

Updated Outbreak Assessment #21

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

04 April 2022

Ref: VITT/1200 HPAI in the UK and Europe

Disease report

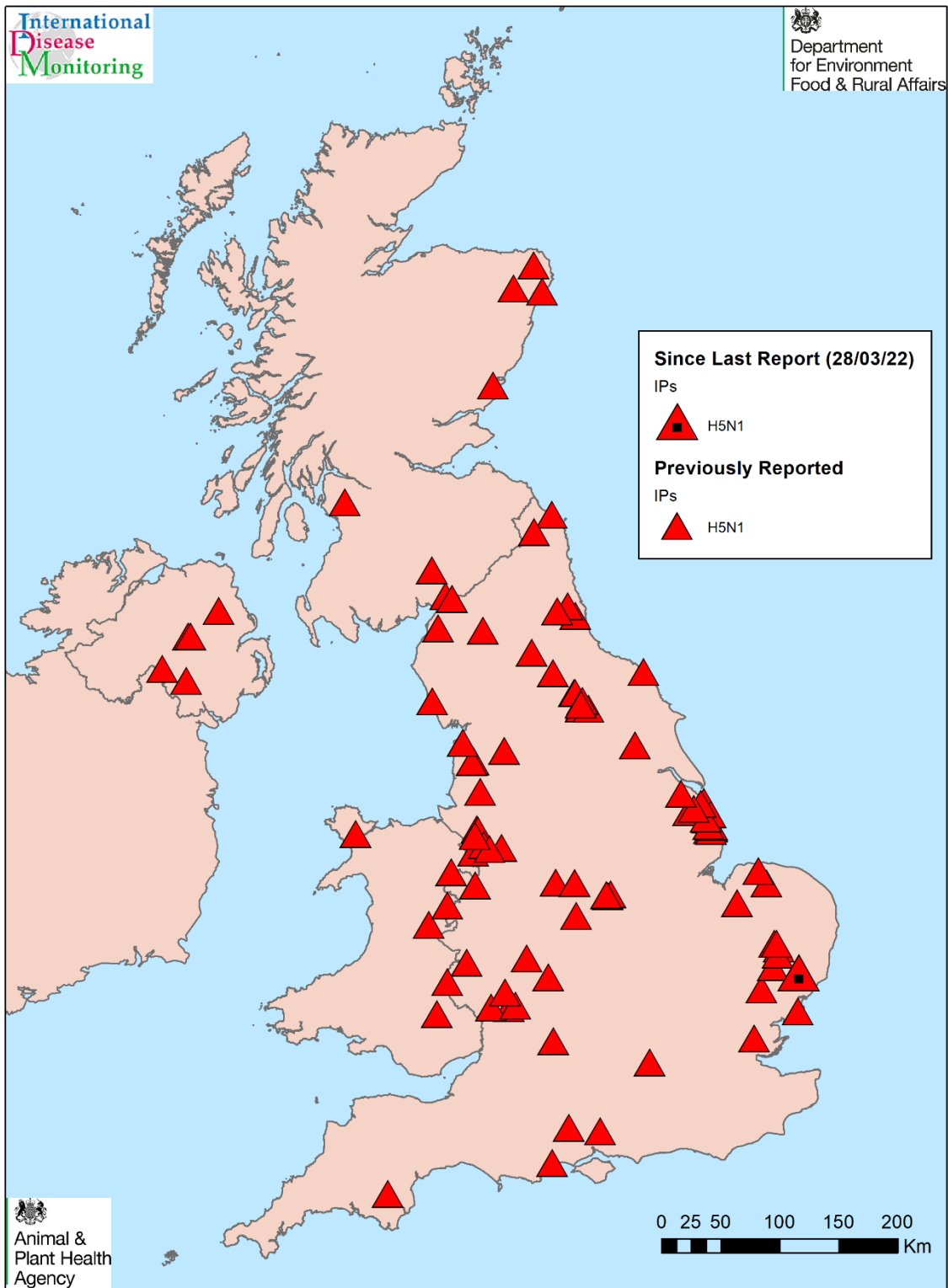
Since our last outbreak assessment on 28 March 2022, there have continued to be reports of high pathogenicity avian influenza (HPAI) H5 both in Europe and in the United Kingdom (UK). This includes one further confirmed infected premises (IP) with HPAI H5N1 in domestic poultry in the UK. In Europe HPAI continues to be reported in poultry and wild birds.

One new IP with HPAI H5N1 in domestic poultry has been confirmed in England, Great Britain (GB), since our last assessment. There have been no further HPAI H5N1 IPs confirmed in Northern Ireland since our last assessment (DAERA, 2022).

The OIE has also reported new IPs with HPAI H5N1 in domestic poultry in Belgium, France and Romania since our last report. Infection of poultry with HPAI H5N8 and HPAI (subtype pending) has been reported in Albania and Bulgaria, respectively.

Non-poultry IPs and wild bird cases of HPAI H5 continue to be reported in Belgium, Denmark, Finland, France, Germany, Greece, Norway and the Republic of Ireland. The first cases of HPAI H5N1 this outbreak season have been reported in wild birds in Albania.

Map 1: HPAI H5 outbreaks in domestic poultry¹ and captive birds across the United Kingdom, October 2021 to 04 April 2022.



Date: 04/04/2022
Map prepared by IDM

UK HPAI IPs
October 2021 - April 2022

Situation assessment

United Kingdom

The first detection of HPAI H5N1 virus this 2021 to 2022 HPAI season was in rescued wild swans and captive poultry at a swan sanctuary in Worcester (England) on 15 October 2021.

Since then, there have been 102 further confirmed IPs with HPAI H5N1 in poultry and captive birds across Great Britain (Map 1), (Table 1). Of these 103 IPs, 89 have occurred in England, nine have occurred in Scotland, and five in Wales.

In the week since our last assessment on 28 March 2022, HPAI H5N1 has been confirmed at a backyard premises with chickens in Suffolk, England.

There have been no new premises with HPAI H5N1 confirmed in Northern Ireland since 28 March 2022. The total number of poultry IPs in Northern Ireland remains at six: across the counties of Tyrone, Antrim, Armagh and Fermanagh. As of 10 March, all local movement restrictions have now been lifted following the completion of disease control activities and surveillance at each premises where HPAI H5N1 was confirmed (DAERA, 2022).

