The Global Alliance Against Industrial Aquaculture, 16 April 2017

Viking Invasion Taints 'Scottish' Salmon - 90% of Eggs Now Imported

Exclusive data obtained via Freedom of Information reveals that 90% of 'Scottish' salmon is now imported as eggs from overseas with Norway accounting for 86% of egg imports **[1]**. Campaigners are now calling on the Scottish Government to curb egg imports to protect the genetic integrity and sanitary status of 'Scottish' salmon **[2]**.

Read more in today's Sunday Times: "'Tartan imposters' charge as fish egg imports hit 90%"

Data from the Scottish Government reveals the extent of the Viking invasion:

- Foreign egg imports accounted for 90% of all eggs laid down in 2015 compared to 13% in 2005

- 86% of imported eggs in 2016 were from Norway (up from 14% in 2003)

- Foreign egg imports rose from 16.8 million in 2003 to 59.8 million in 2015

- Domestic egg production in Scotland declined from 135 million in 2008 to 11.6 million in 2015 (it was 224 million in 1990! **[3]**)

- In 2016, 53% (22.6 million) of imported eggs were sourced from Norway via Aquagen (a company genetically fingered by a peer-reviewed scientific paper as the source of ISA outbreak in Chile) **[4]**

- In 2016, Norwegian-owned Marine Harvest imported 14.5 million eggs - all from Norway - accounting for 34% of all egg imports

- In 2016, the Scottish Salmon Company imported 12.4 million eggs - again all from Norway - accounting for 30% of eggs imports

- No data for Scottish Sea Farms is available because "disclosure of this particular information would, or would be likely to, prejudice substantially the confidentiality of commercial information provided by Scottish Sea Farms and thus cause substantial harm to their commercial interests"

Download the FOI data from the Scottish Government as an Excel spreadsheet online here and read the Scottish Government's covering letter online here

"If you're tucking into 'Scottish' salmon this Easter please take a peek under the kilt to see if there's a Viking helmet lurking underneath," said Don Staniford, Director of the Global Alliance Against Industrial Aquaculture. "A Viking bloodline is now flowing through so-called 'Scottish' salmon. Companies such as Marine Harvest, Scottish Sea Farms and the Scottish Salmon Company are trading on the internationally recognised image of Scottish salmon yet import salmon eggs from Norway. The Norwegian invasion has annihilated

Scotland's iconic salmon and left a lasting legacy of genetic pollution. *Salmo salar* - the King of Fish - has been dethroned to leave a fake farmed salmon imposter, *Salmo domensticus*."

Last year, the Scottish Salmon Company (a company registered in Jersey with shareholders in Switzerland and Norway and bankrolled by Ukrainian banker Yuri Lopatinsky) unveiled 'Native Hebridean Salmon' which the company claims was "developed over many years from broodstock originally sourced directly from the cold, clear waters of the island of North Uist in the rugged Outer Hebrides of Scotland".

"The Scottish Salmon Company has developed its own 'native strain' of salmon broodstock," gushes the foreign-owned company on their web-site. "This unique Native Hebridean Salmon is heir to an ancestral bloodline stretching back millennia. Only salmon that share this pure Scottish island lineage and which are born, reared and harvested on the Hebrides qualify as Native Hebridean".

THE NATIVE HEBRIDEAN SALMON

The Scottish Salmon Company has developed its own 'native strain' of salmon broodstock. This unique Native Hebridean Salmon is heir to an ancestral bloodline stretching back millennia. Only salmon that share this pure Scottish island lineage and which are born, reared and harvested on the Hebrides qualify as Native Hebridean. Only superior quality salmon can be classed as 'Produce of the Isles'.

The FOI data reveals that 1.5 million eggs sourced from Aquagen in Norway were imported to Hebridean Smolts via the Scottish Salmon Company in 2016:

Date	Site of destination	Operator	Consignee on certificate (if different from operator)	Species	Stage	Number	Source Country	Source Company
24/02/2016	Mingarry Hatchery	Hebridean Smolts Ltd	The Scottish Salmon Company	Salmon	Ova	564,375	Norway	Aquagen AS
06/12/2016	Mingarry Hatchery	Hebridean Smolts Ltd	The Scottish Salmon Company	Salmon	Ova	918,750	Norway	Aquagen AS

"This is surely a case of false marketing for Trading Standards or the Advertising Standards Authority," continued Staniford. "The Scottish Government, if they truly support Scottish salmon, should immediately stop imports of foreign ova. Importing eggs increases the risks of deadly diseases such as Infectious Salmon Anaemia - shown by peer-reviewed science to have been imported into Chile from infected eggs sourced from Aquagen (a company now importing over half the ova to Scotland)".

