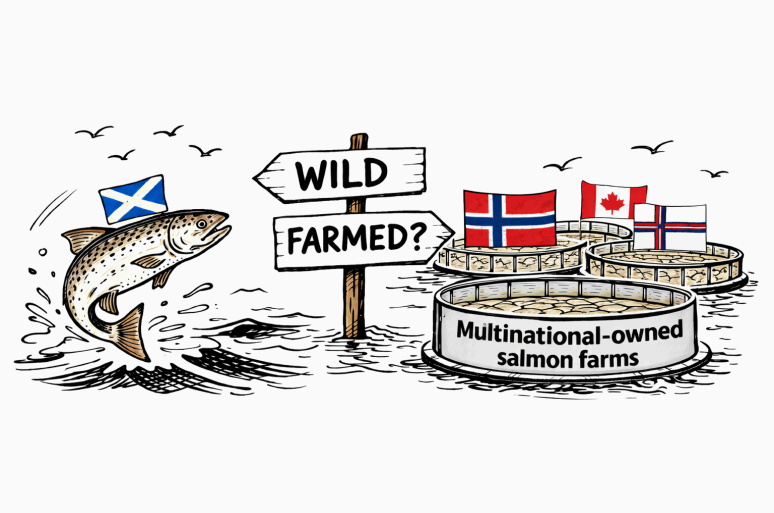
FAO members of the Scottish Parliament's Rural Affairs & Islands Committee in regard to the Committee's Follow Up Inquiry on Salmon Farming, February 2026



Members of this Committee stand at a crossroads for Scotland's relationship with our shared natural heritage. **To secure the recovery of our wild Atlantic salmon, WildFish stands alongside many communities and businesses who believe that further expansion of open-net salmon farming in Scotland should be halted without further delay**.

WildFish welcomes the Committee's decision to extend its scrutiny of salmon farming and to test, through evidence sessions with industry and government, whether meaningful progress has been made since the Scottish Parliament's landmark cross-party inquiry in 2018, which concluded that "*the status quo is not an option*."

Since that inquiry, the consented biomass for Scottish salmon farms has increased by over 79,000 tonnes, with a commensurate increase in production. The industry's expansion has therefore continued at scale during a period in which the Scottish Parliament has repeatedly expressed deep concern about fish health, environmental protection, and regulatory effectiveness.

WildFish (formerly Salmon and Trout Conservation Scotland) is a charity registered in Scotland, with a mission to protect wild fish and their habitats, including Scotland's wild salmon populations which are in severe decline. Salmon is an iconic species and salmon farming is widely recognised in scientific and regulatory literature as posing significant risks to their recovery - particularly through the transfer of parasites, disease and pathogens (notably sea lice), as well as genetic impacts arising from the 'escapes' of farmed salmon.

As a conservation charity, we have therefore maintained a public interest in the effective regulation of the salmon farming industry.[1] Our assessment, based on the cumulative evidence reviewed below, is that the current model of **intensive salmon farming is incompatible with the recovery of wild salmon populations at scale and should be phased out as part of a managed transition.**

Our position is not ideological - it is grounded in evidence and in the Scottish Parliament's own findings. We reject - and are perturbed by - the regrettable attempts of some industry representatives to characterise WildFish and other community-based interests as "attacking hard-working salmon farmers" or "extremist."[2] Our concern is the integrity of Scotland's natural environment and the credibility of its regulatory system.

Our submission below: (i) audits progress against the Committee's 2025 recommendations on areas where we have most interest and concern; (ii) presents updated evidence on the impacts of farm-origin sea lice, farmed fish disease and mortality, escapes, regulatory performance, and economic impacts (iii) presents the case for a moratorium and a managed phase-out and (iv) and sets out important emerging evidence that the removal of salmon farms from sensitive marine environments can deliver ecological recovery and long-term economic resilience, in other words - **a positive economic and environmental alternative to the expansion of salmon farming**.

Industry expansion since 2018

In 2018, following one of the most extensive evidence-gathering exercises ever undertaken[3] on the salmon farming sector, the Scottish Parliament's Rural Economy and Connectivity Committee concluded that "*the status quo is not an option*." It sent an unambiguous signal to the industry and government that the industry was neither being regulated effectively, nor performing acceptably.

Since the original findings of that parliamentary inquiry, new approvals for 'biomass' consents for Scottish salmon farms have added an additional 79,041 tonnes.[4] At least 18 new salmon farms have been approved in that time, with dozens of existing salmon farms securing extensions to

[1] In 2012, WildFish gave evidence to the (then) Rural Affairs, Climate Change and the Environment (RACCE) Committee of the Scottish Parliament, which was then considering the impact of sea lice and escapes from Scottish salmon farms on wild fish during the passage of the Aquaculture and Fisheries (Scotland) Bill, but the 2013 Act failed to provide protection for wild salmonids from the sea lice emanating from fish farms. In 2015, WildFish lodged a formal Petition with the Scottish Parliament, calling on the Scottish Government to strengthen Scottish legislative and regulatory control of marine fish farms to protect wild salmonids of domestic and international conservation importance. After consideration by the Petitions Committee, the issue was referred to the Environment Climate Change and Land Reform, which subsequently undertook the 2018 inquiry.

[2] https://www.salmonscotland.co.uk/news/the-great-masquerade

[3] https://digitalpublications.parliament.scot/Committees/Report/REC/2018/11/27/Salmon-farming-in-Scotland#Annex-B--Written-Submissions

[4] There is no single centralised repository of information relating to planning consents for salmon farms. This analysis has been drawn from a database initially established by WildFish's former solicitor Guy Linley Adams a few years ago and which has since been admirably developed and curated by a member of the Coastal Communities Network who routinely monitors salmon farm applications and their status.

their permitted biomass. The most recent Government farm production survey shows annual production has risen largely commensurately to 192,000 tonnes in 2024, up 23% since production levels in 2018 (156,025 tonnes).

