

The
Annual Report
2022

Cover Photo: *Sunrise on the River Spey, from the bridge at Grantown-on-Spey, 2022.*
(Photo: Paul Hughes, SFB Digital Marketing & Communications Manager).

Annual Report 2022

by



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Photo: Young angler casting during the RSAA Skills Day, Easter Elchies. (Photo: Paul Hughes, SFB Marketing Manager).

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Spey Fishery Board

- Chairman:** *Dr Alexander Scott*, Mandatory for Craigellachie Fishings
- Proprietors:** *William Mountain*, Delfur Fishings
Guy Macpherson-Grant, Mandatory for Ballindalloch Trustees
Angus Gordon Lennox, The G.C. Gordon Lennox Estate Company Ltd.
Dr. Catherine Wills, Knockando, Phones and Lower Pitchroy (*until July 2022*)
Toby Metcalfe FRICS, Mandatory for Crown Estate Commissioners
Peter Graham FRICS, Mandatory for Rothes & Aikenway, Laggan and Wildland Fishings
David Greer FRICS, Mandatory for Seafield Estates
Callum Robertson, Easter Elchies, Upper Arndilly and Mandatory for Macallan and Kincardine
- Co-optees:** *Grant Mortimer*, Strathspey Angling Improvement Association
Sandy Howie, River Spey Anglers Association
- Invitees:** *Jennifer Heatley*, NatureScot (formerly Scottish Natural Heritage)
Lisa Forsyth, Scottish Environment Protection Agency
- Clerk:** *Neil Torrance*, Mackinnons Solicitors

Spey Fishery Board Members Attendance at Board Meetings

Date	<i>Dr Alexander Scott</i>	<i>Angus Gordon Lennox</i>	<i>Peter Graham</i>	<i>Dr Catherine Wills</i>	<i>Guy Macpherson-Grant</i>	<i>Toby Metcalfe</i>	<i>Callum Robertson</i>	<i>David Greer</i>	<i>William Mountain</i>	<i>Sandy Howie</i>	<i>Grant Mortimer</i>
04/02/22	X	X	X	X	X	X	X	X	X	X	X
27/05/22	X	X	X	X		X	X	X	X		X
02/09/22	X	X	X		X	X		X		X	
18/11/22	X	X	X		X	X		X		X	

Spey Scientific Committee

- Chairman:** *Peter Graham FRICS*, Mandatory for Rothes & Aikenway, Laggan and Wildland Fishings
- Members:** *Prof. Eric Verspoor*, University of the Highlands & Islands
Dr Ronald Campbell, Tweed Foundation (Retired)
Dr Alexander Scott, Mandatory for Craigellachie Fishings & SFB Chairman
Callum Robertson, Easter Elchies, Upper Arndilly and Mandatory for Macallan and Kincardine
Mike Murdoch, Head Ghillie, Laggan Fishings
Blair Banks, Ghillie, Arndilly
Simon Crozier, Ghillie, Castle Grant Fishings
Jon Gibb, Lochaber District Salmon Fishery Board
Roger Knight, SFB Director
Atticus Albright, SFB Biologist
- Administrator:** *Pru Jowett*, SFB Administrator

Spey Fishery Board Staff

Director: Roger Knight

Office Administrator: Pru Jowett (Part-Time)

Hatchery Manager: Jimmy Woods

Operations Manager: Duncan Ferguson

Head Water Bailiff: Richard Whyte

Water Bailiffs: Jason Hysert
Douglas Darling

Research: Atticus Albright (Biologist since June 2022)
Steve Burns (Assistant Biologist)
Kevin Greensill (Assistant Biologist - Seasonal)
Sacha Forbes-Leith (University Intern since September 2022)

Spey Catchment Initiative: Penny Lawson (Project Officer)
Gary Brown (Nature Restoration Officer - since June 2022)

Scottish Invasive Species Initiative: James Symonds (Project Officer - until September 2022)

Digital Marketing & Communications Manager: Paul Hughes

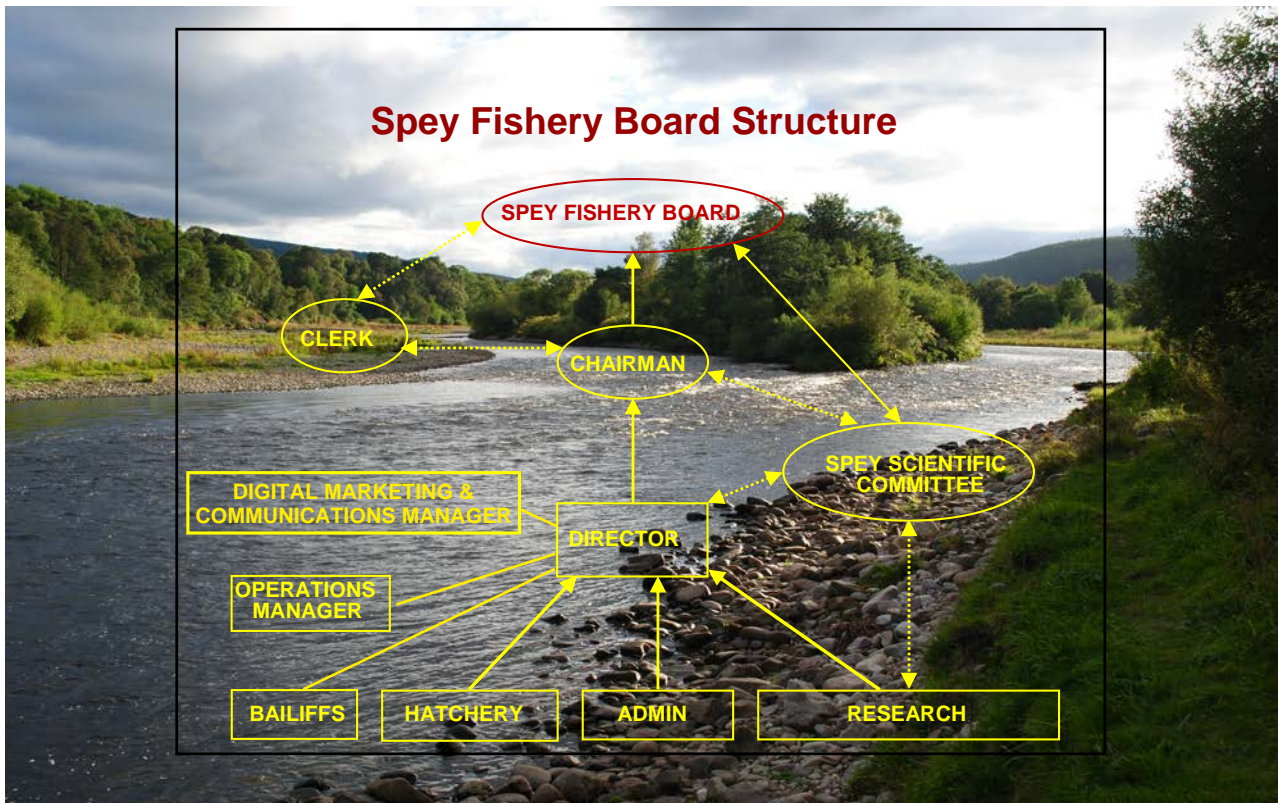


Figure 1: The Spey Fishery Board Structure

A Word from the Chair

Reflections on 2022 can only begin by paying tribute to the late Dr Catherine Wills of Knockando for her contribution over so many years. As well as having a passion for all things salmon and for her arboretum, Dr Catherine was an art historian of international repute. She wore her intellect lightly, behaved with great modesty and gentleness but could, when needed, be determined and direct. As well as her work for the Board, she was a significant benefactor of The Spey Foundation. Many on Speyside will miss her.

The last season brought challenging conditions both for salmon and anglers: sunshine, heat and low, warm water. However, the Spey held up with 5,440 salmon and grilse reported by the beats. Spring catches totalled 1,974. Both exceeded the 5-year average. There is, however, no room for complacency: North Atlantic salmon numbers remain seriously challenged and salmon are first and central to the focus of the Board.

At just 840 fish, the sea trout catch was the worst ever and about half the 10-year average. Many of the fish caught were large, which is even more concerning. Fishing for squid within the 3 mile limit is a significant activity in the Moray Firth. Our new Biologist, Atticus Albright is looking at the effects on sea trout.

We were very grateful to the anglers and proprietors who took the time to respond to our consultation on our Strategy and Management Plan. The Plan has now been published, is being actioned in full and is available to read on our web site and in this Report.

2022 was another very busy year for our small Team who punch well above their weight. Roger Knight continues to do an outstanding job and is often at the centre of national policy development on wild salmon, including the Scottish Government's Wild Salmon Strategy Implementation Plan Advisory Group and Fish Eating Bird Policy Review Group.

We continue to use our hatchery to the maximum permitted under Marine Scotland regulations. The catch-up of broodstock was complete by the beginning of November and I would like to thank the many volunteers who help with this extensive activity every year.

I am sorry to report a significant increase in poaching incidents keeping our Water Bailiffs busy. Looking at the arrests, this was not due to the current economic situation, but rather to petty local criminals. Unfortunately, one of our ghillies was seriously injured while trying to prevent illegal fishing at Aberlour.

Progress is at last being made on Spey Dam, but there are 8 other dams abstracting water from the Spey system. Salmon need cold, clean water, as was only too evident this year and yet, the most iconic salmon river in the world is one of the most heavily abstracted in Scotland. The Scottish Government and its regulator, SEPA, cannot continue to sit on their hands and do nothing! Please sign our on-line petition "Release The Spey". Our objectives are:

The complete removal of the River Mashie Dam.

Re-watering of the dry River Cuaich.

The complete removal of the Alt Bhran Dam.

Doubling of the daily flow from Spey Dam.

The Scottish Government also denied us a licence to deal with rogue seals. Our advice is that this decision is unlawful and we are considering proceeding to Judicial Review.

Our 2022 Sawbill Licence application was successful and the Team will again complete four sawbill counts this coming year.

Habitat restoration, ensuring parr have the best possible chance to thrive, continues apace in conjunction with our partners in the Spey Catchment Initiative (SCI). You can read how we completed one of our largest ever habitat restoration project this year on the Upper Spey. SCI has now been incorporated as a Charity and there will be a major announcement this Spring to bring pace and catchment-wide scale to this initiative.

The River Spey has an active, involved and challenging Board, as well as a vibrant Ghillies Committee. I would like to thank them all for their expertise and support.

Dr Alexander Scott



Chair - Spey Fishery Board

Spey Fishery Board Strategy & Management Plan 2022

The Spey Fishery Board's statutory responsibilities have always been at the heart of all that we do. We will work tirelessly to implement the Scottish Government's Wild Salmon Strategy, in order to enhance, conserve and protect Atlantic salmon and sea trout stocks throughout the River Spey Catchment.

Mission Statement:

In response to the Atlantic salmon crisis, affecting all our rivers, the Spey Fishery Board's mission is to maximise the number of Atlantic salmon and sea trout smolts reaching the sea from the River Spey.

Strategies:



Predation Control: We are working with the Scottish Government and their advisers to improve the management system for reducing the impacts of fish-eating birds, such as Goosanders, Mergansers & Cormorants, including a review of General Licenses. We shall also work to mitigate predation by other fish and continue our work to actively manage the impacts of seals in the River Spey.



Stocking: The SFB will continue to fulfil its statutory duty to consider stocking and to undertake mitigation stocking above man-made barriers. We have maximised the capacity of our hatchery and seek to give the natural population a helping hand wherever we are allowed to. In due course, we may also need a programme of restoration stocking above Spey Dam.



Protection and Law Enforcement: In concert with Police Scotland, our Fisheries Officers will continue to vigorously deter and prevent illegal fishing within the River Spey, its tributaries and along its coastline, including the use of technology, to protect our iconic fish.



Water Quantity & Quality: We are committed to maximising the quantity & quality of water throughout the Spey catchment and to reducing the significant water diversions made from it for the generation of hydroelectricity through our "Release the Spey" campaign. This will make flows in the River Spey more sustainable and resilient to the impacts of climate change.



Barriers to Salmonid Migration: We are committed to opening-up new spawning opportunities by removing or mitigating barriers to fish passage, including the removal of dams, thereby restoring natural river processes and improving in-river and bankside habitat.



Education: We will continue to work to promote greater understanding of the issues affecting salmon, its value to the local economy, of what we do and why we do it and, in particular, via digital channels. We shall also aim to develop introductions to angling to recruit and retain new anglers.



Lobbying: In close collaboration with Fisheries Management Scotland, we shall continue to robustly represent our views to the Scottish Government.



Habitat Enhancement: Working with our local partners in the Spey Catchment Initiative, we see the adoption of a holistic approach to river restoration and more habitat enhancement projects as central elements in bringing about landscape-scale changes, without cost to the Assessment. These will ensure the sustainability and resilience of the River Spey to the climate and biodiversity crises confronting us.



Invasive Species Removal: We will continue to work to establish a sustainable means of identifying and removing invasive non-native species, without cost to the Assessment. These species de-stabilise river banks and reduce fly life if left in place. These invasive species include American Mink, plants such as Giant Hogweed, Japanese Knotweed, Himalayan Balsam, White Butterbur and Ranunculus and, more recently, Pacific Salmon.



Scientific Research & Monitoring: We shall continue to develop our knowledge of the in-river and coastal migration undertaken by Spey smolts and our understanding of invertebrates. We shall seek to enhance our knowledge of water quality issues and check the health of the river by monitoring the young fish populations. This will highlight areas that need help, provide the scientific evidence we need to inform the Government's regulators and help protect the river from harmful developments.

Figure 2: SFB Strategy & Management Plan



Part 1

Fisheries and Conservation

1.1 Salmon and Grilse Catches

2022 proved to be an unusual season for anglers on the River Spey, with a strong run of spring fish which arrived early and headed straight for the top of the system. These provided good catches for the upper and some middle river beats, whilst the lower beats struggled - a pattern reflected on other big Scottish Rivers in 2022. This was followed by a prolonged period of low and often warm water during the summer months, interspersed by rises in water for a week in July and another in August, which improved otherwise mediocre catches.

Despite this, the declared rod catch amounted to **5,440** Salmon and Grilse caught, above the 5-year average of 4,929, slightly below the 10-year average of 5,564 and one of the best in Scotland for the year (Figure 3).

The early spring catch (between 11th February and 30th April) amounted to 764, fish, which was more than double the 364 fish caught for the same period last year. May produced catches of a further 544 fish (a reduction on the 746 fish in May 2021), whilst June produced catches of 668 salmon & grilse were caught, which was also lower than the 873 fish caught in June 2021. Catches rose to 1,354 in July, slightly below the 1,461 salmon & grilse caught in July 2021, but helped by a rise in water for a week during that month which significantly improved catches. Catches in August amounted to 1,011, below the 1,318 caught in August 2021 and the season concluded with September producing 1,099 fish, almost double the 556 caught during the same month last year (Figure 4).

Further details regarding the 2022 catches can be found in the weekly reports on the Board's website.

