

Updated Outbreak Assessment #6

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

13 December 2021

Ref: VITT/1200 HPAI in the UK and Europe

Disease Report

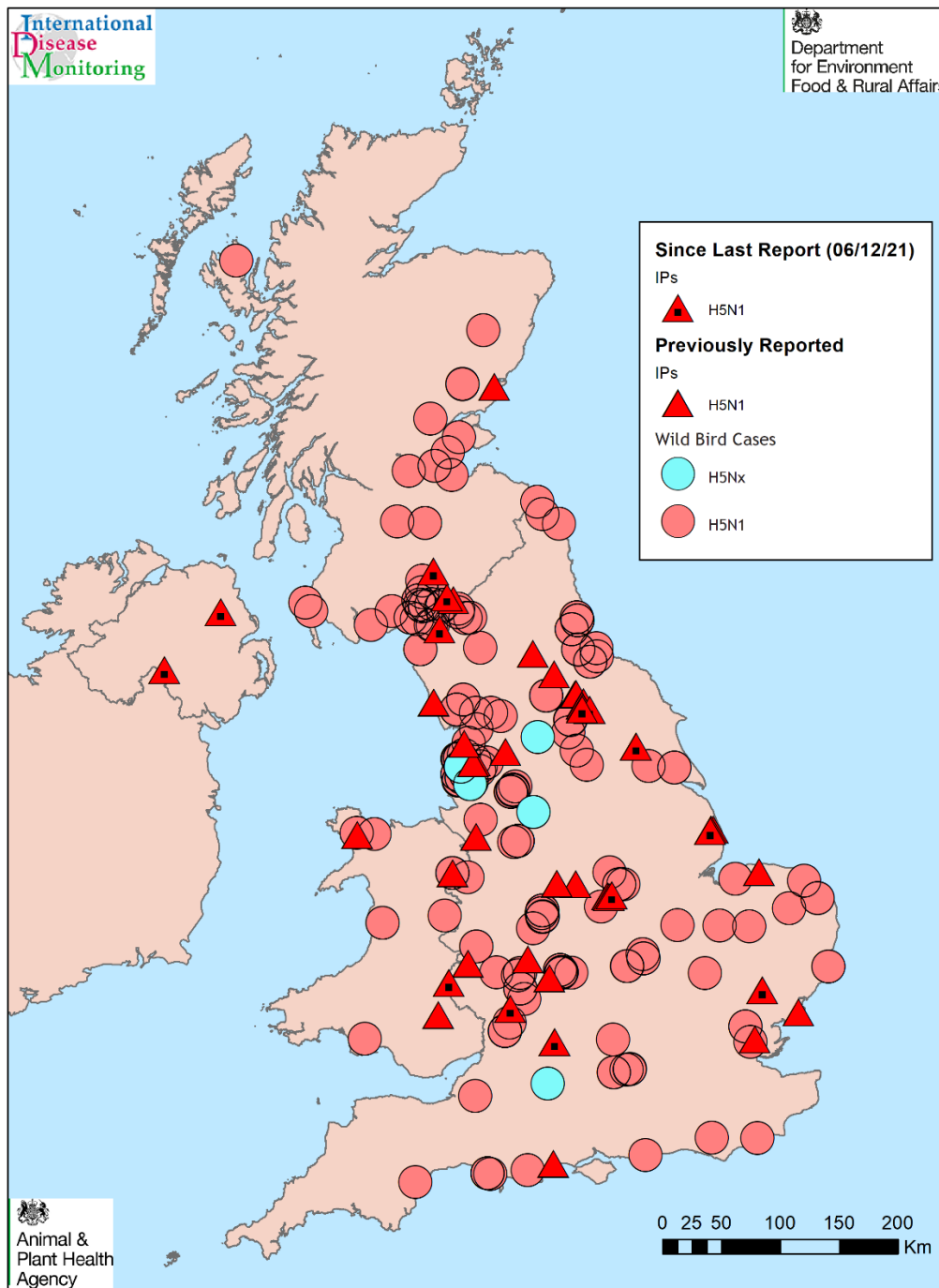
Since our last outbreak assessment on 06 December 2021, there continue to be reports of highly pathogenic avian influenza (HPAI) H5 both in Europe and in Great Britain (GB).