Table 1: Poultry¹ and captive bird premises with High Pathogenicity Avian Influenza (HPAI) H5N1 in Great Britain during the epizootic since 1 October 2021, as of 04 April 2022

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved ²
1	27 October 2021	Near Wychavon, Worcester	Rescued wild swans (adults and young), rescued and captive geese, ducks, and chickens.	27 November 2021
2	2 November 2021	Near Chirk, Cheshire	Backyard chickens	3 December 2021
3	4 November 2021	Near Arbroath, Angus	Mixed backyard flock of 16 chickens, 20	5 December 2021

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved ²
			guinea fowl and 12 ducks.	
4	8 November 2021	Near Alcester, Bidford	Small flock of 31 turkeys and 19 chicken	8 December 2021
5	11 November 2021	Near Kirby Cross, Essex	Small flock of mixed geese, chickens, guinea fowl	17 December 2021
6	12 November 2021	Near Preston, Lancashire	Commercial turkey premises	29 December 2021
7	13 November 2021	Near Northallerton, North Yorkshire	Commercial free range laying hens	5 March 2022
8	16 November 2021	Near Preston, Lancashire	Backyard chickens	29 December 2021
9	17 November 2021	Near Willington, Derbyshire	Commercial turkey premises	14 February 2022
10	19 November 2021	Near Pokesdown, Bournemouth	Backyard ducks	20 December 2021
11	19 November 2021	Near Silecroft, Cumbria	Commercial free range laying hens	4 January 2022
12	21 November 2021	Near Mouldsworth, Chester	Commercial turkey premises	8 March 2022

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved ²
13	21 November 2021	Near North Fambridge, Essex	Small flock of mixed geese, chickens, ducks	22 December 2021
14	21 November 2021	Near Holkham, Norfolk	Small flock of mixed chickens and turkeys	24 December 2021
15	21 November 2021	Near Thirsk, Yorkshire	Commercial turkey premises	5 March 2022
16	25 November 2021	Near Thirsk, Yorkshire	Commercial free range laying hens	5 March 2022
17	25 November 2021	Near Thirsk, Yorkshire	Commercial turkey premises	5 March 2022
18	26 November 2021	Near Loughborough, Leicestershire	Commercial free range laying hens	4 February 2022
19	26 November 2021	Near Thirsk, Yorkshire	Commercial turkey premises	5 March 2022
20	27 November 2021	Near Blackpool, Lancashire	Mixed ornamental birds	20 February 2022
21	26 November 2021	Near Anglesey, Wales	Backyard hobby farm	27 December 2021
22	26 November 2021	Near Clitheroe, Lancashire	Mixed captive birds	9 February 2022
23	28 November 2021	Near Thirsk, Yorkshire	Backyard hobby farm	5 March 2022

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved ²
24	29 November 2021	Near Thirsk, Yorkshire	Commercial turkey premises	5 March 2022
25	01 December 2021	Leicestershire	Commercial free range laying hens	4 February 2022
26	02 December 2021	Near Thirsk, Yorkshire	Commercial free range laying hens	5 March 2022
27	02 December 2021	Staffordshire	Backyard hobby farm	29 January 2022
28	02 December 2021	Herefordshire	Commercial broiler farm	14 January 2022
29	04 December 2021	Dumfries	Commercial laying hens	18 January 2022
30	04 December 2021	Powys	Mixed captive birds	10 January 2022
31	04 December 2021	Yorkshire	Backyard turkeys	6 February 2022
32	04 December 2021	Gloucestershire	Wildfowl Park	24 January 2022
33	04 December 2021	Yorkshire	Commercial laying hens	5 March 2022
34	06 December 2021	Leicestershire	Commercial laying hens	4 February 2022
35	07 December 2021	Leicestershire	Commercial laying hens	4 February 2022

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved ²
36	07 December 2021	Near Pocklington, East Yorkshire	Commercial ducks	19 February 2022
37	08 December 2021	Near Sudbury, South Suffolk	Commercial laying hens	26 January 2022
38	08 December 2021	Near Thirsk, North Yorkshire	Commercial turkeys	5 March 2022
39	09 December 2021	Cumbria	Commercial laying hens	31 January 2022
40	09 December 2021	Dumfries	Backyard mixed species	16 January 2022
41	10 December 2021	Near Moffat, Dumfriesshire	Backyard mixed species	14 January 2022
42	10 December 2021	Near Highworth, Wiltshire	Commercial turkeys	29 January 2022
43	10 December 2021	Near Clifford, Herefordshire	Commercial turkeys	25 January 2022
44	11 December 2021	Near Washington, Sunderland, Tyne & Wear	Mixed wildfowl	6 March 2022
45	11 December 2021	Near Alford, Lincolnshire	Commercial laying hens	24 March 2022
46	11 December 2021	Near Willington, Derbyshire	Mixed poultry	14 February 2022
47	12 December 2021	Near Alford, Lincolnshire	Commercial laying hens	24 March 2022

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved ²
48	12 December 2021	Near Alford, Lincolnshire	Commercial laying hens	24 March 2022
49	14 December 2021	Near Middleton-in-Teesdale, County Durham	Backyard chickens	17 February 2022
50	14 December 2021	Near Pocklington, Yorkshire	Commercial ducks	19 February 2022
51	14 December 2021	Near Alford, Lincolnshire	Commercial laying hens	24 March 2022
52	14 December 2021	Near Alford, Lincolnshire	Commercial broiler breeder and laying hens	24 March 2022
53	15 December 2021	Near Atherstone, Leicestershire	Backyard mixed species	9 February 2022
54	15 December 2021	Near Wem, Shropshire	Commercial mixed species	9 February 2022
55	15 December 2021	Near Lockerbie, Dumfries and Galloway	Backyard mixed species	18 January 2022
56	16 December 2021	Near Alford, Lincolnshire	Commercial chickens	24 March 2022
57	16 December 2021	Near Thirsk, Yorkshire	Commercial broiler chickens	5 March 2022
58	16 December 2021	Near Alford, Lincolnshire	Commercial laying hens	24 March 2022

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved ²
59	17 December 2021	Near Alford, Lincolnshire	Commercial laying hens	24 March 2022
60	18 December 2021	Near Alford, Lincolnshire	Commercial laying hens	24 March 2022
61	18 December 2021	Near Frodsham, Cheshire	Commercial mixed species	8 March 2022
62	22 December 2021	Near Alvanley, Cheshire	Backyard ducks	8 March 2022
63	22 December 2021	Near Buckfastleigh, Devon	Backyard ducks	11 February 2022
64	28 December 2021	Near Pentney, Norfolk	Commercial turkeys	9 February 2022
65	28 December 2021	Near North Somercotes, Lincolnshire	Commercial turkeys	27 March 2022
66	30 December 2021	Near Romsey, Hampshire	Backyard mixed species	5 February 2022
67	31 December 2021	Near Theddlethorpe, Lincolnshire	Backyard mixed species	24 March 2022
68	31 December 2021	Near Melton Mowbray, Lincolnshire	Commercial turkeys	28 March 2022
69	02 January 2022	Near Eton, Berkshire	Rescued wild swans	22 March 2022