Photo Above: *Young angler Thomas Robertson with Easter Elchies Head Ghillie, Orn Sigurhansson, and a fine 28lb salmon, one of the 5,440 salmon & grilse caught on the River Spey during the 2022 season. (Photo: Callum Robertson).*

Spey Salmon & Grilse Catch

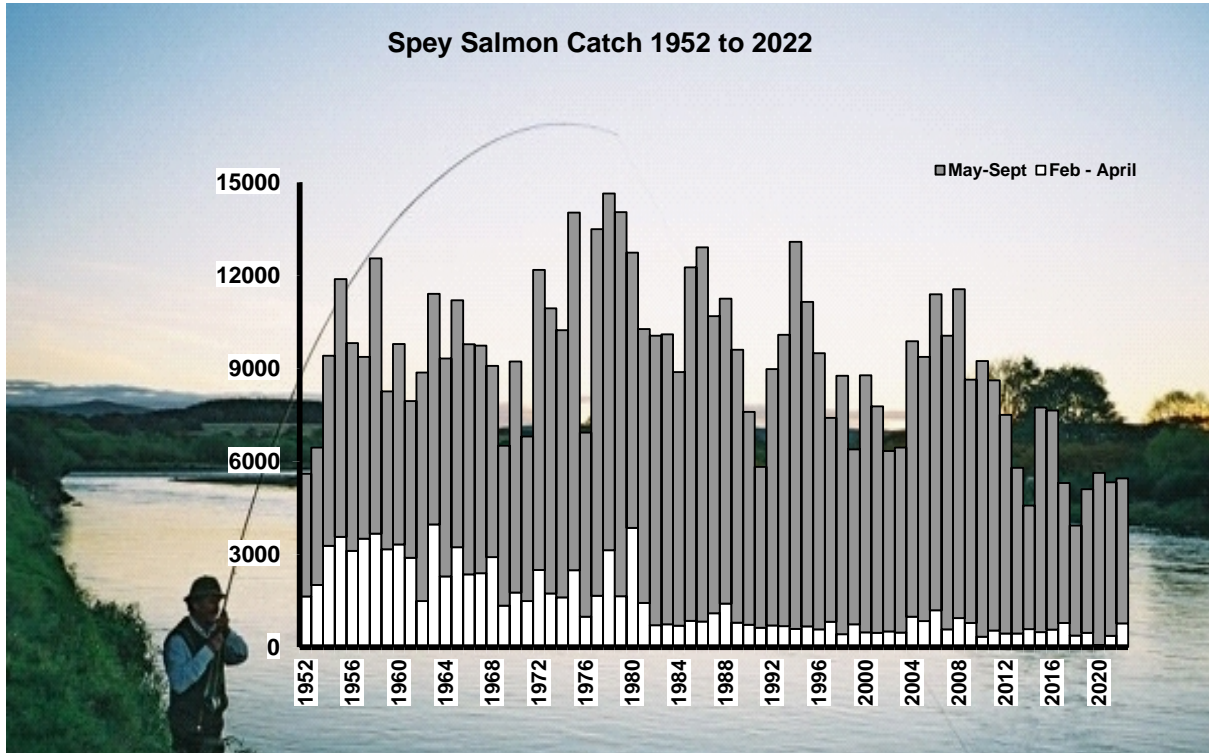


Figure 3: Annual declared rod catch of wild Salmon and Grilse from the River Spey, 1952-2022. The 2002-2022 catches are from returns made to the SFB by proprietors.

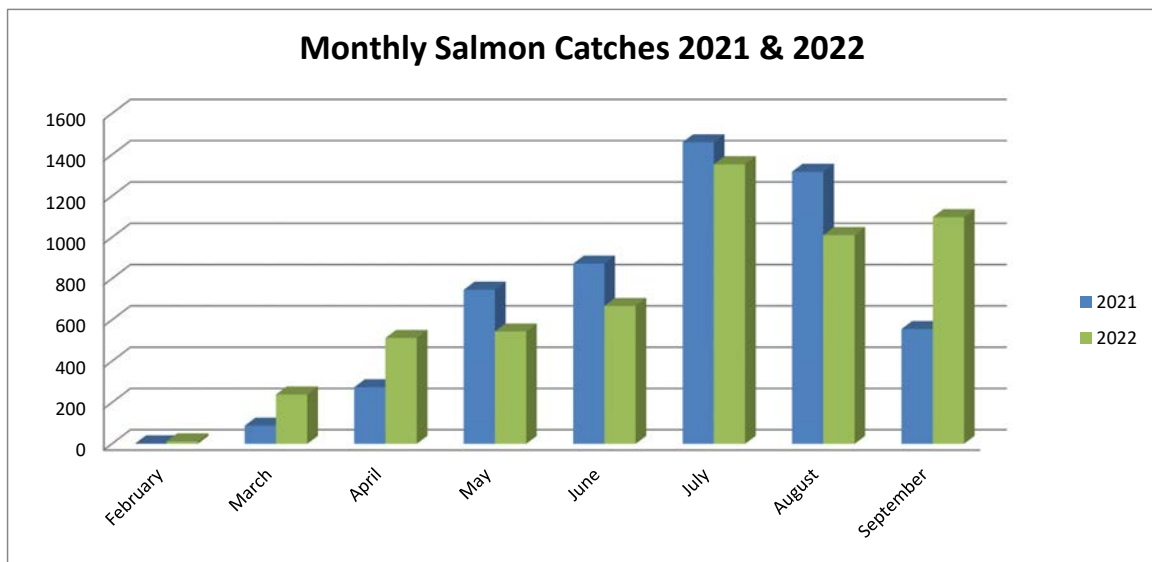


Figure 4: Declared monthly rod catch of wild Salmon and Grilse from the River Spey in 2021 and 2022, calculated from returns made to the SFB.

1.2 Sea Trout Catches

The 2022 declared River Spey rod catch for Sea Trout was 840, (Figure 5), which was significantly below the 1,219 caught in 2021 and the five-year average of 1,300.

For the majority of recent years, June has been the most prolific month for Sea Trout catches on the

River Spey, followed by July. The reverse was true in 2022, with 261 Sea Trout caught in July and 242 caught in June. So July accounted for 31% of the annual catch, whilst June accounted for almost 29%. Overall therefore, 60% of Sea Trout caught on the River Spey in 2022 were recorded in these two months.



Above: Lady Angler Di Orson with a fine, double-figure Sea Trout, caught at Pollowick, Castle Grant in June and one of the 840 Sea Trout caught on the River Spey during 2022. (Photo: Simon Crozier, Senior Ghillie, Reidhaven Trust Estates).

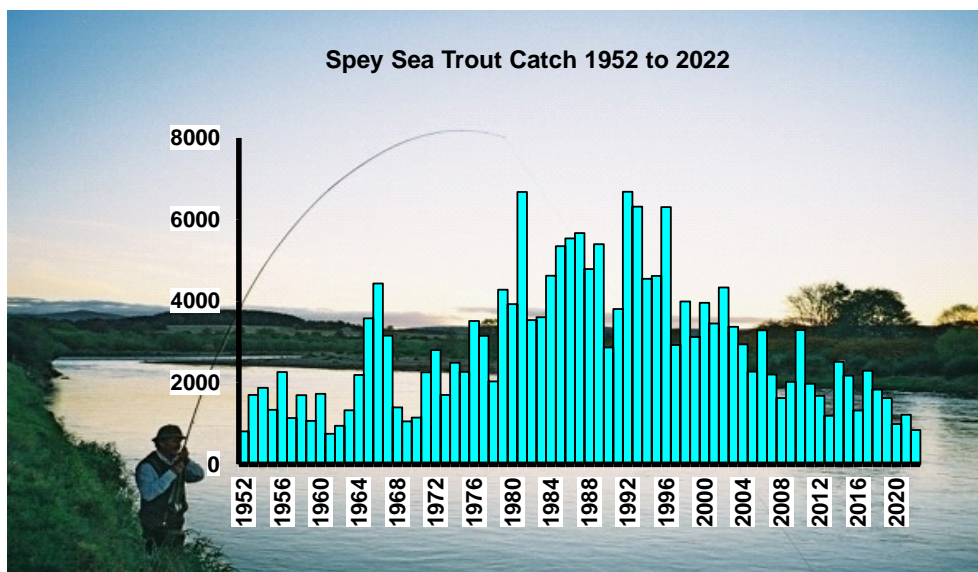


Figure 5. Annual declared rod catch of Sea Trout from the River Spey, 1952-2022. The 2002-2022 catches are from returns made to the SFB.

1.3 Salmon Conservation Policy

As part of its long term commitment to the protection of Salmon stocks, the SFB launched a Salmon Conservation Policy in 2003. The policy aimed to achieve the release of at least 50% of Salmon and Grilse and to protect the depleted stocks of multi-sea winter Salmon in February-June. It has now achieved a level far higher than that originally anticipated. Most of the larger fish arrive in the river in the early months and these are the fish which have the potential to make the most significant contribution to successful spawning. Furthermore, a high proportion of these fish are female, and therefore contribute an important part to the river's spawning stock. Studies by the former Spey Research Trust (the fore-runner to the Spey Foundation) have also shown that these fish are particularly vulnerable to capture and re-capture having been released.

Throughout the 2022 season on the River Spey, and for the fourth consecutive year, **98%** of salmon and grilse caught were once again released (Figure 6). For a voluntary policy to achieve such a significant release rate is highly commendable and we are grateful to all of our proprietors, ghillies and anglers for their support for the policy. In total, **5,326** Salmon and Grilse were released to spawn in 2022. The SFB would also like to draw attention to the Conservation of Salmon (Annual Close Times and Catch and Release) (Scotland) Regulations, which came into force in January 2015

and which make it illegal to kill wild Atlantic salmon caught before 1st April each year.

1.4 Sea Trout Conservation Policy

Sea Trout are the sea-running form of Brown Trout. The majority of Sea Trout are female and Sea Trout and Brown Trout inter-breed. Under fisheries legislation, Sea Trout have the same legal status as Salmon and District Salmon Fishery Boards are also responsible for their conservation, protection and enhancement. Catch statistics show that the Spey Sea Trout rod fishery has historically been one of the largest in Scotland, although catches have declined in recent years and the SFB has maintained a precautionary approach.

2022 saw the rate of catch and release for Sea Trout achieve **93%**, **3%** higher than the 90% released in 2021 (see Figure 6).

When it reviewed the Conservation Policy in November 2022, the Board considered revising the conservation policy for Sea Trout in line with its precautionary approach and asked it's Scientific Committee to consider this. The Scientific Committee subsequently concluded that the voluntary policy overall was working well and should remain unchanged for 2023. The Conservation Policy for 2023 is illustrated in Figure 7 and the SFB will continue to monitor the situation throughout the forthcoming year.

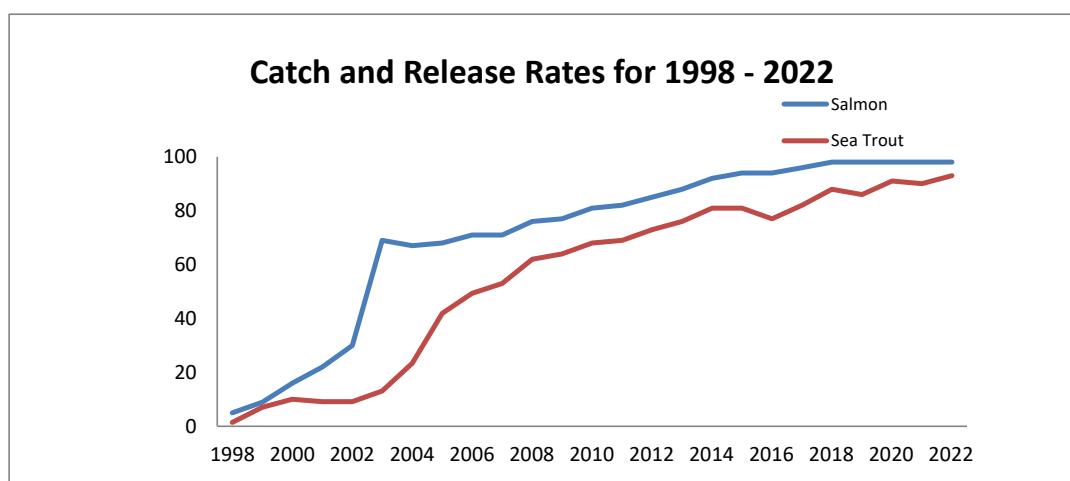


Figure 6: Catch and Release Rates for the River Spey 1998-2022.

Scottish Legislation requires that all salmon caught before the 1st April must be released. In order to protect the integrity of the Spey stock and to maximise their spawning potential, the Spey Fishery Board's policy is that all fish caught up to and including the 31st May should be released alive. From the 1st June the policy set out below will apply.










SEA TROUT	SALMON
 <p>Release all finnock of 16oz / 35cm / 14" or less</p>	 <p>Each angler must return the 1st, 3rd, 5th etc... cock fish caught</p>
 <p>Release all Sea Trout of 3lb / 50cm / 20" or above</p>	 <p>All hen salmon and hen grilse must be released</p>
 <p>Retain only 1 Sea Trout of takeable size per calendar day. Anglers are also encouraged to release their first fish and keep the second that is of takeable size</p>	 <p>Throughout the season all stale or unseasonable fish must be released e.g. gravid, kelts</p>
 <p>Release all stale or coloured fish</p>	 <p>Escaped farmed salmon must be retained</p>
 <p>Release all unseasonable fish (smolts, kelts, over-wintered finnock)</p>	

Figure 7: The Spey Fishery Board's Conservation Policy for 2023. N.B. Since January 2015, it has been illegal to kill wild Atlantic salmon caught before 1st April .



Part 2

Management Report

2.1 Strategy & Management Plan

The Scottish Government published its Wild Salmon Strategy on the 14th January 2022. This sets out a bold vision for the management of wild salmon from now until 2030, addressing the 12 pressures on salmon across 5 priority themes. Further details can be found in section 4.3 of this Report.

In support of the Scottish Government Strategy, the Board agreed at its meeting on 4th February 2022 that it would develop a Strategy & Management Plan and then go out to consultation on this, to proprietors, ghillies and the wider public. The Draft plan was agreed at the Board's next meeting in May and we went out to public consultation on it in June, sending it to all of our proprietors, ghillies and angling associations and promoting it on our website and through extensive, repeated posts on social media channels.

The Board received 57 responses to its consultation and is grateful to all those proprietors, ghillies and anglers who took the time to reply. The Board carefully considered all of the responses and made a number of alterations to its proposed Strategy & Management Plan as a result. This has now been published and is illustrated in Figure 2 on pages 8-9.

The Board also recognised that there were a number of recurring and prominent issues raised across the consultation responses and it decided to create a number of Hot Topics on its website to address these. Each of these will provide background details surrounding the issue, explain what the Board is doing to address them and provide links to further information. We look forward to progressing this during 2023.



2.2 Spey Catchment Initiative (SCI)

The Spey Fishery Board has continued to be the driving force behind the Spey Catchment Initiative (SCI) throughout 2022, as well as providing it with substantial administrative and management support. The SCI exists as a result of support from the organisations illustrated on page 17 and the Initiative continues to be a highly effective demonstration of a public/private partnership, managed by the Spey Fishery Board.

Since its inception in 2010, the SCI has enjoyed considerable success delivering a range of multiple-benefit projects, which in turn have enabled the SFB to secure significant fishery habitat enhancements. These have included river restoration and bankside improvement works, in-river habitat enhancements and obstacle removal, as well as riverside amenity works to improve access and enjoyment of the River Spey for local communities.

Following the Spey Board's meeting in February 2022, during which it considered its strategy and resourcing to address the Wild Atlantic Salmon emergency, SFB Director Roger Knight persuaded the SCI Steering Group to hold its own Strategy Day. This would consider the broadening of its existing remit and the future of the organisation as an entity. The Board is grateful to DIAGEO for sponsoring this event, which took place on 28th April 2022. External speakers, Luke Comins (Director, Tweed Forum) and Alison Baker (Director, Forth Rivers Trust), attended the event, as well as professional facilitator, Kirsty Leishman. The external speakers had already addressed the issues the SCI was considering, and so were well-placed to outline their experiences, from which we could learn. The outcome was a consensus to expand the SCI's remit to adopt an even more holistic approach to the management of the catchment, by including



peatland restoration, carbon sequestration and potentially deer management, in order to make the Spey catchment sustainable and more resilient to the climate and biodiversity emergencies confronting us all.

The Strategy Day also agreed by consensus to progress the SCI to become a legally recognised entity. SFB Director Roger Knight subsequently produced a comprehensive paper outlining the options for this, including a Company Limited by Guarantee, a charity (including a Trust), a Scottish Charitable Incorporated Organisation (or SCIO), a Community Benefit Society, or a Cooperative. The SCI Steering Group met on 17th August 2022 to consider these options and agreed unanimously with the SFB Director's recommendation that the Spey Catchment Initiative should become a two-tier SCIO, with a Board of Directors/Trustees sitting above the Steering Group in order to provide strategic guidance and advise on governance issues.

SFB Director Roger Knight subsequently worked with the Board's Chairman and Voluntary Action Badenoch & Strathspey to develop a Constitution for the new organisation, on which it also took legal advice. The SFB Director then completed a

comprehensive application to incorporate the Initiative as a SCIO with the Office of the Scottish Charity Regulator (OSCR). This was submitted to OSCR on 16th November 2022 and the Initiative was successfully incorporated on 14th December 2022. We look forward to progressing this exciting development and to launching the new organisation in March 2023.

