SCOTTISH SALMON WATCH DISEASES

Scottish Ministers
St. Andrew's House
Regent Road
Edinburgh
EH1 3DG
scottish.ministers@gov.scot

30 September 2019

Dear Scottish Ministers,

Are Salmon Farms Spreading Infectious Diseases, Pathogens & Viruses to Wild Fish?

Scottish Salmon Watch calls for an urgent investigation into diseases spread by salmon farms to wild fish populations as well as immediate testing of salmon farming effluents for infectious diseases, pathogens, bacteria and viruses (as follow up to our letter to Scottish Ministers in April 2019 and letter to Scottish Ministers in May 2018).

Photographs published by the Scottish Government's Fish Health Inspectorate in August & September reveal wild salmon caught on the Rivers Dee, Forss, Garry, Conon, Cassley and Helmsdale with Salmon Gill Poxvirus, *Yersinia ruckeri* (Enteric Redmouth) *Flavobacterium psychrophilium*, *Aeromonas sp*. (Furunculosis), *Candidatus branchiomonas cysticola*, haemorrhaging, lesions, fungus, anaemia and cardiomyopathy.

In June, the Scottish Government's Fish Health Inspectorate reported that it was "responding to reports of wild adult salmon displaying skin damage such as reddening (petechial haemorrhaging) around the fins and belly (ventral surface), inflamed (swollen/red) vent and associated fungal infection".

Wild salmon caught displaying heavy fungal-growth on the River Forss in Highland region near Caithness in July 2019 tested positive for *Candidatus branchiomonas cysticola*, Salmon Gill Poxvirus, *Aeromonas spp*., *Pseudomonas florescence and Saprolegnia sp*.

Wild salmon caught on the River Garry in Tayside in June 2019 displayed "lesions/ulcers across approximately 20% of its body" with parisitology revealed "a heavy infestation of *Anisakis simplex*". A Fish Health Inspectorate report dated 13 August 2019 stated that the wild salmon "was displaying similar clinical signs of disease that had been reported in other rivers across Scotland". "External haemorrhaging and lesions were observed on the throat, ventrum, base of fins and flank of the fish," continued the report. "Internally, the heart appeared anaemic."

A wild salmon caught on the River Dee near Potarch in Grampian in June 2019 showed "haemorrhaging on the ventral surface". "Histopathology examination revealed mild mytosis and mild cardiomyopathy," stated the Fish Health Inspectorate report dated 2 August 2019. "The kidney showed come cysts-like structures. Parasites collected from the body cavity included *Anisakis sp*. and *Diphyllobothrium latum*. The vent showed heavy infestation of *Anisakis simplex*."

"Due to recent concerns regarding wild Atlantic salmon displaying similar clinical signs the decision was taken to collect samples," continued the FHI report. Externally the fish showed haemorrhaging on the ventral surface and had a small area of possible physical damage on the flank with what looked to be the early stages of a developing lesion."

A wild salmon caught in the River Conon in Highland region near Inverness in June 2019 showed "lesions and ulcers on the ventral surface".

"This was the first fish caught with signs of disease on the river and no mortalities have been reported prior to this inspection," stated the Fish Health Inspectorate report dated 1 August 2019. "External examination showed there to be slight haemorrhaging on the ventral surface and gills were slightly pale but no other visible signs. Internally, pectechial haemorrhaging was noted of the liver and lack of fat in the pyloric caeca. Haemorrhaging was also noted of the body wall and swim bladder."

A wild salmon caught on the River Cassley in the Kyle of Sutherland in June 2019 showed "severe lesions, haemorrhaging" and was "covered in patches of fungus".

The Fish Health Inspectorate reported dated 1 August 2019 detailed positive tests for cutaneous saprolegniasis and Salmon Gill Poxvirus. "*Yersinia ruckeri*, *Flavobacterium psychrophilium* and *Aeromonas sp*. were isolated," stated the report. "*Yersinia ruckeri* and *Flavobacterium psychrophilium* are known to be the causative agents of enteric redmouth disease (ERDM) and rainbow trout fry syndrome (RTFS). *Aeromonas sp*. and *Saprolegnia sp*. are more commonly known as opportunity pathogens."