Background:

In 2014, The Sunday Times exposed Tesco's scam in selling imported salmon from Norway as '100% Scottish'. Scotland On Sunday reported how "Supermarkets sell Norwegian fish as 'Scots' salmon" prompting complaints by Protect Wild Scotland to Trading Standards and the Competition & Markets Authority.

In 2013, The Sunday Times reported that one in four wild Atlantic salmon from Scotland was genetically "tainted" by Norwegian fish. The Sunday Times also reported that "Scots fish are 'Vikings with kilts on'".

Contact:

Don Staniford: 07771 541826 (dstaniford@gaaia.org)

Notes to Editors:

[1] Download the FOI data from the Scottish Government as an Excel spreadsheet online here

Please note that data for Scottish Sea Farms was not disclosed due to commercial confidentiality:

REASONS FOR NOT SUPPLYING INFORMATION

An exception applies

An exception under regulation 10(5)(e) of the EIRs (substantial prejudice to confidentiality of commercial information) applies to some of the information you have requested. This exception applies because disclosure of this particular information would, or would be likely to, prejudice substantially the confidentiality of commercial information provided by Scottish Sea Farms and thus cause substantial harm to their commercial interests. Disclosing this information would be likely to give competitors an advantage by revealing company or industrial commercial strategy for production of salmon in freshwater, thereby substantially prejudicing future production strategies.

This exception is subject to the 'public interest test'. Therefore, taking account of all the circumstances of this case, we have considered if the public interest in disclosing the information outweighs the public interest in applying the exception. We have found that, on balance, the public interest lies in favour of upholding the exception. We recognise that there is a public interest in disclosing information as part of open and transparent government. However, there is a greater public interest in protecting the commercial interests of companies that provide employment and contribute economically to Scotland.

Read the Scottish Government's covering letter in full online here

GAAIA's FOI request is enclosed in full below:

From: Don Staniford [mailto:salmonfarmingkills@gmail.com]
Sent: 16 January 2017 07:16
To: Central Enquiry Unit
Subject: FOI re. foreign ova imports of Atlantic salmon during 2016

Please provide information on imports of foreign ova of Atlantic salmon during 2016.

Please provide monthly, quarterly or annual data (if that is now available) including the names of the companies involved in the import of ova.

And please provide specific details of all the countries importing ova of Atlantic salmon - if possible since the statistics were presented in 2003 (see below) but certainly during 2016*.

For example, the following information is from the latest (2015) fish farm survey published in September 2016 by the Scottish Government:
http://www.gov.scot/Resource/0050/00505162.pdf

Table 18: Source, number (000s) and previous year's estimate of ova laid down to hatch during 2004-2016

Year	In-house broodstock	Out-sourced GB broodstock	GB wild broodstock	Foreign ova	Total	Previous year's estimate
2004	31,390	20,024	27	19,138	70,579	74,464
2005	43,261	22,465	71	9,896	75,693	65,741
2006	19,063	17,768	63	27,157	64,051	58,385
2007	18,837	14,366	78	42,022	75,303	68,032
2008	19,831	14,261	171	26,409	60,672	75,302
2009	17,148	20,158	65	30,200	67,571	64,693
2010	13,744	26,220	0	29,657	69,621	61,011
2011	15,664	14,630	0	34,322	64,616	54,526
2012	18,556	9,981	0	34,700	63,237	55,723
2013	16,996	8,263	0	41,315	66,573	49,249
2014	14,418	2,725	10	53,684	70,837	48,149
2015	6,479	223	10	61,463	68,175	65,284
2016						59,604

The number of ova laid down to hatch was 68.2 million, a decrease of 2.7 million (3.8%) on the 2014 figure. The majority of the ova (90.2%) were derived from foreign sources, this being an increase of 7.8 million (14.5%) on the 2014 figure. Supplies derived from GB broodstock decreased by 10.4 million, a 60.9% decrease on the 2014 figure. Ten thousand ova from GB wild broodstock were laid down in 2015, however, the ova derived from wild stocks are generally held and hatched for wild stock enhancement by the aquaculture industry in cooperation with wild fisheries managers.

International Trade in Ova

Since the introduction of the EU single market on 1st January 1993 and the associated Fish Health Regulations common to all EU member states, a trade in live salmon and ova has been established. In addition, the European Economic Area (EEA) agreement allows trade between the EU and the member states of the European Free Trade Association (EFTA). Trade is based on the same rules as are established within the EU regarding compartments and zones declared free from listed diseases.