2022 also saw the SCI Steering Group consider the revision of the Spey Catchment Management Plan, which was last revised and published in 2016. The revised plan will set out a broad strategic framework for the wise and sustainable use of the water resource between 2023 and 2030, as well as the protection and enhancement of the water quality and natural heritage throughout the whole River Spey catchment. It will summarise in one document all the current key issues, pressures and opportunities that exist as they relate to the local environment and will provide a wealth of information on flood management, water quality, fisheries management, economic development, as well as the protection of species, habitat, fisheries, forestry and woodland. A draft of the revised Spey Catchment Management Plan is expected to go out to public consultation in February 2023 and be launched in March with the new SCIO.



2.2.1 River Calder Restoration Project: Glenbanchor and Cluny

The River Calder is a major tributary of the Spey draining Glen Banchor, a glen to the west of the village of Newtonmore, characterised by a mountain and moorland landscape. Spey Fishery Board data had indicated that the Calder had been under-performing in terms of its productivity for salmon and trout, with numbers of fry and parr consistently low since the early 1990's. This was partially due to the relative uniformity of channel geomorphology, linked to the sparsity of riparian woodland and, consequently, woody material in the channel. By introducing Large Wood Structures (LWS) - whole or large parts of felled trees with root plates attached - to the river, there was an opportunity to restore and enhance habitats in and around the river to help bolster salmonid breeding success. We reported last year that this had been completed in 2021.

A complementary initiative to create over 22ha of new riparian native woodland on both banks of the Calder, together with deer fencing and the installation of water gates, was also undertaken. The project was linked to broader forestry plans across the estate, which overall has created landscape-scale changes to build sustainability and resilience to the climate and biodiversity challenges confronting us.

The site has since become a demonstration project and numerous visits have been hosted there during 2022. These included delegates of the North Atlantic Salmon Cooperation Organisation (NASCO), who undertook a field visit during their annual conference, hosted in 2022 in Edinburgh by the Scottish Government.

Photo Above: Numerous visits to the River Calder Restoration Project were hosted during 2022. Here, SCI Project Officer Penny Lawson and SFB Operations Manager, Duncan Ferguson, address members of Scottish Land & Estates to explain the project. (Photo: Roger Knight, SFB Director).

2.2.2

Upper Spey Restoration Project: Glenshero

Building on the success of the River Calder Restoration Project, 2022 saw the SCI implement another big project, this time in the headwaters of the River Spey, above Spey Dam at Glenshero. SCI Project Officer, Penny Lawson, worked closely with landowners Jahama Highland Estates (part of GFG Alliance) and the SCI and the SFB are grateful to Jahama and GFG for their cooperation and assistance with this extensive project.

Funding of over £80,000 was secured from the Nature Restoration Fund earlier in 2022 and the project was completed in late September, ahead of schedule and under budget. The project saw the installation of 65 Large Wood Structures (LWS) in the headwaters of the Spey (we had installed 29 in the River Calder) ahead of the completion of

modifications to the fish pass at Spey Dam (see section 2.3.1). These LWS are substantial structures which will increase spawning and juvenile fish habitat and help raise the riverbed to reconnect the river with its natural flood plain, thereby slowing the flow. The project is linked to riparian tree planting which will be undertaken by Jahama Highland Estates and temperature loggers were installed by the SFB Research Team in the project area in mid-November.

The SFB's Digital Marketing Manager, Paul Hughes, was also contracted by GFG Alliance to produce a short film to promote the project. Filming was completed in 2022 and the video is expected to be published in early 2023.





Photos Above: Some of the 65 Large Wood Structures - whole trees with root plates attached - installed in the headwaters of the River Spey, above Spey Dam at Glenshero. These will improve salmonid spawning habitat, ahead of the completion of modifications to the fish pass at Spey Dam and the SCI and SFB are most grateful to Jahama Highland Estates for their cooperation and assistance with this extensive project.

(Photos: Paul Hughes, SFB Digital Marketing Manager and Penny Lawson, SCI Project Officer).

Previous page: Large woody structure in Glenshero, already helping to re-naturalise the River Spey. (Photo: Paul Hughes, SFB Digital Marketing Manager).

2.2.3 Glenmore Burns and Culverts

During the latter part of 2021, SCI Project Officer, Penny Lawson, and the Board's Operations Manager, Duncan Ferguson, worked with Forestry & Land Scotland and Cairngorms Connect (a partnership of landowners, involving Wildland, the RSPB, Forestry & Land Scotland and NatureScot) to remove two culverts from the lower section of the Caochan Dubh, together with one culvert and one log/earth blockage from the Caochan nan Criche

These are both small tributaries draining into Loch Morlich at Glenmore, Aviemore. The project was completed in March 2022 and opened-up 3.5 Km of watercourses to additional salmon and sea trout spawning. It was funded by Cairngorms Connect through the Nature Restoration Fund and the Board is grateful to Cairngorms Connect for their support. Photos of the Caochan nan Criche before and after the project are shown below.



Above Left: the culvert on the Caochan nan Criche which was removed in March 2022, creating the area shown in the photo **Above Right**. (Photos: Duncan Ferguson, SFB Operations Manager).

2.2.4 Croftnahaven: Tree Planting

The SCI constructed four robust post and rail enclosures in late May 2022 along the north bank of the Spey at Croftnahaven, near Nethy Bridge. A variety of ground preparation was also undertaken inside them. The enclosures were then planted with native broadleaf trees in the autumn season, with trees supplied by the Woodland Trust. A trial of the direct planting of locally-sourced willow wands was also undertaken at suitable points on the river bank. The SCI is grateful to the Highland Council for funding this project through the Nature Restoration Fund.



Above: one of the four post and rail enclosures constructed at Croftnahaven near Nethy Bridge in May 2022. These were then planted with native broadleaf trees during the autumn. (Photo: Penny Lawson, SCI Project Officer)



Release the Spey

2.3 Water Abstraction Update



2.3.1 GFG Alliance: Spey Dam

One of the greatest threats to the River Spey and its fish, is that of increased water abstraction. This is particularly apparent as we strive to make the Spey catchment sustainable and more resilient to the impacts of the climate and biodiversity emergencies. The SFB remains concerned by the significantly high levels of water abstraction, particularly in the upper catchment by ALVANCE Aluminium and Simec as part of the GFG (Gupta Family Group) Alliance. They are licensed to divert substantial volumes of water from Spey Dam, some twelve miles from the source of the Spey, to Fort William.

The impact of the abstraction and its associated infrastructure on the upper Spey salmon population is severe; in recent years the Board's electro-fishing monitoring above the dam has found either no salmon fry present, or very low densities of salmon fry present at any of the 11 sites visited

(see section 3.1), indicating that only a small number of fish presently ascend the Dam's fish pass and limited spawning takes place. This was subsequently and independently verified by the Scottish Environment Protection Agency (SEPA) and in 2015 led to the designation of Spey Dam by SEPA as a barrier to fish passage.

For many years the Board has remained concerned about the efficacy of the fish pass at Spey Dam and has also maintained that the water flows emanating from the Dam are insufficient to allow adult salmon to ascend up to and above it to spawn, or to allow salmon smolts to descend below it. The Board is also worried about the efficacy of the screens at the off-take (which are in place to prevent juvenile fish from exiting the River Spey and its catchment and gaining access to Loch Laggan) and concerned by the water flow speeds through the off-take and down the Cru-nachden Cut. The heck on the River Markie,

Above: Photographs taken in 2022 at various abstraction sites throughout the Upper Spey Catchment. Including the Ghillies Trip, in December 2022. (Photos: Paul Hughes, SFB Marketing Manager).



which enters the reservoir immediately above Spey Dam, also remains an issue, as it appears to completely block access to migratory fish.

Furthermore, the Board has continued to seek to better understand the movement of smolts from the upper Spey through the reservoir and would like to see the restoration of the River Mashie, much of the flow from which is also diverted to Fort William.

The SFB has continued to press SEPA, as the regulator of water quality and quantity, to address the Board's concerns. SEPA's designation of Spey Dam as a barrier to fish passage ensured its re-classification to "Poor" under the EU's Water Framework Directive (WFD), with a consequential impact on the water bodies above Spey Dam, which are now also classified as "Poor" (see section 4.6). Significant remedial action therefore needs to be taken in order for this area to achieve the requirements of the WFD by 2027.

To facilitate this, senior representatives of the SFB, together with SEPA and NatureScot, have continued to meet with representatives of GFG as part of a Spey Dam Technical Working Group.

These meetings have seen a much more positive relationship develop with the new owners than that which existed with the previous owners and the Technical Working Group met remotely on several occasions during 2022.

We have previously reported on the technical assessment of the fish pass at Spey Dam by consultants, Multiconsult and later FishTek, and their recommendations for improvements to be made to the fish pass. These involve making changes to the notches between the fish pass compartments, so as to create an adherent nappe, which will reduce turbulence in the water flow and the introduction of artificial lighting, which is expected to encourage adult fish migration. A fish tagging project had also been proposed by the scientists within the Technical Group, to investigate smolt passage through the reservoir and fish pass.

The Board welcomed the completion of the first phase of modifications to the fish pass in May 2022. This involved the installation of LED lighting within the fish pass compartments, activated by external sensors to replicate the ambient light conditions outside, and the completion of a topographical survey. The latter will inform

Photo Above: *Spey Dam near Laggan, which is operated by GFG (Gupta Family Group) Alliance. (Photo: Roger Knight, SFB Director).*

modifications to the notches between the fish pass compartments, which are expected to be trialled and implemented in the second quarter of 2023. At its meeting in June 2022, the Spey Dam Technical Group congratulated GFG for the progress made so far and also discussed the upper Spey smolt trapping project, which is planned to begin in March 2023. The Board is working closely with GFG Alliance to implement this project, which will see the deployment of the Board's 6-foot Rotary Screw Trap near Glenshero Lodge above the reservoir behind Spey Dam, with a modified smolt collection box to enable the release of smolts at night, after they have been counted, measured and die-marked earlier each day. The 2023 project is expected to be kept simple and operated on a trial basis, in order to evaluate the effectiveness of the trapping site and provide an initial indication of smolt success in finding and transiting through the fish pass at Spey Dam.

The SFB is grateful to GFG Alliance for their support, cooperation and the progress made during 2022 and looks forward to welcoming the

2.3.3 Envirocentre Report 2021

We reported last year on the Envirocentre update of their 2008 report on River Spey water abstractions, Their Report - **River Spey Abstractions 2021: Water Resource Management Now and Implications for the Future** - was completed and published in 2021. The Report shows that of all the water permitted to be abstracted or diverted out of the catchment, over 90% of it is taken from the top 13% of the Spey catchment, then diverted either to Fort William, or to the Tay, to generate hydro-electricity. In place since the 1940's, these schemes can reduce the natural flow in the Spey by up to 24% at Boat o'Brig, near Fochabers, and by up to a massive 61% at Kinrara, near Kingussie.

Crucially, the Report highlights that the Spey valley has extensive sand and gravel deposits that have been denuded of their water re-supply and led to

completion of modifications to the fish pass, as well as the trial of the smolt trapping and subsequent monitoring, during 2023.

2.3.2 Scottish & Southern Energy: Tummel CAR Licence Scheme

Scottish & Southern Energy (SSE) divert water from Loch An-t Seilich at the top of the River Tromie and from the River Truim, both important upper Spey Salmon spawning tributaries, into the River Tay catchment as part of the Tummel CAR (Controlled Activities Regulations) Licence Scheme. Water from Loch An-t Seilich (River Tromie), from Loch Cuaich (also impounded by SSE), from the Cuaich tributaries and from the off-take above Dalwhinnie on the Truim and from the Allt An't Sluie (another tributary of the Truim) is diverted to Loch Ericht, before being channelled to Loch Rannoch and on to Loch Tummel. In so doing, it passes through seven power-generating stations at Cuaich, Rannoch, Gaur, Tummel, Errochty, Clunie and Pitlochry, before being discharged into the Tay system.

lower river levels as a result of these diversions. This loss of water storage is exacerbated by historic land use practices and reduced snow melt in the spring. The net result of this reduction in natural flow is that it has reduced the resilience of the river to cope with the low flow conditions and higher water temperatures we are experiencing more and more as a result of climate change.

The SFB is therefore calling for the licensed abstraction from our upper tributaries to be re-appraised and appropriately regulated. As a result, the Board is committed to reducing the significant water diversions from the Spey for the production of hydro-electricity, in order to make the River more resilient to the impacts of the climate emergency. The Board has also determined that its ultimate objective is to see the removal of dams throughout the Spey catchment.

The SFB is therefore promoting a programme of ecosystem restoration. For example, if the flow was reinstated to the Allt Sluie near the top of the Spey catchment at Dalwhinnie, this would off-set the amount of water abstracted at the Dipple Wellfield on the lower Spey near Fochabers. Crucially, though, it would provide benefits downstream throughout the entire river. Other opportunities include: increasing the compensation flow from Spey Dam; the restoration of the River Mashie near Laggan, most of the flow from which is diverted to Fort William; and the re-instatement of flows down the Allt Bhran and down the River Cuaich and its tributaries, all of which is currently diverted into the Tay system. SEPA's Hydro Review Team is now actively reviewing the flows down the Allt Bhran and the Cuaich, with a view to restoring them under the Water Framework Directive.

To promote this, the SFB's Chairman, Dr Sandy Scott, and Director, Roger Knight, had met with Moray's constituency Member of the Scottish Parliament (MSP), Richard Lochhead MSP, to

brief him on the Envirocentre Report and our long-standing concerns regarding Spey Dam. Richard agreed to convene and chair a mini Summit, which took place in April 2022. It was attended by Jo Green (Acting CEO of SEPA, who attended virtually), Nathan Critchlow-Watton (senior policy advisor, SEPA), Dr. Alan Wells (CEO, Fisheries Management Scotland), Dr. Antje Branding (Marine Scotland Freshwater Fisheries Policy) and Iain Malcolm (Marine Scotland Science's Freshwater Lab at Pitlochry).

This meeting was positive and there was consensus that there were issues with the Spey that needed to be addressed. In particular, SEPA highlighted three areas that needed to be resolved by 2027 in order to achieve the objectives of the Water Framework Directive (WFD), which was a requirement for the Scottish Government and which were being considered by their Hydro Review Team: fish passage at Spey Dam; re-watering the Allt Bhran on the Tromie; and re-watering the Cuaich, near the Truim.



Above: *The River Cuaich, a Spey catchment tributary near Dalwhinnie, the flow from which is diverted into the Tay system to generate hydro-electricity. Restoring this flow would benefit the whole River and help make the Spey more resilient to the impacts of climate change. (Photo: Roger Knight).*



2.3.4 “# Release the Spey” Campaign

We reported last year that the Board’s Digital Marketing & Communications Manager, Paul Hughes, had launched a campaign on the Board’s website and social media channels, highlighting our work on water abstraction, and particularly our aim of re-watering tributaries that are impounded. Entitled “#Release the Spey”, it has had considerable success in raising awareness of the Board’s concerns.

We produced a short video of the water diversion of the Allt Bhran into Loch an’t Seilich on the River Tromie, as part of SSE’s Tummel Hydro Scheme, and the devastating impact that this is having on Atlantic salmon populations in this area. This has been published on the Board’s and social media channels and was promoted within our Weekly Fishing Reports. You can see this at <https://www.youtube.com/watch?v=4AIEm-TTUas>

We also posted 72 #releasethespey articles on social media articles, including Facebook, LinkedIn, Twitter and Instagram. We have also been asking people to sign a petition in support of the campaign, which has so far secured over 1,600 signatures. You can sign the petition at:

https://www.change.org/p/release-the-spey-reduce-water-abstraction?utm_source=share_petition&utm_medium=custom_url&recruited_by_id=adbffe40-b410-11ec-9035-897b29bf6561

The SFB will continue to promote its “#releasethespey” campaign throughout 2023, as well as working closely with SEPA, and the relevant hydro operators and landowners, to progress these significant river restoration opportunities.

