

Updated Outbreak Assessment #12

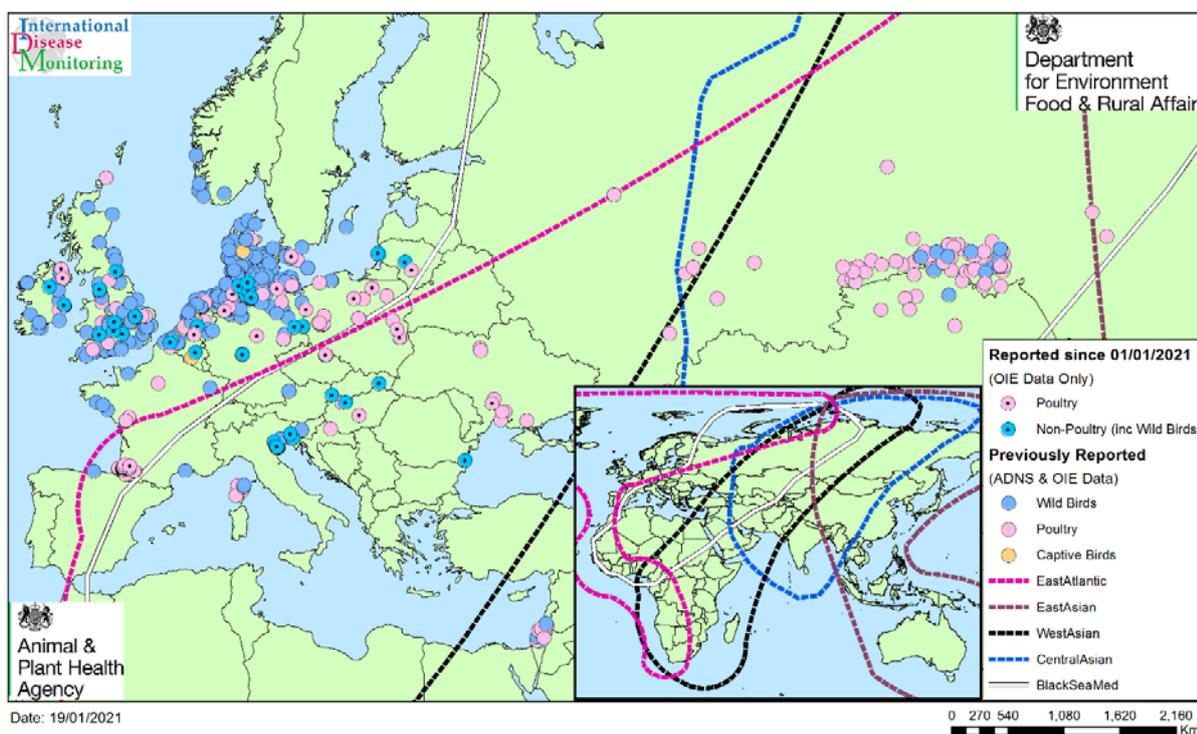
Highly pathogenic avian influenza (HPAI) in the UK, and Europe

19 January 2021

Ref: VITT/1200 HPAI in the UK and Europe

Disease Report

Since our last report (05 January), in the **United Kingdom**; there have been no new outbreaks of highly pathogenic avian influenza (HPAI) H5N8 in poultry in GB, and two outbreaks of HPAI H5N8 in Northern Ireland. There have also been eight new cases of HPAI H5N8 in wild birds (six in England and two in Scotland). According to OIE, elsewhere in Europe since 01 January, HPAI H5N8 has been reported in poultry in France (71), Germany (15), Hungary (3), Lithuania (1), Netherlands (1), Poland (6), Russia (1) and Sweden (1). HPAI H5N8 in wild birds has been reported in Germany (9), Hungary (1), Ireland (2), Italy (2), Lithuania (3), Netherlands (1), Russia (1) and Slovakia (2). HPAI H5Nx (N untyped), has been reported in poultry in the Ukraine (1); and in wild birds in Belgium (2) and in Romania (1). Slovenia has reported one case of HPAI H5N5 in wild birds. Finally, HPAI H5N1 has been reported in wild birds in Italy (2).



