



Members of Rural Affairs & Islands Parliamentary Committee
Scottish Parliament
Edinburgh
Eh99 1SP

4th June 2025

Dear Rural Affairs and Islands Committee member,

Committee Inquiry – Scotland’s salmon farming sector

Salmon Scotland is the trade body representing farmers and the supply chain of Scottish salmon. The Scottish salmon sector is a cornerstone of our marine economy, harvesting over 150,000 tonnes of Scottish salmon annually. This makes Scotland the third largest producer of Atlantic salmon globally. Our sector directly employs over 2,500 people, with a further 10,000 in indirect and induced roles supporting the sector. The farm gate value of our salmon production is estimated at £1.2 billion, contributing in excess of £760 million to the Scottish economy through direct, supply chain, and employment impacts.

In advance of your upcoming sessions to assess progress since the Rural Economy and Connectivity Committee’s (RECC) session 5 report, I wanted to cover the sector’s perspective. I attach:

- Headline briefing;
- Myth busting analysis.

Sustainability is our priority

Our sector leaders are farmers by trade with an ingrained responsibility to their fish and the environment in which they farm. Every farming and supply chain business has sustainability at the core of their operations. Every Scottish salmon producer has sustainability aims and objectives; there is a sector-wide sustainability charter in place which all producers have signed up to; and all of Scotland’s feed producers have sustainability drivers and report on performance.

Salmon farmers, including those based in Scotland, dominate the Collier-FAIRR protein producer index - a sustainability assessment of the world’s largest protein producers, which includes consideration of their performance against environmental, social and governance metrics¹.

Scotland and the UK’s retailers have their own sourcing policies and requirements for primary food producers in addition to numerous other independent sector auditing organisations which provide customer assurance. This is in addition to the government regulatory landscape which farmers must navigate and comply.

Action to deliver for Parliament

Professor Russel Griggs made key recommendations on the *“Scottish Government’s own regulatory agenda aims to focus on producing Better Regulation that allows businesses and sectors to operate within an environment that balances other societal and Government desires with the need to produce economic benefit within those constraints.”* This was in February 2022 - 26 months ago.

The Scottish Government has since prepared and published its [Vision for Sustainable Aquaculture](#) (July 2023) which the sector supports (and would look to be even more ambitious), and the Cabinet Secretary for Rural Affairs, Land Reform and Islands provided Committee with an update on the recommendations in May 2023ⁱⁱ.

Salmon Scotland provided evidence to the Rural Affairs, Islands and Natural Environment Committee (Wednesday, September 15, 2021) on Fisheries and Aquacultureⁱⁱⁱ and the Net Zero, Energy and Transport Committee (Tuesday, December 12, 2023) on the Scottish Biodiversity Strategy (Draft Delivery Plan)^{iv}.

Across the evidence sessions we have provided the latest information and actions which look to address challenges and drive the sector forward.

It would be welcome, over the course of the upcoming sessions, for the Committee to identify where better regulation has been achieved, since the Committee's initial recommendations, which allows Scotland's key aquaculture sector^v to operate effectively and efficiently.

We would be more than happy to provide more evidence in the session on 2 October as outlined in your workplan.

Yours faithfully

Tavish Scott
CEO
Salmon Scotland

ⁱ Fish Farming Expert article: <https://www.fishfarmingexpert.com/bakkafrust-coller-fairr-index-grieg-seafood/salmon-farmers-dominate-protein-sustainability-index/1589694>

ⁱⁱ Rural Affairs and Islands Committee; Meeting date: Wednesday, May 10, 2023
<https://www.parliament.scot/chamber-and-committees/official-report/search-what-was-said-in-parliament/RAI-10-05-2023?meeting=15305&iob=130528>

ⁱⁱⁱ Rural Affairs, Islands and Natural Environment Committee; Meeting date: Wednesday, September 15, 2021
<https://www.parliament.scot/chamber-and-committees/official-report/search-what-was-said-in-parliament/RAINE-15-09-2021?meeting=13305&iob=120696>

^{iv} Net Zero, Energy and Transport Committee; Meeting date: Tuesday, December 12, 2023
<https://www.parliament.scot/chamber-and-committees/official-report/search-what-was-said-in-parliament/NZET-12-12-2023?meeting=15614&iob=133239>

^v "In 2021, Atlantic salmon made up 96% of the aquaculture value, similar to previous years." Scotland's Marine Economic Statistics 2021; December 2023
<https://www.gov.scot/binaries/content/documents/govscot/publications/statistics/2023/12/scotlands-marine-economic-statistics-2021/documents/scotlands-marine-economic-statistics-2021/scotlands-marine-economic-statistics-2021/govscot%3Adocument/scotlands-marine-economic-statistics-2021.pdf>