Photo Above: *The impoundment on the Allt Bhran, from which the whole flow of this tributary of the River Tromie is diverted in to Loch An-t Seilich, thereby denying access to it by migratory fish. The restoration of a flow down the lower section of the Allt Bhran provides a significant river restoration opportunity which the SFB is keen to continue to pursue in 2023. (Photo: Roger Knight, SFB Director).*

2.4 Angling, Canoeing and Access

A major issue highlighted by the economic survey commissioned by the Spey Catchment Management Plan was the potential conflict between angling and canoeing. This situation was complicated by the introduction of the Land Reform (Scotland) Act 2003 and the launch of the Scottish Outdoor Access Code in 2005. The Code encourages reasonable and responsible access to rivers and river banks, and has been promoted within the Spey catchment by the Moray Council, Highland Council, NatureScot and the Cairngorms National Park Authority.

To aid the resolution of any issues, core representatives of the Spey Users' Group (SUG), including the SFB, Scottish Canoe Association and Access Officers from the three Local Authorities, used to meet each year. This Group had developed a code of Guidance for Paddlers and Anglers,

which has been successfully implemented since 2008 to promote harmony between the two river user groups. The Group has not met since 2020, deciding instead that any issues could be addressed by correspondence.

Principle concerns remain, however, in relation to the significant numbers of paddlers between the Ballindalloch and Knockando areas of the River, which are acknowledged to be the busiest paddler sections of the River. There are also developing concerns regarding the increase in irresponsible "wild" camping and some groups of river users who appear to be unsighted on the Guidance that has been developed. As a result, there have been instances during 2022 of the inappropriate use of fishing beat facilities, which were reported to the Access Officers of the three local authorities.

2.5 Salmon Stocking on the Spey

Historically, stocking has often been the first choice strategy adopted by organisations such as fishery boards to try to improve fish numbers. Hatcheries have been operated on the Spey periodically since the late 1800's, when a large-scale hatchery at Gordon Castle reared up to one million fish, although it was discontinued in 1914 after 22 years of operation. In the late 1960's, the fishery board established a hatchery at Knockando, prior to the construction of the current facility at Glenlivet in 2001. Various drivers have prompted the establishment of hatcheries on the Spey, including declining catches or stock components, or UDN-associated mortalities.

It is generally considered that there are four different types of stocking:

- **Reintroduction:** with the aim of re-establishing populations in areas from where they have been lost, e.g. salmon stocking in the Thames where there was historically a thriving salmon population.
- **Restoration:** where the aim is to restore populations at a low ebb back to previous abundance e.g. above dams.
- **Enhancement:** where the aim is to increase stocks and subsequently catches in the catchment above natural carrying capacities.
- **Mitigation:** compensatory stocking to maintain production in areas no longer accessible to migratory fish due to e.g. man-made obstacles.



Photo Left: *Salmon fry (unfed) ready to be released into the Fochabers Burn as part of "Salmon in the Classroom"* (Photo: Paul Hughes, SFB Digital Marketing Manager).

Back in 2003, the number of salmon stocked on the Spey had been increased three-fold as part of a programme aimed at increasing salmon catches by 8%, using a combination of catch and release, habitat improvements and stocking. The stocking expansion was based on a combination of enhancement and mitigation stocking. The enhancement element focussed on stocking suitable habitat above impassable waterfalls, in effect expanding the range of salmon within the Spey catchment, and in "under-utilised" areas. Meanwhile, mitigation stocking upstream of man-made obstacles was also increased.

In recent years the focus has been on mitigation stocking. Whilst this is generally considered acceptable, providing best practice is followed, it is now illegal to stock above impassable waterfalls following implementation of the Wildlife and Natural Environment Act (the WANE Act), which makes it an offence under the Habitats Directive to move a species out-with its natural range. The opportunities for mitigation stocking on the Spey are limited; it is estimated that the proportion of the catchment rendered inaccessible by man to

migratory fish is less than 1%, a figure that is slowly reducing as more and more barriers are removed. Hence, we are now in a situation where we have a relatively small hatchery operation, focused on mitigation stocking, mainly in small tributaries throughout the catchment. The Board considers that there may be further opportunities for mitigation or restoration stocking above Spey Dam in due course.

The identification of areas perceived to be under-utilised can be difficult and may lead to incorrect conclusions being drawn. There are areas of the Spey catchment which are likely to have always supported only low densities of fish, such as high altitude areas and those with granite geology that support only low productivity.

So to try to improve fish populations in these areas by stocking is unlikely to be productive. Salmon do use these areas in the Spey - we have a strong population of salmon spawning at over 500m (1640ft) altitude, up to over 650m (2130ft) - but these should be viewed as highly specialised and adapted fish that spawn early, hatch late and con-

concentrate their growth in the relatively short summer. Highly-adapted populations such as these are particularly susceptible to disruption, be that climate or habitat change, or the introduction of stocked fish from out-with that particular area.

A more sustainable strategy, that will benefit the whole river, is to conserve stocks to ensure there are adequate fish available to spawn, and to ensure that the habitat in the nursery areas is as good as possible, so as to promote enhanced survival through the parr and ultimately smolt stages of the salmon life cycle.

2.5.1 Stocking Policy

In recent years, the Scottish Government has been developing its thinking on stocking. This was part of a five-year plan it would be submitting to the North Atlantic Salmon Conservation Organisation (NASCO), within which there was a commitment to establish a stocking policy before the start of the 2020 season.

Marine Scotland published its current Stocking Policy at the end of May 2019. This policy sets out a series of principles which the Scottish Government now use to govern its assessment of stocking applications. The Marine Scotland Wild Atlantic Salmon Stocking Policy adopts a presumption in favour of Mitigation Stocking, a neutral presumption in respect of introductions for restoration and/or scientific research and a presumption against all other forms of stocking.

Significantly, the current policy only permits the stocking of ova and/or unfed fry, rather than the fed fry that had previously been stocked by the SFB. This has meant that for the last two years, the Board has conducted its stocking (Table 1) earlier in the year than in the past, with eyed ova being stocked in February and unfed fry in late March and early April, rather than in September.

With regard to the regulation of stocking, the Board understands that the Scottish Government aspire

to take full control of the regulatory process for stocking activities, rather than the system of split responsibility that presently exists. Currently the Scottish Government licence the broodstock capture, with the subsequent stocking authorised by the District Salmon Fishery Board. The Board also understands that Scottish Government thinking on stocking is still developing and its current stocking policy may be reviewed as part of the Wild Salmon Strategy & Implementation Plan (see section 4.3).

Since 2020, the Board has secured agreement from the Scottish Government that if the Board's stocking plans follow those of previous years, the Scottish Government would permit the Board to submit its Broodstock Capture Licence application earlier in the year than before and using the previous year's electro-fishing data. Prior to 2020, the Board had had to wait for the latest electro-fishing data to be compiled, which was not usually available until at least July.

Taking into account the Scottish Government Stocking Policy, the Spey Fishery Board, with advice from the Spey Scientific Committee, has to consider its stocking policy and the requirements for each year. Other work pressures on SFB staff, and in particular the undertaking of valuable contract work and the recruitment of a new Biologist, did not provide sufficient time for the Scientific Committee to meet to do so this year. As a result, the Board decided to broadly repeat the stocking it had undertaken this year and for which it had prepared in 2021. The 2022 application saw the removal of a request to undertake some restoration stocking in the Lour Burn, following a pollution event there in 2019. We had been granted approval to stock this Burn for three years following the pollution event, which was fulfilled in early 2022. The Board's 2022 broodstock licence application therefore maintained a policy of mitigation stocking above man-made barriers, as previously practised by the Board.

In early July 2022, the Board submitted a comprehensive application to the Scottish Government's Marine Scotland Science (MSS) for a licence to catch 100 fish from the River and its tributaries and to hold them as broodstock outside the Salmon net fishing season. The licence application was submitted to MSS, who in turn consult NatureScot (formerly Scottish Natural Heritage - SNH). The River Spey's status as a Special Area of Conservation (SAC) for Atlantic salmon requires the Board, as the Competent Authority for the stocking of juvenile salmon into the River Spey catchment, to complete a Habitats Regulations Appraisal (HRA), and subsequently an Appropriate Assessment, to determine whether such stocking of juvenile fish would adversely impact upon the integrity of the River Spey's SAC Status. The Board consulted local representatives of NatureScot over the completion of this HRA and Appropriate Assessment and are grateful for the advice and support received.

In continuation of its stocking policy, another comprehensive programme of electro-fishing was again undertaken by the Board during 2022 (see section 3.2), initially to monitor the stocking it had undertaken earlier in the year (see Table 1) , as well as the results from that undertaken in 2021 (see Table 10 in section 3.2).

The Board's 2022 Broodstock Capture Licence application was successful and it was granted a licence from the Scottish Government for the collection of 100 broodstock fish, which began in early October. The Board is most grateful to the volunteers who assist us each year with this.

The SFB Stocking Policy remains progressive and will continue to be subject to review in light of new legislation, our ongoing monitoring and advances in scientific research, as well as any changes that may arise from consultations regarding the Marine Scotland Wild Atlantic Salmon Stocking policy.



Above: The SFB's Sandbank Hatchery in Glenlivet. (Photo: Paul Hughes, SFB Marketing Manager).

Burn	Site details		Stocking 2022		
			Number of ova/fry required	Hatchery Source	Stocking Density
	Area (M ²)	Quality			
Allt Blairnamarrow	5,600	Good	11,200	Avon	2.0
Allt Garbh-bheinne	1,050	Good	2,100	Avon	2.0
Allt na Fanich	4,950	Moderate	9,900	Avon	2.0
Maggielknockater Burn	3,150	Moderate	6,400	Fiddich	2.0
Corrie Burn	5,350	Good	16,000	Fiddich	3.0
Fochabers Burn	10,250	Moderate	20,500	Lower Spey	2.0
Roths Burn	5,600	Good	28,000	Lower Spey	5.0
Back Burn	900	Moderate	2,700	Lower Spey	3.0
Macallan Burn	7,200	Good	21,600	Lower Spey	3.0
Green Burn (Carron)	14,250	Good	42,600	Middle Spey	3.0
Glenbeg Burn	11,300	Good	45,200	Upper Spey	4.0
Milton Burn (Aviemore)	4,700	Good	9,400	Upper Spey	2.0
Lour Burn	8,600	Good	20,000	Middle Spey	2.0
Total			235,600		

Above: Table 1: Spey Fishery Board Stocking Numbers, Locations and Densities for 2022. All fish stocked either as eyed ova in February 2022 or as unfed fry in March/April 2022.

2.6 Pollution Incidents

There was one minor pollution incident during 2022, which emanated from a distillery on the River Fiddich. This was reported to the Scottish Environment Protection Agency (SEPA), but the SFB was not informed until some considerable time after the incident. Follow-up investigation was undertaken by SEPA Ecologists, but the delay in informing the SFB meant it was not possible for the Board's staff to conduct an assessment of any damage inflicted. SEPA have subsequently informed the SFB of an Environmental Undertaking pledged by the distillery concerned, which is being pursued.

2.7 Control of Invasive Non-Native Species: The Scottish Invasive Species Initiative (SISI)

The Scottish Invasive Species Initiative (SISI) Project has been running for four years and was due to end in October 2022. NatureScot (formerly Scottish Natural Heritage), who have overseen the running of the project nationwide, applied for funding to secure a second phase of SISI, to run from April 2023 to April 2026. In the interim, NatureScot managed to secure additional funding to extend the current project by seven months, so as to provide security for the Project Officers and retain their involvement. We are pleased to report that NatureScot's funding bid was successful and over £2 million has been secured for a second phase of SISI, which will now run until April 2026.



Above: *Japanese Knotweed control on the lower River Spey.*
(Photo: James Symonds, SISI Project Officer).

Significant progress has been made to date with tackling Giant Hogweed, Japanese Knotweed, Himalayan Balsam and White Butterbur, as well as ongoing work to control Mink. The priority for work throughout 2022 therefore focussed on the production of Case Study reports and the establishment of a legacy strategy, so that the situation does not revert to the way it was. The latter saw our Project Officer liaise with local landowners/managers, to seek letters of support that offer local assistance from them with this, to ensure the maintenance of progress made to date.

In September 2022, our Project Officer, James Symonds, departed to begin a new career as a Fisheries Biologist with the Cromarty Firth District Salmon Fishery Board. The SFB would like to thank James for his contribution to the control of invasive non-native species on the Spey over the last four years and the Board wishes him every success in his new role. In the meantime, his part-time assistant, Elise Cox, has replaced James as the SISI Project Officer for the Spey, Findhorn, Nairn and Lossie catchments and will remain in post until the end of the current project, which will now continue until March 2023.

The second SISI project will begin in April 2023 and will be expanded to enable the Spey catchment to have its own dedicated Project Officer, who will be employed by the SFB, but paid for by NatureScot. The SFB team based at Knockando will be joined in April 2023 by Ms Karen Muller, who will have completed four successful years as the SISI Project Officer for the Deveron, Bogie & Isla Rivers Trust. The SFB looks forward to welcoming Karen and to working with her over the next three years.



Above: *SISI Project Officer, James Symonds, stem-injecting Japanese Knotweed in the Spey catchment.* (Photo: Brian Shaw).

2.8 Control of *Ranunculus*

Ranunculus sp., or water crowfoot, is an invasive aquatic plant species which is non-native to the River Spey. It was accidentally introduced to the river almost 50 years ago near Grantown-on-Spey and much of the River downstream of Grantown is now badly affected by this plant.

In the past, the chemical Midstream, which contained the active and toxic ingredient Diquat, was used to control *Ranunculus*. As a result of EC (and now UK) legislation, we are no longer able to use this chemical and so the plant is spreading and in some areas has previously choked the flow of the river. The extensive mats of *Ranunculus* often accumulate sand and gravel underneath, choking the underlying substrate beneath it. This affects the Freshwater Pearl Mussel and Salmon fry habitat. Alternative methods of control, such as manual cutting and removal or hand pulling, are not considered practical as they are costly, labour-

intensive and pose considerable health and safety issues for individuals working in a fast-flowing river.

In the 2017 Annual Report, we explained that, having taken legal advice, the SFB had submitted a formal complaint to the Secretary-General of the European Commission regarding the Scottish Government's failure to take effective action to control this invasive plant which is non-native to the River Spey. The complaint was rejected by the Commission in 2018 and the Board subsequently decided to monitor *Ranunculus fluitans* through the Scottish Government's 12 pressures (see section 4.3 on page 50), which it has identified as part of its Fishery Management Planning template. The SFB will continue to do this during 2023 and to utilise this to provide further evidence to the Scottish Government of the impact of this invasive plant.



Left: . *Ranunculus fluitans* below Grantown Bridge, July 2022. The SFB will continue to monitor this in the River Spey through the 12 Pressures of the Fishery Management Planning template to provide further evidence to the Scottish Government of the impact of this invasive plant.

(Photo: Paul Hughes, SFB Digital Marketing Manager).

2.9 Sawbill Ducks and Cormorants

2022 saw the SFB continue to coordinate a combined Moray Firth-wide application to NatureScot (formerly Scottish Natural Heritage) for a sawbill licence to run from October until the following May. This application is to shoot a licensed and limited number of Goosanders, Mergansers and Cormorants as part of a broader programme of “shooting to scare”, in order to move these birds away from the river. The application is submitted on behalf of the Spey, Conon, Ness, Beaully, Kyle of Sutherland, Findhorn, Nairn, Lossie, Deveron and Helmsdale Rivers. Although one application is submitted, separate licences (if granted) are issued to provide individual quotas for each river involved, following analysis by Scottish Government agencies of the respective supporting bird count data principally by Science & Advice for Scottish Agriculture (SASA).

To provide supporting evidence for the Spey's licence application, the SFB aims to conduct four counts per year of Goosanders, Mergansers and Cormorants. The counts are carried out from Boat o'Garten to Spey Bay and usually take place in late March and early May, early October and mid-December. The count is conducted by SFB staff counting sections of the mainstem River Spey, some of whom canoe a section of the River, whilst

others walk and drive their sections. This enables some 80 Km of the River to be covered, from Boat of Garten to Spey Bay, over a period of 3-4 hours and usually commencing at first light. In 2023, we hope to expand this to include counts on the River Avon, so that we may apply for a licence to cover that River too. The Board is most grateful to Wayne Davidson and his team of volunteers who have offered to undertake these counts.