Trade with Third Countries has also been established, but only from sites that have met the same health standards as are established within the EU regarding the approval of farms and zones for listed diseases. Exports to countries outside the EU are subject to the health conditions placed by the importing country. Marine Scotland Science advises potential exporters to ascertain with the importing country any specific health testing requirements that may be a condition of import.

Imports and Exports

Table 22a: Source and number (000s) of ova, parr and smolts imported during 2003-2015 derived from health certificates

Import Year	Ova						Parr and Smolts	
	EU Member States	EFTA		Third Countries		Total	EU Member States	EFTA-Norway
		Iceland	Norway	Australia	USA			
2003	7,820	9,518	2,900	550	400	21,188	2,570	0
2004	4,450	3,475	6,750	1,860	450	16,985	824	0
2005	2,610	570	13,210	0	450	16,840	150	0
2006	11,575	300	15,940	2,400	0	30,215	375	0
2007	10,511	0	33,555	0	0	44,066	420	0
2008	5,600	0	22,703	0	0	28,303	519	0
2009	5,460	0	29,938	0	0	35,398	328	0
2010	2,150	0	26,533	0	0	28,683	452	0
2011	3,400	0	35,851	0	0	39,251	800	0
2012	10,134	0	23,849	0	0	33,983	0	0
2013	10,700	2,719	35,044	0	0	48,463	55	0
2014	5,218	3,813	49,831	0	0	58,862	1,602	1,748
2015	4,815	8,978	45,926	0	0	59,719	2,118	365

The numbers of ova imported increased by 1.5%. The number of parr and smolts imported decreased from that observed in 2014, with 2.1 million parr and smolts imported from EU member states and almost 0.4 million from Norway.

The huge level of imported ova contrasts with low levels of exported ova:

Table 22b: Destination and number (000s) of salmon ova, parr and smolts exported during 2004-2015 derived from health certificates

Export year	Farmed origin ova				Total	Parr and Smolts
	Chile	EU	Norway	Others		
2004	2,215	3,699	0	0	5,914	1,488
2005	8,560	3,130	0	1,566	13,256	1,362
2006	26,930	4,312	0	0	31,242	998
2007	32,150	164	0	0	32,314	2,169
2008	62,185	130	0	15	62,330	551
2009	7,181	317	0	0	7,498	89
2010	0	189	600	0	789	130
2011	0	0	0	820	820	183
2012	0	0	0	0	0	55
2013	0	650	0	0	650	404
2014	0	0	0	0	0	259
2015	0	93	0	2	95	8

In 2015, 95,000 ova were exported. Parr and smolt exports decreased by 97% on the 2014 figure.

More information is provided for Rainbow trout including identification of the import countries (instead of the generic "EU member States" as for Atlantic salmon):

Source of Ova Laid Down

Table 8: Number (000s) and sources of eyed ova laid down to hatch in 2004-2015

Year	Ova produced in Great Britain (GB)			Imported ova			Total
	Own stock	Other stock	Total	Northern hemisphere	Southern hemisphere	Total	
2004	330	320	650	31,906	0	31,906	32,556
2005	281	105	386	16,977	2,884	19,861	20,247
2006	541	2,169	2,710	22,588	1,510	24,098	26,808
2007	936	230	1,166	26,650	485	27,135	28,301
2008	582	487	1,069	25,160	0	25,160	26,229
2009	603	220	823	17,022	0	17,022	17,845
2010	415	50	465	14,614	0	14,614	15,079
2011	215	189	404	14,738	0	14,738	15,142
2012	14	230	244	12,735	0	12,735	12,979
2013	77	537	614	9,275	0	9,275	9,889
2014	9	655	664	10,376	0	10,376	11,040
2015	6	888	894	11,227	0	11,227	12,121

In 2015, the total number of eyed ova laid down to hatch increased by just under 1.1 million (9.8%) on the 2014 figure. The proportion of ova from GB broodstock increased to 7.4% of the total and the rainbow trout industry remained reliant on imported ova. Data on the importation of ova into Scotland are also available from the health certificates and are shown in Table 9a. Any discrepancy between the figures in Tables 8 and 9a is due to data being obtained from two independent sources.