There have been a further 15 confirmed report cases in GB of HPAI H5N1 in domestic poultry or captive birds since our last assessment, with three in backyard (or captive bird) premises, and 12 in commercial premises. Northern Ireland have reported HPAI H5N1 in two premises.

According to the OIE, there continue to be high numbers of reports of HPAI H5 in Northern Europe over the past week. Since 06 December, Belgium, France, Germany, Hungary, Ireland, Poland and Russia have reported further outbreaks of HPAI H5N1 in domestic poultry. To 13 December, the Republic of Ireland (RoI) has confirmed HPAI H5N1 at a further two premises. One close to the border of Co Amargh and Monaghan and a second close to the border of Co Cavan and Co Fermanagh. RoI has reported 50 cases of HPAI H5N1 in wild birds to date, with a housing order brought into effect on 22 November (DAERA, 2021).

Wild bird HPAI H5N1 cases continue to be reported in north-west Germany, the coastal regions of the Netherlands, Luxembourg, Denmark, and Sweden. Greece and Portugal have also reported their first cases of HPAI H5 this season.

Map 1: HPAI H5 outbreaks in poultry¹, captive, and wild birds across United Kingdom, October 2021 to 13 December 2021.



Date: 13/12/2021
Map prepared by IDM

UK HPAI IPs and Wild Bird Cases
October - December 2021

¹ According to the 2021 OIE definition of poultry: [Terrestrial Code Online Access - OIE - World Organisation for Animal Health](#)

Situation Assessment

United Kingdom

The first detection of HPAI H5N1 virus this season was in rescued swans and captive poultry at a swan sanctuary in Worcester (England) on 15 October. Since then, there have been 31 further confirmed cases of HPAIV H5N1 (Map 1), (Table 1).

Since our last assessment on 6 December, there has been three new outbreaks of HPAI H5N1 in non-commercial, non-poultry¹ premises in GB, including two backyard farms (England and Scotland), and a wildfowl park (England).

There have also been 12 new reports of HPAI H5N1 in poultry; one in each of Cumbria, Herefordshire, Wiltshire, Suffolk, and Derbyshire, two in Yorkshire, two in Leicestershire and three in Lincolnshire.

Northern Ireland has reported HPAI H5N1 in two commercial premises, a poultry flock of approximately 14,000 birds near Markethill, Co Amagh and a duck flock of approximately 22,000 birds in Coagh, Co Tyrone (DAERA, 2021).

Table 1: Poultry¹ and captive bird outbreaks for high pathogenicity avian influenza (HPAI) H5N1 so far in Great Britain since 1 October 2021, as of 13 December

Date HPAI H5N1 confirmed	Location, County	Description
27 October	Near Wychavon, Worcester	Rescued wild swans (adults and young), rescued and captive geese, ducks, and chickens.
2 November	Near Chirk, Cheshire	Backyard chickens
4 November	Near Arbroath, Angus	Mixed backyard flock of 16 chickens, 20 guinea fowl and 12 ducks.
8 November	Near Alcester, Bidford	Small flock of 31 turkeys and 19 chicken
11 November	Near Kirby Cross, Essex	Small flock of mixed geese, chickens, guinea fowl

Date HPAI H5N1 confirmed	Location, County	Description
12 November	Near Preston, Lancashire	Commercial turkey premises
13 November	Near Northallerton, North Yorkshire	Commercial free range laying hens
16 November	Near Preston, Lancashire	Backyard chickens
17 November	Near Willington, Derbyshire	Commercial turkey premises
19 November	Near Pokesdown, Bournemouth	Backyard ducks
19 November	Near Silecroft, Cumbria	Commercial free range laying hens
21 November	Near Mouldsworth, Chester	Commercial turkey premises
21 November	Near North Fambridge, Essex	Small flock of mixed geese, chickens, ducks
21 November	Near Holkham, Norfolk	Small flock of mixed chickens and turkeys
21 November	Near Thirsk, Yorkshire	Commercial turkey premises
25 November	Near Thirsk, Yorkshire	Commercial free range laying hens
25 November	Near Thirsk, Yorkshire	Commercial turkey premises
26 November	Near Loughborough, Leicestershire	Commercial free range laying hens
26 November	Near Thirsk, Yorkshire	Commercial turkey premises
27 November	Near Blackpool, Lancashire	Mixed ornamental birds
26 November	Near Anglesey, Wales	Backyard hobby farm