Lack of staff due to our smolt trapping and tagging commitments also prevented a count from being undertaken in March, but the data collected from the count in May 2022, together with that collated during the counts in early October and mid-December 2021, contributed to our 2022 application for the 2022/2023 licence period and was submitted to NatureScot (formerly SNH) in early July 2022. This licence application was again successful and the Board has been granted a licence to shoot 25 Goosanders, 1 Merganser and 3 Cormorants between 1st October 2022 and 31st May 2023, although only male Goosanders may be shot during May, when the females are usually nesting.

During the year, SFB Director Roger Knight has also been part of a Scottish Government Fish-



Left: A Cormorant takes a 5lb salmon from the River Spey, in December 2022. (Photo: Mark Melville, Head Ghillie, Delfur Fishings).

Eating Bird Policy Review Group. This is part of the Scottish Government's Wild Salmon Strategy (see section 4.3). The Fish-Eating Bird Policy Review Group is reviewing the licensing process for sawbill birds and, in 2022, looked at the process and data considered by Natural Resources Wales, which has recently undertaken a similar review. This Group will continue its work in 2023 and we shall report on the outcome in due course.

In the meantime, the SFB will continue to conduct its bird counts throughout 2023, to provide the supporting data for our future licence applications.

2.10 Seal Management

Until 2021, the SFB utilised the Moray Firth Seal Management Plan for seal management on the Spey, which the SFB had coordinated since October 2013. This Plan licensed the SFB, and other Fishery Boards around the Moray Firth, to shoot Grey seals, and previously Common/Harbour seals, which entered the rivers to predate on salmon and sea trout, although no Common/Harbour seals were licensed to be shot for the last five years.

The Plan was first implemented in 2005, with the aim of protecting Salmon and Sea Trout stocks, whilst also maintaining the conservation status of the Dornoch Firth Special Protection Area (SPA) for Common seals. The scheme introduced the novel approach of managing seals and salmon over a large geographical area, the training of Nominated Marksmen to an agreed standard and the accurate reporting of all seals shot. Overall, it provided for seal management for 16 rivers and 5 netting stations throughout the Moray Firth region.

In July 2020, the Scottish Parliament passed the Animals & Wildlife (Penalties, Protections and Powers) (Scotland) Bill 2020, which became an Act on 21st July that year, effective from 1st February 2021. The Act amended the Marine (Scotland) Act 2010 by removing the specific grounds for which Scottish Ministers were able to

grant licences for the killing or taking of seals and increased the penalties for doing so. In so doing, it would align Scotland with conservation measures taken by other countries, such as the United States, and would ensure compliance with new provisions in the US Marine Mammal Protection Act (MMPA). This US Act requires that nations exporting commercial fish and fish products to the United States are held to the same standards as US commercial fisheries, where the taking of marine mammals is prohibited. So, if the proposed amendments to our seal licensing system were not implemented by 1st March 2021, Scotland would no longer be able to export a range of seafood products to the United States (one of the biggest markets for Scottish seafood products) from January 2022.

FMS had, however, pointed out to Marine Scotland that there are existing conditions within the Marine (Scotland) Act 2010 to enable the lethal removal of seals for the purpose of conserving other animals (i.e. salmon). We reported last year how the SFB Director, Roger Knight, and CEO of Fisheries Management Scotland, Dr Alan Wells, had met with Marine Scotland Licensing & Operations Team (MSLOT) to discuss how a revised licence application process could address the future management of seals for conservation purposes, rather than to prevent serious damage to fisheries. We also reported on the subsequent rejection of our 2021 Seal Licence application and the meetings that subsequently took place with MSLOT to review and refine the application process. Those meetings concluded in early 2022, with the belief that we had reached agreement with MSLOT on the application requirements that would be acceptable to the licensing authorities.

SFB Director Roger Knight submitted the Board's comprehensive 2022 Seal Licence application on 18th February, to manage Grey and Common Seals in the River Spey with effect from 1st May 2022. After almost 4 months of deliberation, it was rejected by MSLOT on the following grounds:

1. The River Spey has been assessed by Marine Scotland Science as being a Category 1 River and so the exploitation of Atlantic salmon is sustainable, regardless of the source of exploitation.

2. We did not provide enough evidence of how an individual seal entering our river will be clearly identified as a specialist predator – despite MSLOT appearing to have accepted that any seal breaking away from the marine colonies and entering freshwater was, in itself, a specialist.

3. We had not sufficiently trialled non-lethal measures, such as the deployment of Acoustic Deterrent Devices (ADDs) – even though the Sea Mammal Research Unit, as highlighted in the Board’s application, visited the Spey and agreed they were impractical.

4. In addition, NatureScot did not consent to the grant of a licence because the lethal removal of some seals might have an adverse impact on the conservation objectives of designated sites.

With the exception of the Nith District Salmon Fishery Board, all other 2022 seal licence applications throughout Scotland were also rejected.

The SFB requested copies of all the advice received by MSLOT for their consideration of our application, so that we could submit an appeal. This request was granted and, following consideration of the advice received by MSLOT, the SFB submitted an appeal on 15th July 2022. This appeal considered that the decision taken by MSLOT was unreasonable and, following advice provided gratis by a retired, eminent barrister, also considered that the decision was unlawful. After 5 months of deliberation, MSLOT rejected the SFB’s appeal on 16th December 2022 and upheld the original licensing decision.

The SFB is now considering its next steps, including potentially proceeding to Judicial Review, and will continue to monitor this process, to determine how we might maintain our efforts to reduce seal predation of River Spey salmon and sea trout.



Above: A grey seal eating a salmon. The SFB’s 2022 comprehensive Seal Licence application was rejected by the Scottish Government’s licensing authorities. A subsequent Appeal was also rejected and the original decision was upheld. (Photo: courtesy of Steve Waddingham and Flickr).

2.11 Fishery Protection

A Government-sponsored survey conducted in 2003 showed that Salmon and Sea Trout angling on the Spey contributes at least £11.8 million each year to the local economy and supports 367 full-time-equivalent jobs. Poaching therefore not only causes serious environmental damage, but also has a significant impact upon the local economy and causes damage to the rural community.

2022 was a particularly challenging year for the Board's Water Bailiffs, who continued to work tirelessly to protect the River and its tributaries from a significant upsurge in illegal fishing. The SFB continued to work closely with Police Scotland, with whom we are fortunate to enjoy close links, to tackle a total of 33 reported incidents during the season, the majority of which involved petty, local criminals. This resulted in 19 arrests, 12 of which were referred to the Procurator Fiscal. One Ghillie was also seriously injured whilst attempting to deter illegal fishers on his beat.

The SFB's Director and Head Water Bailiff have also continued to be members of the North East

Scotland Partnership Against Wildlife Crime and the Rural Crime and Safety Partnership, which have now been combined and are chaired by senior officers from Police Scotland.

Coastal patrols between the Boar's Head stretch of coastline and Cowhythe Head, using our commercially-coded 6.4 metre Rigid-hulled Inflatable Boat (RIB), were also continued from May-September 2022. This RIB was a significant investment for the Board, but it enables us to conduct patrols along the 20 miles of coastline over which we have jurisdiction. Furthermore, our jurisdiction extends 3 nautical miles out to sea. Numerous patrols were completed during 2022 to deter illegal netting, with one gill net being recovered. Were it not for these patrols being undertaken, though, the level of illegal netting along our coastline would likely become prolific. The SFB was also contracted in 2022 to undertake a patrol for the Deveron DSFB, which it conducted in July 2022 from Rosehearty Harbour. These contracted patrols have also continued to illustrate the value of pooling resources to tackle shared problems.



Image: The SFB's Chairman, Dr Sandy Scott, and Head Water Bailiff, Richard Whyte, look for illegal gill nets along coast from the Board's Rigid-hulled Inflatable Patrol Boat. Were it not for these coastal patrols, illegal nets would be much more common. (Photo: Roger Knight, SFB Director).

2.12 Administration and Staffing

2022 saw a number of changes to the Board's staffing.

Atticus Albright joined the Board in early June 2022 as its new **Biologist**, in succession to Brian Shaw, who departed at the end of 2021 to become Director of the Ness District Salmon Fishery Board. Atticus holds a First Class with Honours Degree in Biological Sciences from Oxford University and a Master of Research Degree from Durham University, also in Biological Sciences. The Board decided at its meeting in February 2022 that it needed to demonstrate that this proprietor-led body was engaging effectively to save our iconic salmon and deliver effective local management in support of national and international obligations. It also recognised that whilst our science should continue to be fishery-based, it should also include ecological/environmental science skills to help achieve this. Atticus has made an excellent start and has already developed a sound understanding of the Spey catchment and the challenges facing it. The Board wishes him every success in his new role.

In May 2022, the Board secured a grant from the Cairngorms National Park Authority (CNPA) to engage an additional Project Officer for the Spey Catchment Initiative until 31st March 2023. We were pleased to welcome **Gary Brown** to our ranks on 1st June as the **SCI's** new **Nature Restoration Officer**. The Spey Board is acting as the employer, but at no cost to the Assessment. Gary was recruited from a brief stint with Forestry & Land Scotland, having previously been a successful Project Officer with the Forth Rivers Trust.

The CNPA grant has provided us with an opportunity to scope and prepare a substantial funding bid, perhaps to the Nature Restoration Fund or National Lottery, for a significant project

at sub-catchment level, implemented over 3-5 years. This will aim to make landscape-scale change and build sustainability and resilience for the benefit of the River Spey catchment as a whole. Gary is hard at work on the Rivers Conglass, Livet and the upper Avon and we wish him every success in his new role.

In September 2022 we said farewell to **James Symonds**, who has been with us for over three years as our Scottish Invasive Species Initiative (**SISI**) **Project Officer**. The Board is grateful to James for all he has done during his time on the Spey to control invasive species such as Giant Hogweed, Japanese Knotweed and Himalayan Balsam, as well as White Butterbur and American Mink (see section 2.7). James departed to take up a new position as Fisheries Biologist with the Cromarty Firth District Salmon Fishery Board and we wish him every success in this role.

In September 2022, we welcomed **Sacha Forbes-Leith** to the Board's Research Team as a **temporary Assistant Biologist**. Sacha is studying at Portsmouth University and applied, through Fisheries Management Scotland, to undertake an Internship as part of his degree, albeit at no cost to the Assessment. The SFB, as not only one of the largest District Salmon Fishery Boards in Scotland, is able to provide experience in a broad range of fishery management work and was delighted to welcome him to the Team. Sacha hopes to work within Scotland's fishery management sector after graduation and the Board is grateful for his considerable assistance with its work and the valuable contribution he is making. Sacha will remain with the Board until April 2023.



Part 3

Spey Scientific Report

Atticus Albright joined the SFB in June 2022 as the Board's Biologist in succession to Brian Shaw. Atticus has a First Class with Honours Degree in Biological Sciences from Oxford University and a Masters from Durham University. In just seven months, he has gleaned a sound understanding of the Spey catchment, having joined the Board during its final year of working with the Atlantic Salmon Trust on the Moray Firth smolt tracking project. The Research Team have also been busy with a simultaneous smolt tracking project and subsequent National Adult Salmon Sampling programme, both under contract to Marine Scotland Science and in addition to the Board's ongoing monitoring and other contract work. The Board is grateful to Kevin Greensill and to our seasonal intern, Sacha Forbes-Leith, for their invaluable assistance during this busy year.

3.1 Juvenile Surveys 2022

Further to the stellar work of Brian Shaw in creating a comprehensive record of juvenile fish density across the catchment over the last decade, the Board decided to reduce the number of surveyed electrofishing sites on the mainstem annually and to survey some sites every other year. The rotation of tributary electrofishing, however, remains unchanged. As a result, the 2022 programme covered parts of the Spey mainstem, as well as the Rivers Calder, Truim, Conglass, Avon and Livet. Monitoring of stocked sites was also maintained and numerous contracts were also fulfilled. The latter included fish rescues prior to railway line repairs and baseline surveys in support of the RSPB's restoration of the lower River Tromie. The Scottish Government cancelled this year's National Electrofishing Programme Scotland (NEPS).

Photo Above: *SFB Biologists electrofishing above the Tamdhu Pass in October, to monitor the impact of the installation. Results showed a 216% increase in fry numbers from 2021.*
(Photo: Paul Hughes, SFB Digital Marketing Manager).

to railway line repairs and baseline surveys in support of the RSPB's restoration of the lower River Tromie. The Scottish Government cancelled this year's National Electrofishing Programme Scotland (NEPS).

Environmental conditions were challenging for electrofishing this season, with 2022 suffering a hot and dry summer, interspersed with short periods of heavy rainfall. This led to multiple days of surveying lost due to high and warm water. The Team was also beset with technical issues with its electrofishing equipment. Consequently, juvenile density estimates on the tributaries are minimum estimates.

3.1.1 Mainstem Juvenile Salmon Index Survey

A total of 40 mainstem sites were surveyed in 2022, the results of which are shown in Tables 2

and 3 on page 41, along with the results of the previous 10 years for comparison. The fry and parr counts can be summarised as follows: -

- The mean salmon fry count in 2022 was 26.7 min^{-1} , above the 10-year average of 21.9 min^{-1} .
- The mean salmon parr count in 2022 was 3.2 min^{-1} , slightly below the 10-year average of 3.2 min^{-1} .
- The overall trend of mainstem salmon fry and parr counts continues to be stable overall.

The overall status of juvenile stocks in the Spey mainstem is one of relative stability over the last decade. This is encouraging as there has been a downwards trend in the rod catch over the period.



Above: Electrofishing on the River Spey at Knockando in early August, watched on by Andrew Hall, Head Ghillie, Knockando Estate. (Photos: Paul Hughes, SFB Digital Marketing Manager).

