

Don Staniford
salmonfarmingkills@gmail.com

Our Reference: 202100234467

1 October 2021

Dear Don Staniford,

REQUEST UNDER THE ENVIRONMENTAL INFORMATION (SCOTLAND) REGULATIONS 2004 (EIRs)

Thank you for your request dated 30 August 2021 under the Environmental Information (Scotland) Regulations 2004 (EIRs).

Your request

Your request made reference to a positive test result for infectious salmon anaemia (ISA) virus recently identified through the Scottish Government's Aquatic Animal Health Surveillance programme, from sample taken from a fish farm site in Scotland. This surveillance confirmed the presence of a non-pathogenic strain of the virus, which is not listed within legislation and is not subject to official control measures. You asked a total of seven questions associated with the actions taken by Scottish Government concerning ISA. Questions one and two related directly to the positive test result referred to above, questions three to seven were posed in more general terms with respect to ISA.

The numbering of questions has been applied through this response and full details of those questions are provided within the section 'Response to your request' below.

As the information you have requested is 'environmental information' for the purposes of the Environmental Information (Scotland) Regulations 2004 (EIRs), we are required to deal with your request under those Regulations. We are applying the exemption at section 39(2) of the Freedom of Information (Scotland) Act 2002 (FOISA), so that we do not also have to deal with your request under FOISA.

This exemption 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 exemption. We have found that, on balance, the public interest lies in favour of upholding the exemption, because there is no public interest in dealing with the same request under two different regimes. This is essentially a technical point and has no material effect on the outcome of your request.

Response to your request

It is important to carefully consider the response to your questions in conjunction with the following context which details vital information to aid your understanding of Infectious Salmon Anaemia virus (ISAv).

Further context

Different strains of ISAv, including the non-pathogenic HPR0 and the pathogenic HPR-deleted variants, are recognised through current fish health legislation and have different approaches with respect to statutory control measures. HPR0, the strain detected recently at Loch Spelve B fish farm site (FS0253) to which your request referred (FHI case no. 20210132), is recognised as non-pathogenic. There have never been any outbreaks of ISA (resulting in disease) confirmed which have been caused by the HPR0 strain of the virus. As a result, HPR0 is not listed within the current legislation and is not notifiable. This means that there is no legal requirement for a person to inform the Competent Authority of the suspected or confirmed presence of ISAv HPR0. In addition, this strain of the virus is not subject to statutory control measures such as the application of movement restrictions, wider surveillance, statutory disease testing, or eradication programmes. HPR0 is recognised as being present within both farmed and wild Atlantic salmon populations, and has been reported as present within many countries including: Norway, Canada, Scotland, the Faroe Islands, the USA, Chile and Iceland. The current scientific evidence supports the approach taken concerning the presence of HPR0 – there is no justification in implementing a disease control strategy for a non-pathogenic virus, which is present throughout the wider marine environment.

The change of HPR0 into HPR-deleted strains of ISAv is recognised as a risk to the development of ISA disease which can occur under certain conditions and over a period of time. Clinical outbreaks of ISA have only been associated with the HPR-deleted strains of the virus. The impact that any given strain of HPR-deleted ISAv can have, in terms of causing disease, morbidity and mortality, can vary considerably and can be influenced by environmental and host factors at any specific site. Therefore, it is appropriate that when such strains of the virus are identified, statutory control and eradication measures are implemented and enforced in order to help prevent the further spread of disease and the virus to other susceptible populations. These measures also facilitate in regaining the disease free status which Scotland (and the wider Great Britain health zone) currently has in relation to HPR-deleted strains of ISAv. This has been the approach taken historically with respect to ISA outbreaks in 1998/1999 and 2008/2009 within Scotland.

Following the outbreak in Scotland in the late 1990s, significant consideration was given to the factors which may facilitate the development of ISA on Scottish Fish Farm sites. A joint Industry/Government working group was formed and published A Code of Good Practice to Avoid and Minimise the Impact of Infectious Salmon Anaemia (ISA). Elements of this code have been adopted into industry standards and best practice through the Industry's code of good practice. Actions such as following sites and areas, single year class stocking strategies, stocking from fewer sources, reducing seawater to seawater fish transfers, improved harvesting procedures and appropriate mortality disposal along with overall good routine biosecurity including appropriate cleaning and disinfection are all measures which were identified through the ISA code and which have been employed on Scottish fish farm sites to help prevent the development of ISA and many other diseases, and are considered useful helping prevent the change of HPR0 into HPR-deleted strains of ISAv.

