Updated Outbreak Assessment #9

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

10 January 2022 Ref: VITT/1200 HPAI in the UK and Europe

Disease report

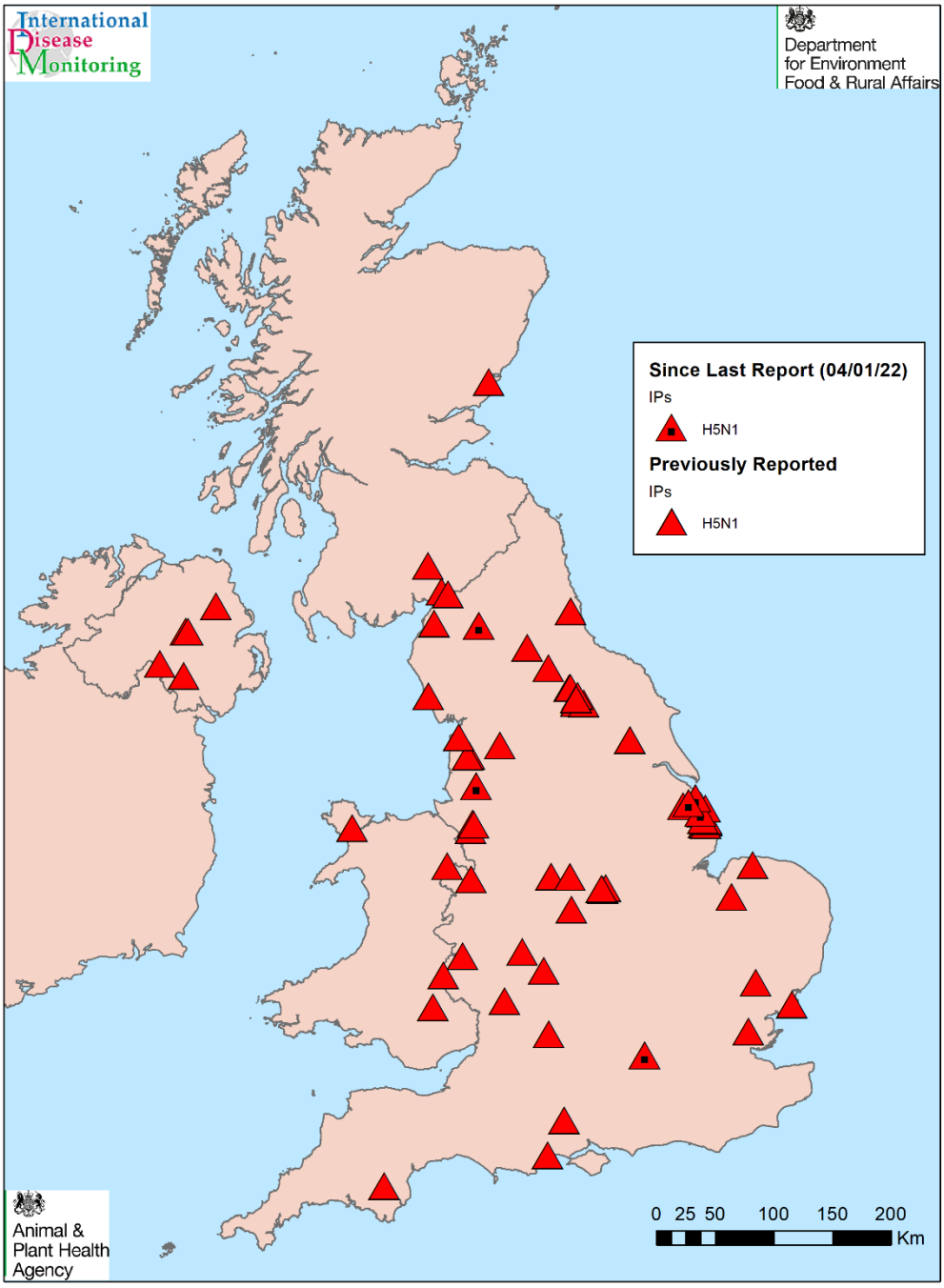
Since our last outbreak assessment on 04 January 2022, there continue to be reports of highly pathogenic avian influenza (HPAI) H5 both in Europe and in the United Kingdom (UK). This includes five further outbreaks in domestic poultry or captive birds in the UK.

