

Updated Outbreak Assessment #7

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

20 December 2021

Ref: VITT/1200 HPAI in the UK and Europe

Disease Report

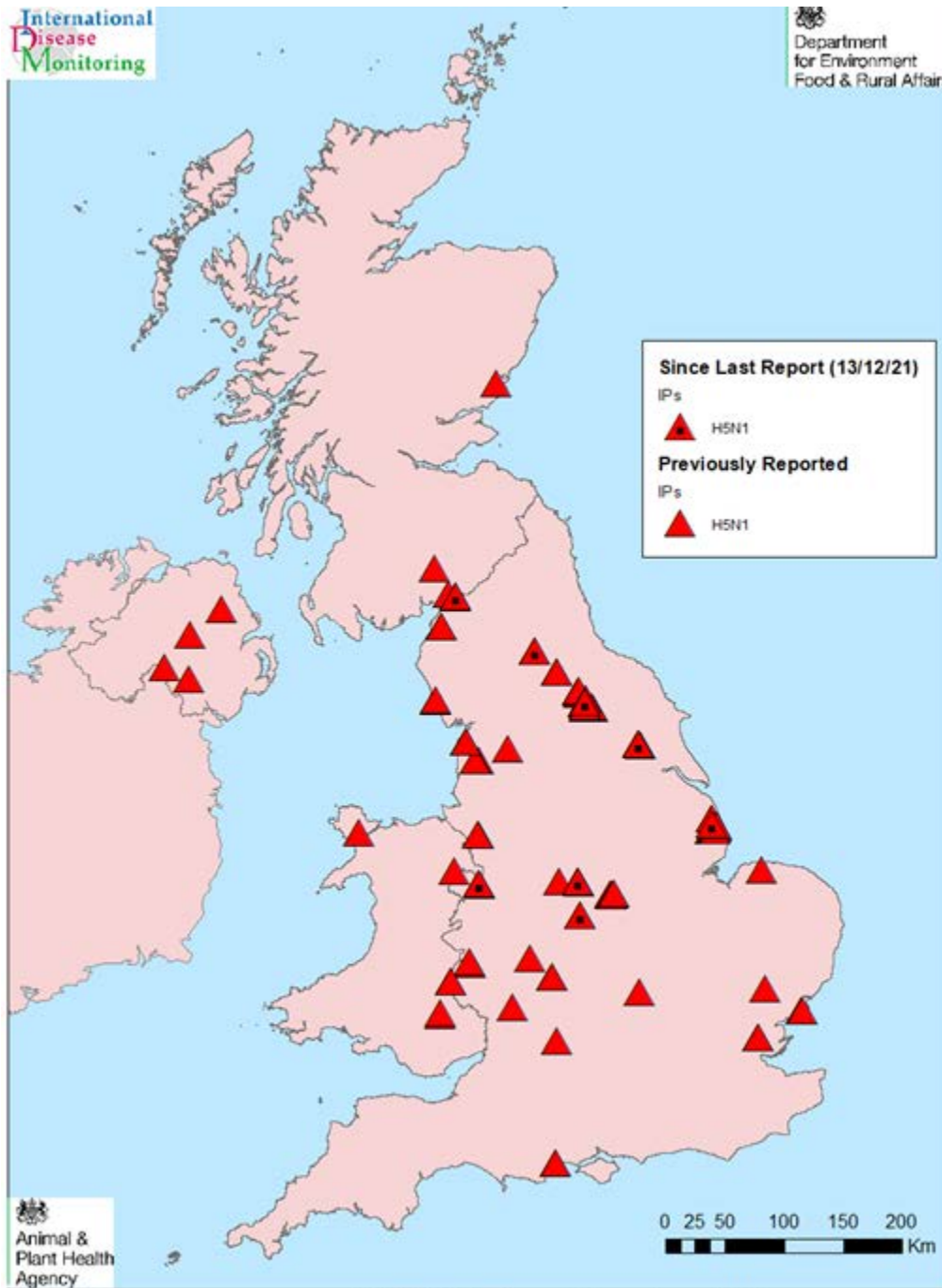
Since our last outbreak assessment on 13 December 2021, there continue to be reports of highly pathogenic avian influenza (HPAI) H5 both in Europe and in Great Britain (GB).

