Spey Fishery Board

Annual Report

2024

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Contents

Spey Fishery Board

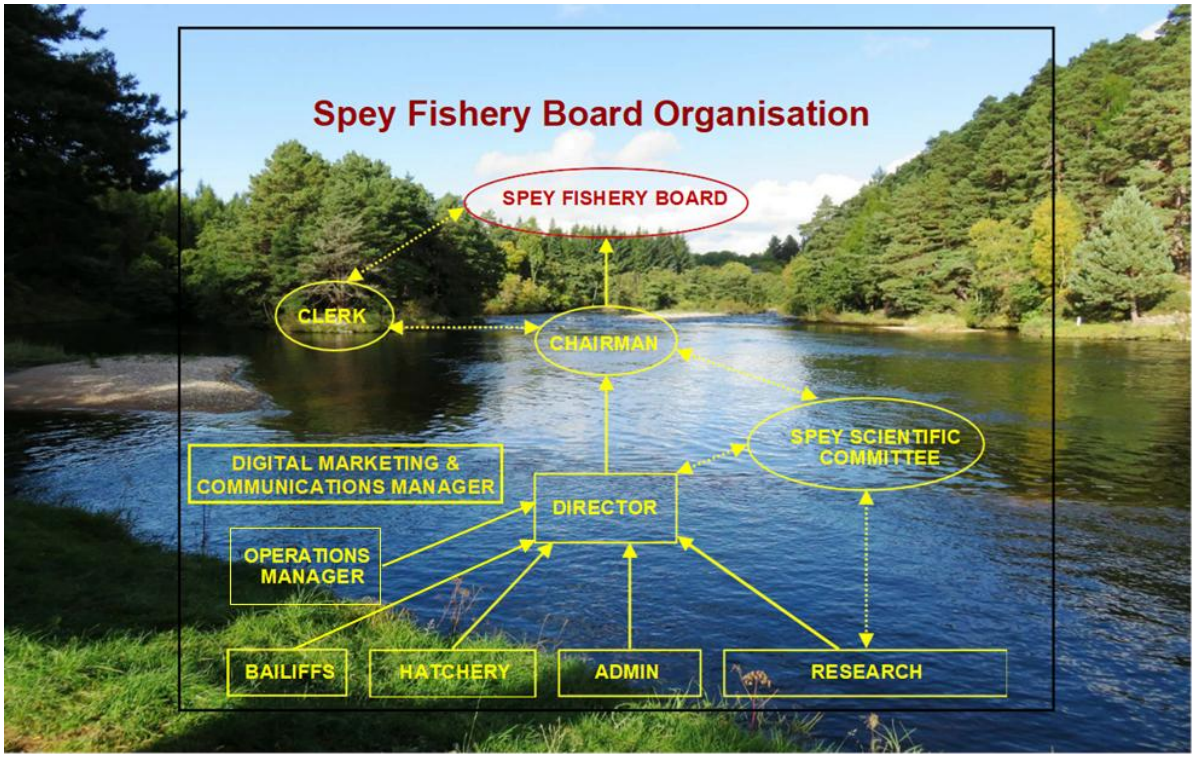
Chairman:	***Dr Alexander Scott***, Mandatory for Craigellachie Fishings
Proprietors:	***William Mountain,*** Delfur Fishings
	Guy Macpherson-Grant, Mandatory for Ballindalloch Trustees
	Angus Gordon Lennox, The G.C. Gordon Lennox Estate Company Ltd.
	George Wills, Mandatory for Knockando, Phones and Lower Pitchroy
	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 Kincardine
Co-optees:	***Grant Mortimer***, Strathspey Angling Improvement Association ***Sandy Howie, (Peter Austin from November 2024)*** River Spey Anglers Association
Invitees:	***Jennifer Heatley***, NatureScot (formerly Scottish Natural Heritage)
Clerk:	***Neil Torrance***, Mackinnons Solicitors

Spey Fishery Board Members Attendance at Board Meetings

Date	*Dr Alexander Scott*	*Angus Gordon Lennox*	*Peter Graham*	*George Wills*	*Guy Macpherson-Grant*	*Toby Metcalfe*	*Callum Robertson*	*David Greer*	*William Mountain*	*Sandy Howie/Peter Austin*	*Grant Mortimer*
09/02/24	X	X	X	X		X		X			X
26/05/24	X	X	X	X	X	X	X	X	X		
01/09/24	No meeting called										
22/11/24	X	X	X	X	X	X	X	X	X	X	

Spey Fishery Board Operational Team

Director	**Roger Knight (to June 2024)**
Hatchery Manager	**Jimmy Woods**
Operations Manager	**Duncan Ferguson**
Head Water Bailiff	**Richard Whyte**
Water Bailiffs	**Jason Hysert**
	Douglas Darling
Research	**Atticus Albright (Biologist)**
	Steve Burns (Assistant Biologist)
Scottish Invasive Species Initiative	**Karen Muller**
Office Administrator	**Pru Jowett (Part-Time)**
Digital Marketing &	**Paul Hughes**
Communications Manager	
Spey Catchment Initiative	**Penny Lawson (Project Officer)**



Chairman’s Foreword

2024 has been a year of change and progress for the Spey Fishery Board, but it is one that also brings its fair share of challenges. We are pleased to report a catch of 5,341 salmon and grilse, slightly above both our five-year and ten-year averages. While this is encouraging, the continued decline in sea trout numbers—only 560 caught—remains a major concern. While we celebrate the positive trends in salmon numbers, our work is far from finished.

This year, we bid farewell to Roger Knight, who retired after 16 years of exceptional service as Director. Roger’s vision and tireless efforts have shaped our approach to salmon conservation and river management, and we owe him a great debt of gratitude. As CEO of the Spey Catchment Initiative (SCI), Roger will continue to be a leading figure in the broader conservation efforts across the catchment, and we wish him all the best in this new chapter of his career. I have no doubt he will continue to make a profound impact on salmon conservation.

In the face of the ongoing decline in Atlantic Salmon and the dual biodiversity and climate crises, I am pleased to welcome Dr. Phil Williams as our interim Director. Phil brings a wealth of leadership experience and a fresh perspective as we work towards refining the Board’s strategy. In 2025, we will launch a new strategy that will sharpen our focus on maximising impact, improving resource allocation, and enhancing the long-term health of the River Spey’s salmon population.

A key focus this year has been the Smolt to Adult Supplementation (SAS) program, which we officially launched in 2024. This innovative initiative aims to boost salmon populations in the River Dulnain by rearing smolts in hatcheries and returning them to the river as mature salmon to spawn naturally. This is just one of the proactive measures the Board is taking to help safeguard the future of Atlantic salmon in the River Spey.

The broader landscape of salmon conservation continues to be deeply concerning. At the international level, Atlantic salmon have been reclassified as endangered by COP 28, a stark reminder of the precarious position of this iconic species. In Scotland, we still see a gap between the Scottish Government's Wild Salmon Strategy and its implementation. While the strategy provides a comprehensive framework, we have seen little in the way of tangible delivery, and this is a situation that must change if we are to secure the future of our wild salmon populations. The lack of sufficient action at speed is worrying and calls for a renewed focus on execution over strategy

development.

Climate change remains a significant and growing challenge for the River Spey. This year's break from hot, dry weather that gripped Scotland in 2023, cannot be relied upon and we remained focused on supporting work to improve the resilience of our rivers, cool our water and protect our salmon. The Spey remains one of the most heavily abstracted rivers in Scotland, and it is vital that we continue to push for better management of water flows, particularly during the warmer months.

This Annual Report provides a detailed account of the breadth and depth of our efforts over the past year. While there are limitations to what we can achieve due to regulatory constraints, such as the issue of predation from seals, I can assure you that everything within our power is being done. We are working tirelessly to mitigate the pressures on salmon and improve their chances of survival.

On behalf of the Board, I would like to extend my sincere thanks to all our staff, board members, proprietors, our dedicated ghillies, and all our partners who continue to work tirelessly on behalf of the River Spey, such as the Spey Catchment Initiative.

The challenges we face are considerable, but I remain confident that, together, we can protect the future of the River Spey's salmon for generations to come.

Tight lines to all.

Dr. Alexander Scott

Chairman – Spey Fishery Board

Spey Fishery Board
Strategy & Management Plan 2024

The Spey Fishery Board's statutory responsibilities have always been at the heart of all that it does. 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.

Part 1

Fisheries and Conservation

1.1. The Atlantic Salmon – now an officially endangered species

The Atlantic Salmon, once abundant across the Northern Hemisphere and in Scotland's rivers, is now officially classified as endangered in much of Great Britain (see www.atlanticsalmontrust.org and www.iucn.org – see Red List of endangered species). According to these organisations, Scotland accounts for 90% of the UK's wild Atlantic Salmon, and it has seen alarming declines, with some rivers reporting reductions of upto 70% in returning fish over recent years. In the Marine Scotland Assessment (www.marine.gov.scot) 'numbers of [wild] Atlantic Salmon returning to Scotland's coast have declined since at least 1971 and fail to meet conservation targets'.

Once a symbol of Scotland's pristine rivers, the wild Atlantic Salmon has become a barometer species of wider ecosystem health: by this it is meant that the fortunes of the wild salmon are telling us what's really happening to the wider environment. Habitat degradation is a central theme, with pollution and climate change, particularly warming river temperatures being major factors for declining numbers of wild salmon.

On the BBC series *Wild Isles*, Sir David Attenborough mentions 'the Atlantic Salmon could be extinct in our rivers within the next two decades'.

Despite this bleak outlook, there are many bright spots and efforts to tackle the problem that have been ongoing for some years now. Through the efforts of many organisations and local communities, organisations such as the Atlantic Salmon Trust, Fisheries Management Scotland and the 30 or so District Salmon Fishery Boards (DSFBs), of which the Spey Fishery Board is responsible for its district, have been major contributors to the conservation imperative.

The Spey Fishery Board, it would seem is at the very heart of the challenge and itself now at a key turning point in playing its part in wider efforts to bring the salmon and sea trout back from the brink. With the Spey Catchment Initiative now up and running, and long supported by the Board during its inception, many of the previous activities undertaken by the Board have since migrated and now rest on the broad shoulders of this initiative. In 2025, the Spey Fishery Board can now look forward to renewing its commitment and activities within a focused scope building on good foundations.

Such a turning point may seem daunting, especially with a recognition of the limitations to funding and choices of how to deploy scarce resources now more challenging than before. It's time to look to sound organizational disciplines, new ways of teaming together and innovation to lead the way. A strong emphasis on the origination and use of data underpinned by good technology will support sound science. Modernising the Board's profile and operations within financial and staffing limitations will be central. With a new Board arriving in February 2025, a new sense of urgency awaits its commencement.

One thing remains clear in that, with the clock winding down rapidly over the predicated 20 year time horizon, time must now be used as the driving factor for all efforts to achieve the desired outcome. Everyone benefits from more fish in The River. Also, the efforts of so many must be amplified and scaled by more cohesive alignments and alliances, with the Board perhaps seeking to extend its impact even if on a smaller footprint. Hopefully this Annual Review gives the reader a flavour for the challenges both of the big picture and those of the Spey Fishery Board in adjusting to an ever changing and agile future, as it too seeks a fresh start with new coalitions and alliances.

1.2. Salmon and Grilse Catches

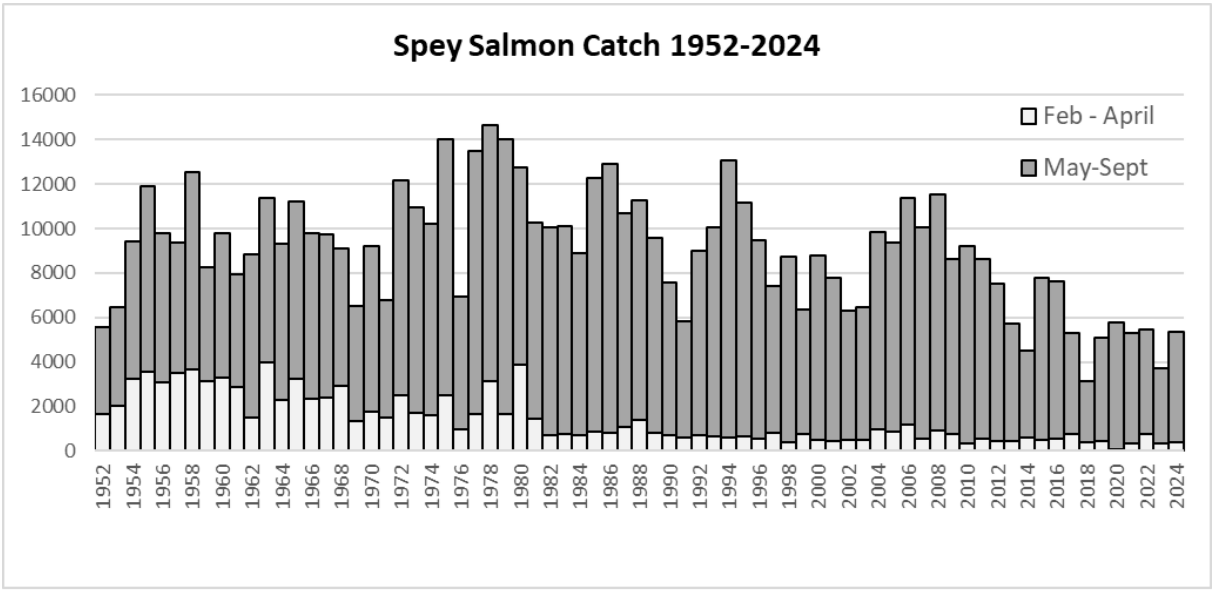
2024 saw a welcome change in fishing conditions from 2023, a year of low flows and high-water temperatures. Following the ending of 2023's El Nino conditions, Scotland saw a mild winter and a very wet summer in 2024, this meant that conditions were often favourable to salmon angling.

The declared rod catch rose to 5,341 salmon and grilse in 2024, just above the 5- and 10-year averages of 5,009 and 5,333 respectively. However, this average is lowered by 2023's catch of only 3,691.

The early spring catch (between the opening of the season- 11th of February to 30th of April) was again poor, with only 387 fish caught. Slightly higher than the 327 caught in 2023, it was still under half of 2022's spring catch. May saw a slight improvement with

440 fish caught compared to 291 in 2023. June's catch of 956 is saw the start of one of the best grilse runs in recent years, according to local ghillies, considerably above the 464 fish caught in 2023. The grilse run continued into July with 1,723 fish caught, mostly grilse, far above the 1,327 caught in 2023. August showed a slight improvement with 1188 caught against 941 in 2023. September also remained strong as 647 fish were caught, nearly double 2023's catch of 341.

A more in-depth examination of the 2024 catches and fishing conditions can be found on the board's website where weekly reports during the season are published.



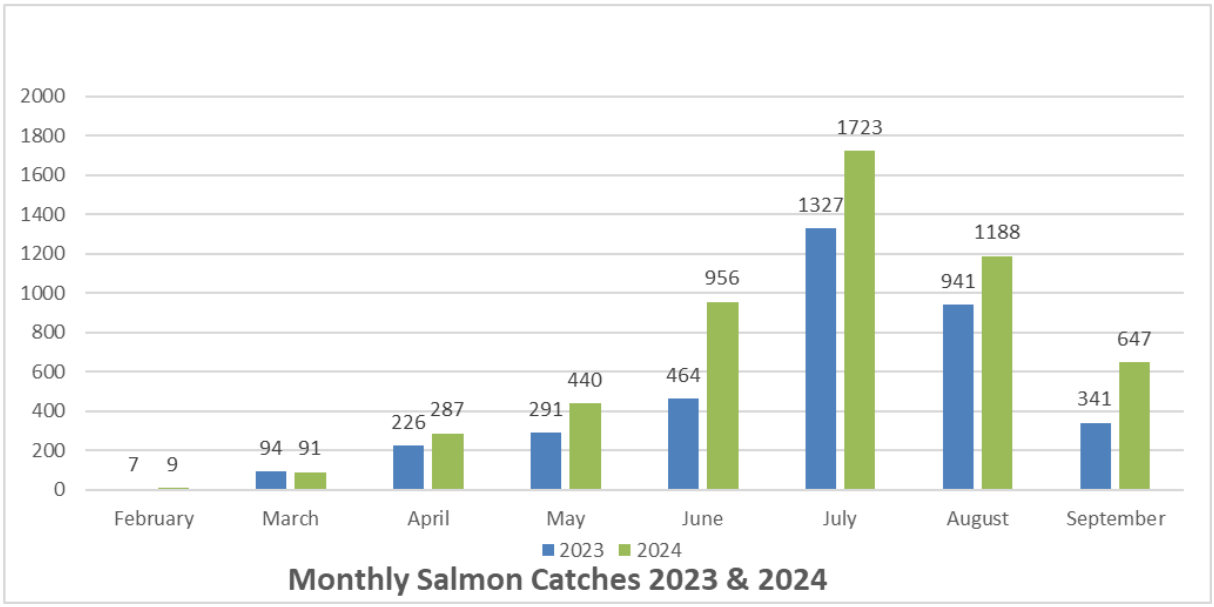


Figure 1.1 Spey Salmon Catch 1952-2024

(second chart: declared monthly rod catch of wild Salmon and Grilse from the River Spey in 2023 and 2024, data calculated from returns submitted to SFB.)