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved ²
70	03 January 2022	Near Alford, Lincolnshire	Backyard chickens	24 March 2022
71	04 January 2022	Near Carlisle, Cumbria	Commercial mixed species	12 March 2022
72	05 January 2022	Near Louth, Lincolnshire	Commercial turkeys	27 March 2022
73	07 January 2022	Near Upholland, Lancashire	Backyard mixed species	14 March 2022
74	10 January 2022	Near Louth, Lincolnshire	Commercial laying hens	28 March 2022
75	13 January 2022	Near Tattenhall, Cheshire	Commercial grandparent breeder turkeys	29 March 2022
76	13 January 2022	Near Tarporley, Cheshire	Commercial breeder turkeys	
77	20 January 2022	Near Ross on Wye, Herefordshire	Backyard mixed species	2 March 2022
78	22 January 2022	Near Crewe, Cheshire	Commercial turkeys	
79	22 January 2022	Near Inverurie, Aberdeenshire	Backyard mixed species	
80	25 January 2022	Near Newcastle upon Tyne, Tyne and Wear	City farm smallholder mixed species	
81	26 January 2022	Near Whitby, North Yorkshire	Wildlife rescue centre mixed species	11 March 2022

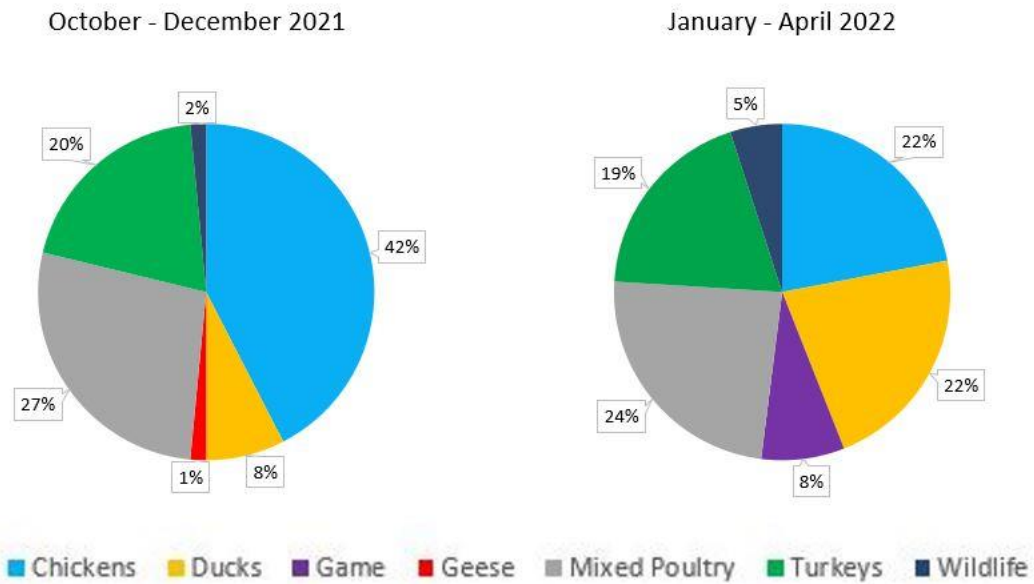
Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved ²
82	28 January 2022	Near Calveley, Cheshire	Commercial turkeys	
83	28 January 2022	Near Ashleworth, Gloucestershire	Backyard chickens	15 March 2022
84	4 February 2022	Near Bishops Waltham, Hampshire	Commercial broiler breeder chickens	
85	5 February 2022	Near Fakenham, Norfolk	Conservation park mixed species	
86	9 February 2022	Near Berwick-upon-Tweed, Northumberland	Backyard mixed species	
87	14 February 2022	Near Wooler, Northumberland	Backyard mixed species	
88	21 February 2022	Near Grimsby, Lincolnshire	Commercial rearing turkeys	
89	21 February 2022	Near Newtown, Powys	Commercial breeding pheasants	30 March 2022
90	21 February 2022	Near Welshpool, Powys	Commercial breeding pheasants	30 March 2022
91	23 February 2022	Near Gateshead, Tyne and Wear	Commercial hobby flock mixed species	
92	25 February 2022	Near Ledbury, Herefordshire	Commercial game supplier	31 March 2022

Outbreak Count	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved ²
93	26 February 2022	Near Westhorpe, Suffolk	Smallholding mixed species	
94	1 March 2022	Near Redgrave, Suffolk	Commercial fattening ducks	
95	11 March 2022	Near Ellon, Aberdeenshire	Backyard mixed species	
96	11 March 2022	Near Diss, Suffolk	Commercial fattening ducks	
97	12 March 2022	Near Diss, Suffolk	Commercial fattening ducks and chickens	
98	18 March 2022	Near Beith, North Ayrshire	Rescued pigeons, buzzards, swans, hens and ducks.	
99	19 March 2022	Near Strichen, Aberdeenshire	Commercial laying hens	
100	20 March 2022	Near Woodbridge, Suffolk	Commercial broiler ducks	
101	27 March 2022	Near Tuddenham St Martin, Suffolk	Commercial layer ducks	
102	28 March 2022	Near Stowmarket, Suffolk	Backyard mixed species	
103	30 March 2022	Near Woodbridge, Suffolk	Backyard chickens	

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

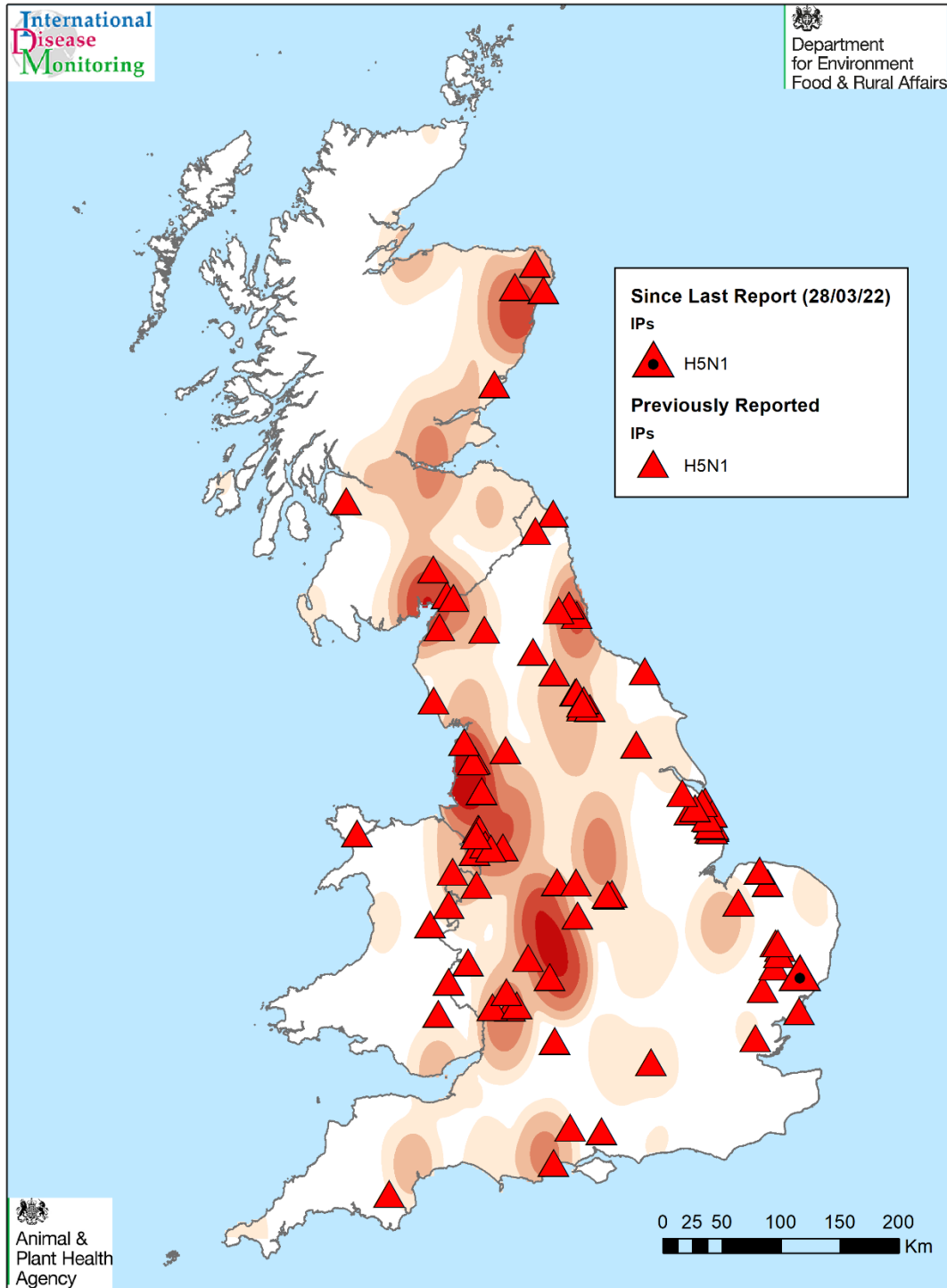
² Date resolved refers to the date when all disease control restrictions (3km Protection Zone, 10km Surveillance Zone, 3km Captive Bird Monitoring Controlled Zone) have been removed from the premises