There have been a further 13 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 10 in commercial premises. Northern Ireland have confirmed HPAI H5N1 in a total of four premises.

According to the OIE, there continued to be high numbers of reports of HPAI H5 in Northern Europe over the past week, though there was a marked decrease in the number of reports from the previous week. Since 13 December, Denmark, France, Germany, Italy, Netherlands, Poland, Russia and Sweden have reported further outbreaks of HPAI H5N1 in domestic poultry.

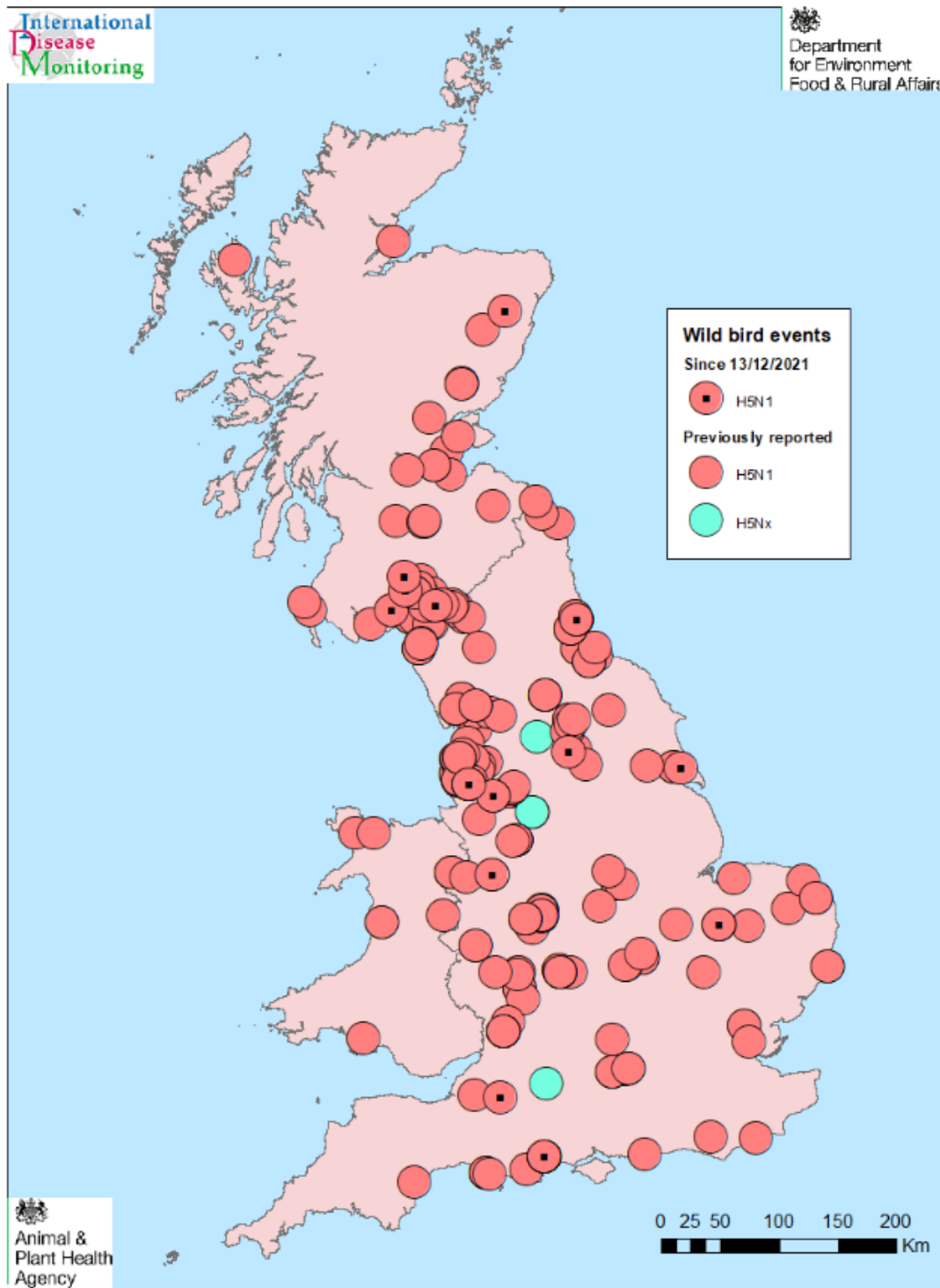
Wild bird HPAI H5N1 cases continued to be reported in north-west Germany and the coastal regions of the Netherlands, Luxembourg, Denmark, and Sweden. The Faroe Islands have reported HPAI H5N1 in Great Skua from September 2021.