1.3. Sea Trout Catch

In stark contrast to the Salmon & Grilse rod catch, 2024 saw the lowest Sea trout catch on record for the Spey. Only 560 were caught in 2024, under half 2023's catch of 1,190 and the 5-year average of 1,171 whilst being nearly a third of the 10-year average catch of 1,598.

Summer is the season for sea trout fishing. However, 2024's wet and cold summer could have detrimentally impacted fishing conditions throughout. Regardless, the trend of July seeing the bulk of seatrout on the Spey caught, rather than the historically expected

June, continued. 2024 saw 159 sea trout caught in June (28.4 % of the total count) and 176 (31.4 % of the total count) in July. Therefore, these two months contained 59.8 % of the annual catch.

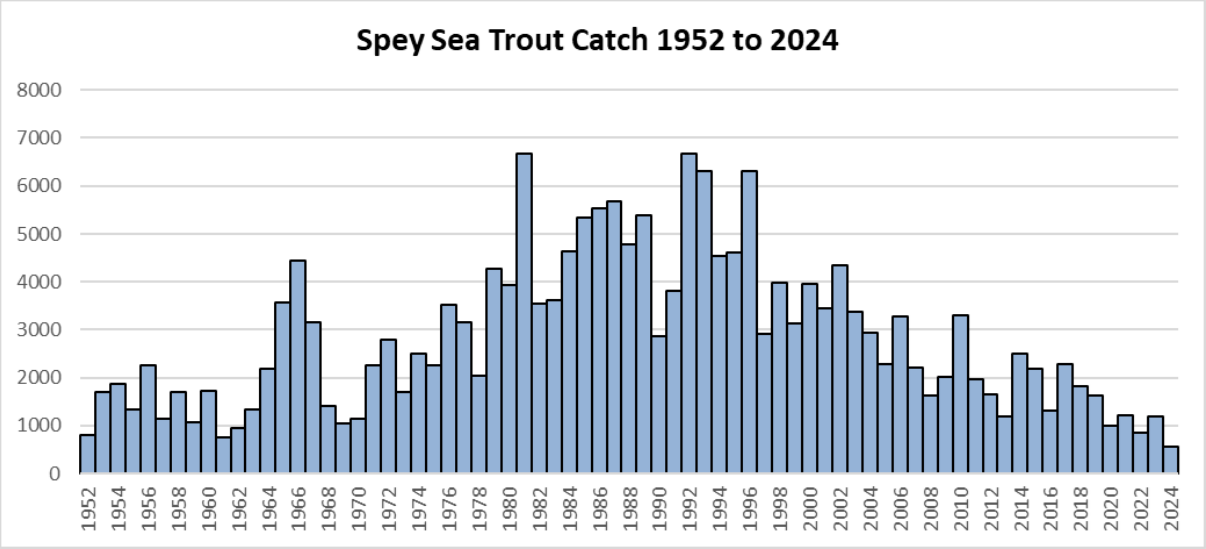


Figure 1.2 Spey Sea Trout Catch 1952-2024

1.4. Salmon and Sea Trout Conservation Policy

2003 saw the launch of the board's Salmon Conservation Policy, which aimed to see at least 50 % catch and release of salmon and grilse maintained within the Spey and in particular, the release of large multi-sea winter fish that are more valuable to population recruitment. In the following years it consistently exceeded expectations.

The 2024 season saw 99 % of salmon and grilse caught and released, an increase over the 98-97 % average over the previous 5 years. This is an excellent release rate to

maintain and through the voluntary action by the angling community, we are grateful to proprietors, ghillies and anglers for their continued support.

When it reviewed the Conservation Policy in November 2023, the Board concluded that the voluntary policy overall was working well and should remain unchanged for 2024. The Conservation Policy for 2025 is illustrated in Figure 6 and the SFB will continue to monitor the situation throughout the forthcoming year. The board's Salmon Conservation Policy has already been extended to sea trout, the anadromous form of brown trout, as under fisheries legislation they have the same legal status as salmon. This means District Salmon Fishery Boards are responsible for their conservation, protection and enhancement. Sea trout are generally large females and thus contribute disproportionately to egg deposition than small resident brown trout and so their conservation is a priority to maintain the population.

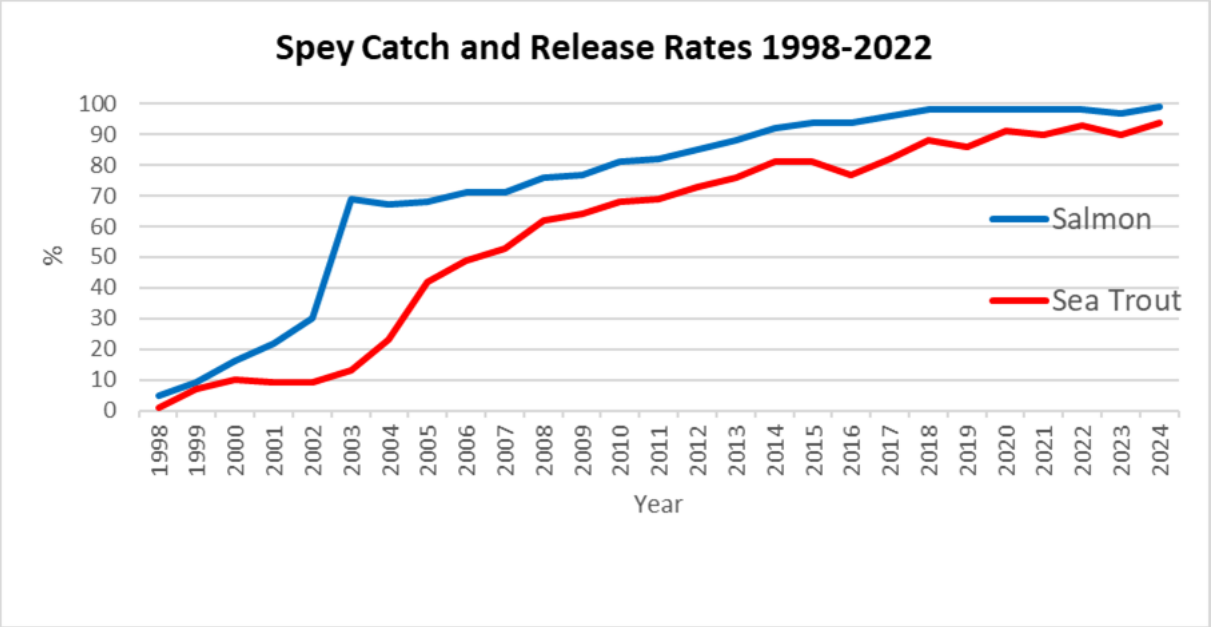


Figure 1.3 Catch & Release rates for Spey Salmon and Sea Trout 1998-2024

As previously mentioned, the sea trout catch on the Spey has alarmingly declined in recent years. Although 2024 saw an encouraging release rate of 94 %, 4% higher than 2023, the alarmingly low catch of 2024 indicates that further efforts in improving and maintaining a high release rate are required.

It should be noted that Fisheries Management Scotland (FMS) has indicated that they may wish for all members to adopt a voluntary 100 % catch and release rate for all salmonids. After discussion with local stakeholders, the SFB has decided to not adopt FMS's suggestion of 100 % voluntary catch and release as it was viewed that the current

conservation policy (Figure 4) should remain unchanged for 2025 with alterations if needed to be made for future years. This conservation policy will be in addition to the Conservation of Salmon (Annual Close Times and Catch and Release) (Scotland) Regulations of 2015 that make it illegal to kill wild Atlantic salmon caught before 1st of April each year.

As a final point, it is likely that non-native pink salmon (Oncorhynchus gorbuscha) will be captured by anglers in the Spey in 2025. Classified as an invasive species, it is illegal to release the fish alive if captured and to retain the individual fish. If any angler is to capture a pink salmon in 2025, the Board's advice is to humanely dispatch the fish, leave it on the riverbank and inform the board of its location so that it can be retrieved for further analysis. In addition to this, any captures or sightings should be reported on the app that FMS has developed specifically to monitor the spread of pink salmon in Scotland.

Figure 1.4: The Spey Fishery Board's Conservation Policy for 2024. N.B. Since January 2015, it has been illegal to kill wild Atlantic salmon caught before 1st April

SPEY Fishery Board since 1863

Spey Conservation Policy 2025

SPEY FISHERY BOARD RESEARCH OFFICE

Tel: 01340-871340 Website: www.riverspey.org

SPEY Fishery Board since 1863

Scottish legislation required 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

Release all finnock of 16oz / 35cm / 14" or less

Release all Sea Trout of 3lb / 50cm / 20" or above

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

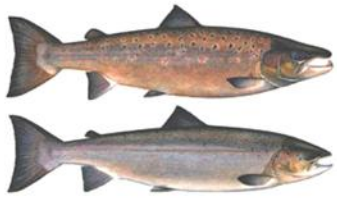
Release all stale or coloured fish

Release all unseasonable fish (smolts, kelts, over-wintered finnock)

SALMON

Each angler must return the 1st, 3rd, 5th etc... cock fish caught

All hen salmon and hen grilse must be released



Throughout the season all stale or unseasonable fish must be released e.g. gravid, kelts

Escaped farmed salmon must be retained

Part 2

Management Report

2.1 Overview by Interim Director

This Annual Review reflects on the Review Year which began 1 October 2023 and ended on 30 September 2024. So, for me, in joining the organisation on 15 October 2024 it represents a new challenge in writing a Review for a period where for the most part I wasn't living in the UK, nor least an employee of the Spey Fishery Board! Nevertheless, it does give me an opportunity to reflect on the great work of the operational team working for the Board day-to-day, and to cast an eye to the next Review Year, which began 1 October 2024, and the work I was asked to undertake in the two short calendar months of my interim stint before a long-term Director is appointed. I'd like to thank all Board Members and Proprietors for their time during the extensive interviews and travelling I've managed during an initial assessment of the Board. You've all been very welcoming and I appreciate it.

The first thing I'd really like to do is thank individually those in the team who have served the Board continuously for at least 20 years and in most cases nearing or over 30 years. My thanks and those of the Board go to Jimmy Woods, Duncan Ferguson, Richard Whyte, Steve Burns and Jason Hysert for their long service and their commitment to the Board made during this time in typically challenging daily circumstances, as Bailiffs, Hatchery Managers, Operations Manager and Research officers. Special thanks too should go to Pru Jowett, our Administrator, who many of you reading this Review may have spoken to or communicated with at some time over the previous three years she has been with the Board. We all wish Pru a happy and enjoyable retirement and hope to see you around on our travels in the Spey Community.

Of course, since I have thanked most of the team as it is, it would be unfair not to complete the acclamation by thanking our other team-mates. Firstly, Paul Hughes our

Communications & Marketing Manager, while being employed by the Spey Catchment Initiative has served the Board on a part-time basis since 2023. Paul has done a great job bringing social media expertise to the Board. Personally, I have always seen communications, and over more recent times social media platforms, as crucial capabilities for most and particularly issues-driven organisations like the Spey Fishery Board. Paul has helped the Board to navigate social media and grow levels of engagement on the Board's journey to creating a recognisable identity in pursuit of its conservation and protection obligations.

Atti Albright, our Biologist, while still a relatively 'new' member in the team has made a wonderful impact on the day-to-day activities of the Board. Always active, and on-the-go, Atti works tirelessly around the catchment in liaison with many of the major stakeholders including the crucially important ghillies that live and breathe The River. I'm sure Atti would also like to thank his seasonal support crew for the help they've also provided during the year.

I must add that I've enjoyed meeting many of the ghillies along the various Beats. Their knowledge of The River is unsurpassed and they continue to be essential to the way the Board and its operational team interact with the entire Spey catchment. I for one really enjoyed this year's Ghillies' Day, arranged by the Board's operational team and led by our Duncan Ferguson, whose knowledge particularly of the upper catchment is remarkable. And it was a particular pleasure to meet John Anderson, now retired after his 42 years of service with Tulchan Estate, and who will be guest of honour at the Board's 2025 Opening Ceremony. A big thank you here to Laura Irwin, Director of Tulchan Estate for supporting us and John in this regard.

The operational team's 'newest' colleague, Karen Muller also deserves praise for the way in which she has hit the ground running and rapidly established herself as an integral member of the team. You may recall from last year's Review, Karen joined the Board as an employee from NatureScot to manage the Board's contribution to the Scottish Invasive Species Initiative (SISI). In the short time since she arrived, Karen has earned the support and respect of all her team-mates: she has a fantastic capacity to manage others and brings essential programme and stakeholder management expertise to the team.

And last but by no means least, Doug Darling, one of our 3+ Bailiff team members led by Richard Whyte. Doug, again while relatively 'new' brings years of relevant experience to the team and fresh insights.

In the short time I've got to know the team, I really appreciate the support you've been able to provide, and in managing the day-to-day operations of the Board across the year. I'd also like to thank Paul, Atti and also Karen for their major contributions to the actual writing of the 2024 Annual Review.

As I've always found during my 40 years employed in the work environment, it's always important to begin with your team, even though it may seem a little indulgent, even when time is short or in difficult circumstances. It's really your team that does the front-line work and the Spey Board is no different, even when the weight of issues sometimes obscures the view. Acclamations aside there's no better way to thank the team ultimately than to reinforce the safety culture of individual and team-wide activities. While the team is already aware of and practices safe working, reinforcing safe practices is something we have already made a start on in the 2025 Review Year. Lone working is something we are particularly aware of, and with the often harsh weather the catchment experiences, we'll look to find new ways of working together even though limited resources across such a large geographic area present challenges.

Finally, a reflection on the financial outcomes of the Board for 1 October 2023-30 September 2024. While my short tenure as Interim Director began already into the next Review Year (2025), there has been a considerable amount of work to do to familiarize with and also analyse the Board's overall situation 'as-is'. I am conscious too that this Review Year's financial outcomes carry forward implications well into the new 2025 Year, and if not addressed would set the assumption base for the 2025 Budget. As my work on an initial review progressed, through the November Board a few weeks into my stint, it was clear that a number of matters were to be addressed so that the Board can continue to operate sustainably.

These matters include not least resetting the initial 2025 Budget assumptions, and also crucially, beginning to redefine the Scope of activities of the Board: the two go hand-in-hand since activities 'breadth' and cost 'structure' inter-relate fundamentally. You can't 'do' what you can't 'pay for'. In accounting terms, with a significant negative variance (overspend) in actual expenditures for last year compared to last year's Budget, it's prudent and good governance to identify and make plans for adjustments. These are part of the initial strategy and plans for 2025. Perhaps the more 'exciting' features of a new strategy will nudge along a little while the foundations are strengthened in our determination to bring the salmon and sea trout back from the brink.

Discussion of financials and Scope may well seem less important compared to the fundamentals of protecting and conserving the Spey's wild Salmon and Sea Trout populations - the Board's primary obligation under Statute. However, if one considers the first section of Part 1 of this Annual Review, raising the now endangered classification of the wild Atlantic Salmon, and how a new Board can address this turning point, hopefully a flavour of the difficulties and challenges for a 're-purposed' Board can be appreciated.