Figure 1: Proportion of HPAI-positive premises according to species kept across the 2021 to 2022 season in Great Britain



Across the HPAI season in Great Britain, the majority of premises affected have been backyard (mixed species), commercial poultry (chicken, turkey and ducks) and captive birds (non-poultry species) (Figure 1). A greater proportion of duck premises have been affected between January and March 2022, compared with October to December 2021 (22% versus 8%, respectively), as the outbreak in Great Britain has progressed (Figure 1).

Map 2: Map showing the relative density of HPAI H5 positive findings in wild birds and the outbreaks in poultry¹ and captive birds across Great Britain October 2021 to 04 April 2022



Date: 04/04/2022
Map prepared by IDM

GB HPAI Wild Bird Events (as Heat Map) & IPs
October 2021 - April 2022

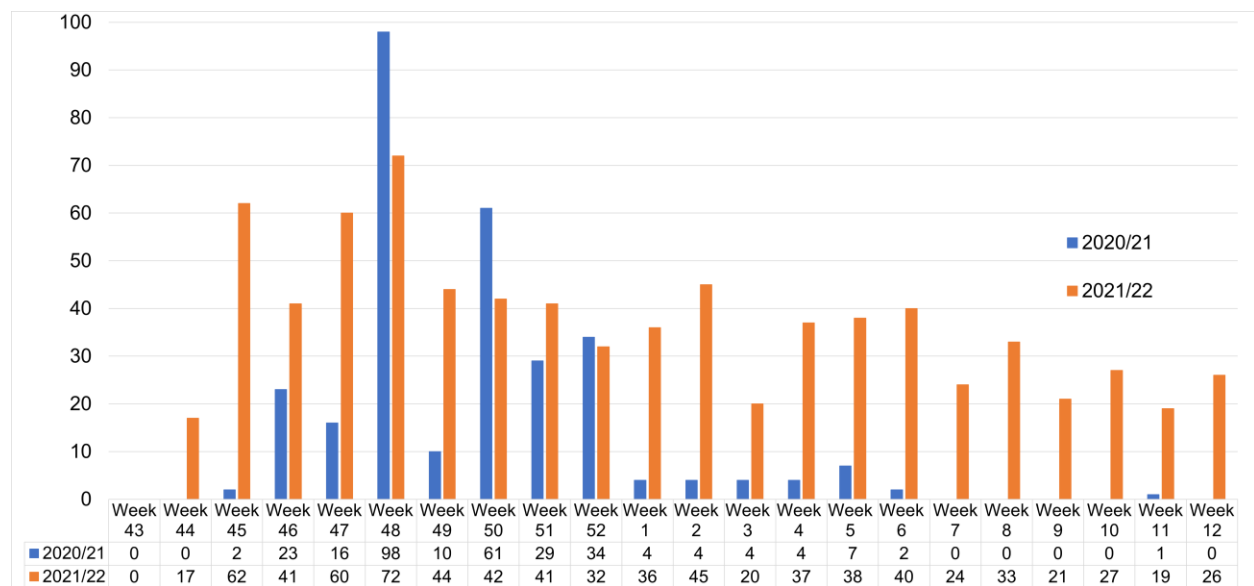
¹According to the 2021 OIE definition of poultry: [Terrestrial Code Online Access - OIE - World Organisation for Animal Health](#)

In the week since our last outbreak assessment on 28 March 2022, HPAI H5 has been detected in wild birds in a further five locations in Great Britain, bringing the total to 247 separate wild bird positive locations, involving 41 different bird species (listed in Table 2) in 73 separate counties. The total number of positive wild bird findings is 881, with most in England (Table 2).

The majority of wild birds that have tested positive for HPAI in Great Britain during the 2021 to 2022 season have been infected with the H5N1 strain. HPAI continues to be detected in wild birds, with many more reports in the 2021 to 2022 season compared to the 2020 to 2021 season (Figure 2), though a general downward trend is being observed currently.