Map 1: HPAI H5 Infected Premises across United Kingdom, October 2021 to 20 December 2021.



UK HPAI Infected Premises (IP's)
October - December 2021

Map 1: HPAI H5 wild bird events across United Kingdom, October 2021 to 20 December 2021.



Date: 20/12/2021
Map prepared by IDM

GB HPAI Wild Bird Cases
October - December 2021

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 64 further confirmed cases of HPAIV H5N1 across the UK (Map 1), (Table 1).

Since our last assessment on 13 December, and up to and including 20 December, there have been three new outbreaks of HPAI H5N1 in non-commercial, non-poultry¹ premises in GB, including two backyard premises in England, and one in Scotland.

There have also been 10 new reports of HPAI H5N1 in poultry; one in each of Cheshire and Shropshire, two in Yorkshire, and six in Lincolnshire.

Northern Ireland has confirmed a total of four outbreaks of HPAI H5N1 this season, to 20 December. Two outbreaks have occurred in Co Tyrone, and one outbreak has occurred in each of Co Antrim and Co Armagh (DAERA, 2021).

Table 1: Poultry¹ and captive bird outbreaks of highly pathogenic avian influenza (HPAI) H5N1 so far in UK since 1 October 2021, as of 20 December

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description
1	27 October	Near Wychavon, Worcester	Rescued wild swans (adults and young), rescued and captive geese, ducks, and chickens.
2	2 November	Near Chirk, Cheshire	Backyard chickens
3	4 November	Near Arbroath, Angus	Mixed backyard flock of 16 chickens, 20 guinea fowl and 12 ducks.
4	8 November	Near Alcester, Bidford	Small flock of 31 turkeys and 19 chicken
5	11 November	Near Kirby Cross, Essex	Small flock of mixed geese, chickens, guinea fowl

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description
6	12 November	Near Preston, Lancashire	Commercial turkey premises
7	13 November	Near Northallerton, North Yorkshire	Commercial free range laying hens
8	16 November	Near Preston, Lancashire	Backyard chickens
9	17 November	Near Willington, Derbyshire	Commercial turkey premises
10	19 November	Near Pokesdown, Bournemouth	Backyard ducks
11	19 November	Near Silecroft, Cumbria	Commercial free range laying hens
12	21 November	Near Mouldsworth, Chester	Commercial turkey premises
13	21 November	Near North Fambridge, Essex	Small flock of mixed geese, chickens, ducks
14	21 November	Near Holkham, Norfolk	Small flock of mixed chickens and turkeys
15	21 November	Near Thirsk, Yorkshire	Commercial turkey premises
16	25 November	Near Thirsk, Yorkshire	Commercial free range laying hens
17	25 November	Near Thirsk, Yorkshire	Commercial turkey premises

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description
18	26 November	Near Loughborough, Leicestershire	Commercial free range laying hens
19	26 November	Near Thirsk, Yorkshire	Commercial turkey premises
20	26 November	Broughsbane Co Antrim	Small mixed flock
21	27 November	Near Blackpool, Lancashire	Mixed ornamental birds
22	26 November	Near Anglesey, Wales	Backyard hobby farm
23	26 November	Near Clitheroe, Lancashire	Mixed captive birds
24	28 November	Near Thirsk, Yorkshire	Backyard hobby farm
25	28 November	Aughnacloy, County Tyrone	Commercial duck premises
26	29 November	Near Thirsk, Yorkshire	Commercial turkey premises
27	01 December	Leicestershire	Commercial free range laying hens
28	02 December	Near Thirsk, Yorkshire	Commercial free range laying hens
29	02 December	Staffordshire	Backyard hobby farm

