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15 January 2014

Dear First Minister of Scotland,

Salmon Farming Moratorium

In view of the deteriorating state of salmon farming in Scotland, we urge Scottish Ministers to curb expansion by instituting an immediate moratorium. Far from expanding salmon farming production as planned [by 50% by 2020](#), the Scottish Government ought to heed the warnings and pledge to reduce production accordingly. To increase salmon farming production further beyond Scotland's carrying capacity will only exacerbate the [problems of sea louse infestation, infectious diseases, chemical pollution and escapes](#).

In 2011, '[Scotland's National Marine Plan](#)' pledged that by 2020 Scottish Ministers planned "to increase the sustainable production of marine finfish at a rate of 4% per annum to achieve a 50% increase in current production". In a [press release](#) issued by the Scottish Government in May 2012, you referred to "our aim of increasing production by 50 per cent on 2009 levels to 210,000 tonnes by 2020".

However, according to the latest [Annual Fish Farm Production Survey 2012](#) (September 2013) salmon farming production is decreasing not increasing. In fact, estimated production in 2013 is 152,507 tonnes - that's 10,000 tonnes less than in 2012 and 17,000 tonnes less than a decade ago in 2003.

You ignore the warning signs at your peril. The Guardian [reported](#) in November 2013 that: "After hitting less than half that growth target in 2011 and 2012, Scottish salmon production is expected to fall by 10,000 tonnes this year to roughly 152,500 tonnes, the largest annual fall in nearly a decade, after being hit by a series of disease outbreaks and production stoppages".

Lang Banks, Director of WWF Scotland told [The Guardian](#): "It's very hard to see how the rapid expansion in farmed salmon production being expected by ministers can realistically be met without the industry having to backtrack on their pledges, under the Aquaculture Stewardship Council scheme, to reduce their impacts on the environment. There is a real danger that this government target could drive Scotland's salmon farmers to become less sustainable, not more." (read more via "[Fears for Scottish salmon farming after China production targets missed](#)").

According to the [Annual Fish Farm Production Survey 2012](#), mortality problems are increasing with 27.2% mortality in Shetland and 21.5% in the Western Isles in 2011 (the latest year mortality figures are available).

Are Scottish Ministers going to ignore the warning signs and carry on regardless with their policy of expansion? If Scottish farmed salmon really are the 'canary in the coalmine', as the industry has claimed, then Scotland has a huge problem with millions of dead farmed salmon.

More recent data obtained by [The Sunday Herald](#) from the Scottish Environment Protection Agency (SEPA) revealed that 8.5 million farmed salmon died in 2012 compared to 5.5 million in 2010.

"A mountain of 13,627 tonnes of dead fish had to be disposed of in 2012 by 230 fish farms along the west coast and on the islands, compared to 9,717 tonnes in 2011 and 7,159 tonnes in 2010," [reported](#) Rob Edwards in February 2013. "The worst problems were in Shetland, where 2.4 million salmon died."

That the Scottish Salmon Producers Organisation (SSPO) immediately lobbied SEPA to stop reporting the numbers of mortalities of farmed salmon only adds further weight to the argument that Scottish salmon farming has a serious disease problem (read more via "[Public denied info on full scale of salmon deaths](#)").

According to the [Annual Fish Farm Production Survey 2012](#), average salmon farm size is just over 1,000 tonnes (142 active sites produced 152,000 tonnes in 2012) and salmon farming currently accounting for 96% of Scottish fish farming production. With an added 58,000 tonnes of additional finfish production required to meet your target of 210,000 tonnes by 2020 there could be over 50 new salmon farms built around Scotland in the next six years.

Even without increasing Scottish salmon farming production, the [problems with sea louse infestation, infectious diseases, chemical pollution and escapes](#) are reaching critical levels:

Sea Louse Infestation:

Back in 2010, the Caledonian Mercury [warned](#) of a plague of 'super lice' which are resistant to the toxic chemicals designed to kill sea lice parasites. During 2011 and 2012, a total of 67 salmon farms breached the SSPO's thresholds for sea lice - including sites operated by Marine Harvest, Loch Duart, Hjaltland Seafarms (Grieg) the Scottish Salmon Company, Scottish Sea Farms and Wester Ross Fisheries (read all the data [online here](#)).