Salmon farming in Scotland

- Scottish salmon farming is a domestic success story, growing from crofting roots in the late 1960s to become Scotland and the United Kingdom's number one food export.
- The sector provides a significant contribution to the Scottish economy - £766 million, over three-quarters of a billion GBP annually – and supports over 12,500 highly-skilled and well-paid jobs across Scotland, including in some of its most remote coastal and island communities.
- We have always put the health and welfare of our fish at the heart of everything we do. It is the right thing to do, and we know that if we look after our fish with care and attention, they will grow and develop well and sustainably, and will provide the highest quality salmon for consumers.
- Every producer and feed manufacturer part of the Scottish sector has sustainability at the core of their business operations.
- In the last 5 years (2019-2023) salmon farming companies have spent c. £975million on capital projects and operational activities focused on safeguarding and improving fish health and welfare.

2018 Committee report recommendations – progress across four themes:

- **environmental impacts and regulatory reform**
 - i. environmental impacts
 - each farm, during its planning phase has an environmental impact assessment (EIA) carried out to ensure that the marine environment has the capacity to host a fish farm.
 - SEPA randomly monitor the seabed below fish farms in addition to mandatory reporting by farmers for every fish farming cycle on every sea site. This monitoring is specifically designed to ensure each farm is operating within environmental limits that prevent significant harm to the environment.
 - Changing sea temperatures, in particular over the last two years (noting El Nino) with temperatures 1-2 degrees higher over the year. Salmon thrive and grow in warmer temperatures - the challenge arises from other impacts to water quality such as jellyfish and algal blooms.
 - ii. Regulatory reform
 - Professor Russel Griggs made 12 recommendations following his [review of the current regulatory framework](#), which was published on 10 February 2022 (26 months ago).
 - Despite acceptance of all the recommendations in principle by the Cabinet Secretary, we are unable to identify significant progress across these actions.

- The overall consenting process remains long and complex. All stakeholders agree reform is needed.
- **animal welfare**
 - i. mortality
 - invested c. £975million over the last 5 years to support improved fish health and welfare, with capital expenditure committed for future years.
 - all companies are signed up to the RSPCA Assured higher welfare standards.
 - Sector voluntarily reports monthly and full cycle mortality for each marine farm – no other UK livestock sector reports mortality figures with this level of transparency.
 - ii. sea lice
 - mandatory reporting (sector voluntary reporting on farms from 2018).
 - current integrated approach to fish health managing lice to low levels.
- **interactions with wild salmon**
 - i. data
 - declines in west coast salmon numbers are mirrored on Scotland’s east coast where there are no salmon farms.
 - ii. wild salmon fund
 - Salmon Scotland initiative to invest £1.5m over 5 years on interventions on the west coast to maintain and improve wild salmon populations: 24 projects have been funded, to date.
 - iii. sea lice risk framework (SLRF)
 - collaboratively working with SEPA on the implementation of new framework.
 - iv. west coast tracking project
 - collaborative project with the Scottish government, wild fisheries organisations and the sector to investigate migration routes of wild salmon. Salmon Scotland investment of £560k, with significant in-kind support (practical support on-the-ground) from members.
- **economic and social benefit**
 - i. The Scottish salmon sector provides over a three-quarters of a billion pounds (£766 million) to the Scottish economy each year of which over £300 million comes direct from farming operations; almost £400 million from supply chain (indirect) impacts and £66 million from employment (induced) impacts.
 - The sector spends £730 million on its supply chain which consists of over 3,600 Scottish businesses across the country, providing significant benefits across the economy.
 - ii. All farmers are signed up to our Sustainability Charter commitments, producing more than 150,000 tonnes of Scottish salmon, enough salmon for over 800 million healthy, nutritious meals every year. Listed companies report annually.
 - iii. Farming occurs around the west coast, highlands and islands of Scotland on over 200 active farms. While this is significant scale, the area of Scottish waters being farmed is less than half the area of Edinburgh airport.



Reported Versus Reality:

A pocket guide to Scottish
salmon farming

Reported versus reality:

A guide to Scottish salmon farming

The Scottish salmon farming sector is a global success story. Farm-raised salmon from Scotland is internationally recognised and renowned, sought after by the world's top chefs and is the country's number one food export.