Imports from Official Import Health Certificates

Table 9a: Number (000s) and sources of ova imported into Scotland from outwith GB during 2008-2015

Source	2008	2009	2010	2011	2012	2013	2014	2015
Denmark	5,530	4,070	1,715	5,250	1,950	1,315	2,500	2,330
Isle of Man	775	290	1,400	520	300	800	1,000	175
N. Ireland	16,130	10,090	9,247	7,320	8,332	5,125	4,780	6,535
Norway	1,500	750	200	130	300	175	710	670
USA	1,490	2,240	2,340	1,580	1,800	2,350	1,700	1,675
Totals	25,425	17,440	14,902	14,800	12,682	9,765	10,690	11,385

Table 9c: Number (000s) and sources of fish imported into Scotland from outwith GB during 2008-2015

Source	2008	2009	2010	2011	2012	2013	2014	2015
N. Ireland	33	0	<1	72	155	537	674	746
Republic of Ireland	0	0	2	0	0	0	0	0

Suppliers within the European Union (EU) accounted for 79.4% of ova imported into Scotland during 2015 with the USA and Norway accounting for 14.7% and 5.9% respectively. To maintain their ability to regulate production throughout the year and produce a constant supply of fish for their markets, producers have to rely upon supplies of out of season ova. In recent years there has been an increasing trend for producers to import part grown rainbow trout into Scotland from outwith GB.

* Specific country information is published for Rainbow trout but not for Atlantic salmon - so presumably it is readily available.

Please consider this a request for information under the relevant Freedom of Information and Environmental Information Regulations including both the Freedom of Information (Scotland) Act 2002 and the Environmental Information (Scotland) Regulations 2004 (as well as any other new or other regulations which may be appropriate).

Please provide this information electronically.

Please acknowledge receipt of this FOI request.

Many thanks and I look forward to a response shortly.

Thanks,

Don

Don Staniford

Director, Global Alliance Against Industrial Aquaculture (GAAIA):
http://www.salmonfarmingkills.com

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[2] Read more via "Scottish Salmon's Great Escape"

Includes:

> Despite the industry's claims to the contrary, peer reviewed science proves that escapes from salmon farms spread so-called 'genetic pollution' by interbreeding with wild salmon and are causing huge problems. A paper published last week in Evolutionary Applications by scientists at the University of East Anglia identified "a clear threat of farm salmon reproduction with wild fish" (read more via The Scotsman, The Guardian, The Independent, ITV News, The Press & Journal and The Sunday Times). Another paper published last month in the journal Biological Invasions stated that official reports greatly underestimate the true number of escapes from salmon farms.
>
> In 2013, the Sunday Times newspaper reported that "as many as one in four wild Atlantic salmon from Scotland has been genetically "tainted" by Norwegian fish" following a genetic analysis by the Rivers & Fisheries Trusts of Scotland. A paper published by the Royal Society of London in 2003 warned that repeated escapes from salmon farms caused "an extinction vortex in vulnerable populations" **[5]**.

[3] Read more via "Trends during development of Scottish salmon farming: An example of sustainable intensification?" published in Aquaculture in May 2016.

Includes:

