

Farmed Scottish Salmon Issue

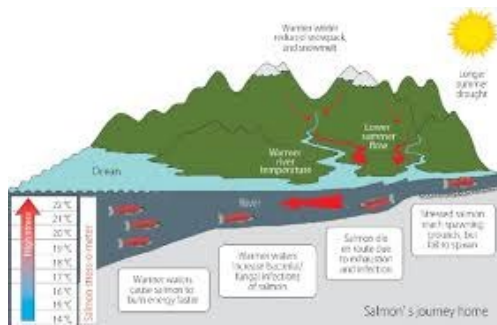
In Scotland salmon are such an important species for a number of reasons. They are an important prey source for so many species, and across the world salmon is one of the most valuable fish. But sadly, the salmon population in the North Atlantic has declined by over 80%. Also, in Scotland anglers have seen a massive reduction in salmon population caught. Pollution and climate Change are massive contributors to the decreasing population of salmon but also the conditions the salmon are treated in at the Scottish salmon fish farms. In response to this issue the Scottish government has launched the wild salmon strategy in 2022. Firstly, I will talk about what has been affecting the salmon population and then how different a farmed salmon's life is compared to wild salmon.



The main problems that are hurting the salmon population are climate change and fish farms. Climate change is affecting salmon populations because intense floods are destroying salmon nests (redds), as once the salmon's eggs are out the nest, they have no ways of being protected. This is more of a threat for the salmon that lay their eggs as shallow redds because during floods they are more likely to be flushed away.

Climate change is also affecting the cleanness, temperature and the supply of water that is crucial for the survival on the salmon. In some areas the air temperature has increased by 1.77 degrees between 1960 and 2020 this is very worrying. Unfortunately, if nothing is done about this the trend of temperature increase is predicated to continue at an even faster rate as the heat from Co2 emission continues to warm our atmosphere.

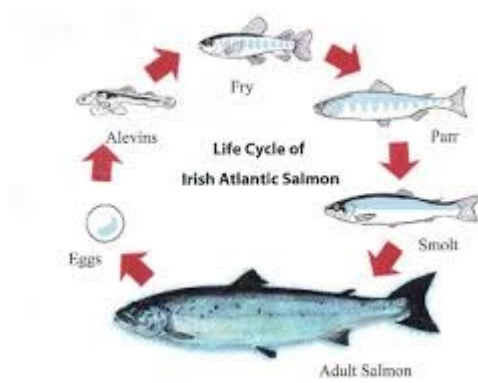
Another big issue is the melting of glaciers which allow fresh supplies of cold water to salmon streams in the Pacific Northwest. Also, the amount of water in the streams in the summer has significantly decreased. This is very concerning as this is at a time when young salmon offspring as they are at a vital stage in their life. Scientists are saying that the quantity of what was produced from snow melt has declined by 21 percent in the Western United States from 1955 to 2016.



Fish farms are also affecting the salmon populations. Salmon experiments in Scotland have been around since the 1800's but the first-year salmon were farmed in Scotland was in 1971 and there were massive amounts that were being produced and sold and today there are over 200 salmon farms across Scotland's coast. But there is clear evidence on the impact the farms are having on wild populations because the salmon farming has overrun the oceans off the west coast and Western and Northern isles of Scotland. These have the longest coastline in the British Isles, Scotland's ocean habitats are precious especially to the species that live there. And now sadly the wild salmon's habitats are having to be shared with the salmons in the farms. The farmed salmon are kept in open net pens that allow fresh water to flow in but faeces, diseases, uneaten food, chemical treatments, medicines, and sometimes even the fish in the farms to flow out contaminating the wider ecosystem.

Sadly because of the mass number of salmon kept together in pens they have become a breeding ground for Sea lice, almost half of the salmon farms in Scotland are infected with Sea lice. This disease can often cause the salmon to die, and this causes problems for other wild salmon because they live around the farms and can get infected as well.

