

Briefing for the Public Petitions Committee

Petition Number: [PE1336](#)

Main Petitioner: Lawson Devery on behalf of the Salmon and Trout Association

Subject: Save our wild Scottish salmon and sea trout

Calls on the Parliament to urge the Scottish Government to take immediate action to protect wild salmon and sea trout stocks from inappropriate commercial fish farm activities by taking action to ensure that (a) all sea-based fish farms are moved away from the estuaries of major wild salmon rivers to reduce the impact of sea lice and (b) ban salmon smolt farms from operating within any wild salmon river system.

Background

Salmon (*Salmo salar*) and sea trout (*Salmo trutta trutta*) are migratory anadromous fish. Salmon spend the early stages of their life cycle in freshwater, and then migrate to sea, where they mature and grow, returning after three or four years to the rivers of their birth to spawn. Scottish salmon migrate to the cold waters off the coast of Greenland. There are two peaks to the salmon migration, in spring and autumn. Spring salmon runs have become depleted on many Scottish rivers, and measures have been put in place (e.g. buy out of net fisheries, mandatory catch and release) to recover stocks. Some salmon return to spawn after one year, in which case they are known as “grilse”. Sea trout are a migratory sub-species of brown trout which, like salmon, migrate from rivers and lochs to the sea where they grow and return to freshwater to spawn. Unlike salmon, sea trout may not migrate far from the coast, sometimes not leaving coastal sea-lochs.

In March 2004, the then Scottish Executive published a [report](#) of a study on the economic impact of game and coarse angling in Scotland. This found that game and coarse anglers spent around £113 million on their sport annually, supporting 2,800 jobs. Salmon and sea trout were the most valuable fisheries, accounting for 65% of total spending.

Information about wild salmon and sea trout catches is collected and published annually by Marine Scotland¹. There are net fisheries for wild

¹ Marine Scotland is the lead marine management organisation in Scotland, bringing together the functions of the Fisheries Research Services (Marine Scotland Science), the Scottish

salmon and sea trout, but these have been in long-term decline. In many cases net fishing rights have been bought out by rod and line fishing interests, a reflection of the fact that the sporting value of fishing for salmon and sea trout is far higher than the value of the fish themselves. Recent rod and line catches of salmon show a slight increase since 1952, when records began, although as noted above, nowadays there are significantly fewer spring running fish than formerly. The marine survival of salmon has also declined. It is thought that the decline in net catches has offset this decline in the total number of fish returning to the river, but that if marine survival rates continue to fall, rod and line catches will also fall in future. Rod and line catches of sea trout show a marked regional variation. East coast rivers show no downward trend in catches, while catches from west coast rivers have declined markedly (Marine Scotland 2009a).

Salmon farming industry

From experimental beginnings in the 1960s, the salmon farming industry has developed into a significant industry in remote areas of Scotland, producing c130,000 tonnes of fish in recent years, with an ex-farm value of £400 million. Salmon farming mimics the fish's natural life cycle. Eggs are collected from adult female breeding stock, fertilised and hatched in purpose built hatcheries. Salmon develop through six distinct phases, for the first four stages (egg, alevin, fry, parr) the young fish live in freshwater tanks and cages. The transfer from fresh to salt water occurs in the smolt stage (as it does in wild fish), when they are between 1-2 years old. Once in salt water the smolts are grown in cages around the Scottish coast. Some "grilse" are marketed at between 1-3 kilos after one year in the sea. The remainder of the fish are grown on to become salmon and are sold at a weight of 2-6 kilos or more.

In 2008 there were 38 companies engaged in the freshwater production of salmon smolts at 130 sites, employing 209 full time staff and 54 part-time. The north west, west and the Western Isles were the smolt producing areas in Scotland in 2008. In 2008 there were 35 companies engaged in producing farmed salmon, farming 257 active sites. Farms are spread along the west coast of Scotland, the Hebrides, and the Northern Isles. In 2008 there were 849 full time employees and 100 part-time (Marine Scotland 2009b).

The Scottish Salmon Producers Organisation's website has a [page](#) with a number of statistics about the salmon farming industry.

There has been an ongoing debate about the interactions between wild salmon and sea trout, and farmed salmon.

Sea lice

Sea lice are a parasite of salmon and sea trout which feed on the skin and blood of host fish. Heavy infestations, especially of young fish, can be fatal. There are two species of sea lice found in Scotland, *Caligus elongatus*, a

parasite that infests over eighty different types of marine fish and *Lepeophtheirus salmonis*, which infests only salmon and other salmonids.

Sea lice affect both wild and farmed fish, and controlling them is a major cost for salmon farmers. The spread of sea lice from farmed to wild fish has been implicated in the decline of wild salmon and sea trout stocks on the west coast of Scotland (Fisheries Research Services 2005). Marine Scotland is carrying out a [long-term project](#) in the Shieldaig catchment in Wester Ross is investigating the impact of aquaculture on wild fish populations.