Date HPAI H5N1 confirmed	Location, County	Description
26 November	Near Clitheroe, Lancashire	Mixed captive birds
28 November	Near Thirsk, Yorkshire	Backyard hobby farm
29 November	Near Thirsk, Yorkshire	Commercial turkey premises
01 December	Leicestershire	Commercial free range laying hens
02 December	Near Thirsk, Yorkshire	Commercial free range laying hens
02 December	Staffordshire	Backyard hobby farm
02 December	Herefordshire	Commercial broiler farm
04 December	Dumfries	Commercial laying hens
04 December	Powys	Mixed captive birds
04 December	Yorkshire	Backyard turkeys
04 December	Gloucestershire	Wildfowl Park
04 December	Yorkshire	Commercial laying hens
06 December	Leicestershire	Commercial laying hens
07 December	Leicestershire	Commercial laying hens
07 December	near Pocklington, East Yorkshire	Commercial ducks
08 December	Near Sudbury, South Suffolk	Commercial laying hens
08 December	Near Thirsk, North Yorkshire	Commercial turkeys

Date HPAI H5N1 confirmed	Location, County	Description
09 December	Cumbria	Commercial laying hens
09 December	Dumfries	Backyard mixed species
10 December	Near Moffat, Dumfriesshire	Backyard mixed species
10 December	Near Highworth, Wiltshire	Commercial turkeys
10 December	Near Clifford, Herefordshire	Commercial turkeys
11 December	Near Washington, Sunderland, Tyne & Wear	Mixed wildfowl
11 December	Near Alford, Lincolnshire	Commercial laying hens
11 December	Near Willington, Derbyshire	Mixed poultry
12 December	Near Alford, Lincolnshire	Commercial laying hens
12 December	Near Alford, Lincolnshire	Commercial laying hens

Since our last outbreak assessment on 06 December to 13 December, HPAI H5 has been detected in a further 28 wild bird locations in GB, bringing the total to 96 separate wild bird positive locations, involving 23 separate bird species in 54 separate counties (Table 2). There have been five cases for which the H5 genotype has been identified but the N type has not. These cases are currently undergoing further processing to identify the Neuraminidase genotype strain (H5Nx in Map 1).

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> and NI at: <https://www.daera-ni.gov.uk/articles/avian-influenza-ai#toc-11>

Table 2: Wild bird species in Great Britain that have tested positive for HPAI H5 as of 13 December 2021

Region and species	Total number of birds testing positive
England	270
Barnacle Goose	8
Black headed gull	3
Black Swan	1
Canada Goose	28
Common Buzzard	5
Curlew	2
Great-crested Grebe	1
Greylag goose	18
Gull	1
Kestrel	1
Lapwing	1
Mallard Duck	2
Mute Swan	143
Peregrine Falcon	2
Pheasant	5
Pink Footed goose	10
Unidentified Swan	11
Unspecified Goose	9
Whooper Swan	18
Widgeon	1
Scotland	39
Barnacle Goose	9
Canada Goose	1
Common Buzzard	2
Greylag goose	4
Gull	1
Kestrel	1
Mute Swan	7
Pink Footed goose	1
Sea Eagle	1
Unidentified Swan	3
Unspecified Duck	1
Unspecified Goose	4
Whooper Swan	4
Wales	11
Canada Goose	2

Region and species	Total number of birds testing positive
Common Buzzard	1
Herring Gull	1
Mute Swan	2
Pheasant	5
Grand Total	320

Europe

The total numbers of HPAI H5 outbreaks in poultry and wild bird cases in Europe are presented in Table 3. This is a rapidly changing picture, with new disease reports being made to the World Organisation for Animal Health (OIE) on a daily basis. Numbers reported are from OIE's WAHIS platform.

