than in 2018, partly due to it being the first year of the production cycle in the Loch Roag sea cages and partly as the high water enabled fish to enter the river with ease.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	361	6	355	n/a	292	100/95/94%*	15lb
Sea Trout	138	n/a	n/a	n/a	181	100%	4lb

Season: 11 Feb – 15 Oct. **Spring/rest of season/overall.*



GRIMERSTA ROD CATCH STATISTICS 1952-2019
SOURCE – WESTERN ISLES DSFB

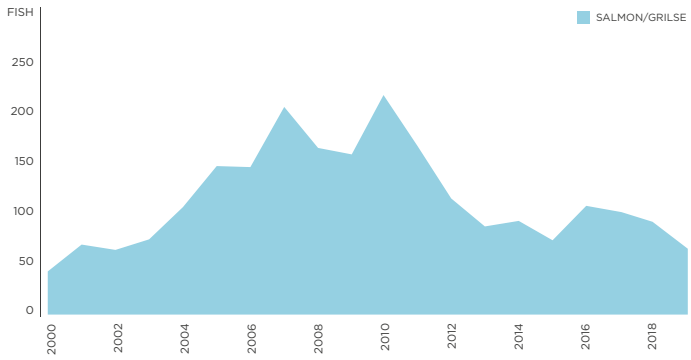
SNIZORT

Danny Doherty
Ghillie, Snizort River

The river didn't start fishing until July and the salmon catch was below average. One significant concern was the arrival of a number of rainbow trout that had escaped from a fish farm. One has already been caught this year too, so they have either survived the winter, or are still coming into the river systems. The real concern is the damage they will cause to the juvenile fish, which could have a long-term impact on sea trout and salmon runs. On a more positive note there is the possibility of taking part in a smolt trapping programme later this year to track smolt migration.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	63	0	63	n/a	n/a	100%	n/a
Sea Trout	24	n/a	n/a	n/a	n/a	100%	n/a

Season: 11 Feb – 15 Oct.



SNIZORT ROD CATCH STATISTICS 2000-2019
SOURCE – SKYE DSFB

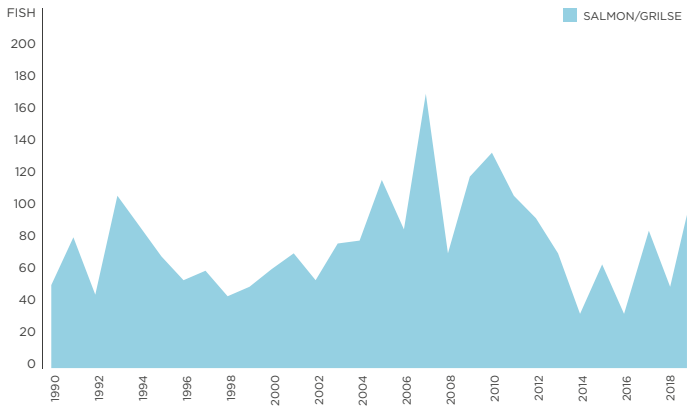
LITTLE GRUINARD

Iain Allison
Head Keeper, Eilean Darach Estates

The Little Gruinard's 2019 season was excellent, with plenty of fish showing and being caught. We did encounter some diseased fish in the river but, after some high water came, the disease seemed to be flushed out. One other surprise was the arrival of quite a few rainbow trout, possibly escapees from a fish farm, in the river in the last few weeks of the season. All in all the number of salmon and sea trout seen and caught gives us encouraging for the 2020 season.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	95	0	95	n/a	61	100%	12lb
Sea Trout	3	n/a	n/a	n/a	6	100%	3lb

Season: 11 Feb – 31 Oct.



LITTLE GRUINARD ROD CATCH STATISTICS 1990-2019
SOURCE – LITTLE GRUINARD MANAGEMENT

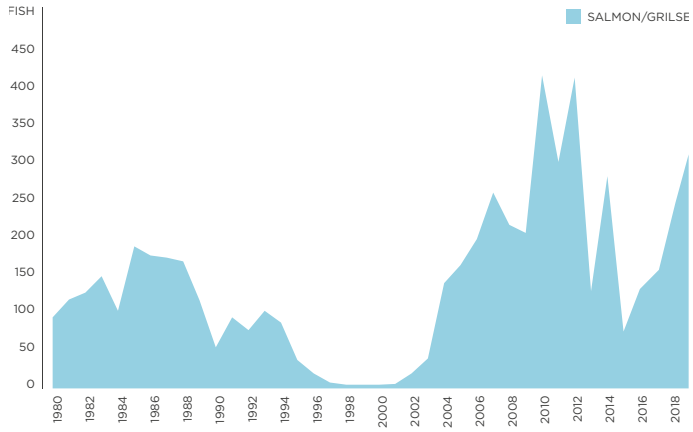
CARRON (WEST COAST)