So, for the Board to continue sustainably in pursuit of these obligations, it must have a

sustainable financial outlook and Scope. I volunteered to help and join the Spey Board to save the Salmon. It's a passion of mine as those who know me will attest. But I also know from experience, one can't have an 'exciting new strategy' without first building on the right foundations, many of which have been put in place, some of which effectively migrated to the now up-and-running Spey Catchment Initiative. But, equally I think of a 'Coalition of the Willing' strategy built on firm foundations that could achieve some surprising results in Salmon numbers, sooner than later- and perhaps a happier set of paying Proprietors.

The above are the broad challenges of the 2025 Review Year beginning 1 October 2024! To recover Trust, reimagine the Board's Scope and repurpose it for this, the next quarter of the 21st Century. A new start where ears are close to the ground, and eyes focused on an ever-decreasing 20-year time horizon and counting. Where data and technology are understood better and harnessed cost effectively by a Board that aims for a scale impact by working with and trusted by others. It's a difficult transition for the Board and team to make and I've worked hard to support it and play my part.

With the current pressures on the pence in the pound Assessment levy (set at 88p in 2024 and held there for 2025) these challenges translate to immediate pressure on the 'Scope and value for money equation' (activities the Board does versus their net benefit to those paying for them). Recognise in this equation the dual roles of 'risk' and of Contracts go hand-in-hand. Contracts are relatively short-term projects that the Board undertakes paid work for and receives income which can vary in amount and timing.

For the Board, 'Contracts' represent a higher risk 'swing' income rather than a lower risk 'baseline' income. There's more risk because this type of work isn't guaranteed to turn up, and if it does, the organisation must be capable of delivering its contracted agreement within agreed timescales, and then collect what it's owed. This makes Contract income more difficult to rely on and to use it to set Budget assumptions, although it somewhat relieves the upward pressure on Assessment rates. Put another way, it's probably time to stop seeing Contracts as a supplement to Assessment income, as the means to meeting the overall expenditure Budget, and to start seeing it the other way around: i.e., manage costs within an agreed Scope of activities to balance with income from Assessments primarily and then supplement with possible (albeit uncertain) Contracts income. Where then should Scope and effort be focused and with what justification? Answering this is an important part of ongoing strategy development, all geared to sustaining the Board's conservation and protection efforts.

In taking this new approach, while it is harder for all, it recognises the pressures on Proprietors to limit or even reduce their Assessments. Not that Assessment income is to be assumed as a given: the Grampian and Highland Councils set the rateable value of Beats along the Spey River and the overall value is on a downward trend because it

is so closely linked to declining salmon catches. Without this new approach, and with declining salmon numbers, Beat rateable valuations can only decline, Board expenditure is increasingly challenged, putting further upward pressure on Assessment pence in the pound rates, and ultimately pressure on the viability of all Fishery Boards.

If a clearer incentive was needed other than the conservation value of the Atlantic Salmon, then focusing all efforts to increase salmon and sea trout numbers provides a very strong business case, because it would lift Assessment revaluations without having to raise the pence in the pound levy. And time is of the essence: both for Fishery Board viability and more importantly the 20-year horizon of the Salmon. This transition is not an easy pathway to navigate and it will increasingly drive our imagination and commitment to find new and effective ways to help salmon and sea trout numbers recover.

The Board continues to do Contracts work, mindful that any particular project falls within its Scope. Mindful too that Contract work is also at risk from the cancellation of major programmes, such as was the case in 2024 of the National Electrofishing Programme Scotland (NEPS), which would have accounted for a significant proportion of assumed Contract income. Getting the right balance between Contract risk appetite, the required capabilities to do the work and managing commercial contracts like these within an acceptable Scope is a key implementation challenge for the future Board at the end of this latest triennial period.

Finally…

Since I've thanked a number of people for their help in my first two and a bit months, I should also finish by thanking our Clerk, Neil Torrance of Mackinnons, and our Accountants and Independent Examiners, Frame Kennedy. Neil has been so helpful and supportive even with his own busy workload: were I need to be reminded, not least for the way he, Pru and I rapidly arranged our very first triennial elections for the Board. At Frame Kennedy, our Client Director Jillian Munro and Jack Kelman both deserve our thanks. Jack for always being supportive throughout the year and Jillian especially for helping bring our full year 2024 accounts completion forward by a full two months compared to earlier times. No mean feat and essential for me to do the work I needed to do on the 2025 Budget.

2.2 Strategy & Management Plan

During the 2024 Review Year, the current strategy remained in effect. The Scottish Government published its Wild Salmon Strategy in January 2022 and as last year's Annual Review noted, the SFB's Director, Roger Knight, had been part of the Advisory Group that created it. Although Roger has since moved on as the first CEO of the Spey Catchment Initiative in June 2024, he has subsequently been part of the Scottish

Government's Delivery Group to put the Strategy into place.

This Strategy represents the first time that the breadth of pressures and management approaches have been considered in full, to establish a new path of restoration and recovery for salmon in Scotland. However progress on implementation of the Strategy has been slow during the year and a number of the Delivery Group meetings were not held. With all that time spent on strategy, it's crucial to ensure implementation is followed-up.

In support of the Scottish Government Strategy, the Board developed its own Strategy & Management Plan and went out to consultation on it, to proprietors, ghillies and the wider public. While there is always need for change, the feedback was found to be largely in support of the Board Strategy.

The revised Strategy & Management Plan was published in 2022/23 and is illustrated earlier in this report. The Board continued to pursue this Strategy & Management Plan throughout 2024 and it provides a good platform for addressing some of the fundamentals that are now being revisited. With many of the elements of the Strategy migrated to the SCI, it is time to bring new features into the frame, with a strong focus on implementation and progress on a time-restricted basis.

2.3 Spey Catchment Initiative (SCI)

The Spey Fishery Board was instrumental in creating and setting up the Spey Catchment Initiative (SCI) throughout 2023, as well as providing it with substantial administrative and management support. Last year's Annual Review documented the work leading up to the establishment of the SCI.

This support continued for the remainder of 2023 and effectively through June 2024 on Roger Knight's departure to become the SCI's inaugural CEO. With the SCI up and running, some of the ongoing projects and functions reported in the 2023 Review migrated to the SCI – please refer to the SCI's website for further progress updates.

Habitat Restoration: The Spey Fishery Board continues to strongly support the SCI in its ongoing efforts to restore habitats throughout the Spey catchment. Our collaboration with SCI is instrumental in driving landscape-scale changes aimed at improving the health and sustainability of the river's ecosystems.

To enhance the effectiveness of SCI's projects, we generously second our Operations Manager, Duncan Ferguson, to support the Initiative's restoration efforts. This includes helping to implement projects on the ground and ensuring proper coordination between stakeholders. Our biologists also play a vital role in monitoring restoration sites, incorporating electrofishing surveys to assess the success of habitat

improvements and track the health of fish populations within restored areas.

In 2024, SCI continued to make significant progress on habitat restoration projects, including the following:

Conglass Water Restoration: In 2024, SCI began scoping a significant restoration project on the Conglass Water, a tributary of the upper River Avon. This project aims to plant native trees across 112 hectares, enhancing riparian habitats and providing shade to reduce water temperatures. The project also includes peatland restoration to help mitigate flooding and enhance biodiversity. Consultation with stakeholders and landowners is ongoing, with plans for grant applications in late 2024 and project implementation in 2025 and 2026.

Erosion Scar Restoration: On the Allt Mor, SCI has been developing a project to stabilise erosion scars that contribute to sedimentation and flooding. This innovative approach involves stabilising slopes using geotextiles and planting shrubs to encourage vegetation regeneration. This project aims to improve habitat quality and reduce sediment runoff, which impacts the river's water quality.

These projects, and others under development, demonstrate SCI's commitment to enhancing river habitats across the catchment. The Spey Fishery Board remains a key partner in these efforts, contributing resources and expertise to ensure their success.

2.4 Water Abstractions and Quality

The health of river habitats is crucial for all stages of a salmon's life cycle. Water temperature, particularly due to climate change, poses a significant risk to both juvenile and adult salmon, affecting their growth, reproduction, and survival. Water quality and quantity are critical factors for the survival and health of wild salmon populations. Changes in water flow and quality, especially in the face of climate change, can stress salmon populations and hinder their ability to thrive.

Last year's 2023 Annual Review gave a broad account of the Board's views regarding the river's overall health as well as the health of its fundamental ecosystem, catchment-wide. Several initiatives many external to the Board were noted and explanations provided, and these initiatives were taken into this 2024 Review year.

Progress has been slow during the Review year on several fronts and prospective completion dates, although progressed, have not been met. A notable development during the year was SEPA's decision to withdraw from the Board Meetings of all Fishery Boards.

Water quality sampling has been undertaken and results are emerging, offering some optimism and at least the prospect of a sound strategic underpinning through this valuable work. Discussions with SEPA on its national hydro initiative were promoted by

Fisheries Management Scotland (FMS, led by Dr. Alan Wells) and the SFB had an influential role in those discussions. Again, progress has been slow but there are some promising signs for rewatering the Allt Bhran and Cuaich. These are crucial tributaries which ultimately find their way diverted to the Tay River system: needless to say, their value to the Spey is significant.

2.4.1 Water Temperature Monitoring and the SRTMN

A central focus of the Spey Fishery Board's efforts to combat the rising threat of water temperatures is our involvement in the Scotland River Temperature Monitoring Network (SRTMN). This network is a collaborative initiative that helps monitor river temperatures across Scotland and assess the impacts of warming waters on salmon and other fish species.

Our team is actively involved in the inspection and offloading of temperature loggers placed along the lower end of the River Spey. These loggers help collect continuous temperature data, which is critical for understanding temporal changes in water temperature throughout the year. Any faulty loggers are sent back to the Marine Directorate for repair, ensuring that our monitoring efforts remain robust.

Established in 2013, the SRTMN now includes over 200 monitoring sites across Scotland. The data collected from these sites helps us predict future trends in river temperatures, assess areas at high risk of thermal stress, and evaluate the effectiveness of management actions such as shading or cooling efforts. This network is vital for understanding the wider effects of climate change on our rivers, and the data gathered is freely available on the Scottish Government website for use by all conservation stakeholders.

The SRTMN highlights the importance of collaboration in tackling the growing challenge of rising river temperatures. The Spey Fishery Board works alongside other boards and conservation trusts across Scotland to help maintain the temperature loggers and ensure that the data is used effectively for habitat improvement initiatives. The sharing of this data plays a critical role in focusing restoration efforts on the areas most in need, and we continue to advocate for the power of collaboration to ensure the survival of Scottish salmon.

2.4.2 Barriers to Migration

Barriers to migration, such as dams, weirs, and culverts, restrict salmon movement and prevent access to vital spawning habitats. These barriers are often remnants of past developments and impede the natural migratory patterns of salmon. The following projects were begun in 2024 to address and

evaluate some of the key challenges:

Spey Dam Smolt Tracking Project: a critical initiative led by the Spey Fishery Board to assess the impact of the Spey Dam on smolt migration. The project aims to monitor and understand how smolts are navigating the dam, which has historically been a significant barrier to the natural migration of juvenile Atlantic salmon. This research is key to ensuring that we can improve smolt passage and help secure the future of the salmon population in the River Spey.

In 2024, 306 smolts were captured above the Spey Dam using a Rotary Screw Trap (RST), a proven method for capturing migrating fish. Each smolt was tagged with a PIT tag (Passive Integrated Transponder) to track its journey downstream. This method allows for precise monitoring of the smolts' movements, helping us understand where and why migration may be hindered.

The data from this year's smolt tracking is still being analysed, but preliminary findings suggest that 43.1% of the tagged smolts were successfully recaptured downstream. This data provides critical insights into the smolt migration process and helps us assess the effectiveness of the dam in allowing safe passage for juvenile salmon. It also allows us to examine the environmental factors that may contribute to smolt mortality, such as thermal stress or predation.

The Spey Dam Smolt Tracking Project has a dual purpose. Firstly, it helps assess the immediate impact of the Spey Dam on smolt survival rates, and secondly, it informs future strategies for improving fish passage. We aim to use the findings to advocate for potential improvements to the dam's infrastructure, such as the installation of fish passes or modifications to dam operations that would facilitate safer migration routes for smolts.

In addition to tracking smolt migration, the project also helps identify critical habitats for smolts before they reach the dam. By understanding the distribution of smolts in relation to environmental factors, we can pinpoint areas that require focused restoration efforts to improve their ability to support juvenile salmon. This data will inform our broader habitat restoration strategy and help prioritize areas for future conservation work.

The findings from this project also align with other important research efforts to understand how climate change is affecting salmon migration. As temperatures rise, warmer waters upstream of the dam could exacerbate the challenges faced by smolts. By tracking migration patterns and correlating these with water

temperature and flow data, we can better predict future risks and take proactive measures to protect migrating fish.

The Spey Fishery Board remains committed to ensuring that the data gathered from this project is used to influence policy and help inform future management decisions regarding the Spey Dam and smolt passage. Our goal is to implement strategies that improve the success of smolt migration and support the long-term sustainability of Atlantic salmon populations in the River Spey.

Ringorm Burn Barrier Removal: Alongside our work on the Spey Dam, the Spey Fishery Board has also been working with Macallan Distillery to address a significant barrier to fish migration on the Ringorm Burn. This project involves assessing and potentially installing a fish pass to improve access to spawning habitats.

In 2023, we collaborated with Dr. Kenny MacDougall from Envirocentre to evaluate the barrier and determine the best approach to installation. Although exploratory digging was delayed due to adverse weather conditions, the work was finally completed in early February 2024. We are now awaiting the fish pass designs and recommendations from Envirocentre, with the goal of implementing the project in 2025.

This effort aims to restore connectivity for salmon and other fish species, ensuring that they have safe passage to essential spawning grounds. By removing or mitigating barriers like this, the Spey Fishery Board is making strides toward improving the overall health and sustainability of the river's ecosystem.

2.5 Angling, Canoeing and Access

Please refer to last year's Review. No significant developments in 2024. It is worth adding, the Board is conscious of the breadth of interests and pursuits along the river. While the remit of the Board is limited and reasonably defined from its Scope, the wider and diverse interests of the community are of key significance in engaging all stakeholders to play their part in conserving salmon and sea trout numbers. In 2025, the Board will explore new and better ways to engage community in supporting conservation efforts.

2.6 Salmon Stocking on the Spey

As noted in last year's Review, 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 reasons have prompted the establishment of hatcheries on the Spey, including declining catches or stock components, or UDN-associated mortalities.

For context, 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 in-crease 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.

Even with this history in mind, stocking, hatcheries and associated efforts have become a highly polarized and polarizing issue. There is no current consensus and views prevail across the spectrum ranging from virtually ruling out stocking (on biological, genetic, ecological and arguably moral grounds) to impassioned cries for further investment to avoid the so-called 'black rhino' scenario.

These views are very difficult for the Board to manage and consultations have also failed to resolve matters, with fresh approaches needed. In 2024, the Spey Fishery Board launched the Smolt to Adult Supplementation (SAS) program. The goal of the SAS program is to help boost the salmon population in the River Dulnain, a vital tributary of the River Spey. Through this initiative, smolts are captured, raised in hatcheries, and then returned to the river as adults to spawn naturally. This program increases the number of spawning fish without removing adults for broodstock.

In addition to the Smolt to Adult Supplementation Program, the Spey Fishery Board continues to support juvenile salmon stocking. This is particularly important in tributaries where wild populations are not sufficient to sustain spawning numbers. These stockings ensure that the River Spey maintains a robust salmon population, supporting both the environment and the local economy

2.7 Pollution Incidents

No pollution events were recorded. The Board will continue to issue notices to encourage anyone who finds dead fish on or near any watercourse to contact SEPA via its Pollution Hotline on **0800 80 70 60** or online.

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

The Board previously reported that NatureScot had successfully secured over £2 million from the Nature Restoration Fund for a second phase of the Scottish Invasive Species Initiative (SISI) Project, which had been running for four years and will now run until April 2026.

Our SISI Project Officer, together with volunteers, land managers, ghillies, estate staff and Fishery Board staff, continued in 2024 to strategically control the upper extents of invasive plants along the mainstem Spey, the Mulben burn, River Fiddich and for the first time on the Burn of Tynet. Monitoring and trapping for American mink across the catchment has also continued. A novel approach of using a pressurised spray tank, mounted on a tractor with a cage, has also been effectively deployed, enabling large infestations of Japanese knotweed to be treated in a short amount of time.