Table 3 Current outbreaks (to 13 December 2021) of HPAI H5 in domestic poultry and cases in wild birds since 1 October 2021 in Europe, excluding the UK, according to OIE reporting.

Country	H5 wild birds	H5 poultry	H5N1 wild birds	H5N1 poultry	H5N8 wild birds	H5N8 poultry	H5N2 wild birds	Total
Austria			3					3
Belgium	2		10	2				14
Bosnia and Herzegovina			2					2
Bulgaria		5						5
Croatia				1				1
Czech Republic			8	1				9

Country	H5 wild birds	H5 poultry	H5N1 wild birds	H5N1 poultry	H5N8 wild birds	H5N8 poultry	H5N2 wild birds	Total
Denmark		1	22					23
Estonia			6		2	1		9
Finland			9		2			11
France			10	4				14
Germany			305	26				331
Greece			1					1
Hungary			2	31				33
Ireland			52	4				56
Italy			8	187				195
Netherlands			54	8	2			64
Norway			2	2				4
Poland			3	35				38
Portugal			1					1
Romania			3					3
Russia	32	8	10	1				51
Serbia and Montenegro			3		3		1	7

Country	H5 wild birds	H5 poultry	H5N1 wild birds	H5N1 poultry	H5N8 wild birds	H5N8 poultry	H5N2 wild birds	Total
Slovakia			12		1			13
Sweden			11		1			12
Switzerland			1					1
Ukraine	2							2

Northern Europe (OIE data)

In the seven days since our last outbreak assessment on 6 December, HPAI H5 has been recorded in 15 European countries. The total number of EU countries affected this season according to IZS^{Ve} (2021a) is now 26.

Belgium has reported one further wild bird event with HPAI H5N1 in a common buzzard (*Buteo buteo*) together with two chicken farm outbreaks.

Estonia has reported HPAI H5N1 in a Herring gull (*Larus argentatus*) from late November.

France has reported four more HPAI H5N1 outbreaks on poultry farms, all detected in the last week. These are all in the north-east near Dunkirk. In addition, there have been seven HPAI H5N1 cases in wild bird including mute swans, great white egrets and greylag geese. These are in the east of the country near Luxembourg and Geneva. To date, there have been no outbreaks in poultry in the south-west of the country.

Germany has reported HPAI H5N1 in poultry on five further outbreaks of HPAI H5N1. Three were classified as farms and two were backyard flocks. These reports were from across the country, with three in the south. There have also been three cases of HPAI H5N1 in wild birds since our last report, with unidentified *Anatidae* (two) and *Accipitrida* (one) species affected.

Greece has reported its first case of HPAI H5N1, in a wild mute swan detected in early December in a wetland area.

Hungary has reported ten more outbreaks of HPAI H5N1 in poultry farms and a backyard premises detected in late November.

The **Republic of Ireland** has reported two further outbreaks of HPAI H5N1 in poultry, one close to the border of Co Amargh and Monaghan and a second close to the border of Co Cavan and Co Fermanagh. A housing order has been in place since 22 November. In addition, 14 cases in wild birds have been reported, mainly in geese, gulls and swans, but also in a magpie (*Pica pica*) and a water rail (*Rallus aquaticus*).

Poland has reported nine further outbreaks of HPAI H5N1 all detected late November/early December and mostly in ducks.

Southern Europe

Bulgaria has reported a further two poultry farm outbreaks, two backyard outbreaks and an outbreak in pheasants at a public hunting area.

Croatia reported two H5N1 events in wild birds including a gadwall (*Anas strepera*) and a mute swan (*Cygnus olor*) from November.

Portugal has reported its first case with an outbreak in a backyard hobby flock of 79 birds near Lisbon, detected at the end of November.