There have been a further four confirmed outbreaks in Great Britain (GB) of HPAI H5N1 in domestic poultry or captive birds since our last assessment, with three in commercial premises and one in a backyard premises. Northern Ireland has confirmed one further HPAI H5N1 outbreak in Ballinderry, Co. Londonderry, bringing the total number of outbreaks in Northern Ireland to five since 7 December 2021 (DAERA 2022).

According to the OIE, HPAI H5 reports have continued in Europe over the past week, with Hungary reporting the highest number of outbreaks in domestic poultry. Since 04 January 2022, Denmark, France, Hungary, the Netherlands, and Poland have reported further outbreaks of HPAI H5N1 in domestic poultry.

Wild bird HPAI H5N1 cases continue to be reported in Croatia, northern Germany, Italy, Poland, Slovenia and Sweden, with the highest number of cases reported in Germany. Since our last report, cases of HPAI H5N1 in wild birds have also been reported in Hungary, Luxembourg, Portugal and Romania.

Map 1: HPAI H5 outbreaks in poultry[1] and captive birds across the United Kingdom, October 2021 to 10 January 2022.



[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 73 further confirmed cases of HPAI H5N1 (Map 1), (Table 1).

Between our last assessment on 04 January and 10 January, 2022 there have been three new outbreaks of HPAI H5N1 in poultry premises in GB all of which were in England; two in Lincolnshire and one in Cumbria.

There has also been one new report of HPAI H5N1 in a backyard flock comprising chickens, geese and emus in Lancashire, England.

Since our last report, Northern Ireland has confirmed a further outbreak of HPAI H5N1 in a commercial premises in Ballinderry, County Londonderry, bringing the total number of outbreaks to five across the counties of Tyrone, Antrim and Armagh (DAERA, 2022).

Table 1: Poultry[1] and captive bird outbreaks of High Pathogenicity Avian Influenza (HPAI) H5N1 in Great Britain since 1 October 2021, as of 10 January 2022

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description
1	27 October 2021	Near Wychavon, Worcester	Rescued wild swans (adults and young), rescued and captive geese, ducks, and chickens.
2	2 November 2021	Near Chirk, Cheshire	Backyard chickens
3	4 November 2021	Near Arbroath, Angus	Mixed backyard flock of 16 chickens, 20 guinea fowl and 12 ducks.
4	8 November 2021	Near Alcester, Bidford	Small flock of 31 turkeys and 19 chicken

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description
5	11 November 2021	Near Kirby Cross, Essex	Small flock of mixed geese, chickens, guinea fowl
6	12 November 2021	Near Preston, Lancashire	Commercial turkey premises
7	13 November 2021	Near Northallerton, North Yorkshire	Commercial free range laying hens
8	16 November 2021	Near Preston, Lancashire	Backyard chickens
9	17 November 2021	Near Willington, Derbyshire	Commercial turkey premises
10	19 November 2021	Near Pokesdown, Bournemouth	Backyard ducks
11	19 November 2021	Near Silecroft, Cumbria	Commercial free range laying hens
12	21 November 2021	Near Mouldsworth, Chester	Commercial turkey premises
13	21 November 2021	Near North Fambridge, Essex	Small flock of mixed geese, chickens, ducks
14	21 November 2021	Near Holkham, Norfolk	Small flock of mixed chickens and turkeys
15	21 November 2021	Near Thirsk, Yorkshire	Commercial turkey premises
16	25 November 2021	Near Thirsk, Yorkshire	Commercial free range laying hens

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description
17	25 November 2021	Near Thirsk, Yorkshire	Commercial turkey premises
18	26 November 2021	Near Loughborough, Leicestershire	Commercial free range laying hens
19	26 November 2021	Near Thirsk, Yorkshire	Commercial turkey premises
20	27 November 2021	Near Blackpool, Lancashire	Mixed ornamental birds
21	26 November 2021	Near Anglesey, Wales	Backyard hobby farm
22	26 November 2021	Near Clitheroe, Lancashire	Mixed captive birds
23	28 November 2021	Near Thirsk, Yorkshire	Backyard hobby farm
24	29 November 2021	Near Thirsk, Yorkshire	Commercial turkey premises
25	01 December 2021	Leicestershire	Commercial free range laying hens
26	02 December 2021	Near Thirsk, Yorkshire	Commercial free range laying hens
27	02 December 2021	Staffordshire	Backyard hobby farm
28	02 December 2021	Herefordshire	Commercial broiler farm
29	04 December 2021	Dumfries	Commercial laying hens
30	04 December 2021	Powys	Mixed captive birds