An on-going priority for the project is to establish a legacy strategy, so that the situation does not revert to the way it was. Our Project Officer has liaised with local landowners/managers to seek letters of support that will provide local assistance from them with this, to ensure the maintenance of progress made to date. It is anticipated this work will continue as responsibility is increasingly handed back over to landowners/managers and the SISI project builds capacity to move efforts strategically further downstream to new areas to be taken under management.

Invasive non-native plants

Since 2018, the Scottish Invasive Species Initiative has been working in the Spey catchment area to target invasive species like giant hogweed, Himalayan balsam, Japanese knotweed, Himalayan knotweed, and American skunk cabbage. Invasive species dominate riverbanks, outcompeting native plants and leaving the area bare and prone to erosion after their annual winter dieback. This has a severe negative impact on native biodiversity in riparian habitats.

The goal is to eradicate these plants by starting at the uppermost sources of infestation and working systematically downstream. This strategy helps reduce the chance of seeds

or plant/rhizome fragments using the watercourses as a pathway for spread, reinfesting areas already under control or spreading further downstream into areas not yet under management. Control efforts, coordinated and carried out by SISI staff, involve contractors in many of the worst affected areas, and strategic control to fill the gaps by SISI staff, working alongside volunteers, ghillies, gamekeepers and groundskeepers and supported by SFB staff. Additional funding from landowners and stakeholders supports the multi-year approach to make and maintain progress in the fight against invasive species, with many thanks to: Crown Estate Scotland, Forestry and Land Scotland, Orton Estate, Moray Council, Crisp Malt, Ian and Clare Mattioli Charitable Trust/Amati on behalf of Gordon Castle Estate, William Grant, Diageo and Strathdee Properties. Equally invaluable is the buy-in and support from landowners and managers on the ground, carrying out their own control or working with the SISI project staff. This support is essential for the long-term sustainability of the project.

Giant hogweed

Giant hogweed takes three years to grow from a seed to a flowering plant, and each plant can produce 25,000 to 50,000 seeds that can stay viable in the soil for over 10 years. Controlling this plant requires a multi-year, systematic approach, starting at the most upstream source points. The key focus, as part of the overall control programme, is to prevent new plants from flowering and producing seeds, as this would add to the seedbank and make eradication take even longer. Most sites have dense infestations of both giant hogweed and Japanese knotweed. Controlling giant hogweed is especially challenging in areas with heavy Japanese knotweed growth because it limits visibility, makes access difficult, and reduces the effectiveness of control efforts.

Giant hogweed control in the Spey catchment spans from the Mulben burn down into Fochabers AA, alongside the Burn of Tynet. A total of 609 hours was spent controlling giant hogweed in 2024 along 62km of riverbank under current management.

Japanese knotweed

Japanese knotweed spreads only through plant and rhizome fragments, as it does not produce viable seeds. Control efforts are generally very effective since no new plants grow from a persisting and built-up seedbank, although follow up treatment is required to treat any new strands growing from remaining rhizomes in the soil. The best results are achieved when the infestation can be treated from all sides, ensuring complete coverage of the stand. On the Spey, knotweed stands have often merged together after years of unchecked growth, forming long and wide stands - these larger and less accessible areas may take several years to manage, requiring gradual progress to reach and treat the centre of the stand. In both cases, initial treatments significantly reduce the time and effort needed for follow-up in later years, allowing rapid progress into

larger infestations or expansion into downstream areas.

Japanese knotweed control in the Spey catchment spans from the Mulben burn and Dufftown on the Fiddich down into Fochabers AA, alongside the Burn of Tynet. In 2024, a total of 885 hours was spent on Japanese knotweed control along the 59km of riverbank currently under management.

In 2023 and 2024, an innovative method has been used in areas on the Spey with good access tracks to tackle Japanese knotweed quicker and more effectively. This involves using a spray tank and a tractor-mounted cage to gain height and reach deeper into large stands. The results have been highly promising, with a significant reduction of knotweed in treated areas and recolonisation of native plants in places once dominated by the invasive species. A 5.4m extendable lance operated with a knapsack has also increased efficiency of reaching into stands in areas that are not accessible with the spray tank.

American skunk cabbage

Following a request for reports of American skunk cabbage in the Spey catchment in early 2024, several previously unknown locations were taken under management for the first time. A total of 28 hours of treatment in reported areas has been carried out in 2024. Treatment and monitoring will continue in these locations until eradication has been achieved.

White butterbur

Since 2023, white butterbur is no longer a target species of the Scottish Invasive Species Initiative. However, control has been coordinated by SISI to be carried out by contractors on the River Fiddich, following funding provision by distilleries and a corporate volunteering day was held with Bacardi to treat an area of butterbur and Himalayan balsam.

American mink

2024 was a record-breaking year for mink captures on the Spey since the beginning of the project in 2018, with 38 mink captured in SISI operated traps alone. Just over half of those captures were of settled breeding animals, especially females, during the spring and early summer months, which is particularly effective in helping to supress numbers. The other half were caught later in the summer as females emerge from their dens with the juveniles, in the period leading up to juvenile dispersal and during dispersal. The mink network was further expanded with new volunteers on-boarded, now with over 100 rafts and traps active across the catchment. The trapping and monitoring is only possible due to the 64 volunteers, including members of the public,

ghillies and keepers, adopting monitoring rafts and live capture traps across the Spey catchment. Increased use of smart traps (live capture traps fitted with Remoti units) allows for more consistent trapping, while limiting volunteer fatigue, and has shown significant improvement in consistently active trap numbers across the year and resulting capture numbers.

2.9 Beavers

A meeting with the Cairngorms National Park Authority (CNPA) and students studying beaver impact was held during the year. Board team members have joined the SBAG Fish & Fisheries subgroup to provide feedback on monitoring beaver impact. The team seeks to maintain continued engagement with the CNPA and systematic monitoring of ongoing developments, including a monitoring protocol for impacts of translocated beavers on salmonids.

2.10 Predation: Sawbill Ducks, Cormorants and Seals

Like issues surrounding stocking and hatcheries, predation continues to be a hot topic for all involved in the health of the river and the survival of the salmon and sea trout. Opinions are diverse and impassioned and regulation has so far only provided a limited envelope for those responsible in managing the river's health. Regulation includes the application for and operation of predation control licences for both Sawbills, Cormorants and Seals.

While a distinct and very important issue in its own right, Seals and salmon predation represents a major issue for many Proprietors along the river. Last year's Review substantially discussed the issues regarding seals and predation. This was written largely with the regulatory environment and licence conditions uppermost, demonstrating the difficulties in predation management and enforcement of licence conditions. Overall, matters have not improved. The issue remains a crucial one on the lower stretches of the river, while the regulatory and ecological frameworks substantially limit controls. Some efforts are underway to explore technological opportunities such as Acoustic Deterrent Devices (ADDs), but results are unlikely until largely towards the end of the year, perhaps later into 2025.

Again, while distinct and important issues remain for all forms of predation control, it's difficult not to recognize an emerging overall theme that reflects the complex interplay of ecological needs versus community-based traditions and customs. Regulation and licences are today the instrument of management and control: but, with limited resources on all fronts, whether in the government agencies or district fishery boards, it's difficult to project any easy pathway forward for resolving differences of opinion. And, while the Atlantic Salmon is now recognized as an endangered species, there are views in the community that the Salmon is bearing the brunt of conservation efforts sometimes at its expense.

It is not clear how the agencies involved will adapt and respond to the endangered species classification of the threatened wild Atlantic Salmon. As mentioned above, there are several factors involved in this complex interplay, and the Board has largely needed to be in a defensive position adapting to the new licence conditions and regulations. There is a new balance to be struck between Salmon predation by other wild animals and the short timeline to local extinction of the fish. The Board will be determining its role in striking that balance from a standpoint of limited resources. However, what is clear is that data, sound science and robust strategy execution will be core to the approach, if the resources and funding can be directed that way.

2.10.1 Seal licence update

In collaboration with Dr. Alan Wells of Fisheries Management Scotland (FMS), the Spey Fishery Board engaged with the Marine Directorate after the 2023 licence application was rejected. Although Marine Scotland Licensing & Operations Team (MSLOT) had indicated that Category 1 Rivers were eligible for licences, the Marine Directorate agreed with NatureScot, asserting that salmon exploitation in these rivers was sustainable and alternative methods should be explored first.

After submitting a revised 2024 seal licence application, we received feedback in April, raising concerns about the classification of seals entering freshwater and whether all seals preyed on salmon. The Board addressed these concerns and amended the Method Statement to clarify seal identification requirements.

By April, there was a shift in the government's stance, acknowledging that seals are protected until 1st April, making the previous position on sustainable exploitation no longer applicable. Discussions between the Marine Directorate and NatureScot have led to the likelihood of a limited seal licence being granted, valid from the start of the season until 31st March, for 2025-2027. While this is a positive step, the Board plans to appeal and challenge the terms for a broader licence in the future.

In July 2024, the Spey Fishery Board was granted a seal licence, allowing for the culling of one grey seal per year between 1st January and 31st March for the next three years. The Method Statement emphasizes that shooting a seal is only a "last resort" and requires full documentation and reporting. Although this licence is limited, it represents progress and could pave the way for a more expansive seal management approach in the future.

2.10.2 Acoustic Deterrent Device Strategic Trial

A critical aspect of the Spey Fishery Board's predation control strategy is the ongoing Acoustic Deterrent Device (ADD) trial. These devices are designed to emit sound frequencies that deter seals from entering key areas of the river and preying on salmon smolts. The Spey Fishery Board has received two portable ADDs as part of this trial, aimed at providing a non-lethal alternative to seal management.

The trial is funded through a collaboration with Fisheries Management Scotland (FMS) and NatureScot, with the devices supplied by Wildlife Acoustics, a company specializing in wildlife monitoring equipment. The trial was seen as a crucial first step before any potential lethal control measures for specialist seals could be considered. Testing ADDs allows us to explore non-lethal methods for managing seal predation on salmon smolts while monitoring the effectiveness of such solutions.

The trial was conducted during the peak summer months, when predation pressures are highest. However, initial results have been less promising than hoped. Despite efforts to deploy the devices in key locations, many seals appeared to ignore the devices, passing by without showing any noticeable deterrence. This has raised questions about the effectiveness of the devices, as the seals seem largely unaffected by the sound frequencies emitted by the ADDs.

While the Spey Fishery Board is committed to testing ADDs as part of a broader seal management strategy, these early results suggest that the deterrent effect may be limited. The trial continues, and additional data will be collected to further assess whether the devices are effective in reducing predation or if alternative measures will need to be explored.

To address concerns regarding potential disturbances caused by jetski use in deploying the ADDs, the Board transitioned to using a Kevlar-reinforced inflatable kayak, which provides a quieter and more portable solution for deploying the devices without disturbing fish or other river users.

This ongoing trial will provide vital information for future seal management decisions and determine whether ADDs could be a sustainable, long-term solution to predation, or whether we may need to pursue alternative approaches.

2.11 Fishery Protection

Akin to Predation Control and Conservation, Fishery Protection remains a fundamental part of the Board's Scope of activities and operational duties. In 2024, the Spey Fishery Board joined the Our Seas Coalition, a campaign advocating for stronger protections for Scotland's coastal waters. This initiative focuses on restoring seabed habitats and ensuring that coastal waters remain healthy for salmon smolts. The Board's membership in this coalition supports its broader mission to safeguard salmon populations by improving marine habitats essential for their survival in the early life stages.

For protection and enforcement, as in 2023, 2024 has been another challenging year. 2024 saw more water flowing down the river, and when there's more water there's generally more fish: sadly, with more fish, also more poaching. The Spey Fishery Board significantly enhanced its bailiffing activity in response to a rise in poaching incidents.

In 2024, the Board recorded 54 poaching incidents, a significant increase compared to previous years. The bailiffs conduct daily patrols, both on foot and by boat, covering key sections of the River Spey to enforce fishing regulations and prevent illegal activities.

The Board works closely with Fisheries Management Scotland to strengthen its enforcement efforts. The partnership ensures that the Board can advocate for stronger policies at the national level and share best practices for enforcement. The collaboration also helps to raise awareness among the public and local stakeholders about the importance of sustainable fishing practices.

The SFB's Head Water Bailiff also continues to be a member of Police Scotland's 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.

Continued coastal patrols between the Boar's Head stretch of coastline and Cowhythe Head, using the Board's commercially-coded 6.4m Rigid-hulled Inflatable Boat (RIB), provided additional support to protection and law enforcement activities. However the RIB sustained some damage during operation prompting a brief review of a range of options for maintaining efforts, including renting the required capabilities.

2.12 Administration and Staffing

June 2024 saw the retirement of Roger Knight, who served as the Director of the Spey Fishery Board for 16 years. His leadership was instrumental in advancing the Board's conservation efforts and guiding the Board through many challenges. During his time,

Roger's vision has seen the Board move from a fishery board to a conservation organization, with boots on the ground and social media. It marks the end of an era, and the Board thanks Roger for his service and vision.

Following Roger's departure in June, on 15 October, 2024 Dr. Phil Williams was appointed as Interim Director. The Board is grateful to Phil for volunteering to assist the Board on an interim basis. He brings significant leadership experience to the role, with a background in engineering, business, and strategic planning. The Board appreciates Phil's task commences already into the new 2025 financial year, from a standing-start. His appointment represents a fresh start for the Spey Fishery Board, and the Board is excited to work with him on shaping the new 2025 strategy, which will focus on maximizing our impact and using resources effectively to address the ongoing challenges in salmon and sea trout conservation. The search for a longer-term appointment begins in February 2025.

There were no other additions to the Board's staffing during the Review year (October 2023-September 2024). Pru Jowett, the Board's Administrator retires in January 2025.

Part 3

Spey Scientific Report

Although the 2023 season did not involve the excessive temperatures we had experienced in 2022, particularly low flows throughout the start of the year, followed by flooding in the latter stages of the season, all hindered our fieldwork. Moreover, with the renewal of the National Electrofishing Programme for Scotland (NEPS) and numerous smolt projects, the Research Team has been working at full capacity to achieve our targets. The Board is grateful to seasonal Assistant Biologist Kevin Greensill and seasonal interns Sacha Forbes-Leith and Charles Brew for their invaluable assistance during another busy year.

2024 has been a year of change for the SFB. Although the salmon catch has increased notably over last year, sea trout rod catches have declined alarmingly. Although partly attributable to unsuitable fishing conditions for sea trout in 2024, this record low is still highly unsettling and requires both investigation and action.

Regarding fieldwork, 2024 was frequently hindered by high flows and flood events. Nonetheless, projects across the year were still completed. These ranged from refreshed smolt trapping projects to electrofishing monitoring and new invertebrate sampling across the catchment.

It should be reiterated that none of these projects would be possible without the aid of multiple staff members and local stakeholders. These partners include, but are not limited to, my assistant Steve Burns, our seasonal field assistant Finn Cowell, the bailiff team, land managers and ghillies. I am immensely grateful to all parties for facilitating the board's fieldwork and hope to continue collaborations in future years.

Figure 3.1: Finn Cowell pictured with a Brown trout (courtesy Atticus Allbright)

On a final note, seeing Roger Knight leave the organisation and Dr Phil Williams take up the post of director in his stead has been bittersweet. I am excited by the potential that Phil brings to the board and cannot wait to work alongside the board and outside organizations to refine, strategise and focus our efforts following the 2025 triannual elections.

3.1 Electrofishing

Overall, 2024's electrofishing results have been disappointing and slightly concerning. It may be that the record amount of winter spates combined with a large-scale fish kill event in 2023 have affected recruitment across the system. I sincerely hope that this year's findings are an anomalous result and not a sign of a new baseline.

3.1.1 Mainstem Results

The state of juvenile salmonids across the system in 2024 is alarming. The mainstem results have been particularly poor. 2024 shows the lowest fry count on record at an average of 11.2 min^{-1}, almost half the series average of 21.0 min^{-1}. Whilst parr have also dropped from the record highs of 2023 to an average of 2.8 min^{-1}, they are only slightly below the series average of 3.4 min^{-1} .

