

Council

# CNL(16)54

Salmon farming: the continuing damage and required solutions (Tabled by the NGOs)

# Salmon farming: the continuing damage and required solutions

Now that some 50 years have elapsed since the start of commercial salmon farming, we (**undersigned NASCO NGOs**) are unanimous that its impact on wild salmon and sea trout remains a serious blight on the environmental record of the host countries.

**Escapes** – in some areas the incidence/size of reported escapes has declined recently but damage from introgression remains, particularly with reduced wild populations.

<u>Sea lice control</u> - in many areas the situation is now deteriorating as resistance to chemical treatments spreads.

Below are examples of lax environmental control and damage to and declines in wild stocks in the four main salmon farming areas within the NASCO sphere.

#### <u>Norway</u>

- 50 % decline in return of spawners to Norwegian rivers in main salmon farming areas over the last 25 years. No decline observed in regions with little or no salmon farming activity.
- In a recent survey of 104 salmon stocks, 80 % did not meet the minimum quality requirements defined by the Norwegian government. The main cause is loss of genetic integrity due to cross breeding with farm escapees.
- More than 30 % annual loss of sea trout during sea water migration in several areas with high fish farming activity.
- Sea lice and escapees are recognised by scientists as the (only) two nonstabilised existential threats against wild salmonids in Norway.
- New aquaculture licenses (intended for development of novel technology) are currently issued without any evaluation of their potential negative effect on the environment in general and wild salmonids in particular.

## <u>Scotland</u>

- The proportion of total farmed salmon production in regions over the industry's CoGP thresholds for treatment against sea lice has been on an inexorable upward trend since January 2013. Regions representing almost 60% of Scottish production were over the threshold of 0.5 adult female lice per fish in May 2015 (the peak of wild smolt runs). By March 2016, 66% of production exceeded the threshold (and up to ten lice per fish were recorded).
- Whilst the salmon rod catch in rivers on the East coast (almost a salmon farmfree zone) increased by 40% between 1970 and 2014, the catch in the main West coast salmon farming area fell significantly over the same period; both coasts have experienced a similar decline in netting pressure.
- In many smaller West coast rivers wild salmon are close to extinction.
- Salmon from the Langavat SAC have up to 37% introgression by salmon of Norwegian origin.
- West coast lochs (like Maree) have lost virtually all their large sea trout on which fisheries depend. These lochs all drain into salmon farming sea lochs.

### <u>Canada</u>

- The extensive growth of marine-based net pen salmon aquaculture along Atlantic Canada coastlines has compounded all the other issues and challenges facing wild salmon. There is increasing awareness of the detrimental effects by salmon farming on wild salmon populations see *A global assessment of salmon aquaculture impacts on wild salmonids* (Ford, J and R. Myers. 2008).
- Fisheries and Oceans Canada (DFO) has identified net pen salmon aquaculture as a marine threat to the wild salmon populations of the inner Bay of Fundy region, which were listed as endangered under the Federal Species at Risk Act (SARA) in 2003.
- The wild salmon populations in the outer Bay of Fundy and along the Atlantic Coast of Nova Scotia have been designated by the Committee on the Status of Endangered Wildlife in Canada as 'endangered', and the south coast populations of Newfoundland have been designated as 'threatened'. DFO's recovery potential assessments for these populations consistently identify salmon farming as being of a high level of concern to recovery and survival.

## <u>Ireland</u>

- Continuing decline in salmon catches despite almost total removal of mixed stock fishing.
- Of 145 salmon rivers, 62 are closed to all exploitation, 28 have mandatory catch and release and 55 are open for catching.
- Total rod catch in 2015 was 15,724 40% decline on 2001 and second lowest on record.
- Decline most pronounced in western rivers inflicted with salmon farms in their estuaries.
- Sea trout virtually wiped out in the West where salmon farms predominate.
- Escapes from salmon farms now a major issue.
- Rising water temperatures appear to be increasing incidence of farmed salmon diseases such as AGD.

It is almost inevitable that salmon smolts from countries without major salmon farming industries, such as England, Wales, France, Spain, Sweden, USA (including many severely depleted populations), migrate through or past intensive salmon farming areas with implications for sea lice infestation and thus survival.