Bob Kindness
Carron River Manager

While the previous season was a good one, 2019 was even better, with the catch of salmon and grilse well above the 10-year average. Some excellent salmon were caught, with several in the 20lb class, and the grilse run was particularly strong. Winter spates and moving gravel are still problematic, but a highly successful stocking programme using well established fry, which has been operating since 2001, has mitigated this and other problems. Smolt output is well above what might be expected, and has resulted in recent catches being at historically high levels. The current 10-year averages for salmon and grilse are 98.4 and 147.9 respectively, compared with 16.8 and 6.5 for the 10-year period immediately prior to the stocking programme kicking in.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	317	0	317	n/a	246	100%	23lb
Sea Trout	67	n/a	n/a	n/a	101	100%	3lb

Season: 15 Feb – 31 Oct.



CARRON (W.COAST) ROD CATCH 1980-2019
SOURCE – RIVER CARRON MANAGEMENT

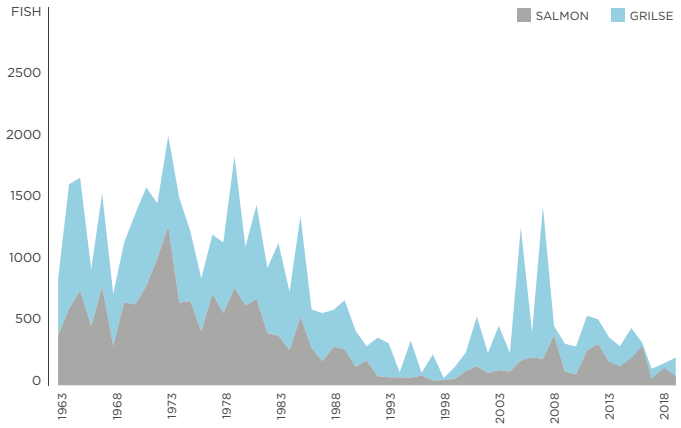
LOCHY

Jon Gibb
Lochy River Manager

Noticeably low returns of 2SW salmon early in the year (bucking recent trends) were offset slightly by more grilse than the last few years. We also saw more autumn grilse returning than in recent seasons. Perhaps the fish are adapting to changes at sea and the formerly prolific one sea winter grilse numbers will gradually make a return? We can only hope. In the meantime the Lochy will be involved in a three-year project to track smolts down the river and out to sea – both in order to identify their migration paths and to discover if heavy losses might be occurring in freshwater. A 100 percent catch and release policy (excluding fin-clipped hatchery fish) is in place, in spite of the river's Category 2 status.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	216	18	198	n/a	347	100%	22lb
Sea Trout	125	n/a	n/a	n/a	162	100%	4lb

Season: 1 Apr – 15 Oct.



LOCHY ROD CATCH STATISTICS 1963-2019
SOURCE – LOCHY ASSOCIATION

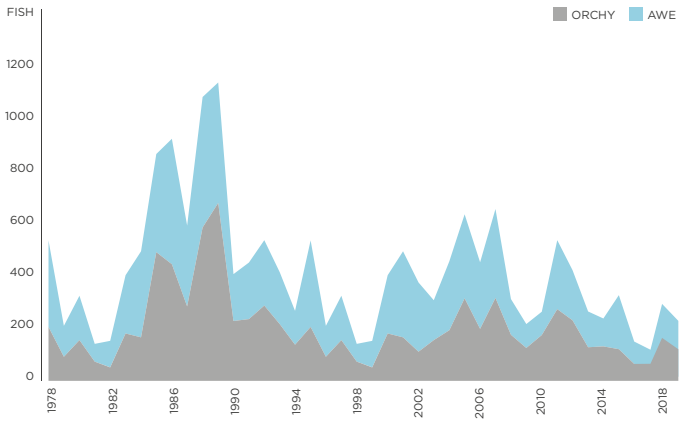
AWE & ORCHY

Roger Brook
Chairman, Argyll DSFB

A better than usual early run of fish combined with good fishing conditions led to a reasonable start to the season. However, the overall catch was low because the number of returning fish continues to disappoint. At the peak of the salmon run over 30,000 rainbow trout weighing 1 to 2kg escaped from a fish farm in the sea loch. They came straight into the River Awe and completely disrupted the salmon fishing in the lower beats. Over 10,000 were removed by rod and line. In such circumstances it is impossible to control the fishing and there is no way to know how many salmon were taken by trout fishers. Further harm will have been done to the ecology and juvenile fish populations.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	240	25	215	n/a	286	100%	n/a
Sea Trout	285	n/a	n/a	n/a	119	n/a	n/a

Season: 11 Feb – 31 Oct.