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description
30	02 December	Herefordshire	Commercial broiler farm
31	04 December	Dumfries	Commercial laying hens
32	04 December	Powys	Mixed captive birds
33	04 December	Yorkshire	Backyard turkeys
34	04 December	Gloucestershire	Wildfowl Park
35	04 December	Yorkshire	Commercial laying hens
36	06 December	Leicestershire	Commercial laying hens
37	07 December	Leicestershire	Commercial laying hens
38	07 December	near Pocklington, East Yorkshire	Commercial ducks
39	08 December	Near Sudbury, South Suffolk	Commercial laying hens
40	08 December	Near Thirsk, North Yorkshire	Commercial turkeys
41	08 December	Markethill Co Armagh	Commercial laying hens

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description
42	09 December	Cumbria	Commercial laying hens
43	09 December	Dumfries	Backyard mixed species
44	09 December	Coagh, Co Londonderry	Commercial duck premises
45	10 December	Near Moffat, Dumfriesshire	Backyard mixed species
46	10 December	Near Highworth, Wiltshire	Commercial turkeys
47	10 December	Near Clifford, Herefordshire	Commercial turkeys
48	11 December	Near Washington, Sunderland, Tyne & Wear	Mixed wildfowl
49	11 December	Near Alford, Lincolnshire	Commercial laying hens
50	11 December	Near Willington, Derbyshire	Mixed poultry
51	12 December	Near Alford, Lincolnshire	Commercial laying hens
52	12 December	Near Alford, Lincolnshire	Commercial laying hens
53	14 December	Near Middleton-in-Teesdale, County Durham	Backyard chickens

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description
54	14 December	Near Pocklington, Yorkshire	Commercial ducks
55	14 December	Near Alford, Lincolnshire	Commercial laying hens
56	14 December	Near Alford, Lincolnshire	Commercial broiler breeder and laying hens
57	15 December	Near Atherstone, Leicestershire	Backyard mixed species
58	15 December	Near Wem, Shropshire	Commercial mixed species
59	15 December	Near Lockerbie, Dumfries and Galloway	Backyard mixed species
60	16 December	Near Alford, Lincolnshire	Commercial chickens
61	16 December	Near Thirsk, Yorkshire	Commercial broiler chickens
62	16 December	Near Alford, Lincolnshire	Commercial laying hens
63	17 December	Near Alford, Lincolnshire	Commercial laying hens
64	18 December	Near Alford, Lincolnshire	Commercial laying hens
65	18 December	Near Frodsham, Cheshire	Commercial mixed species

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

In the period since our last outbreak assessment on 13 December, up to and including 20 December, HPAI H5 has been detected in a further 11 wild bird locations in GB, bringing the total to 107 separate wild bird positive locations, involving 26 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 and [NI](#).

Table 2: Wild bird species in Great Britain that have tested positive for HPAI H5 as of 20 December 2021

Region and species	Total number of birds testing positive
England	297
Barnacle Goose	10
Black headed gull	3
Black Swan	2
Canada Goose	34
Common Buzzard	6
Curlew	2
Great-crested Grebe	1
Greylag goose	19
Gull	1
Kestrel	1
Lapwing	1
Mallard Duck	2
Mute Swan	151
Peregrine Falcon	2
Pheasant	7
Pink Footed goose	10
Unidentified Swan	11
Unspecified Goose	9
Whooper Swan	21
Widgeon	1
Scotland	54
Barnacle Goose	17
Canada Goose	2
Common Buzzard	5
Greylag goose	4

Region and species	Total number of birds testing positive
Gull	1
Kestrel	1
Mute Swan	9
Pink Footed goose	1
Sea Eagle	1
Unidentified Swan	3
Unspecified Duck	1
Unspecified Goose	4
Whooper Swan	5
Wales	11
Canada Goose	2
Common Buzzard	1
Herring Gull	1
Mute Swan	2
Pheasant	5
Grand Total	362

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 20 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			10					10
Belgium	2		12	2				16
Bosnia and Herzegovina			2					2

Country	H5 wild birds	H5 poultry	H5N1 wild birds	H5N1 poultry	H5N8 wild birds	H5N8 poultry	H5N2 wild birds	Total
Bulgaria		5						5
Croatia				1				1
Czech Republic			9	1				10
Denmark		1	34	1				36
Estonia			7		2	1		10
Finland			9		2			11
France			12	7				19
Germany			331	31				362
Greece			1					1
Hungary			7	45				52
Ireland			53	4				56
Italy			10	237				247
Netherlands			85	9	2			96
Norway			3	2				5
Poland			4	46				50
Portugal			1					1

