Updated Outbreak Assessment #34

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

14 October 2022 Ref: VITT/1200 HPAI in the UK and Europe

Disease report

Since our last outbreak assessment on 21 September 2022, there have been further reports of high pathogenicity avian influenza (HPAI) H5, both in domestic poultry and in wild birds, in the United Kingdom (UK) and Europe. These include 30 new infected premises (IPs) confirmed with HPAI H5N1 in England; 22 in commercial poultry premises, seven in non-commercial small holder premises and one captive wildlife premises. There have been 44 HPAI H5 events detected in wild birds in Great Britain (GB) since our last assessment.

For administrative purposes, the 2021/ 2022 HPAI season ended on 30 September 2022 and the new 2022/ 2023 HPAI season began on 01 October 2022. From 01 October 2022, counts of disease outbreaks in domestic poultry and cases in wild birds in both the UK and Europe will be restarted. The latest HPAI H5N1 outbreaks in domestic poultry and HPAI positive findings in wild birds are therefore presented according to administrative HPAI season in Appendices 1 and 3 (2021/ 2022 season) and Appendices 2 and 4 (2022/ 2023 season).

Across Europe, HPAI continues to be reported in domestic poultry and non-poultry species, including wild birds. The World Organisation for Animal Health (WOAH) has reported outbreaks of HPAI H5N1 in domestic poultry in France, Germany, Italy, Poland, Portugal and Spain. Cases of HPAI H5N1 in non-poultry species, including wild birds have been reported by WOAH in Denmark, France, Germany, Ireland, Portugal and Russia. Additionally, since our last assessment, an HPAI H5N5 event was reported in wild birds in Norway..

For the first time, HPAI H5N1 was maintained in bird populations over the summer months in GB and this led to an increased number of confirmed infected premises (IPs) throughout September. In previous years, the risk of incursion for HPAI in wild birds in GB was informed primarily by detections of HPAI in migratory wild birds in Northern Europe. However, the wild bird events observed in GB over the summer of 2022 and the rapidly changing situation in domestic poultry demonstrate the need to consider

additional risk drivers. The increased number of HPAI detections in resident wild waterfowl species, particularly at inland locations, increases the risk to poultry. Furthermore, migratory waterfowl are now arriving in GB at their wintering sites which will increase infection pressure for wild birds.

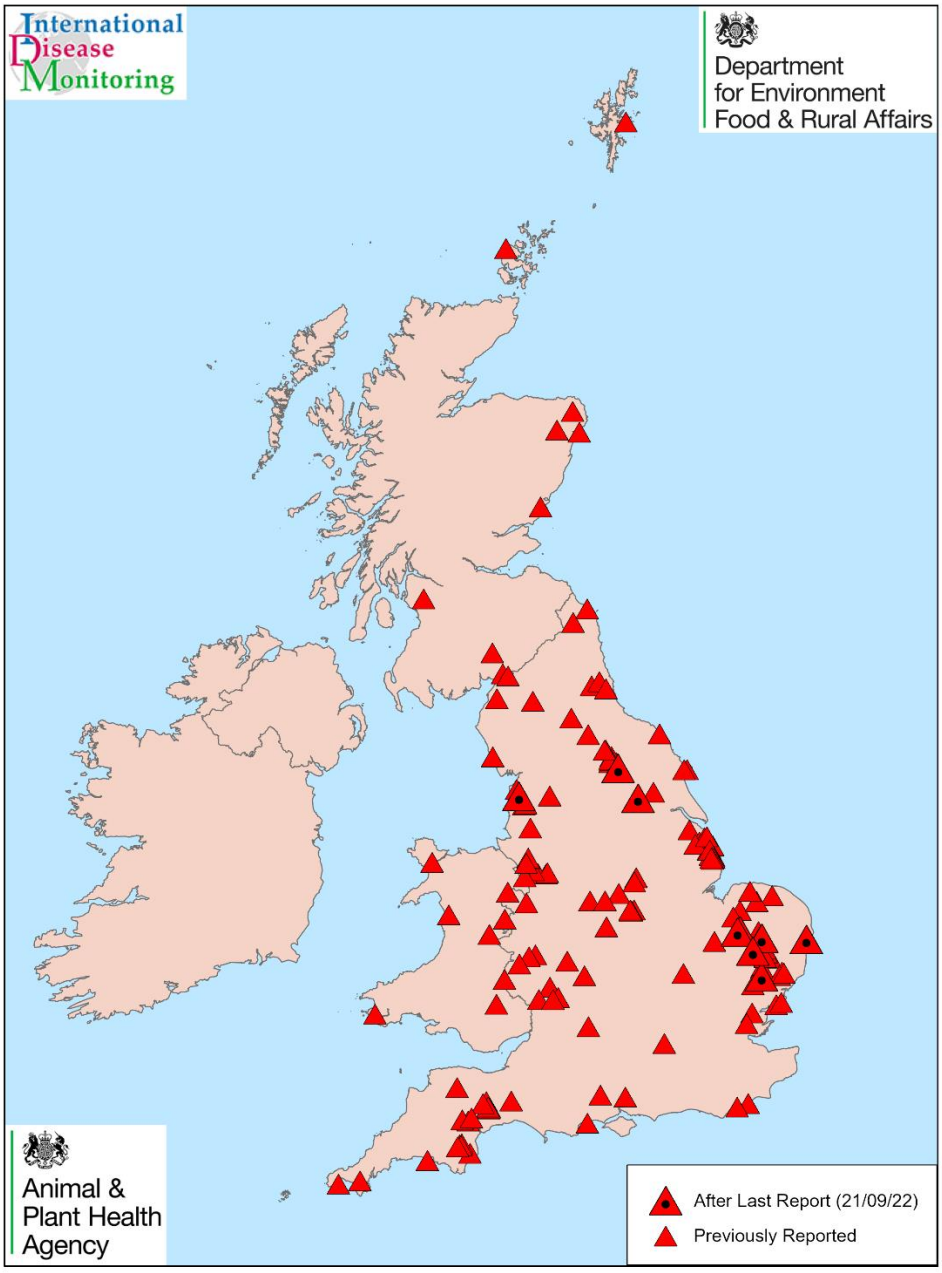
Therefore, the **wild bird risk** across GB is increased to **high, with low uncertainty.** The risk to **poultry with stringent biosecurity** is increased to **medium, with high uncertainty** and the risk to **poultry with suboptimal biosecurity** has been increased to **high, with low uncertainty**.