Date: 19/01/2021

Map prepared by IDM

Highly pathogenic avian influenza in Poultry, Captive and Wild birds
August - January 2021
Overlay: migratory bird flyways

Situation Assessment

Table 1: Summary of confirmed outbreaks of HPAI H5N8 in poultry and captive birds in the UK to 18 January 2021

Date HPAI H5N8 confirmed	Location, County	Description	Status
HPAI H5N8 in Poultry			
3 November	near Frodsham, Cheshire	Broiler breeder rearer chickens	All surveillance completed, zones lifted, premises remain under restriction as per OIE recommendations
10 November	near Leominster, Herefordshire	Broiler breeder chickens	All surveillance completed, zones lifted, premises remain under restriction as per OIE recommendations
23 November	near Melton Mowbray, Leicestershire	Poultry and captive birds	All surveillance completed, zones lifted, premises remain under restriction as per OIE recommendations
29 November	near Northallerton, Hambleton, North Yorkshire	Rearing turkeys	All surveillance completed, zones lifted, premises remain under restriction as per OIE recommendations
01 December	near Northallerton, Hambleton, North Yorkshire	Rearing turkeys	All surveillance completed, zones lifted, premises remain under restriction as per OIE recommendations
04 December	near Attleborough, Breckland, Norfolk	Rearing turkeys	All surveillance completed, zones lifted, premises remain under restriction as per OIE recommendations
05 December	near King's Lynn, Norfolk	Rearing turkeys	All surveillance completed, zones lifted, premises remain under restriction as per OIE recommendations

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Date HPAI H5N8 confirmed	Location, County	Description	Status
15 December	near Willington, Derbyshire	Captive birds and poultry	All surveillance completed, zones lifted, premises remain under restriction as per OIE recommendations
19 December	Island of Sanday, Orkney Islands	Small commercial free range laying flock	Protection Zone lifted and replaced with Surveillance Zone which is still in place, surveillance ongoing
19 December	Near Gillingham, North Dorset	Backyard poultry	Zones still in place, surveillance ongoing
20 December	Near Attleborough, Breckland, Norfolk	Commercial duck premises	Zones still in place, surveillance ongoing
28 December	Near Great Ellingham, Norfolk	Backyard poultry	Zones still in place, surveillance ongoing
28 December	Near Ickburgh, Norfolk	Commercial duck rearing premises	Zones still in place, surveillance ongoing
29 December	Near Aylesbeare, Devon	Backyard poultry	Zones still in place, surveillance ongoing
06 January	Ballymena, County Antrim	Commercial layer rearer premises	Zones still in place, surveillance ongoing
12 January	Lisburn, County Antrim	Commercial layer	Zones still in place, surveillance ongoing
HPAI H5N8 in Captive Birds			
20 November	near Stroud, Gloucestershire	Captive birds	All surveillance and sampling on IP completed, zones lifted. All birds on the premises have now tested negative twice, 21 days apart.

Date HPAI H5N8 confirmed	Location, County	Description	Status
13 December	near Droitwich Spa, Worcestershire	Captive birds	No zones implemented

Since our last report on 05 January, there have been no new outbreaks in domestic poultry reported in GB. To 18 January 2020, there have been thirteen outbreaks of HPAI H5N8 in poultry confirmed on premises in England, and one outbreak confirmed on a premises in Scotland. There have also been two cases of HPAI H5N8 in captive birds in England (Table 1), and one case of H5N1 in backyard chickens, in England (Table 2).

Since our last report on 05 January, in Northern Ireland, there have been two outbreaks of HPAI H5N8 confirmed in domestic poultry; although no further reports of HPAI H5N8 in wild birds in Northern Ireland. The first of these outbreaks was confirmed on 06 January at a commercial layer rearing holding near Ballymena, County Antrim. Two dangerous contact sites (another commercial layer rearing unit and a commercial layer unit) have also been depopulated and epidemiological investigations are ongoing. On 12 January, a second outbreak of HPAI H5N8 was confirmed at a commercial layer holding in Lisburn, County Antrim. A 3km Protection Zone (PZ) and 10km Surveillance Zone (SZ) have been declared around both of the affected premises.

The total number of HPAI outbreaks in poultry and/or captive birds in the UK to 18 January is 19.

Table 2: Summary of confirmed outbreaks of HPAI H5N1 in poultry and captive birds in the UK to 18 January 2021.