Fish 1 tested positive by PCR (QPCR) for the following:

Salmon gill poxvirus (SGPV)

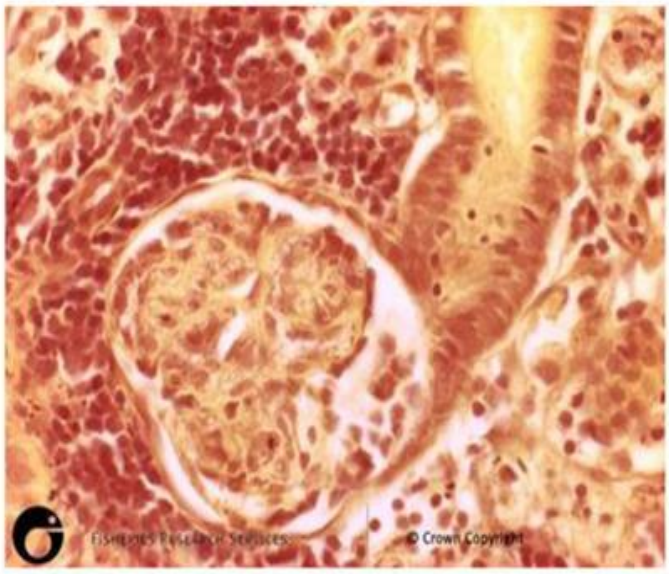
Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	24.86	36.76	36.12	37.66	Positive

Bailiffs recovered 50-60 dead and moribund wild salmon on the River Helmsdale in Highland region in June 2019 "with evidence of a fungus-like infection and haemorrhaging/physical damage on the belly".

Histopathology revealed mild myositis, nephritis, marked bacterial necrotising splenitis and minimal myocarditis. "Parasitology examination identified the presence of cestode postlarvae of the species *Hepatoxylon squali*," stated the Fish Health Inspectorate report dated 18 July 2019. "*Yersinia ruckeri, Aeromonas spp., Pseudomonas fluorescens* and *Saprolegnia sp*. were all identified."

Enteric Redmouth (Yersinosis) is in the same family as the Black Death plague and has plagued salmon farms and hatcheries in Scotland. A report - 'The State of Scottish Salmon Farming in 2018' - sourced from the Scottish Government's Fish Health Inspectorate's 'Case Information' detailed problems with Enteric Redmouth (Yersinosis) at The Scottish Salmon Company's hatchery in Kinlochmoidart (a facility exposed as causing fungus problems downstream in the River Moidart).

- 140,000+ morts due to Enteric Redmouth (Yersinosis) at The Scottish Salmon Company's Kinlochmoidart Hatchery in June and July 2018 and 22,000 morts in September and October 2018 with "Formalin flushed through a number of tanks for Costia"



- Enteric Redmouth Disease (Yersinosis) diagnosed at The Scottish Salmon Company's site at Gob a Bharra in Loch Fyne in October 2017 leading to "increased grumbling morts on input" with up to 3,900 morts per week for 10 weeks post input (sourced from The Scottish Salmon Company's Kinlochmoidart Hatchery)

Yersinia ruckeri was also reported in 2010 at freshwater facilities operated by Mowi (then called Marine Harvest).

Business	Site	Result
Marine Harvest (Scotland) Ltd	Loch Lochy	Yersinia ruckeri
Marine Harvest (Scotland) Ltd	Loch Lochy	Saprolegnia species

Business	Site	Result
Marine Harvest (Scotland) Ltd	Glenfinnan	Yersinia ruckeri
Marine Harvest (Scotland) Ltd	Glenfinnan	Epitheliocystis

An analysis of diseases reported on Scottish salmon farms between 1980 and 2006 revealed that Yersinia ruckeri was one of the most common disease agents on Scottish salmon farms along with Aeromonas salmonicida (Furunculosis):

Types of Disease Identified on Scottish Salmon Farms 1980 - 2006

Over 70 different diseases and disease agents were reported on Scottish salmon farms

The top 5 (by # of occurrence) since 1980 are:

- Vibrio spp (occurred in 21 years)
- Pseudomonas spp (19 years)
- Aeromonas salmoncida (17 years)
- Infectious Pancreatic Necrosis (17 years)
- Yersinia ruckeri (12 years)

Aeromonas salmonicida (Furunculosis) induces septicaemia followed in chronic cases, by the appearance of boil like inflammatory lesions (or furuncles) and death. It was imported into Norway in 1985 via infected smolts from a salmon farm in Scotland infecting over 500 salmon farms and rivers in Norway.