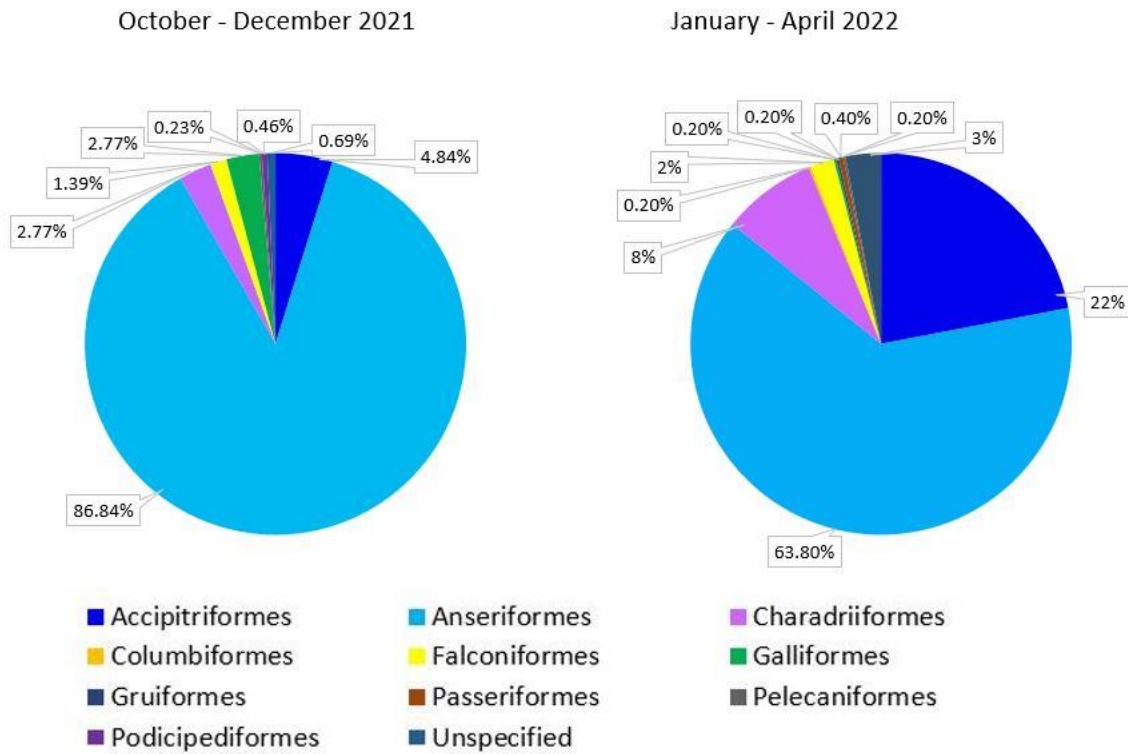
There have been 42 cases for which the HPAI H5 genotype has been identified but the NA subtype has not yet been ascertained due to very low viral load. These cases are currently undergoing further processing to attempt to identify the NA subtype.

Figure 2: Wild bird HPAI positives across Great Britain 2020 to 2021 and 2021 to 2022 seasons



Further analysis of the Order profile of HPAI positive wild birds throughout the current 2021 to 2022 season has shown a shift to a greater variety of wild bird species overall. In particular, an increasing proportion of birds of prey (*Accipitriformes*) species have become infected as the outbreak has progressed, although Anseriformes still represent the main order of birds affected, with some continued large mortality events (Figure 3).

Figure 3: Proportion of HPAI H5 wild bird positives by Order across the 2021 to 2022 HPAI season in Great Britain



For further details, please see the report (updated weekly) on findings of [HPAI in wild birds](#) in Great Britain and [Northern Ireland](#).

Table 2: Wild bird species in Great Britain that have tested positive for HPAI H5 as of 04 April 2022

Region and species	Total number of birds testing positive
England	585
Barnacle Goose	13
Bewick's Swan	1
Black headed gull	17
Black Swan	2
Canada Goose	106
Common Buzzard	53
Common Eider	1
Coot	1
Curlew	2
Goshawk	1

Region and species	Total number of birds testing positive
Great-crested Grebe	2
Grey Heron	2
Greylag goose	28
Guillemot	1
Gull sp	6
Hen Harrier	1
Herring Gull	8
Kestrel	6
Kittiwake	1
Lapwing	1
Little Gull	1
Mallard Duck	6
Moorhen	1
Mute Swan	217
Peregrine Falcon	5
Pheasant	8
Pink Footed Goose	16
Red Kite	1
Sea Eagle	1
Sparrowhawk	5
Unidentified Swan	17
Unspecified Duck	1
Unspecified Goose	14
Unspecified Passeriformes	6
White Fronted Goose	1
Whooper Swan	31
Wigeon	1
Scotland	264
Barnacle Goose	34
Blackbird	1
Black headed gull	1
Canada Goose	3
Common Buzzard	47
Greylag Goose	18
Gull sp	5
Herring Gull	5
Kestrel	1
Magpie	1
Mute Swan	25

Region and species	Total number of birds testing positive
Pink Footed Goose	63
Red Kite	2
Sea Eagle	2
Sparrowhawk	5
Unidentified Swan	15
Unspecified Bird of Prey	3
Unspecified Duck	2
Unspecified Goose	21
Whooper Swan	9
Wood Pigeon	1
Wales	32
Canada Goose	4
Common Buzzard	4
Goshawk	1
Greylag goose	1
Herring Gull	1
Mute Swan	11
Peregrine Falcon	1
Pheasant	5
Sparrowhawk	1
Unidentified Swan	1
Unspecified Goose	1
Unspecified Pigeon	1
Grand Total	881

Europe

The total numbers of IPs with HPAI H5 in poultry and cases in wild birds in Europe are presented in Table 3. New disease reports are still being made to the World Organisation for Animal Health (OIE) on a daily basis. Numbers reported are from OIE's WAHIS platform.

Table 3: Events (to 04 April 2022) of HPAI H5 in domestic poultry (P) and cases in wild birds (WB) since 1 October 2021 in the UK and Europe, according to OIE report date

Country	H5 (WB)	H5 (P)	H5N1 (WB)	H5N1 (P)	H5N8 (WB)	H5N8 (P)	H5N2 (WB)	H5N2 (P)	H5N3 (WB)	Total
Albania			1			4				5
Austria			32							32
Belgium	6		60	3						69
Bosnia and Herzegovina			2							2
Bulgaria		10								10
Croatia			8	2						10
Czech Republic			18	4						22
Denmark		1	114	4	1	1				121
Estonia			9		2	1				12
Faroe Islands			1							1
Finland			14		2					16
France			74	818						892
Germany			921	65			1		1	988
Greece			4							4

Country	H5 (WB)	H5 (P)	H5N1 (WB)	H5N1 (P)	H5N8 (WB)	H5N8 (P)	H5N2 (WB)	H5N2 (P)	H5N3 (WB)	Total
Hungary			31	113						144
Ireland			75	6						81
Italy			21	248						269
Latvia			2							2
Lithuania			2							2
Luxembourg			4							4
Moldova				1						1
Netherlands	1		145	31	2					179
Norway			7	2						9
Poland			31	99				1		131
Portugal			12	4						16
Republic of North Macedonia			3							3
Romania			14	3						17
Russia	35	12	12	9						68
Serbia and Montenegro			3		3		1			7

Country	H5 (WB)	H5 (P)	H5N1 (WB)	H5N1 (P)	H5N8 (WB)	H5N8 (P)	H5N2 (WB)	H5N2 (P)	H5N3 (WB)	Total
Slovakia			22	2	1					25
Slovenia			39	1						40
Spain			34	31						65
Sweden			36	4	1					41
Switzerland			3							3
Ukraine	2	1								3
United Kingdom			321	72	1					394

Northern Europe (OIE data only, by report date)

In the week since our last outbreak assessment on 28 March 2022, HPAI H5 has been reported in nine European countries excluding the United Kingdom (OIE). The total number of European countries affected this HPAI season according to IZS^{Ve} (2022) is currently 33.