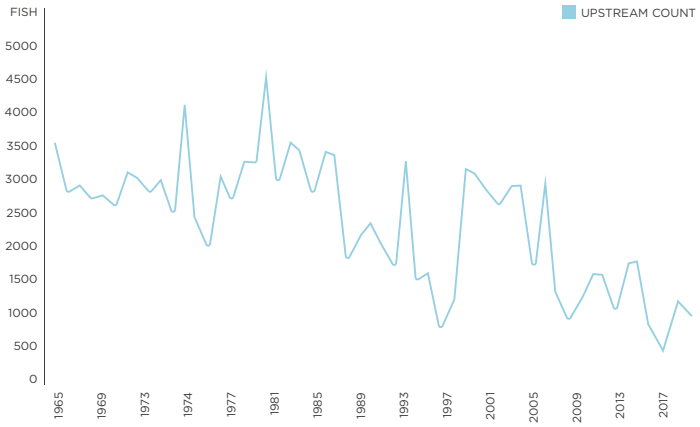


AWE & ORCHY ROD CATCH STATISTICS 1978-2019
SOURCE - ARGYLL DSFB

AWE COUNTER

Roger Brook
Chairman, Argyll DSFB

The counter total was 1,011, which is down on the 2018 figure of 1,181 and below the 10-year average of 1,220. The river was full of escaped rainbow trout for most of the season and we cannot be certain of the accuracy of the count but we believe it to be a reasonable approximation of the run. There are significant variations from year to year, but the overall trend is one of declining salmon returns.



AWE BARRAGE UPSTREAM COUNT 1964-2019
SOURCE – SCOTTISH AND SOUTHERN ENERGY

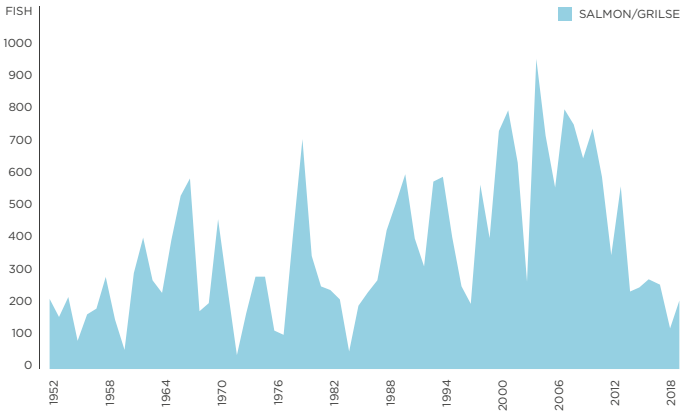
AYR

Stuart Brabbs
Ayrshire Rivers Trust

The season started slowly but, once the weather broke, water levels allowed fishing for most of the remainder of the season. Runs came into the river from June, but July and August were the most productive months, followed by October. The board continues to press SEPA and Catrine Renewables to resolve the smolt migration issues at Catrine. With another two hydro schemes in the pipeline, it is essential that these developments don't hinder migration or lead to increased predation as a result of delays. Yet again, several large clubs failed to report their catch to the DSFB, leading to a considerable underestimation of the catch. Between this and the disappointing release rate it's no surprise that the river returns to Category 3 status.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	207	n/a	n/a	n/a	n/a	100/73%	n/a
Sea Trout	9	n/a	n/a	n/a	n/a	100%	n/a