Sum of Maximum Biomass Allowed in Scottish salmon farms, by company (tonnes)

Operator	2018	2025
Bakkafrost Scotland Ltd	93,407	108,979
Cooke Aquaculture Scotland	62,927	71,665
Grieg Seafood Shetland Ltd	750	750
Hoganess Salmon Ltd	100	100
Kames Fish Farming Ltd	6,510	6,510
Loch Duart Ltd	22,296	23,921
MJM Salmon Ltd	300	300
Mowi Scotland Ltd	111,012	125,788
Organic Sea Harvest Ltd		9,850
Scottish Sea Farms Ltd	133,223	145,201
Slett Salmon Ltd	150	150
Grand Total	430,675	493,214

Source: https://aquaculture.scotland.gov.uk/Data/FishFarmMonthlyBiomassAndTreatmentReports[5]

Salmon farms Peak Biomass for each region for 2018 and 2025

Local Authority	2018		2025	
	Peak biomass	% for each region	Peak biomass	% for each region
Argyll and Bute	43,210	21.3%	42,963	19.7%
Highland	52,520	25.9%	65,903	30.2%
North Ayrshire	782	0.4%	923	0.4%
Orkney Islands	18,771	9.3%	29,181	13.4%
Shetland Islands	44,167	21.8%	47,293	21.7%

[5] Note the discrepancy between 'total consented biomass' in 2025 and 'total consented biomass approved via planning applications' may be explained by some farms becoming inactive.

Western Isles	42,964	21.2%	31,808	14.6%
Grand Total	202,414	100.0%	218,071	100.0%

Calculated by adding together the peak biomass in each farm over the year for each region

However, the core performance indicators that concerned the Scottish Parliament in 2018 - sea lice pressure, high mortality rates, disease outbreaks, escapes, and cumulative environmental risk - remain persistent problems. The scale of production has increased, reform of the regulatory architecture has stalled, and ecological impacts have intensified.

There is no evidence that the fundamental operating model of open-net cage salmon farming in Scotland has materially altered since 2018, and yet industry has expanded its consented capacity by nearly 15%.

3. Progress in the past year

In January 2025, we note that instead of recommending a moratorium, this Committee gave government and industry a further year to demonstrate concrete progress. It was a significant act of political restraint and granted the industry a conditional reprieve.

We have reviewed the progress against a subset of the Committee's 65 recommendations that are most material to our concerns, to assist with the Committee's scrutiny[6]. We map these issues to recommendations made by the Committee.

4. Persistent structural risks

WildFish's concern is that the pressures affecting wild salmon are not incidental or temporary, but structural. Open-net salmon farming concentrates 'biomass' within Scotland's public inshore waters in ways that amplify parasites, disease, escape risk and spatial conflict. The sections that follow outline these systemic risks and explain why they remain incompatible with the Scottish Government's multiple statutory commitments to nature restoration.

Sea lice

Sea lice remain the most extensively studied and internationally recognised pathway through which open-net salmon farming poses a risk to wild Atlantic salmon and sea trout. The scientific evidence base is now substantial and WildFish has updated its literature review of the latest

[6] While the Committee's report is structured under four thematic headings (fish health and welfare; environmental impacts; wild fish interactions; planning and consents), the recommendations themselves span a broader range of economic, governance and regulatory matters. For clarity, this submission focuses on outcomes and systemic performance of the industry. WildFish has separately developed a more detailed audit of the 65 recommendations.

scientific research[7]. Rather than rehearse the extensive evidence base here,[8] we want to make a basic point: absolute farm-specific causation is inherently difficult to prove. Lice larvae disperse widely, and smolts migrate through multiple coastal zones. However, the absence of some precise attribution does not negate population-level evidence of harm. Regulators are required to prevent deterioration, not wait for irrefutable proof of species collapse before acting.

Against this background, SEPA's introduction of a Sea Lice Regulatory Framework in 2024 represented a significant - albeit overdue and still inadequate - attempt to regulate farm-origin lice impacts on wild fish under the Controlled Activities Regulations (CAR). Notices of Variation introduced adaptive management requirements and "standstill" conditions intended to prevent further deterioration.

However, all major salmon farming companies operating in Scotland have appealed these licence variations to the Planning and Environmental Appeals Division (DPEA). These appeals challenge SEPA's legal competence to regulate lice for the protection of wild fish and contest both the procedural and substantive basis of the new conditions.[9]

The result is that the principal regulatory mechanism designed to prevent further deterioration of wild salmon populations has been delayed and remains actively contested by industry.

And the result of that is ongoing environmental impact: recent analysis of annual sea lice figures[10] shows that: 1,274 weekly lice counts exceeded the industry's own Code of Good Practice (CoGP) lice guidelines in 2025. That compares to 1294 (2022), 1155 (2023), 934 (2024).

2025 also saw a major escalation in lice levels in the second half of the year, with averages significantly higher than in previous years (0.50 in 2022, 0.48 in 2023, 0.42 in 2024 and 0.57 in 2025). It is also worth noting that there is an underlying concern that these figures do not accurately reflect the true extent of sea lice on salmon farms (see comments on 'data credibility' below).

Successive committees have signalled that meaningful regulatory reform must precede growth. Where that reform is subject to ongoing legal challenge, it cannot reasonably be described as

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[7] This review is extensive and available to any Committee member on request.

[8] Independent reviews have concluded that salmon farms elevate lice burdens in surrounding coastal waters and that these elevated burdens are associated with reduced marine survival of wild salmonids. Comparative release studies in Norway and Ireland have indicated 12–44% additional mortality in returning adult salmon in farm-intensive areas attributable to lice exposure. Sea trout are particularly vulnerable as they reside largely in coastal habitats where farms are located. The Scottish Government's own Wild Salmon Strategy acknowledges that salmon farms can "*substantially elevate levels of sea lice in coastal habitats*" and increase mortality risk under certain conditions. In December 2023, the IUCN reclassified UK Atlantic salmon as Endangered and identified mortality due to salmon lice from salmon farms as a matter of concern.