The regional Avian Influenza Prevention Zone (AIPZ) declared in Cornwall, Devon and parts of Somerset on 31 August 2022 remains in place. A second regional AIPZ was declared in Norfolk, Suffolk and parts of Essex on 27 September 2022, following the recent increase in the number of HPAI IPs with domestic poultry in the region. The AIPZ requires personnel working with poultry and hobbyists to take additional biosecurity measures.

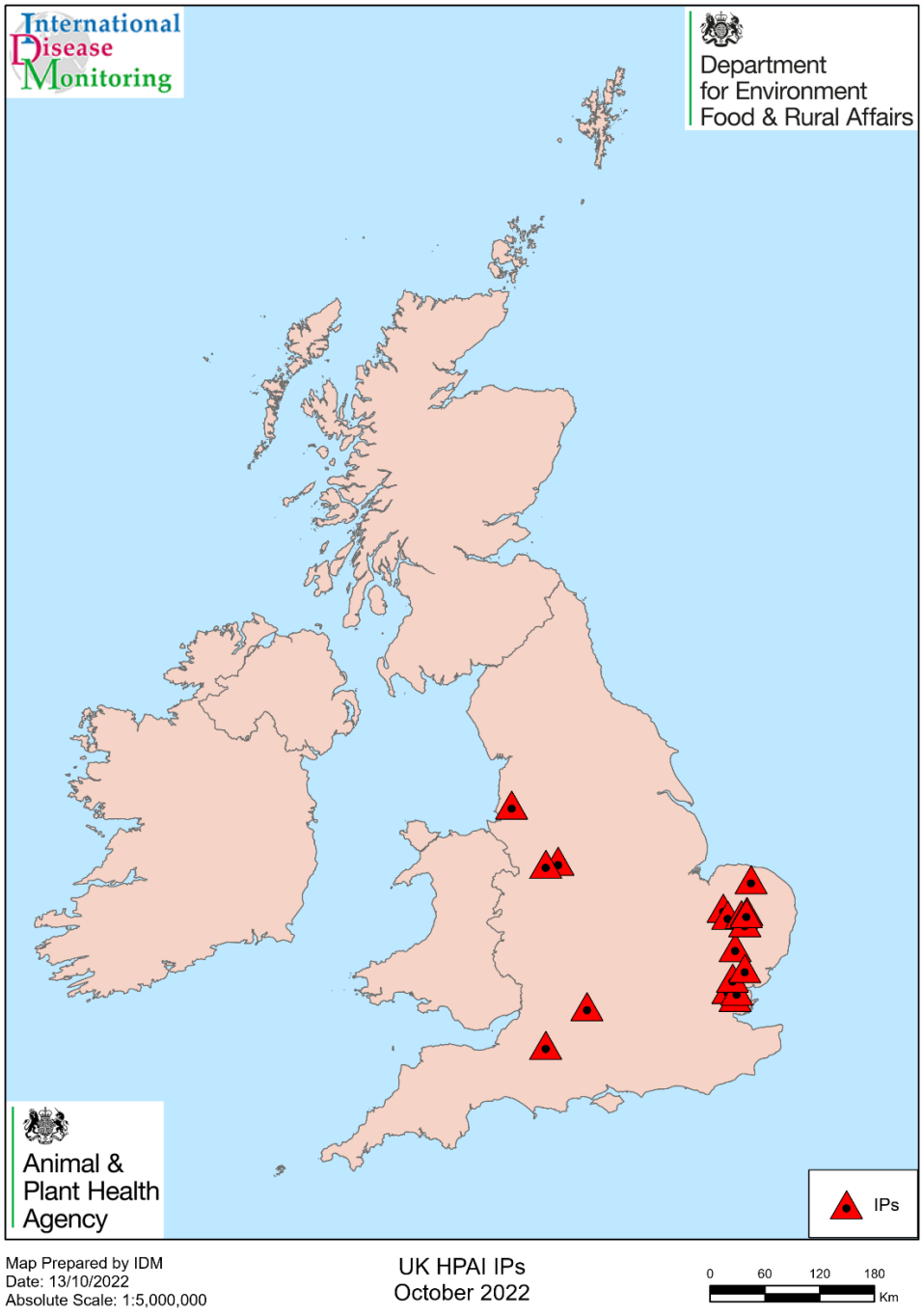
Additional housing measures came into force for Norfolk, Suffolk and parts of Essex on 12 October 2022. This means that all bird keepers in these areas (whether they have pet birds, commercial flocks or just a few birds in a backyard flock) are required by law to take a range of biosecurity precautions, including housing their birds (except in very specific circumstances).