Table 2: Spey Salmon Fry Index

Salmon parr class	Grade	Breakpoint (salmon parr/min)
Absent	AB	0
Very low	E	0 to 1.0
Low	D	>1.0 to <2.0
Moderate	C	2 to 3.9
Good	B	>4.0 to 6.9
Excellent	A	>7.0

Salmon Fry Class	Grade	Breakpoint (salmon fry/min)
Absent	AB	0
Very low	E	<5.00
Low	D	Between 5.1 to 10.9
Moderate	C	Between 11.0 to < 17.3
Good	B	Between 17.4 to 28.0
Excellent	A	>28.1+

Table 3: Spey Mainstem Salmon Fry Index and Salmon Parr Counts 2012 to 2022

Site code	Location	Salmon fry/min										Salmon parr/min											
		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
S07R1	LW2	24.7	22.7	16.3	27.3	5.7	46.3	9.7	3.3	16.3	10.0	16.0	1.0	4.3	2.3	1.0	3.3	0.0	0.0	2.0	1.3	0.3	0
S012R1	LW1	11.3	17.0	17.3	20.3	10.7	14.7	44.3	3.0	20.7	10.0	1.0	0.3	0.0	0.7	0.3	0.0	1.0	0.0	0.0	0.0	0.0	0
S017L2	Gordon Castle	31.7	52.7	24.7	20.0	13.0	32.0	31.0	15.3	35.7	27.0	22.7	0.7	2.3	0.7	2.3	5.0	0.3	2.0	9.7	3.7	6.3	1.7
S019L2	Gordon Castle	13.3	57.7	28.7	34.7	17.3	59.3	33.3	19.0	46.3	22.3	25.0	1.3	1.0	4.0	3.0	3.7	0.7	3.0	4.0	1.0	0.3	6.7
S025L1	Gordon Castle	7.7	26.0	23.0	26.0	20.7	24.0	22.3	17.7	44.3	15.7	0.0	2.7	1.3	0.3	0.7	0.0	0.0	4.7	3.7	6.3		
S029L1	Orton Water	6.3	41.0	15.0	31.7	15.7	28.0	28.3	14.7	43.7	21.7	0.0	4.7	7.7	0.7	4.3	0.0	0.0	4.3	1.0	0.7		
S032L1	Orton Water	9.0	44.0	17.7	28.3	14.7	38.3	42.7	19.3	25.7	46.3	39.7	0.0	1.7	4.0	0.7	4.3	4.0	4.0	2.7	1.7	3.0	3.3
S034R1	Delfur	19.7	12.0	65.0	27.0	6.0	27.7	24.7	11.3	39.7	21.0	32.0	1.7	2.0	4.0	0.0	6.3	0.0	4.0	2.3	2.0	2.3	0.7
S040L1	Delfur	6.7	14.0	13.3	22.0	4.7	50.3	22.7	15.7	24.7	19.0	0.0	0.0	3.7	1.7	8.3	0.0	3.0	6.7	3.0	2.0		
S040L2	Delfur	80.0	66.0	29.0	15.7	52.7	61.3	30.3	49.3	75.3	124.3	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.0	0.0	0.7
S042L1	Röthes	7.7	44.0	10.3	14.7	12.0	31.7	6.0	11.3	12.7	14.7	1.3	7.0	1.7	2.0	7.0	0.7	1.0	3.3	3.3	5.3		
S047L1	Röthes	6.3	9.3	9.0	18.3	4.7	21.7		6.3	19.3	12.3	11.0	0.0	12.0	14.0	1.3	12.3	1.3	0.3	8.0	9.3	4.7	
S050R1	Arndilly	13.7	29.7	28.3	16.0	13.3	31.0		17.3	21.0	20.0	25.3	0.0	3.0	0.0	1.7	3.7	0.3		1.7	0.0	3.3	0.7
S052L1	Arndilly	15.7	15.7	19.7	23.7	9.3	21.3		13.3	31.0	15.3	0.3	0.0	3.0	2.0	6.3	0.0		3.7	1.0	1.0		
S056L1	East Elchies	17.7	34.7	43.7	39.7	16.0	50.3		33.3	52.0	29.3	61.0	0.3	0.0	1.0	0.3	3.7	0.0		2.7	0.7	1.3	2.3
S059R1	Craigellachie	36.7	25.3	33.3	23.0	17.3	45.7	24.7	20.3	47.7	17.3	0.7	1.0	2.0	0.3	2.0	0.3	3.3	0.0	1.7	1.0		
S060R1	Craigellachie	19.0	12.3	23.0	11.7	17.7	20.3	15.3	13.3	29.0	13.0	0.3	0.0	3.0	0.0	2.7	0.3	0.3	1.3	1.7	0.3		
S061R1	Craigellachie	20.3	12.3	22.0	10.0	4.7	18.0					1.0	6.7	5.7	1.0	8.0	3.3						
S062L1	Maccallan							32.3	16.7	47.3	24.0	43.0							4.3	5.3	8.7	9.0	0.7
S066R1	Aberlour	10.0	15.3	27.7	17.0	11.0	31.3	15.7	19.0	30.3	21.0	14.3	2.0	3.0	16.7	1.3	18.7	14.3	17.0	12.0	14.7	11.7	7.7
S068L1	Wester Elchies		15.7	12.0	9.3	3.3	38.7	3.3	10.3	25.7	19.7	18.7		13.7	15.7	3.7	12.3	5.3	11.3	6.3	8.0	18.0	4.7
S072L2	Wester Elchies		19.3	7.3	28.3	3.0	22.7	18.3	16.7	34.3	14.3		5.7	3.3	2.3	3.3	0.3	4.3	0.0	3.7	5.0		
S074L1	Laagun	7.0	5.3	9.0	13.7	24.0	18.0	8.3	9.0	21.3	12.0	24.0	1.0	6.3	4.3	1.7	4.7	6.0	2.3	2.0	3.7	5.0	0.7
S077L1	Laagun	36.7	10.0	51.3	27.7	7.7	32.0	18.3	21.7	60.3	28.0	0.7	3.3	1.3	0.0	7.7	2.0	3.7	1.7	4.7	0.7		
S079R1	Carron	15.7	31.0	16.3	18.3	11.7	27.0	8.3	21.7	45.0	28.3	18.7	1.7	2.0	6.3	1.3	3.0	6.0	3.3	0.3	5.3	4.7	0.7
S082L1	Knockando	8.3	9.3	17.7	15.0	8.7	18.7	5.7	11.7	32.0	16.7	20.0	2.3	12.7	13.0	3.3	7.7	8.3	7.7	4.0	6.0	3.3	5.7
S087L1	Phones		3.7	6.0	4.7	8.7	7.0	3.3	3.0	12.3	4.0		4.7	5.3	6.3	0.0	3.7	5.3	2.3	7.3	5.0	0.3	
S093R1	Low er Fitchroy	21.3	25.7	20.3	41.7	16.7	40.7	25.3	45.7	58.3	27.3	44.3	4.7	9.7	9.7	1.7	11.7	10.3	17.0	3.3	9.3	6.7	4.7
S096R1	Balindalloch	11.0	20.0	49.0	37.0	20.3	52.0	30.0	27.7	69.7	31.3	46.3	1.7	2.3	11.0	2.3	6.0	9.7	4.3	9.3	5.7	8.7	2.3
S104L2	Balindalloch	20.3	61.3	40.7	43.0	25.0	64.7	45.0	28.0	79.3	51.3	63.3	1.3	5.0	4.7	2.3	3.0	9.3	2.7	3.0	3.7	5.0	8.7
S105L2	Tulchan D	35.0	65.7	33.7	45.7	33.3	39.0		28.0	49.0	45.3	0.0	2.0	1.0	1.3	1.7	8.0		2.0	1.7	3.7		
S112L1	Tulchan C	10.3	35.0	11.3	31.3	14.7	28.7		17.0	43.0	26.0	44.0	4.0	8.0	7.7	5.3	10.3	9.0		4.0	5.3	5.0	6.0
S119L1	Tulchan B	28.0	30.7	10.0	27.7	12.7	31.0		29.0	37.0	30.0	22.0	2.7	10.7	4.0	3.7	8.3	9.3		5.0	4.3	10.0	9.3
S124R1	Tulchan A	13.0	38.0	14.7	18.7	11.7	33.7		9.3	29.0	18.3	2.3	1.7	1.3	2.7	5.0	5.7		0.7	1.3	5.3		
S131L1	Castle Grant 3	29.0	40.0	21.0	34.3	24.0	35.3	29.3	18.0	48.0	31.3	38.7	10.0	7.0	6.7	3.0	5.0	5.3	11.0	5.3	6.0	6.0	3.0
S135L1	Castle Grant 2	17.7	44.0	38.3	20.0	10.0	32.3	49.3	16.3	36.3	26.3	0.7	0.0	1.0	1.3	4.7	0.7	2.3	5.3	2.7	1.3		
S141L1	Castle Grant 1	4.7	8.0	9.3	17.0	24.3	19.7	18.3	15.3	22.0	20.3	1.0	0.0	2.0	1.3	1.3	2.7	1.3	4.3	2.3	1.7		
S147L1	SAIA	11.0	17.3	16.0	45.3	24.7	42.3	4.3	38.7	45.7	39.0	19.0	1.0	7.7	13.0	6.0	6.7	8.7	8.7	5.3	13.3	10.0	7.0
S149L1	SAIA	12.0	10.3	14.7	21.7	23.7	23.0	6.7	17.3	31.0	20.7	1.3	8.3	11.3	5.0	5.3	2.3	8.7	5.3	7.7	2.7		
S163L1	Abernethy AA	33.7	73.3	59.3	28.0	28.3	68.3	108.0	43.3	61.3	41.0	55.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.3	0.0	0.0
S177L1	Abernethy AA	23.0	53.0	24.0	31.0	24.3	45.3	46.3	31.3	36.0	27.3	24.0	0.0	1.7	0.3	0.7	1.0	0.3	2.3	9.7	2.3	0.3	1.7
S183L1	Kinchurdy	5.7	45.0	21.0	29.7	17.3	38.0	50.3	10.7	22.7	18.3	0.0	0.0	0.0	1.7	0.0	2.0	2.0	2.3	1.0	0.0		
S195L1	Aviemore AA	14.0	36.0	13.7	11.0	14.3	17.7	51.3	11.7	23.3	20.3	0.0	0.0	0.0	0.7	0.7	0.0	0.0	0.3	0.7	0.3		
S209L1	Kinrara	19.0	28.3	13.3	19.3	12.3	27.0	41.7	22.7	26.3	44.3	20.0	0.0	0.0	0.0	0.7	0.0	0.0	1.7	0.3	0.0	0.3	0.0
S215L1	Dalraddy	24.3	63.3	47.7	24.0	21.3	24.3	81.7	20.0	10.3	31.7	1.0	0.0	0.0	0.3	1.0	0.0	0.0	1.7	0.0	0.0		
S243R1	Ruthven Bridge	8.7	14.3	17.7		36.7	56.0	25.0	31.7	27.7	25.0	20.0	0.0	1.3	0.0		0.0	1.7	1.3	1.7	1.0	0.7	0.0
S254R1	Golf course	6.0	8.0	18.3	10.7	12.0	18.7	28.0	11.0	12.3	15.3	22.0	1.0	4.0	0.0	1.3	1.7	2.7	6.7	3.3	0.3	0.3	1.0
S258L1	Calder Mouth	12.7	11.0	19.3	5.7	38.3	37.0	42.3	21.0	27.0	55.3	51.0	0.7	1.3	4.7	4.0	5.7	4.3	14.0	1.7	7.0	3.7	9.3
S260L1	Badenoch AA				20.7	22.7	23.7	16.3	16.3	16.7	26.7				1.3	4.0	2.3	8.7	11.3	3.3	2.3		
S264R1	Trum	22.0	4.3	5.3									4.7	4.0	2.3								
S282R1	Laagun	19.7	17.7	18.7	26.0	20.7	30.0	36.0	13.3	23.3	32.3	37.7	1.0	3.3	0.3	0.3	2.7	3.3	7.0	0.0	2.3	1.0	4.3
S287L1	Laagun	12.3	21.3	14.7	5.0	29.7	25.3	24.0	18.7	18.7	44.7	28.3	2.0	5.0	2.3	3.0	9.3	3.7	8.7	0.7	2.7	2.7	6.0
S290L1	Below Spey Dam	18.0	25.0	5.7	8.0	17.0	8.0	18.7	3.0	13.7	19.3	25.0	4.7	11.3	7.0	7.0	10.3	2.3	18.0	3.0	10.3	11.3	11.0
S298R1	Glenshirra	0.0	0.0	0.0	0.3	0.0	0.0	2.3	2.7	3.3	1.0	6.7	0.7	3.7	1.3	0.0	3.3	0.0	0.7	6.3	7.3	4.7	2.7
S305R1	Garvamore	3.3	9.7	0.0	2.7	0.0	0.3	11.3	5.3	0.7	16.3	2.7	0.3	5.7	1.0	0.0	1.3	0.7	5.8	3.7	2.3	1.0	5.3
S305R2	Garva Bridge	1.3	1.3	0.0	1.0	0.0	1.0	2.3	2.3	0.3	2.0	1.0	1.3</										

3.1.2 Tributary Juvenile Salmon Surveys

Juvenile counts on the Calder remain low overall, however, average fry counts in both timed and quantitative surveys have increased in comparison to 2021/2020 (Table 4 and 5), likely due in part to the recent restoration project completed by the Spey Catchment Initiative and the SFB.

Table 4: Results of the Timed Survey of the River Calder

River Calder		Salmon Fry/minute				
SITE	Location	2017	2018	2020	2021	2022
TC01	Below road, 1st riffle below revetments	16.7	36.7	4.3	32.7	25.3
TC05	Down Alder path, above pool	0.3	0.3	0.3	0.0	1.3
TC08	opp layby	11.3	15.0	1.7	1.0	11.3
TC10	u/s Allt Foinndrigh	8.3	23.0	2.7	4.3	17.0
TC18	400m d/s Cluny Bothy	2.0	11.0	0.0		6.7
Mean		7.7	17.2	1.8	9.5	12.3
		Salmon Parr/minute				
SITE	Location	2017	2018	2020	2021	2022
TC01	Below road, 1st riffle below revetments	3.0	3.0	8.3	1.7	6.3
TC05	Down Alder path, above pool	0.0	2.3	1.7	1.0	0.7
TC08	opp layby	0.0	5.7	2.7	1.7	0.7
TC10	u/s Allt Foinndrigh	0.0	4.3	1.7	1.3	1.7
TC18	400m d/s Cluny Bothy	0.7	0.3	1.7		1.0
Mean		0.7	3.1	3.2	1.4	2.1

Table 5: Results of the Semi-Quantitative Survey of the River Calder

		Salmon Fry (per 100m2)				
Site	Location	2014	2017	2020	2021	2022
SC7	Calder upstream Allt a' Chaorainn	6.7	11.4	4.7	1.0	32.4
SC2	Calder, Cluny Bothy	3.8	1.0	0.0		1.7
SC5	Allt Fiondrich at Glenballoch	8.5	6.0	0.0		20.8
SC6	Allt a' Chaorainn below Bridge	3.2	0.0	0.0		11.9
Mean		5.6	4.6	1.2		16.7
		Salmon Parr (per 100m2)				
Site	Location	2014	2017	2020	2021	2022
SC7	Calder upstream Allt a' Chaorainn	4.0	0.0	10.0	6.8	3.4
SC2	Calder, Cluny Bothy	6.4	1.0	3.2		2.6
SC5	Allt Fiondrich at Glenballoch	0.0	6.0	18.2		10.1
SC6	Allt a' Chaorainn below Bridge	0.0	0.0	0.6		0.0
Mean		2.6	1.8	8.0		4.0

The River Livet maintains its record as one of, if not the, most productive tributaries of the Spey, with average timed survey results being more than double that of the mainstem at $45.1 \text{ fry min}^{-1}$ and $10.6 \text{ parr min}^{-1}$ respectively (Table 6).

Table 6: Results of the Timed Survey of the River Livet

		Salmon fry/min				
Site code	Location	2013	2016	2017	2019	2022
TSAL01	Drumin	69.0	2.3	36.0	29.7	8.3
TSAL05	Packhorse Bridge		30.0	127.3	73.0	53.4
TSAL08	u/s Glenlivet Bioplant		20.0	57.7	48.7	76.3
TSAL14	u/s Bridge of Livet		11.0	36.0		40.3
TSAL18	d/s bridge at Tombae Farm		1.7	21.3	30.0	47.7
TSAL23	Ford u/s Allanreid		4.0	47.7	30.7	34.3
TSAL27	Ford u/s Achdregnie Farm		12.7	27.7	28.0	59.3
TSAL29	30m d/s corrugated iron		10.0	44.7	31.3	47.7
TSAL33	U/s Glassachoil		9.7	25.3	24.3	38.7
Mean			11.3	47.1	37.0	45.1

		Salmon parr/min				
Site code	Location	2013	2016	2017	2019	2022
TSAL01	Drumin	4.7	3.7	1.7	7.0	1.0
TSAL05	Packhorse Bridge		19.7	8.0	16.7	6.6
TSAL08	u/s Glenlivet Bioplant		11.0	0.0	4.3	7.7
TSAL14	u/s Bridge of Livet		3.7	1.0		5.7
TSAL18	d/s bridge at Tombae Farm		7.7	3.0	5.3	14.7
TSAL23	Ford u/s Allanreid		10.3	5.0	9.7	17.0
TSAL27	Ford u/s Achdregnie Farm		6.0	6.7	14.3	17.0
TSAL29	30m d/s corrugated iron		8.7	4.0	19.3	16.3
TSAL33	U/s Glassachoil		5.7	4.3	10.7	9.0
Mean			8.5	3.7	10.9	10.6

The lower Avon shows a good fry and parr counts however, the upper Avon continues to indicate a nutrient starved state through extremely low juvenile counts across the last 10 years (Table 7).