Date HPAI H5N1 confirmed	Location, County	Description
18 December	*Near Hawes, Richmondshire, North Yorkshire	Backyard chickens

The above map shows the concentration of wild bird cases in north-western Europe, with relatively few in southern or central Europe. To 18 January, a total of 288 HPAI cases have been reported in wild birds in GB (see Table 3 below), with most in England, and only a few in Scotland and Wales.

For further details, please see the report (updated weekly) on findings of HPAI in wild birds in GB at: <https://www.gov.uk/government/publications/avian-influenza-in-wild-birds>.

Table 3: Wild bird cases in England, Wales, and Scotland that have tested positive for HPAI H5N1, H5N5, H5N8 and H5Nx to 18 January 2021. Pathogenicity testing has not been completed for all samples as yet.

Country / county	H5N1	H5N5	H5N8	H5Nx	Grand Total
England	7	1	253	7	268
Black Swan			11		11
Devon			10		10
Gloucestershire			1		1
Brent Goose			6		6
Lincolnshire			3		3
Northumberland			3		3
Buzzard			2	1	3
Cornwall				1	1
Lancashire			1		1
Warwickshire			1		1
Canada Goose	1		24		25
County Durham			1		1
Devon	1				1
Dorset			6		6
Essex			1		1
Gloucestershire			10		10
Greater Manchester			1		1
Lincolnshire			1		1
Northumberland			1		1
Oxfordshire			1		1
Tyne and Wear			1		1
Warwickshire			1		1
Great White Egret				1	1
North Yorkshire				1	1
Grey Heron			1		1
Warwickshire			1		1
Greylag goose			8	2	10
Gloucestershire			3		3
Lancashire			2	2	4
Lincolnshire			2		2
Surrey			1		1
Herring Gull			2		2
Dorset			2		2
Kestrel			1		1
Warwickshire			1		1
Lesser Black Backed Gull			1		1
Oxfordshire			1		1
Lesser Black headed Gull			1		1

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Country / county	H5N1	H5N5	H5N8	H5Nx	Grand Total
Cambridgeshire			1		1
Mixed Avian			1		1
Dorset			1		1
Mute Swan	5	1	153	1	160
Bedfordshire			2		2
Cambridgeshire			12		12
Cornwall			1		1
Cumbria			8		8
Devon	2		1	1	4
Dorset			82		82
Essex	1	1	3		5
Gloucestershire			6		6
Hampshire			3		3
Isle of Wight			1		1
Lancashire	2		6		8
Leicestershire			1		1
Lincolnshire			1		1
Norfolk			5		5
Shropshire			1		1
Staffordshire			1		1
Suffolk			1		1
Tyne and Wear			2		2
Warwickshire			4		4
Worcestershire			12		12
Peregrine Falcon			1		1
Kent			1		1
Pink footed goose			2		2
Lancashire			2		2
Shelduck			1		1
Lincolnshire			1		1
Sparrow Hawk			1		1
Devon			1		1
Unspecified			1		1
Dorset			1		1
Unspecified Goose			1		1
Northumberland			1		1
Unspecified Swan			11		11
County Durham			5		5
Dorset			4		4
Gloucestershire			1		1
Tyne and Wear			1		1
Whooper Swan			21	2	23

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Country / county	H5N1	H5N5	H5N8	H5Nx	Grand Total
Cambridgeshire			7	1	8
Essex			1	1	2
Lancashire			1		1
Lincolnshire			1		1
Norfolk			11		11
Wigeon			1		1
Lincolnshire			1		1
Common Buzzard	1		2		3
Cambridgeshire	1		1		2
Yorkshire			1		1
Wales		5	1		6
Little Grebe			1		1
Carmarthenshire			1		1
Mute Swan		5			5
Gwent		3			3
Monmouthshire		2			2
Scotland			14		14
Greylag goose			1		1
Highlands			1		1
Mute Swan			5		5
Clackmannanshire			4		4
Western Isles			1		1
Unspecified Swan			4		4
Fife			4		4
Whooper Swan			4		4
Aberdeenshire			3		3
Angus			1		1
Grand Total	7	6	268	7	288

HPAI in Europe since 01 January 2021

Please note that changes in format and level of detail are due to the change of data source for this report, from EU's Animal Disease Notification System (ADNS) to World Organisation for Animal Health (OIE).

