

Environment, Climate Change and Land Reform Committee**Environmental impacts of salmon farming****Written submission from Doonfoot Fishings, Ayrshire**

I wish to make the following points:

I am a proprietor on the River Doon in Ayrshire. 20 years ago the five year average catch of salmon on my (previously prolific) beat was 469 per annum. The catch collapsed to just 27 in 2015 and was the same in 2016. Following the 2016 season we decided to close the fishery. Salmon numbers were simply too low for it to be viable, and I found it difficult to ask fishers to pay to fish over empty water. The Doon also used to be a prolific sea trout river and the last 2 years the catch has been 12 and 14 respectively for the whole river.

Of the areas of Scotland outside the main aquaculture zones, the south-west's rivers (Ayrshire, Galloway and Dumfries-shire) have experienced a precipitous decline in salmon numbers and catches in the last five years, indeed a far greater decline than that seen in east coast rivers. The Ayrshire rivers are on the periphery of intensive salmon farming (the nearest production is off the Isle of Arran) but salmon smolts from our rivers (together with smolts from Galloway and Dumfries-shire) must, by definition, migrate north (towards the feeding grounds in the north Atlantic) through or past the profusion of salmon farms in Argyll, Lochaber, Wester Ross, Sutherland and the Hebrides. During this long migration up the west Scotland coast these smolts are vulnerable to picking up lethal and potentially fatal infestations of sea lice. It is almost inevitable, given the geography, that large numbers of migrating salmon smolts from south-west Scotland perish from lice emanating from salmon farms.

The only complete solution to preventing salmon farm production from having a severely negative effect on wild salmon and sea trout populations is for the industry to adopt Closed Containment systems, enabling complete biological separation between the farmed salmon and the wild fish.

It was disappointing that, at the ECCLR evidence session on 30 January, Dr Adam Hughes of SAMS elected, when addressing the potential for Closed Containment salmon farming in Scotland, to stray far beyond the environmental brief of the SAMS report.

Dr Hughes argued that Closed Containment salmon farming was uneconomic. Closed Containment is fast becoming a reality in many countries. The same day (30 January) Reuters reported that "Norway's privately held Nordic Aquafarms (NAF) has entered into agreements for a property in the U.S. state of Maine where it plans to develop a large land-based salmon farm. NAF plans an initial capacity of 13,000 tonnes per year and to gradually raise this to 33,000 tonnes per year, equal to approximately 8 percent of U.S. consumption of salmon. The project will involve investments between \$450 million to \$500 million.

The facility will be an end-to-end operation, including hatcheries and fish processing. Subject to final due diligence, planning and permitting for the facility, construction start is planned in 2019.” When this facility in Maine is running at full capacity, its output will equate to 20 % of the current output of Scotland’s salmon industry.

Dr Hughes also stated that consumers were not in favour of buying salmon raised in Closed Containment systems. I am not aware of any such evidence. Indeed, one major supermarket chain in Norway sells salmon farmed in this way at a premium and, such is demand, it is unable to source enough.

If the Scottish industry and Scotland The Brand plc does not invest in and adopt Closed Containment production, then I am convinced that within a few years, as other countries embrace the new technology, Scotland will be left behind. It is worth noting that Closed Containment can be located almost anywhere and one key driver for future investment will be the proximity to major markets.

I am also at a loss to why Emamectin is allowed to be used after SEPA wanted it banned for good reason, like many other countries have ; perhaps this is the hold the fish farming fraternity have had on the government up to now.

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