

# Managing Interactions – briefing on behalf of wild fish interests

July 2011

*“The operation of any salmon farm offers potential risk to wild and other farmed salmonids in the area. There is a risk that fish may escape and compete with or genetically dilute native wild stock. Disease or sea lice may be spread from farmed to wild stock or vice versa.”*

**Sally Davies, Environment Manager, Scottish Sea Farms<sup>1</sup>**

## Introduction

The wild fish sector recognises the permanence and economic importance of the aquaculture industry to Scotland and the West Coast of Scotland in particular. However, there have been, and continue to be, impacts upon wild fish stocks in the areas where the aquaculture industry is most active. We have identified below a number of key areas in which we believe real progress can be made in resolving and mitigating impacts. We are keen to work with the Scottish Government, and the industry, to maximise the benefits to Scotland from the contributions of wild fish and the aquaculture industry. We maintain that the long-term aspiration of Government and industry should be a move to closed containment and the industry should look to deploy and trial such technology in Scotland at the earliest possible opportunity.

The District Salmon Fishery Boards and Fisheries Trusts on the West of Scotland routinely work closely with the industry, particularly where Area Management Agreements are in place. The risk of impacts from aquaculture is accepted in these fora, and is clearly articulated in the above extract from a fish farm application. These effects are also recognised at international level through the Best Management Practice jointly agreed by NASCO and the International Salmon Farmers' Association. As indicated above, our primary concerns are the impacts of sea lice on post smolt salmonids and competition and genetic introgression resulting from escapes. However, the denial that a problem exists by, in particular, the SSPO remains a significant impediment to the development of constructive solutions between both sectors.

### 1. Full public access to farm lice data in a disaggregated form.

Lice levels on farms are only accessible under the existing Area Management Agreements. However, such information is bound by confidentiality agreements and is not publically available. A major concern for wild fisheries interests is the potential for cumulative impacts on fish which often have to negotiate large numbers of farms on their migration to the open ocean. Such cumulative impacts cannot currently be adequately assessed as part of the planning process, as planners do not have access to lice levels on existing farms in the area. There is a clear trend for fish farm applicants to state that they will adhere to the Code of Good Practice with regard to lice levels and the routine response to this by Marine Scotland Science is to state that if the target is met then the impact will be minimal. We do not believe that operators are able to meet these targets, and this is backed up by the aggregated industry figures provided by the SSPO which show that lice numbers were 9% above the suggested threshold (0.5 lice per fish) on the North Mainland, and 14% above the suggested threshold on the South Mainland, during February 2011. Full public access to fish farm lice data is available in Norway (where companies such as Marine Harvest operate) and a similar system in Scotland would allow assessments to be made of the success or otherwise of lice control strategies and subsequent impacts on wild fisheries.

### 2. Relocation of farms from sensitive sites

We recognise the desire of Government and the industry to increase Scottish production. We believe that increased production should be linked to a process of targeted re-allocation of biomass and location of production. This would allow production to be focused in premium sites whereas marginal sites (e.g. for environmental impact, production or other reasons) currently in production could be removed from the system. We would support the implementation of a pilot relocation where an associated socio-economic benefit study could be linked to the exercise.

Rivers and Fisheries Trusts of Scotland are currently undertaking a Government-funded project aimed at managing interactions between wild fisheries and aquaculture. A major aspect of this project is a sensitivity analysis which will result in the production of locational guidance for planning marine aquaculture developments. This tool will be important in helping to prioritise where new aquaculture developments can be taken forward with reduced and manageable risks to wild fish interests. Although not the purpose of this tool

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<sup>1</sup> Comments made on page 7 of a request for an EIA Screening opinion for Port nan Ledaig (FFR/ABC/007)

it is clearly possible that it could be applied to help identify potential relocation sites if this was to be taken forward.

### 3. Identification of escaped fish via full access to genetic material on farms or by mandatory tagging of fish.

We recognise and support the progress that the industry has made to reduce the number of escapes in Scotland. However, escapes do still occur, and will continue to be an inevitable consequence of fish farming in cages in both seawater and freshwater systems. In addition, the frequency and intensity of storm events are forecast to increase as a consequence of climate change. We believe that all companies in the Scottish Industry should provide access to genetic samples to enable escapee fish to be identified, and to allow the full assessment of the extent of introgression between farmed and wild fish. Novel genetic techniques based on single nucleotide polymorphism technology currently allow escaped salmon to be identified to the farm of origin. We are aware that some Scottish companies are content to provide this information and we believe that such a scheme should be mandatory across Scotland. In addition, we believe that there is also a move in Norway to ensure that all farmed fish are marked with a uniquely numbered tag, again with the purpose of identifying the source of escapes. As stated above, we maintain that ultimately the industry should move towards closed containment of all fish – such systems are already in development in both Norway and Canada.

### 4. Appropriate targets for sea lice levels on farms

We do not believe that the current industry practice as laid out in the Code of Good Practice is sufficient to protect wild fisheries. Indeed, Marine Scotland Science, in responding to fish farm applications, routinely states:

*“However, it should be noted that adherence to Integrated Sea Lice Management (ISLM) as described in the industry Code of Good Practice may not necessarily prevent release of substantial numbers of lice from aquaculture installations. The CoGP takes no account of farm size, or number of farms in an area, in setting threshold levels for sea lice treatments. This may be appropriate when the aim is to protect the welfare of farmed fish but it will not necessarily prevent significant numbers of larval lice being shed into the environment, and posing a risk for wild fish particularly in the case of larger farms or management areas holding a large biomass of farmed fish.”*

Targets must be changed in order to take into account farm biomass and the cumulative biomass in the local area in order to minimise the risks to wild fish.

### 5. Understanding of coastal migration routes for Atlantic salmon and inshore habitats for sea trout.

Without a far better understanding of the coastal migration routes and habitats of wild salmonids it is impossible to plan aquaculture developments in a fully informed manner. Of particular strategic concern are the Sounds on the west coast, which have the potential to act as bottle necks in which migrating smolts are unable to avoid sea lice infestation. Equally, these areas are likely to be strategically important for marine renewable developments and therefore an understanding of fish migration routes would be likely to have multiple benefits for Scotland.

### 6. Phased withdrawal from smolt production in freshwater cages.

Scotland is the only producer of farmed salmon in Europe in which smolts are permitted to be farmed in open freshwater cages. We are particularly concerned about the risks associated with this activity as escapes, either from large escape events or ‘drip’ escapes through the use of nets with inappropriate mesh sizes, have an increased potential for introgression with wild fish. We now have evidence of drip smolt escapes from several parts of Scotland which are not being caught by the reporting process. Even where introgression does not occur, such escapees will compete with and may displace resident wild fish. We would note that the Salmon Aquaculture Dialogue, which will lead to an accreditation system for aquaculture under the Aquaculture Stewardship Council will not allow ‘*producing or holding smolts in net pens in water bodies with native salmonids.*’ Given the Scottish Government’s support for MSC accreditation of sea fisheries we would encourage the Scottish Government to support the Scottish Industry achieve these sustainability standards by instigating the phased withdrawal of smolt production in freshwater cages.

**Supported by:** Association of Salmon Fishery Boards  
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Fish Legal  
Salmon and Trout Association  
Atlantic Salmon Trust

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