



Our ref: FOI2023/13907  
25 July 2023

Dear [REDACTED]

### **REQUEST FOR INFORMATION: Information on Avian Influenza**

Thank you for your request for information of 13th July about Information on Avian Influenza. APHA have handled your request under the Freedom of Information Act 2000 (FOIA).

Your information request and our response are set out below.

Overview:

"I am interested in the statistics from the calendar years 2020, 2021 and 2023 so far, ie. I am referring to all bird/poultry deaths recorded as Avian Flu, and from Scotland, England and Wales."

Questions:

- 1) "What lab did the testing and please give contact details? I assume that all testing is still done at Weybridge please confirm?"

APHA can confirm that testing was done at our Weybridge facility, contact details here:

[Contact APHA - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

- 2) "What tests are being done, ie. for which 'Influenza' viruses?"

A suite of tests are being carried out. These are reverse transcription polymerase chain reaction (RT-PCR), Haemagglutination inhibition test (for antibody detection in serum), Virus isolation in embryonated fowls' eggs and whole genome sequencing. Selected cases have also included gross pathological examination if carcasses are submitted for investigation.

- 3) "What 'Influenza' virus/es have been identified?"

2020: High pathogenicity avian influenza virus (HPAIV) H5N8, HPAIV H5N1 and low pathogenicity avian influenza virus (LPAIV) H5N2

2021: HPAIV H5N8, HPAIV H5N1 and LPAIV H5N3

2022: HPAIV H5N1

APHA is an Executive Agency of the Department for Environment, Food and Rural Affairs and also works on behalf of the Scottish Government, Welsh Government and Food Standards Agency to safeguard animal and plant health for the benefit of people, the environment and the economy.

## 2023: HPAIV H5N1 and LPAIV H5N3

- 4) “What specific scientific methods were and are being used to isolate and identify these viruses ?”

Please see answer to question 2 above.

- 5) “Where have the verified scientific results been published ?”

In several peer-review scientific journals describing clinical findings, case studies, pathology, test development related to the outbreaks. Selected examples are shown below:

- Floyd, T., Banyard, A. C., Lean, F. Z. X., Byrne, A. M. P., Fullick, E., Whittard, E., Mollett, B. C., Bexton, S., Swinson, V., Macrelli, M., Lewis, N. S., Reid, S. M., Núñez, A., Duff, J. P., Hansen, R., Brown, I. H., 2021. Encephalitis and Death in Wild Mammals at a Rehabilitation Center after Infection with Highly Pathogenic Avian Influenza A(H5N8) Virus, United Kingdom. *Emerging Infectious Diseases* 27(11):2856-2863. doi: 10.3201/eid2711.211225. PMID: 34670647; PMCID: PMC8544989.
- Duff, P., Holmes, P., Aegerter, J., Man, C., Fullick, E., Reid, S., Lean, F., Núñez, A., Hansen, R., Tye, J., Stephan, L., Brown, I. and Robinson, C., 2021. Investigations associated with the 2020/21 highly pathogenic avian influenza epizootic in wild birds in Great Britain. *Veterinary Record*, 189: 356-358. <https://doi.org/10.1002/vetr.1146>
- Sharon M. Brookes, Karen L. Mansfield, Scott M. Reid, Vivien Coward, Caroline Warren, James Seekings, Tanis Brough, Davina Gray, Alejandro Núñez, Ian H. Brown, 2022. Incursion of H5N8 high pathogenicity avian influenza virus (HPAIV) into gamebirds in England. *Epidemiology and Infection*, 150:e51. doi: 0.1017/S0950268821002740. PMID: 35139977.
- Joe James, Amanda H. Seekings, Paul Skinner, Katie Purchase, Sahar Mahmood, Ian H. Brown, Rowena D. E. Hansen, Ashley C. Banyard, Scott M. Reid. Rapid and sensitive detection of high pathogenicity Eurasian clade 2.3.4.4b avian influenza viruses in wild birds and Poultry, 2022. *Journal of Virological Methods*, 301:114454. doi: 0.1016/j.jviromet.2022.114454. Epub 2022 Jan 6. PMID: 34998830.
- Marco Falchieri, Scott M Reid, Craig S. Ross, Joe James, Alexander M. P. Byrne, Madalina Zamfir, Ian H. Brown, Ashley C Banyard, Glen Tyler, Emma Philip, Will Miles. Shift in HPAI infection dynamics causes significant losses in seabird populations across Great Britain. *Vet Rec.* 2022 Oct;191(7):294-296. doi: 10.1002/vetr.2311. PMID: 36205958.
- Robert W. Furness, Sheila C. Gear, Kees C. J. Camphuysen, Glen Tyler, Dilhani de Silva, Caroline J. Warren, Joe James, Scott M. Reid, Ashley C. Banyard. Environmental samples test negative for avian influenza virus H5N1 four months

after mass mortality at a seabird colony. *Pathogens*. 2023 Apr 12;12(4):584. doi: 10.3390/pathogens12040584. PMID: 37111470; PMCID: PMC10144497.