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description
31	04 December 2021	Yorkshire	Backyard turkeys
32	04 December 2021	Gloucestershire	Wildfowl Park
33	04 December 2021	Yorkshire	Commercial laying hens
34	06 December 2021	Leicestershire	Commercial laying hens
35	07 December 2021	Leicestershire	Commercial laying hens
36	07 December 2021	near Pocklington, East Yorkshire	Commercial ducks
37	08 December 2021	Near Sudbury, South Suffolk	Commercial laying hens
38	08 December 2021	Near Thirsk, North Yorkshire	Commercial turkeys
39	09 December 2021	Cumbria	Commercial laying hens
40	09 December 2021	Dumfries	Backyard mixed species
41	10 December 2021	Near Moffat, Dumfriesshire	Backyard mixed species
42	10 December 2021	Near Highworth, Wiltshire	Commercial turkeys
43	10 December 2021	Near Clifford, Herefordshire	Commercial turkeys

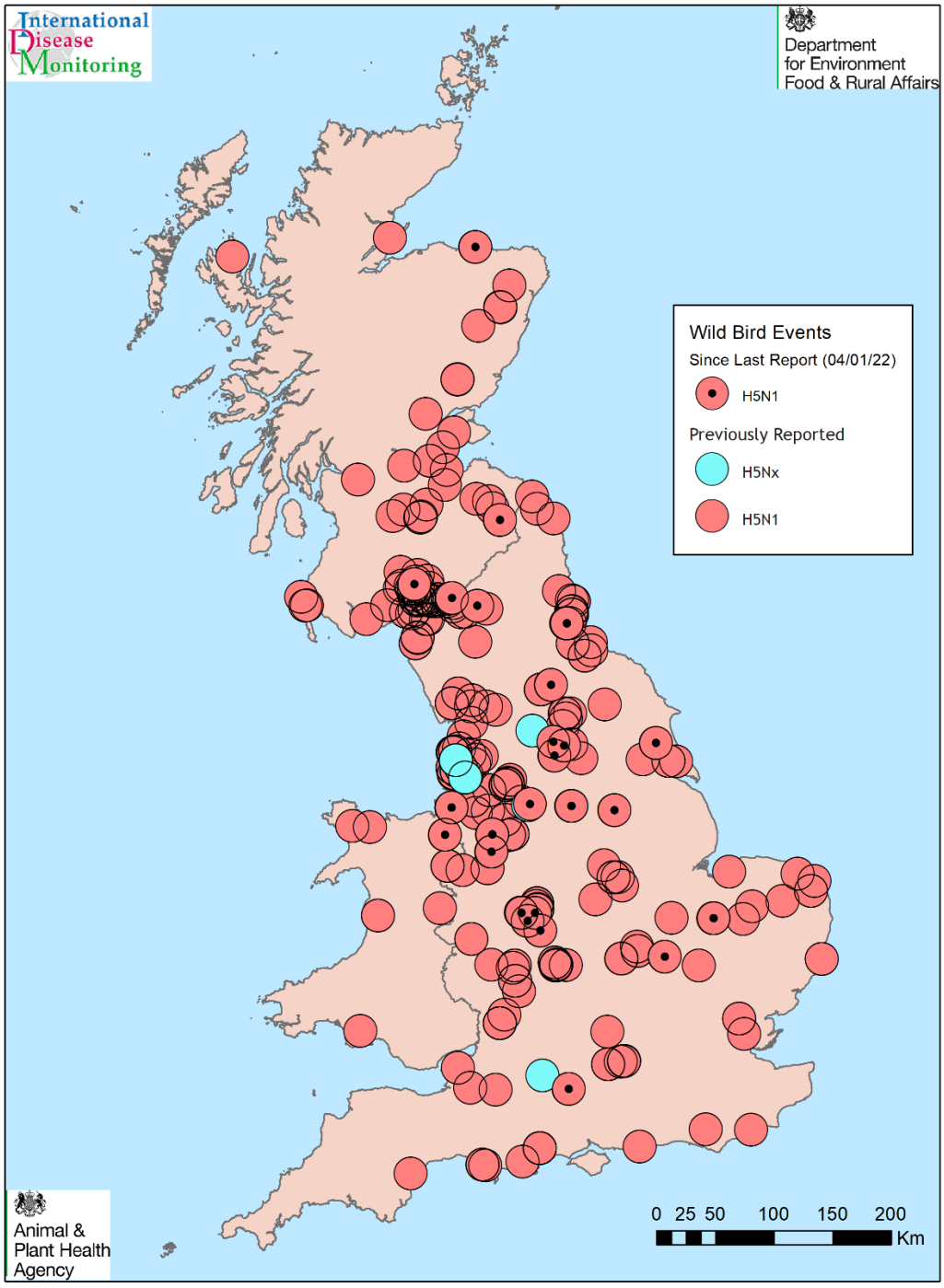
Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description
44	11 December 2021	Near Washington, Sunderland, Tyne & Wear	Mixed wildfowl
45	11 December 2021	Near Alford, Lincolnshire	Commercial laying hens
46	11 December 2021	Near Willington, Derbyshire	Mixed poultry
47	12 December 2021	Near Alford, Lincolnshire	Commercial laying hens
48	12 December 2021	Near Alford, Lincolnshire	Commercial laying hens
49	14 December 2021	Near Middleton-in-Teesdale, County Durham	Backyard chickens
50	14 December 2021	Near Pocklington, Yorkshire	Commercial ducks
51	14 December 2021	Near Alford, Lincolnshire	Commercial laying hens
52	14 December 2021	Near Alford, Lincolnshire	Commercial broiler breeder and laying hens
53	15 December 2021	Near Atherstone, Leicestershire	Backyard mixed species
54	15 December 2021	Near Wem, Shropshire	Commercial mixed species

