

Wild Salmon Strategy Implementation Plan

Progress Report 2023-2024

March 2024

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Introduction

In recognition of the declining populations of wild Atlantic salmon in Scotland, and beyond, [Scotland's Wild Salmon Strategy](#) and accompanying [Implementation Plan](#) were developed to set out a framework and detailed list of actions to be taken to protect and restore populations.

The Implementation Plan (the plan) highlights that collective action is required across government, business and charitable sectors, and that the ongoing programme of work, knowledge and expertise of partners is essential for successful delivery.

This report sets out the progress that has been made in the first year since publication of the plan. Of the 61 actions in the plan, initial progress towards delivery has been made on over 50 of them, tackling the wide range of pressures which impact wild salmon. It is also important to recognise the significant efforts and wide range of action and investment at a local level led by District Salmon Fishery Boards, Rivers and Fisheries Trusts and other partners in support of wild salmon conservation, which could not be listed in detail here.

In 2023/24 Scottish Government has made a significant investment in wild salmon protection and recovery through supporting monitoring, restoration and research projects. With the scale of the pressures on the Scottish Budget position, investment has been made in the most strategic and efficient way through the delivery of the strategy and plan. The Nature Restoration Fund, the Water Environment Fund and other public grant schemes will continue to provide financial support for projects benefiting wild salmon, and rivers more widely. Alternative routes of funding the work in future years will continue to be explored, such as through nature finance initiatives. The important ongoing investment made by fishery owners and anglers, through the salmon assessment system has also made a significant contribution to delivering the outcomes of the strategy.

Directly following publication of the plan, the [Wild Salmon Strategy Implementation Plan Delivery Group](#) was established, chaired by Scottish Government with representatives from the Scottish Environment Protection Agency (SEPA), NatureScot, Scottish Forestry, Scottish Environment Link, Crown Estate Scotland, Angling Scotland, Atlantic Salmon Trust (AST), Fisheries Management Scotland (FMS) and their members. The role of the Delivery Group is to direct and oversee progress of delivering the actions within the plan.

Salmon Populations

The number of wild Atlantic salmon returning to Scottish coastal waters has declined since estimates began in the 1970s¹. Catches of salmon in Scotland have been recorded since 1952. The most [recent statistics](#) from the 2022 season showed the total reported rod catch of wild salmon was 42,204, the fourth lowest on record (Fig. 1). In total, 97% of the rod caught salmon were returned to the water, showing the continued effort from the angling community with regards to catch and release practices. In December 2023 the International Union for Conservation of Nature (IUCN) published its latest assessment which classified wild Atlantic salmon populations in Great Britain as endangered for the first time.