Country	H5 wild birds	H5 poultry	H5N1 wild birds	H5N1 poultry	H5N8 wild birds	H5N8 poultry	H5N2 wild birds	Total
Romania			3					3
Russia	32	8	10	2				52
Serbia and Montenegro			3		3		1	7
Slovakia			12		1			13
Sweden			12	3	1			16
Switzerland			1					1
Ukraine	2	1						3

Northern Europe (OIE data)

In the seven days since our last outbreak assessment on 13 December, HPAI H5 has been recorded in 15 European countries. The total number of EU countries affected this season according to IZSVe (2021a) is currently 26.

Austria has reported seven further HPAI H5N1 events, all in found-dead mute swans (*Cygnus olor*).

Belgium has reported two further wild bird events with HPAI H5N1 in a Herring gull (*Larus argentatus*) and common kestrel (*Falco tinnunculus*).

Czech Republic has reported one further outbreak of HPAI H5N1 in a backyard premises with 71 heads of poultry (55 hens, 11 ducks, two geese and three guineafowl). Two hens and the three guineafowl died, the remaining animals were culled.

Denmark has reported one further outbreak in poultry since our last report, a farm of 4,500 pheasants and 1,500 mallards which were bred for restocking purposes. There have also been 12 reports of HPAI H5N1 in wild birds, with three Barnacle geese (*Branta leucopsis*), three common buzzards (*Buteo buteo*), two Herring gulls (*Larus*

argentatus), one Eurasian widgeon (*Anas penelope*), one mallard (*Anas platyrhynchos*), one greylag goose (*Anser anser*), and one pink-footed goose (*Anser brachyrhynchus*).

Estonia has reported no further outbreaks of HPAI H5N1 in birds since our last assessment, though have reported HPAI H5N1 in a red fox (*Vulpes vulpes*).

The Faroe Islands have reported their first cases of HPAI H5N1 in wild birds, with two events in Great Skua (*Stercorarius skua*). These birds were confirmed as HPAI positive in September 2021 (and therefore not included in Table 3) and were reported by OIE on 20 December. This is the most north-west point of the epizootic, and a rare event for the archipelago. There is currently no further information available on the strain type.

France has reported three more HPAI H5N1 outbreaks on poultry farms, two of these are in broiler farms located in a protection zone near Dunkirk, and one is in a duck farm in the south, which was identified as part of surveillance. This is the first outbreak in this part of the country this season. There has also been HPAI H5N1 in a zoo in the south-east, close to a wetland, with mortality observed in pelicans (*Pelecanus rufescens*).

Germany has reported HPAI H5N1 in poultry on five further premises. Three were classified as farms and two were backyard flocks. These reports were in the north of the country. There have also been 27 cases of HPAI H5N1 in wild birds since our last report, with unidentified *Anatidae* (21), *Laridae* (three), *Accipitrida* (one), *Haematopodidae* (one) and *Corvidae* (one), species affected.

Hungary has reported 14 more outbreaks of HPAI H5N1, mainly in the fattening duck and foie gras sector, and five reports in wild birds. Species affected were Mute swan (*Cygnus olor*) two reports, pelicans (*Pelecanus rufescens*), a black-headed gull (*Chroicocephalus ridibundus*), and a Taiga bean goose (*Anser fabalis*).

Luxembourg has reported one event of HPAI H5N1 in three Canada geese (*Branta canadensis*) in the last week.

The **Netherlands** has reported one further outbreak of HPAI H5N1 in poultry in the last week, in a broiler farm in Den Ham. All seven poultry premises identified in the 3km protection zone have been screened, with no positive results. There have also been 30 HPAI H5N1 cases in wild birds reported by OIE in the last week, including nine greylag geese (*Anser anser*), a Canada goose (*Branta canadensis*), three barnacle geese (*Branta leucopsis*), two common buzzards (*Buteo buteo*), a white-rumped sandpiper (*Calidris fuscicollis*), a black-headed gull (*Chroicocephalus ridibundus*), a western jackdaw (*Corvus monedula*), seven mute swans (*Cygnus olor*), a eurasian coot (*Fulica atra*), two unidentified *Phasianidae*, two common shelducks (*Tadorna tadorna*) and a common redshank (*Tringa tetanus*).