Season: 15 Feb – 31 Oct. **Spring/overall.*



AYR ROD CATCH STATISTICS 1952-2019
SOURCE – AYRSHIRE RIVERS TRUST

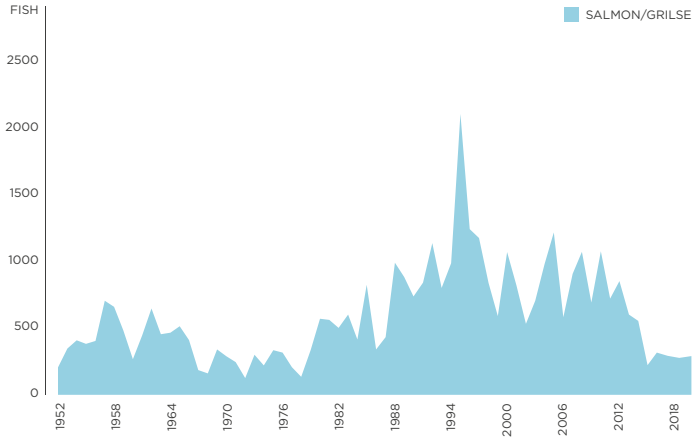
DOON

David Cosh
Doon DSFB

Water conditions for most of the season were very good, although the catch was no better than the previous few years. Most of the fish arrived in July and August, with few fresh fish caught thereafter. Although we asked the Scottish Government for a Category 3 classification we received a Category 2. However, the board then asked all riparian owners to aim for 100 percent catch and release and, pleasingly, only 19 of the 295 fish caught were killed. The lack of fish in the river resulted in low fishing effort, making it hard for all owners and clubs to cover their costs and the board has been trying to save money to lessen the rate burden.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	295	0	295	n/a	n/a	93%	15lb
Sea Trout	35	n/a	n/a	n/a	n/a	100%	6lb

Season: 15 Feb – 31 Oct.



DOON ROD CATCH STATISTICS 1952-2019
SOURCE – AYRSHIRE RIVERS TRUST

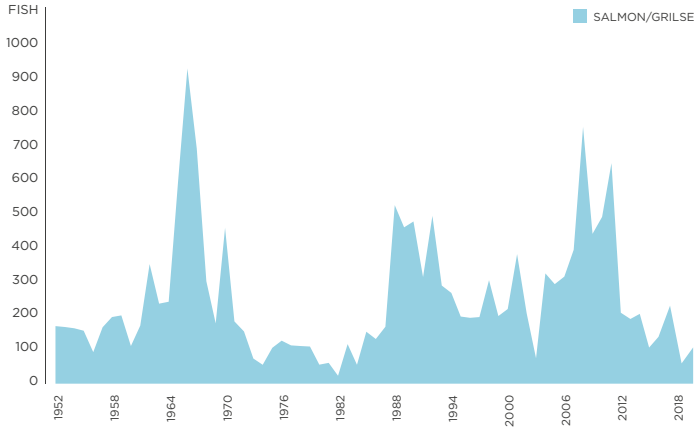
GIRVAN

Stuart Brabbs
Ayrshire Rivers Trust

Under-reporting of catches was, once again, a feature and the reported rod catch is poor – albeit an improvement on 2018. In 2020 the Girvan has moved to a Category 3 from Category 2 status – less due to the lack of fish but more as a symptom of a decline in angling pressure: survey results once again demonstrate how stable the juvenile salmon populations are compared to other local rivers. Erosion continues to be an issue in the middle river, leading to a heavy silt load, which in turn reduces productivity in lower reaches. Ayrshire Rivers Trust and the DSFB continue to work with landowners and SEPA to find ways to address this issue.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	98	n/a	64	n/a	n/a	100/86%*	n/a
Sea Trout	39	n/a	n/a	n/a	n/a	100%	n/a

Season: 21 Feb – 31 Oct. ** Spring/overall.*



GIRVAN ROD CATCH STATISTICS 1952-2019
SOURCE – AYRSHIRE RIVERS TRUST

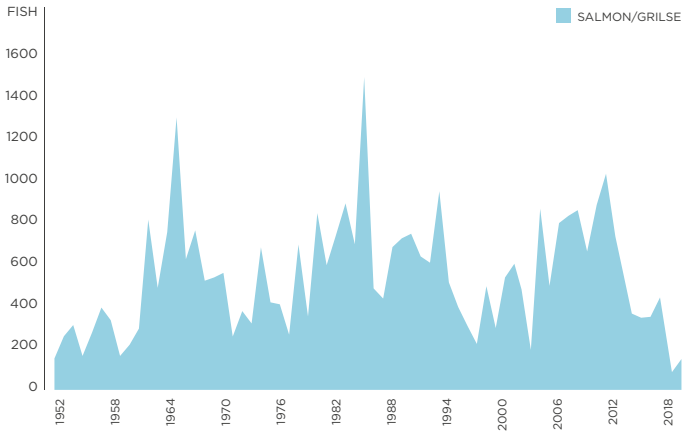
STINCHAR

Stuart Brabbs
Ayrshire Rivers Trust

At the time of writing, catch totals were incomplete, with more than one of the larger beats not reporting, which severely reduces the 2019 total. However, analysis of those beats that have reported suggest that those fished more frequently produced more fish. The Ballantrae beat was inexplicably poor, but this is probably linked to a lack of grilse lingering in the lower pools. Catch and release across the Stinchar was typically high, with a commendable 98.4 percent of fish returned. Unfortunately, despite this, the river has been demoted to Category 2 status this year.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	127	3	124	n/a	n/a	100/98%*	n/a
Sea Trout	75	n/a	n/a	n/a	n/a	97%	n/a