In September 2012, The Guardian [reported](#): "The Scottish Salmon Producers Organisation (SSPO), the main industry body, has [disclosed consistent reports of significant sea lice problems](#). In west Shetland last February, sea lice infestation rates are 584% higher than the recommended levels and on average more than 250% higher. While areas such as Orkney reported very low rates, in east Shetland, they were 222% above the threshold last spring. In northern Scotland, they were 150% higher both in mid-winter and in spring. In south western, Scotland, they were on average 79% higher last spring" (read the SSPO's latest quarterly sea lice reports [online here](#)).

By the Summer of 2013, the Salmon & Trout Association reported that salmon farms in Wester Ross were "nine times over the threshold set under the salmon farming industry's own Code of Good Practice" with sea trout near salmon farms infested with over 500 sea lice. The Scotsman report in July 2013: "[Fish-farm parasites eating Wester Ross trout alive](#)".

The Salmon & Trout Association [reported](#) in September 2013 - using data published by the Scottish Salmon Producers Organisation - that: "In June 2013 over one third of salmon farms (47 farms) on the Scottish mainland and in the Hebrides were in areas where average sea-lice numbers exceeded the industry's own limit for sea lice". According to the SSPO's 'averaged data' sea lice numbers exceeded the industry's own limits for sea lice for every month from January to June 2013 including:

- 'Inchard to Kirkaig North' - eight active salmon farms, all run by Loch Duart Limited, the self-styled "sustainable salmon company". Between February and April the average monthly lice count on Loch Duart farms was more than three times the industry's own threshold and never went below twice that threshold in any month.

- 'Kennart to Gruinard' - seven farms operated by two companies, Wester Ross Fisheries Limited and Scottish Sea Farms Limited. Between February and June the average monthly lice count on farms in this area ranged between four to more than nine times the industry's own threshold

- 'Isle of Harris' - 12 fish-farms operated by three different companies including The Scottish Salmon Company and Marine Harvest (Scotland) Limited. Between February and June the average monthly lice count on farms in this area was at times more than five times the industry's own threshold.

In October 2013, the Salmon & Trout Association [wrote](#) to the Scottish Government asking for "punitive sanctions" against salmon farm operators which were unable to keep sea-lice numbers below agreed thresholds.

In November 2013, the Salmon & Trout Association [reported](#) that "the latest aggregated sea lice data, published by the Scottish Salmon Producers Organisation (SSPO), shows that in the third quarter of 2013 sea lice numbers on farmed salmon were massively out of control in the north-west Highland". The SSPO report confirms "out of control" lice numbers in the following areas:

- 'Inchard to Kirkaig North' - eight salmon farms, all run by Loch Duart Limited, the self-styled "sustainable salmon company". Over the industry's own lice threshold for all three months and in September the monthly lice count on farms in this area was over nine times the threshold, despite 13 separate lice treatments carried out at these four farms in this period.

- 'Kennart to Gruinard' - seven farms operated by two companies, Wester Ross Fisheries Limited and Scottish Sea Farms Limited. Over the threshold for all three months. In September the monthly lice count on farms in this area was over nine times the threshold.

- 'Badachro to Applecross' - four fish farms operated by Marine Harvest (Scotland) Limited and the Scottish Salmon Company. In September the average lice count on farms in this area was 12 times the industry's own threshold.

Marine Harvest conceded via their [Q3 2013 financial report](#) published in October 2013 that sea lice levels in Scotland had increased in 2013 compared to 2012. The Managing Director of Loch Duart, Nick Joy, [publicly admitted](#) in November 2013 "sea lice numbers on some of our sites are high". In October 2013, Loch Duart [admitted](#): "We have noticed an increase in lice levels over the last few years".

Data made available by the Scottish Government in October 2013 [revealed](#) sea lice issues at the Scottish Salmon Company's operation in Loch Plocrapol in the Western Isles. Grieg Seafood's [Q3 2013 financial report](#) published in November 2013 conceded that "Lice treatment costs in Shetland are above historical levels". Grieg's [Q2 2013 financial report](#) published in August 2013 also referred to "increased frequency of treatment for salmon lice". Grieg's [Q1 2013 financial report](#) published in May 2013 admitted that "Grieg Seafood Hjaltland experienced major biological challenges related to sea lice and AGD in 2012".

Infectious Diseases:

Infectious diseases have plagued the Scottish salmon farming industry since the 1980s (for FOI data on infectious diseases reported since 1980 read [online here](#)).