		Salmon fry/min												
Site code	Location	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
S07R1	LW2	24.7	22.7	16.3	27.3	5.7	46.3	9.7	3.3	16.3	10.0	16.0	10.0	0.7
S012R1	LW1	11.3	17.0	17.3	20.3	10.7	14.7	44.3	3.0	20.7	10.0			
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	35.7	7.0
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	19.0	9.0
S025L1	Gordon Castle	7.7	26.0	23.0	26.0	20.7	24.0	22.3	17.7	44.3	15.7			
S029L1	Orton Water	6.3	41.0	15.0	31.7	15.7	29.0	28.3	14.7	43.7	21.7			
S032L1	Orton Water	9.0	44.0	17.7	28.3	14.7	36.3	42.7	19.3	25.7	46.3	39.7	46.7	8.7
S034R1	Delfur	19.7	12.0	55.0	27.0	5.0	27.7	24.7	11.3	39.7	21.0	32.0	28.3	5.7
S040L1	Delfur	6.7	14.0	13.3	22.0	4.7	50.3	22.7	15.7	24.7	19.0			
S040L2	Delfur		90.0	66.0	29.0	15.7	52.7	61.3	30.3	49.3	75.3	124.3	31.7	
S042L1	Rothes	7.7	44.0	10.3	14.7	12.0	31.7	6.0	11.3	12.7	14.7			
S047L1	Rothes	6.3	9.3	9.0	18.3	4.7	21.7		6.3	19.3	12.3	11.0	23.7	3.0
S050R1	Arndilly	13.7	29.7	28.3	16.0	13.3	31.0		17.3	21.0	20.0	25.3	19.3	10.0
S052L1	Arndilly	15.7	15.7	19.7	23.7	9.3	21.3		13.3	31.0	15.3			
S056L1	East Elchies	17.7	34.7	43.7	39.7	16.0	50.3		38.3	52.0	29.3	51.0	44.0	13.3
S059R1	Craigellachie	36.7	28.3	33.3	23.0	17.3	45.7	24.7	20.3	47.7	17.3		36.7	8.7
S060R1	Craigellachie	13.0	12.3	23.0	11.7	17.7	20.3	15.3	13.3	29.0	13.0			
S061R1	Craigellachie	20.3	12.3	22.0	10.0	4.7	16.0							
S062L1	Macallan							32.3	16.7	47.3	24.0	43.0	26.7	15.7
S066R1	Aberlour	10.0	15.3	27.7	17.0	11.0	31.3	15.7	19.0	30.3	21.0	14.3	18.0	7.3
SO68L1	Wester Elchies		15.7	12.0	9.3	3.3	38.7	1.3	10.3	25.7	19.7	18.7	33.3	9.0
SO72L2	Wester Elchies		19.3	7.3	28.3	3.0	22.7	18.3	16.7	34.3	14.3			
S074L1	Laggan	7.0	5.3	9.0	13.7	2.0	18.0	8.3	9.0	21.3	12.0	24.0	9.3	13.7
S077L1	Laggan	36.7	10.0	31.3	27.7	7.7	32.0	18.3	21.7	60.3	28.0			
S079R1	Carron	15.7	31.0	16.3	18.3	11.7	27.0	8.3	21.7	45.0	28.3	18.7	8.3	9.3
S082L1	Knockando	8.3	9.3	17.7	15.0	8.7	18.7	5.7	11.7	32.0	16.7	20.0	4.3	12.0
S087L1	Phones		3.7	6.0	4.7	0.7	7.0	3.3	3.0	12.3	4.0			
S093R1	Lower Pitchroy	21.3	25.7	20.3	41.7	16.7	40.7	25.3	43.7	58.3	27.3	44.3	21.7	23.0
S096R1	Ballindalloch	11.0	20.0	49.0	37.0	20.3	52.0	30.0	27.7	69.7	31.3	46.3	32.7	19.0
S104L2	Ballindalloch	20.3	61.3	40.7	43.0	25.0	54.7	45.0	26.0	79.3	51.3	53.3	28.7	17.3
S105L2	Tulchan D	35.0	65.7	33.7	45.7	33.3	39.0		26.0	49.0	45.3			
S112L1	Tulchan C	10.3	35.0	11.3	31.3	14.7	28.7		27.0	43.0	26.0	44.0	13.7	10.7
S119L1	Tulchan B	28.0	30.7	10.0	27.7	12.7	31.0		19.0	30.7	30.0	22.7	16.3	9.0
S124R1	Tulchan A	13.0	38.0	14.7	18.7	11.7	33.7		9.3	29.0	18.3			
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	27.3	25.0
S135L1	Castle Grant 2	17.7	44.0	36.3	20.0	10.0	32.3	49.3	16.3	36.3	26.3			
S141L1	Castle Grant 1	3.7	8.0	9.3	17.0	24.3	19.7	18.3	15.3	22.0	20.3			
S147L1	SAIA	11.0	17.3	16.0	45.3	24.7	42.3	4.3	36.7	45.7	39.0	19.0	27.7	20.0
S149L1	SAIA	12.0	10.3	14.7	21.7	23.7	23.0	6.7	17.3	31.0	20.7			
S163L1	Abernethy AA	33.7	73.3	59.3	28.0	28.3	68.3	106.0	43.3	61.3	41.0	55.0	36.0	32.0
S177L1	Abernethy AA	23.0	53.0	24.0	31.0	24.3	45.3	46.3	31.3	35.0	27.3	24.0	10.3	22.3
S183L1	Kinchurdy	5.7	45.0	21.0	29.7	17.3	38.0	50.3	10.7	22.7	18.3			
S195L1	Aviemore AA	14.0	36.0	13.7	11.0	14.3	17.7	51.3	11.7	23.3	20.3			
S209L1	Kinrara	19.0	28.3	13.3	19.3	12.3	27.0	41.7	22.7	26.3	44.3	20.0	11.0	11.7
S215L1	Dalraddy	24.3	63.3	47.7	24.0	21.3	24.3	81.7	20.0	10.3	31.7			
S243R1	Ruthven Bridge	8.7	14.3	17.7		36.7	56.0	25.0	31.7	27.7	25.0	20.0	18.3	35.0
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	11.3	7.0
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	28.3	20.0
S260L1	Badenoch AA				20.7	22.7	23.7	16.3	16.3	16.7	26.7			
S264R1	Truim	22.0	4.3	5.3										
S282R1	Laggan	19.7	17.7	18.7	26.0	20.7	30.0	36.0	13.3	23.3	32.3	37.7	24.7	21.0
S287L1	Laggan	12.3	21.3	14.7	5.0	29.7	25.3	24.0	18.7	18.7	44.7	28.3	23.3	16.3
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	6.7	3.3

Figure 3.2: Mainstem timed electrofishing results - fry

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	6.7	3.3
S298R1	Glenshirra	0.0	0.0	0.0	0.3	0.0	0.0	2.3	2.7	3.3	1.0	6.7	1.3	0.7
S305R1	Garvamore	3.3	3.7	0.0	2.7	0.0	0.3	11.3	5.3	0.7	16.3	2.7	3.3	3.0
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	0.0	1.3
S311L1	Upper Spey	4.0	0.0	0.0	0.0	0.0	1.0	9.7	1.7	1.7				
S312L1	Upper Spey	4.7	0.0	0.0	0.3	0.0	2.7	3.3	1.0	0.0	0.3		1.3	0.7
S315L1	Upper Spey	5.7	0.0	0.0	8.0	0.0	2.0	6.3	2.3	0.7	1.7	0.7		
S317L1	Upper Spey	7.0	0.0	0.0	1.0	0.0	6.7	12.7	8.0	2.3	1.7	8.3	11.7	1.0
S318L1	Upper Spey	3.0	0.0	0.0	0.3	0.3	1.3	3.0	2.7	0.0	2.7	3.7	5.7	7.7
S319R1	Upper Spey	0.7	0.0	0.0	0.0	0.7	1.3	3.0	2.3	0.0	2.7	1.3	3.3	1.3
S324L1	Upper Spey				0.0	2.0	0.7	2.0	1.3	0.0	2.3	3.7	0.3	1.3
S326L1	Upper Spey	5.7	0.0	0.0	0.0	0.7	0.0	13.0	1.0	0.0	3.7	1.7	5.7	6.0
Mean		**14.1**	**24.2**	**18.8**	**19.2**	**13.0**	**27.0**	**24.5**	**15.6**	**28.0**	**22.3**	**26.7**	**18.7**	**11.2**

		Salmon parr/min												
Site code	**Location**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
S07R1	LW2	1.0	4.3	2.3	1.0	3.3	0.0	0.0	2.0	1.3	0.3	0.0	1.0	1.0
S012R1	LW1	1.0	0.3	0.0	0.7	0.3	0.0	1.0	0.0	0.0	0.0			
S017L2	Gordon Castle	0.7	2.3	0.7	2.3	5.0	0.3	2.0	9.7	3.7	6.3	1.7	19.0	0.0
S019L2	Gordon Castle	1.3	1.0	4.0	3.0	3.7	0.7	3.0	4.0	1.0	0.3	6.7	7.3	2.3
S025L1	Gordon Castle	0.0	2.7	1.3	0.3	0.7	0.0	0.0	4.7	3.7	6.3			
S029L1	Orton Water	0.0	4.7	7.7	0.7	4.3	0.0	0.0	4.3	1.0	0.7			
S032L1	Orton Water	0.0	1.7	4.0	0.7	4.3	4.0	4.0	2.7	1.7	3.0	3.3	4.0	1.7
S034R1	Delfur	1.7	2.0	4.0	0.0	6.3	0.0	4.0	2.3	2.0	2.3	0.7	4.0	1.3
S040L1	Delfur	0.0	0.0	3.7	1.7	8.3	0.0	3.0	6.7	3.0	2.0			
S040L2	Delfur		2.7	1.0	0.0	0.0	0.0	0.0	0.7	0.7	0.3	0.7	8.3	
S042L1	Rothes	1.3	7.0	1.7	2.0	7.0	0.7	1.0	3.3	3.3	5.3			
S047L1	Rothes	0.0	12.0	14.0	1.3	12.7	1.3		9.3	8.0	9.3	4.7	19.0	8.3
S050R1	Arndilly	0.0	3.0	0.0	1.7	3.7	0.3		1.7	0.0	3.3	0.7	0.3	0.7
S052L1	Arndilly	0.3	0.0	3.0	2.0	6.3	0.0		3.7	1.0	1.0			
S056L1	East Elchies	0.3	0.0	1.0	0.3	3.7	0.0		2.7	0.7	1.3	2.3	2.0	1.3
S059R1	Craigellachie	0.7	4.0	2.0	0.3	2.0	0.7	3.3	0.0	1.7	1.0		1.0	0.0
S060R1	Craigellachie	0.3	0.0	3.0	0.0	2.7	0.3	0.3	1.3	1.7	0.3			
S061R1	Craigellachie	1.0	6.7	9.7	0.7	8.0	3.3							
S062L1	Macallan							4.3	5.3	8.7	9.0	0.7	8.3	1.3
S066R1	Aberlour	2.0	35.7	19.7	1.3	18.7	14.3	17.0	12.0	14.7	11.7	7.7	10.7	3.7
SO68L1	Wester Elchies		13.7	15.7	3.7	12.3	5.3	11.3	6.3	8.0	18.0	4.7	22.7	10.0
SO72L2	Wester Elchies		5.7	3.3	2.3	3.3	0.3	4.3	0.0	3.7	5.0			
S074L1	Laggan	1.0	8.3	4.3	0.7	4.7	6.0	2.3	2.0	3.7	5.0	0.7	3.7	0.0
S077L1	Laggan	0.7	3.3	1.3	0.0	7.7	2.0	3.7	1.7	4.7	0.7			
S079R1	Carron	1.7	2.0	6.3	1.3	3.0	6.0	3.3	0.7	5.3	4.7	0.7	5.3	0.7
S082L1	Knockando	2.3	12.7	13.0	3.3	7.7	8.3	7.7	4.0	6.0	8.3	5.7	8.3	6.3
S087L1	Phones		5.3	6.3	0.0	3.7	5.3	2.3	7.3	5.0	0.3			
S093R1	Lower Pitchroy	4.7	9.7	9.7	1.7	11.7	10.3	17.0	0.7	9.3	6.7	4.7	7.7	2.3
S096R1	Ballindalloch	1.7	2.3	11.0	2.3	6.0	8.7	4.3	9.3	5.7	8.7	2.3	5.3	6.0
S104L2	Ballindalloch	1.3	5.0	4.7	2.3	3.0	8.3	2.7	3.0	3.7	5.0	8.7	4.3	0.7
S105L2	Tulchan D	0.0	2.0	1.0	1.3	1.7	8.0		2.0	1.7	3.7			
S112L1	Tulchan C	4.0	8.0	7.7	5.3	10.3	9.0		4.0	5.3	5.0	6.0	6.7	6.3
S119L1	Tulchan B	2.7	10.7	4.0	3.7	8.3	9.3		5.0	4.3	10.0	8.3	10.0	5.0
S124R1	Tulchan A	2.3	1.7	1.3	2.7	5.0	5.7		0.7	1.3	5.3			
S131L1	Castle Grant 3	10.0	7.0	6.7	3.0	5.0	5.3	11.0	5.3	6.0	6.0	3.0	5.3	3.7
S135L1	Castle Grant 2	0.7	0.7	1.0	1.3	4.7	0.7	2.3	5.3	2.7	1.3			
S141L1	Castle Grant 1	1.0	0.0	2.0	1.3	1.3	2.7	1.3	4.3	2.3	1.7			

Figure 3.3: (continued) Mainstem timed electrofishing results – top table, fry (continued), lower table, parr

The high flows over July would massively impact capture efficiency of electrofishing, reducing the count. Nonetheless, I doubt that these record lows are solely due to environmental conditions during the sampling period.

I am concerned that the decline in juvenile salmonids partly results from the numerous severe winter floods of 2023/2024. The fry counts have declined more severely in the lower section of river, possibly reflecting the increasing severity of flooding impacts further down the river. As winter floods are set to become ever more frequent, strategies to protect spawning gravel and deposited redds may be worth consideration.

3.1.2 Tributary Results

The tributaries surveyed in 2024 include the Truim, Calder, Fiddich, Dulnain and Luineag. The general findings are summarised below and in the following charts from Figure 3.3 to 3.11.

The Truim fry counts (both timed and quantitative) have declined since 2023. This decline is lesser in the upper reaches. The habitat at Balsporran seems to have improved considerably with the highest parr density on record present in 2024 (going back to 1998). Parr densities have remained similar to 2023 levels in the upper Truim but have decreased in the lower Truim.

The Calder fry counts (both timed and semi-quantitative) continue to decline with most sites showing very low to even absent salmon fry densities. Paradoxically, the parr counts (both timed and semi-quantitative) have recovered since their 2023 drop, even improving on prior counts. It is unclear if this is due to the prior installation of Large Woody Structures within the Calder and further examination may be required.

The Fiddich has historically sustained populations of both juvenile salmon and trout. However, in 2024 the timed surveys have indicated a notable drop in salmon fry throughout the system. This decline is not as strong in the semi-quantitative surveys but still present. On the other hand, parr densities have more than doubled since 2020. In more encouraging news, salmon fry were recorded for the very first time at Milton of Laggan this year. This indicates that after the recent construction of an effective fish pass, salmon have increased their spawning range on the Dullan.

The Dulnain: Given the intention to conduct smolt to adult supplementation (S.A.S) on the Dulnain, establishing an updated baseline of juvenile populations was a high priority. Juvenile populations on the Dulnain are highly variable and the 2024 results indicate lower fry counts than normal but average parr counts. This decline in fry is of a greater scale in the lower reaches but the upper sections now seemingly contain a very low juvenile population.

Finally, **the Luineag** has bucked the trend of other tributaries and mainstem results in 2024. With excellent fry densities and good parr densities across the system, the (admittedly small) number of sites with prior records on the Luineag have set their highest ever fry densities.

Winter spates may have affected recruitment in the tributaries akin to the mainstem. The Truim, Calder, Dulnain and Fiddich all show a decline in fry populations that is more pronounced in the lower reaches. The Luineag is the only one where fry densities remain excellent and even increased. However, Loch Morlich lies at the top of the Luineag. This would provide a buffer to high rain and dramatically reduce the severity of spate events within the tributary.