Italy has reported another 103 outbreaks in poultry farms including several fattening turkey farms, and also one case in a yellow-legged gull (*Larus michalhelis*). Most outbreaks are in the north still around Verona, although there are cases around Rome and San Marino and further east towards Trieste.

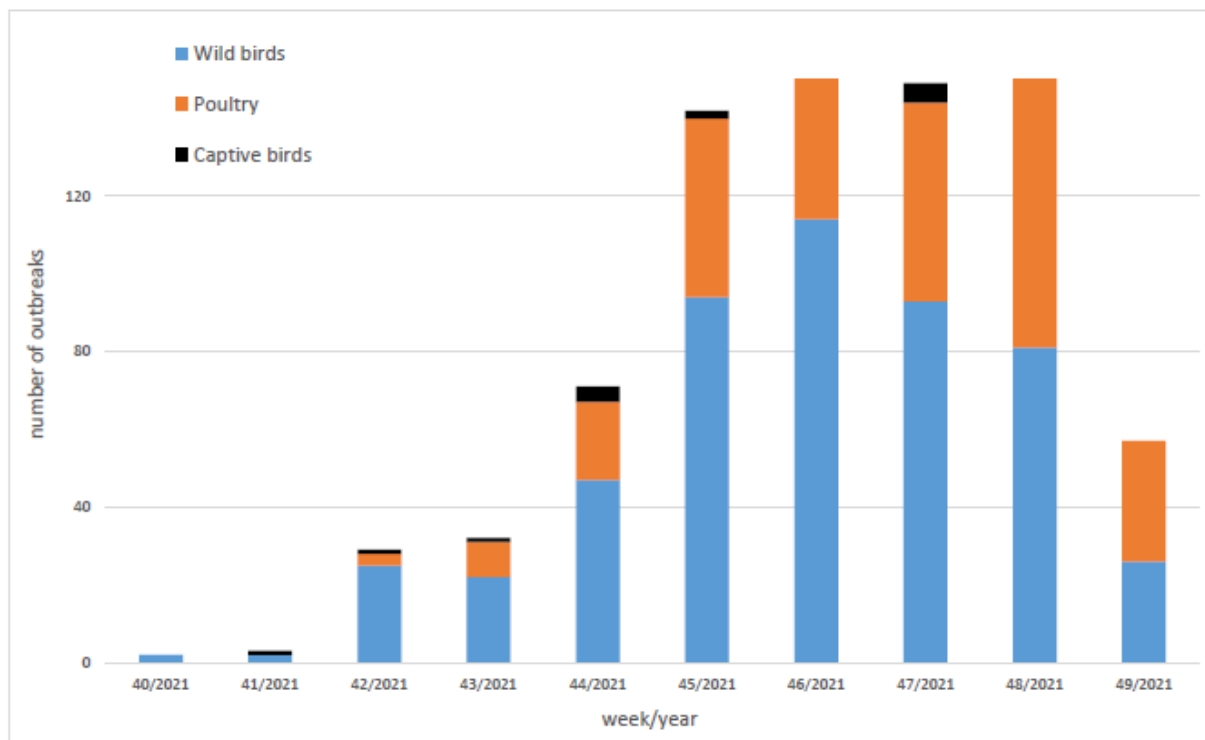
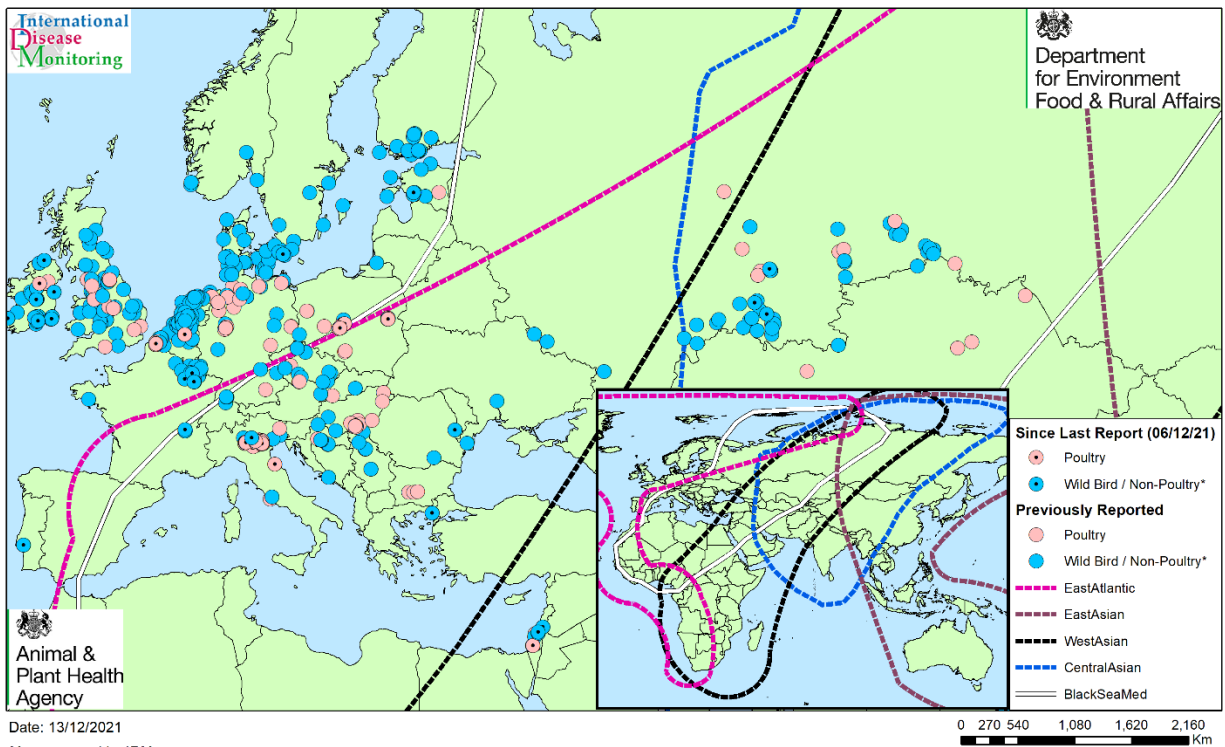