As we head towards the winter months and the return of increasing numbers of wild waterfowl, we will continue to monitor HPAI events in wild birds across Europe as these migratory birds could be sources of new HPAI virus introduction to the UK.

Map 1: HPAI H5 outbreaks in domestic poultry[1] and captive birds across the United Kingdom, October 2021 to 30 September 2022



Map 2: HPAI H5 outbreaks in domestic poultry[1] and captive birds across the United Kingdom, 01 to 10 October 2022



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

Situation assessment

United Kingdom

Domestic poultry: 2021 – 2022 HPAI season

Since the first HPAI H5N1 detection on 15 October 2021, there have been 152 confirmed IPs with HPAI H5N1 in poultry and captive birds across Great Britain during the 2021 to 2022 HPAI outbreak season (Map 1), (Appendix 1). Of these, 134 have occurred in England, 11 have occurred in Scotland (including the Scottish Islands), and seven in Wales. Two regional AIPZs have been declared on 31 August across Cornwall, Devon and parts of Somerset and on 27 September across Norfolk, Suffolk and parts of Essex, following increased numbers of HPAI confirmations in poultry, captive and wild birds in the areas and these remain in place.

Since our last assessment on 21 September 2022, and up to 30 September, HPAI H5N1 has been confirmed at seven further commercial premises in England. These comprised of geese and fattening turkeys in Norfolk, two premises with mixed poultry species in Suffolk, broiler chickens and laying hens in North Yorkshire, and a premises with mixed laying species in Lancashire. Infection with HPAI was also confirmed in a non-commercial small holder with mixed poultry species in Suffolk.