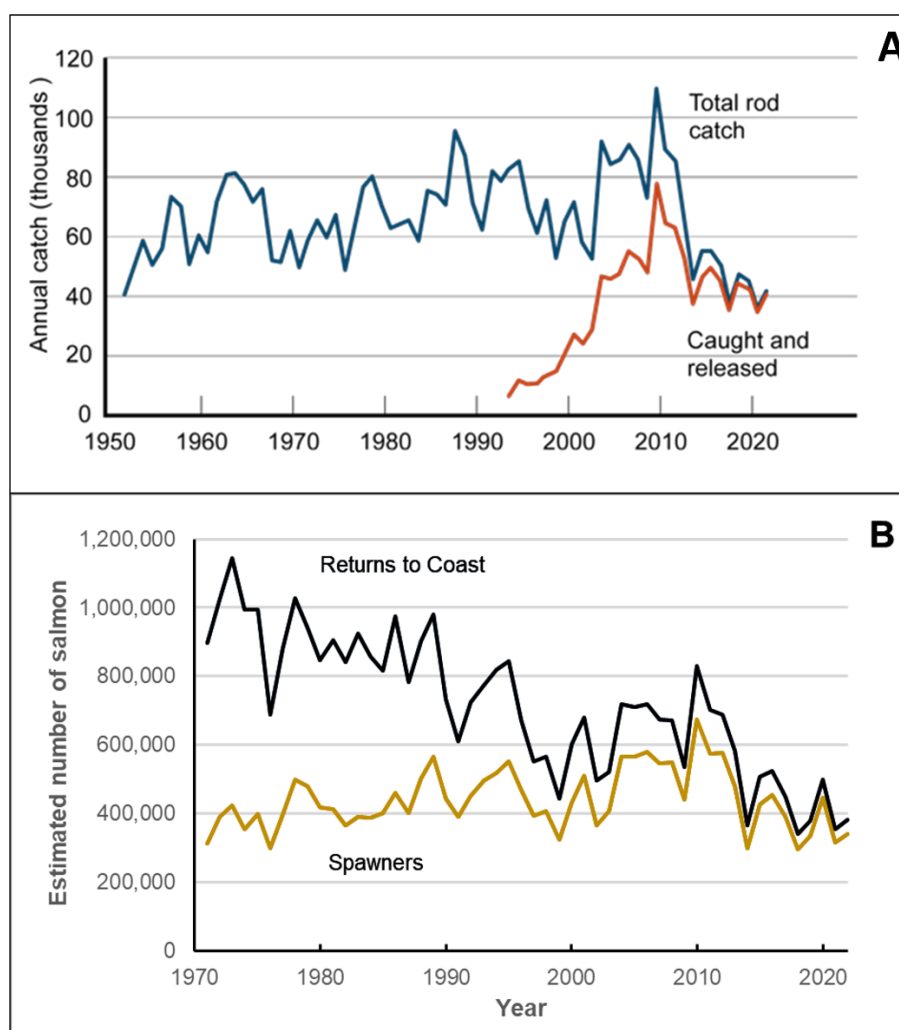


Figure 1: **A** Annual number of salmon caught by rod since 1952, and annual number of salmon caught by rod and released since 1994 (thousands). Data source: 2022 Scottish salmon and sea trout statistics, Supplementary Tables, Table 1. **B** Estimated number of wild Atlantic salmon returning to the Scottish coast together with estimates of the number surviving to spawn in Scottish rivers. (source: returns to coast ICES WGNAS/Scottish Government; spawner numbers Scottish Government).

¹ [Marine How Scotland's wild Atlantic salmon are faring - Marine \(blogs.gov.scot\)](https://blogs.gov.scot/marine/how-scotland-s-wild-atlantic-salmon-are-faring)

Progress on Actions

The strategy and plan identified five broad priority themes for action, supported by a strong evidence base underpinned by coordinated scientific research and monitoring. The actions are expected to be delivered throughout the five year timeline of the plan, with work on some actions starting in 2023 and others in subsequent years. It is important to recognise that while some actions can provide immediate benefit to wild salmon populations, the positive impact of other actions may be longer term.

An update on the actions that have progressed in 2023 is summarised below.

1. Improving the condition of rivers and giving salmon free access to cold, clean water.

This theme focuses on addressing the range of pressures acting on the freshwater environment. The actions identified aim to provide salmon with access to large areas of high quality habitat. Since publication of the plan;

- Studies and projects to deliver improvements as required to wastewater treatment works are on track. Five wastewater treatment works have been assessed as requiring no action. [Action 1.1]
- Studies and projects to deliver improvements as required to intermittent sewage discharges are on track. One additional intermittent sewage discharge has been identified as requiring action. [Action 1.2]
- Work is ongoing in 46 catchments to address diffuse pollution. During 2023 SEPA completed 341 initial farm compliance visits in 6 new priority catchments and 243 revisits to non-compliant farms in other priority catchments. [Action 1.4]
- SEPA continues to protect the water environment through application of the Controlled Activities Regulations and input to Land Use planning. [Action 1.5]
- SEPA, working closely with partners, managed a significant water scarcity event across several catchments during the summer of 2023. [Action 1.6]
- In 2023, priorities have been agreed and a timeline developed with operators to ensure the measures to improve flows and levels impacted by hydropower are delivered by 2027. Progress has been varied across Scotland. [Action 1.7]
- Scottish Forestry developed target areas which has identified 175,000 hectares of riparian land for tree planting, now eligible for an increased grant rate, which will provide multiple benefits, including shading to keep rivers cool. [Action 1.8 and 1.9]
- In 2023, work to restore 7,500ha of peatland across Scotland was undertaken by damming drains and revegetating eroded areas. [Action 1.10]