Table 4: Excluding the UK, current outbreaks of HPAI H5N8 in domestic poultry and cases in wild birds (since 01 January), according to OIE reporting. *Please note that this is a rapidly changing picture, with new disease reports being made to the World Organisation for Animal Health (OIE) on a regular basis.*

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Country	H5	H5	H5N1	H5N5	H5N8	H5N8	Total
	Poultry	Wild/Captive Birds	Wild/Captive Birds	Wild/Captive Birds	Poultry	Wild/Captive Birds	
Belgium		2					2
France					71		71
Germany					15	9	24
Hungary					3	1	4
Ireland						2	2
Italy			2			2	4
Lithuania					1	3	4
Netherlands					1	1	2
Poland					6		6
Romania		1					1
Russia					1	1	2
Slovakia						2	2
Slovenia				1			1
Sweden					1		1
Ukraine	1						1
Total	1	3	2	1	99	21	127

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Since 01 January, **Belgium** has reported two cases of HPAI H5 in wild birds: a Pink-footed Goose (*Anser brachyrhynchus*) in West-Vlaanderen; and in the province of Liège, a Canada Goose (*Branta canadensis*).

France has reported 71 new outbreaks of HPAI H5N8 in poultry. The majority (68) were in the department of Landes in the south-west of France, among *foie gras* producing duck farms. Two outbreaks have also taken place in the department of Pyrénées-Atlantiques, also in the south-west of France (and also in duck farms); as well as an outbreak in the neighbouring department of Hautes-Pyrénées (although reportedly in a swan; the outbreak was reported on OIE as being in poultry and not wild birds).

Germany has reported 15 new outbreaks of HPAI H5N8 in poultry. Of these, 13 were in the state of Lower Saxony (mainly in Cloppenburg District) with most being among turkey fattening premises (the exceptions being a premises of fattening ducks, and another of broiler breeders). The remaining outbreaks were in the state of Mecklenburg-West Pomerania (laying hens), and the state of Thuringia (chicken and ducks in a backyard holding). Nine cases of HPAI H5N8 in wild birds have also been reported. Five of these were in the northern state of Schleswig-Holstein (mostly unspciated Anserinae but also an unspciated Charadriidae). Two cases were in the state of Brandenburg (unspciated Anserinae and an unspciated swan). There were also cases in the state of Hamburg (an unspciated Anserinae) and in the central state of Hesse (multiple species in a nature reserve).

Hungary has reported three outbreaks of HPAI H5N8 in poultry. Two were in the county of Komárom-Esztergom in northern Hungary (both in commercial fattening turkey premises), and the other was in the county of Bács-Kiskun in southern Hungary (in laying hens). Hungary also reported one case of HPAI H5N8 in wild birds. This was in a park, also in the county of Komárom-Esztergom (a Great Egret (*Ardea alba*)).

Ireland has reported two cases of HPAI H5N8 in wild birds: in County Cavan, a Whooper Swan (*Cygnus cygnus*); and in County Wicklow, a Mute Swan (*Cygnus olor*).

Italy has reported two cases of HPAI H5N8 in wild birds. Both were in the northern region of Veneto: in a Eurasian Wigeon (*Mareca penelope*) and a Eurasian Teal (*Anas crecca*). Two cases of HPAI H5N1 in wild birds were also reported; one in Veneto (a Eurasian Teal (*Anas crecca*)), and the other in the north-eastern region of Friuli Venezia Giulia (a Greylag Goose (*Anser anser*)).

Lithuania has reported one outbreak of HPAI H5N8 in a backyard premises containing a small number of mixed poultry in the county of Kaunas in central Lithuania. In addition, there were three cases of HPAI H5N8 in Mute Swans (*Cygnus olor*): two in the county of Klaipėda in the north-west, and one in Kaunas.

The **Netherlands** reported one new outbreak of HPAI H5N8 in a poultry premises (species unspecified) in North Brabant in the south of the country. There was also one case of HPAI

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H5N8 reported in the province of Gelderland, in the centre-east of the country. The species was a Muscovy Duck (*Cairina moschata*).

Poland has reported six outbreaks of HPAI H5N8. Two were in poultry premises in the province of Lubelskie in eastern Poland (ducks and turkeys). Other outbreaks were in the provinces of Dolnoslaskie in the south-west (a small, non-commercial hen farm), in Kujawsko-Pomorskie (a turkey farm), in Lubusz Province (also a turkey farm), and in Warmia-Masuria Province (a farm for breeding geese).