[9] WildFish is an observer party to the appeals process and made a submission to the DPEA in March 2025, outlining the long backstory to the implementation of the Sea Lice Monitoring Framework. This submission is available on request.

[10] https://animalequality.org.uk/news/2026/02/09/scottish-salmon-industry-admits-to-exceeding-lice-limits-over-1000-times-last-year/

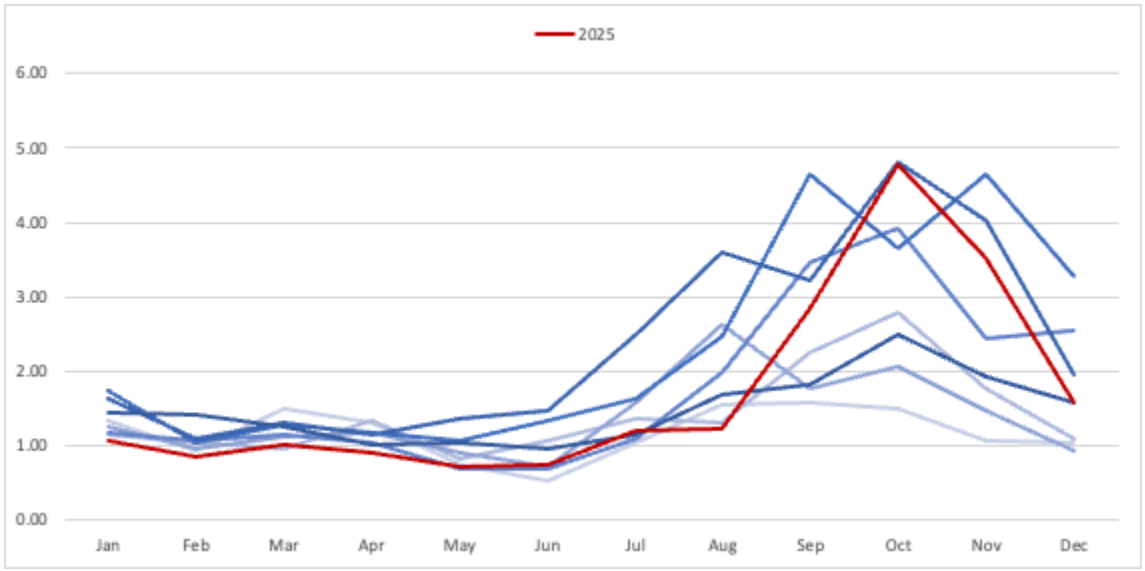
settled or secured. In these circumstances, continued expansion risks entrenching pressure before the regulatory safeguards intended to manage it are in place.

Mortalities and disease

High mortality rates remain the most troubling indicator of systemic dysfunction within the salmon farming sector. While industry explanations often cite environmental events or biological unpredictability, persistently elevated mortality is unacceptable.

At the end of September, Salmon Scotland announced "*Record survival figures for January-August 2025*."[11] Yet the industry's own historical data show that this period typically accounts for the lowest losses of the year, with the vast majority of mortality occurring in the autumn and early winter months.

Average monthly mortality 2018-2025



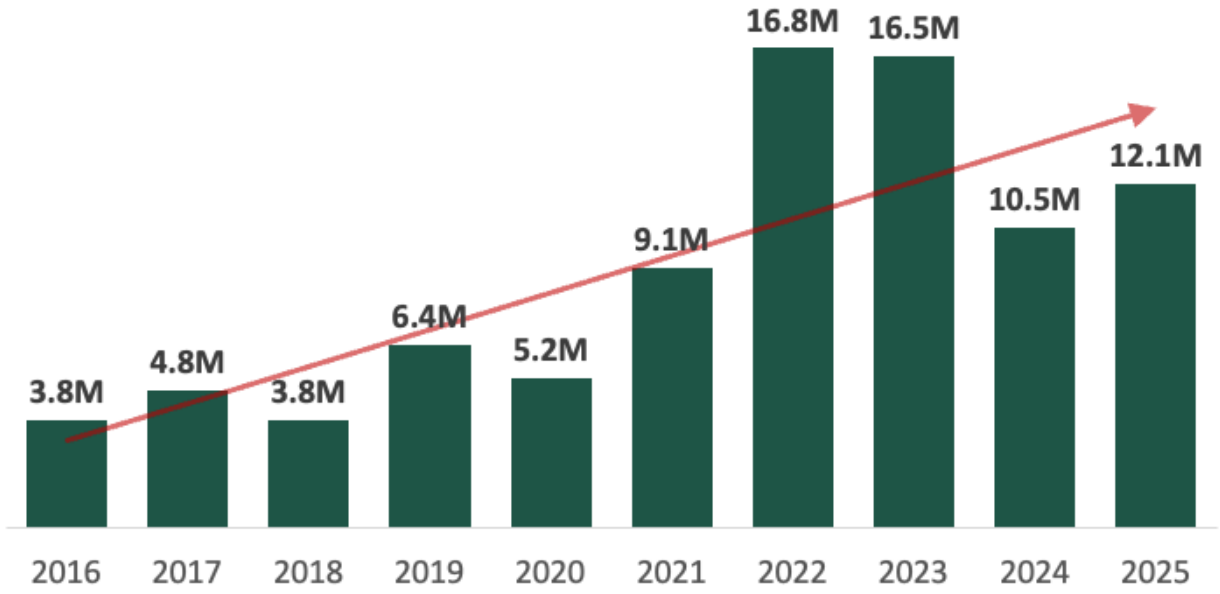
October 2025 saw one of the highest monthly mortality ever recorded, only surpassed in October 2023, when the industry recorded its worst year on record. At that time, salmon farmers attributed the unprecedented losses to El Niño, jellyfish blooms and record sea temperatures.