- A sub-group of the Scottish Beaver Advisory Group has been established to focus on beaver and fish interactions. The group have identified initial actions which includes identifying knowledge gaps that need further research. Habitats Regulations Appraisals (HRAs) have been carried out to assess the effect of beaver translocations on the Endrick Water and River Spey Special Areas of Conservation (SACs) with monitoring and mitigation plans agreed for each prior to the releases taking place. [Action 1.11]
- The [draft framework for 30 by 30](#) (the commitment to protect at least 30% of our land and sea for nature by 2030), outlines the route forwards for protected and conserved areas in Scotland making it clear that sites should encourage natural processes and ecological complexity and function rather than focussing on creating a static environment. Through this broader approach, and looking to work more at a landscape scale, ecosystem services will be improved, including healthier river catchments that support wild salmon. [Action 1.12]
- In 2023, 39 active barriers were scoped by SEPA. Twelve were screened out as requiring no action and 27 passed on to the design and licencing stage. Works to ease fish passage on two active barriers were completed. [Action 1.13]
- In 2023, 38 historic barriers were scoped by SEPA. Fourteen were screened out as requiring no action and 24 passed on to the design and licencing stage. Works to ease fish passage on three historic barriers were completed. [Action 1.14]
- In 2023, 28 asset barriers were scoped by SEPA. Ten were screened out as requiring no action and 18 passed on to the design and licencing stage. Works to ease fish passage on three asset barriers were completed. [Action 1.15]
- A contractor has been appointed by Scottish Canals to undertake an optioneering study focussed on fish migration on the Scottish Canals network. [Action 1.17]
- Approval has been granted for NatureScot to start the Species Licencing Review, including the procedures for the licencing of piscivorous birds. NatureScot are currently assessing options for considering bird population data in Scotland. [Action 1.19]
- Support from the Marine Fund Scotland has been provided to fisheries managers to purchase acoustic deterrent devices for the management of specialist seals in rivers. [Action 1.21]
- The [Scottish Invasive Species Initiative](#) (SISI) has entered its second phase from 2023-2036, supported by Scottish Government's Nature Restoration Fund. NatureScot continues to lead the SISI on behalf of the project partnership (made up of ten fishery Trusts and Boards and the University of Aberdeen). The largest invasive non-native species control project in the British Isles, the project controls American mink and a suite of invasive non-

native plant species over an area of some 29,500 km² (approximately 1/3 of mainland Scotland). These actions help to support the restoration of riparian habitats in catchments supporting the Atlantic salmon and the removal of a semi-aquatic predator that has Atlantic salmon as part of its diet. [Action 1.22]

- Scotland wide eDNA-based monitoring for invasive pink salmon was conducted in 2023 across 30 rivers. This work was coordinated through the Pink Salmon Task Group, water samples were collected by SEPA, NatureScot, Scottish Government, Fisheries Management Scotland and members of various fishery Boards and sample analysis has been carried out by Scottish Government. Pink salmon eDNA was consistently detected in 10 out of 32 rivers demonstrating presence of fish in these rivers, full findings will be published in due course. The [FMS reporting tool](#) allows sightings of pink salmon to be recorded. [Action 1.23]
- A working group to develop a Scottish-specific Angling Pathway Action Plan has been established with representatives from Scottish Government, FMS, Crown Estate Scotland, SEPA, NatureScot, Scottish Water, Angling Scotland, Scottish Canals and National Parks. The plan will address pathways of introduction and the spread of non-native species. [Action 1.24]
- Members of FMS are supporting a PhD at the University of Aberdeen entitled, “Detailed Analysis of Fish Pathogenic Oomycete Isolates from Scottish Rivers”. This project will investigate Saprolegnia with a view to providing clear guidance to fisheries managers. Any reports of Saprolegnia through FMS are automatically shared with the Fish Health Inspectorate prompting further investigation where appropriate. [Action 1.25]
- In 2023, a review on [risks and opportunities of stocking](#) was published by Scottish Government. The Science and Evidence Board are considering the evidence on stocking with regard to the scope for intervention where salmon populations are at risk of extinction. [Action 1.27]