Download data on diseases on Scottish salmon farms obtained via FOI online here and online here

Cardiomyopathy Syndrome was reported on Scottish salmon farms for the first time in 2000 with mass mortalities on salmon farms continuing throughout 2019 according to the latest data from the Scottish Government's Fish Health Inspectorate.

Candidatus Branchiomonas cysticola is a common agent of Ephitheliocystis (caused by Chlamydia) and Proliferative Gill Inflammation which has plagued salmon farms in Scotland and in Norway.

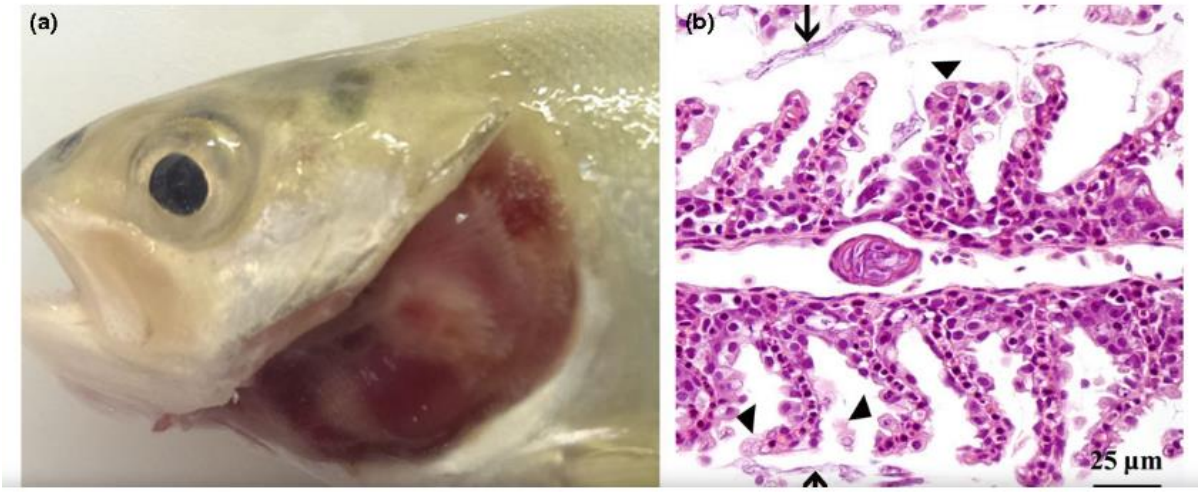


Figure 2 Gills of Atlantic salmon from farm C all infected with salmon gill poxvirus in addition to Ca. Branchiomonas cysticola, Saprolegnia spp. and 'Costia'. Sections of gills (b-g) and spleen (h). (a) The operculum… Continue Reading

Published in Journal of fish diseases 2017

Salmon gill poxvirus, a recently characterized infectious agent of multifactorial gill disease in freshwater- and seawater-reared Atlantic salmon.

Mona C Gjessing, Even Thoen, Torstein Tengs, Svenn Amund Skotheim, O B Dale

Salmon Gill Poxvirus (SPGV) "can be a common denominator in widely different multifactorial gill diseases" and " is more widespread than previously reported". According to the University of Stirling, there is a "widespread prevalence of SGPV in farmed salmon" and "SGPV has been detected by PCR in fish of hatcheries on the Scottish West Coast". A report - 'The State of Scottish Salmon Farming in 2018' - sourced from the Scottish Government's Fish Health Inspectorate's 'Case Information' detailed problems with SGPV at various salmon farms in 2018:

- 46,000 morts at The Scottish Salmon Company's site at Vuia Mor in Loch Roag in July and August 2018 due to anaemia and "high lice load" (Salmonid Alphavirus, Anaemia, Infectious Pancreatic Necrosis Virus, Amoebic Gill Disease and Salmon Gill Poxvirus were all reported along with "cranial lice damage")

- 50,000+ morts at the Scottish Sea Farms Loch Nevis salmon farm in October and November 2018 due to Salmon Gill Poxvirus and "complex gill pathology" ("Heart disease of an inflammatory nature from fish pen 1. low grade Heart & Skeletal Muscle Inflammation possible")

- 10,000+ morts at The Scottish Salmon Company's site in Outer Eport in July 2018 following a Hydrogen Peroxide treatment and "high lice load" (Salmonid Alphavirus, Amoebic Gill Disease and Salmon Gill Poxvirus were all reported along with fish with "damaged/missing eyes" and "all fish had very high Caligus numbers")