Whilst damage to wild salmonid populations continues, we believe that it is unconscionable and indeed contrary to NASCO resolutions for producing countries to sanction or encourage any further growth of salmon farming.





# Remedies to protect wild fish

Article 5 of <u>NASCO's Williamsburg Resolution</u>, on measures to minimise impacts of aquaculture, requires that each Party shall take measures, inter alia, "to minimise the risk of disease and parasite transmission between all aquaculture activities, introductions and transfers, and wild salmon stocks".

**NASCO's Best Management Practice** guidance requires "100% of farms to have effective sea lice management such that there is no increase in sea lice loads or lice-induced mortality of wild salmonids attributable to the farms", to be achieved by, inter alia "strategic timing, methods and levels of treatment to achieve the international goal and avoid lice resistance to treatment".

We (**NASCO NGOs**) are adamant that the NASCO parties hosting significant salmon farming industries are in fundamental breach of the above.

Below are details of measures that we believe will contribute to addressing these failings and thus redress the balance towards protection of wild stocks in the four main salmon farming areas, in line with the aims and objectives of NASCO.

#### <u>Norway</u>

- Government commitment to progressive transition to closed containment.
- Government commitment to mandatory tagging of all farmed salmonids. Preferably by adipose fin clipping and coded wire tags in head cartilage.
- Government commitment to their own sustainability goals from 2009, stating that no loss of wild salmonds to sea lice from fish farms is acceptable, nor is any genetic impact from escapees on wild salmonids.
- Government commitment to the advice of the Office of the Auditor General of Norway that no aquaculture licences should be issued without assessment not only of their isolated local environmental impact, but also of their potential contribution to the overall national and regional environmental impact.

## **Scotland**

- Provision of a statutory duty to protect wild salmonids and the introduction of an 'upper-tier' sea lice threshold above which an immediate cull or harvest of farmed fish is required by law.
- Closure and/or relocation of persistently failing farms and greater weight given to wild fish interests in planning applications for new/larger farms.
- Immediate publication of individual farm sea lice data and compulsory independent monitoring of sea lice counts.
- Tougher regulation and inspection of fish farms.
- Replacing the voluntary code of practice on sea lice with a statutory code.
- Ending smolt production in river systems that contain wild salmon.
- Developing other more sustainable technology.

## <u>Canada</u>

- Avoidance by salmon aquaculture of wild salmon rivers, migration routes and important habitat.
- Specific limits to parasitic sea lice levels allied with farm-specific mortality reduction plans.
- Prompt reporting of parasite outbreaks to other local operators and the public.
- Avoidance of parasite and disease spread to wild populations by implementing aggressive measures, such as a complete culling of a farm pen.
- Requirement for contributions to collaborative research and environmental enhancement work with NGOs and research institutions and adoption of areabased sea lice thresholds.
- Implementation of consistent high standards in Canada and internationally.
- Restoration of lost protections to wild populations through modern safeguards in the Fisheries Act, including strengthened provisions for protecting wild salmon from the impacts of salmon aquaculture.

## <u>Ireland</u>

- Government commitment to progressive transition to closed containment.
- Translation of current protocols, best practice, etc into hard law.
- Rigorous enforcement of licence obligations.
- Transparent process for awarding and renewing licences.
- Restoration of the position of wild salmon and sea trout interests in the licence award and regulation processes.
- Whole bay assessment of cumulative impacts in awarding licences.
- Enforcement of fallowing requirements.

The above measures will help to mitigate the problems caused by intensive salmon farming. They do not amount to a silver bullet. The only long term and failsafe solution is complete biological separation of farmed fish from the wild environment – <u>closed</u> <u>containment</u> either at sea or on land. We are concerned that very few salmon farm companies and governments are yet investing in closed containment technology. We believe that all governments must now commit to funding such research without delay and signal that all production must be in closed systems within ten years.

In the meantime, we (the undersigned) believe that if NASCO principles are to be honoured, fundamental changes to the regulation of salmon farms must now be enacted.