The aquatic animal health surveillance programme, employed by Scottish Government, involving both risk based and passive surveillance initiatives is designed to help with the early detection of listed and emerging disease outbreaks in Scotland. A link to the Scottish Government website is provided to you below, within the answer to question 4 of your request.

Please consider the above context concerning ISAv in conjunction with the answers to you specific questions below.

Answers to your questions

You posed the first two questions of your request with specific reference to the Loch Spelve case and the answers given relate directly to that.

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1) What action is the Scottish Government taking to stop the spread of deadly ISA?

With respect to Loch Spelve, a positive result (PCR) was detected through diagnostic sampling conducted on 14 May 2021. As a consequence, restrictions on site operations were implemented, pending further investigation. The positive sample was subject to further testing including genetic sequencing to determine the strain of ISAV present on site. This was confirmed to be the non-pathogenic form of the virus – HPR0 as reported within the case report issued to the fish farm business and subsequently published on the Scottish Government website:

<https://www.gov.scot/collections/publication-of-fish-health-inspectorate-information/>

As a result of this confirmation, the restrictions on site operations were removed, the investigation was concluded and the site returned to the routine programme of aquatic animal health surveillance.

Further details on the wider activities in relation to surveillance and control of ISAV are given through the response to question 4, below.

2) What other salmon farms are affected and how many other positive cases have been detected?

As explained above, in our response to question 1 and through the additional context provided, the confirmation of the presence of ISAV HPR0 meant that no further action, including wider surveillance or sampling at any neighbouring or contact farms, was required in this case. Details and results of the aquatic animal disease surveillance are actively published on the Scottish Government website:

<https://www.gov.scot/collections/publication-of-fish-health-inspectorate-information/>

3) Please provide data on the number of positive results for ISA (including both HPR0 ISAV and HPR-deleted ISAV) in farmed salmon in hatcheries and sea farms as well as imported and domestically produced ova.

This part of your request was subject to clarification to confirm a time scale and query the similarity between what is being requested here and at question five below. Confirmation of a time scale was not received, but it was agreed to handle this part of the request in conjunction with part five. An excel spreadsheet detailing the number of positive results has been provided as part of a combined response to questions two and five.

4) Please detail any actions being taken by the Scottish Government to deal with the ISA problem in Scotland.

There are no ISA 'problems' in Scotland at present.

One of the principle factors in protecting Scotland against pathogenic strains of HPR-deleted ISAV, as well as other diseases and pathogens which are exotic to Scotland, are the certification requirements for the international trade of live aquatic animals. Previous responses to several FoI requests, for example FoI/18/01553, FoI/18/03773, FoI/202000018313, FoI/202100221178 have explained in detail the processes in place concerning the notification, inspection and certification procedures which offer a significant level of assurance with respect to the health status of consignments being traded. The standards which Scotland has in place meet the necessary international and legislative requirements. You can find previous responses to FoI requests published on the SG website:

<https://www.gov.scot/publications/>

Aquatic animal disease surveillance, involving both risk based and passive surveillance initiatives, is the fundamental action being undertaken by the Scottish Government to detect the presence of significant diseases, including listed disease such as the HPR-deleted strains of ISAV. Scottish legislation, The Aquatic Animal Health (Scotland) Regulations 2009, introduced through the Scottish Parliament, allows the appropriate legal powers to be enforced. This includes the legal requirement to notify of the suspicion of such diseases, as well as multiple statutory powers to help prevent, control and eradicate listed diseases, as detailed within the context given above and as specified within the legislation:

<https://www.legislation.gov.uk/ssi/2009/85/made>

You may find the published reports relating to the previous two outbreaks of ISA useful in detailing the measures and actions which have been implemented historically in terms of both control and eradication:
Report relating to 1998/1999:

https://www.researchgate.net/publication/267839632_Epizootiological_investigations_into_an_outbreak_of_infectious_salmon_anaemia_ISA_in_Scotland

Report relating to 2008/2009:

https://www.researchgate.net/publication/288503298_Report_into_the_epidemiology_and_control_of_an_outbreak_of_infectious_salmon_anaemia_in_the_Shettland_Islands_Scotland

Further information on the surveillance being undertaken is available on the Scottish Government website:

<https://www.gov.scot/policies/fish-health-inspectorate/surveillance-programme/>

Within your request, you also made reference to a publicly available report: The Scientific Issues Surrounding The Control of Infectious Salmon Anaemia (ISA) in Scotland, published by The Royal Society of Edinburgh in 2002, and specifically with respect to some of the recommendations of that report you stated:

5) Please therefore provide details of any "extended surveillance of Scottish salmon farms for the ISA virus". For example, how many samples of farmed salmon (in both hatcheries and sea farms) have been tested annually by the Scottish Government since 2002 and how many samples of farmed salmon have tested positive for ISA (including both HPR0 ISAV and HPR-deleted ISAV)?