Scottish Government Action

The Scottish Executive established a [Tripartite Working Group](#) in 1999. The group now also has its own [website](#). Chaired by the Scottish Government, the group is made up of representatives of the fish farming industry and wild fisheries interests. The group recommended the establishment of voluntary [Area Management Agreements](#) between salmon farmers and wild fish interests at a local level. The Agreements include a number of conditions, including a requirement for coordinated control of sea-lice. To date eighteen agreements have been implemented.

The salmon farming industry has also developed a national strategy for the control of sea lice. This involves coordinated action to control sea-lice in defined management areas, with the aim of reducing lice during the spring which is the peak period for young wild salmon (smolts) and sea trout migrating downriver to sea. Complying with this strategy is a requirement of the Code of Good Practice for Scottish Finfish Aquaculture ([Scottish Salmon Producers Organisation](#)).

In terms of the location of salmon farms, the Scottish Executive established a location / relocation working group, to prepare criteria to assess whether or not any finfish aquaculture site is poorly located and assess the likely benefits and effectiveness of relocation of those farms which are sited close to rivers important for migratory fish. An [archive page](#) about the group's work is available on the Scottish Government website. Partly as a follow up to the location / relocation working group and partly in recognition of industry concerns over the availability of new sites an [Expert Working Group on siting of aquaculture facilities in Scotland](#) (EWGS) was set up in 2008 to advise Ministers and to inform development of the revised Strategic Framework for Scottish Aquaculture.

The Scottish Government published a renewed Strategic Framework for Scottish Aquaculture in May 2009. One theme of the strategy is to improve systems for licensing aquaculture developments. Phil Thomas, the chair of the Improved systems for licensing aquaculture developments working group, gave a [presentation](#) on progress at the Ministerial Group on Aquaculture on the 22 June 2010.

The presentation says that the desired outcome of the group's work is "Development of the right sites in the right places through transparent,

streamlined and proportionate regulation and processes to minimise adverse impacts on other users of the marine and fresh water environment.”

The presentation includes a slide on the “impact of aquaculture on other users”, with the desired outcome of “Impact on wild fisheries, biodiversity and wider environment minimised through planning and licensing”. The slide says that “Consideration was given to defining ‘other users’. Main identifiable ‘other users’ were groups with business or leisure interests related to the coastal marine areas.” And that: “Future work will focus on interactions with these groups: Boat owners and users; Energy and utility companies; Tourism businesses; Mixed stocked fisheries owners and users.”

Scottish Parliament Action

On 1 March 2007, Parliament passed the Aquaculture and Fisheries (Scotland) Bill. The Bill was brought into force on the 1 August 2007². Part 1 of the Act creates a new regime for regulating parasites of farmed fish and shellfish, including sea lice, and for regulating and preventing escapes from fish farms. Section 7 provides for a statutory code of practice on fish farming and/or shellfish farming to be approved under the Act, whereby the then Executive empowered itself to supplement / replace / provide statutory underpinning to industry codes of practice, to which the majority of the industry were signed up at the time of legislating. Enforcement of the Act is the responsibility of the Aquaculture and Fish Health Inspectorate of Marine Scotland.

The renewed framework for Scottish Aquaculture was [debated](#) in the Parliament on the 21 May 2009.

The development of planning control over fish farming has a history dating back to 1997, and the position is complex. The Scottish Parliament has amended planning legislation to bring fish farming within the scope of the planning system, and new fish farm developments have to obtain planning permission from local authorities. The most recent legal change was made by section 63 of the Marine (Scotland) Act 2010. This section provides a power for the Government to make an order, with the agreement of the planning authority, that fish farms would no longer need planning permission within the area covered by that planning authority. New fish farms in such areas would be dealt with under the marine licensing regime administered by Marine Scotland. However, this section is not yet in force. The Scottish Government published “[Delivering Planning Reform for Aquaculture](#)” in February 2010, which contains a number of actions and targets.

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31 August 2010

² Some provisions in the Act did not come into force until 1 August 2008.

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Sources

Fisheries Research Services. (2005) *Sea Lice*. [Online]. Available at: <http://www.frs-scotland.gov.uk/FRS.Web/Uploads/Documents/AE05SeaLice.pdf>

Marine Scotland (2009a) *Scottish Salmon and Sea Trout Catches, 2008*. [Online]. Available at: <http://www.marlab.ac.uk/FRS.Web/Uploads/Documents/SCSB08.pdf>

Marine Scotland. (2009b) *Scottish fish farms: Annual Production Survey 2008*. [Online]. Available at: <http://www.marlab.ac.uk/FRS.Web/Uploads/Documents/survey%20%202008version5.pdf>