

## **PUBLIC PETITION NO.**

PE01450

# Name of petitioner

James A Mackie

#### **Petition title**

Environmental and genetic impact on natural stocks of Sea and Brown Trout by stocking rivers with farmed Brown Trout and hatchery reared Atlantic Salmon

# **Petition summary**

Calling on the Scottish Parliament to urge the Scottish Government to cause scientific studies to be conducted to monitor any changes in the behaviour, density, longevity, survival rate and the genetic and DNA markers in wild Sea Trout and Brown Trout in rivers that are stocked with farmed Brown Trout and hatchery reared Atlantic Salmon and to include such data in the new Aquaculture Bill currently being processed by the Government.

## Action taken to resolve issues of concern before submitting the petition

The subject is political and no organisation private/public/ or fishery association/organisation has asked the question or shown willingness to research the issue. Due to the political nature of the question, the only body with the powers and impartiality to order and coordinate such a study is the Scottish Parliament. The Petitioner has been involved with fishery conservation for over 24 years. Although he has discussed the issue with individual MSP's on an adhoc basis, he has never heard of anyone or Government Department that has investigated the situation. Much has been assumed but nothing investigated scientifically. In the past 4 or 5 years legislation has been introduced whereby a permit is required to restock rivers but the issues above are not addressed. With the Scottish Government carrying out studies to ascertain the viability of a more robust and expanded farmed trout industry in Scotland, such studies need to be carried out in case of a mass escape of farmed fish to the environment. Studies also need to be done to monitor current practice of restocking with farmed Brown Trout, not necessarily stock of the river being stocked.

In 2009 DEFRA introduced a policy called National Trout & Grayling Fisheries Strategy New Rules to protect wild Brown Trout in England and Wales. That policy (not a regulatory requirement) indicates that only sterile fish may be introduced to open waters to prevent cross breeding with the wild native Brown Trout and other species. Part of the reasons given by DEFRA was that "..., evidence from over 300 scientific studies across Europe concluded that wild brown trout are at risk from interbreeding with farmed fish."

#### **Petition background information**

Petitions and studies have been done at local and national level to ascertain allegations of interference in the natural runs of wild Salmon and Sea Trout by the rearing and stocking of farmed salmon and their possible escape in Scottish river and coastal areas. Petition 1336, is the most recent. No studies have been done to ascertain the impact of releasing farmed Salmon smolts to boost stocking densities/returns of Salmon for angling purposes in rivers which have natural stocks of Brown Trout and Sea Trout. Despite claims that the wild Salmon run has been declining for a number of years, Early returns for 2012 would indicate a very high number of Salmon being caught in Scottish Rivers with some rivers boasting record annual catch well before the end of the season. Nobody knows the reasons for this. Should studies not be done to ascertin why 2012 is a bumber year?

In these Petitions much has been said about the demise of Sea Trout stocks around the Scottish coast as a result of salmon farming. However fishery owners and tenants regularly stock rivers that hold native stocks of Sea Trout and Brown Trout with Brown Trout purchased from fish farms from across the UK that breed and grow Brown Trout for both sport fishing and the table. Some rivers have their own private hatcheries producing Salmon Smolts for stocking their own rivers.

No registration of genetics or sources of these stock fish are required by law. While environmentalists argue that there is a potential risk of depletion of genetics and the ability for fish to feed in the wild if cross bred by escaped farmed salmon, no recognition of this risk has ever been discussed or monitored in Rivers with natural stocks of Sea Trout and Brown Trout where farmed and genetically controlled farmed fish are released. The farmed Trout are not sterile and are able to freely spawn and reproduce in the wild.

Sea Trout are Brown Trout that go to sea to feed before maturing and returning to their native rivers to spawn. If on spawning these fish cross breed with farmed fish that do not have the same genetic code to run to sea, will the offspring loose their desire to go to sea and return? Do farmed Brown Trout introduced from different catchment areas/rivers/lochs have different traits which dilute the genetic pool of fish that are native to individual rivers and therefore does that action of restocking purely for sport fishing purposes cause a major threat to the native stocks of wild Sea Trout and Brown Trout?

If the DEFRA Guidelines are introduced to Scotland, that may prevent cross breeding and genetic dilution. However, further studies require to be done to monitor the impact on the environment and the food chain of wild Brown Trout. It is well known that a given volume of water will only support a given weight of fish. For example a volume of water that will support 100 kg of fish will either support 10 fish weighing an average of 10 kgs each or 1000 small fish of 100 grams average weight. What is the impact on a section of river when anywhere from 1000 to 4000 farmed Brown trout of an average weight of ½ to 1 1/2 kg are literally dumped in a short section? Instead of increasing the stock levels does such action over time deplete the total number of fish? If there is a sudden change in stocking levels does the naturally occurring feed of the native wild fish suddenly decrease and juvenile, native wild fish become part of the food chain for the stocked fish. Does or will stocked fish forage the spawn of the native wild Brown Trout thus decreasing the natural population. In spawning, will the farmed Trout destroy the spawing actions of the native fish?

#### Unique web address

http://www.scottish.parliament.uk/GettingInvolved/Petitions/stockingfarmedtrout

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