Amoebic Gill Disease (AGD) is the latest infectious disease to cripple the industry. STV News reported in October 2012: "[Fishermen in Western Isles losing up to 20% of stock as disease spreads](#)". "There are fears a recent outbreak of the parasite could have cost the industry as much as £17million," [reported](#) The Daily Mail in October 2012. "Some farms claim they are losing up to 20 per cent of stocks".

Operators in Scotland including Marine Harvest, the Scottish Salmon Company and Scottish Sea Farms have all reported losses due to AGD. The Scotsman [reported](#) in November 2012: "FoI request reveals amoebic gill disease, proliferative gill inflammation and chlamydia are 'rife' among stocks".

Fisheries Information Services [reported](#) in November 2012: "The Scottish Salmon Company, Marine Harvest and Scottish Sea Farms are all seeing mass mortalities of up to 70 per cent in their farms" (read more via "[Gill Disease: Scottish Salmon's Dirty Big Secret](#)").

The Herald [reported](#) in January 2013 that Shetland salmon farmer Grieg Seafood "has lost one-third of its latest harvest to amoebic gill disease (AGD), the ailment that is set to cost the industry more than £30 million in lost revenue".

Chemical Pollution:

The Guardian [revealed](#) in September 2012 that the use of toxic chemicals to kill sea lice has increased alarmingly: "Data released by the Scottish Environment Protection Agency shows a 110% increase in the use of chemicals to treat sea lice in the past four years, mainly because the parasite is becoming resistant to treatment," wrote Severin Carrell. "[54 fish farms were rated as 'poor' in 2011](#) – mostly for having too high chemical residues on the seabed, an increase on the [51 found to be poor or very poor in 2010](#)" (read more via "[Scottish fish farmers use record amounts of parasite pesticides](#)" and "[Chemicals to control salmon parasites](#)").

Over and above the use of sea lice chemicals, the use of hydrogen peroxide (used to treat AGD) increased by five times from 2011 to 2012. "The combined figures for the use of the chemical in well boat and bath treatments shows that across Scotland show that 2,684,821 litres of H₂O₂ were used in 2012, a more than five-fold increase from the 527,463 litres used across Scotland in 2011," [reported](#) Outer Hebrides Against Fish Farms in March 2013.

The Sunday Express also [revealed](#) in January 2013 that Scottish salmon farmers had used the carcinogenic chemical Formalin in a desperate attempt to treat AGD (read more via "[Farms turning pristine waters to 'toxic toilets'](#)")

The Sunday Herald [revealed](#) in May 2013 that "Pesticides from 12 salmon farms have contaminated lochs around Scotland's coast in breach of safety limits, according to the Scottish Environment Protection Agency. Environmental monitoring by the government watchdog over the last three years has discovered high levels of toxic chemicals in sediments from the Firth of Lorn, the Isle of Lewis, the northwest Highlands and Shetland.....By far the worst pollution was found in Loch Shell on the east of Lewis near a fish farm operated by the Norwegian-owned company, [Marine Harvest](#). There, levels of a pesticide called teflubenzuron, were up to 455 times higher than Sepa's environmental quality standards in 2012" (read article in full via "[Revealed: the dirty dozen salmon farms that contaminate lochs with pesticides](#)").

The Guardian further [reported](#) in May 2013 that "Marine Harvest, one of the world's largest fish-farming companies, is under investigation after its salmon farms polluted a Scottish loch with toxic pesticide residues hundreds of times above environmental limits". Lang Banks, director of WWF Scotland, told The Guardian: "The fact that the limits have been breached so spectacularly at some locations is deeply worrying and suggests something has gone badly wrong. It's simply unacceptable that entire lochs be put at risk in this way. It also begins to raise questions over the industries approach to tackling sea lice problems."

In October 2013, Loch Duart [publicly admitted](#) that they "were in breach of the allowable levels around our pens". In October 2013, it was also [revealed](#) via data supplied by SEPA through Freedom of Information that Wester Ross Fisheries had a "significant breach" for Teflubenzuron contamination at their site in Loch Kanaird (read more via "[Unsatisfactory Wester Ross Salmon: Over a Decade of Non-Compliance](#)").