Salmon fry/min								
Site code	Location	2016	2019	2020	2021	2022	2023	2024
TSTU01	Invertruim Farm, right channel	1	11	12.7				
TSTU04	0.5km upstream Invertruim bridge	0.7	8.3		12.3	9.3	12.3	2
TSTU10	Upstream Truim Falls	3.3	2.7	10.7				
TSTU17	An Stac	20.7	12.7		37.7	22.7	31	23.7
TSTU24	Upstream bridge above Cuaich	40.7	14	26.3	17	46.3	32.7	28.7
TSTU30	Opposite distillery	24.3	10					
TSTU36	Upstream hydro intake	0.7	1	9	7.3	12.7	7.3	1.3
TSTU40	Opp Layby			1	4.3	6	17.3	11.3
TSTU45	D/S Balsporan			3.3	2	3.7	10.3	3.3
TSTU47	U/S Balsporan			0	1.7	1.3	4	6
	Mean	13.1	8.5	9	11.8	14.6	16.4	10.9
	S.D.	16.27	5.27	9.78	12.73	15.67	11.31	11.04

Salmon parr/min								
Site code	Location	2016	2019	2020	2021	2022	2023	2024
TSTU01	Invertruim Farm, right channel	4	10.3	1				
TSTU04	0.5km upstream Invertruim bridge	6	12.3		1.7	3.3	6.7	5.7
TSTU10	Upstream Truim Falls	6.7	10.7	5.7				
TSTU17	An Stac	9.3	12.7		13.7	7	9.3	5.7
TSTU24	Upstream bridge above Cuaich	8.3	3	0.7	1	4	3.3	1
TSTU30	Opposite distillery	4.7	0.7					
TSTU36	Upstream hydro intake	2	4	4.3	5	14.7	11.7	7.3
TSTU40	Opp Layby			5.3	1.7	5.3	7	7.3
TSTU45	D/S Balsporan			5.7	1.7	2.7	6	5.7
TSTU47	U/S Balsporan			1.7	0.3	1.7	3	5
	Mean	5.9	7.7	3.5	3.6	5.5	6.7	5.4
	S.D.	2.63	5.26	2.19	4.7	4.4	3.09	2.13

Figure 3.4: Timed electrofishing results of the Truim

		STU37b - U/S Conifer Plantation			
Year	Average Width	Salmon Fry/100m2	Salmon Parr/100m2	Trout Fry/100m2	Trout Parr/100m2
2023	6.06	2.4	11.8	10.2	2.4
2024	7.4	6.4	15.1	5.6	5.6
2022	8.1	19.6	16	6.5	4.4
2021	9.1	7.7	5.8	5.8	1.3
2020	9.4	9.2	16.4	10.5	0.7
2016	10.3	4.1	4.1	1.6	2.5
2013	8.1	6.1	15.3	1	7.2
2007	9.3	3.5	5.9	4.8	1.2
2006	9.3	7.6	4.3	3.2	3.2
2005	9.8	3.7	0	3.7	1
2004	9.7	0	5.9	1	0
1998	9.2	1.9	6.8	6.8	1
	Mean	6	8.9	5.1	2.5

		STUCFa - U/S Railway			
Year	Average Width	Salmon Fry/100m2	Salmon Parr/100m2	Trout Fry/100m2	Trout Parr/100m2
2024	5.16	1.5	27.6	0.7	6
2023	6.2	9.3	20.5	2.5	1.9
2022	6.3	2.5	24	6.1	3.1
2021	5.9	1.3	1.7	8.4	5.2
2020	6.4	0	30.1	10.5	2.4
2019	6.5	0	43	2.6	0
2016	6	0	18.1	3.9	3.9
2013	5.3	1.4	24.4	8.1	6.8
2007	6.8	2.1	21.2	6.4	4.2
2005	6.2	7.5	10	5	1.3
2004	6	4.8	16.3	4.1	5.7
1998	6.7	0	46	1.4	1.4
	Mean	2.5	23.6	5	3.5

		STU45a - Balsporran			
Year	Average Width	Salmon Fry/100m2	Salmon Parr/100m2	Trout Fry/100m2	Trout Parr/100m2
2024	4.7	22.1	41.2	20.1	3
2023	5.2	33	36.6	7.3	5.5
2022	11.6	9.3	8.1	6.1	2.8
2021	6	6.6	9.1	4.9	2.1
2020	5.8	0.7	9.1	11.3	5.6
2019	6.5	2.2	14.2	7.5	0.7
2016	5.6	12.5	8.8	16.2	1.5
2013	5.2	18.3	20	5	0.8
2011	6.1	4.7	6.2	1.6	3.2
2010	6.2	8.1	14.4	5.4	1.8
2009	5.4	13.5	24.3	3.6	4.5
2008	6.3	31	10.4	3.4	0.9
2007	6.9	11.3	20.2	0	0.8
2006	6.1	35.3	14.7	4.3	1.8
2005	5.6	38.8	10.5	7.3	7.2
2004	6	0	13.4	2.7	2.6
2003	4.3	0.7	18.3	8.1	4.3
2002	5.8	2.3	25.5	11.5	10.4
2001	5.8	22.3	31.8	4.7	2.1
1999	6.3	11.8	5.4	4.3	3.3
1998	5.3	0	16.8	1.6	1.6
	Mean	13.5	17.1	6.5	3.2

Figure 3.5: Quantitative electrofishing results of the Truim

		Salmon Fry/minute						
SITE	Location	2017	2018	2020	2021	2022	2023	2024
TC01	Below road, 1st riffle below revetments	16.7	36.7	4.3	32.7	25.3	2	2.3
TC05	Down Alder path, above pool	0.3	0.3	0.3	0	1.3	1.3	0.7
TC08	opp layby	11.3	15	1.7	1	11.3	5	
TC10	u/s Allt Foinndrigh	8.3	23	2.7	4.3	17	5.7	6
TC18	400m d/s Cluny Bothy	2	11	0		6.7	0.7	0.7
Mean		7.7	17.2	1.8	9.5	12.3	2.9	2.4
S.D		6.7	13.6	1.8	15.6	9.3	2.3	2.5
		Salmon Parr/minute						
SITE	Location	2017	2018	2020	2021	2022	2023	2024
TC01	Below road, 1st riffle below revetments	3	3	8.3	1.7	6.3	2	4.7
TC05	Down Alder path, above pool	0	2.3	1.7	1	0.7	0.3	5.3
TC08	opp layby	0	5.7	2.7	1.7	0.7	1.7	
TC10	u/s Allt Foinndrigh	0	4.3	1.7	1.3	1.7	3	3.7
TC18	400m d/s Cluny Bothy	0.7	0.3	1.7		1	0.7	2.3
Mean		0.7	3.1	3.2	1.4	2.1	1.5	4
S.D		1.2	1.8	2.6	0.3	2.2	1	1.1

Figure 3.6: Timed electrofishing results of the Calder

		Salmon Fry (per 100m2)						
Site	Location	2014	2017	2020	2021	2022	2023	2024
SC7	Calder upstream Allt a' Chaorainn	6.7	11.4	4.7	1	32.4	12.1	8.1
SC2	Calder, Cluny Bothy	3.8	1	0		1.7	0.7	0
SC5	Allt Fiondrich at Glenballoch	8.5	6	0		20.8	4.6	9.6
SC6	Allt a' Chaorainn below Bridge	3.2	0	0		11.9	4.8	0
	Mean	**5.6**	**4.6**	**1.2**		**16.7**	**5.5**	**4.4**
	S.D.	**2.5**	**5.2**	**2.4**		**13.1**	**4.7**	**5.1**
		Salmon Parr (per 100m2)						
Site	Location	2014	2017	2020	2021	2022	2023	2024
SC7	Calder upstream Allt a' Chaorainn	4	0	10	6.8	3.4	9.4	27
SC2	Calder, Cluny Bothy	6.4	1	3.2		2.6	3.6	4
SC5	Allt Fiondrich at Glenballoch	0	6	18.2		10.1	5.7	10.8
SC6	Allt a' Chaorainn below Bridge	0	0	0.6		0	4.2	3.6
	Mean	**2.6**	**1.8**	**8**		**4**	**5.7**	**11.3**
	S.D.	**3.2**	**2.9**	**7.9**		**4.3**	**2.6**	**11**

Figure 3.7: Quantitative electrofishing results of the Calder

Salmon Fry / Minute										
Code	**Site**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2024**
TSF01	U/S railway bridge	107.3			73			75	19.3	32.3
TSF08	D/S of old steel gate	87.7			62.3			26		27.3
TSF10	Kinivie House	47.3			52.3			23.3		31.3
TSF13	Balvenie warehouses	25			105.3			43	53	27
TSF19	U/S Dullan confluence	129.7			65.7			60		47
TSF24	30m D/S road bridge	105.3			68			52.7		25.7
TSF29	Keithmore Farm	34.3			30.3			37.7		20.3
TSF38	150m D/S from bridge	29			18			28.3		12.7
FWF4	kennels	21.3	8.3	2.3	18.7	20.3	8.7	9.3		36.3
FWF3	pantry burn	7	0	0.3	3.3	12.3	0	1.3		6.7
FWF2	30m below hut	2.3	0	0	0	0	0	0		0
FWF1	below Elfhouse burn	0	0	0	0	0	0	0		0
	Mean	**49.7**	**2.1**	**0.7**	**41.4**	**8.2**	**0**	**29.7**	**36.2**	**22.2**
	S.D	**45.6**	**4.2**	**1.1**	**34.4**	**10**	**0**	**24.8**	**23.8**	**14.7**

Salmon Parr / Minute										
Code	**Site**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2024**
TSF01	U/S railway bridge	2.3			0.7			2.3	5.3	0.3
TSF08	D/S of old steel gate	1			0.7			0		0.7
TSF10	Kinivie House	2.7			0.3			1		2.7
TSF13	Balvenie warehouses	2			1.3			0.7	3.3	0.3
TSF19	U/S Dullan confluence	13.3			2			4.7		2
TSF24	30m D/S road bridge	9.3			1			9		9.3
TSF29	Keithmore Farm	6.3			1			7.7		7.3
TSF38	150m D/S from bridge	19.7			1.3			6.7		5.7
FWF4	kennels	5	3.3	8.3	3.3	11	6.7	6.7		8
FWF3	pantry burn	0.3	6	1.3	0.3	6.3	6.7	5.7		6.7
FWF2	30m below hut	0	0	0	0	0.3	0.3	0		0.7
FWF1	below Elfhouse burn	0	0	0	0	0	0	0		0.3
	Mean	**5.2**	**2.3**	**2.4**	**1**	**4.4**	**3.4**	**3.7**	**4.3**	**3.7**
	S.D.	**6.1**	**2.9**	**4**	**0.9**	**5.3**	**3.8**	**3.4**	**1.4**	**3.5**

Figure 3.8: Timed electrofishing results of the Fiddich

Salmon Fry (/100m2)											
Code	**Site**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2024**
SF13	Balvenie				270.2			81.6			56.6
SF27	Auchendoun				205.1			193.6			108.3
SF38	Fiddich below Bridgehaugh	85.5	113.6	3	84	117	11.7	84.3			110.5
SF47	Glenfiddich lodge	56.2	45.2	1.6	100.6	52.8	27.1	53.4			114.6
SF51	Pantry Burn confluence	8.5	1	0	18.5	7.4	1.9	1.1			34.2
SFD04	Dullan below Second Weir	62.9			68.9			64.3			73.9
SFD13	Dullan Ballimore Bridge	0			1.5			21	73.5	21.7	40.8
SFD21	Dullan Milton of Laggan	0			0			0	0	0	2.6
	Mean	**35.5**	**53.3**	**1.5**	**93.6**	**59.1**	**13.6**	**62.4**	**36.8**	**10.8**	**67.7**
	S.D.	**37.2**	**56.7**	**1.5**	**98**	**55.1**	**12.7**	**62.7**	**52**	**15.3**	**41.3**

Salmon Parr (/100m2)											
Code	**Site**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2024**
SF13	Balvenie				1			2.8			0.9
SF27	Auchendoun				16.7			18.4			32
SF38	Fiddich below Bridgehaugh	16.7	14.3	26	2.2	24.2	35.1	11.5			26.5
SF47	Glenfiddich lodge	29.3	15.4	27.7	12.6	35.6	39.2	12.5			15.2
SF51	Pantry Burn confluence	0	9.6	5.5	6.6	29.4	8.4	7.6			47
SFD04	Dullan below Second Weir	10.5			0			6.5			4.5
SFD13	Dullan Ballimore Bridge	1.9			3.8			14.3	3.5	1.7	0
SFD21	Dullan Milton of Laggan	0			0			0	0	0	0
	Mean	**9.7**	**13.1**	**19.7**	**5.4**	**29.7**	**27.6**	**9.2**	**1.7**	**0.8**	**15.8**
	S.D.	**11.7**	**3.1**	**12.4**	**6.2**	**5.7**	**16.7**	**6.1**	**2.4**	**1.2**	**17.7**

Figure 3.9: Quantitative electrofishing results for the Fiddich

			Salmon Fry/Min				
Code		**Site**	**2012**	**2015**	**2018**	**2021**	**2024**
TSD02		U/S Railway bridge		15.3	26.7	25.7	13.7
TSD05		U/S Waterfall	32	35.3	28.3	31.3	22.7
TSD09		Balnain Bridge	24.7	38.3	28	46.7	31.7
TSD18		Wester Gallovie	31.3	43.3	102.7	25.3	44
TSD21		Duthil Church	30	74.7	116	51.7	26
TSD26		Lochanhully		13.3	19	21	6.3
TSD30		Allt Beag footbridge	13	15.7	27	14	12.7
TSD34		Feith Mhor	17.7	8.7	51	26.7	10
TSD41		Inverlaidnan Bridge	2.3	5.7	15	8.7	3
TSD45		Dalnahaitinch	6.7	14.3	49.3	21	4.7
TSD48		D/S Watergate	5	7.7	19	5	2
TSD52		D/S Eil	7.7	8	6.3	6.7	0.3
TSD55		U/S Eil	5	2	11	4.3	1.3
TSD73		D/S Suspension bridge		0.3	21.3	7	4
TSD88		Pitmain Bothy	2.3	0	7.7	5	0
		Mean	**14.8**	**18.8**	**35.2**	**20**	**12.2**
		S.D.	**11.8**	**20.6**	**32.8**	**15**	**13.2**

			Salmon Parr/Min				
Code		**Site**	**2012**	**2015**	**2018**	**2021**	**2024**
TSD02		U/S Railway bridge		7.3	17.3	14.7	7.3
TSD05		U/S Waterfall	1	4.3	10.7	7	1.7
TSD09		Balnain Bridge	0.7	2	5	5.7	4.7
TSD18		Wester Gallovie	1.3	0.7	5	0.3	2
TSD21		Duthil Church	0.7	1	1	1.7	0.3
TSD26		Lochanhully		3.7	41.7	13	4.7
TSD30		Allt Beag footbridge	1.3	4.3	19.3	9.7	4
TSD34		Feith Mhor	1.7	2.7	13.3	6.7	8.3
TSD41		Inverlaidnan Bridge	2	2.3	10.7	5.7	8.3
TSD45		Dalnahaitinch	0.7	1.7	14.3	1.3	4.3
TSD48		D/S Watergate	1.3	2	6.3	2.7	5
TSD52		D/S Eil	0	2	13.7	2.3	5.7
TSD55		U/S Eil	1	0	14.3	4	4.3
TSD73		D/S Suspension bridge		2.7	1.7	2.7	1.7
TSD88		Pitmain Bothy	0.3	1.3	0	4	1.7
		Mean	**1**	**2.5**	**11.6**	**5.4**	**4.3**
		S.D.	**0.6**	**1.8**	**10.3**	**4.2**	**2.5**

Figure 3.10: Timed electrofishing results of the Dulnain

		Salmon Fry (/100m2)				
Code	**Site**	**2012**	**2015**	**2018**	**2021**	**2024**
SD09	Balnaan Bridge	46.1	159.7		127.8	101.1
SD45	Dalnahaitnach	43	48.6		69.7	32.5
SD73	Suspension Bridge	28.6	8.7		16.7	3
SD88	Pitmain Bothy		0		2.4	10.6
SDAHa	Auchnahannet Burn below farm	118	233			133.3
SDAHb	Auchnahannet Burn between bridges	14.9	54			38.7
SDBAa	Batten Burn at watergate	34.3			166.2	81.5
SDBAd	Batten Burn at anthills	38.7	212		32.8	46.5
SDALa	Allt Lorgy above bridge	26.8	257.6	9.3	8.9	2.7
SDALb	Allt Lorgy below Lethendrychule	33.8	27.6	122.5	2.2	0
SDALg	Allt Lorgy split channel		136.9			0.9
SDAAb	Allt an Aonaich above track bridge	86	290		169.7	152.1
SDFLa	Feithlinn	5.4	0		2.8	20
SDDa	Dunachton Burn Below Culvert					0.6
	Mean	**43.2**	**119**	**65.9**	**59.9**	**44.5**
	S.D.	**32.1**	**108.8**	**80**	**69.2**	**52.1**