Albania

Since our last assessment, OIE has reported three further poultry IPs with HPAI H5N8 in Albania. All three IPs are backyard premises with the number of birds ranging from 30 to 470. There has also been the first HPAI H5N1 event in wild birds this outbreak season. The event involved three Dalmatian pelicans (*Pelecanus crispus*) which were found dead in the Korçë District, which is approximately 20km from the border with Greece.

Belgium

Since our last assessment, OIE has reported HPAI H5N1 in Belgium at a chicken farm with 18,859 birds located in Meulebeke, West Flanders which lies approximately 30km from the border with France. This is the first report of HPAI H5N1 in poultry in Belgium since December 2021 and has occurred shortly after Belgian authorities submitted an

application to recover their status of freedom from HPAI in poultry on 17 March (ProMed, 2022). There has also been a single case of HPAI H5 reported in a wild peregrine falcon (*Falco peregrinus*).

Bulgaria

In Bulgaria, HPAI has been confirmed at a poultry premises where 150 laying hens have died during the last week, according to OIE. The subtype has not yet been reported, therefore this outbreak has not been included in Table 3.

Denmark

In the last week, there have been no further domestic poultry IPs with HPAI in Denmark reported by OIE. A non-commercial backyard flock comprising of 10 hens and one rooster was confirmed infected with HPAI H5N1, the premises is located in Tranekær on the Danish island of Langeland. There were also five cases of HPAI H5N1 reported in wild common buzzards (*Buteo buteo*).

Finland

The OIE has not reported any further poultry outbreaks of HPAI H5N1 in Finland since 28 March but has reported two cases of HPAI H5N1 in wild birds; a northern goshawk (*Accipiter gentilis*) and a Eurasian jackdaw (*Corvus monedula*).

France

In the last week, there have been 131 further IPs with HPAI H5N1 in domestic poultry reported for France, according to OIE. Most of these affected premises are located in south-western France within the Vendée and Loire-Atlantique Departments, with some also occurring in the Lot Department. Extended restriction zones which form larger 'Zones at Risk of Diffusion' (ZRD) continue to be implemented (Gouv.fr, 2022). The number of new IPs reported weekly is decreasing, with a large proportion (51/131) of IPs being chicken premises whereas in previous weeks the majority of premises have been waterfowl farms (Plateforme, 2022).

There have been two further non-commercial IPs with HPAI H5N1 reported, these are private backyard flocks of mixed bird species including laying hens, geese and pigeons. In addition, two HPAI events in wild birds have been reported. One event involved a grey heron (*Ardea cinerea*) and a black-headed gull (*Chroicocephalus ridibundus*), the other event involved three mute swans (*Cygnus olor*). The new detections in wildlife and outbreaks in poultry in new departments strongly indicates that there is still significant viral circulation and environmental contamination.

Germany

There have been no further poultry IPs with HPAI H5N1 reported for Germany since our last assessment. There have been 52 further reports of HPAI H5N1 in non-poultry including wild birds, in the last week according to OIE. These events included three zoo premises; only one of which reported species information as unspecified sulids (*Sulidae*) and one backyard flock comprising of 8 birds, located in Wachau, Saxony. Of the 48 HPAI events reported in wild birds, 36 of these involved unspecified *Anatidae* and 9 involved unspecified *Accipitridae* birds.

Norway

Between 28 March and 04 April, the OIE has not reported any further poultry IPs with HPAI in Norway but has reported a single case of HPAI H5N1 in a wild bird belonging to the *Accipitridae* family.

The Republic of Ireland

The Republic of Ireland has not reported any further IPs with HPAI H5N1 in domestic poultry in the last week but has reported a single case of HPAI H5N1 in a wild barnacle goose (*Branta leucopsis*), which was located in the village of Drumkeeran, County Leitrim.

Romania

In Romania, there has been a further report of HPAI H5N1 in poultry in the last week at a backyard premises located in the southern commune of Braniştea, with 100 birds. There have been no further HPAI H5N1 events reported in wild birds.

Increased biosecurity controls on poultry farms are in place at a national level, and biosecurity visits have been conducted to help identify areas for improvement and prevent further outbreaks. Deficiencies in biosecurity were discovered in multiple premises across all sectors; including commercial farms, backyard premises and hatcheries (PAFF, Romania 2022).

Southern Europe (OIE data only, by report date)

Greece

There have been no further reports of HPAI H5N1 in domestic poultry in Greece in the last week. A single event involving two wild Dalmatian pelicans (*Pelecanus crispus*) which were found dead in Kastoria Lake has been recorded.

According to OIE, there have been no further reports of HPAI H5N1 outbreaks in domestic poultry or cases in wild birds between 28 March and 04 April in Austria, Bosnia and Herzegovina, Croatia, the Czech Republic, Estonia, the Faroe Islands, Hungary, Italy, Latvia, Lithuania, Luxembourg, Moldova, North Macedonia, the Netherlands, Poland, Portugal, Russia, Serbia and Montenegro, Slovakia, Slovenia, Spain, Sweden, Switzerland or Ukraine.

Table 4: Number of HPAI H5 infected poultry premises (P) and findings in non-poultry (NP), including wild birds reported in the United Kingdom and Europe each month during the 2021 to 2022 epizootic, according to OIE report date as of 01 April 2022

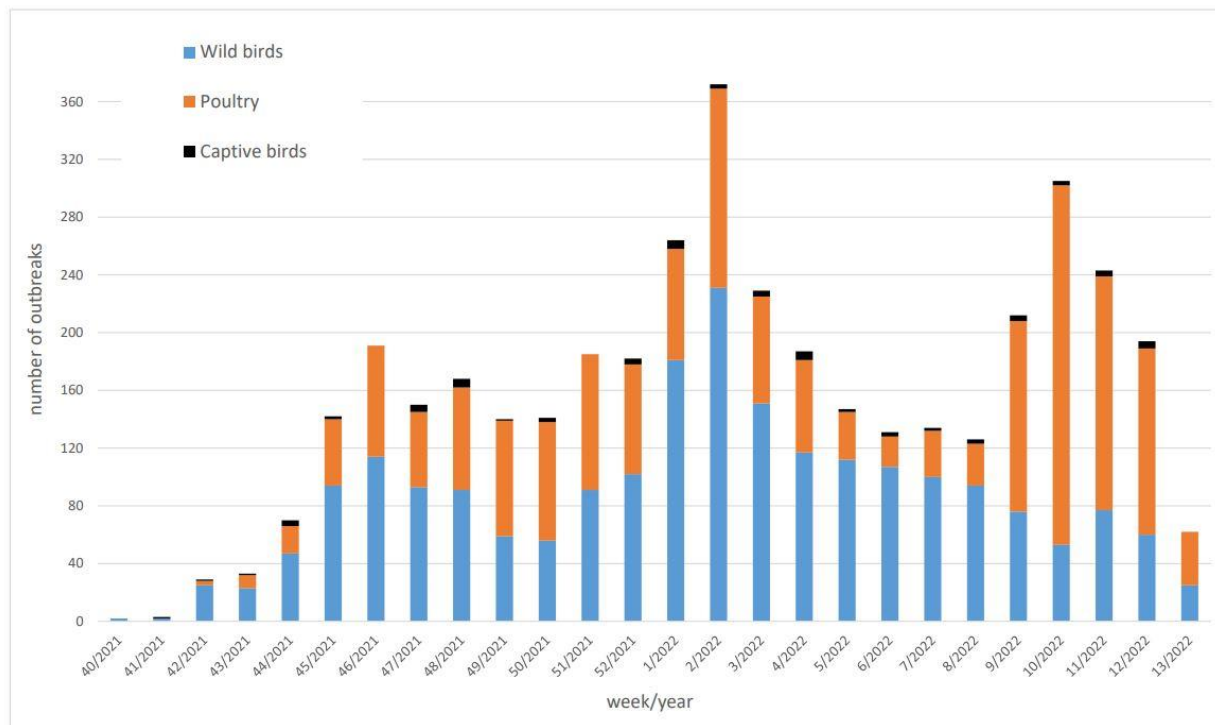
Country	Oct 2021		Nov 2021		Dec 2021		Jan 2022		Feb 2022		Mar 2022		Apr 2022	
	P	NP	P	NP	P	NP	P	NP	P	NP	P	NP	P	NP
Albania	0	0	0	0	0	0	0	0	0	0	4	1	0	0
Austria	0	0	0	1	0	7	0	13	0	6	0	1	0	0
Belgium	0	0	0	11	2	5	1	20	0	25	1	9	0	0
Bosnia and Herzegovina	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Bulgaria	0	0	0	0	7	0	2	0	1	0	1	0	0	0
Croatia	0	0	1	2	0	4	1	5	0	2	0	0	0	0
Czech Republic	0	0	2	5	2	4	0	0	1	9	0	1	0	0
Denmark	0	2	1	19	1	14	3	39	2	23	0	12	0	6
Estonia	1	3	0	1	0	5	0	0	0	2	0	0	0	0

