

## **RURAL ECONOMY AND CONNECTIVITY COMMITTEE**

### **SALMON FARMING IN SCOTLAND**

#### **SUBMISSION FROM GAVIN PENNYCOOK**

Fish farming is an enormously destructive industry, with catastrophic consequences for the fish themselves and for the wider natural world.

The environmental problems are well documented elsewhere - so this submission will focus on two other issues which are less often considered:

##### **a. Probable obsolescence in the near future.**

It's likely that in the near future (perhaps within a couple of decades) clean meat - cultured meat grown from cells which is identical to, and indistinguishable from, conventionally-sourced meat - will outcompete conventionally-sourced meat on price, and so render it obsolete.

This may even happen by 2030.

If Scotland hasn't successfully wound down its fish farming industry, and indeed all its animal food production, before this happens, then the industry will collapse, as clean meat will be the only game in town.

This is a high probability, critical impact risk to the industry which, as far as I can tell, has not yet been considered by the industry or the government.

Some of the world's biggest meat producers have already invested substantial sums in clean meat, but there seems to have been no work done in Scotland, either by academia or industry, in this area.

Instead of wasting effort trying to encourage an industry whose days are surely numbered, the Scottish Parliament should embrace the clean meat industry.

While clean versions of other meats already exist, albeit not yet at a cost which would make them commercially viable, R&D into salmon meat does seem to be some way behind. This means that, with shrewd strategy and enough investment, Scotland could potentially harness its considerable biotech expertise to develop into the world leader in clean salmon.

This is too important an opportunity to pass up, and we must not be left behind.

Despite their high profile, fish farms employ very few people - less than 1800 in the whole of Scotland (<http://www.gov.scot/Publications/2017/09/5208>).

The total number of people in employment in Scotland is 2.644 million (<http://www.gov.scot/Topics/Statistics/Browse/Labour-Market/LMTrends>), so this means that fish farms represent less than 0.07% of the workforce.

Why not create centres of excellence in clean meat research and production in the areas with the highest concentration of fish farms? This would help the local economy and provide alternative job opportunities.

## **b. Ethics of imprisoning and killing salmon**

The salmon is particularly ill-suited to being farmed.

As it has only been farmed in Scotland since the 1970s, it cannot be considered a domesticated animal; it is, rather, a captive wild animal.

And unlike any of the animals traditionally farmed in Scotland, the salmon is migratory and carnivorous.

Neither of these aspects of its nature are satisfied in captivity.

The EU recognises animals as being sentient (<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A12012E%2FTXT> ).

This means that salmon farming is a relationship between sentient animals whereby the minority (the humans) have been allowed to imprison, oppress and massacre the majority (the salmon), just because they happen to belong to another species.

And this is happening on a truly enormous scale.

<http://www.gov.scot/Publications/2017/09/5208/4> reports that 42.9 million salmon were produced in 2016.

To put this into perspective - at the current birth rate (55,098 births in Scotland in 2015, <https://www.nrscotland.gov.uk/files//statistics/vital-events-ref-tables/2015/section3/15-vital-events-ref-tab-3-13.pdf> ), it'll take 778 years for 42.9 million people to be born in Scotland!

It's often claimed that eating salmon is beneficial for human health, because salmon contain omega-3 fatty acids.

But salmon farming isn't a means of producing omega-3 fatty acids, merely a way of moving them from one form into another. ("Atlantic salmon require feed with a high protein content to grow well, plus a high content of 'omega-3' lipids if they are to satisfy human dietary needs for these products",

[http://www.parliament.scot/S5\\_Environment/General%20Documents/20180125\\_SA\\_MS\\_Review\\_of\\_Environmental\\_Impact\\_of\\_Salmon\\_Farming\\_-\\_Report.pdf](http://www.parliament.scot/S5_Environment/General%20Documents/20180125_SA_MS_Review_of_Environmental_Impact_of_Salmon_Farming_-_Report.pdf) )

In any case, animal foods are not necessary for human health (as the British Dietetic Association states, a well-planned vegan diet can "support healthy living in people of all ages" <https://www.bda.uk.com/news/view?id=179> ).

Subsections 1, 2 and 3 of Section 19 of the Animal Health and Welfare (Scotland) Act 2006 (<http://www.legislation.gov.uk/asp/2006/11/section/19>) establish that causing an animal unnecessary suffering is an offence.

However, subsection 4 says:

'The considerations to which regard is to be had in determining, for the purposes of subsections (1) to (3), whether suffering is unnecessary include —

- (a) whether the suffering could reasonably have been avoided or reduced,
- (b) whether the conduct concerned was in compliance with any relevant enactment or any relevant provisions of a licence or code of practice issued under an enactment'

The words in (b) are an almost literal get-out-of-jail-free card (or, if you're a salmon, exactly the opposite) and they must be removed from the statute.

If we accept the principle that animals should not be caused unnecessary suffering, then we must close the loopholes which permit the unnecessary suffering. As the consumption of animals as food is not necessary for human health, all animal suffering caused by the production of animals as food is wholly unnecessary.

A fringe view? Far from it. Recent polling from the USA (<https://www.sentienceinstitute.org/animal-farming-attitudes-survey-2017> - 33% of US adults support a ban on animal farming; [http://www.academia.edu/36313403/Investigating\\_Public\\_Support\\_for\\_the\\_Legal\\_Rights\\_of\\_Nonhuman\\_Animals\\_Research\\_Brief](http://www.academia.edu/36313403/Investigating_Public_Support_for_the_Legal_Rights_of_Nonhuman_Animals_Research_Brief) - nearly half of Americans believe that animals deserve the exact same rights as people) suggests that we are approaching a watershed in the western world - when, for the first time in history, the majority of people reject violence against other animals, and support laws prohibiting it.

Recent moves to prohibit fracking, violence against children and the use of animals in circuses have shown that the Scottish Parliament is willing to take bold steps, in the face of vested interests and embedded practices, to protect animal welfare and the environment, and to prevent violence against the vulnerable.

Indeed, the Scottish Government's website states that it is committed to 'tackling all forms of violence across Scotland' (<http://www.gov.scot/Topics/Justice/policies/reducing-crime/reducing-violence>).

Let's ensure that it makes good on that commitment by prohibiting the violence of humans against other animals, including salmon.

Question 2 of your Call for Evidence is:

'there have been several recent reports which suggest how the farmed salmon industry might be developed.

Do you have any views on action that might be taken to help the sector grow in the future?'

As a leading question which presupposes that the sector should grow, this is highly inappropriate for an inquiry like this one.

As I've argued above, this sector must not be allowed to grow.

I hope this parliament will take steps to ensure that such leading questions are never included in future consultations.

Gavin Pennycook

April 2018