RURAL ECONOMY AND CONNECTIVITY COMMITTEE

SALMON FARMING IN SCOTLAND

SUBMISSION FROM <u>SCOTTISH SALMON WATCH</u>

- <u>Hard Evidence: Dossier of Data on Lice, Diseases & Mortalities at Scottish</u>
Salmon Farms

In view of the space restrictions, Scottish Salmon Watch will focus on two of the questions which the <u>RECC called for evidence on</u>; namely:

- 3. The farmed salmon industry is currently managing a range of fish health and environmental challenges. Do you have any views on how these might be addressed?
- 4. Do you feel that the current national collection of data on salmon operations and fish health and related matters is adequate?

In summary, Scottish Salmon Watch views the current fish health situation (as measured via lice infestations, infectious diseases and viruses, mass mortalities and the use of toxic chemicals to control disease) as dire and disastrous. A national database on lice, diseases and mortalities is urgently required.

Far from promoting the expansion of salmon farming or even considering a doubling or trebling by 2030, the Scottish Parliament should be recommending drastic reductions in salmon farming production immediately. Indeed, the Scottish Government ought to heed the warnings in North America and follow the lead of the Washington state government in ordering a ban on open net cages.

By operating outside ecological limits, salmon farming in Scotland has patently lost its social and political licence. The Scottish Parliament must signal an end to the industry's licence to pollute with impunity and rescind salmon farm licences starting with those sites where lice infestation levels, infectious diseases and mass mortalities have spiralled out of control.

From an animal welfare and environmental point of view, salmon farming is a morally repugnant industry which is now both ecologically and economically bankrupt. Strip away state sponsorships, government grants and taxpayer subsidies and the Scottish salmon farming industry is dead in the water (along with the estimated 15-20 million disease-ridden farmed salmon the industry racked up in 2017 weighing in at a staggering 25,435 tonnes).

In terms of data on lice infestation, infectious diseases and mass mortalities there is now a great deal of information available via Freedom of Information disclosures. Shamefully, except for weight of mortalities this damning data is not published officially via the Scottish Government's & SEPA's 'Scotland's Aquaculture' database.

In April 2018 the Scottish Salmon Producers Organisation have pledged to publish site specific disease and mortality data. However you spin it, the data makes for uncomfortable reading.





WARNING

Diseases Viruses Lice Infestations Bacteria





61 salmon farms breaching lice limits between November 2016 and December 2017



Salmon Gill poxvirus, Paranucleospora theridion, gill pathology, complex gill issues, Vibrio anguillarum, Proliferative Gill Disease, Amoebic Gill Disease, Pancreas Disease, fungus, Sardiomyopathy Syndrome, Haemorrhagic Smolt Syndrome, Heart & Skeletal Muscle Inflammation, Enteric Redmouth Disease and Anaemia reported during 2017



Record level mortalities in 2017 at over 25,000 tonnes (up from 5,000 tonnes in 2002 and 10,000 tonnes in 2011) with estimated losses of 15-20 million farmed salmon at a mortality rate of 26.7%

Key documents for hard data on lice, diseases and mortalities:

Sea Lice Breaching Farm List

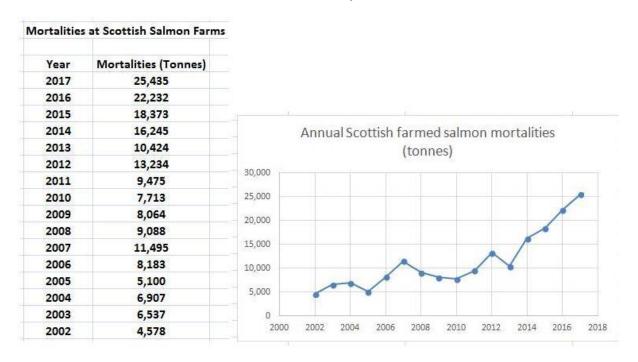
<u>Scottish Salmon's Mort Mountain Leaps Over 10 Million - FOI reveals 2.3 million dead salmon at Marine Harvest farms in 2017</u>

Data on Mortalities & Diseases at Scottish Salmon Farms

Read online in full via "<u>Hard Evidence: Dossier of Data on Lice, Diseases & Mortalities at Scottish Salmon Farms"</u>

Scottish Salmon Watch urges the Scottish Parliament to force the salmon farming industry to disclose site specific data on lice infestation, infectious diseases and mass mortalities since 2002.

