

**Environment, Climate Change and Land Reform Committee****Environmental impacts of salmon farming****Written submission from Shieldaig Angling Club**

Par. 2.1.1. To mitigate the risk of transfer of sea lice from farm to wild fish, farms should be located well distanced from routes identified wherever possible as travelled by migrating salmonids. For example, the route travelled through Outer and Upper Loch Torridon is recognised as the North shoreline, as evidenced by the location of the former salmon netting station at Red Point. The largest farm in Loch Torridon sits directly on this migration route. A habitat survey carried out by SEPA in August 2017 on key spawning burns for the River Balgy (which issues into Upper Loch Torridon) found much reduced densities of salmon fry and parr, when compared to earlier years. The Marine Biologist of the Wester Ross Fisheries Trust concluded that a contributory cause of that reduction was likely to be sea lice infestation on salmon smolts migrating out to sea through Loch Torridon where salmon farms reported very high numbers of adult female lice, particularly in Spring 2015. (WRFT Review May 2016)

Par. 2.1.2. The voluntary code of good practice sets levels of infestation which if exceeded trigger action-firstly site specific action, and if continuing to rise and exceeding 8.0 adult female lice per fish, enforcement action may be taken by the Scottish Government, including the possible requirement to reduce biomass BUT IS NOT MANDATORY. This requirement should be mandatory AND enforced.

Par. 2.1.3. Data Availability. Transparency is lacking. SSPO Health report should be site specific, indicate the nature and extent of the problem, and declare what action is being taken on the site to mitigate it.

Par. 2.1.4. Measures to control sea lice infestation and infections are becoming increasingly ineffective, leading to irregular early harvesting of stocks of forestall losses and potential difficulties synchronising following periods among farms in the same area.

Par. 2.1.5. Without radical changes in farming fish and its current operation, the increases in production targeted at 200,000 tonnes in 2020 and 300,000 tonnes in 2030 will be impossible to achieve. The increasing number and size of farms will become unmanageable.

Par. 3.1.2. The length of the following periods should be based on robust scientific research, area and site specific, agreed by Area Management Groups.

Par. 3-5. Clearly there are many other obstacles to be overcome in addition to sea lice infestation and infectious diseases. Increasing resistance by fish to medications,

chemicals, build up of effluent degrading the sea bed, pollution of the environment, predation and fish escapes are but a few.

It is our view that the deployment of land based Recirculation Aquatic Systems (RAS) or floating marine closed containment systems such as the "Egg" system produced by Hague Aqua would be expected to succeed in obviating most of these problems and in particular would effectively prevent sea lice infestation on farmed fish and on our iconic endangered Atlantic salmon and sea trout.

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