Even with knowledge of monthly mortality percentage figures, it is impossible to predict how the Scottish Fish Farm Production Survey 2025 will look when it is released in the autumn, because production spans a two-year cycle and the timing of harvests - how many fish are removed in year one compared with year two - remains unknown. Monthly mortality percentages alone do not tell us how many fish were actually in the water in any given month, so they give no indication of the total size of the farmed population. Without knowing the size of each cohort, when it was stocked, and when it was harvested, monthly figures cannot be translated into final production outcomes. **What the available data can show, however, is the overall direction**

[11] https://www.parliament.scot/-/media/files/committees/rural-affairs-and-islands-committee/correspondence/2025/salmon-farming-salmon-scotland-29-september-2025.pdf

of travel: the trendline above indicates that mortality rates continue to rise, and this pattern is also reflected in the Fish Health Inspectorate (FHI) mortality data below.

Reported salmon deaths in Scottish salmon farms



Source: Scotland's Fish Health Inspectorate[12]
Notes: These figures only cover salmon, not rainbow trout.

The FHI data provides an insight into the number of fish that have died but it's important to note the following caveats meaning these figures are an underestimate.

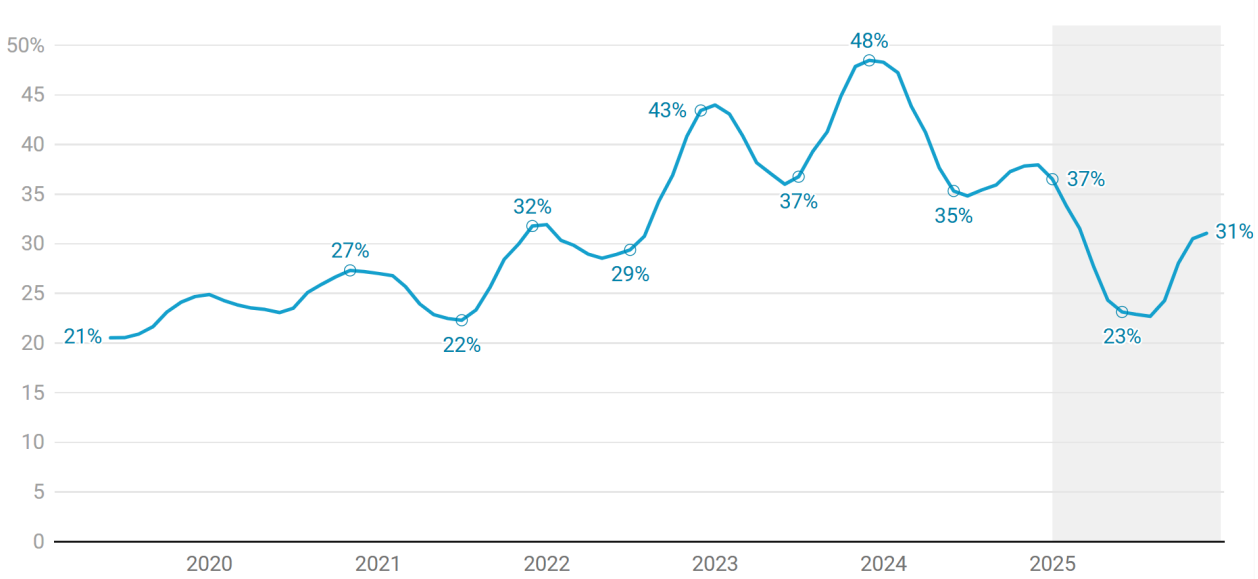
- Farms only report weekly mortality rates when they exceed set threshold limits.
- Farms are only required to report losses 6 weeks after stocking.
- Farms are not required to report culls.
- Fish that die in transport are not reported

Annual mortality

For that reason, industry analysts have previously aggregated monthly mortality rates over an 18-month window as a proxy for cycle-level performance. We have applied the same approach to extend this analysis through to the end of 2025. The resulting table shows that the trend is highly variable rather than steadily improving, and that 2025 does not appear to represent a "best year on record" for mortality outcomes; on this measure, it performs worse than the previous year.

Cumulative Mortality Rate in Scotland (18 Month Aggregate)

[12] https://www.gov.scot/publications/fish-health-inspectorate-mortality-information/



Average mortality rates in Scottish Salmon for a typical 18 month production cycle based on monthly publicly reported rates from farms up through December 2025
Source: Salmon Scotland monthly mortality rate reports[13]

We also have concerns about the Scottish Government's proposed methodology for categorising mortality incidents. The Scottish Government's proposed "persistent elevated mortality" screen seems to filter out many mortality events by design: it first defines "elevated" as monthly mortality above the 95th percentile (5.68%) in SEPA's dataset, then defines "recurrent" as mortality that is consecutively elevated over a 2-month period and occurs across two or more consecutive stocking cycles, before only then assessing whether the recurrent events are "persistent" (i.e. driven by the same causal factors). As a result, significant incidents that are acute (e.g., a major single-month spike) or repeated but not consecutive may be screened out as "elevated but not recurrent/persistent", despite potentially indicating serious welfare or environmental failure. In addition, the persistence judgement apparently relies on a Large Language Model to categorise 'free-text' mortality causes in industry's reporting to the Marine Directorate, followed by expert review, but the Scottish Government does not yet set out how that model is validated, audited, or made transparent. Until more detail is shared on the methodology, it is difficult to take an informed view.

The reasons for mortalities are not consistently reported, making it difficult to assess. However, WildFish analysis of FHI data indicates that nine of the top 10 most common reasons for a mortality event are potentially the result of disease in the farmed fish population.