- Joe James, Caroline J. Warren, Dilhani de Silva, Thomas Lewis, Katherine Grace, Scott M. Reid, Marco Falchieri, Ian H. Brown, Ashley C. Banyard. The role of airborne particles in the epidemiology of clade 2.3.4.4b H5N1 high pathogenicity avian influenza virus in commercial poultry production units. *Viruses*. 2023 Apr 19;15(4):1002. doi: 10.3390/v15041002. PMID: 37112981; PMCID: PMC10142477.
- [Nicola S. Lewis](#), [Ashley C. Banyard](#), [Steve Essen](#), Elliot Whittard, Amelia Coggon, Rowena Hansen, Scott Reid, Ian H. Brown, 2021. Antigenic evolution of contemporary clade 2.3.4.4 HPAI H5 influenza A viruses and impact on vaccine use for mitigation and control. *Vaccine* 39(29), 3794-3798. doi: 10.1016/j.vaccine.2021.05.060. Epub 2021 May 29. PMID: 34074548.
- Lean, F. Z. X, Núñez, A., Banyard, A. C., Reid, S. M., Brown, I. H., Hansen, R. D. E., 2021. Gross pathology associated with highly pathogenic avian influenza H5N8 and H5N1 in naturally infected birds in the UK (2020-2021). *Veterinary Record* 2021 Jul 26:e731. doi: 10.1002/vetr.731. Epub ahead of print. PMID: 34310721.
- Ashley Banyard, Fabian Lean, Caroline Robinson, Fiona Howie, Glen Tyler, Craig Nisbet, James Seekings, Stephanie Meyer, Elliot Whittard, Henry Ashpitel, Mehmet Bas, Alexander Byrne, Tom Lewis, Joe James, Levon Stephan, Ian Brown, Rowena Hansen, Scott Reid. Detection of Highly Pathogenic Avian Influenza Virus H5N1 Clade 2.3.4.4b in Great Skuas: A Species of Conservation Concern in Great Britain, 2022. *Viruses*. 14(2):212. doi: 10.3390/v14020212. PMID: 35215806; PMCID: PMC8878110.
- Fabian Z. X. Lean, Ana Gómez Vitores, Scott M. Reid, Ashley C. Banyard, Ian H. Brown, Alejandro Núñez, Rowena D.E. Hansen. Gross pathology of high pathogenicity avian influenza virus H5N1 2021-2022 epizootic in naturally infected birds in the United Kingdom. *One Health*. 2022 Apr 27;14:100392. doi: 10.1016/j.onehlt.2022.100392. PMID: 35686147; PMCID: PMC9171523.
- Pohlmann A, King J, Fusaro A, Zecchin B, Banyard AC, Brown IH, Byrne AMP, Beerens N, Liang Y, Heutink R, Harders F, James J, Reid SM, Hansen RDE, Lewis NS, Hjulsager C, Larsen LE, Zohari S, Anderson K, Brøjer C, Nagy A, Savič V, van Borm S, Steensels M, Briand FX, Swieton E, Smietanka K, Grund C, Beer M, Harder T. Has Epizootic Become Enzootic? Evidence for a Fundamental Change in the Infection Dynamics of Highly Pathogenic Avian Influenza in Europe, 2021. *mBio*. 2022 Aug 30;13(4):e0060922. doi: 10.1128/mbio.00609-22. Epub 2022 Jun 21. PMID: 35726917; PMCID: PMC9426456.
- Nicola S. Lewis, Ashley C. Banyard, Elliot Whittard, Talgat Karibayev, Thamer Al Kafagi, Ilya Chvala, Alex Byrne, Saduakassova Meruyert (Akberovna), Jacqueline King, Timm Harder, Christian Grund, Steve Essen, Scott M. Reid, Adam Brouwer, Nikolay G. Zinyakov, Azimkhan Tegzhanov, Victor Irza, Anne Pohlmann, Martin Beer, Ron A. M. Fouchier, Sultanov Akhmetzhan (Akievich), Ian H. Brown. Emergence and spread of novel H5N8, H5N5 and H5N1 clade 2.3.4.4 highly

pathogenic avian influenza in 2020. *Emerging Microbes & Infections* 2021 Dec; 10(1):148-151. doi: 10.1080/22221751.2021.1872355. PMID: 33400615; PMCID: PMC7832535.