Season: 25 Feb – 31 Oct. **Spring/overall*



STINCHAR ROD CATCH STATISTICS 1952-2019
SOURCE – AYRSHIRE RIVERS TRUST

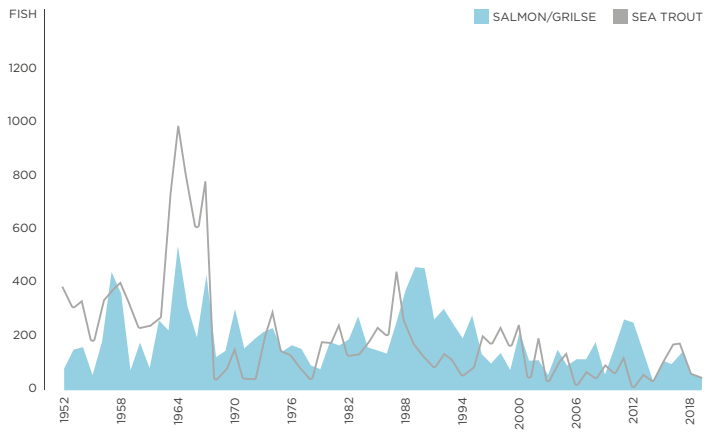
LUCE

Jamie Ribbons
Galloway Fisheries Trust

This was a difficult season for both salmon and sea trout fishing. Salmon started to be seen from June and the main run started in August, but fish appeared to run through the main angling beats quickly. Sea trout were also less numerous than usual. There are some acidification concerns in the very upper river but the habitat is largely good and there are decent numbers of juvenile salmon throughout catchment. All beats are fly only. All salmon have to be returned and we are encouraging anglers to return sea trout too.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	71	0	71	n/a	138	100%	16lb
Sea Trout	61	n/a	n/a	n/a	106	n/a	5lb

Season: 11 Feb – 31 Oct.



LUCE ROD CATCH STATISTICS 1952-2019
SOURCE – GALLOWAY FISHERIES TRUST

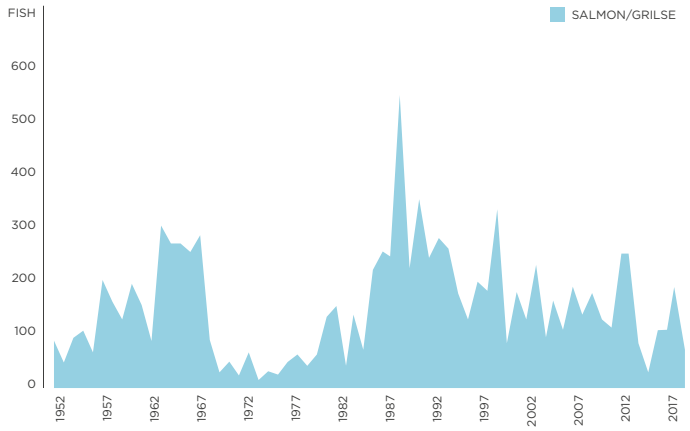
BLADNOCH

Jamie Ribbens
Galloway Fisheries Trust

Although the 2019 figures are not available at the time of writing, the spring run was in keeping with previous years, with only a few fish taken. Fish, mainly grilse, came steadily from July onwards. Collecting broodstock at the end of the season showed some relatively fresh fish still present. Overall the 2019 season was better than the poor catches recorded in 2018. The upper reaches of the main river and its tributaries continue to be acidified but the board is hoping to add limestone gravel in the near future. Restoration of 300 hectares of peatland, which was previously forested, is going ahead to improve water quality. In 2019 the hatchery was in use for restocking areas with a lack of wild salmon where the water quality is acceptable for fish survival.

	2018 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	69	9	60	n/a	133	100%	14lb
Sea Trout	0	n/a	n/a	n/a	n/a	n/a	n/a

Season: 11 Feb – 31 Oct.