2. Managing exploitation through effective regulation, deterrents and enforcement

Salmon angling is important to Scotland’s rural economy, and this theme aims to ensure adequate protection is provided to salmon through the management of exploitation. Since publication of the plan;

- The annual salmon stock assessment informed the revisions to the Conservation of Salmon (Scotland) Regulations 2016 which will come into effect from 1 April 2024, specifying where salmon are subject to mandatory catch and release practices for the 2024 season. [Action 2.1]
- The prohibition of the retention of salmon in coastal waters was maintained. [Action 2.2]

- FMS are leading on preparatory work to undertake a review of enforcement powers, the offences and penalty regime for salmon poaching (a wildlife crime) and other offences through the FMS Enforcement Committee. Steps were taken to raise the awareness of wildlife crime through stakeholder engagements. [Action 2.4]
- In areas without a functioning District Salmon Fishery Board, Scottish Government appointed water bailiffs who successfully completed Institute of Fisheries Management (IFM) exams. [Action 2.5]
- During a prolonged period of warm weather in summer 2023, advice was issued by Scottish Government on angling in warm weather to protect fish welfare. FMS will work in partnership with Angling Scotland and The Missing Salmon Alliance on refreshing the best practice catch and release guidelines. [Action 2.6]

3. Understanding and mitigating pressures in the marine and coastal environment

Salmon are a migratory species, that spend a significant proportion of their life in marine and coastal waters. This theme focusses on protecting salmon from the pressures they face in these areas. Since publication of the plan;

- Preparation continued on a new National Marine Plan for Scotland's seas (NMP2) to address the global climate and nature crises by carefully managing increased competition for space and resources in the marine environment. This included stakeholder participation through the [NMP2 steering group](#) and the launch of a new National Marine Planning Forum. [Action 3.1]
- The third year of data collection of the West Coast Tracking Project (a partnership between Atlantic Salmon Trust, Fisheries Management Scotland and Marine Directorate) tracking smolts through sea lochs, took place in 2023. The [ScotMER](#) programme funded the deployment of additional equipment to further understand the marine migration patterns of salmon post-smolts. The data collected across the multi-year project is now being collated and analysed. [Action 3.2]
- The ScotMER programme has funded a review of current knowledge and future research of offshore wind impacts on diadromous fish which will inform future research projects. In addition, the ScotMER programme has funded two smolt tracking projects in the Moray firth (2023-2024 and 2024-2025) investigating potential impacts on salmon and sea trout at constructed offshore windfarms. [Action 3.3]
- SEPA has developed and consulted on a sea lice risk assessment framework which will support sustainable development of fish farming by protecting the environment, with implementation in phases from 1 February 2024. [Action 3.5 and 3.6]

- Following a public consultation, Scottish Government announced that fishing for sandeel in Scottish waters will be prohibited from 26 March 2024 [Action 3.8]
- National Planning Framework 4 has been adopted which includes Policy 32(a) stating that to safeguard migratory fish species, further salmon and trout open pen fish farm developments on the North and East coasts of mainland Scotland will not be supported [Action 3.9]

4. Making a positive contribution through international collaborations

Salmon spend a large amount of time in the marine environment and it is important that we support international efforts to protect salmon beyond our jurisdiction. Since publication of the plan;