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description
55	15 December 2021	Near Lockerbie, Dumfries and Galloway	Backyard mixed species
56	16 December 2021	Near Alford, Lincolnshire	Commercial chickens
57	16 December 2021	Near Thirsk, Yorkshire	Commercial broiler chickens
58	16 December 2021	Near Alford, Lincolnshire	Commercial laying hens
59	17 December 2021	Near Alford, Lincolnshire	Commercial laying hens
60	18 December 2021	Near Alford, Lincolnshire	Commercial laying hens
61	18 December 2021	Near Frodsham, Cheshire	Commercial mixed species
62	22 December 2021	Near Alvanley, Cheshire	Backyard ducks
63	22 December 2021	Near Buckfastleigh, Devon	Backyard ducks
64	28 December 2021	Near Pentney, Norfolk	Commercial turkeys
65	28 December 2021	Near North Somercotes, Lincolnshire	Commercial turkeys
66	30 December 2021	Near Romsey, Hampshire	Backyard mixed species

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description
67	31 December 2021	Near Theddlethorpe, Lincolnshire	Backyard mixed species
68	31 December 2021	Near Melton Mowbray, Lincolnshire	Commercial turkeys
69	02 January 2022	Near Eton, Berkshire	Rescued wild swans
70	03 January 2022	Near Alford, Lincolnshire	Backyard chickens
71	04 January 2022	Near Carlisle, Cumbria	Commercial mixed species
72	05 January 2022	Near Louth, Lincolnshire	Commercial turkeys
73	07 January 2022	Near Upholland, Lancashire	Backyard mixed species
74	10 January 2022	Near Louth, Lincolnshire	Commercial laying hens

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

Map 2: HPAI H5 cases in wild birds across Great Britain October 2021 to 10 January 2022



Since our last outbreak assessment on 04 January, to 10 January 2022, HPAI H5 has been detected in a further 15 wild bird locations in GB, bringing the total to 139 separate wild bird positive locations, involving 29 separate bird species in 60 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 2).