The life of a wild salmon vs the life of a farmed salmon is very different. Wild salmon start off by their parents digging a crevice in a cool clean river and leaving them their protected by rocks. But when they start to grow with the rate of survival for juveniles between 1970 - 2018 was recorded to be only 1%. As they grow into Alevins they are exposed to more predators. At this stage the egg sac is still connected to them, and it slowly disappears as they absorb the nutrients. Next, they will develop into fry, in this stage they develop 8 fins to keep them swimming in fast flowing water. Over the Autumn they will develop into parr with vertical striped and spots for camouflage. At this stage they are also undergoing other changes inside them which will prepare them for their journey to the ocean. In the spring large numbers of salmon now called smolt migrate where they are able to feed on fish which is crucial for them as this is an important time for them to grow. Salmon that reach maturity after one year at sea are called Grilse. When these adult salmon return to the rivers they can be seen leaping as they go upstream. The life that these wild salmon have are very different from the farmed salmon is farmed salmons natural cycle is mimicked by the farmers but sadly they aren't able to live as long as wild salmon as they will live to up to 8 years but farmed salmon will only live to 2 or 3. The farmed salmons lives are cut short because of the greed of industrial breeding and from birth to death the salmon in the farms are given no protection despite the fact they are killed in large numbers.



In conclusion we can see how horrible the conditions that the salmon in the farms are left in and how important it is to try and reduce the number of salmon that are kept in farms so that we are not impacting the wider ecosystem. This is very important because if all the space in the waters where there are young wild salmon is being filled by salmon farms it will be harder for the wild salmon to complete their reproduction cycle. This also highlights how much climate change is affecting the salmon and more should be done to help them.

Sources

<https://thefishsite.com/articles/key-scottish-salmon-producers-join-saic-board>

<https://www.mossy.earth/rewilding-knowledge/salmon-farming-in-scotland>

[https://stateofsalmon.wa.gov/executive-](https://stateofsalmon.wa.gov/executive-summary/challenges/climate/#:~:text=As%20peak%20flows%20change%20in,red)

[summary/challenges/climate/#:~:text=As%20peak%20flows%20change%20in,red](https://stateofsalmon.wa.gov/executive-summary/challenges/climate/#:~:text=As%20peak%20flows%20change%20in,red)

[ucing%20t](https://stateofsalmon.wa.gov/executive-summary/challenges/climate/#:~:text=As%20peak%20flows%20change%20in,red)

[heir%20chance%20for%20survival.](https://stateofsalmon.wa.gov/executive-summary/challenges/climate/#:~:text=As%20peak%20flows%20change%20in,red)

[https://thehumaneleague.org.uk/article/what-is-farmed-salmon-fish-is-it-healthy-sustainable-](https://thehumaneleague.org.uk/article/what-is-farmed-salmon-fish-is-it-healthy-sustainable-and-ethical#:~:text=Wild%20salmon%20commonly%20live%20to,red)

[and-](https://thehumaneleague.org.uk/article/what-is-farmed-salmon-fish-is-it-healthy-sustainable-and-ethical#:~:text=Wild%20salmon%20commonly%20live%20to,red)

[ethical#:~:text=Wild%20salmon%20commonly%20live%20to,red](https://thehumaneleague.org.uk/article/what-is-farmed-salmon-fish-is-it-healthy-sustainable-and-ethical#:~:text=Wild%20salmon%20commonly%20live%20to,red)

[killed%20in%20astonishi](https://thehumaneleague.org.uk/article/what-is-farmed-salmon-fish-is-it-healthy-sustainable-and-ethical#:~:text=Wild%20salmon%20commonly%20live%20to,red)

[ng%20numbers.](https://thehumaneleague.org.uk/article/what-is-farmed-salmon-fish-is-it-healthy-sustainable-and-ethical#:~:text=Wild%20salmon%20commonly%20live%20to,red)

<https://www.marine.ie/site-area/areas-activity/fisheries-ecosystems/salmon-life-cycle>