- 27,000 morts (46.7% of stock) at the Wester Ross Fisheries site at Ardessie A in Little Loch Broom in August 2018 due to Amoebic Gill Disease, Salmonid Alphavirus (Pancreas Disease) and Salmon Gill Poxvirus

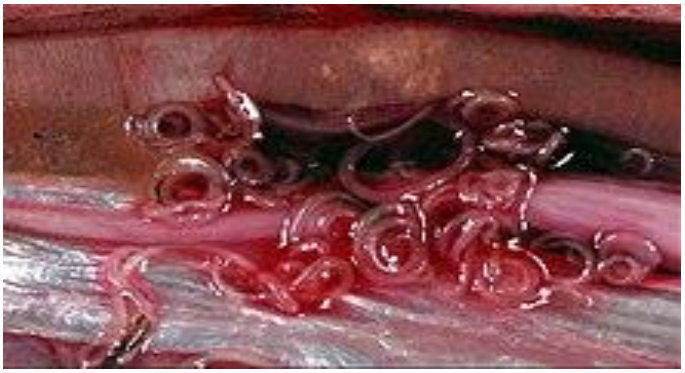
- 37,000 morts (39.2% of stock) at the Wester Ross Fisheries site at Ardessie B in Little Loch Broom in August 2018 due to Amoebic Gill Disease, Salmonid Alphavirus (Pancreas Disease) and Salmon Gill Poxvirus

- 15,000+ morts at The Scottish Salmon Company's Vacasay site in Loch Roag in August 2018 due to high lice loads, Amoebic Gill Disease, Infectious Pancreatic Necrosis virus, Salmon Gill Poxvirus and Epitheliocystis ("all fish had lice damage to the head area" stated the report)

- 36,000+ morts at Grieg Seafood's Linga (Setterness) site in August and September 2018 due to Cardiomyopathy Syndrome, Gill Anaemia, Salmon Gill Poxvirus, Vibrio and Infectious Pancreatic Necrosis virus and Paranucleospora

- 13,699 morts at Marine Harvest's Grey Horse Channel site between December 2017 and March 2018 due to Pasteurella skyensis and Amoebic Gill Disease (Candidatus Branchimonas cysticola, Candidatus Syngnamydia salmonis, Salmon Gill Poxvirus, Paranucleospora theridon, Vibrio and Moritella viscoca also reported)

A briefing on Anisakis was issued by the Scottish Salmon Producers Organisation in 2017 claimed that "research by the Food Standards Agency shows there is no risk of parasites from farmed salmon".



Information - including photos obtained via Freedom of Information from the Scottish Government - on infectious diseases, pathogens, bacteria and viruses in Scottish farmed salmon has been reported extensively.

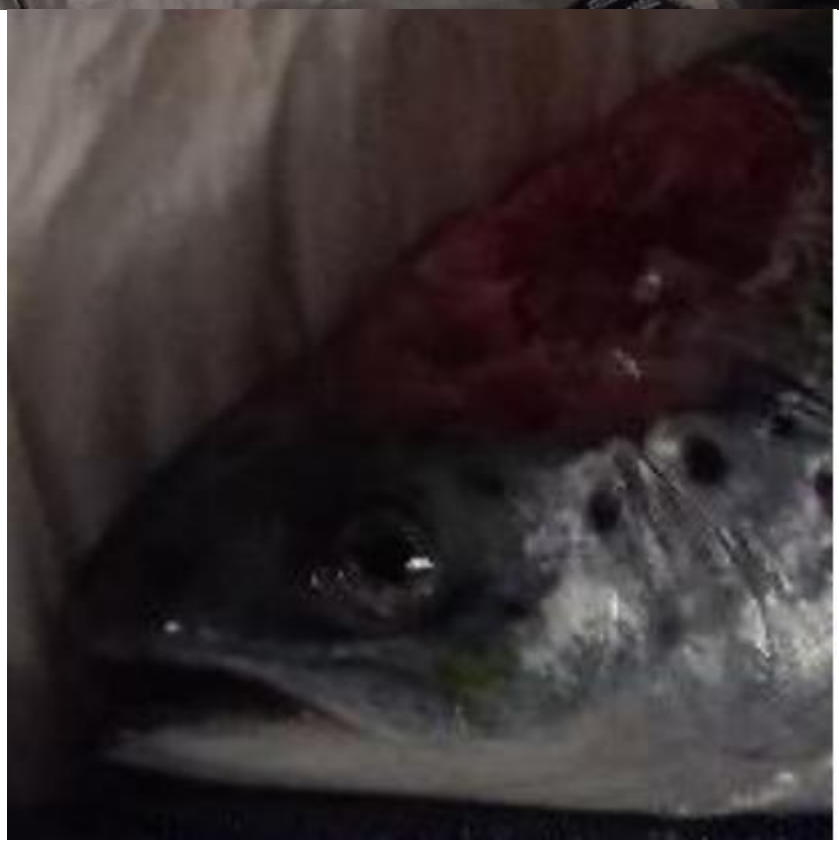
Read more details via:
Video Nasty: Mowi's Dead Salmon at 'Bay of the Dead Heads'
Mass Mortalities & Disease Ravage Scottish Salmon Farms (& It's Going to Get Worse!)
Welfare Abuse at Scottish Salmon Farms - Why No Legal Enforcement Or Prosecutions?
The Severely Damaged Scottish Salmon Company - For Sale Now!
Meet Pop-Eye the Scottish Salmon - Tortured by an Optilicer!
Cardiac Disease Arrests Mowi in Kingairloch