But misinformation by anti-salmon farming activists abounds. Left unchecked, these inaccuracies have the potential to erode public confidence in our sector and its ability to grow responsibly.

This puts at risk coastal jobs and much need economic contribution in terms of salaries, taxes and export sales as well as our ability to feed the global population with healthy, tasty and nutritious food.

This document challenges some of the most common misconceptions about our sector.

Reported:

Half of all farm-raised salmon are dying.

Reality:

- In a typical year 85% of salmon will be harvested, but since autumn 2022 Scotland's salmon farmers have experienced reduced levels of survival, mainly due to environmental challenges associated with warming waters such as micro-jellyfish and algal blooms.
- Global seawater temperatures have set new records every day since May 2023.
- Climate change is a significant and growing challenge for all livestock and arable farmers – here in Scotland and across the world – as more extreme weather and temperature patterns risk making it harder to grow food to feed a growing population.

Reported:

Salmon farmers have increased their use of antibiotics, contrary to other food producers.

Reality:

- Antibiotics are only ever used as a last resort to treat a bacterial infection, and only under licenced veterinarian prescription.
- They are never used “routinely” and never to facilitate growth, but to treat specific animal health and welfare issues that can be addressed by antibiotics.
- The vast majority of salmon (90%+ of farms) received no antibiotic treatment in 2021 and 2022.
- The Scottish salmon sector is completely open and transparent, and publishes 100% of our antibiotic use. This is not the case for other livestock industries.
- In 2022 usage of antibiotics in Scottish salmon was 18.6mg/kg, compared to pig farming (71.8mg/kg), trout (44.1mg/kg.) and turkey (35.4 mg/kg). The sheep and cattle sectors do not publish data on antibiotic use.
- Our farmers do not use any antibiotics identified as high priority for human health, and due to withdrawal periods antibiotics cannot make it into the food chain.
- The Scottish salmon sector is a member of RUMA – the Responsible Uses of Medicines in Agriculture Alliance – and is working with other livestock sectors to reduce antibiotic use to as low as possible.

Reported:

Sea lice are out of control on salmon farms.

Reality:

- Sea lice occur naturally in the marine environment, on both the west and east coasts (where there are no salmon farms) and can affect both wild and farm-raised salmon.
- Farm-raised Scottish salmon benefit from millions of pounds of investment in initiatives to manage sea lice. Amongst many different management and control options, this includes the use of freshwater bathing to gently and naturally remove sea lice which only survive in sea water.
- Some of salmon farmers co-stock their sites with “cleanerfish” (ballan wrasse and lumpsuckers) as a natural way of removing sea lice from farm-raised salmon.
- Salmon farmers are able to remove sea lice from their salmon, safely and permanently removing them from the marine environment meaning they can no longer affect wild or farm-raised salmon.

Reported:

Salmon are so tightly packed in their pens it's akin to battery farming.

Reality:

- In Scotland, our salmon farms use stocking densities ranging between 1% fish to 99% water and 1.5% fish to 98.5% water. This is the stocking density when our fish are at harvest weight, so for most of the time the stocking density is much lower.
- These are some of the lowest stocking densities in the world and they ensure our salmon have plenty of room to move and shoal together, as they would in the wild.
- These densities are set and audited by independent, third-party organisations including Soil Association (organic), RSPCA Assured and GLOBALG.A.P, Friend of the Sea and the Aquaculture Stewardship Council in addition to the requirements set out in the sector's own Code of Good Practice.

Reported:

Salmon farmers dump chemicals into the sea.

Reality:

- Salmon farmers occasionally use a small number of licenced veterinary medicines approved as being safe for use in animals in food production to keep their fish healthy – either as bath treatments or in-feed treatments.
- Bath treatments including azamethiphos, highly diluted Hydrogen Peroxide (less than 10% of the strength used in a typical family mouthwash), or deltamethrin are used to remove sea lice. These are applied using tarpaulins inside our salmon pens to make sure the fish come into contact with the medicine – not unlike a sheep dip which is used to remove parasites from farmed sheep, or footbaths that are used to treat cattle.
- Once the treatment is complete the seawater containing medicine residues is released. The residues break down rapidly and disperse in the immediate vicinity of the farm.
- Hydrogen Peroxide rapidly breaks down into water (H₂O) and oxygen (O₂) in the water.
- As well as being safe for fish, our use of medicines and their release into the sea is robustly regulated by Scotland's environmental regulator (SEPA). Our environmental licences (CAR licences) ensure that our medicines do not pose any significant risk to the environment.

Reported:

Ecological “dead zones*” exist under salmon farms.

