

## Updated Outbreak Assessment #11

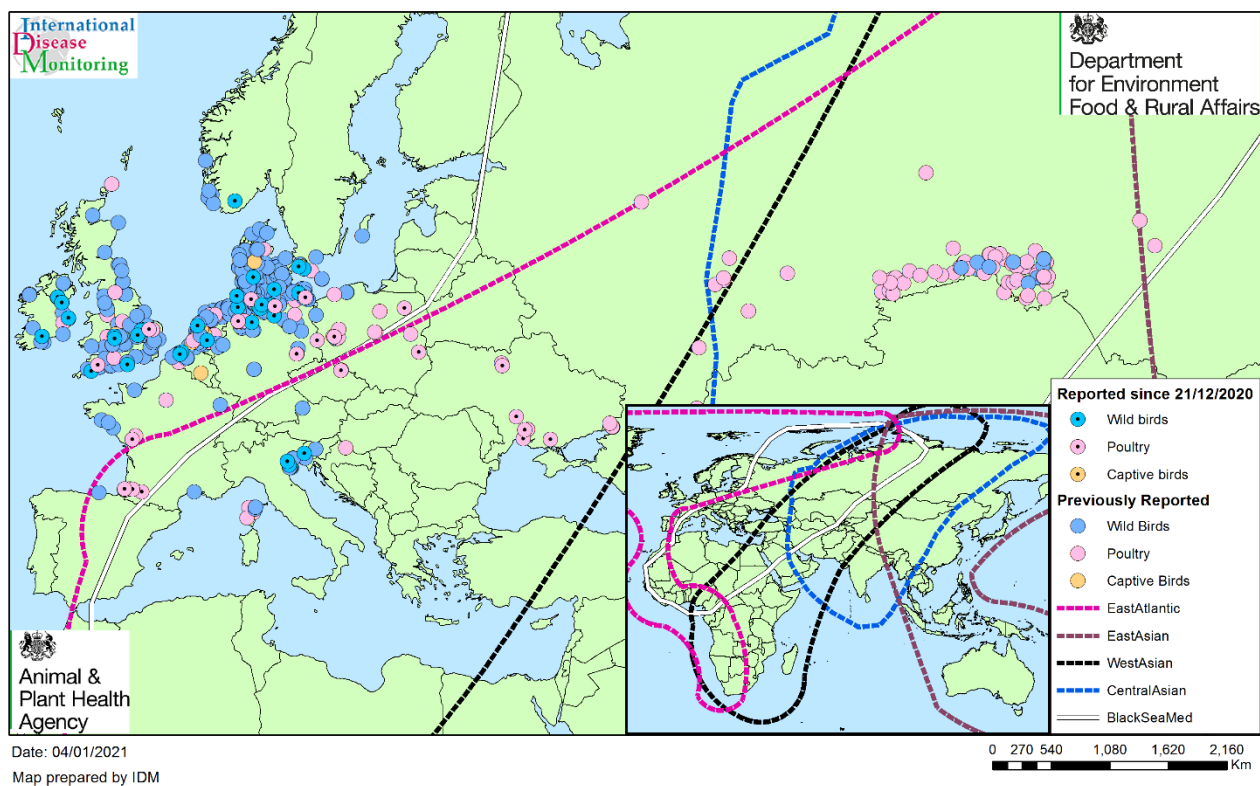
# Highly pathogenic avian influenza (HPAI) in the UK, and Europe

05 January 2020

Ref: VITT/1200 HPAI in the UK and Europe

### Disease Report

Since our last report (21 December), in the **United Kingdom**; there have been three further outbreaks of highly pathogenic avian influenza (HPAI) H5N8 in poultry, including a duck rearing premises. There have also been 35 cases of HPAI H5N8 in wild birds. Elsewhere in Europe, HPAI H5N8 has been reported in poultry in Germany, France and Poland. HPAI H5N8 in wild birds has been reported in Denmark, Germany, Ireland, Norway and Sweden. HPAI H5Nx (N untyped) has been reported in poultry in Ukraine (6), in captive birds in Sweden, and in wild birds in Italy (4), Germany and Belgium (2). Germany has reported five cases of HPAI H5N3 in wild birds.