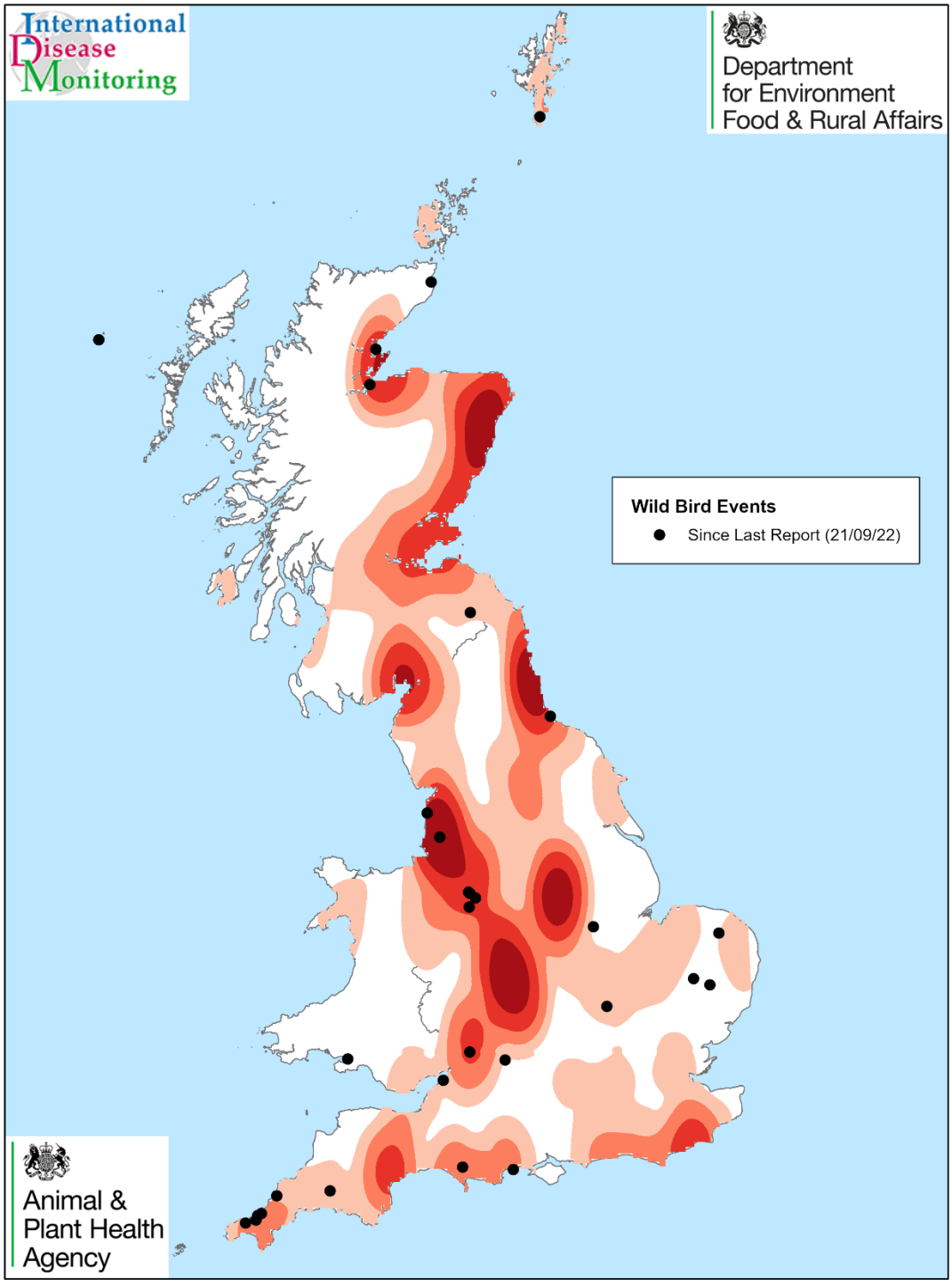
There have been no new premises with HPAI H5N1 confirmed in Northern Ireland (NI) since our last report on 21 September 2022 (DAERA, 2022). There have been no further confirmed cases of HPAI in wild birds in NI since our last report. As of 30 September 2022, the number of wild bird findings of HPAI H5 in Northern Ireland is 22 (IZSVe, 2022).

Domestic poultry: 2022 – 2023 HPAI season

Since 01 October 2022, there have been 22 confirmed IPs with HPAI H5N1 in poultry and captive birds, all in England. These IPs comprise of 15 commercial premises, six non-commercial poultry premises and one captive wildlife premises. Of the 15 commercial IPs, 10 were located in Norfolk (four IPs with ducks, two with turkeys, two with mixed poultry species, one with broiler chickens and one with geese), three were in Essex (two with mixed species, one with turkeys), one IP was located in Oxfordshire and had geese, and one was located in Suffolk with mixed species.

The six non-commercial IPs were comprised of four small holder premises with mixed species, one IP in each of Suffolk, Essex, Staffordshire and Somerset. There was also an additional small holder with chickens in Staffordshire and a backyard flock of chickens in Suffolk. Additionally, HPAI was confirmed in a zoological collection of captive wild birds in Lancashire.