BLADNOCH ROD CATCH STATISTICS 1952-2018
SOURCE – GALLOWAY FISHERIES TRUST

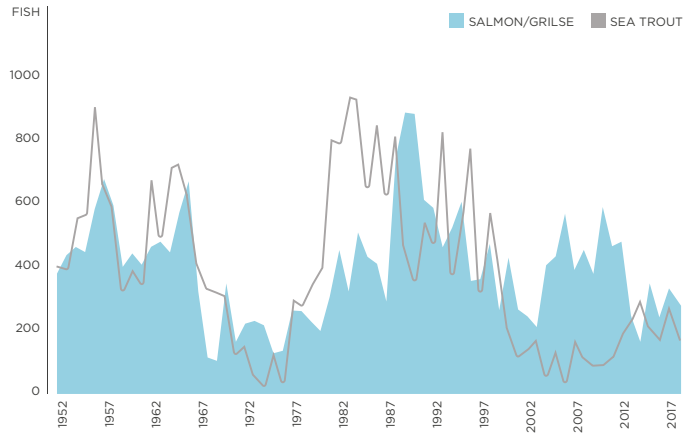
CREE

Terence Flanagan
Chairman, Cree DSFB

Although exact figures are not to hand at the time of writing, it appears the 2019 rod catch was approximately 356 salmon and grilse and 130 sea trout. Spring was late and cold, with little angler effort and few fish showing. June, July and August were extremely wet and the river was unfishable on several days, but these were still the peak months for catches. September was dry and catches dwindled for the rest of the season. As in 2018, there appeared to be a greater proportion of grilse in the river. Worryingly, sea trout were scarce after recent years which had seen an increase in catches. Environmental improvements included the removal of self-seeded Sitka spruce from riverbanks and the re-planting of native broadleaf trees.

	2018 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	278	6	272	48	n/a	100/87/87%*	n/a
Sea Trout	179	n/a	n/a	n/a	n/a	93%	n/a

Season: 1 Mar – 14 Oct. **Spring/rest of season/overall.*



CREE ROD CATCH STATISTICS 1952-2018
SOURCE – CREE DSFB

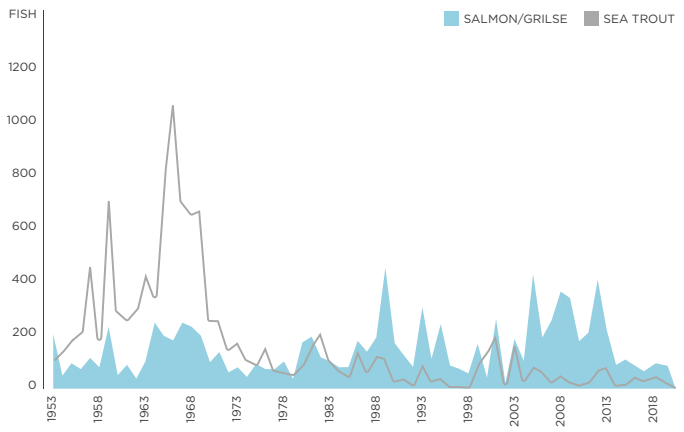
URR

Will Marshall - *Secretary, Dalbeattie Angling Association*
Kenny Irvine - *Chairman, Castle Douglas Angling Association*

2019 continued the pattern of low catches on Dalbeattie water – they seem to be holding steady at around 50 for the last five years, but are well below the 322 caught in 2011. November late-running MSW fish, for which the system was once noted, were entirely absent, the spring run was sporadic, while most fish arrived in August and September. Unlike larger rivers, where one visit is usually one full day, most DAA anglers' fish for 1-3 hours per visit and averaged 10 visits per fish. The Buittle Reservoir has been refilled after crayfish poisoning by Scottish Water with no crayfish trapped since. On Castle Douglas the main run was noted in September and early October, while there was a small run of biggish sea trout in mid-November. Gravel movement and build-up are still a concern.

	2019 total	Pre June 1	Post June 1	Total nets	5yr Av	Release rate	Largest Fish
Salmon	79	2	77	n/a	91	100/85/85%*	19lb
Sea Trout	47	n/a	n/a	n/a	32	94%	5lb