This is highly significant for wild salmon. Six of these diseases are assumed to be transmissible to wild fish populations from salmon farms, either via the water column from open cages, via

[13] https://datawrapper.dwcdn.net/tMWL3/2/

waste, or from escaped fish entering the wider ecosystem. There is emerging research into the significance or otherwise of the spread of pathogens from farmed to wild salmon. [14]

Escape risk

While escape numbers fluctuate year to year, the risk remains structurally present. Even infrequent large-scale escape events can have disproportionate ecological consequences for wild stocks. WildFish analysis[15] of the official farmed fish escape database indicates that since those records began three decades ago, reported salmon escapes from Scottish farms total in the region of 6,000 tonnes of fish. That equates to likely well over three million farmed salmon accidentally released into Scottish waters. Farmed salmon escapees – even on conservative assumptions – amount to 8 times today's wild population, ie the roughly 400,000 wild Atlantic salmon[16] that now return to Scotland's rivers each year, down from around a million in the 1970s.

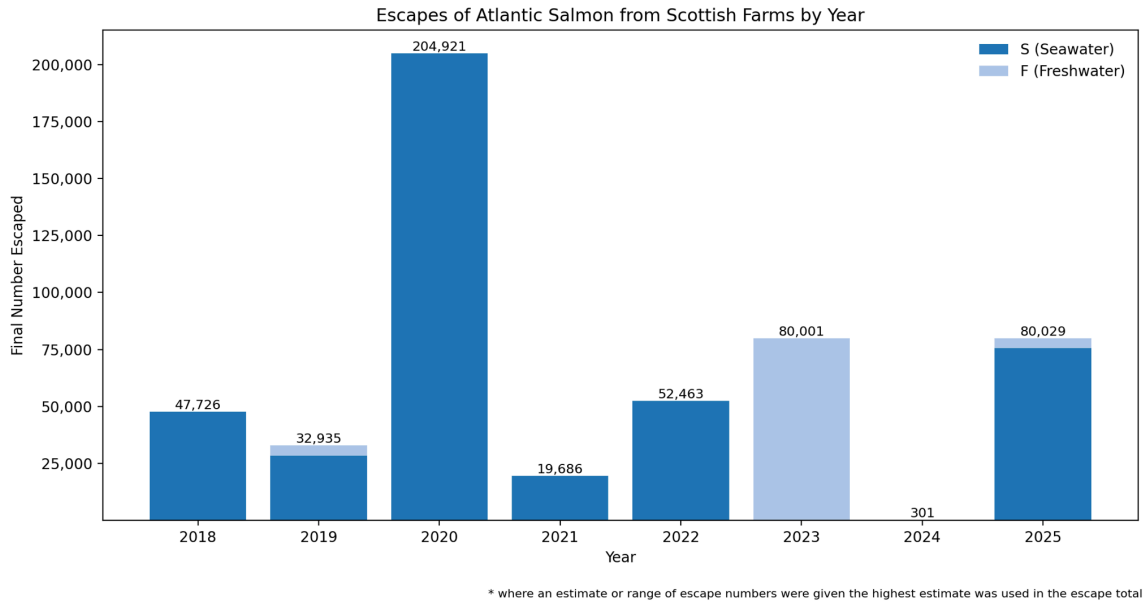
The recent escape of 75,000 farmed salmon from Mowi's Gorsten farm in Loch Linnhe is patent evidence that the risk of escapes has not been minimised and that the enforcement regime remains totally inadequate. Highland Council's Lochaber Area Committee have recorded serious concern[17] about the incident and recommended that the local authority seek information from the Scottish Government and its agencies. The Scottish Government's progress update to the Rural Affairs and Islands Committee (in September 2025) that it has "*committed to prioritise progress on penalties for fish farm escapes in 2026/2027, however some initial scoping work has commenced to consider options for the introduction of penalties",* demonstrates an unacceptably slow response to the gravity of this ongoing risk.

There also remain systematic weaknesses in how escapes are reported. None of the figures visualised in the graph below record the routine leakage of much smaller juvenile salmon, where millions of small farmed salmon spill out of the numerous freshwater facilities around Scotland. This is a systemic issue that once again evidences why the production model of salmon farming is simply incompatible with effective conservation and recovery of wild salmon.

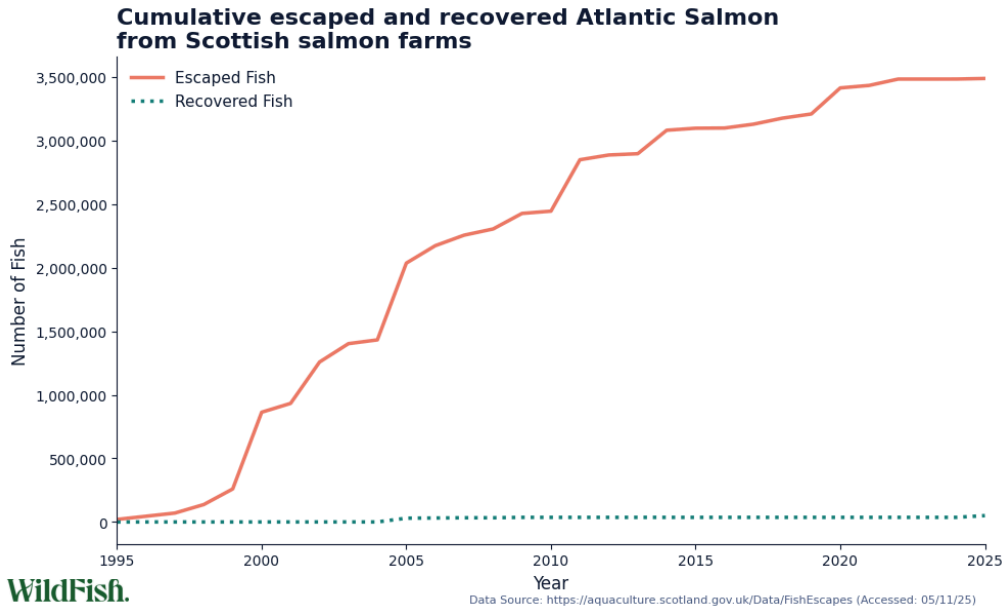
[14] https://www.nature.com/articles/s41598-024-83250-5
https://www.science.org/doi/10.1126/sciadv.adn7118

https://www.sciencedirect.com/science/article/pii/S0044848611001347

[15] https://wildfish.org/latest-news/scotlands-great-salmon-escape-a-continued-crisis/
[16] https://www.nature.scot/doc/scotlands-changing-nature-atlantic-salmon
[17] https://www.salmonbusiness.com/highland-council-to-press-scottish-government-on-penalty-regime-for-escapes/