Mowi's Welfare Nightmare on Rum - "blind", "physical damage", "anorexic" & over 40,000 dead fish!
Scottish Salmon's Mort Mountain Piles Ever Higher in 2019
Mmmm Blind Scottish Salmon with Boils, Anyone?
Unnecessary Suffering & Cruel Operations at Mowi's at Bagh Dail nan Ceann salmon farm (Sound of Jura)
Shocking Video Footage from Mowi's 'Bay of the Dead Heads' (Bagh Dail nan Ceann)
'Sick' salmon film prompts government probe into Scottish fish farm
Frankenfish Video - The Ugly Face of Lousy Scottish Salmon
Mass deaths: nine million fish killed by diseases at Scottish salmon farms
Disease-ridden Scottish Salmon
Mowi's Disease-Ridden Mortalities - 1.6 million+ in 101 incidents (2017-2018)
New Report - "The State of Scottish Salmon Farming in 2018"
Sick salmon at Scottish fish farm revealed on film
Salmon firms bid to block diseased photos
Hard Evidence: Photos of Diseased & Deformed Scottish Salmon
Legal Complaint Vs Breaches of Animal Health & Welfare (Scotland) Act
Horror photos of farmed salmon spark legal threat
EXPOSED: Gruesome Photos of Deformed & Diseased Scottish Salmon
EXPOSED: Early Harvesting at Scottish Salmon Farms Due to Disease & Mortalities
Hard Evidence: Dossier of Data on Lice, Diseases & Mortalities at Scottish Salmon Farms

A report - "The State of Scottish Salmon Farming in 2018" - published in March 2019 collated 'Case Information' published by the Scottish Government's Fish Health Inspectorate:

The following were reported on Scottish salmon farms during 2018: Piscine reovirus (Heart & Skeletal Muscle Inflammation), Salmon gill poxvirus, Piscine myocarditis virus (Cardiomyopathy Syndrome), Neoparamoeba perurans (Amoebic Gill Disease), Epitheliocystis, Proliferative Gill Disease, Enteric Redmouth (Yersinosis), Paranucleospora theridon, Infectious Pancreatic Necrosis virus, Salmonid Alphavirus (Pancreas Disease), Candidatus Branchiomonas cysticola, Candidatus Piscichlamydia salmonis, Candidatus Syngnamydia salmonis, Candidatus Clavochlamydia Salmonicola, Vibrio, Pasteurella skyensis, Moritella toxaemia (Winter Ulcer Disease), Aeromonas salmonicida (Furunculosis), Anaemia, Fungus and Lice **[1]**.

Disease problems on Scottish salmon farms have continued unabated during 2019. Here's photos from a Fish Health Inspectorate visit to The Scottish Salmon Company's salmon farm at Portree in February 2019 - including "visible damage to the heads of fish", skeletal muscle necrosis, dermatitis, lesions "likely associated with mechanical damage", anorexia, bilateral exopthalmia, petechial haemorrhaging, salmon gill poxvirus, *Neoparamoeba perurans* (the causative agent of Amoebic Gill Disease), *Paranculeospora theridon*, *Vibrio spp*, *Photobacterium sp* and Infectious Pancreatic Necrosis virus:



Here's the Fish Health Inspectorate's 'Case Information' report for Grieg Seafood's North Papa inspection dated 28 March 2019 which detailed positive tests for Infectious Pancreatic Necrosis virus, *Aeromonas salmonicida* and *Paranucleospora theridon* as well as Exophthalmia.