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 10 January 2022

Region and species	Total number of birds testing positive
England	**377**
Barnacle Goose	10
Bewick's Swan	1
Black headed gull	5
Black Swan	2
Canada Goose	68
Common Buzzard	12
Curlew	2
Goshawk	1
Great-crested Grebe	2
Grey Heron	1
Greylag goose	23
Gull	2
Kestrel	3
Lapwing	1
Little Gull	1
Mallard Duck	2
Mute Swan	171
Peregrine Falcon	3
Pheasant	7
Pink Footed goose	10
Red Kite	1
Sparrowhawk	2
Unidentified Swan	12
Unspecified Duck	1
Unspecified Goose	10
Whooper Swan	23

Region and species	Total number of birds testing positive
Widgeon	1
Scotland	**82**
Barnacle Goose	26
Canada Goose	3
Common Buzzard	8
Greylag goose	5
Gull	2
Kestrel	1
Mute Swan	13
Pink Footed goose	2
Sea Eagle	1
Sparrowhawk	1
Unidentified Swan	7
Unspecified Duck	2
Unspecified Goose	5
Whooper Swan	6
Wales	**12**
Canada Goose	2
Common Buzzard	1
Herring Gull	1
Mute Swan	2
Pheasant	5
Unspecified Goose	1
Grand Total	**471**

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 10 January 2022) 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			15					15
Belgium	2		14	2				18
Bosnia and Herzegovina			2					2
Bulgaria		7						7
Croatia			5	1				6
Czech Republic			9	3				12
Denmark		1	36	4				42
Estonia			7		2	1		10
Finland			9		2			11
France			30	42				72
Germany			469	34				503
Greece			1					1
Hungary			11	105				116
Ireland			53	7				60

Country	H5 wild birds	H5 poultry	H5N1 wild birds	H5N1 poultry	H5N8 wild birds	H5N8 poultry	H5N2 wild birds	Total
Italy			17	237				254
Luxembourg			3					3
Netherlands	1		99	12	2			114
Norway			3	2				5
Poland			10	69				79
Portugal			3	2				5
Romania			4					4
Russia	32	11	10	4				57
Serbia and Montenegro			3		3		1	7
Slovakia			12		1			13
Slovenia			8	1				9
Sweden			22	4	1			27
Switzerland			1					1
Ukraine	2	1						3

Northern Europe (OIE data only)

In the week since our last outbreak assessment on 04 January 2022, HPAI H5 has been recorded in 13 European countries (OIE). The total number of EU Member States (MS) affected this season according to IZSVe (2022a) is currently 27.

According to OIE, **Austria, Belgium** and **Bulgaria** have not reported any further HPAI H5N1 events in domestic poultry or wild birds since our last assessment.

Croatia has reported three further HPAI H5N1 events involving a total of four found dead mute swans (*Cygnus olor*) between 04 and 10 January.

Czech Republic has not reported any further outbreaks of HPAI H5N1 in poultry or cases in wild birds since our last report.

Denmark has reported three further HPAI H5N1 outbreaks in poultry since our last report. Two of these outbreaks occurred in commercial turkey premises, one of which is located in eastern Denmark in the town of Ruds Vedby with approximately 60,000 turkeys. The other turkey premises is located in Stokkemarke on the Danish island of Lolland, with around 36,000 turkeys. The third affected premises is a backyard holding in the southern mainland town of Skaverup, comprising of 30 hens, 10 ducks and two geese. No further cases of HPAI H5N1 in wild birds have been reported since our last report.

As reported by OIE, neither **Estonia** or **The Faroe Islands** have reported any further HPAI events in poultry or wild birds since our last report on 04 January. The Faroe Islands therefore still remains the most north-westerly point of the epizootic.

France has reported a further 13 HPAI H5N1 outbreaks on poultry farms, largely in the south-west of France, since our last report. Seven outbreaks have affected fattening duck premises with the number of animals at the premises ranging from 800 to 15,472. Outbreaks also occurred at two breeding premises; one for chickens and one for ducks, with approximately 10,800 and 10,700 animals, respectively. The other affected premises are broiler farms, with the number of animals ranging from approximately 140 to 12,816. The largest of these broiler premises with 12,816 turkeys is located in Beaufou, around 40 km south of Nantes. No further cases of HPAI H5N1 in wild birds have been reported since our last report.