80,000 escaped salmon in 2023 were not reported in the official escape figures published on Scotland's aquaculture website. This is because technically it is not a legal requirement for farmed fish transporters to report escapes.[18] It is unknown how many more of these escapes have gone unreported. Despite this escape being reported by the operator, as of February 2026, the escape had still not been added to the government's official database.



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https://www.gov.scot/binaries/content/documents/govscot/publications/foi-eir-release/2025/07/foi-202500458424/documents/eir-202500458424---information-released---annex-a/eir-202500458424---information-released---annex-a/govscot%3Adocument/EIR%2B202500458424%2B-%2BInformation%2Breleased%2B-%2BAnnex%2BA.pdf

Ineffective enforcement

Effective regulation requires credible enforcement capacity. Current inspection regimes rely heavily on scheduled visits and operator-reported data. There is extremely limited capacity for effective unannounced inspections - as the FHI and other agencies have no vessels to board fish farms - they thereby rely entirely on the farm operator to facilitate access to the farm site.

Where mortality events, lice exceedances or escape incidents occur, consequences are often administrative rather than providing a deterrent. A recent freedom of information request made by Animal Equality UK revealed that the Animal and Plant Health Agency (APHA) inspected only 21 of Scotland's 213 active salmon farms, between January 2023 and October 2025. None of the 20 worst-performing sites, which in combination accounted for more than 10m fish deaths, were inspected. Analysis of the issue reported in the Guardian found that only two unannounced inspections were carried out between January 2023 and September 2025, both of which were in 2024. A regulatory framework that continues to depend primarily on self-reporting and negotiated compliance is demonstrably undermining public confidence.

4. Regulatory integrity and data credibility

Despite repeated assurances that Scotland operates a "robust regulatory regime," significant concerns remain regarding data integrity and transparency in salmon farming.

Industry representatives have publicly claimed as recently as February 2026[19], that the sector has achieved "near record lows" in sea lice levels. That assertion does not align with available data showing routine exceedances of Code of Good Practice thresholds and average sea lice levels in 2025 well above recent multi-year baselines (as set out above).

More troublingly, questions about the accuracy and honesty of sea lice reporting have been raised not only by external observers, but by figures within the salmon farming sector itself. In March 2026, a senior employee of Loch Duart Ltd, a member of Salmon Scotland, inferred that other salmon farm companies were not reporting lice counts 'honestly'.[20] This seriously undermines public confidence in the accuracy of lice data. Monitoring and responding to lice levels are central to the regulatory control of impacts on wild fish.

Concerns regarding data integrity have been compounded when an industry analyst identified discrepancies between industry and SEPA data. Following journalistic investigation, Scottish Salmon subsequently acknowledged that they had under-reported their antibiotic usage for 2024 by around 66%.[21] The correction significantly altered the reality of medicine use within the sector for that year.

[19] https://www.theferret.scot/salmon-company-lashes-out-at-own-industry-over-honesty-on-lice/
[20] https://www.theferret.scot/salmon-company-lashes-out-at-own-industry-over-honesty-on-lice/
[21] https://www.theferret.scot/farmed-salmon-were-treated-with-a-lot-more-drugs-than-the-industry-said/

Antibiotic use is a proxy for disease pressure, fish welfare performance and environmental discharge. A discrepancy of this magnitude inevitably raises wider questions about the reliability of other self-reported industry data.

Structural reliance on self-reporting
Much of the regulatory framework relies on operator-supplied data - including sea lice counts, mortality figures and medicine use. It is not sufficient to assert that systems are robust; confidence must be earned through demonstrable transparency and independent validation with frequent unannounced visits to farms by the relevant regulators.

If Parliament is to rely on reported improvements in lice levels, mortality reduction or medicine use as evidence of progress, then the underlying datasets must be beyond dispute. At present, the existence of significant corrections and inferences of mis-reporting indicates very clearly that this threshold is far from being met.

5. Economic impacts

The Committee will no doubt hear repeated claims that salmon farming is an economic 'success story' that Scotland must continue to grow. WildFish does not dispute that salmon farming generates turnover and employment. The problem is that **headline economic claims routinely exaggerate benefits, ignore counterfactuals, and discount costs that are borne by coastal communities and other marine sectors**.

Costs and benefits are being mis-stated, and the burden is falling on others. In December 2025, WildFish and the **Sustainable Inshore Fisheries Trust (SIFT)** published an independent economic assessment using Skye and Lochalsh as a case study[22]. It concluded that existing approaches often focus on gross impacts rather than net impacts, and that the absence of robust counterfactual analysis inflates perceived benefit.

The study identifies structural and distributional injustice:

- A significant share of Scotland's salmon farming is owned by multinationals, with profit "leakage" overseas reducing the sector's claimed contribution to Scotland's economy.
- The industry benefits from public support and tax exemptions (including a long-standing business rates exemption), while many costs (environmental, spatial, reputational and enforcement burdens) are carried by the public and by other marine users.
- The study estimates that the negative impacts of salmon farming have cost between 12 and 38 jobs locally in other sectors (including mussel farming, creeling and marine tourism) in the Skye and Lochalsh case study area alone.