This part of your request was subject to clarification to determine exactly what 'details' you required in relation to "extended surveillance of Scottish salmon farms for the ISA virus". You agreed that the extent of those details related only to the example specified.

Sample information is provided to you in the attached spreadsheet, as per your request at parts 2 and 5. This includes the number of positive and negative results for ISA across all sites, currently registered as farming Atlantic salmon, for the period 01/01/2002 through to 31/12/2012. Data from 01/01/13 onwards is actively published on the Scottish Government website and is contained within the aquatic animal health surveillance information from obtained through inspections undertaken by the Scottish Government's Fish Health Inspectorate:

<https://www.gov.scot/collections/publication-of-fish-health-inspectorate-information/>

I can confirm that none of the testing results relate to Atlantic salmon ova, as the testing of ova is not routinely undertaken.

You must consider carefully that there are multiple types of diagnostic tests which can be used as part of a tool kit in order to help determine the suspected or confirmed presence of ISAV. Different tests have different levels of significance, reflected by their sensitivity and specificity at detecting the presence of ISAV. The criteria for defining suspicion or confirmation of ISAV (both HPR0 and HPR-deleted) are agreed through internationally recognised standards such as the OIE Manual of Diagnostic Tests. These detail the specific test types and combinations of positive test results required for arriving at the conclusion of suspicion or confirmation. You can find out further details on this within the ISA section of the OIE Manual of Diagnostic Tests for Aquatic Animals 2021:

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<https://www.oie.int/en/what-we-do/standards/codes-and-manuals/aquatic-manual-online-access/>

You may also be interested to learn that following the outbreak of ISAV in 1998/1999 and the subsequent development of the ISA Code of Practice referenced above, the Fish Health Inspectorate (operating under Fisheries Research Services, an agency of the Scottish Executive) undertook monitoring of industry compliance with the ISA Code of Practice for a number of years up until 2005. The results of that work are publicly available on an archived webpage – you will need to click the link to other FRS Reports and access from there.

<https://www.webarchive.org.uk/wayback/archive/20190502091009/https://www2.gov.scot/Topics/marine/Publications/FRS-Reports>

6) If the “extended surveillance of Scottish salmon farms for the ISA virus” failed to materialize please provide information on any testing by salmon farming companies including Scottish Sea Farms, Mowi, The Scottish Salmon Company, Grieg Seafood, Cooke, Loch Duart and Organic Sea Harvest (the foreign owned/controlled companies who together account for 99% of ‘Scottish’ salmon farming production).

Details of the “extended surveillance of Scottish salmon farms for the ISA virus” have been provided to you in line with question 5 above, reflecting the outcome of our communications to clarify part 5 of your request as previously specified.

7) Please also provide information on any scientific studies into the spread of ISA and the presence of ISA (both HPR0 ISAV and HPR-deleted ISAV) in farmed salmon in Scotland. Please note that the authors of a 2017 scientific paper – “First field evidence of the evolution from a non-virulent HPR0 to a virulent HPR-deleted infectious salmon anaemia virus” – conducted the experiments in Aberdeen at Marine Scotland Science.

Information concerning scientific studies relating to the spread of ISAV is available through scientific publications. Reference to these resources can be obtained through simple internet searching and scrutinising relevant scientific papers and journals.

Some of the information you have requested is publicly available and reference to these resources are provided throughout the response detailed above. In particular, this applies to questions 4, 5 and 7 of your request. Under regulation 6(1)(b) of the EIRs, we do not have to give you information which is already publicly available and easily accessible to you in another form or format. If, however, you do not have internet access to obtain this information from the website(s) listed, then please contact me again and I will send you a paper copy.

Your right to request a review

If you are unhappy with this response to your EIRs request, you may ask us to carry out an internal review of the response, by writing to

The Director of Marine Scotland
Area 1B South, Victoria Quay
The Shore
Edinburgh
EH6 6QQ

Or by emailing Directormarinescotland@gov.scot

Your review request should explain why you are dissatisfied with this response, and should be made within 40 working days from the date when you received this letter. We will complete the review and tell you the result, within 20 working days from the date when we receive your review request.

If you are not satisfied with the result of the review, you then have the right to appeal to the Scottish Information Commissioner. More detailed information on your appeal rights is available on the Commissioner's website at:

<http://www.itspublicknowledge.info/YourRights/Unhappywiththeresponse/AppealingtoCommissioner.aspx>

Yours sincerely

Neil Purvis
MSS : Aquaculture and Fish Health

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