Country	Oct 2021		Nov 2021		Dec 2021		Jan 2022		Feb 2022		Mar 2022		Apr 2022	
	P	NP	P	NP	P	NP	P	NP	P	NP	P	NP	P	NP
Faroe Islands	0	0	0	0	0	2	0	0	0	1	0	0	0	0
Finland	0	7	0	4	0	0	0	2	0	1	0	2	0	0
France	0	0	1	4	29	14	171	13	161	16	602	13	0	0
Germany	1	5	17	30	17	116	19	187	9	301	3	74	0	0
Greece	0	0	0	0	0	1	0	0	0	0	0	10	0	0
Hungary	0	0	20	2	52	5	41	11	0	9	0	3	0	0
Ireland	0	0	2	17	4	12	0	5	0	4	0	8	0	0
Italy	4	0	113	4	168	10	23	4	4	5	5	0	0	0
Latvia	0	0	0	0	0	0	0	2	0	0	0	0	0	0
Lithuania	0	0	0	0	0	0	0	0	0	2	0	0	0	0
Luxembourg	0	0	0	2	0	1	0	1	0	1	0	0	0	0

Country	Oct 2021		Nov 2021		Dec 2021		Jan 2022		Feb 2022		Mar 2022		Apr 2022	
	P	NP	P	NP	P	NP	P	NP	P	NP	P	NP	P	NP
Moldova	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Netherlands	1	0	7	40	2	64	6	102	11	93	7	40	0	0
Norway	0	0	2	2	0	2	0	3	0	1	0	0	0	1
Poland	0	0	23	3	40	5	16	18	5	6	9	0	0	0
Portugal	0	0	0	0	2	1	0	6	5	1	0	5	0	0
Republic of North Macedonia	0	0	0	0	0	0	0	0	0	2	0	0	0	0
Romania	0	0	0	1	0	2	0	2	1	7	2	4	0	0
Russia	3	28	5	9	2	2	0	1	4	0	0	1	0	0
Serbia and Montenegro	0	5	0	1	0	0	0	0	0	0	0	0	0	0
Slovakia	0	0	1	1	0	2	1	2	1	3	0	5	0	0

Country	Oct 2021		Nov 2021		Dec 2021		Jan 2022		Feb 2022		Mar 2022		Apr 2022	
	P	NP	P	NP	P	NP	P	NP	P	NP	P	NP	P	NP
Slovenia	0	0	0	0	1	2	0	35	0	0	0	0	0	0
Spain	0	0	0	0	0	0	1	4	17	15	23	12	0	0
Sweden	0	1	0	9	3	6	0	13	0	7	0	3	0	0
Switzerland	0	0	0	1	0	0	0	0	0	1	0	2	0	0
Ukraine	0	1	0	0	0	1	0	0	0	0	0	0	0	0
United Kingdom	0	1	12	53	38	96	8	64	7	45	6	49	1	14

Figure 4: Number of HPAI positive events reported in poultry, captive and wild birds each week in Europe from October 2021 to 01 April 2022 (IZSVe, 2022)



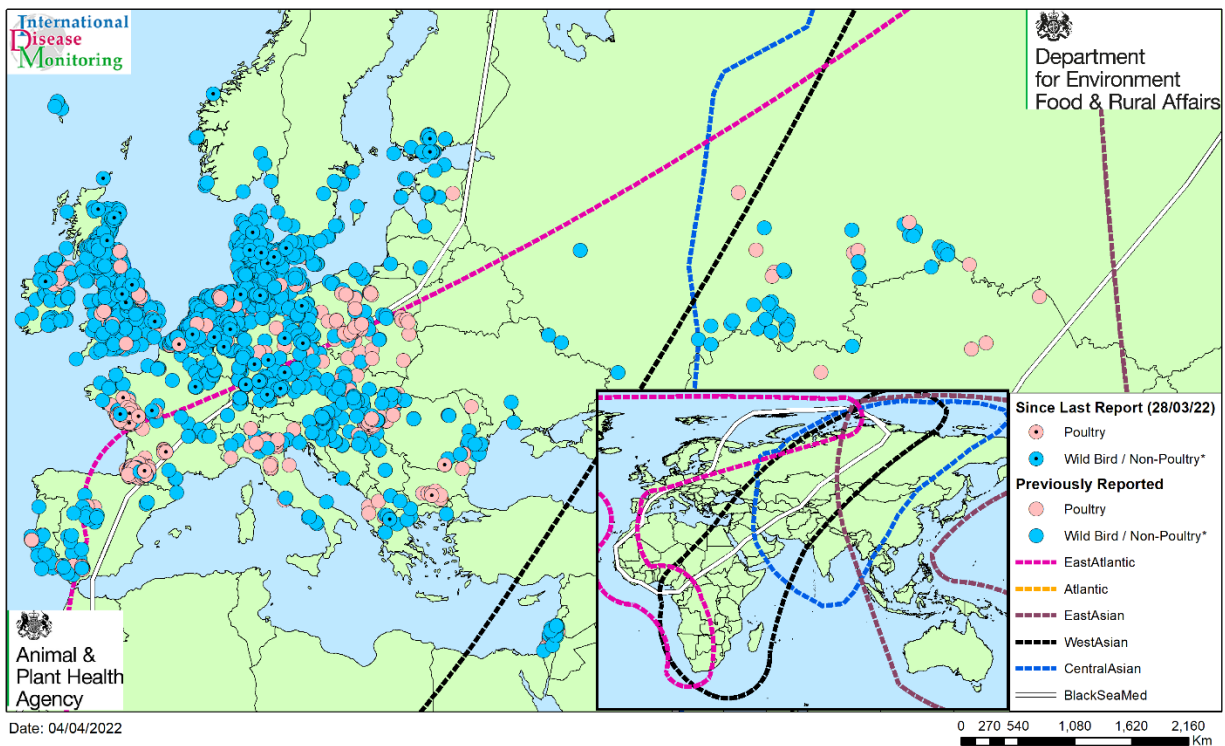
Across Europe, the number of poultry IPs reported weekly has started to decrease from around 162 outbreaks in week 11, to 130 in week 12 and then down further to 40 IPs reported to date in week 13 (Figure 4). The majority of poultry IPs being reported weekly are in France, for which the total is now 1,044 IPs according to IZSVe data (IZSVe 2022). Cases of HPAI infection in wild birds have also shown a decreasing trend between weeks 11 and 13 (Figure 4). With the exception of France, there is a general decreasing trend in the number of poultry IPs and non-poultry (including wild birds) with HPAI H5 reported per month for European countries (Table 4).

