PE1336/H

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4th January, 2011.

The Clerk,
Petitions Committee,
Scottish Parliament,
Holyrood,
EDINBURGH.
EH99 1SP

Dear Sir,

Petition Number 1336

I note that a reply has been made to the Committee regarding a submission I made last year to the above Petition. The organisation commenting on my submission has made several ill judged and misinformed comments and conclusions on my submission and I wish to point these out to the Committee before it makes its final decision. Like the Scottish Salmon Producers Organisation I would also point out that the Salmon and Trout Association is an angler's organisation. Perhaps the Petitions Committee should ascertain how many of that organisations members actually own fishing's and/ or reside in Scotland, therefore have a practical knowledge of managing river systems and fishing's.

In their paragraph 1, SATA say I have my figures wrong and that the collapse in Salmon and Sea Trout returns has not been dropping since the 1950's but actually from the 1970's. Statistics held by the Government on numbers of Salmon and Sea Trout caught are generated by returns by the owner of Salmon and Sea Trout fishing's. These figures are not accurate as it is well known that not all figures are submitted. Deliberately with holding catch numbers has been a practice for many a long year as lower catches declared often reduce the amount of rent than can be paid by a tenant and/or the amount of Rates paid to Government on the fishing's.

The graphs shown in the response to my submission are of catches of Salmon by all methods. If we look at the graph for the whole of Scotland, the only figures that have dropped substantially are the returns for fixed engine and net and cobble. The decline of that fishery is in line with the increase of production of farmed salmon. Economics and eventually pressure from environmental bodies forced the closure of commercial net fisheries. It should be noted that SATA and other fishery conservation organisations over the years have blamed the following for the collapse of Salmon and Sea Trout numbers is Scottish waters – Northumbrian gill netting industry, Irish drift netting on the high seas and the commercial netting by European fishing boats off Greenland. The majority of those salmon fisheries are now closed with only an aboriginal salmon fishery operating off Greenland. Scotland and Norway are the only two countries on the North Atlantic rim that have not banned netting of wild salmon.

If one looks at the graph in relation to rod catches over the period of 1952 to 2006/7 the figures are reasonably stable. There are some small fluctuations from year to year but the trend is steady. However closer examination of the first graph shows that rod catches have actually increased year by year through to the last figure in 2007. This is contrary to the claims made by SATA in their submissions.

The graph for the N W/ W and Outer Hebrides shows that there always have been major ups and downs in catch returns for that area. Again the general decline of the graph follows the rise of salmon farming in that area which was coincidental with the demise of all netting methods. This corresponds with the statistics for the whole of Scotland. Again the figures show a steady increase in catches from 2000 to 2007 a period with no known netting operations and the only catch method rod and line. I would be interested to see the statistics for the West Coast and Hebrides for the following two years as that would cover the period when scallop dragging was banned.

The Government data presented by SATA contradicts their own statements and actually shows recorded rod and line catches of Salmon have increased in the past 10 years. The number of Smolts going to sea has an influence on the number of Salmon that return. Graphs showing average rain fall against Salmon returns would be a good comparison. Low rain fall levels would restrict the number of Smolts produced as would water temperature. One further point that SATA have not produced was the severe and devastating reduction in Salmon numbers on the Hebrides in the late 1990's caused by escapee Mink.

In paragraph 2 SATA question my reasoning on the presence of lice on farmed salmon. They are assuming that only “Leps” attach themselves to farmed salmon and they are the problem. SATA appear not to be aware of the different types of lice and their seasonality. Although “Leps” are peculiar to salmonids, salmonids are attacked by “Caligus” a species of lice that are found in high numbers on Herring and Mackerel and some other species. It is well known that Caligus move quickly from one species of fish to another while “Leps” tend to stick to the one host fish once they have settled from their free swimming stages. The main run of Herring and Mackerel around the coast of Scotland coincides with the run of smolts to sea.

Protocols within the Scottish Fish Farming Organisations is to carry out a weekly count of lice per fish in sea cages. That count is broken down to the various growth stages with key numbers used to trigger treatment. Part of the protocol is that all farms in a bay/loch area will treat at the same time and also a pre Smolt run treatment. Most farms keep records of the type of lice found on the fish at each count. No doubt the industry could give the Committee data on the prevalence of either type of lice through out the year.

Such is the mobility of Caligus, I have witnessed sea sites having been treated one day and the fish cleaned of all lice just for the same fish to be heavily infected within 2 to 3 days with Caligus from Herring and Mackerel in the area of the fish farm.

In their submission SATA make mention of data proving that the mortality of migrating smolts is due to lice infestation. They have failed to give any references to the alleged work nor have they named the species of sea lice that has been responsible for the mortalities. Species of lice and their source have to be proved before further allegations about farmed salmon being the problem must be ascertained.