Romania has reported one case of HPAI H5 in wild birds. This was reported from the county of Constanta (near to the main city of the same name on the Black Sea). The species was a Whooper Swan (*Cygnus cygnus*).

Russia has reported one outbreak of HPAI H5N8 in poultry. This was a farm of 360,000 (unspecified in the report) birds in Krasnodarskiy Kray, in the North Caucasus region of southern Russia. One case of HPAI H5N8 in wild birds was reported from the Republic of North Ossetia–Alania (also in the North Caucasus). The species was a Mute Swan (*Cygnus olor*).

Slovakia has reported two cases of HPAI H5N8 in wild birds. One was a zoo in the region of Kosice in the south east. The species was a Muscovy Duck (*Cairina moschata*). The other report was from the region of Bratislava (close to the city of the same name). The species was a Mute Swan (*Cygnus olor*).

Slovenia has reported one case of HPAI H5N5 in wild birds in the Istrian peninsula in the south-west. The species was a Mute Swan (*Cygnus olor*).

Sweden has reported one outbreak of HPAI H5N8 in a poultry premises in the southernmost county of Skåne. The broiler-breeder premises comprises seven separate epidemiological units. Symptoms were only observed in one of these epidemiological units.

Ukraine has reported one outbreak of HPAI H5 in poultry – a small, backyard premises (birds unspecified) in the region of Nikolayev in southern Ukraine.

Trends in Europe

There are three emerging trends apparent in Continental Europe:

The first trend of note is that the rate of new wild bird case reports has fallen, and the total number of wild bird cases has levelled off over the last month. There is however a suggestion of a second rise in wild bird cases (starting last week); but it is too early to tell if this is a true second peak, as was observed at the end of January 2017, in the 2016/17 H5N8 epizootic. ADNS (data (to 17/1/21) for EU MSs, plotted weekly by the EU Ref laboratory (IZSVe, 2021), show wild bird cases dropping off to very low numbers at the end of 2020 compared to the peak of ~150 per week in November 2020. However, the

second week of January saw this jump to ~35 wild bird cases per week falling to ~18 last week.

The second notable trend is that poultry outbreaks are still continuing in north-west Europe, namely Germany and Poland, and there has been a spike of outbreaks in France due to outbreaks in the Landes department in the south west, with some 88 outbreaks in the *foie-gras* producing farms. Since the start of the 2020 outbreak, France has reported 186 poultry outbreaks (including those in Corsica). The total poultry outbreaks in EU MSs is 290 to date, which is much lower than the 550 reported at this stage in the 2016/2017 H5N8 epizootic.

The third development is that outbreaks are now being reported in south-east Europe, with Hungary and Romania now reporting HPAI. Until recently, this epizootic has mainly been an outbreak of north-western Europe, although Italy and Slovenia have been affected. Hungary reported its first cases, with three poultry farms in January, and a wild Great white egret in late December, on the border with Slovakia. Slovakia has reported HPAI in a captive duck in a zoo, in the east near Ukraine, and a Mute swan near the Hungarian border. Romania has reported its first case of H5N8 in a whooper swan on the Black Sea, although this was expected several months ago when H5N8 emerged on the other side of the Black Sea in south-west Russia.

Implications for the UK

The detection of three H5 HPAI subtypes in the same epidemic event is unparalleled in the UK. All these viruses are genetically closely related through their haemagglutinin gene, which is the key viral gene influencing pathogenesis, host range, transmission, and host immunity. Continued virus change by genetic reassortment in wild birds is not unexpected, and further genetic variation at genome level may be expected as the epidemic progresses. However, despite the detection of the three H5 HPAI subtypes, and number of outbreaks already reported so far this winter, there have been no delays in the application of effective disease control measures. Affected premises were depopulated promptly, and initial cleansing and disinfection was carried out without delay. This has allowed the lifting of some of the earlier disease control zones; as prescribed in legislation, as well as the UK's Avian Notifiable Disease Control Strategy. Surveillance within the disease control zones continues, and results of investigations will be published in a comprehensive epidemiological report.