Formal policy is currently sanctioning further expansion without a Scotland-wide net impact assessment, and without any credible mechanism to ensure that host communities share proportionately in benefits or are compensated for losses.

[22] https://wildfish.org/latest-news/independent-analysis-shows-salmon-farming-is-failing-to-pay-its-way-in-scotland/

WildFish and SIFT therefore argue that any further public funding and further expansion should be halted until a comprehensive, Scotland-wide economic assessment is completed - one that properly accounts for displacement of other sectors and for the full costs of regulation, environmental harm and loss of marine opportunity.

The industry's expansion model is increasingly colliding with other legitimate marine sectors - particularly inshore fishing and shellfish interests - whose concerns are being expressed directly through planning and consenting processes.

- **North Gravir (Isle of Lewis):** Planning materials and representations record deep concern about loss of commercial fishing grounds and displacement of fishing activity, including arguments that the proposed development would cause unacceptable disruption to fishing livelihoods.[23]

- **Fish Holm (Yell Sound, Shetland):** Reporting around the Fish Holm development has documented objections from fishing representatives concerned about loss of access to fishing grounds and the impacts of a very large development on the marine environment.[24]

Alongside formal planning conflicts, recent investigative reporting[25] has captured a growing frustration in parts of the Highlands and Islands that major operators engage in high-profile greenwashing and "community" messaging while communities actually experience the negative impacts of industrial expansion. The expansion of salmon farming without effective regulation is breeding conflict and eroding trust.

The evidence above indicates that the economic case for expansion is being presented selectively, and that the costs - especially to inshore fishing, shellfish farming, tourism, public oversight and Scotland's natural capital - remain under-accounted for in decision-making.

6. Case for a moratorium on expansion

Taken together, these factors raise a more fundamental question: whether continued expansion of open-net salmon farming is compatible with Scotland's stated objective of wild salmon recovery. For the reasons set out above - the weight of scientific evidence on sea lice impacts, persistently high mortality, disease amplification, spatial conflict with other marine users, and the continued decline of wild salmon - **WildFish supports an urgent halt to further expansion of open-net salmon farming in Scotland's coastal waters**. This position is supported by a wide range of community organisations and business interests.

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[23] https://www.bbc.co.uk/news/articles/c23ezydp3mjo

[24] https://www.shetlandtimes.co.uk/news/morally-wrong-fishermen-double-down-on-objection-to-plan-421251/

[25] https://www.desmog.com/2025/12/16/they-dont-give-a-damn-scotlands-highland-communities-tire-of-charm-offensive-by-polluting-salmon-giant-mowi/

Open-net salmon farming places large concentrations of farmed fish directly within the migration corridors of wild salmon and sea trout. Parasite amplification, pathogen transfer, genetic escape risk and waste discharge are therefore **structural characteristics of the production model.**

A moratorium would prevent further entrenchment of ecological pressure while Scotland confronts the fundamental question of compatibility between open-net aquaculture and wild fish recovery. It would also create the conditions and political space for a managed transition - that would protect workers and coastal communities while reducing reliance on a production system that externalises an unbearable ecological cost.

The biological risks inherent in open-net farming are intensifying. Rising sea temperatures increase susceptibility to disease outbreaks, harmful algal blooms and proliferation of parasites. Climate-driven volatility amplifies risk: continuing to expand biomass in warming and increasingly unstable marine systems is compounding exposure to precisely the pressures regulators are already struggling to contain. Insurance markets and institutional investors assess biological risk in pricing capital and underwriting exposure. Where mortality rates remain elevated and regulatory frameworks are contested, expansion increases long-term financial vulnerability rather than resilience.

The FAIRR Initiative[26] and other investor coalitions have identified material biological and environmental risks within intensive aquaculture systems, including disease pressure, antimicrobial resistance and dependency on wild-capture fisheries for feed. FAIRR concluded that "*salmon producers do not have a robust, long-term strategy to further reduce their reliance on wild-caught fish in feed*".

Scotland is not operating in isolation. In coastal British Columbia, the Canadian Government is phasing out open-net salmon farms in key wild salmon migration corridors following sustained scientific concern and Indigenous leadership (see case-study below). Other jurisdictions are reassessing the long-term viability of open-net systems in sensitive marine environments.

Scotland's farmed salmon industry trades heavily on the reputation of Scottish waters as supposedly clean, wild and responsibly managed. That brand underpins export value and premium pricing. But with the poor environmental performance of salmon farming, and wild salmon now classified as 'Endangered', that reputation is placed at risk. A nation that markets itself globally as a guardian of wild landscapes and pristine waters cannot indefinitely reconcile that image with the continued expansion of a model increasingly associated with ecological damage.

A moratorium does not require immediate closure of existing sites, or put existing jobs at risk. It acknowledges that Scotland must plan deliberately for a different future, one in which:

- Wild salmon recovery is treated as a primary objective,
- Marine space is allocated through genuinely integrated spatial planning,
- Lower-impact production technologies are assessed transparently, and

[26] https://www.fairr.org/resources/reports/sustainable-aquaculture-phase3-progress-report

- Public investment is aligned with restoration and long-term resilience.

The alternative is a dangerous drift, with year on year loosely regulated incremental expansion of a production model whose ecological and financial risks are becoming clearer to everyone, both in the public realm (most notably coastal communities and rural businesses), and private domain (ie investors).

A halt to further expansion would signal that Scotland recognises ecological limits, understands systemic risk, and intends to lead in restoring the North Atlantic's iconic wild fish.

7. Managed transition and international precedent: lessons for Scotland

In light of the evidence set out in this submission, **WildFish supports a managed and responsible phase-out of open-net salmon farming in Scotland's coastal waters over time**. A moratorium on further expansion is the first step. The ultimate objective must be a deliberate, managed transition away from a production model that is compromising our ability to recover wild salmon populations.