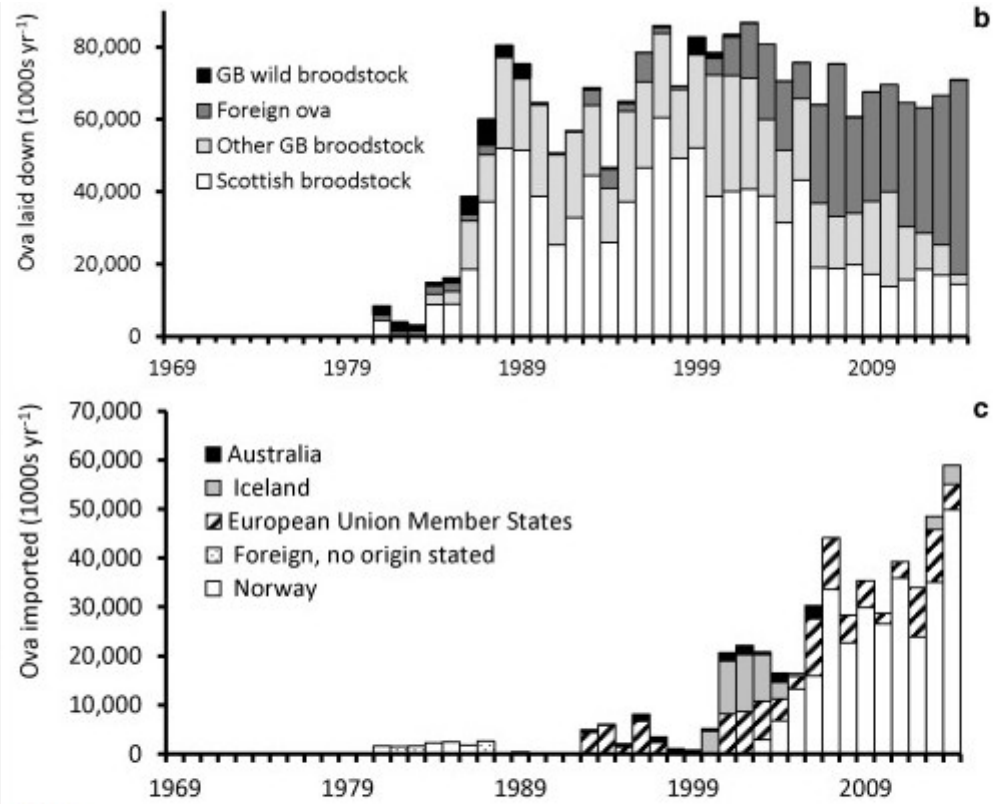

Fig. 2.

Data on salmon ova in Scotland. a: Numbers of ova produced in Scotland, subdivided into laid down in Scotland, exported and not laid or exported. Data available 1984/1994/1995–2014. b: Origins of ova laid down to hatch within Scottish salmon industry. Data available 1981–2014. c: Origins of foreign (imported) ova. Data available 1981–2014.

The total number of ova laid down to hatch in Scotland (i.e. originating from Scottish farmed broodstock and other sources) increased to a peak of 86.7 million in 2002, and has since declined (Fig. 2b). DAFS (1990) noted that the industry took a collective management decision in 1988 to limit production growth by limiting the number of ova laid down. The sources of ova laid down are: in-house broodstock (i.e. Scottish farmed broodstock); out-sourced GB broodstock (farmed broodstock held in England or Wales); GB wild broodstock; foreign ova (including from Northern Ireland, Munro et al., 2014). Key temporal trends for ova laid down are:

- the contribution from wild broodstock has decreased, being replaced by ova from farmed broodstocks;
- the contribution of imported ova, i.e. from foreign farmed broodstocks, has changed over time.

The industry was still dependent upon wild Scottish broodstock for ova in the early 1980s. Munro and Wadell (1981) noted a shortage of ova due to erratic supplies of wild eggs which was exacerbated by loss of a major source where infectious pancreatic necrosis (IPN) virus had been found. They stated that the industry needed to switch from wild eggs to farmed broodstocks, which did occur (DAFS, 1988). Although the salmon farming industry has continued to report wild ova laid down since the 1990s, these statistics are misleading as this has been on behalf of wild fisheries for stock enhancement schemes (Stagg and Allan, 2000; Stagg and Allan, 2001; Walker, 2009; Munro *et al.*, 2014 ; Munro and Wallace, 2015).

Imported (mainly Norwegian) eggs were used in the early and mid-1980s (DAFS, 1985 ; DAFS, 1987), but their use decreased over time up to the late 1990s (Munro and Gauld, 1996 ; Stagg and Allan, 2000); domestic ova from Scottish and GB farmed broodstocks then supplied the bulk of ova, and were considered satisfactory and sufficient to supply the Scottish industry (Munro and Gauld, 1994 ; Munro and Gauld, 1996). Munro and Gauld (1997) refer to import of ova from the southern hemisphere (Australia) to support production of out of season smolt, although this was typically minor and ceased in 2006 (Fig. 2c). However, since 2000 there has been a marked increase in the use of foreign ova (Stagg and Allan, 2002; Stagg and Smith, 2003 ; Hastings and Smith, 2005). In 2014, the majority (76%) of ova laid down were imported (Fig. 2b), from Norway, Northern Ireland and Iceland (85%, 9% and 6% of imports respectively; Fig. 2c). The current dominance of ova imports (over domestic production) is thought to reflect salmon farming companies centralising broodstock and selective breeding operations elsewhere. Temporal changes in ova imports also reflect the introduction of legislation for disease control over this period: Fish Health Regulations, introduced in 1993 to EU Member States, established conditions for trade in live ova and changes in 2003 enabled import of salmon ova from Norway (Walker *et al.*, 2012 ; Munro *et al.*, 2014).

[4] Read more via:

"Norwegians concede a role in Chilean salmon virus"
"Cermaq backs study linking Norwegian eggs to Chilean ISA"
"Forskere: - Norsk lakse-virus la chilensk oppdrett i ruiner"
"Infisert norsk rogn kan ha skapt ILA i Chile"
"Sjuk norsk rogn til Chile?"
"Research into the spread of salmon virus"
"ISA - diary of disease disaster"