Season: 25 Feb – 30 Nov. **Spring/rest of season/overall.*



URR ROD CATCH STATISTICS 1952-2019
SOURCE – DALBEATTIE AA & CASTLE DOUGLAS AA

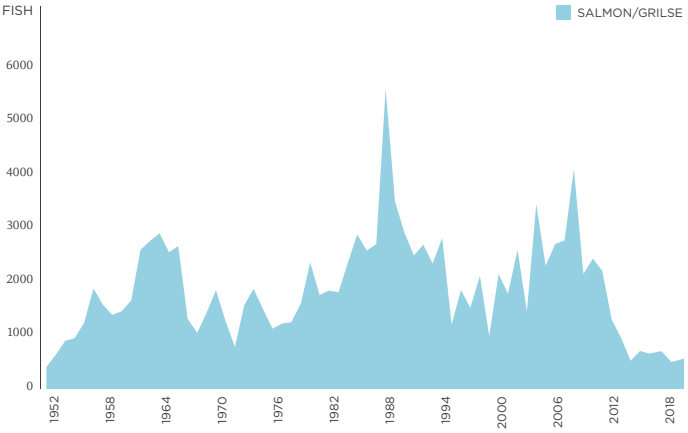
NITH

Jim Henderson
Fishery Director, Nith DSFB

The 2019 season saw an increase in both salmon and sea trout in the catches, despite a reduced number of anglers. The trend for salmon running the river in the summer months continued, with the majority of the run finished by the end of October/early November. Habitat improvement works continue in the catchment, with the fencing of riparian habitat and associated planting. The Nith is one of the rivers involved in the Atlantic Salmon Trust's west coast smolt tracking project for 2020. This is exciting work which will potentially reveal pressures on our smolt production and assist the board with future management decisions.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	586	40	546	158	1,349	100/93/93%*	n/a
Sea Trout	845	n/a	n/a	157	990	83%	n/a

Season: 25 Feb – 30 Nov. **Spring/rest of season/overall.*



NITH ROD CATCH STATISTICS 1952-2019
SOURCE – NITH DSFB

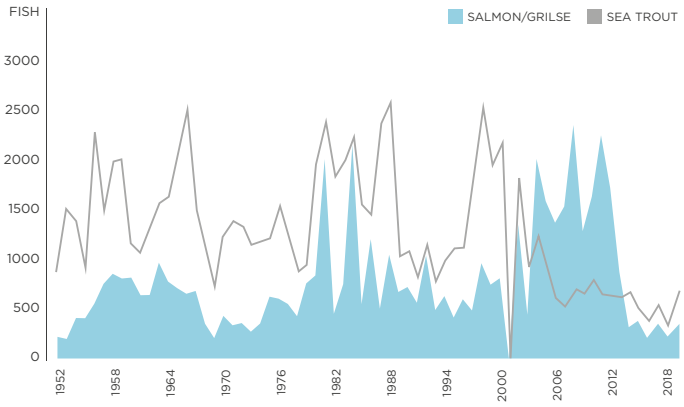
ANNAN

Mary Colville
Clerk, Annan DSFB

The season got off to a reasonable start, then slowed up, before the bulk of the salmon arrived between late August and early November. Although on most beats the total number of anglers was slightly down on the previous year the number of fish caught on rod and line was substantially higher than in 2018. There appears to have been an increase in grilse numbers, while sea trout numbers were also up on 2018, with a particular increase in finnock being reported. The number of salmon caught in nets was slightly lower and we can only assume that effort was less due to higher water during the netting season, which ended in August.

	2019 total	Pre June 1	Post June 1	Total nets	10yr Av	Release rate	Largest Fish
Salmon	372	17	355	n/a	834	100%	28lb
Sea Trout	657	n/a	n/a	35	575	94%	n/a

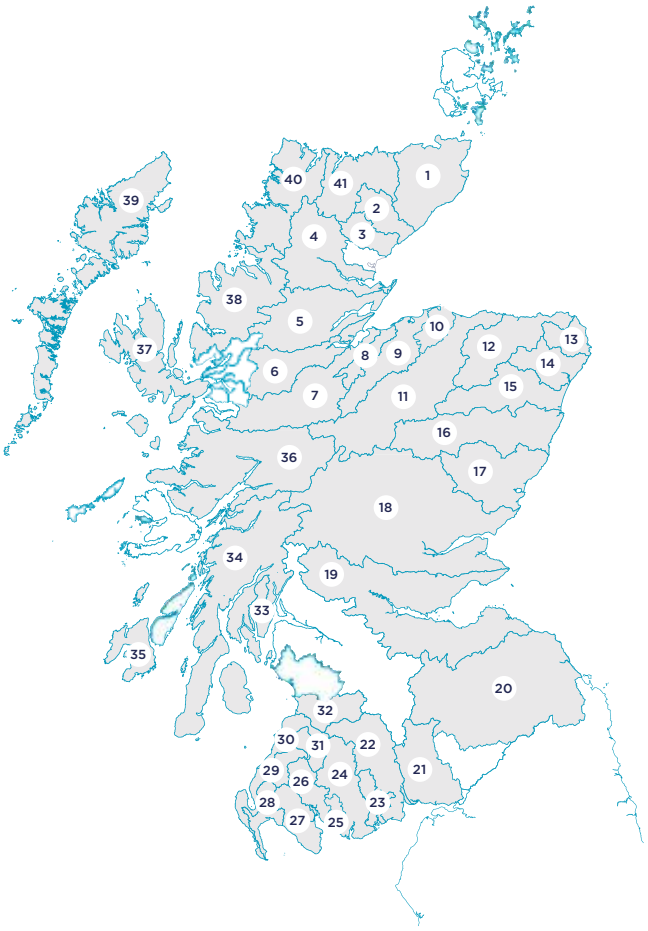
Season: 25 Feb – 15 Nov.