We know from the mortality data (in tonnes) <u>published by Scotland's Aquaculture</u> <u>database</u> that mortalities have risen dramatically since 2002:



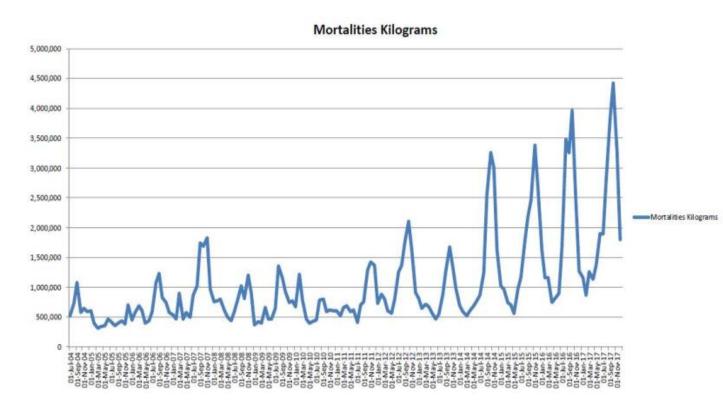
Marine Harvest reported the most mortalities during 2017 followed by the Scottish Salmon Company, Cooke Aquaculture, Scottish Sea Farms, Grieg Seafood and Loch Duart all with over 1,000 tonnes of dead farmed salmon:

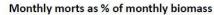
Scottish Farmed Salmon Mort	alities in 2017 (T	onnes
Marine Harvest	7,066	
Scottish Salmon Company	6,029	
Cooke Aquaculture	4,552	
Scottish Sea Farms	4,328	
Grieg Seafood	2,191	
Loch Duart	1,066	
Kames	187	
Wester Ross	15	
Total	25,435	

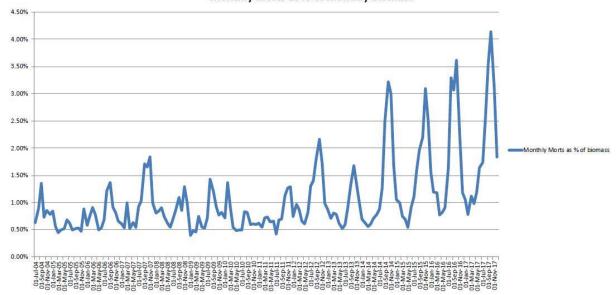
The 20 worst salmon farm sites for mortalities (by weight and month) between 2002 and 2017 were:

1	Year	Mortalities (Kg)	Submitted By	Site Name	Local Authority
2	01-Dec-15	640812	Grieg Seafood Shetland Ltd	Cole Deep	Shetland Islands
3	01-Feb-10	564900	Rysa Farm Salmon	Pegal Bay	Orkney Islands
4	01-Oct-17	527936	Cooke Aquaculture Scotland	Stead of Aithness	Shetland Islands
5	01-Oct-13	494652.3731	Marine Harvest (Scotland) Ltd	Portnalong	Highland
6	01-Nov-17	487622	The Scottish Salmon Company Ltd	Druimyeon Bay	Argyll and Bute
7	01-Apr-02	423165	Scottish Sea Farms Ltd	Sand Sound, Bixter	Shetland Islands
8	01-Nov-17	422946	Cooke Aquaculture Scotland	Stead of Aithness	Shetland Islands
9	01-Oct-16	396461	The Scottish Salmon Company Ltd	Trilleachan Mor	Eilean Siar
10	01-Oct-14	392856.0973	Marine Harvest (Scotland) Ltd	Greshornish	Highland
11	01-Oct-14	361742.2665	Marine Harvest (Scotland) Ltd	Marulaig Bay	Eilean Siar
12	01-Oct-12	340000	Hjaltland Seafarms Ltd	Setterness South	Shetland Islands
13	01-Nov-14	330998.5855	Marine Harvest (Scotland) Ltd	Eilean Raineach	Eilean Siar
14	01-Aug-02	326520	Lewis Salmon Ltd	Arbhair	Eilean Siar
15	01-Sep-17	319615	The Scottish Salmon Company Ltd	Tuath (Rubha na Gall)	Argyll and Bute
16	01-Aug-08	317940	Scottish Sea Farms Ltd	Fiunary	Highland
17	01-Nov-14	294281.1441	Marine Harvest (Scotland) Ltd	Greshornish	Highland
18	01-Oct-11	291056	The Scottish Salmon Company Ltd	St Molios	North Ayrshire
19	01-Sep-16	289180.2091	Marine Harvest (Scotland) Ltd	Soay Sound	Eilean Siar
20	01-Nov-14	285003.843	Marine Harvest (Scotland) Ltd	Scotasay	Eilean Siar
21	01-Oct-16	283830.0231	Marine Harvest (Scotland) Ltd	Noster	Eilean Siar

Mortalities spiked in late Summer with higher mortality rates reported during the Autumn months:







The worst monthly mortalities during 2017 were reported at the following salmon farming sites with Gravir Outer (Scottish Salmon Company) and Poll na Gille (Marine Harvest) featuring twice and most morts appearing in October/November:

Year	Mortalities (Kg)	Submitted By	Site Name	Local Authority
01-Oct-17	527936	Cooke Aquaculture Scotland	Stead of Aithness	Shetland Islands
01-Nov-17	487622	The Scottish Salmon Company Ltd	Druimyeon Bay	Argyll and Bute
01-Nov-17	422946	Cooke Aquaculture Scotland	Stead of Aithness	Shetland Islands
01-Sep-17	319615	The Scottish Salmon Company Ltd	Tuath (Rubha na Gall)	Argyll and Bute
01-Jul-17	272236	The Scottish Salmon Company Ltd	Gravir Outer	Eilean Siar
01-Aug-17	265069.1243	Marine Harvest (Scotland) Ltd	Tabhaigh	Eilean Siar
01-Aug-17	256601	The Scottish Salmon Company Ltd	Gravir Outer	Eilean Siar
01-Sep-17	244634	Scottish Sea Farms Ltd	Snarraness Voe	Shetland Islands
01-Oct-17	223889	Scottish Sea Farms Ltd	Allt a Chois (Kishorn North Shore)	Highland
01-Sep-17	214813.5376	Marine Harvest (Scotland) Ltd	Erisort, North Shore East	Eilean Siar
01-Oct-17	175884	The Scottish Salmon Company Ltd	Druimyeon Bay	Argyll and Bute
01-Oct-17	175161.7139	Marine Harvest (Scotland) Ltd	Sron	Highland
01-Oct-17	173967	Scottish Sea Farms Ltd	Kishorn Outer, Offshore of Airigh-drishaig	Highland
01-Oct-17	171645.0592	Marine Harvest (Scotland) Ltd	Poll na Gille	Argyll and Bute
01-Nov-17	159141.0419	Marine Harvest (Scotland) Ltd	Poll na Gille	Argyll and Bute
01-May-17	156754.0857	Marine Harvest (Scotland) Ltd	MacLeans Nose	Highland
01-Nov-17	153826	The Scottish Salmon Company Ltd	Strone Point	Argyll and Bute
01-Nov-17	144124.9417	Marine Harvest (Scotland) Ltd	Sron	Highland
01-Oct-17	143399.9967	Marine Harvest (Scotland) Ltd	Erisort, North Shore West	Eilean Siar
01-Oct-17	139634.3207	Marine Harvest (Scotland) Ltd	Port na Cro	Argyll and Bute

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Don Staniford

<u>Director of Scottish Salmon Watch</u>

March 2018