Germany has not reported any HPAI H5N1 in domestic poultry since our last report, according to OIE data. There have been 46 events of HPAI H5N1 in wild birds reported by OIE since our last assessment, with unidentified *Anatidae* (37), *Ardeidae* (4), *Laridae* (3) and *Accipitridae* (2) species affected.

Hungary has reported 33 more outbreaks of HPAI H5N1, mainly in the fattening duck and foie gras sector (22 of 33 affected premises), with a smaller number of outbreaks (five) occurring in mixed breed backyard premises. There have also been four reports of H5N1 in wild birds in Hungary since our last report. The species affected were mute swan (*Cygnus olor*), rook (*Corvus frugilegus*), house sparrow (*Passer domesticus*) and Peregrine falcon (*Falco peregrinus*).

Luxembourg has reported three HPAI events in wild birds in the last week. These reports concerned one each of the species grey heron (*Ardea cinerea*), Canada goose (*Branta canadensis*) and Great cormorant (*Phalacrocorax carbo*), all of which occurred in the south-eastern commune of Remerschen.

The **Netherlands** has reported two further outbreaks of HPAI H5N1 in poultry since our last report. The affected premises are a broiler farm in the northern village of Blije, Friesland with 240 cases recorded, and a breeding layer premises in the eastern village of Bentelo, with 125 cases documented. There have been no further HPAI H5N1 cases in wild birds reported by OIE in the last week.

Norway has not reported any outbreaks of HPAI H5N1 in domestic poultry or cases of HPAI H5N1 in wild birds since our last report.

Poland has reported three further outbreaks of HPAI H5N1. One premises located in central Poland contained laying hens, broiler chickens, and slaughter ducks and turkeys. The other two affected premises involved slaughter turkeys and breeder ducks, located within south-eastern and east-central Poland, respectively. There have also been two wild mute swans (*Cygnus olor*) reported as positive for HPAI H5N1 since our last report.

Romania has reported a single case of HPAI H5N1 in a wild common gull (*Larus canus*) since our last report. To date, there have been no reports of HPAI in domestic poultry in Romania during this HPAI season.

Russia has not reported any outbreaks of HPAI H5N1 in domestic poultry or cases of HPAI H5N1 in wild birds since our last report.

Slovenia has reported six cases of HPAI H5N1 in wild birds, involving a total of six mute swans (*Cygnus olor*) and one black-headed gull (*Chroicocephalus ridibundus*).

Sweden has reported seven further cases of HPAI H5N1 in wild birds since our last assessment. These reports concerned four barnacle geese (*Branta leucopsis*), a greater white-fronted goose (*Anser albifrons*), a European herring gull (*Larus argentatus*) and a great black-backed gull (*Larus marinus*).

Ukraine has not reported any further outbreaks of HPAI H5N1 in domestic poultry or cases in wild birds since our last report.