Highly pathogenic avian influenza in Poultry, Captive and Wild birds  
August - December 2020  
Overlay: migratory bird flyways

## Situation Assessment

**Table 1: Summary of confirmed outbreaks of HPAI H5N8 in poultry and captive birds in the UK to 04 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	PZ surveillance complete, zones merged, still in place
01 December	near Northallerton, Hambleton, North Yorkshire	Rearing turkeys	PZ surveillance complete, zones merged, still in place
04 December	near Attleborough, Breckland, Norfolk	Rearing turkeys	Zones still in place, surveillance ongoing
05 December	near King's Lynn, Norfolk	Rearing turkeys	Zones still in place, surveillance ongoing

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15 December	near Willington, Derbyshire	Captive birds and poultry	Zones still in place, surveillance ongoing
19 December	Island of Sanday, Orkney Islands	Small commercial free range laying flock	Zones 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
HPAI H5N8 in Captive Birds			
20 November	near Stroud, Gloucestershire	Captive birds	All surveillance completed, zones lifted, premises remains under restriction pending second round of IP sampling
13 December	near Droitwich Spa, Worcestershire	Captive birds	No zones implemented

Since our last report on 21 December, HPAI H5N8 has been confirmed in a commercial duck rearing premises near Ickburgh, Norfolk (on 28 December 2020) and in two backyard poultry premises; the first near Great Ellingham, Norfolk (on 28 December) and the second near Aylesbeare, Devon (on 29 December).

To 04 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.

The total number of HPAI outbreaks in poultry and/or captive birds in the United Kingdom to 04 January is 17.

**Table 2: Summary of confirmed outbreaks of HPAI H5N1 in poultry and captive birds in the UK to 04 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 04 January, a total of 280 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.

Since our last report on 21 December, there have been no new reports of HPAI H5N8 in wild birds in Northern Ireland.

For further details, please see the report (updated weekly) on findings of HPAI in wild birds in Great Britain 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 04 January 2021. Pathogenicity testing has not been completed for all samples as yet.**

Country/County	H5N1	H5N5	H5N8	H5Nx	Total
<b>England</b>	<b>5</b>	<b>1</b>	<b>248</b>	<b>7</b>	<b>261</b>
<b>Black Swan</b>			<b>11</b>		<b>11</b>
Devon			10		10
Gloucestershire			1		1
<b>Brent Goose</b>			<b>6</b>		<b>6</b>
Lincolnshire			3		3
Northumberland			3		3
<b>Buzzard</b>			<b>2</b>	<b>1</b>	<b>3</b>
Cornwall				1	1
Lancashire			1		1
Warwickshire			1		1
<b>Canada Goose</b>	<b>1</b>		<b>23</b>		<b>24</b>
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
<b>Great White Egret</b>				<b>1</b>	<b>1</b>
North Yorkshire				1	1
<b>Grey Heron</b>			<b>1</b>		<b>1</b>
Warwickshire			1		1
<b>Greylag goose</b>			<b>8</b>	<b>2</b>	<b>10</b>
Gloucestershire			3		3
Lancashire			2	2	4
Lincolnshire			2		2
Surrey			1		1
<b>Herring Gull</b>			<b>2</b>		<b>2</b>
Dorset			2		2
<b>Kestrel</b>			<b>1</b>		<b>1</b>
Warwickshire			1		1
<b>Lesser Black Backed Gull</b>			<b>1</b>		<b>1</b>
Oxfordshire			1		1
<b>Lesser Black headed Gull</b>			<b>1</b>		<b>1</b>
Cambridgeshire			1		1
<b>Mixed Avian</b>			<b>1</b>		<b>1</b>
Dorset			1		1

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<b>Mute Swan</b>	<b>3</b>	<b>1</b>	<b>152</b>		<b>156</b>
Bedfordshire			2		2
Cambridgeshire			12		12
Cornwall			1		1
Cumbria			8		8
Devon			1		1
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			3		3
Worcestershire			12		12
<b>Peregrine Falcon</b>			<b>1</b>		<b>1</b>
Kent			1		1
<b>Pink footed goose</b>			<b>1</b>		<b>1</b>
Lancashire			1		1
<b>Shelduck</b>			<b>1</b>		<b>1</b>
Lincolnshire			1		1
<b>Sparrow Hawk</b>			<b>1</b>		<b>1</b>
Devon			1		1
<b>Swan</b>			<b>1</b>		<b>1</b>
Dorset			1		1
<b>Unspecified</b>			<b>1</b>		<b>1</b>
Dorset			1		1
<b>Unspecified Goose</b>			<b>1</b>		<b>1</b>
Northumberland			1		1
<b>Unspecified Swan</b>			<b>10</b>		<b>10</b>
County Durham			5		5
Dorset			3		3
Gloucestershire			1		1
Tyne and Wear			1		1
<b>Whooper Swan</b>			<b>20</b>	<b>3</b>	<b>23</b>
Cambridgeshire			6	2	8
Essex			1	1	2
Lancashire			1		1
Lincolnshire			1		1
Norfolk			11		11