The latest quarterly Avian Influenza overview by EFSA states that 2,653 HPAI virus detections were reported in 33 EU/EEA countries and in the UK in poultry (1,030), wild birds (1,489) and captive birds (133), between 9 December 2021 and 15 March 2022 (EFSA, 2022). Genetic analysis has confirmed that all of the HPAI H5Nx detections characterised since October 2021 belong to clade 2.3.4.4b, while whole genome sequencing indicates “the persistent circulation of the A(H5N1) and A(H5N8) subtypes in Northern Europe, which have been circulating in the whole Europe since October

2020” (EFSA 2022). The autumn migration of wild birds and local reassortment events have been implicated in the introduction of these novel genotypes (EFSA, 2022).

Map 3 shows the distribution of HPAI H5 outbreaks in poultry and captive birds, together with cases in wild birds, in Europe reported to OIE between September 2021 and 04 April 2022. Those events reported since our last outbreak assessment on 28 March are identified with black central dots.

Map 3: HPAI outbreaks (from OIE) in poultry, captive, and wild birds across Europe, September 2021 to 04 April 2022.



Highly Pathogenic Avian Influenza in Poultry and Non-Poultry*

September 2021 - April 2022

Overlay: Migratory Bird Flyways

OIE Data Only

*OIE Defined

Implications for the UK

Given the continuing reports of wild bird cases of HPAI H5N1 across Great Britain, the domestic poultry and captive bird populations in Great Britain continue to remain under high infection pressure, particularly where biosecurity is sub-optimal. Even where biosecurity is good, the ongoing high wild bird infection pressure is likely to indicate any weaknesses that exist. It is imperative that biosecurity is maintained to the greatest extent possible to mitigate against the ongoing risk of infection posed by wild birds across the UK.

There has been an unprecedented number of HPAI H5N1 IPs with domestic poultry and captive birds, as well as wild bird cases reported in this 2021 to 2022 season, not only for the UK but also across Europe. It should be noted that trends in wild bird cases in Europe are now of relative minimal significance as a predictor for UK incursions during the spring, although the downwards trend in wild bird cases (Figure 4) may also be reflected in UK wild bird cases.

Those birds that migrated from continental Europe to overwinter in Great Britain during the autumn and winter will now have begun their return journeys back to Europe, and numbers remaining in Great Britain are greatly reduced compared to the December/January peaks. As the spring progresses, those remaining migratory ducks, geese and swans will depart the UK and Europe thereby reducing the background endemic infection pressure, while sedentary wild bird species will disperse from their winter aggregates within the UK to their breeding sites.

This together with higher temperature and increased sunlight will increase virus degeneration and thus reduce the likelihood of disease infection from wild birds over the coming months, although how rapidly this will occur cannot be predicted given the scale of the current epizootic.

Conclusion

Cases of HPAI H5 in wild birds and confirmations in poultry premises have continued to be reported across Europe and in Great Britain since our last assessment.

Numbers of migrating wild water birds (ducks, geese, and some swan species) peaked in Great Britain in December to January and many of these birds have now begun their return journeys through Europe. The large number of wild water birds reported as positive for HPAI H5N1 in Germany during the past week may reflect the increased numbers migrating through the Baltic. The persistence and circulation of HPAI viruses in those migratory birds and the resident wild birds will continue to pose a risk for the poultry industry in northern Europe this month at least.

There have been 881 confirmed cases of HPAI H5 in wild birds in Great Britain to 04 April 2022 across a range of species, with multiple detections in wild birds each week (Figure 2). The wild bird species 'order shift' observed (Figure 3) demonstrates that a greater proportion of raptors and potential bridging species such as pigeons, gulls and pheasants have tested positive as the outbreak has developed. This reflects HPAI infection spreading initially from migratory water birds at incursion, to more native, sedentary wild bird species, likely via environmental exposure.

The increased number of duck premises affected by HPAI during the latter part of the season in Great Britain (Figure 1) is similar to the infection trend observed in France, particularly during March 2022 (Gouv.fr, 2022, PAFF France 2022). It is important however to note that the very high number of duck premises with HPAI confirmed in France is a reflection of the scale and location of the foie gras industry that exists in that country.

HPAI virus H5 is continuing to circulate within Great Britain. The risk level of HPAI H5 in wild birds is therefore maintained at **very high** across Great Britain.

The risk of exposure of poultry across the whole of Great Britain 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 Great Britain on 3 November 2021, and in Northern Ireland on 17 November 2021.

We are continuing to closely monitor the situation and reviewing the risk.

It is particularly important that stringent adherence to good biosecurity practices is now still maintained, even though the outbreak appears to be waning and the sunny weather is approaching. 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.

Reinforcement of good biosecurity awareness behaviours and practices should be a constant reminder to all personnel working with birds; any lapse of these measures could still easily result in 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](#) on GOV.UK

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 guidance about Avian Influenza including updated biosecurity advice for poultry keepers, in:

- [England is available on GOV.UK](#)
- Wales, is available on the [Welsh Government's website](#)
- Scotland, is available on the [Scottish Government's website](#)
- North Ireland is available on [DAERA's website](#)

The OIE, FAO International Reference Laboratory and the UK National Reference Laboratory at Weybridge has the necessary diagnostic capability for strains of avian influenza virus, whether of low or high pathogenicity, 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 the following dead wild birds found at the same location at the same time should be reported to the Wild bird Helpline (Telephone: 03459 33 55 77 – select option 7):

- any number of swans, geese, ducks, gulls, waders and raptors
- five or more birds of any species

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 (Telephone: 03459 33 55 77 – 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).

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