2019-0135 Fish 1 Bilateral Exophthalmia

2019-0135 North Papa – Fish 2 exophthalmia

Exophthalmia is referred to as pop-eye and is a condition linked to Cardiomyopathy Syndrome.

Figure 1 Open in figure viewer | PowerPoint

Gross pathological conditions in farmed salmon diagnosed with CMS. (a) Salmon showing exophthalmia, ventral skin haemorrhages and raised scales due to oedema. Photograph: Per Anton Sæther, MarinHelse AS. (b) Salmon at autopsy showing ascites, blood clot in the pericardial cavity and discoloured liver with fibrinous casts. Photograph: Brit Tørud, Norwegian Veterinary Institute

The Scottish Government's Fish Health Inspectorate slipped out a report in August 2019 detailing an inspection of Mowi's salmon farm at Kingairloch in April 2019 - including Cardiomyopathy Syndrome (CMS), Pasteurella skyensis, multifocal hepatic necrosis, Salmonid Alphavirus, anorexia, lesions, haemorrhaging and deformed hearts.

Here's more [photos of Mowi's disease-ridden salmon obtained via Freedom Information in 2018]:

Fish Farm: Groatay, Sound of Harris

Company: Marine Harvest
Problems: unknown
Fish heath inspection: unknown (report due July 2018)
Case number: 2018-0111

The Ferret

Fish Farm: Raineach, East Loch Tarbert, Harris

Company: Marine Harvest
Problems: amoebic gill disease, lice
Fish heath inspection: five fish sampled on 4 October 2016
Case number: 2016-0449

The Ferret

Fish 6 lesion

Positive test for salmonid alphavirus (pool 2), the causative agent of Pancreas Disease (PD) with evidence of heart pathology, skin lesions with bacterial infection. Moritella viscosa (causative agent of Winter ulcer) was identified from the lesions and gills and a Vibrio species was identified.

Fish 6 – lice and skin loss on head

Scattered aneurysms and basal hyperplasia; lamellae fusion in the gills; haemorrhage in skeletal muscle; adhesions in all fish and pericaditis, cell infiltration in the ventricle and some myofiber degeneratuin in the atrium (heart).

In June 2019, a FOI reply by the Scottish Government revealed that over half of all farmed salmon tested positive for Piscine Reovirus (PRV).

Data disclosed via FOI/19/00882 reveals that during 2018 and 2019 there were 399 positive samples out of 774 samples tested (i.e. 52% of farmed salmon samples tested positive for PRV) **[1]** - including 63 tests out of 113 with 100% positive results:

Date of Testing	Pathogen	Test	Result (Positive)
27/02/2018	PRV	QPCR	10 of 10
18/09/2018	PRV	QPCR	10 of 10
19/12/2018	PRV	QPCR	10 of 10
29/11/2018	PRV	QPCR	13 of 13
29/11/2018	PRV	QPCR	19 of 19
08/01/2019	PRV	QPCR	6 of 6
22/01/2019	PRV	QPCR	6 of 6
05/02/2019	PRV	QPCR	5 of 5
12/02/2019	PRV	QPCR	5 of 6
12/02/2019	PRV	QPCR	6 of 6
19/02/2019	PRV	QPCR	10 of 10
16/04/2019	PRV	QPCR	5 of 9
25/04/2019	PRV	QPCR	5 of 5
25/04/2019	PRV	QPCR	6 of 7
21/05/2019	PRV	QPCR	6 of 6
21/05/2019	PRV	QPCR	9 of 9

Scottish Salmon Watch reported in June 2019:

PRV is highly contagious, causes fatal heart and skeletal muscle inflammation in salmon and a scientific study published in 2018 linked it to an equally deadly type of anemia in at least one species of wild salmon.

Shamefully, Scotland's Aquatic Animal Health surveillance programme does not routinely test for Piscine Reovirus (also called Piscine orthoreovirus) and Heart & Skeletal Muscle Inflammation (HSMI). "Sampling for PRV is restricted to those inspections involving diagnostic investigations and only in such cases where histopathological analysis is indicative of pathology associated with PRV infection," explained the Scottish Government in a letter dated 3 June.