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<b>Wigeon</b>			<b>1</b>		<b>1</b>
Lincolnshire			1		1
<b>Common Buzzard</b>	<b>1</b>		<b>1</b>		<b>2</b>
Cambridgeshire	1		1		2
<b>Wales</b>		<b>5</b>	<b>1</b>		<b>6</b>
<b>Little Grebe</b>			<b>1</b>		<b>1</b>
Carmarthenshire			1		1
<b>Mute Swan</b>		<b>5</b>			<b>5</b>
Gwent		3			3
Monmouthshire		2			2
<b>Scotland</b>			<b>13</b>		<b>13</b>
<b>Greylag goose</b>			<b>1</b>		<b>1</b>
Highlands			1		1
<b>Mute Swan</b>			<b>4</b>		<b>4</b>
Clackmannanshire			4		4
<b>Unspecified Swan</b>			<b>4</b>		<b>4</b>
Fife			4		4
<b>Whooper Swan</b>			<b>4</b>		<b>4</b>
Aberdeenshire			3		3
Angus			1		1
<b>Grand Total</b>	<b>5</b>	<b>6</b>	<b>262</b>	<b>7</b>	<b>280</b>

### HPAI in Europe since 21 December 2020

**Table 4: Excluding the UK, current outbreaks of HPAI H5N8 in domestic poultry and captive birds, and cases in wild birds (since September and as of 7pm on 31 December 2020), according to ADNS reporting. Please note that this is a rapidly changing picture, with new disease reports being made to EU's Animal Disease Notification System (ADNS) on a daily basis.**

Country	Untyped	H5		H5N1	H5N5		H5N8			Total	
	Wild Birds	Captive Birds	Poultry	Wild Birds	Wild Birds	Poultry	Wild Birds	Captive Birds	Poultry		Wild Birds
Belgium		1		6		1				9	17
Croatia			1								1
Denmark		1	1	6			2			68	78
France			8	8					11		27
Germany	1			19		1	14		25	419	479
Ireland				4					1	12	17
Italy				9	3					3	15
Netherlands			5	4	5		1	9	4	40	68
Norway		1		1						7	9

Poland									19	4	23
Slovenia										5	5
Spain										1	1
Sweden		1	1	7							9
Ukraine			8								8
<b>Total</b>	<b>1</b>	<b>4</b>	<b>24</b>	<b>64</b>	<b>8</b>	<b>2</b>	<b>17</b>	<b>9</b>	<b>60</b>	<b>568</b>	<b>757</b>

Since 21 December, **Germany** has reported 14 new outbreaks of HPAI H5N8 in poultry. Ten of these outbreaks were in large commercial premises, including eight turkey fattening premises, and two geese breeding premises. Three were smaller, backyard premises; including two with mixed poultry species and one with hens only. One outbreak was on a premises with 273 mixed poultry species, including: laying hens, fattening guinea fowl, and breeding ducks and geese. Germany has also reported 27 new HPAI wild bird cases since our last update. There were 20 new cases of HPAI H5N8 in wild birds, including: nine Greylag geese (*Anser anser*), seven Barnacle geese (*Branta leucopsis*), one Buzzard (*Buteo buteo*), one European herring gull (*Larus argentatus*), one Great black-backed gull (*Larus marinus*) and one Eurasian teal (*Anas crecca*). Two new cases of HPAI H5Nx were reported: one in a Eurasian eagle owl (*Bubo bubo*) and one in an unidentified species. There were also five cases reported of HPAI H5N3 in Red knots (*Calidris canutus*) in Nordfriesland, the northernmost district of Germany. This is the first report of HPAI H5N3 reported in wild birds in Europe in 2020.

**France** has reported five new outbreaks of HPAI in poultry since our last update. Three of these were outbreaks of H5N8 in commercial duck premises, with two located in the Landes region, and one in Hautes-Pyrénées; in the south of France. In the Vendée region, in the west of France, there was an outbreak of H5N8 on a commercial guinea fowl farm with 5000 birds. In addition, one outbreak of H5, in a backyard premises in Landes, where one rooster was found dead, and was detected during surveillance in the protection zone of a prior outbreak.

Six new outbreaks of HPAI H5N8 have been reported in **Poland** since our last update. Two of these were in commercial turkey farms, in the regions of Piski (31,091 birds) and Woltszynski (600 birds). One outbreak was in a commercial premises with laying hens in Koszalinski (662 birds) and another on a commercial duck premises in Leczynski (11,340 birds). There were two outbreaks in non-commercial hen flocks in the region of Klodzki, in the southwest.