For more background see the 'Scotland's Aquaculture' web-site and the sections on "[Sea Lice In-Feed Treatment Residues](#)" and "[Monthly Biomass & Treatment Reports](#)"

Escapes:

According to official statistics [published](#) by the Scottish Government there have been over 2 million farmed salmon escapees since 2003 - including 16,466 from Migdale Smolts in Highland region in [May 2013](#); 25,623 from Meridian Salmon in Orkney in [December 2012](#); 336,470 from Lakeland Unst in Shetland in [December 2011](#); and 58,800 from Lighthouse Caledonia in Argyll in [September 2009](#).

Escapes have had such a significant impact that a [genetics report](#) published in February 2013 by the Rivers & Trusts for Scotland showed that one quarter of 'Scottish' wild salmon was of Norwegian farmed salmon origin. "As many as one in four wild Atlantic salmon from Scotland has been genetically "tainted" by Norwegian fish, a study suggests," [reported](#) The Sunday Times in March 2013. "Analysis of almost 1,500 wild salmon from the west coast found 369 possessed genetic markers unique to the Scandinavian fish (read more via "[Norwegian' genes found in wild salmon populations in Wester Ross](#)").

For more background see the 'Scotland's Aquaculture' web-site and the section on "[Fish Escapes](#)"

Finally, the increasing consolidation of the salmon farming industry in predominantly Norwegian hands also raises concern. A [Parliamentary Question reply](#) in September 2013 revealed that "Norwegian-owned companies are responsible for around 66 per cent of farmed salmon production in Scotland". The [Annual Fish Farm Production Survey 2012](#) reported that: "Overall, production was dominated by eight companies in 2012 which between them accounted for 98% of Scotland salmon production".

How can a salmon farming industry dominated by Norwegian corporations exporting farmed salmon to China be labelled - as you described it in your [video interview](#) from Norway in 2012 - "the essence of Scotland"? Surely wild Atlantic salmon is the true icon of Scotland?

In conclusion, we ask that as the First Minister of Scotland you start placing wild salmon and sea trout and the Scottish marine environment first. And that means placing a stop on the expansion of Norwegian-owned salmon farming in Scotland. Please stand up for Scotland by instituting an immediate moratorium on salmon farming.

Yours sincerely,

The Undersigned

Jim Adams, Orkney Trout Fishing Association
David Ainsley, Sealife Adventures, Seil Island
Bev Bailey, Earthrace Conservation UK
Marc Bale, Far Bank
Frank Ballinger, Bridgend
Rob Barrett, Earthrace Conservation UK
Victoria Bastow, Isle of Coll
James Bastow, Isle of Coll
Frances Bastow, Isle of Coll
Howard Bayliss, Bryncethin
Susan Bayliss, Bryncethin
Richard Bellamy, Secretary of Dalbeattie Angling Association, Trustee of Galloway Fisheries Trust and member of the Urr District Salmon Fisheries Board
Allan Berry, Campaigning for proper scientific assessment of sea cage fish farming environmental impact, Kinloch
Una Berry, Kinloch
Alan Bithell, Golspie
Paul Bloomer, Shetland
Steven Bowker, Bangor on Dee Salmon Angling Association
Mark Bowler, Editor of Fly Fishing & Fly Tying magazine
Niall Bowser, Salmon angler and conservationist, Dunblane
Bill Brady, Edinburgh
Fiona Brown, Isle of Mull
Frank Buckley, Society for the Protection of Salmon and Seatrout
Alex Burns, Glasgow
Sarah Burnside, Fife