A letter to Scottish Ministers in April 2019 cited the Fish Health Inspectorate's Case # 0078 in March 2018:

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- "Haemorrhagic necrosis of skeletal muscle", "marked red skeletal muscle degeneration" and lesions on the flank including "a lesion on the ventral surface through which the heart was exposed" reported at The Scottish Salmon Company's Tarbert South site in Loch Fyne in March 2018 (positive tests reported for PRV, Moritella vicosa/Winter Ulcer disease and Vibrio).

A scientific paper - "The effect of exposure to farmed salmon on piscine orthoreovirus infection and fitness in wild Pacific salmon in British Columbia, Canada" - published in December 2017 reported that:

"PRV was detected in: 95% of farmed Atlantic salmon, 37–45% of wild salmon from regions highly exposed to salmon farms and 5% of wild salmon from the regions furthest from salmon farms."

> The science on the infection dynamics of PRV in wild fish populations is still emerging. Garseth et al. [5] provide molecular-based evidence that salmon farms play a significant role in the long-distance transport and transmission of PRV in Norway, speculating that pathogen exchange solely between wild salmon during the at-sea migration phase likely plays a minor role in PRV dispersal. While PRV infection in Norwegian sea trout (*Salmo trutta*) is low (1.9–3.0%), the species' persistence in the nearshore environment elevates exposure to salmon aquaculture. This heightens the possibility that sea trout could serve as an intermediary host for aquaculture-source PRV through habitat overlap with salmon during the freshwater spawning and juvenile rearing phases [26]. While no evidence of HSMI was detected in Norwegian wild salmonids [26], the researchers postulated that the impact of severe heart and skeletal muscle damage on a salmon's cardiovascular capacity could decrease the likelihood of an infected fish entering the riverine habitat where sampling was conducted. It is widely observed that diseased wild fish are typically difficult to sample because they are preferentially removed from the population by predators [27].

Despite the plethora of infectious diseases, pathogens, bacteria and viruses on Scottish salmon farms the salmon farming industry and the Scottish Government have failed to address the impacts on wild fish.

For example, Marine Scotland Science's report - 'Scotland 10 Year Farmed Fish Health Framework' - published in May 2018 completely disregards impacts on wild fisheries.

Work Stream 2: Gill Health

Gill health has emerged as the key challenge to the farmed fish industry in the marine environment and is the most significant contributor to increasing marine mortality.

Activities

- Establish a clearer understanding of the underlying environmental factors and increase awareness of key factors which contribute to gill health challenges.
- Support research to better define interactions between farms environmental characteristics, gill health and risk of losses.
- Better define best gill health surveillance practice and establish good practice on gill health for Scottish fin fish aquaculture.
- Formulate a long-term approach to minimise losses from gill diseases
- Convene appropriate best-practice events and workshops (e.g. on availability and use of anti-fouling solutions to reduce net cleaning requirements).

In March 2018, the Scottish Parliament's Environment, Climate Change and Land Reform Committee's 'Report on the Environmental Impacts of Salmon Farming' stressed the need for a monitoring strategy for wild salmonoids and the protection and health of wild fish:

91. The Committee is concerned that there appears to be no locus in the agencies for the protection and health of wild fish. While Marine Scotland suggested where disease is found they look at the effect on wild fish and the interaction with the farm, that responsibility does not extend to wild fish. The Committee is firmly of the view there should be a competent regulatory body charged with the protection and health of wild salmon and trout.

92. The Committee is of the view that a more integrated marine planning of salmon farming is required, including a monitoring strategy for wild salmonoids, which addresses cumulative impacts. The body responsible for protecting and promoting the health of wild salmonoids should progress this as a matter of urgency.

The Environment, Climate Change and Land Reform Committee's 'Report on the Environmental Impacts of Salmon Farming' (March 2018) included:

SRSL Report Summary: Diseases

Diseases of farmed fish might spread to other animals, especially wild salmon

Diagnosis

63. *Salmon can be infected by a range of pathogens and parasites, some of which may cause significant losses of farmed fish. About a dozen pathogens and parasites are economically important for salmon farming in Scotland. These infections, and their prevention or treatment, have been much studied in cultivated salmon; less is known about their incidence in wild salmon. The presence of large numbers of fish living close together in a farm provides a favourable habitat for the growth and spread of populations of pathogens and parasites. Depending upon the mode of infection, water currents can spread pathogens between farms and potential between wild and farmed salmon populations. Prevention and treatment measures include biosecurity, fish vaccination, and the use of a range of chemotherapeutants and small amounts of antibiotics. Serious fish or shellfish diseases are called 'notifiable' because farmers must immediately report that they suspect or know about the disease to the Fish Health Inspectorate. There are currently eight notifiable diseases of fish in the UK of which six may be found in salmonids. Suspicion of notifiable diseases will result in movement restrictions and may require the eradication of the infected farm stock. There is some evidence that some disease is transmitted between farmed and wild fish by direct infection, by escapees, or by infection from wild to farmed fish. There are few data allowing the risk of disease transfer between wild and farmed populations to be reliably estimated.*

Prognosis

64. *Increased numbers and sizes of farms could lead to increased risk of infection of wild fish unless improvements in farm biosecurity and disease prevention outpace the expansion of production.*

And:

Evidence

67. There is evidence that some disease is transmitted between farmed and wild fish by direct infection, by escapees, or by infection from wild to farmed fish. There is little data enabling the risk of disease transfer between wild and farmed populations to be reliably estimated. The report states that the lack of knowledge about the disease interactions between farmed salmon and wild populations is of concern.

In May 2018, a petition co-ordinated by SumOfUs signed by over 43,000 people called on the Scottish Government and the Scottish Environment Protection Agency to "start routinely testing effluent from salmon farms and processing plants for deadly viruses that threaten wild salmon".

In May 2018, Scottish Salmon Watch wrote to Scottish Ministers calling on the Scottish Government to test salmon farming effluents for infectious diseases, pathogens and viruses.

Cabinet Secretary for Environment, Climate Change and Land Reform
Cabinet Secretary for Rural Economy & Connectivity
The Scottish Government
St. Andrew's House
Regent Road
Edinburgh
EH1 3DG

8 May 2018

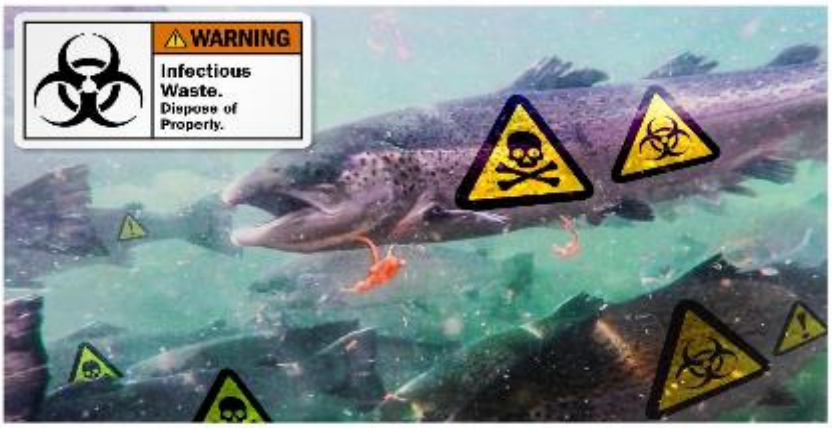
Dear Cabinet Secretaries,

Slipping Through the Net: Infectious Diseases, Viruses, Pathogens & Bacteria in Salmon Farm & Processing Plant Effluents

Further to previous correspondence (see Appendix 1), could you please explain why the Scottish Government does not test salmon farm and processing plant effluents for infectious diseases, viruses, pathogens, bacteria and contaminants?

In view of the problems plaguing Scottish salmon farming and positive tests for viruses in processing plant effluents in Canada the lack of Scottish Government testing is a serious oversight which must be corrected as a matter of urgency.

Data obtained via Freedom of Information from the Scottish Government has revealed that Scottish salmon farms during 2017 were not only riddled with lice but also disease-ridden.



When will the Scottish Government stop protecting the Norwegian-owned salmon farming industry from public scrutiny and start protecting Scotland's iconic wild salmon?

Please pass this letter onto Dr. John Goodlad as Chair of the Scottish Government's 'Salmon Interactions' Working Group.

For more background please read:
New report set to reveal drastic fall in salmon farming production in Scotland
Media Backgrounder: Disease-Ridden Scottish Salmon is Dead in the Water"

Yours sincerely,

Don Staniford

Director of Scottish Salmon Watch

SCOTTISH SALMON WATCH VIRUSES

Cc:

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