**Ukraine** also reported six new outbreaks of HPAI H5 in poultry, for which the species were not reported. Four of these were in backyard poultry and two were reported in commercial poultry, including one premises with over 98,000 birds.

**Sweden** has reported one new outbreak in captive birds, and two new cases in wild birds. A hobby flock of 30 backyard chickens were found to be positive for HPAI H5, after 20 died



prior to 23 December. The birds were reportedly kept in an outdoor fenced area without roof coverage. Two Barnacle geese (*Branta leucopsis*) found with clinical signs indicative of avian influenza tested positive for HPAI H5N5 by PCR, one in the region of Skurup and the other in Malmö, both on the southwest tip of Sweden.

**Italy** has reported two new cases of HPAI H5N8, one new case of H5N1 and three new cases of H5; all in wild birds. H5N8 was reported in two Eurasian wigeon (*Mareca Penelope*) shot in a hunting area, in the Rovigo province, and four Common teal (*Anas crecca*), captured in the Venezia province, in northeast Italy. HPAI H5N1 was reported in two wigeons (*Mareca Penelope*), also shot in a hunting area in Rovigo province. HPAI H5 was reported in two Common teal (*Anas crecca*), one shot Rovigo province and one captured in Venezia, as well as in a dead Greylag goose (*Anser anser*) in Gorizia province.

The **Netherlands** reported one new case of HPAI H5N8 in Musk ducks (*Cairina moschata*), found dead in a wetland area on 27 December, and one new case of HPAI H5N1 in a Mute swan (*Cygnus olor*), found dead in a wetland area on 09 December.

**Belgium** reported two cases of HPAI H5 in West Flanders on 24 December; one in a Greylag goose (*Anser anser*) and one in a Pink-footed goose (*Anser brachyrhynchus*).

There were six new reports of HPAI H5N8 in **Ireland**, including six cases in Whooper swans (*Cygnus cygnus*) in Louth, Cork and Wicklow, and one cormorant (*Phalacrocorax*) and one Mute swan (*Cygnus olor*) in Monaghan. One Whooper swan was found sick and all others were found dead.

**Denmark** reported one new case of HPAI H5N8 in a common buzzard (*Buteo buteo*), found dead near Rødekro in the south of Denmark, close to Germany.

**Norway** has reported one new case of HPAI H5 in a Barnacle goose (*Branta leucopsis*), found dead in Aust-agder in the south.

### **Implications for the UK**

The presence of H5N8 in the UK was not unexpected given the annual autumn migration, and the rapidly developing epidemiological situation (first in southern central Russia during the early autumn, and subsequently in Europe, as described in previous Outbreak Assessments). Taken together with the findings of HPAI H5N8 in domestic poultry and captive birds in Great Britain, and the wide geographical distribution of the reports in UK wild birds; circulating HPAI H5N8 virus appears to be widespread in wild birds, particularly in England. The geographical dispersal across the UK (Devon to the Orkneys) supports a relatively heavy infection pressure, mediated via wild birds, with spill over into domestic poultry and captive birds.

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.

In GB, the sensitivity of surveillance was increased in October, to ensure collection and analyses of targeted species of wild birds (ducks, geese, swans, gulls, and birds of prey) known to carry a risk of infection with H5 HPAI viruses. In England, single dead birds of target species, or three or more dead swans or geese, where possible, will be collected and tested. In Wales and Scotland, collection and testing of single dead birds of all target species continues. Several systems are in place, including working through NGOs (non-governmental organisations), and members of the public reporting wild bird mortality.

The migration season for wild waterfowl to overwinter in the UK is well underway, and numbers are expected to peak in December/January, depending on the species and the weather conditions in Continental Europe. Generally the Netherlands has a far higher number of wintering water birds than the UK, but cold weather on the Continent can force birds to fly west across the North Sea.

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 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.

## Conclusion

As a consequence of the HPAI H5N8 (predominantly) outbreaks in poultry and captive birds in the UK, also in Croatia, Denmark, France, Germany, Ireland, Netherlands, Poland and Sweden; as well as the increasing HPAI H5N8 cases in wild birds in the UK, Belgium, Denmark, France, Germany, Ireland, Italy, Netherlands, Norway, Poland, Slovenia, Spain and Sweden, and the known migration routes to the UK from these countries: 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

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bird keepers across the UK to take additional biosecurity measures; in order to prevent further outbreaks of avian influenza in the UK.

On 03 December, the Chief Veterinary Officers for England, Scotland and Wales announced housing measures, which came into force on the 14 December 2020. 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.

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.

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## References

All outbreaks and cases were taken from the Animal Disease Notification System (ADNS).



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