Norway has reported one further case of HPAI H5N1 in wild birds, in a white-tailed eagle (*Haliaeetus albicilla*).

Poland has reported 11 further outbreaks of HPAI H5N1, in ducks, chickens, geese and turkeys. There has also been one report in wild birds in a common crane (*Grus grus*).

Russia has reported one further outbreak of HPAI H5N1 in poultry, no further details are currently available on production type.

Sweden have reported three further outbreaks of HPAI H5N1 since our last assessment. Two of these were in farms (rearers and turkeys) and one in a backyard premises of 29 chickens. There has also been one report in wild birds in a barnacle goose (*Branta leucopsis*).

Ukraine has reported one further outbreak of HPAI H5N1 in a backyard premises.

Southern Europe

Italy has reported another 50 outbreaks in poultry farms (down from 103 in the previous week) including several fattening turkey farms and one backyard premises and also two cases in wild birds. Species affected were a grey heron (*Ardea cinerea*) and three long-eared owls (*Asio otus*). Most outbreaks are in the north still around Verona, although there has also been a case reported near Manfredonia in the south.

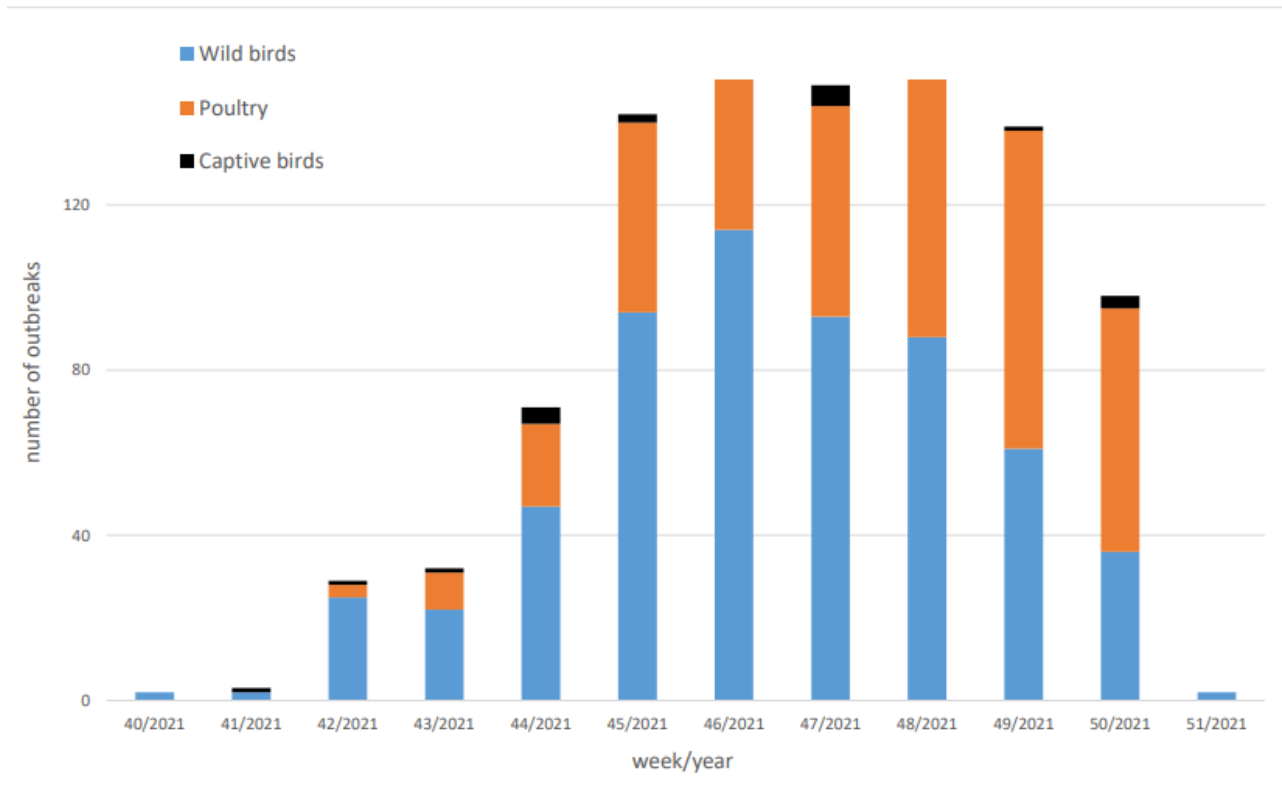
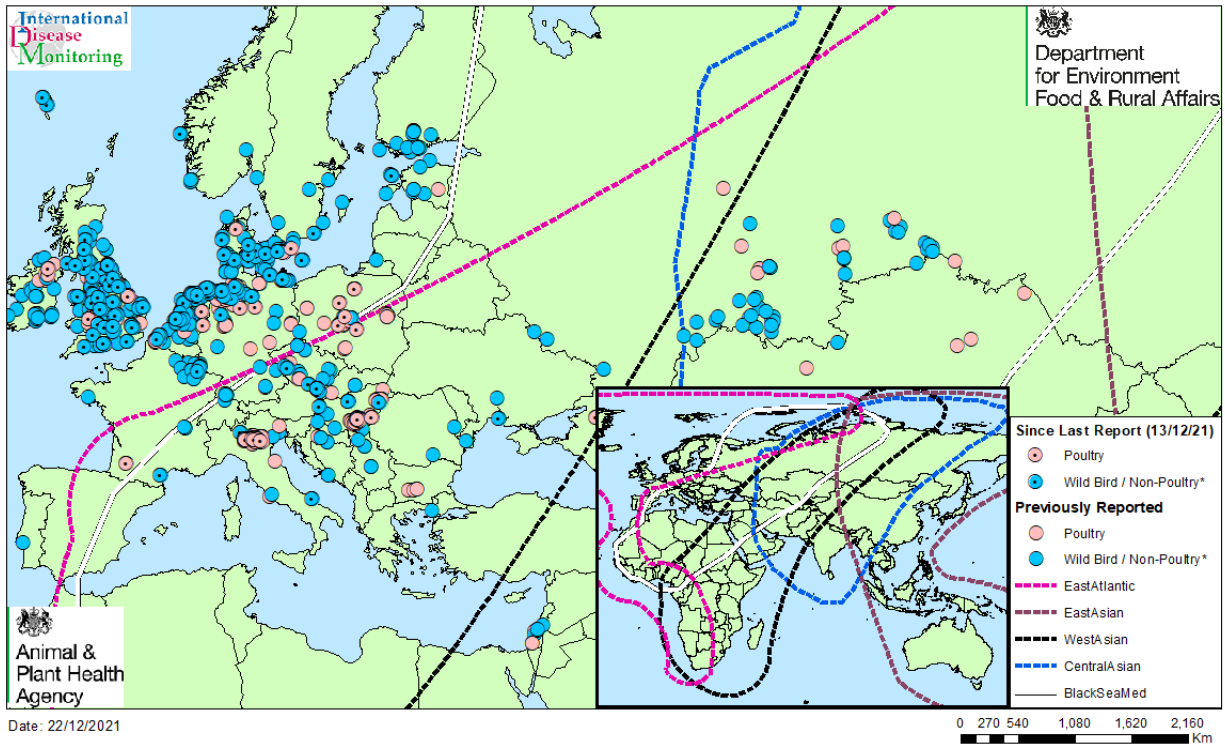


Figure 1- Number of HPAI events in Europe each week from October 2021 to 20 December 2021 (IZSVe, 2021a)

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 and has shown a decrease in week 50. 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). There continues to be a higher proportion of poultry outbreaks observed, typically lagging the wild bird cases.

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 20 December to OIE. Those events reported since our last outbreak assessment on 13 December are distinguished with dots.

Map 3: HPAI outbreaks (from OIE) in poultry, captive, and wild birds across Europe, September 2021 to 20 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 north Europe. 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 continued to be reported in northern Europe, including GB, 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. There have been multiple confirmed cases of HPAI H5 in wild birds (362 to 20 December 2021) across a range of species, including resident sedentary species such as raptors and mute swans, 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 help 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 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 biosecurity 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

Dr Lorna Freath

Joe Bowen

Dr Paul Gale

Dr Lauren Perrin

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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