Figure 1- Number of HPAI events in Europe each week from October 2021 to 10 December 2021 (IZSVe, 2021a)

The number of poultry, wild bird, and captive bird reports for each week according to the EU Reference Laboratory (IZSVe 2021a) is shown in Figure 1. The number of wild bird cases reported in Europe appears to have peaked. A similar trend was observed last season; with wild bird cases peaking in week 47 at 160 per week, before declining to roughly 50 cases per week by week 51. A second peak was then observed in week 9 (into the following calendar year) with about 200 cases (IZSVe 2021c). In contrast to wild bird cases, the number of poultry outbreaks continues to increase in the EU 27 from 30 in week 46, to 50 in week 47, and 65 in week 48, typically lagging the wild bird cases. The overall number of outbreaks across the EU appears to be plateauing.

The maps below (Map 2) show the distribution of HPAI H5 events in poultry, captive birds and wild birds in Europe reported from September to 13 December to OIE. Those events reported since our last outbreak assessment on 06 December are distinguished with dots.

Map 2: HPAI outbreaks (from OIE) in poultry, captive, and wild birds across Europe, September 2021 to 13 December 2021.



Highly Pathogenic Avian Influenza in Poultry and Non-Poultry*

September - December 2021
 Overlay: Migratory Bird Flyways

OIE Data Only
 *OIE Defined

Implications for the UK

Given the frequency of wild bird cases of HPAI H5N1 across GB, the domestic poultry and captive bird populations remain under an increased infection pressure; particularly where biosecurity is sub-optimal. Even where biosecurity is stringent, the high wild bird infection pressure will highlight any weaknesses that exist. More poultry outbreaks are following the wild bird cases in Poland, Germany, and the Netherlands. It should be noted that trends in wild bird cases in Europe will become less important as a predictor for the UK as the season progresses through into January and the spring, as most of the birds that would migrate are likely to have now done so. While most of the wild water birds will now be in GB, there is generally a lag in poultry outbreaks before peaking.