- Scottish Government officials contributed to the 40th Annual Meeting of the North Atlantic Salmon Conservation Organisation (NASCO) in New Brunswick, Canada where distant water fisheries measures at West Greenland were maintained and important agreements were reached on the future direction and priorities of the organisation in the context of the twin global crises of biodiversity loss and climate change. Scottish Government scientists showcased the pioneering work of Scotland's River Temperature Monitoring Network (SRTMN) at a NASCO special session on climate change. Annual reporting requirements were fulfilled. [Action 4.1, 4.2 and 4.3]
- A Scottish Government scientist participated in the long-running sampling programme at West Greenland to aid international stocks assessment efforts. [Action 4.4]
- Scottish Government scientists contributed data and undertook analysis on the 2023 stock assessment and provision of advice on Atlantic salmon by the [ICES Working Group on North Atlantic Salmon](#). [Action 4.6]
- Updates on the actions taken in Scotland under the *Gyrodactylus salaris* Road Map [NEA2307_UK-G-salaris-Road-Map-Update.pdf \(nasco.int\)](#) and efforts to monitor the invasive non-native pink salmon [CNL2361_Pink-Salmon-Update-2023-United-Kingdom.pdf \(nasco.int\)](#) were presented to NASCO at its annual meeting. [Action 4.7]
- Programmes and measures included in OSPAR Recommendation 2016/3 on furthering the protection and conservation of the Atlantic salmon in the OSPAR maritime area have been incorporated into the implementation plan. A report to OSPAR on implementation will be completed before the end of 2025. [Action 4.8]

5. Developing a modernised and fit for purpose policy framework

A task and finish group has been established, coordinated by FMS to provide recommendations to Scottish Government on how the policy framework governing freshwater fisheries management can be modernised.

A critical aspect of this work is to consider funding for the fisheries management sector. FMS and NatureScot have secured Facility for Investment Ready Nature in Scotland (FIRNS) funding to develop a sustainable Scottish source to sea, nature finance model. This will build on the creation of the Scottish Marine Environmental Enhancement Fund (SMEEF) to explore options for its longer-term structure and explore options to create a new fund for river catchment restoration. [Action 5.1]

Building an evidence base through coordinated scientific research and monitoring

Scientific research and monitoring are critical to providing a robust evidence base required to deliver the actions within the plan. Since publication of the plan;

- The [Wild Salmon Strategy Implementation Plan Science and Evidence Board](#), which reports to the Delivery Group has been established. The role of the Board is to provide evidence to the Delivery Group on a range of topics, in 2023 the Board has considered the evidence on warm water impacts on fish health and welfare and novel approaches to stocking. [Action A]
- In summer 2023, a report on the status of wild salmon in Scotland was published via a Marine Directorate [blog post](#). [Action B]
- There has been significant investment in wild salmon monitoring in 2023 through the National Electrofishing Programme for Scotland (NEPS) and the Adult Salmon Sampling Programme. The data collected is currently being collated and analysed, samples have also been collected for the National Introgression Programme for Scotland (NIPS). Funding has been provided through Marine Fund Scotland to Fisheries Management Scotland and it's members for the purchasing of new electrofishing equipment. Provisional catch statistics for 2022 were published on 1st March 2023, with the full [Official Statistics](#) published on 17th May 2023 [Action C].
- In 2023 Scottish Government continued to support the Scottish Fisheries Coordination Centre (SFCC). The SFCC has provided evidence based training and support to fisheries managers across Scotland. [Action D]
- The development of fisheries management plans, taking a coordinated approach across Scotland, funded by Crown Estate Scotland and Scottish Government, is underway, supported by FMS and SFCC and the plans will be publicly available in 2024. [Action E]

- A detailed scoping document has been developed for a study on the economic, environmental and social benefits of wild salmon in Scotland. Work is underway to identify a suitable contractor to undertake the work which will be funded by Scottish Government and Crown Estate Scotland. [Action F]
- Scottish Government funded hydroacoustic cameras have been installed on the rivers [Laxford](#) and [Deveron](#) as part of wider catchment scale restoration projects. The use of the cameras to count fish is being developed by the Atlantic Salmon Trust and the Deveron, Isla and Bogie Rivers Trust and this data will provide important information on wild salmon populations. [Action H].



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