Table 7: Results of the Timed Survey of the River Avon

Avon		Salmon fry/minute						
Site code	Location	2013	2016	2017	2018	2019	2021	2022
TA01L1	Ballindalloch Castle	38.7		14.7				40.0
TA05L1	Golf Course	39.7	1.3	17.0	30.7	34.0		38.0
TA11L1	Haugh Pool	41.3	6.7	34.0	37.0	12.7		11.7
TA15L1	Upstream Black Burn	83.0	4.3	83.0		20.7		38.7
TA21R1	Little Dalrachie	22.3	5.3	39.7	37.0	14.7		28.3
TA24R1	Dell footbridge	25.0	5.7	30.3		26.7		35.7
TA29L1	Upstream Fodletter Bridge	26.3	4.0	38.0	22.7	19.3		40.7
TA34L1	Lochy mouth	18.7	6.0	11.0		20.7		23.7
TA38L1	Dalvrecht-Conglass confluence	22.0	3.3	12.3		19.7		16.7
TA43R1	At "S" bend Kynadrochit	23.7	5.7	17.7	31.7	18.3		22.7
TA49R1	Below Fordmouth Farm	15.0	4.7	19.3			43.0	40.7
TA56R1	Upstream Delavaoar Bridge	14.0	1.3	12.7	20.3	5.3	12.7	11.0
TA60R1	Muckle Fergie confluence	9.3	4.7	13.0		6.0		15.7
TA65R1	Heathery island far channel	6.0	1.3	7.0	12.7	8.0	11.7	
TA70R1	Opposite side channel	10.0	3.3	6.0		12.3		10.3
TA76R1	Upstream Builg confluence	7.3	3.0	5.0		6.7	3.0	10.0
TA81L1	Upstream Allt Loin	3.7	0.7	3.7				
TA84L1	Downstream Allt Loin Bheag	11.0	1.3	9.0		7.0	6.0	11.0
TA89L1	Glenavon Estate	1.0	0.3	5.0				
TA94L1	Glenavon Estate	2.7	1.7	3.0		2.3		0.7
TA99L1	Faindouran	1.3	0.7	3.0				2.7
TA101L1	Glenavon Estate	1.0	0.7	1.7		0.7		
Mean		19.2	3.1	17.5	27.4	13.8	15.3	22.1

Avon		Salmon parr/minute						
Site code	Location	2013	2016	2017	2018	2019	2021	2022
TA01L1	Ballindalloch Castle	21.7		3.3				3.0
TA05L1	Golf Course	28.3	12.3	1.7	17.0	12.3		13.7
TA11L1	Haugh Pool	12.3	3.0	2.7	15.3	3.0		0.0
TA15L1	Upstream Black Burn	7.0	2.0	1.3		5.0		1.0
TA21R1	Little Dalrachie	15.7	2.0	4.0	7.0	3.0		2.3
TA24R1	Dell footbridge	12.3	6.3	0.7		7.0		1.0
TA29L1	Upstream Fodletter Bridge	18.0	3.3	6.0	5.3	12.0		5.3
TA34L1	Lochy mouth	5.3	3.0	3.3		10.3		6.0
TA38L1	Dalvrecht-Conglass confluence	14.0	5.0	6.3		17.3		3.7
TA43R1	At "S" bend Kynadrochit	1.7	0.0	2.0	11.0	11.0		1.3
TA49R1	Below Fordmouth Farm	9.7	1.7	3.3			15.7	10.7
TA56R1	Upstream Delavaoar Bridge	10.7	4.0	8.3	11.3	13.0	6.0	9.3
TA60R1	Muckle Fergie confluence	4.7	1.3	3.7		7.7		3.3
TA65R1	Heathery island far channel	6.0	2.7	2.0	9.7	15.3	1.7	
TA70R1	Opposite side channel	3.0	1.3	3.0		7.7		3.7
TA76R1	Upstream Builg confluence	3.7	3.0	0.3		5.0	2.0	3.3
TA81L1	Upstream Allt Loin	4.0	1.0	0.7				
TA84L1	Downstream Allt Loin Bheag	1.7	1.7	3.7		8.0	4.0	4.3
TA89L1	Glenavon Estate	3.3	1.3	0.3				
TA94L1	Glenavon Estate	4.3	0.7	2.0		1.7		3.7
TA99L1	Faindouran	1.7	1.3	1.3				1.0
TA101L1	Glenavon Estate	0.7	0.0	0.0		0.7		
Mean		8.6	2.7	2.7	11.0	8.2	5.9	4.3

Good juvenile salmon densities were recorded in both the Dullan water and Knockando burn, illustrating the benefits that have resulted from the recent installation of fish passes by DIAGEO and Ian Macleod Distillers respectively. The Knockando burn, in particular, has shown a tripling of salmon fry density above the fish pass since 2021.

Following a report by Castle Grant Head Ghillie, Simon Crozier, and the Board's Chairman, Dr Sandy Scott, the Research Team surveyed the Allt Lorgy, a tributary of the River Dulnain. This had been the site of Spey Catchment Initiative habitat restoration project in 2012, which was subsequently awarded the UK Rivers Prize in 2020. The Team's survey found the highest salmon fry density on record for the Allt Lorgy, over six times greater than that before the restoration work began. Parr density was low, but this is believed to have resulted from restricted access to spawning fish in 2020, following a spate which temporarily diverted the course of the burn. The survey results are expected to improve for 2023 (Table 8).

Table 8: Results of the Semi-Quantitative Survey of the Allt Lorgy

Area	Code	Year	Area	Salmon Fry 100 m ⁻²	Salmon Parr 100 m ⁻²
Allt Lorgy	SDALb	1997	107.6	18.6	3.7
Allt Lorgy	SDALb	2003	69.3	109.7	15.9
Allt Lorgy	SDALb	2012	168.4	33.8	3.0
Allt Lorgy	SDALb	2013	124.3	39.4	13.7
Allt Lorgy	SDALb	2014	133.9	9.7	9.0
Allt Lorgy	SDALb	2015	94.9	141.2	13.7
Allt Lorgy	SDALb	2018	113.5	122.5	22.9
Allt Lorgy	SDALb	2021	133.8	3.0	8.2
Allt Lorgy	SDALb	2022	89.1	226.7	3.4

The Delliefure burn was surveyed, following restoration work by the Spey Catchment Initiative in 2021. The survey showed that fry density within both survey sites has since increased by over 130% and the Board looks forward to seeing how this will progress into parr densities in 2023 (Table 9).

Table 9: Results of the Semi-Quantitative Survey of the Delliefure Burn

Code	Site	River	Salmon Fry/100m ²		Salmon Parr/100m ²	
			2021	2022	2021	2022
SMB8d	D/S Rd Bridge	Delliefure	20.9	49.5	4.9	5.2
SMB8e	Up to Pine Tree	Delliefure	27.4	63.4	31.7	38.5

Table 10: Stocking Monitoring 2022

Code	Date	River	Area m ²	Salmon Fry 100 m ⁻²	Salmon Parr 100 m ⁻²	Trout Fry 100 m ⁻²	Trout Parr 100 m ⁻²
SLB3c	18/08/2022	Fochabers Burn, below weir	118.7	21.1	7.6	10.9	3.4
SRc	18/08/2022	Rothes Burn, upstream weir	117.0	1.7	0.0	20.5	4.3
SRd	18/08/2022	Rothes Burn, d/s old pipe	111.7	7.2	0.0	15.2	3.6
FBA3	18/08/2022	Burn of Aldernie	72.5	0.0	0.0	29.0	1.4
FCB1	26/07/2022	Corrie Burn, lower	80.1	0.0	0.0	18.7	6.2
FCB3	26/07/2022	Corrie Burn, upper	70.2	32.8	4.3	0.0	0.0
SRBRc	16/08/2022	Broad Burn D/S Bridge	53.4	0.0	0.0	65.5	29.9
SRBRb	16/08/2022	Broad Burn U/S Fish Pass	111.0	7.2	11.7	165.8	49.5
SLB8a	12/08/2022	Burn of Ringorm	64.1	28.1	9.4	99.9	12.5
SLB8d	12/08/2022	Burn of Ringorm	58.4	5.1	12.0	166.2	1.7
SLB8b	12/08/2022	Burn of Ringorm	52.4	30.5	13.4	51.5	7.6
SLB8c	12/08/2022	Burn of Ringorm	65.5	3.1	0.0	0.0	3.1
SLB9a	15/08/2022	Aberlour Burn	86.4	203.7	28.9	22.0	11.6
SLB10d	16/08/2022	Green Burn	75.6	4.0	9.3	6.6	21.2
SLB10e	16/08/2022	Green Burn	69.1	0.0	13.0	1.4	11.6
SMB14d	19/08/2022	Glenbeg Burn, d/s track bridge	71.7	15.3	8.4	115.8	83.7
SALCAFa	15/08/2022	Allt na Fannich, u/s fish pass	70.5	7.1	0.0	235.5	4.3
SALCAFb	15/08/2022	Allt na Fannich, Calier Farm	42.2	28.4	0.0	175.3	2.4
SACAGa	08/08/2022	Allt Garbh Bhienne	96.5	101.5	0.0	134.7	38.3
SACB	08/08/2022	Allt Blairnamarrow	88.6	22.6	4.5	82.4	29.4
			Mean	26.0	6.1	70.8	16.3

3.2 Stocking Monitoring

2022 saw the Research Team continue its monitoring of burns which had been stocked with eyed ova and unfed fry from the SFB hatchery earlier in the year (see section 2 for further details). A total of 12 burns and 20 sites were surveyed during the field season and the results are summarised in Table 10 (above).

Overall, the 2022 stocking monitoring survey shows mixed results for fry densities, with excellent densities at the Allt Garbh Bhienne in particular, but very poor fry densities in the Burn of Aldernie and Green Burn.

Parr densities were generally low, with the exception of the Ringorm Burn and Green Burn, which showed favorable parr densities of >10 Parr 100 m⁻². Interestingly, no salmon parr were found at the Allt Garbh Bhienne, which showed good fry densities in both 2021 and 2022. This may be partly due to re-distribution as fry move from the habitat where they were stocked into habitat more favourable to their development as parr. This is

supported by the surprisingly high parr densities found within the Green burn in 2022, a site notorious for extremely low juvenile densities. When we surveyed the Green burn, it was during a high flow event. This led to us investigating the burn upstream of the stocking reach, beyond the A95 road culvert, where numerous salmon parr of hatchery origin were found. This indicates that fry stocked below the culvert have moved upstream of the culvert, out with the stocking reach, to habitat they find more suitable for their development as fry and parr. This then results in low salmon densities when the stocking site is surveyed later in the year. Whether this is the case for Burns such as the Allt Garbh Bhienne is, as yet, unknown.

3.3 National Adult Salmon Sampling Project: ASSESS

We reported last year that basic population-level data on adult salmon arriving back in Scottish rivers is becoming increasingly difficult to acquire, in particular now that almost all of the netting stations are closed, and almost all rod-caught fish are released. It has always been essential to have an understanding of accurate information such as weight, length, condition factor, sex, age and health status, but none more so than now, with the development of national conservation regulations and electrofishing programmes.

2022 was the second year of ASSESS, a project established by Fisheries Management Scotland and the Scottish Government's Marine Scotland Science to gather such population level data on adult salmon in Scottish rivers. Following feedback

from the Ghillies who had taken part in the 2021 season project, we decided not to utilise anaesthetic in 2022 and to rely instead on the voluntary support of 6 beats to collect scale samples from rod-caught fish. The Board is grateful to all of the Ghillies who assisted and, in turn, for the support of their Proprietors, who thereby enabled the Board to achieve its aim.

Although the scale sampling was hampered by reduced catches during periods of low summer water and high water temperatures, a total of 28 scale samples were collected. These were sent to the Marine Scotland Science Freshwater Laboratory at Pitlochry for analysis and will be used to help assess the current state of Scotland's salmon stocks.

3.4 Salmon Smolt Tracking Projects in 2022

The third and final year of the Atlantic Salmon Trust's (AST's) Moray Firth Tracking Project was undertaken in 2022, as part of the Trust's broader "Missing Salmon Project". This year saw the project focus on smolt tracking in freshwater systems across four rivers around the Moray Firth. On the Spey, having conducted two years of tracking at Ballindalloch and achieved broadly similar results, 2022 saw us expand the scope of the project to look at smolt migration from much further upriver. A total of 22 acoustic receivers were deployed across the Spey in 2022, from the Truim confluence above Newtonmore, to Spey bay.

Smolts were captured in two locations using Rotary Screw Traps: from the River Truim near Ralia; and from the River Tromie, close to the confluence with the River Spey. A total of 126 smolts were tagged, 101 with V6-2x acoustic tags and 25 with V7D-2x acoustic "predator" tags between the 4th of April and the 6th of May 2022. Each tag emits a unique electronic signal or "ping" which is detected by the static in-river receivers as the smolts migrate past. The predator tags have a coating which dissolves

upon digestion by a predator and emit a different, but still distinctive and unique electronic alert to a receiver.

A second smolt tracking project, conducted under contract to the Scottish Government's Marine Scotland Science (MSS), was undertaken concurrently, with 15 receivers co-located alongside the majority of the AST receivers. This project tagged 60 smolts with V7D-2x acoustic "predator" tags on the River Tromie only and in addition to the smolts tagged for the AST. It was part of a broader project in conjunction with the Rivers Tweed, Dee and Deveron.

In addition to the static in-river receivers, the MSS contract also involved mobile or "active" tracking, using mobile receivers in a canoe. The Board is grateful to Dave Craig for conducting two full Spey descents, from the Truim confluence to Spey Bay to fulfil this. The Board is also grateful to our Digital Marketing Manager, Paul Hughes, and his father, Dave Hughes, for their assistance in completing partial descents from the Truim confluence to Loch Insh to assist with the monitoring requirements.

The results of the acoustic telemetry are still under analysis by the AST and MSS, but we hope that they may be published in early 2023. However, preliminary data indicates an expected spike in

mortality in Loch Insh. The SFB will continue to work closely with the AST and MSS when the results are announced.



Above: The Rotary Screw Trap being deployed on the River Truim to catch salmon smolts as part of the Moray Firth Tracking Project. (Photo: Roger Knight, SFB Director).

3.5 Education

The easing of COVID restrictions enabled the SFB to re-start our popular school education programme, "Salmon in the Classroom" during 2022. This continues to be generously sponsored each year by Walkers Shortbread, to whom the Board is grateful. Three primary schools participated in the programme: Aberlour, Dufftown and Milnes (Fochabers).

We were also able to help John Trodden and the River Spey Anglers Association again with the delivery of a Rural Skills Course involving Speyside High School. Through the kind donation of two days' fishing at the end of the season at Upper Arndilly, courtesy of Callum Robertson, eight Speyside High School pupils were able to enjoy two mixed days on the river. The course included

casting instruction, an introduction to fly-tying, talks from those employed on the river, bug-hunting and - most importantly - salmon fishing. Although, this was planned to include an electrofishing demo on the River Fiddich, high flow conditions converted this into a dry-run demo and a talk about the Boards' work.

The River Spey Anglers Association hope to be able to repeat this course annually.

The Board is particularly grateful to John Trodden (former RSAA Chairman and former Co-optee to the Spey Board), for his continued and invaluable assistance with delivering the Salmon in the Classroom programme.

Photos Below: John Trodden (left) and Sandy Howie (right) at the *RSAA Junior Day at Upper Arndilly, September 2022.*
(Photos: Paul Hughes and John Trodden)



The Spey Fishery Board and the Spey Foundation are most grateful to Walkers Shortbread for their continued and generous support of the Board's and Foundation's educational projects.