Conclusion

New cases of HPAI H5 in wild birds and outbreaks in poultry continue to be reported in northern Europe including in the UK and the Republic of Ireland since our last assessment.

Total numbers of migrating wild water birds (ducks, geese, and some swan species) may now be peaking in GB and the majority of wintering water birds have now arrived. Multiple confirmed cases of HPAI H5 in wild birds (235 to 13 December 2021) across a range of species, including resident sedentary species such as raptors and mute swan indicating that they had been exposed to infection in GB. Furthermore, potential bridging species such as gulls and raptors have tested positive. More wild bird HPAI H5 infections are expected including in sedentary GB species and potential bridging species. HPAI H5 will continue to circulate in both susceptible migrant water birds and sedentary bird species within the UK over the next few months, with a greater number of events likely to be observed around water bird wintering sites. The risk level of HPAI H5 in wild birds is therefore maintained at **VERY HIGH** across GB.

The risk of exposure of poultry across the whole GB is maintained at **MEDIUM** (with low uncertainty) where good biosecurity is applied, and at **HIGH** (with low uncertainty) where biosecurity is suboptimal. This assessment takes into consideration the Avian Influenza Protection Zone (AIPZ) and assumes that bird keepers are taking the additional biosecurity measures required.

On 24 November, the Chief Veterinary Officers for England, Scotland, Wales, and Northern Ireland announced housing measures, which came into force on the 29 November 2021. It is now a legal requirement for all bird keepers to keep their birds indoors, to exclude contact with wild birds, 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 requirements that were introduced as part of the AIPZ in GB on 3 November 2021, and in Northern Ireland on 17 November 2021.

We are continuing to closely monitor the situation.

It is particularly important that stringent adherence to good biosecurity practices is now not only maintained but is constantly being reviewed for further improvement. Strict attention should now be made to ensure compliance with reviewed contingency plans, with regular maintenance checks and repairs being carried out promptly on roofs and fabric of buildings – especially following damage caused by the recent Storms. Reinforcement of good bio awareness behaviours and practices should be constantly instilled into personnel to prevent disease being introduced to poultry and captive birds. Special consideration should be made when bringing in equipment and materials,

especially bedding and outer packages which may have become contaminated following environmental exposure whilst stored outside.

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 suspicious clinical signs of avian influenza to the Animal and Plant Health Agency. In England contact 03000 200 301. In Wales, contact 0300 303 8268. In Scotland, contact your local [Field Services Office](#). 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; <http://gov.scot/avianinfluenza> for Scotland and; <https://www.daera-ni.gov.uk/articles/avian-influenza-ai#AIPZ> for NI.

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 on a wide scale whilst utilising global networks to gain early insights to epidemiological trends and potential emergence of new genotypes which might change the risk profile. 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.

In England, any findings **of three or more** dead wild birds of any species, found at the same location at the same time should be reported to the Wild bird Helpline (Tel: 03459 33 55 77 – please select option 7). It is advisable that you do not touch these birds.

In Scotland and Wales, findings **of any number** of dead wild birds of any species, found at the same location at the same time should be reported to the Wild bird Helpline (Tel: 03459 33 55 77 – please select option 7). It is advisable that you do not touch these birds.

Authors

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References

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

DAERA (2021) [Department of Agriculture, Environment and Rural Affairs Avian influenza information page](#)

FLI (2021) [FLI Animal disease survey report \(TSIS\)](#)

IZSVe (2021a) [IZSVe report - Number of highly pathogenic avian influenza positive events notified by country and poultry category \(pdf\)](#)

IZSVe (2021b) [IZSVe report - Highly Pathogenic Avian Influenza \(HPAI\) in Europe: update, Wild bird species affected \(pdf\)](#)

IZSVe (2021c) [IZSVe report - Number of highly pathogenic avian influenza positive events notified by country and poultry category \(2020, pdf\)](#)



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