WildFish is grateful for the support of allied organisations, individuals and community groups in Canada for sharing detailed information on the phased removal of open-net salmon farms from coastal British Columbia. Their experience offers one of the only large-scale case studies globally of farm removal within a major wild salmon migration corridor.

The Government of Canada is currently phasing out open-net salmon farming in British Columbia, with a complete transition due by 2029. In the Discovery Islands - a critical migration route for Fraser River sockeye - all nine salmon farms were removed between 2020-2022. In the neighbouring Broughton Archipelago, site numbers were reduced from 23 in 2018 to three by 2025, representing a biomass reduction of over 95%. Province-wide, approximately half of salmon farms have been closed.

Early evidence suggests marked improvements in wild salmon returns in regions where farms were removed.

- Fraser River sockeye productivity, which had declined following the placement of farms on migration routes in the 1990s, began to rebound after the 2021 closure of Discovery Islands farms. The 2025 adopted run size (8.9 million) was more than triple the 2021 return (2.5 million)
- In the Broughton Archipelago, pink salmon returns increased 10–20 fold in rivers no longer exposed to farm effluent, while remaining depressed in areas where farms continue to operate.
- Chum salmon returns in 2024 surged - in some systems increasing up to 12 times recent averages - in regions where farms had been removed, while remaining weak in farm-intensive areas.

While oceanic variability (including La Niña conditions) may have contributed to coastwide improvements, the most dramatic rebounds occurred specifically in regions where farm exposure had ceased.

Sea lice levels on juvenile pink and chum salmon fell sharply following farm removals. Between 2020 and 2022, average sea lice loads declined by 96%, a change not fully explained by temperature or salinity effects.[27]

Prevalence reached its lowest recorded levels in 2023. Two 2025 studies reported increases in lice levels in 2024 despite continued farm reductions[28]. These findings highlight the complexity of marine ecosystems and the role of environmental variability and natural reservoirs. However, they do not negate the substantial declines observed immediately following farm removal, nor the broader body of peer-reviewed evidence linking open-net aquaculture to elevated lice pressure and pathogen transmission.[29]

Lessons for Scotland

The British Columbia transition is ongoing, and salmon life cycles mean that long-term trends will require continued monitoring. Nonetheless, several lessons are becoming clear:

- Removing farms from key migration corridors has coincided with substantial rebounds in wild salmon returns.
- Sea lice pressure declined markedly following large-scale farm closures.
- Ecological recovery is possible within commercially significant salmon systems.
- Legal challenges by industry have not prevented governments from proceeding with precautionary transitions where wild fish protection is prioritised.

The experience of coastal British Columbia demonstrates that transition away from open-net systems can be undertaken while maintaining economic activity and respecting coastal communities. For Scotland, the lesson is that change is possible and that failure to act carries its own escalating ecological and economic risks.

The world is watching

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[27] Routledge and Morton, 'Effect of Government Removal of Salmon Farms on Sea Lice Infection of Juvenile Wild Salmon in the Discovery Islands'.

[28] Jones et al., 'Trends in Sea Lice Infestations on Chum and Pink Salmon in the Broughton Archipelago Remain Unchanged despite Removal of Finfish Aquaculture'; Jones et al., 'Trends in Abundance of Sea Lice Lepeophtheirus Salmonis and Caligus Clemensi on Juvenile Wild Pacific Salmon Unchanged Following Cessation of Salmon Aquaculture in Coastal British Columbia'. WildFish has undertaken a detailed analysis of this study.

[29] Krkosek et al., 'Pathogens from Salmon Aquaculture in Relation to Conservation of Wild Pacific Salmon in Canada'.
Krkošek, Martin, Mark A. Lewis, and John P. Volpe. 'Transmission Dynamics of Parasitic Sea Lice from Farm to Wild Salmon'. *Proceedings of the Royal Society B: Biological Sciences* 272, no. 1564 (2005): 689–96.
Krkošek, Martin, Mark A. Lewis, Alexandra Morton, L. Neil Frazer, and John P. Volpe. 'Epizootics of Wild Fish Induced by Farm Fish'. *Proceedings of the National Academy of Sciences* 103, no. 42 (2006): 15506–10.
Price, MHH, A. Morton, and JD Reynolds. 'Evidence of Farm-Induced Parasite Infestations on Wild Juvenile Salmon in Multiple Regions of Coastal British Columbia, Canada'. *Canadian Journal of Fisheries and Aquatic Sciences* 67, no. 12 (2010): 1925–32.

The decline of Atlantic salmon is not a solely national problem. It is one of the defining environmental challenges facing the North Atlantic coastal states. The reversal of that decline is possible, but only if governments are prepared to confront the drivers of risk head on. Action by omission would carry tragic consequences: continued expansion will intensify ecological pressures and risk the local extinction of Scotland's once mighty and abundant wild salmon populations.

Across the North Atlantic, jurisdictions are busy reassessing the role of salmon farming in ecologically sensitive waters. Some have chosen to remove farms from critical habitats, while others are restricting growth until environmental recovery is demonstrated. The wisdom of the precautionary principle - a cornerstone of sustainable development - is being implemented.

In Scotland, we have long traded on our reputation as a nation that respects its land and waters - a country rooted in stewardship, not extraction. **That reputation is not just symbolic; it is our asset. Decisions taken now will therefore signal whether Scotland intends to uphold that tradition, or to compromise it for short-term production to satisfy national export targets.** Our decision-makers will also determine whether future generations inherit living rivers and thriving coastal ecosystems, or only a memory of natural abundance.

Countries, coastal communities, scientists and conservation bodies engaged in global salmon recovery are watching Scotland's approach closely. The choice made here will not be read narrowly. It will be understood as a statement of whether we, as one of the world's great salmon nations are prepared to lead in restoring them.

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