The migration season for wild waterfowl to overwinter in the UK has by and large ended, and numbers are expected to have peaked in December and January, depending on the species and the weather conditions in Continental Europe. A large population of migratory water fowl are still present, however, and will not be leaving the UK until March/April. Moreover, the higher survival rate of the virus in the environment during winter means the risk of environmental transmission remains, and hence, the continued risk of secondary spread into indigenous UK wild bird species. Higher environmental temperatures, together with

increasing sunlight intensities will reduce environmental levels of H5N8 and the associated risks. As discussed above, a second peak occurred at this time of year in the 2016/17 H5N8 epizootic. Monitoring weekly changes over the next few weeks is therefore important with regard to the emergence of a second peak of disease in the UK and Europe.

Following confirmation of cases of both HPAI H5N8 and low pathogenicity avian influenza (LPAI) H5N2 in poultry, the UK is no longer free from notifiable avian influenza under the World Organisation for Animal Health (OIE) rules.

Where disease is confirmed, measures are put in place in accordance with Council Directive 2005/94/EC. The EU will put safeguard measures in place, meaning that no trade with the EU in live poultry or poultry products will be permitted from disease control zones.

Public Health England has confirmed that the risk to public health is very low from all three HPAI strains detected and characterised to date (H5N8, H5N5, H5N1), and the Food Standards Agency has said that avian influenza does not pose a food safety risk for UK consumers.

Effects on International Trade

All outbreaks have been swiftly reported to the OIE to provide the necessary transparency required for maintaining international trade. Although the UK has temporarily lost its OIE country freedom status from HPAI, it is applying effective regionalisation as well as compartmentalisation, in order to maintain safe trade from unaffected populations of high value and high biosecurity commercial poultry. This is supported by the ongoing surveillance, as well as the safeguards applied via the APHA Centre for International Trade, and the rigorous and standardised certification process by Official Veterinarians.

Conclusion

The risk of HPAI incursion in wild birds in GB remains **VERY HIGH**. The overall risk of exposure of poultry in GB remains **MEDIUM** (with stringent biosecurity) **TO HIGH** (where there are biosecurity is not adequate).

An Avian Influenza Prevention Zone is in place in [England](#), [Scotland](#) and [Wales](#) and the Chief Veterinary Officers from England, Scotland, Wales and Northern Ireland are urging bird keepers across the UK to take additional biosecurity measures; in order to prevent further outbreaks of avian influenza in the UK.

It is a legal requirement for all bird keepers to keep their birds indoors and to follow strict biosecurity measures in order to limit the spread of and eradicate the disease. These housing measures build on the strengthened biosecurity regulations that were brought in as part of the Avian Influenza Protection Zone (AIPZ) on 11 November 2020.

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If you keep poultry (including game birds or as pets), you should follow our biosecurity best practice advice, which can be found here: <https://www.gov.uk/guidance/avian-influenza-bird-flu#biosecurity-advice> Remain vigilant for any signs of disease in your flock and report any sign of avian influenza to Defra Rural Services Helpline on 03000 200 301.

Further information is available here: <https://www.gov.uk/guidance/avian-influenza-bird-flu> including updated biosecurity advice for poultry keepers for England; <https://gov.wales/avian-influenza> for Wales and; <http://gov.scot/avianinfluenza> for Scotland.

The OIE/FAO International Reference Laboratory/UK National Reference Laboratory at Weybridge has the necessary ongoing proven diagnostic capability for these strains of virus, whether low or high pathogenicity AI, and continually monitors changes in the virus. We will continue to report on any updates on the situation in Europe and, in particular, any changes in disease distribution or wild bird movements which may increase the risk to the UK.

We ask that the public use the Defra helpline (Tel: 03459 33 55 77) to report findings of any dead wild birds. In particular, any wild ducks, wild geese, swans, gulls, or birds of prey.

Authors

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References

All outbreaks and cases were taken from the World Organisation for Animal Health (OIE).

<https://www.daera-ni.gov.uk/articles/avian-influenza-ai>

<https://www.gov.uk/guidance/avian-influenza-bird-flu#trade-import-and-export-issues>

IZSve (2021) Number of highly pathogenic avian influenza positive events notified per poultry category each week from September 2020.

(<https://www.izsvenezie.com/documents/reference-laboratories/avian-influenza/europe-updates/HPAI/2020-1/total-events.pdf>).

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