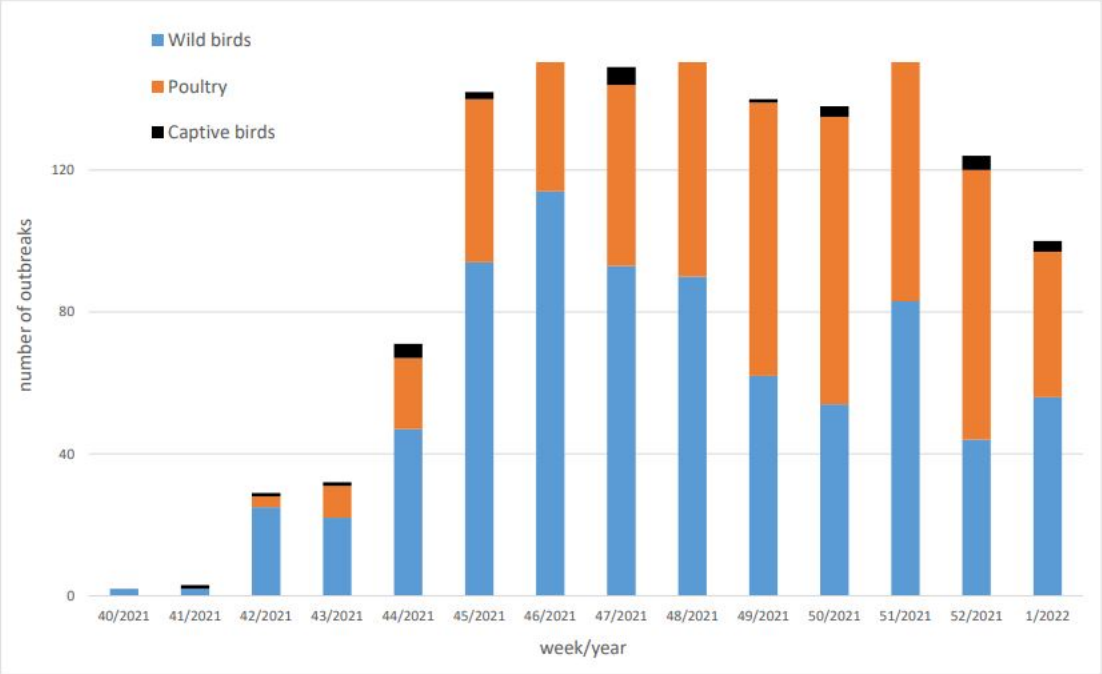
Southern Europe

Italy has not reported any further outbreaks of HPAI H5N1 in domestic poultry in the last week, according to OIE. This is a marked decrease from the 44 outbreaks we

reported in our last assessment. There have been two HPAI H5N1 events reported in wild birds, involving two Eurasian teal (*Anas crecca*) and one unspecified bird from the *Laridae* family.

Portugal has reported two further HPAI H5N1 events since our last report. These reports involve 100 ducks and wild geese in a natural park in the Santarém District, and a backyard flock of chickens and ducks in the Setúbal District. There is currently no further information available on the strain type.

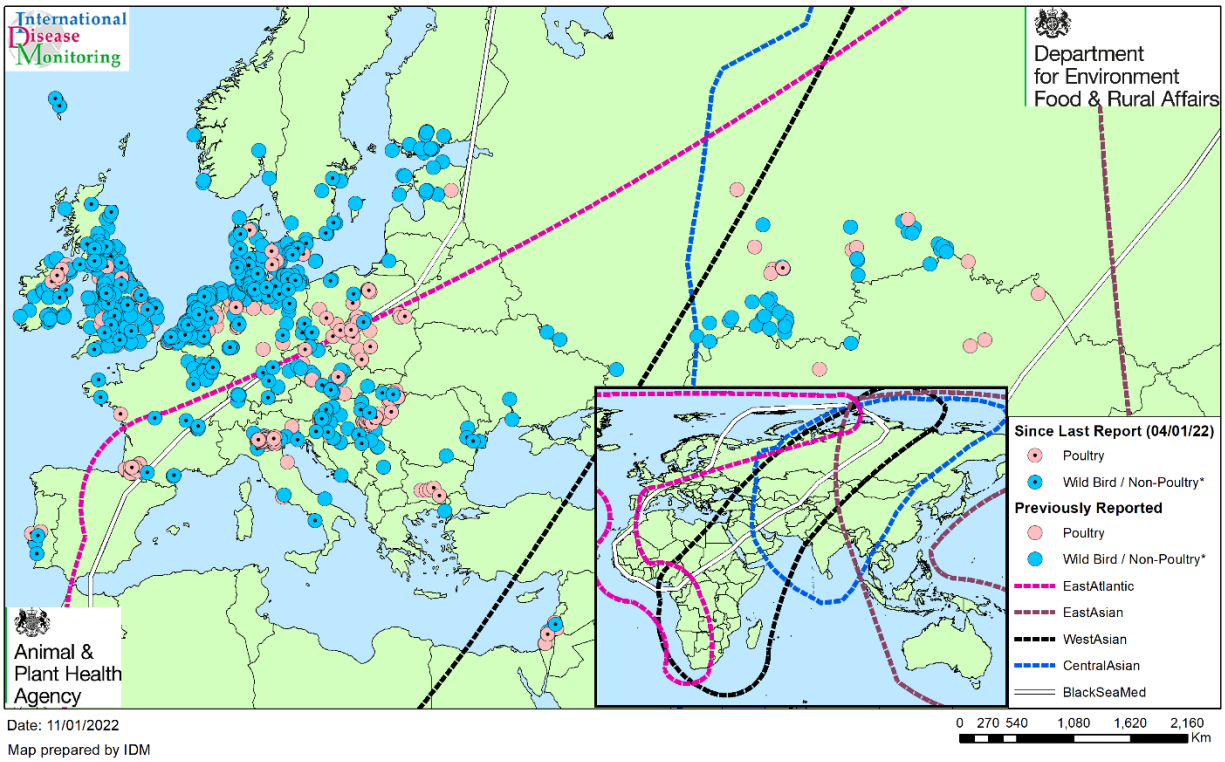
Figure 1- Number of HPAI events in Europe each week from October 2021 to 10 January 2022 (IZSVe, 2022a)