Mark Butcher, Macclesfield
Lucy Byrne, Earthrace Conservation UK
Roddy Campbell, Outer Hebrides Against Fish Farms
Lisa Carr, Isle of Coll
Jacqueline Cartwright, Protect Wild Scotland
Richard Cheetham, member of Bangor on Dee Salmon Angling Association
Tim Clarke, Aberdeen
Grace Clarke, Aberdeen
Charles Clover, Author of The End of the Line
Melinda Cottrell, Isle of Coll
Hugh Coulson, Fly Fishing guide, Stirling
Lawson Devery, Salmon & Trout Association
Russell Dilks, Salmon Fishing UK
Steven Dolan, Ogmore by sea
John Dolan, Ogmore by sea
Duncan Donald, Protect Wild Scotland
Elena Edwards, Wild Salmon First
Barriemore Evans, Corntown
Mrs Shirely Evans, Corntown
Angus Files, For Argyll
Andrew Flitcroft, Editor of Trout & Salmon magazine
James Ewart Fox, Yeovil
Moirra Fulton, Isle of Harris
Willie Fulton, Isle of Harris
Raymond Gault, Loch Maree Hotel
Glyn Gregory, Chorley
Hugh Griffiths, Pant y pwllau
Edward Hall, Amenity Water Management Ltd
James Harmer, Isle of Mull
Charles Harrison, Edinburgh
Stephen Harrison, Billinge
Stan Headley, Journalist
Trevor Heap, Kingston upon Thames
Iain Hibbert, Protect Wild Scotland
Sheila Hollingsworth
Linda Holt, Fife
Alan Inder, Protect Wild Scotland
Bo Ivanovic, London
Mark Jenkins, Filmmaker, Orkney
Hugh Johnson, Bridgend
Pamela Johnson, Bridgend
Simon Jones, Salmon Fishing UK
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Sheila Jones, Coity
Sir Roger Jones, Battle
Lady Ann Jones, Battle
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Graham Lang, Fife
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Stuart Letford, Assistant Editor of Fly Fishing & Fly Tying magazine
Sandy Leventon, Editorial Consultant to Trout and Salmon magazine
John Lewis, Friends of Loch Pooltiel
Annette Lillig, Animal Concern Advice Line and Scotland For Animals, Edinburgh
Mark Lorimer, Achindrean Farm, Inverbroom
Bob MacDonald, Protect Wild Scotland
Fiona Matheson, Secretary of Orkney Fisheries Association
John McCann, Commodore of Coll Sailing Club
John McKinlay, member of the Angling Trust, Angus
Roger Michael, Bryn Haulog
Kathryn Michael, Bryn Haulog
Gerry Moore Achiltibuie Angling Club
Adrian Morgan, Ullapool
Attila Newey, Fife
Laura Newey, Fife
Barbara Nock, Seal Scotland
Tony Oliver, Isle of Coll
Antoine Pietri, Orkney Trout Fishing Association
Alfred Pope, Chairman of the Salmon and Trout Association Bristol and West Branch
Lawrie Quibell, Edinburgh
Calum Raine, Edinburgh
Paul Reddish, Free Spirit Fly Fishing, Bristol
John Robins, Secretary of Animal Concern, Animal Concern Advice Line and Save Our
Seals Fund
Ian Rothera, Member of Newton Stewart & District Angling Association
John Russell, Edinburgh
Roc Sandford, Isle of Gometra
Bruce Sandison, Scottish Sporting Services
Brodie Sandison, Lairg
Andrew Sayer, Protect Wild Scotland
Jenny Scobie, Chair of Protect Wild Scotland
Kim Scobie, Edinburgh
Julian Senior, Isle of Coll
Arthur Sevestre, Skye Marine Concern
Alan Shearer, Orkney Trout Fishing Association
Richard Shelton, Former Head of The Freshwater Fisheries Laboratory and currently
Chairman of the Buckland Foundation
Steve Smith, Protect Wild Scotland
Don Staniford, Director of Protect Wild Scotland
Mike Stanners, Protect Wild Scotland
Duncan Steedman, Skye Marine Concern
Edward Steele-Wilson, Perthshire
Kenneth Stephen, Perth
Austin Thomson, River Doon and River Stinchar Fishery Boards
Malcolm Thomson, Orkney Trout Fishing Association
Stuart Topp, Secretary of Orkney Trout Fishing Association
Mike Troy, Aberdeen
Gaby Troy, Aberdeen
Peter Urpeth, Outer Hebrides Against Fish Farms
Andrew Vernon, Moulton

Orri Vigfússon, Chairman of the North Atlantic Salmon Fund
Dougie Wainwright, Isle of Coll
Rob Wainwright, Isle of Coll
Romaine Wainwright, Isle of Coll
Ian Welch, Dundee
Pauline White, Isle of Coll
Jane Whitteridge, Ullapool
Michael Wigan, Fisheries writer and Chairman of the Bladnoch District Salmon Fishery Board
Anthony Wilson, Eweny Cross
Melanie Wilson, Eweny Cross
Randall Wilson, Member of the Salmon and Trout association, Perth
Stuart Wilson, Member of Abercorn Fishing Club
David Woodhouse, Isle of Mull Wildlife Expeditions
Sean Wordley for Inverbroom Estate

Letter available [online here](#)