*areas on the sea-bed devoid of marine life.

Reality:

- Any waste – be it uneaten feed, fish waste or medicines – is regulated and closely monitored by SEPA to ensure it stays within safe environmental limits. Regulatory controls are set on a farm-by-farm basis based on the environmental conditions at each location, including tidal and other current flows and existing seabed-dwelling marine life.
- Salmon farmers carefully monitor their fish when they are being fed to ensure all our fish are fed properly and that no feed is wasted and ends up on the seabed. They do this using underwater cameras which are used to understand feeding behaviour.
- Every salmon farm in Scotland is fallowed left empty (or “fallowed”) for a minimum 28 consecutive days between each production cycle, allowing the seabed to restore itself naturally. In practice, most farms are routinely left fallow for much longer than 28 days.

Reported:

Wild salmon are facing extinction because of salmon farming.

Reality:

- All stakeholders agree that across the globe, populations of wild salmon are in decline, and numerous pressures have been identified. The Scottish Government has specifically identified over 40 specific pressures on wild salmon including water quality, exploitation (fishing), obstacles to fish passage, and thermal habitat. Although salmon farms have been identified as a pressure, there is no evidence of an impact on wild salmon populations in Scotland.
- Marine Scotland data confirms that wild stocks of Atlantic salmon have declined at similar levels on Scotland's east coast, where there are no salmon farms.
- In 2020 Peter Pollard, head of ecology at SEPA, answered a question at a Scottish Parliament committee: "Do we think that sea lice from farmed fish are responsible for the declines that we have seen over the decades in wild fish? No."
- Scotland's salmon farmers are playing their part in addressing the decline of wild salmon, in part through a £1.5 million Wild Fisheries Fund to fund community-led conservation projects, and the West Coast Salmon Tracking Project to fund research into wild salmon migratory routes.

Reported:

land-based salmon farming is a more sustainable option.

Reality:

- Many salmon spend the first year/18months of their lives in land-based freshwater hatcheries, where they are hatched from eggs (ova) and are grown to become smolts, ready to go to sea.
- Land-based salmon farming for the marine phase of salmon farming uses considerable amounts of land and electricity (which increases its carbon footprint) and stocking densities are expected to be significantly higher than conventional sea-based pens in order to offset higher input costs.
- We believe that the best way to farm fish in the most natural an environment is to farm in sea pens, where fish can experience Scotland's high-quality, fast-moving water that contributes to the taste, texture and quality of Scottish salmon.

Reported:

Salmon farming should not be allowed in marine protected areas.

Reality:

- Responsible stewardship of a healthy marine environment is vitally important for the sector. One in three salmon farms already operate responsibly in marine protected areas (MPAs), which currently cover 37 per cent of Scottish waters.
- Many of these MPAs were designated after the farms had already been established in the area and there is no evidence that Salmon farms cannot continue to operate within MPAs for many years to come.
- Previous proposals to cover 10% of Scotland's waters with highly protected marine areas (HPMAs) would ban virtually all human activity from these, without any evidence they are appropriate or provide an overall better option to existing marine protected areas.
- Salmon Scotland has warned HPMAs could put jobs in fragile coastal communities at risk and undermine the government's vision of a 'blue economy'.

Reported:

There is no more room for salmon farming to grow.

Reality:

- Salmon farms cover 0.07% of Scotland's waters, or an area roughly half the size of Edinburgh airport, yet our economic contribution to Scotland is worth £766million (GVA) a year.
- For each hectare we occupy, salmon farms provide a far greater economic return to the Scottish economy than other farming systems.
- The Scottish salmon sector is generally growing at a slower rate than most of our international competitors. Faster, responsible growth would help us to meet increasing consumer demand for our fish and provide more jobs and economic benefit for coastal communities.

Reported:

All profits from salmon farming go overseas.

Reality:

- Scottish salmon production companies paid more than £100 million in national and local taxes since the Covid pandemic. Over £250 million has been paid in wages and salaries in the same period with national insurance and pension contributions taking that total to more than £300 million.
- The Scottish salmon sector has grown from the cottage industry that developed in the early 1970s. During that time the scale of investment and the number of planning or operational regulations that need to be managed has made salmon farming a highly specialised sector with a small number of global operators with the experience and expertise to rear salmon in Scotland's marine environment.
- In addition to supporting thousands of jobs that pay an average of £36,000 per annum (well above the Scottish national average), salmon farming companies are also investing millions in farm investments, new jobs, voluntary community benefit initiatives and local infrastructure upgrades to roads, bridges and piers.