In paragraph 3, the SATA again show their ignorance of facts. Salmon nets are constructed as per regulations which govern the materials to be used and the mesh size. Mesh size is stipulated for every fishery. This is necessary to allow juvenile fish to escape. Legal netting methods were allowed for 6 months of each year. Up until a few years back netting had a weekly close period from 12 noon Saturday to 6 am Monday. That was later changed and extended so that the close period was 6 pm Friday to 6 am Monday. The main netting periods were set to be in place for

the main runs of Salmon and Sea Trout. By such methods larger fish were caught letting smaller specimens escape. As said previously smaller fish produce a smaller quantity of eggs and the genes dictate the size the fish will grow to. This is not a fact restricted to fish but to animals and humans as well. Part of the success of fish farming has been the cross breeding of fish with specific traits (size, shape, disease resistance) that has allowed that industry to be so successful on an international basis.

The way in which a salmon net was used meant that the mesh opened up allowing small fish to escape. Thus my original statement that the netting methods for salmon selectively caught the larger fish and allowed smaller fish to escape is correct. Exactly the same scenario has helped the demise of other fish species in the North Atlantic. Scientific research under taken by both the UK Government Departments and the EU has seen regulations change the shape and size of net meshes for catching Cod and other species. Nets are now manufactured to legal specifications that allow more and bigger fish to escape to allow a larger recruitment of the various commercial species. One way SATA could disprove my statement is to collate information on the weight of each and every Salmon caught by rod and line. An accurate recording of both Salmon and Sea Trout numbers and their weights would dramatically increase the amount of data to prove or disprove their claims.

In paragraph 4, SATA state that they do not encourage the stocking of trout and other species in Scottish waters. They further claim that they work with the Government on issues relating to the control of indiscriminate stocking of Trout “and other species”. Maybe they want to question many of the District Salmon Fishery Boards in Scotland, land owners and fishing clubs. Many District Salmon Fishery Boards do and/or did have hatcheries and were restocking river systems with Salmon Trout and Sea Trout. One of the most recent restocking programs has been in the Kishorn area of Wester Ross where many rivers have been restocked with Sea trout from a single source hatchery. Stocking of Salmon rivers in Scotland with Brown Trout from hatcheries from different parts of England and Scotland is common place. This is a dangerous practice as the transfere of disease and parasites from one fishery to another has been identified in a number of fisheries in Central and Southern Scotland. These fish are not sterilised therefore are able to breed with local species, diluting the native gene pool. Perhaps SATA and its members should be collecting DNA data from different rivers to have a base line for further research in to dilution of local gene pool of Salmon and Sea Trout. (paragraph 5). It would be interesting to compare genes

with stock from various Scottish, Irish, Norwegian, Faroese and Icelandic rivers to ascertain just how distinctive each river system is.

In Paragraph 6 SATA state I have no knowledge of what is happening on Scottish Rivers. They forget that I was a founder member of the Forth Fishery Conservation Trust in 1987, have been involved in fishery politics for many years and also have a commercial in put to the health of farmed fish. There are a number of fishery conservation trusts in Scotland that work with and sometimes against the statutory District Salmon Fishery Boards. Most do studies in to habitat conditions for fish. However further development of the river habitat is done purely at the discretion of land owners. Whereas some have a personal and financial interest in such development work, others by default do not allow proper habitat establishment of rivers.

River habitats are improved through non dredging of certain rivers, the removal of sheep and grazing animals from river banks, the establishment of deciduous tress along river banks, the prevention of coniferous plantings in key river catchment areas and a stop to large scale land drainage schemes.

Water quality is of major importance to successful fishery development and sustainability. One thing is very noticeable to people like me, who travel the West Coast of Scotland is the major fluctuations in river levels. For long periods each year rivers and streams that would otherwise be suitable for salmonids to live have very low water levels, many drying up completely in summer months. I and others fail to see any husbandry work that would create pools in these streams that would allow fish to survive the low water levels of summer. It is argued in some quarters that the actions of SEPA have so purified water courses that rivers and streams are now so pure as to be almost sterile with little insect life to sustain fisheries.

In another submission SATA draw attention to the use of enclosed/containerised systems to rear salmonids and how that would cure all the problems. This is a fallacy and their submission appears to have been lifted material from a North American anti fish farming group. Enclosed/containerised system use sea water pumped into them and then allowed to drain back in to the sea. Such systems have been used by a number of companies in Scotland since the late 1970's. A break down in the pumping system leave the fish contained at a risk of suffocation and death. In one such site in Scotland some 5 to 6 years ago, the total stock had to be culled. It is believed that a

diseased wild fish was macerated when it was sucked through the intake pipe, was devoured by the fish within the system (not salmon) who contracted a notifiable disease.

At a similar type site at Cape De Bras Dor in Novia Scotia in the 1980's, the whole stock was wiped out by a sea lice infestation. Free swimming stages of the louse were pumped in to the containers with the "fresh sea water" and infected the fish. The settlement of lice were so big and coincided with the summer water temperatures the fish were severely damaged and were either slaughtered by the farmer or died.

Water used in these systems comes from outside the container by way of pump and is returned to the environment. Therefore any pathogen and/or parasite in the outside water column will be transferred to the container (irrespective of the containers construction materials) before being discharged back in to the environment from whence they came. Bath treating of fish in these containers is a major risk as the medications can not be instantly discharge thus threatening the fish with the risk of mortality.

Yours faithfully,

James A Mackie