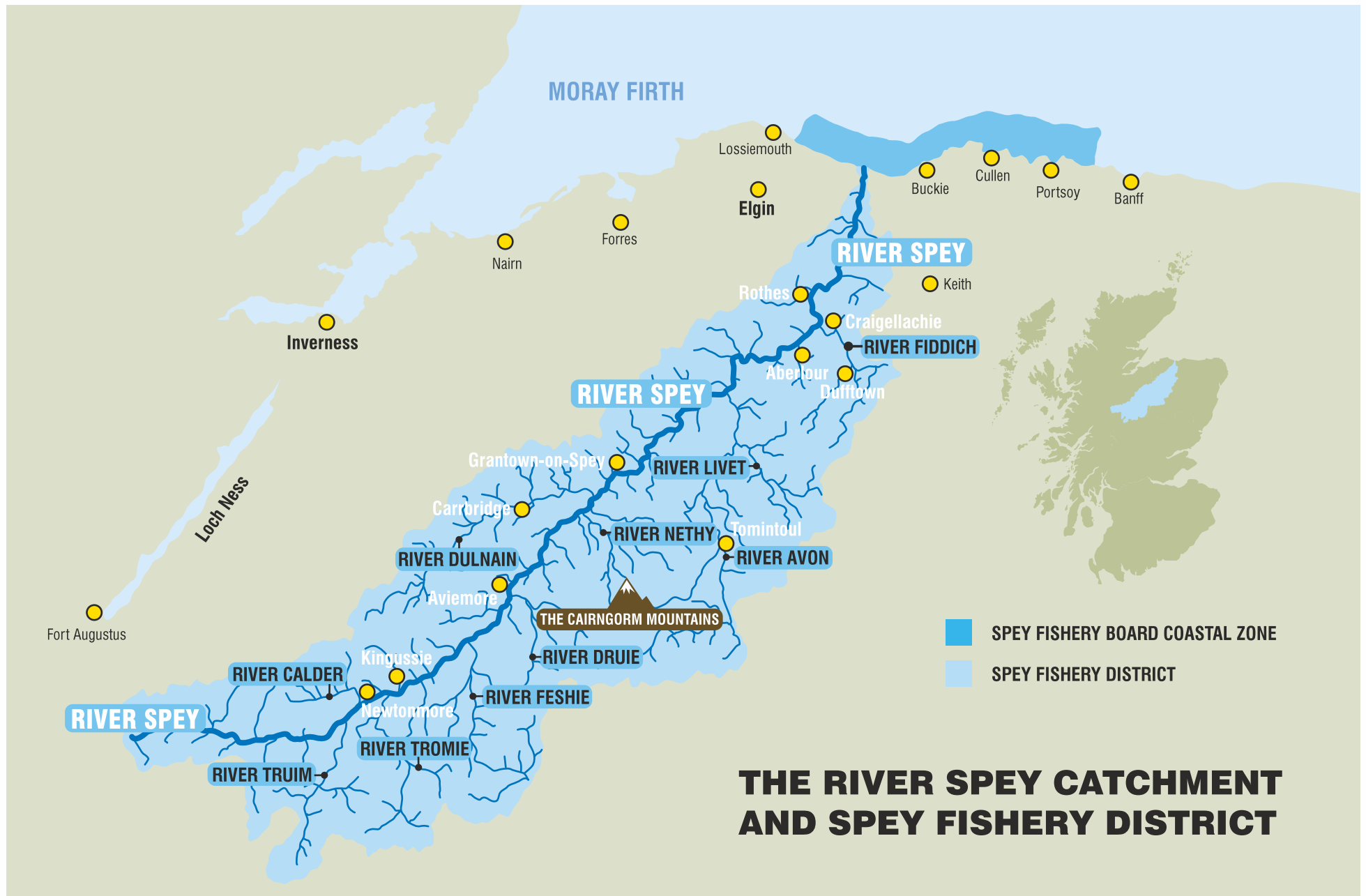


Figure 9: The River Spey Catchment and Spey Fishery District.

Part 4

Statutory Remit of the Spey Fishery Board

4.1 Constitution

The Spey District Salmon Fishery Board (SFB) was established under the 1860s Salmon Fisheries legislation as subsequently amended and stated in the Salmon Act 1986 and the Salmon Conservation (Scotland) Act 2001. This legislation was later streamlined into the Salmon and Freshwater Fisheries (Consolidation) (Scotland) Act 2003, which has subsequently been amended by the Aquaculture and Fisheries (Scotland) Act 2013. The SFB is empowered under the legislation to take such acts as it considers expedient for the protection, enhancement and conservation of Atlantic Salmon and Sea Trout stocks and their fisheries (Table 10). The SFB is responsible for the Spey Fishery District (Figure 9), which includes 52 rod fisheries within the mainstem of the Spey and its tributaries. The District covers 107 miles of Mainstem River, approximately 560 miles of main tributaries and 20 miles of coastline in the Moray Firth, from Lossiemouth to the west of the Spey estuary to Cowhythe Head in the east. The District extends 3 nautical miles out to sea. The SFB's Strategy and Management Plan, which was revised during 2022, is outlined in Figure 2 on pages 8-9.

The SFB has put in place measures to ensure it is

in full compliance with the latest legislation.

Furthermore, since November 2013 and in addition to its annual public meetings, the Board has conducted the major part of all of its quarterly meetings in Open Session to enable members of the public to attend.

4.2 Complaints Procedure

Section 24 of the Aquaculture and Fisheries (Scotland) Act 2013 amended the 2003 Act to place a number of new duties on DSFBs relating to openness and accountability. Under section 46D these new duties require a DSFB to: *'maintain, and keep under review, proper arrangements for dealing with complaints made to the board about the way in which the board have carried out, or propose to carry out, their functions under this Act or any other enactment'*

The SFB has published its complaints procedure on its website. Full details can be found at: <https://www.riverspey.org/wp-content/uploads/2022/07/Spey-Fishery-Board-Complaints-Procedure.pdf>

No complaints were received by the SFB during 2022.

Table 10. Statutory Responsibilities of the Spey Fishery Board

1. Provide fisheries protection;
2. Set Salmon rod fishery season (11th February – 30th September);
3. Set Sea Trout rod fishery season (15th March – 30th September);
4. Police weekly rod fishery close times (midnight Saturday – midnight Sunday);
5. Police the purchase and sale of illegally-caught or unseasonable fish;
6. Ensure fish passage over obstructions to migration;
7. Protect juvenile fish and spawning redds;
8. Regulate the movement and/or introduction of adult fish, juvenile fish and ova.

4.3 Wild Salmon Strategy: Progress During 2022

The Scottish Government published its Wild Salmon Strategy on 14th January 2022 and the SFB's Director, Roger Knight, had been part of the Advisory Group that created it. This Strategy represents the first time that the breadth of pressures and management approaches have been considered in full in order to establish a new path of restoration and recovery for salmon in Scotland, guiding collective action over the course of this decade to 2030.

The Strategy's vision is aimed at protecting and enhancing Scotland's wild Atlantic salmon population and developing and boosting the environmental, social and economic benefits arising from it. It will address the 12 pressures on salmon, which include:

- i. Exploitation;
- ii. Predation;
- iii. Fish Health;
- iv. Genetic Introgression;
- v. Invasive Non-Native Species;
- vi. Habitat – Water Quality;
- vii. Habitat – Water Quantity;
- viii. Habitat – Thermal;
- ix. Habitat – Instream;
- x. Habitat – Riparian;
- xii. Barriers to Migration;
- xiii. Coastal and Marine.

These twelve pressures will be addressed across five priority themes:

- i. Improving the condition of rivers and giving salmon free access to cold, clean water.
- ii. Managing exploitation through effective regulation, deterrents, and enforcement.
- iii. Understanding and mitigating pressures in the marine and coastal environment.
- iv. Making a positive contribution through international collaborations.

- v. Developing a modernised and fit for purpose policy framework.

Having published the Strategy in January, work continued throughout 2022 on the development of an Implementation Plan and SFB Director, Roger Knight, was again invited by the Scottish Government to be part of its Advisory Group for this. The Implementation Plan is expected to be published in early 2023.

4.4 Conservation Limits and the Categorisation of Rivers According to Conservation Status

2021 was the sixth season in which the Scottish Government Conservation Regulations applied. The regulations are based on compliance with modelled egg deposition targets (conservation limits). Estimates of spawning stock and egg deposition are generated based on adult catches and factors such as river flows, fish size and age, release rates, wetted areas, fecundity, etc. For the Conservation Regulations, rivers are assigned into one of three categories:

Category 1: Districts which had exceeded the conservation limit in four of the previous five years (80%+ compliance). In these rivers exploitation is sustainable therefore no additional management action is currently required.

Category 2: Districts which had achieved the conservation limit in three of the previous five years (60 to 80% compliance). For rivers in these categories, management action to reduce exploitation is required.

Category 3: Districts where the conservation limit had been achieved in fewer than three of the previous five years (less than 60% compliance). In these rivers exploitation was considered unsustainable, therefore mandatory catch and release was required.

It is important to note that whilst killing of salmon is not permitted in Category 3 rivers, the regulations also mean that the killing of salmon in coastal waters, by the nets for example, was also prohibited, as was the taking of salmon anywhere until the 1st April.

The Spey has been classed as a Category 1 river since the inception of the process and for the 2022 season it was classed at 83.3% compliance. The River Spey was one of 37 rivers in the top category for 2022 and is one of 29 rivers to remain in Category 1 for 2023. Further details on this can be found at the following link:

<https://www.gov.scot/publications/salmon-fishing-proposed-river-gradings/pages/overview-and-gradings/>

4.5 Fisheries Management Scotland

Fisheries Management Scotland (FMS) represents Scotland's network of District Salmon Fishery Boards, the River Tweed Commission and Rivers and Fisheries Trusts. FMS maintains a regular dialogue with Government and Agencies to ensure the interests of its members and Scotland's wild freshwater fisheries are represented clearly.

FMS has continued to make sound progress in developing its vision and objectives of being the pre-eminent, representative fisheries management body in Scotland, recognised as such by local fishery management, Governments and other agencies. It achieves this by promoting and ensuring the best fisheries management for the protection, conservation and development of Scotland's wild salmon and freshwater fish, along with their fisheries and environment. FMS also provides value to and represents the interests of its member organisations by enabling and supporting local fisheries management. It also works to ensure that its members are recognised

by all relevant stakeholders as the foremost, professional and positive influence on all matters relating to the evidence-based management of fish and fisheries.

Throughout 2022, the SFB's Chairman, Dr Alexander Scott, has continued to be a member of the FMS Board.

4.6 EU Water Framework Directive

The European Union (EU) Water Framework Directive (WFD) came into force in December 2000 and was transposed into Scottish law through the Water Environment & Water Services Act 2003. Under the aegis of the Scottish Environment Protection Agency (SEPA), the Act aims to establish a process of River Basin Management Planning to achieve "Good Ecological Status" of freshwater, groundwater and coastal water bodies by 2027. For Heavily Modified Water Bodies (e.g. those impacted by water diversion for the production of hydro electricity), such as parts of the River Spey, the aim is to achieve "Good Ecological Potential".

Achievement of the requirements of the WFD was divided into three, six-year River Basin Management Plans (RBMPs). We are currently within the third and final Plan, which must be completed by 2027.

We have reported previously that, significantly, SEPA re-classified Spey Dam at the end of 2015 as a barrier to fish passage, with a consequential down-grading of the water bodies above the Dam to "poor" status. Spey Dam is covered in more detail in section 2.3.1 of this Report. This re-classification of Spey Dam has remained throughout 2022. The SFB will continue to work closely with SEPA throughout 2023 on the implementation of the WFD.

Part 5

Publicity

5.1 Opening Ceremony 2022

The easing of COVID-19 restrictions enabled us to host the annual Opening Ceremony at Aberlour on 11th February 2022. We welcomed Ian Tennant, who had retired as Head Ghillie at Gordon Castle in 2021 after over forty years service, as our Guest of Honour and our Digital Marketing Manager, Paul Hughes, filmed the ceremony and streamed it live over the internet via social media channels and subsequently, via YouTube. As a result, it was watched by almost 10,000 viewers, in addition to those present in person.

The Board is grateful to the Aberlour Distillery, Walkers Shortbread and the Aberlour Hotel for generously sponsoring the Opening Ceremony. It is also grateful to the piper, Alan Sinclair, and Rev. Andrew Kimmit, for their contributions and support.

5.2 Website

Digital Marketing Manager Paul Hughes re-designed and modernised the Board's website and it was launched on the Opening Day of the season on 11th February 2022. This can be found, together with comprehensive details about the Board and the Spey Foundation, together with a wealth of research reports, at <https://www.riverspey.org/>

Our new website has been viewed over 125,000 times, which is 42% more than our old website. Paul also took the opportunity to re-brand the Board with new logos at the same time.

Weekly updates of catches have continued to be made available on the Board's website throughout the season. The Board is most grateful to Sandy Howie, the Chairman of the River Spey Anglers Association, for his stalwart assistance throughout 2022 in maintaining this.

News items are also regularly published and these have been linked to the Board's social media channels, including Facebook, Twitter, Instagram and LinkedIn (see 5.3).

5.3 Social Media and News Updates

The appointment of the Board's new Digital Marketing & Communications Manager, Paul Hughes, in September 2021, saw the rapid integration of the Board's social media accounts on Facebook, Twitter, Instagram and LinkedIn during 2022. Paul significantly transformed the Board's communications to a new, much-improved level. As a result, the Board's social media followers have increased by 58%, to some 10,000. The work he has published has reached over 1.35 million people (last year we were at 400,000) and our videos have been watched over 75,000 times.

Paul also devised and launched a new social media campaign to increase awareness of the Board's work to reduce the significant water diversions from the upper River Spey for the production of hydro-electricity, and to put more water down our upper tributaries instead. Entitled **#Release the Spey**, this has achieved rapid success, reaching thousands of new readers, many of whom shared the article within their own networks. We have also been asking people to sign a petition in support of the campaign (see section 2.3.4 on page 26). The Board looks forward to building on this success during 2023.

5.4 Public Meeting

The Board held its annual local Public Meeting at the Craigellachie Hotel on 26th October 2022. This was particularly poorly attended, but the Board is most grateful to the Craigellachie Hotel for hosting this, as well as the Board's quarterly meetings.

SPEY DISTRICT FISHERY BOARD
INCOME AND EXPENDITURE ACCOUNT
FOR THE YEAR ENDED 30 SEPTEMBER 2022

<u>UNRESTRICTED FUNDS</u>	£	<u>2022</u>	£	<u>2021</u>	£
Income					
Fishery accessments		452,808		396,207	
Other income and Interest receivable					
Scottish Invasive Species Initiative	0		59,268		
Other operating income	95,274		71,065		
Government Grants	0		17,073		
Inver House allocation	0		20,000		
		<u>95,274</u>		<u>167,406</u>	
		<u>548,082</u>		<u>563,613</u>	
OVERHEADS					
Personnel Costs - (Note 2)		347,099		373,433	
Direct Expenses - (Note3)		72,842		65,263	
General expenses - (Note 4)		62,181		49,307	
Financial Costs- (Note 5)		2,257		1,691	
Spey Projects		23,064		10,815	
Scottish Invasive Species Initiative (Note 6)		0		59,268	
		<u>507,443</u>		<u>559,777</u>	
SURPLUS FOR YEAR		<u>40,639</u>		<u>3,836</u>	
<u>RESTRICTED FUNDS</u>					
Spey Catchment Initiative income		0		0	
Spey Catchment Initiative expenditure		0		(83,602)	
Movement in Spey Catchment Initiative Balance		<u>0</u>		<u>(83,602)</u>	

SPEY DISTRICT FISHERY BOARD
BALANCE SHEET
AS AT 30 SEPTEMBER 2022

	<u>2022</u>	<u>2021</u>
	£	£
FIXED ASSETS		
Tangible assets	60,782	79,833
CURRENT ASSETS		
Debtors	128,985	51,570
Bank - Current Account	163,055	168,685
	<u>292,040</u>	<u>220,255</u>
CURRENT LIABILITIES	<u>(71,966)</u>	<u>(59,871)</u>
NET CURRENT ASSETS	<u>220,074</u>	<u>160,384</u>
NET ASSETS	<u>280,856</u>	<u>240,217</u>
REPRESENTED BY:		
Unrestricted Funds	<u>280,856</u>	<u>240,217</u>

1. The above figures must be considered as draft until approved by the Board's Annual General Meeting.
2. These are abbreviated accounts. A copy of the Board's full Financial Statements, together with explanatory notes, will be published on its website (www.riverspey.org), once they have been approved at the Annual General Meeting.



Above: *A small number of the lucky anglers who caught and released a Spey salmon during the 2022 season. Many thanks to the photographers, in particular Mark Melville, Head Ghillie, Delfur Fishings, and Lewis Webb, Ghillie, Gordon Castle Fishings.*

Back Cover: *A selection of photographs of the Spey Fishery Board and Spey Catchment Initiative staff taken throughout 2022.*



SPEY

Fishery Board

since 1863

2022