		Salmon Parr (/100m2)				
Code	**Site**	**2012**	**2015**	**2018**	**2021**	**2024**
SD09	Balnaan Bridge	5.4	19.6		16.4	22.6
SD45	Dalnahaitnach	11.9	11.9		29.5	23.3
SD73	Suspension Bridge	2.9	1.2		7.4	2.5
SD88	Pitmain Bothy		1.3		20.1	8.3
SDAHa	Auchnahannet Burn below farm	7.7	39			28.7
SDAHb	Auchnahannet Burn between bridges	5	43.2			20.9
SDBAa	Batten Burn at watergate	2.7	23.4		5.1	16.6
SDBAd	Batten Burn at anthills	6.7	12.2		10	6.4
SDALa	Allt Lorgy above bridge	1.8	6.7	14.8	1.3	9.3
SDALb	Allt Lorgy below Lethendrychule	3	13.7	22.9	8.9	19.8
SDALg	Allt Lorgy split channel					22.2
SDAAb	Allt an Aonaich above track bridge	7.1	8.5		11.5	25
SDFLa	Feithlinn	5.4	4.2		2.8	2.4
SDDa	Dunachton Burn Below Culvert					11.2
	Mean	**5.4**	**15.4**	**18.9**	**11.3**	**15.6**
	S.D.	**2.9**	**13.8**	**5.7**	**8.6**	**8.8**

Figure 3.11: Quantitative electrofishing results of the Dulnain

			Salmon Fry (/100m2)									
Code	**Site**	**River**	**1999**	**2000**	**2003**	**2004**	**2005**	**2007**	**2011**	**2012**	**2015**	**2024**
SDR14	U/S Island	Luineag	41.5	31.1	56.5	15.7	13.7	25.4		39.4	61	64
SDR17	opp Bodaguish turnoff	Luineag							30.5	34.5	37	54.2

			Salmon Parr (/100m2)									
Code	**Site**	**River**	**1999**	**2000**	**2003**	**2004**	**2005**	**2007**	**2011**	**2012**	**2015**	**2024**
SDR14	U/S Island	Luineag	26.7	9.3	11.8	2	3.4	8.5		11	13.6	10.2
SDR17	opp Bodaguish turnoff	Luineag							2.2	5.6	12.7	17.7

Figure 3.12: Quantitative electrofishing results of the Luineag

3.2 Stocking Results

As high flows and low numbers restricted the number of broodstock captured in 2023, the Glenbeg and Maggieknockater burns were not selected for stocking in 2024. The following table shows the findings of the quantitative and timed surveys.

Code	Date	River	Area m2	S Fry/m2	S Parr/m2	T Fry/m2	T Parr/m2
SLB3ca	02/07/2024	Fochabers Burn, above bridge	82.68	14.5	0.0	0.0	0.0
SLB3c	02/07/2024	Fochabers Burn, below weir	83	31.3	0.0	1.2	4.8
FCB1	02/07/2024	Corrie Burn, lower	83.64	7.2	2.4	6.0	3.6
FCB3	02/07/2024	Corrie Burn, upper	101.232	33.6	3.0	3.0	1.0
SLB8a	04/07/2024	Burn of Ringorm	120.988	3.3	3.3	84.3	0.8
SLB8d	04/07/2024	Burn of Ringorm	59.318	0.0	0.0	109.6	6.7
SLB8b	04/07/2024	Burn of Ringorm	58.08	63.7	0.0	99.9	6.9
SLB8c	04/07/2024	Burn of Ringorm	57.76	29.4	0.0	20.8	3.5
SLB11e	03/07/2024	Green Burn Willow	73.81	187.0	1.4	1.4	9.5
SMB21	03/07/2024	Milton Burn Pylon	97.2	29.8	7.2	19.5	30.9
			Mean	40.0	1.7	34.6	6.8

Code	Date	River	S Fry/Min	S Parr/Min	T Fry/Min	T Parr/Min
TSLB11	03/07/2024	Green Burn U/S Culvert	12.0	0.0	0.3	0.3
TSMB17b	03/07/2024	Milton Burn Behind First House	10.7	2.0	7.0	7.0
TSMB17c	03/07/2024	Milton Burn 150m U/S 17b	13.3	2.0	4.0	4.7
		Mean	12.0	1.3	3.8	4.0

Figure 3.13: Electrofishing results of stocked burns

Salmon fry and parr densities are generally low with parr densities being extremely low or absent from burns surveyed. The only exception to this trend is the green burn which has shown astounding fry densities. This may be due to the decision to stock the green burn with unfed fry instead of eyed ova in 2024. The green burn contains rather sandy substrate which make artificial redd creation sub-optimal, therefore unfed fry may avoid the losses from redd smothering. The Ringorm burn was also stocked with unfed fry and shows decent densities of salmon fry along the middle section (SLB8b). As unfed fry are stocked out later than eyed ova and so after the majority of winter spates have passed, the comparatively good performance of these two burns may be due to better survival.

3.3 Invertebrate Sampling

It has been heartening to witness the issue of water quality and sewage release across the UK surge to the forefront of public awareness in 2024. Salmonids require consistently cool and clean water across their lifecycle. Consequently, monitoring water quality and locating contaminant sources are vital to protect migratory salmonids across Scotland. Although live monitoring of parameters would be the gold standard, invertebrate sampling can offer unique advantages at a lower cost.

Aquatic invertebrates vary widely in their tolerance of pollution and environmental conditions. This means that the diversity of aquatic invertebrates found at a specific point in a watercourse can be used to estimate the water quality. Additionally, due to the generation time of invertebrates, it is possible to detect past declines in water quality through the lack of specific life stages of highly sensitive species. This has resulted in the creation of The Riverfly Partnership, a citizen science-based programme that aims to monitor and protect the health of UK waterways.

Figure 3.14: An example invertebrate sample from the lower Spey

Following water quality concerns within the Spey system, an invertebrate monitoring project was initiated. These were adapted from the Riverfly Monitoring Initiative's Extended Riverfly surveys comprising of a 3-minute kick sample and 1-minute habitat sweep to collect invertebrates. A total of 12 sites were sampled in summer 2024 with intent to expand in future years. Samples were identified on the riverbank and ARMI, Water quality and Silt and Flow scores calculated according to the taxa within the

sample. Due to the limited time available for identification, the results below are rough estimates.

Code	Site	Easting	Northing	Date	ARMI Score	Water Quality	Silt & Flow
S007L1	Gordon Castle Water	334330	863386	7/8/2024	15	24	28
SO19L2	Gordon Castle Water	333888	857449	7/8/2024	16	25	29
S032L1	Orton	332144	853699	7/8/2024	15	23	24
S34R1	Delfur	331762	851585	7/8/2024	11	25	27
S50R1	Arndilly	328382	847593	7/25/2024	11	20	23
S56L1	Easter Elchies	329256	845644	7/8/2024	12	24	25
S096R1	Pitchroy	318482	838847	7/26/2024	13	17	27
S131L1	Castle Grant 3	308372	830271	7/26/2024	14	25	28
S254R1	Newtonmore Golf club	271858	798135	7/30/2024	7	18	16
S258L1	U/S Calder confluence	270804	797938	7/30/2024	7	21	19
S319L1	Spey Dam- Allt Fionrich	246445	795661	7/24/2024	2	9	8
S326L1	Spey Dam-Shesgan Bothy	243917	794556	7/24/2024	3	15	14

Figure 3.15: Results of 2024 Spey invertebrate sampling

These results indicate the lower to middle Spey contain high water quality, but the upper Spey shows notably lower ARMI scores. This was due to very low numbers of any invertebrates captured by the sampling rather than a specific absence of groups indicative of higher water quality. Discussion with Craig Macadam (Buglife) indicated that in upland rivers, invertebrate populations dip in summer as the majority of early emerging mayflies and stoneflies are only present as eggs in the substrate. Further samples earlier in the year, perhaps during the smolt run, may clarify the state of the invertebrate population above the dam.

3.4 Smolt to Adult Supplementation and Smolt Trapping

Following the recent ICUN re-classification of Atlantic salmon as endangered in the UK, it is apparent that new methods of preserving this iconic species within Scotland are required. Whilst improving habitat quality and mitigating long term issues will see the largest benefits over the years, shorter term measures may be required to rescue falling populations. As a result, the board decided to start a trial of smolt to adult supplementation in 2024.

Smolt to adult supplementation (S.A.S) is the process of capturing salmon smolts during their downstream migration, rearing them in captivity to maturity before release into their original rivers to spawn. The goal of this is to bypass the bottleneck of marine

survival (which has been shown to have dramatically fallen in recent decades) and provide an influx of spawning adults. This may bolster a failing population and aid recovery if combined with habitat improvement works.

Figure 3.16: Example of a rotary screw smolt trap

However, S.A.S is not a magic bullet to the decline of Atlantic Salmon. Additionally, the scope of genetic and phenotypic impacts on the salmon population from S.A.S is not fully understood and detrimental effects to the fitness of the population are possible. Nonetheless, the SFB have decided to trial S.A.S and monitor the effects on the Dulnain, a tributary of the Spey that is currently being prioritized for habitat improvement by organizations such as the SCI.

In the first stage of this trial, we conducted smolt trapping on the Dulnain in spring 2024. In addition to monitoring the current smolt run of the Dulnain, 360 salmon smolts were captured and taken to a specialist facility. SFB staff have since visited this facility and are pleased to report that the smolts are fairing well. We intend to release these salmon in 2026 and will be conducting baseline monitoring on the Dulnain in advance of the release to assess the impact.

3.5 Spey Dam Smolt Tagging

As covered in the previous annual report, 2023 saw a pilot study focused on the survival and timing of smolt passage through Spey dam reservoir via dye marking. This study indicated severe mortality but was rudimentary with issues such as mark loss being raised. As a result, the methodology was changed in 2024 from dye marking to PIT tagging. Passive Integrated Transponder (PIT) tags are uniquely coded tags around 1cm in length that emit a coded signal when energised by an antenna. This allows the detection of individual tag codes alongside the time of detection.

Figure 3.17: Salmon smolts in a rearing facility

Figure 3.18: Example of a PIT tag, taken from www.idsolutionsindia.com

Consequently, utilizing the same locations for rotary screw trap and wolf trap installation as 2023, smolts captured in the RST were implanted with PIT tags and released in a custom-built night release box. These smolts were then recaptured in the wolf trap and their tag codes recorded by handheld scanners and a PIT tag antenna installed within the fish pass.

Spring 2024 saw the capture of 306 salmon smolts in the RST which were tagged with 12mm PIT tags and 2699 smolts in the wolf trap, 132 of which were previously tagged. Results indicate that salmon smolts traversing Spey dam reservoir have a survival rate of 43.1% and took between 37.1 to 591.6 hours with a median travel time of 155.8 hours.

The updated methodology indicates that survival through the reservoir is lower than initial findings but still considerable. Additionally, tagging of trout reveal interesting movements of smolt predators across the smolt migration period that may yield insights into smolt mortality on investigation.

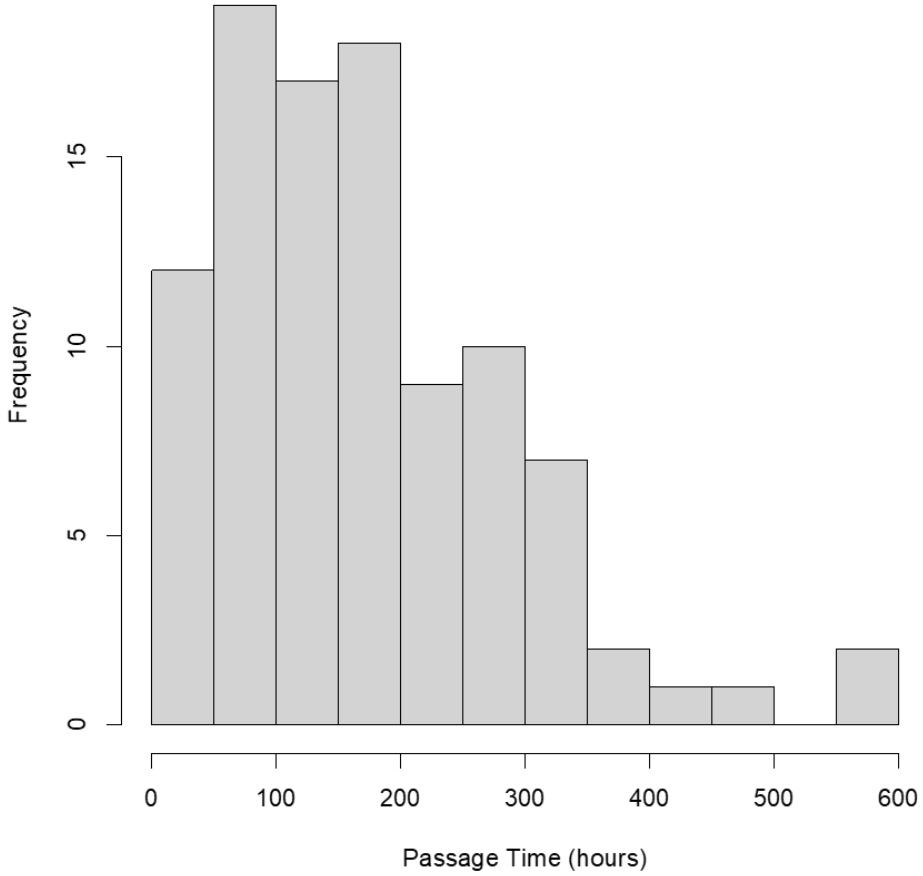


Figure 3.19: Passage times of PIT tagged salmon smolts across Spey dam

Currently, the smolt trapping and tagging project is set to continue in 2025. I hope that the methodology can be further refined to investigate potential areas of high mortality and delay risk. If any readers are interested in volunteering their assistance with this project, please get in touch.

On a similar vein, I am happy to announce that summer 2024 saw the completion of improvements to the fish pass within Spey dam. Notches within the fish pass pools have been widened and made shallower to reduce turbulence. Combined with the installation of a lighting system in 2023, I am optimistic that this will improve fish passage upstream of the dam. As Spey dam is currently classified as a barrier to fish passage by SEPA, any improvement is most welcome and will be reinforced by the prior habitat improvement works upstream of the dam.

As a result, I aim to conduct more in-depth surveys above the dam in 2025 and beyond with the aim of investigating if the salmonid populations upstream of the dam have improved. We are currently exploring options such as genetic parentage analysis to track the numbers of spawners contributing to the population compared to fish counts

indicated by the resistivity counter. If a significant improvement is show, it will be a massive success for the continued survival of Atlantic salmon in the upper catchment. The board is again grateful to GFG alliance for their cooperation with planning the project, funding of smolt trapping activities and donation of materials and staff time facilitating fieldwork.

Figure 3.20: A trout captured above Spey dam that had consumed salmon smolts

3.6 Invasive Species

Following the appointment of Karen Muller as the Spey's Scottish Invasive Species Initiative (SISI) project officer, invasive plant and mink control has been upscaled across the catchment. The progress made by Karen has been simply astounding with record quantities of hogweed, knotweed, skunk cabbage and American mink controlled. Further details on the work conducted by SISI can be found on their website and blog as well as the previous chapter within this review.

However, terrestrial invasive species were not the only ones found within the Spey catchment in 2024. A male Pink salmon (Oncorhynchus gorbuscha) was captured at Macallan in July and other individuals were sighted. Given the strict two-year lifecycle

of Pink salmon, this is highly unusual. Pink salmon are almost exclusively reported in Scotland in odd years. This may indicate increasing abundance and frequency of Pink salmon within Scotland, increasing the risk of competition with Atlantic salmon. However, no redds created by Pink salmon were identified in 2024. Fyke netting over spring also failed to capture any juvenile Pink salmon from 2023 spawners.