The number of poultry, wild bird, and captive bird reports for each week according to the EU Reference Laboratory (IZSVe 2022a) is shown in Figure 1. From the IZSVe data, the number of wild bird cases reported in the EU MS appears to have decreased by around 50% between weeks 51 and 52 of 2021, before rising slightly in week 1 of 2022. Last season, wild bird cases peaked in week 47 at 160 per week, before declining to roughly 50 cases per week by week 51. In week one of 2021, there was just under 40 cases reported in wild birds and a large number of poultry outbreaks (approximately 160), a second peak in wild birds was then observed in week 9 of 2021 with approximately 200 cases (IZSVe 2021). The proportion of poultry outbreaks was higher than that for cases in wild birds from week 49 to 52 in 2021, a higher proportion of HPAI cases in wild birds has been observed in the first week of 2022, compared with the proportion of outbreaks in poultry.

The map below (Map 2) shows the distribution of HPAI H5 events in poultry, captive birds and wild birds in Europe reported to OIE between September 2021 and 10 January 2022. Those events reported since our last outbreak assessment on 04 January are distinguished with dots.

Map 3: HPAI outbreaks (from OIE) in poultry, captive, and wild birds across Europe, September 2021 to 10 January 2022.



Highly Pathogenic Avian Influenza in Poultry and Non-Poultry*
September 2021 - January 2022
Overlay: Migratory Bird Flyways

OIE Data Only
*OIE Defined

Implications for the UK

Given the continuing high frequency of wild bird cases of HPAI H5N1 across GB, the domestic poultry and captive bird populations in GB remain under 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. Poultry outbreaks and wild bird cases are also continuing across Europe, although it is not clear from Figure 1 if a second peak in wild bird cases in EU MS, as observed in previous epizootics, will follow into the spring. It should be noted that trends in wild bird cases in Europe are becoming less important as a predictor for the UK as the winter

progresses through into the spring, because most of the birds that migrate from continental Europe to overwinter in GB are likely to have arrived by this stage of the winter. While most of the wild water birds will now be in GB, there is a lag in poultry outbreaks with more expected over the next few weeks.

Conclusion

More cases of HPAI H5 in wild birds and outbreaks in poultry continue to be reported across Europe and also in 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 471 confirmed cases of HPAI H5 in wild birds in GB to 10 January 2022 across a range of species, including a significant number of resident sedentary birds of species such as mute swan, Canada goose and some raptors indicating that they had been exposed to infection in GB itself. Furthermore, potential bridging species such as gulls, pheasants and some raptors have tested positive. In continental Europe, corvids and sparrows which could also serve as bridging species have been reported as infected. More wild bird HPAI H5 infections are expected in sedentary species and potential bridging species in GB. HPAI H5 will continue to circulate in both susceptible migrant water birds and sedentary bird species within GB 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 winter 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.

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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 (2022) Department of Agriculture, Environment and Rural Affairs Avian influenza information page

IZSVe (2022a) IZSVe report - Number of highly pathogenic avian influenza positive events notified by country and poultry category (pdf)

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

This publication is available at https://www.gov.uk/government/collections/animal-diseases-international-monitoring

Any enquiries regarding this publication should be sent to us at iadm@apha.gov.uk