ANNAN ROD CATCH STATISTICS 1952-2019
SOURCE – ANNAN DSFB

District Salmon Fishery Boards

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:

SFD / DSFB boundaries, SEPA (2009) & SG MS (2017)
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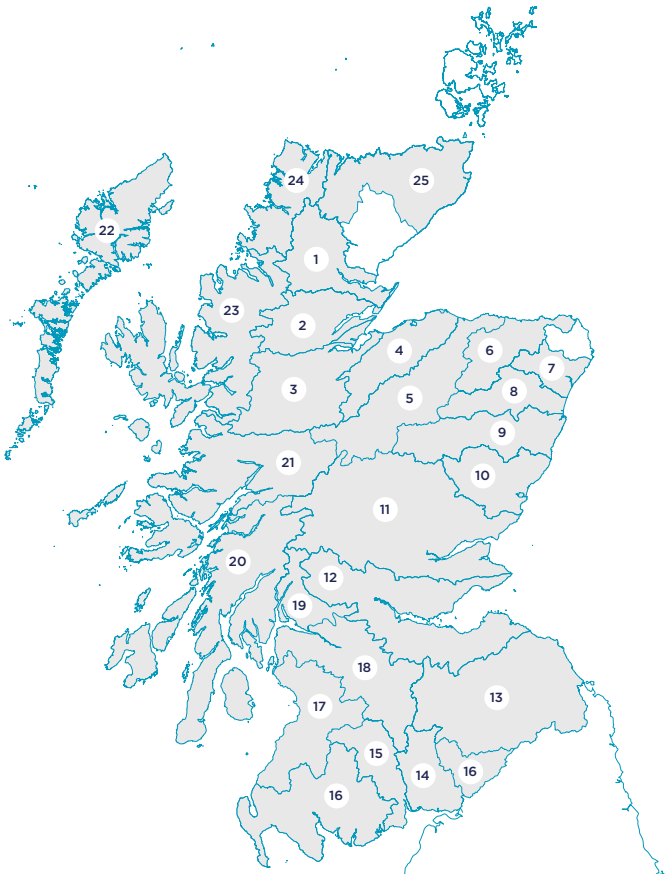
Projection: British National Grid. Marine Scotland GIS ref: gj0679

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. Outer Hebrides Fisheries Trust
23. Skye & Wester Ross Fisheries Trust
24. West Sutherland Fisheries Trust
25. Flow Country Rivers Trust



Sources:

Fisheries Trust Boundaries, SEPA (2009) & SG MS (2017)
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Projection: British National Grid. Marine Scotland GIS ref: gj0627

2019 IN SUMMARY – our members' contribution to protecting and improving our fisheries and freshwater habitats

25

Barriers physically eased/ removed to which our members have contributed time or money

562km

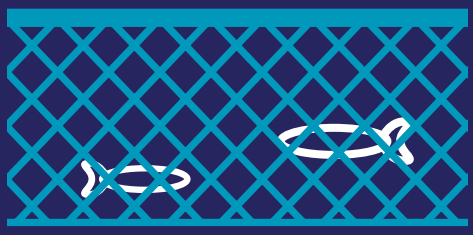
Of river managed for invasive species

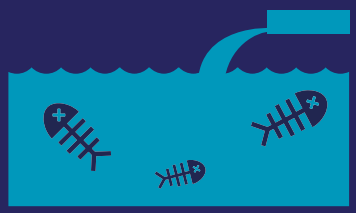
77

Offences formally reported to Police Scotland or Procurator Fiscal

71

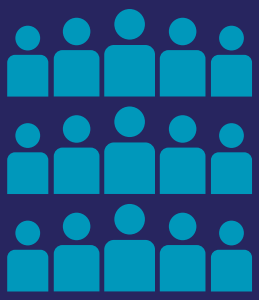
Illegal instruments retrieved/confiscated





223

Pollution incidents reported to SEPA



263

Schools worked with

14,075

Pupils engaged

48,400

Native trees planted

163km

Estimate of newly accessible river following barrier easement

Fisheries Management Scotland
11 Rutland Square Edinburgh EH1 2AS
Tel: 0131 221 6567

www.fms.scot @fms_scotland