Pink salmon are set to return in larger numbers in 2025. Consequently, it is important that all captures and sightings of this species are reported and recorded to the FMS app, which can be found on their website. Understanding their trends in abundance and range across Scottish rivers will further understanding of the risk they pose to native salmonids.

Figure 3.21: The Pink salmon in question, captured at Macallan

Unfortunately, European perch (Perca fluviatilis) control within Loch Insh is yet to begin in the field. Given the status of Loch Insh as a SAC and important breeding habitat for wading birds, any control efforts must be conducted with care. Additionally, opening discussion with local stakeholders and anglers is important in order to avoid and mitigate any conflict. In 2025, it is hoped that pilot control trials utilising modified wrasse cages will be conducted.

3.7 Local Engagement

Facilitating field trips and providing education opportunities to local pupils is a personal highlight of my role at the board. 2024 has been no exception. We successfully

conducted the ‘Salmon in the Classroom’ program in Rothes Primary School and Milne’s Primary School. This program allows local pupils to take the role of hatchery managers and get hands on experience with wild salmon and aquatic invertebrates with the aim of fostering appreciation for their local environment. Both classes greatly enjoyed the project and have thanked the board for the experience. John Trodden, who previously voluntarily headed the salmon in the classroom project, has now retired from his duties. The board is immensely thankful for John’s contributions over the years as, thanks to his past as a head teacher, he was instrumental in delivering an enriching and entertaining curriculum. Nonetheless, we aim to continue the ‘Salmon in the Classroom’ project in 2025 and beyond.

However, our outreach activities extend beyond primary schools. In June we contributed to DYM’s ‘Growing your Future’ event. In this we held a workshop for over 60 S3 pupils from secondary schools across moray in which we explained the process of research and enforcement within the SFB along with other organisations such as SISI. The day was a great success, and I have received word from the organisers that the SFB and SISI’s stalls were considered the most interesting by the attending students! The ‘Growing your Future’ event is set to occur again in 2025, we hope to host another engaging workshop.

Broadcasting success stories is just as important as spreading awareness of salmon’s decline. Consequently, facilitating field trips to the Allt Lorgy, a site where habitat restoration led to a dramatic increase in juvenile salmonid populations, for both Lossiemouth High School and University College London was a most rewarding opportunity. Demonstrating that positive changes are possible to these visiting students is vital to maintain morale and momentum if salmon are to be conserved in Scotland.

3.8 New Research and Ongoing Developments

2024 has seen the SFB participate in many exciting research opportunities and changes within the catchment. Research staff have been aiding a student from Essex University in gathering samples from juvenile and adult salmon within the Spey. These samples will undergo isotope analysis with the goal of identifying salmon populations to a higher resolution than genetic analysis alone can provide. Given the genetic similarity of east coast salmon populations, this research could aid in areas such as identifying the marine smolt migration routes from different rivers. We have also been working with Aberdeen university with their ongoing project to study the strains of saprolegnia across Scotland. Saprolegnia are a group of oomycetes that infect salmonids, appearing as cotton-like mold on the skin. It appears that different strains of saprolegnia vary wildly in their infectiveness and risk of mortality and that the ability of various strains

to infect salmon has increased in recent decades. Understanding the distribution of saprolegnia strains across Scotland and their severity will aid effective biosecurity protocols to reduce the risk of transplanting highly infective strains into vulnerable areas.

Beaver re-introduction is progressing on Speyside. Ten pairs and families have so far been released across the catchment, including Loch Morlich. Whilst studies on the Tay have indicated that beavers have had no impact on salmon distribution throughout the catchment and it is highly likely that beaver dams will aid in both flood and drought mitigation, localized issues and conflicts are possible. The board aims to work in collaboration with the CNPA, UHI, Naturescot and other partners to monitor the spread of beavers within the Spey, assess their impact and implement mitigation measures if necessary.

New findings have caught my attention throughout the year. A study commissioned by WildFish has modelled the movement of planktonic sea lice from Shetland and Orkney salmon farm. It indicates that, whilst these facilities are in operation, currents carry a plume of sea lice down to the tidal barrier of the Moray firth. Although this plume is low-density, it may pose a risk to anadromous salmonids. Furthermore, it clearly highlights the interconnected nature of migratory fish conservation and the importance of collaboration.

Additionally, the Marine Directorate published the findings of genetic analysis of samples taken from across Scottish rivers, including the Spey, in 2024. This analysis finds that the occurrence of single nucleotide polymorphisms associated with early run timing increased the further upriver the sample was taken. Simply put, waterways in the higher catchment are more likely to produce spring salmon than the lower river. Although this was widely suspected by anglers and ghillies, it is very useful to have the scientific evidence to reinforce the view and highlights the importance of the upper catchment to a resilient and sustainable salmon run throughout the year.

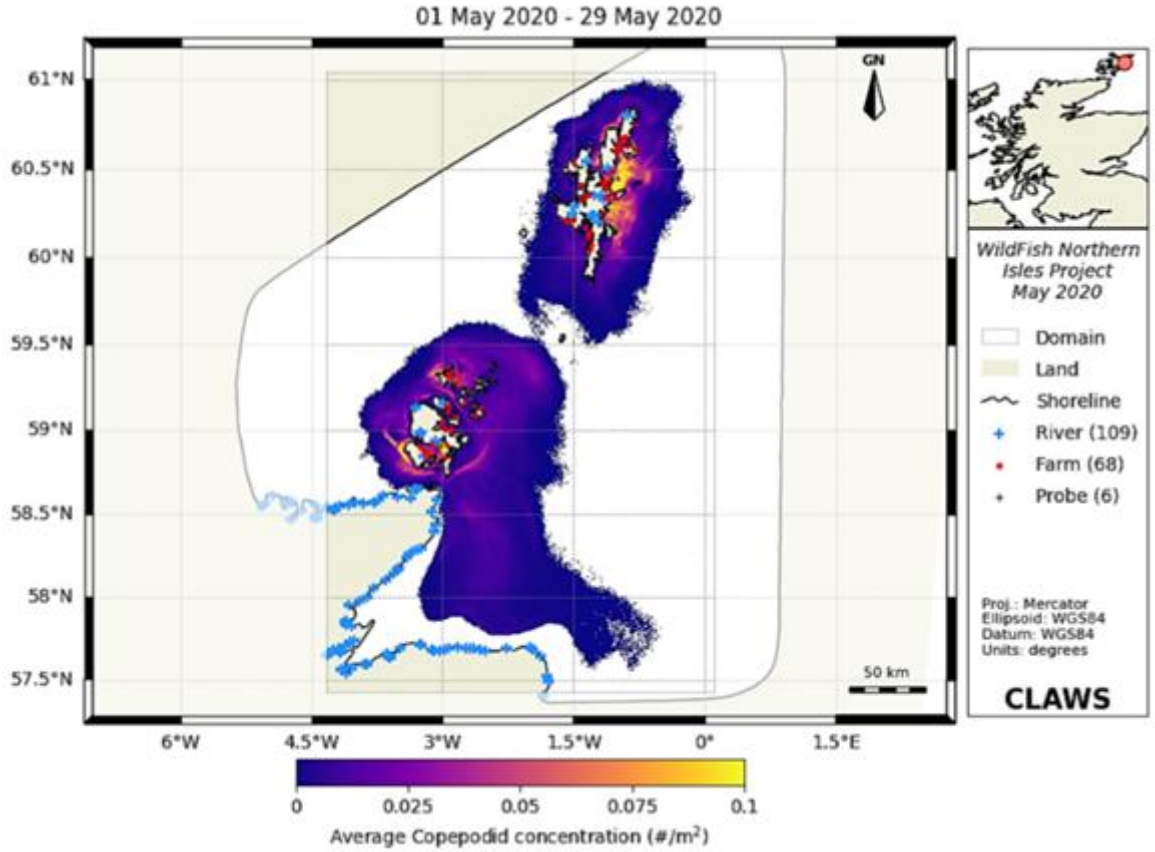


Figure 3.22: Heat map of modelled sea lice density in May 2020. Taken from https://wildfish.org/

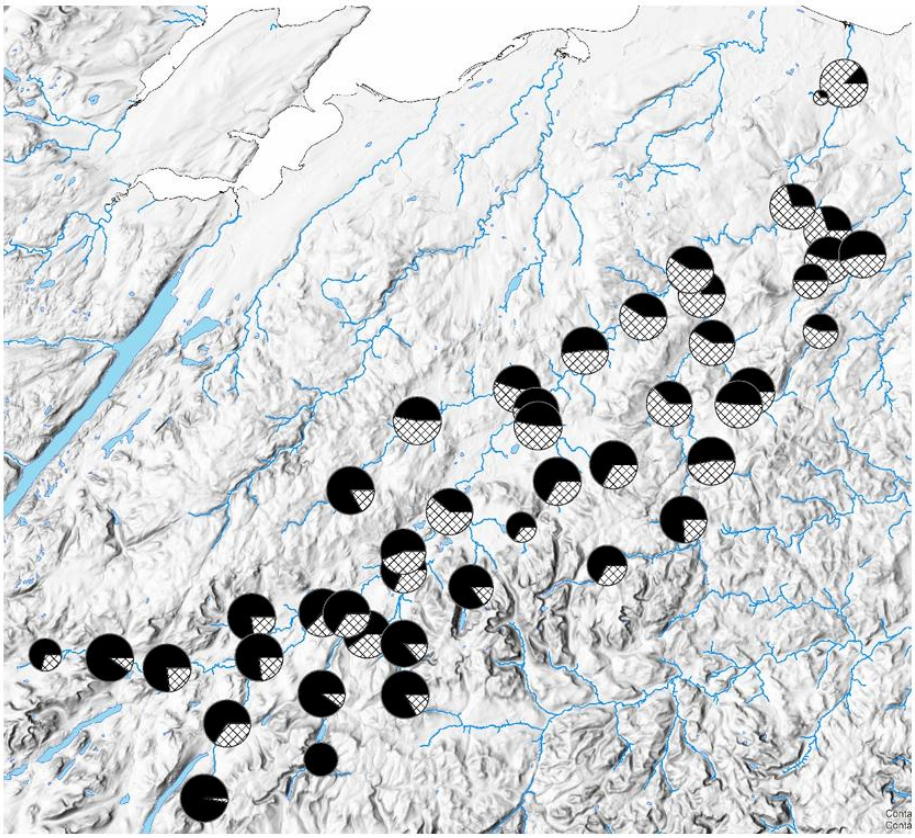


Figure 3.23: Proportion of run timings from samples across the Spey. Filled area indicates early run fish whilst crossed area indicates late run fish. Taken from Cauwelier et al., 2024.

The River Spey Catchment and Spey Fishery District

Part 4

Statutory Remit of the Spey 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 (see Table 10 below).

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 and maintained throughout 2023, is outlined earlier in this report.

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.

Table 10. Statutory Responsibilities of the Spey Fishery Board

1. Provide fisheries protection;
2. Set Salmon rod fishery season (11 th February – 30th September);
3. Set Sea Trout rod fishery season (15 th 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

4.2 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

One formal complaint was received by the SFB during 2024, and it related to the issue of formal audit of the Boards accounts. The complaint was addressed by Stage 1 of the SFB's Complaints Procedure, involving an investigation by the Board's Chair and issued by the Clerk in the absence through ill-health of the Director. The response was not accepted and was escalated to Stage 2 of the Board's Complaints Procedure and set to be considered by the Board when it met on 26 May 2024. However under agreement with the complainant that consideration was suspended to allow further discussion to occur between the board and the complainer.

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

2024 was the ninth 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 exceed 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 is 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. It was one of 29 rivers in the top category for 2023 and remains in Category 1 for 2024, alongside 30 other rivers. Further details on this can be found at the following link: Salmon fishing: final river gradings for the 2024 season - gov.scot

4.4 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 recognized 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 2024, SFB's Chairman, Dr. Alexander Scott, continued to be a member of the FMS Board.

4.5 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. 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. The Scottish Environment Protection Agency (SEPA) is responsible for the regulation and supervision of the Act. 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. For some time the Board has been working with a number of industry and government agencies to engage and help shape the outcomes of the above initiatives. SFB anticipates reviewing the effectiveness of both the initiatives and its involvement with a view to improving effectiveness of its engagement.

Part 5

Social Media, Communications & Marketing

5.1 Opening Ceremony 2024 and 2025

In 2024, we were pleased to welcome Roger Knight, the Board's long-standing Director as Guest of Honour to open the salmon fishing season at Aberlour on 14th February 2024.

In 2025, we were very fortunate to invite John Anderson as our Guest of Honour. John, a long-serving ghillie at the Tulchan Estate, recently retired after 42 years. The team felt it was a fitting tribute to John and recognition of the continued importance and value of the relationships we are developing with the ghillies along the Spey.

The Board is grateful to the Aberlour Distillery, Walkers Shortbread, and the Aberlour Hotel for generously sponsoring the Opening Ceremony, in 2024 Rev. Andrew Kimmitt, for his contribution and support, and in 2025 the Rev. Donald Walker (Locum Minister for Aberlour). We would also like to thank Piper, Richard Anderson.

5.2 Website

The Board's website, www.riverspey.org, continues to prove popular with anglers and those interested in finding out more about the Board. In 2024, our website was viewed over 154,000 times, up from last year's 135,000. To keep things fresh, we'll look at ways of improving format, content and engagement, while staying within the bounds of what our Proprietors feel is helpful and appropriate, mindful of their own estate

management engagement profiles with their clients. The Board plans to test the water here as interests and opinions vary diversely on what is and isn't effective. Current content includes:

- Weekly updates of catches were made available on the Board's website throughout the season. The Board is grateful to Sandy Howie, former Chairman of the River Spey Anglers Association, for his support throughout 2024. Sandy works with the cooperation of the local Beats, estate managers and the ghillies and we will look to facilitate that support in the coming year
- News items are also occasionally published, making links to the Board's social media channels, including Facebook, X (Twitter), Instagram, and LinkedIn, see below for illustration

5.3 Consultation, Social Media and News Updates

Throughout May and June, the Board conducted a short consultation on its strategic priorities. The response overall was positive, with 297 participants completing the online survey. Continued support for the Board's current areas of work was seen although it is clear we need to build on our consultative processes and perhaps align our feedback and engagement techniques with more agile approaches, such as seen in today's social enterprises. The feedback also highlighted specific areas for potential enhancement, with several respondents expressing a desire for increased efforts in predation control, enforcement through bailiffs, and hatchery work.

Our social media presence has continued to grow significantly. We now have over 12,300 followers—a 7% increase since May and a 28% increase since the beginning of the year. Our reach has also expanded considerably, with 2.78 million impressions since January 2024, as our content resonates increasingly within the angling community. A notable factor in this growth has been the impact of a few highly successful posts that have gone 'viral' in the angling community. For instance, our July post featuring a Pink 22 November 2024 confidential Salmon received widespread attention and significantly contributed to our annual reach. Our hashtag #SpeySalmon continues to be popular with 11,981 interactions.

5.4 Public Meeting

Owing to a hectic 2024 year end the Board moved its Public Meeting to the beginning of the new year, with the 2025 Opening Day Ceremony and Annual General Meeting being two ways in which we both simplify time commitments and availability. We look forward to engaging with all of you who drop in.

Part 6

Financial Summary

Spey District Fishery Board
Statement of Financial Activities
for the year ended 30th September 2024

	2024 £	2023 £
Income		
Fishery assessments	**511,091**	485,290
Other operating income	**116,789**	73,004
Total	**627,880**	558,294
Overheads		
Personnel Costs	**457,258**	395,378
Direct Costs	**90,045**	88,634
General Expenses	**80,986**	62,798
Spey Projects	**14,793**	11,181
Financial Costs	**3,094**	2,331
Total	**646,176**	560,321
SURPLUS/(DEFICIT)	**(18,296)**	(2,027)

Balance Sheet
30th September 2024

	Notes	2024 £	2023 £
Fixed assets			
Tangible assets	2	**95,988**	73,729
Current assets			
Debtors	3	**120,000**	89,124
Cash at bank		**158,728**	197,321
		278,728	286,445
Creditors			
Amounts falling due within one year	4	**(114,182)**	(81,344)
Net current assets		**164,546**	205,101
Total assets less current liabilities		**260,534**	278,830
NET ASSETS		**260,534**	278,830
Funds	5		
Unrestricted funds		**260,534**	278,830
Total funds		**260,534**	278,830

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.