- Alexander M. P. Byrne, Joe James, Benjamin C. Mollett, Stephanie Meyer, Thomas Lewis, Magdalena Czepiel, Amanda H. Seekings, Sahar Mahmood, Saumya S. Thomas, Craig S. Ross, Dominic J. F. Byrne, Michael McMenemy, Valerie Bailie, Kenneth Lemon, Rowena D. E. Hansen, Marco Falchieri, Nicola S. Lewis, Scott M. Reid, Ian H. Brown, Ashley C. Banyard. Investigating the genetic diversity of H5 avian influenza in the UK 2020-2022. Manuscript accepted by *Microbiology Spectrum* for publication on 27 April 2023 with parallel submission to bioRxiv, December 2022.
- Marek J. Slomka, Scott M. Reid, Alexander M. P. Byrne, Vivien J. Coward, James Seekings, Jayne L Cooper, Jacob Peers-Dent, Eric Agyeman-Dua, Dilhani De Silva, Rowena D.E. Hansen, Ashley C. Banyard, Ian H. Brown. Efficient and informative testing algorithm for rapid confirmation of H5N1 (clade 2.3.4.4) high pathogenicity avian influenza outbreaks in the United Kingdom. Manuscript accepted for publication in *Viruses* for publication on 6 June 2023.

Verified results have also been disseminated through oral and poster presentations at national and international scientific meetings.

- 6) What are the names of the scientist/s who authorised and signed off on these published results ?” This will not be published unless it is already in the public domain and I assume this refers to whoever signs off a positive lab result, please confirm.

This information has been exempted from release citing Section 40 for the Freedom of Information Act (FOIA) 2000.

## **Section 40**

The information requested has been withheld under section 40(2), read in conjunction with 40(3A)(a), (third party personal data), of the FOIA as the information constitutes personal data relating to a third party. Section 40(2), read in conjunction with 40(3A)(a), of the FOIA provides that personal data relating to third parties is exempt information if disclosure of that information would breach any of the data protection principles in Article 5(1) of the General Data Protection Regulation (GDPR).

APHA consider that disclosure of this information is likely to breach the first data protection principle in Article 5(1)(a) repeated in 35(1) DPA, which provides that personal data must be processed lawfully, fairly, and in a transparent manner in two ways. First, disclosure would not constitute ‘fair’ processing of the personal data, second, disclosure of that information would not be ‘lawful’.

Under section 40 of the FOIA the term “personal data” means any information relating to an identified or identifiable living individual. “Identifiable living individual” means a living individual who can be identified, directly or indirectly.

APHA have concluded that this information is exempt from disclosure under section 40 of the FOIA.

Information disclosed in response to this FOI request is releasable to the public. In keeping with the spirit and effect of the FOIA and the government's Transparency Agenda, this letter and the information disclosed to you may be placed on [GOV.UK](https://www.gov.uk), together with any related information that will provide a key to its wider context. No information identifying you will be placed on the GOV.UK website.

An Annex is attached which explains the copyright that applies to the information being released to you and contact details should you be unhappy with the service you have received.

If you have any queries about this letter, please contact the Access to Information Team at the email address below or postal address at the top of this letter.

Yours sincerely

**Access to Information Team**

[enquiries@apha.gov.uk](mailto:enquiries@apha.gov.uk)

## **Annex**

### **Copyright**

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### **Complaints**

If you are unhappy with the service you have received in relation to your request, you may make a complaint or appeal against our decision under section 17(7) of the FOIA within 40 working days of the date of this letter. Please write to the Access to Information Team at the address at the top of this letter or email [enquiries@apha.gov.uk](mailto:enquiries@apha.gov.uk) and the team will arrange for an internal review of your case.

If you are not content with the outcome of the internal review, section 50 of the FOIA gives you the right to apply directly to the Information Commissioner's Office (ICO) for a decision. Please note that generally the ICO cannot make a decision unless you have first exhausted APHA's own complaints procedure.

The ICO can be contacted at:

Information Commissioner's Office  
Wycliffe House  
Water Lane  
Wilmslow  
Cheshire  
SK9 5AF

Please click [here](#) for further contact details.