Map 3: Map showing the relative density of, and most recent HPAI H5 positive findings in, wild birds across Great Britain October 2021 to 30 September 2022



Map 4: Map showing the HPAI H5 positive findings in wild birds across Great Britain between 01 and 10 October 2022

Wild birds: 2021 – 2022 HPAI season

Since our last outbreak assessment on 21 September 2022, HPAI H5 has been detected in wild birds in 44 locations in Great Britain and the Scottish Isles up to 30 September. At the end of the 2021/2022 outbreak season (30 September), 15 of these locations had not had HPAI reported in wild birds previously, bringing the total to 410 separate wild bird positive locations, including 59 wild bird species (listed in Appendix 3), in 83 counties. The total number of positive wild bird findings is 1,727, with most in England (Appendix 3). The findings reported since 21 September were widespread across Great Britain with HPAI positive wild birds in both coastal and inland locations. Similar numbers of findings were reported in seabird (20) and wader (26) species, with the greatest number of findings in waders. There were also detections in gamebirds (8), one raptor and one rock dove since our last assessment.

As of 30 September 2022, there has been a total of 60 wild bird HPAI findings from across the Scottish islands of Shetland (37), Orkney (12) and the Western Isles (11).

Across the 2021 to 2022 HPAI season, there have been 98 cases for which the HPAI H5 genotype has been identified, but characterisation of neuraminidase (NA) subtype is in progress due to low viral loads in samples. The NA could not be determined for a total of eight H5 HPAI samples from wild birds, due to very low viral loads.

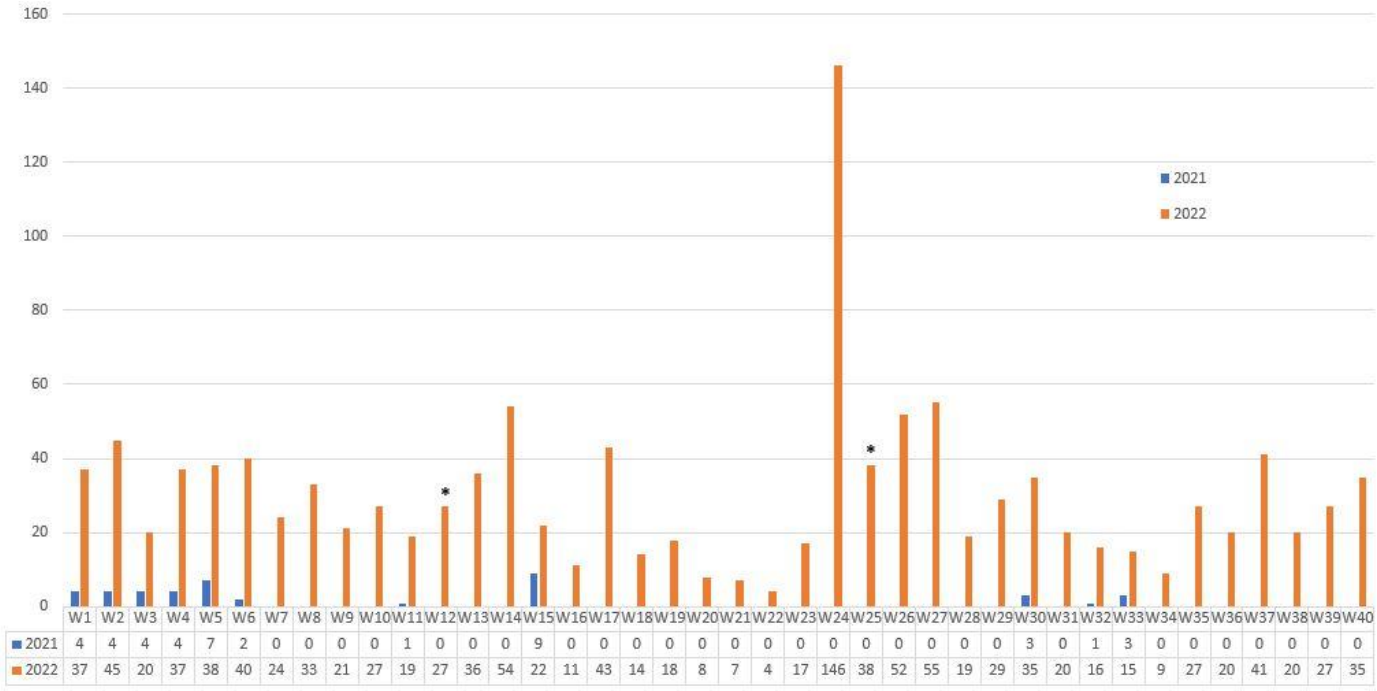
Wild birds: 2022 – 2023 HPAI season

Between 01 and 10 October 2022, HPAI H5 has been detected in 39 wild birds in 20 separate locations in Great Britain, including 10 wild bird species (listed in Appendix 4), in 16 counties. Most of the findings were in England, however wild birds which were located in Scotland and Wales have also tested positive. As in previous weeks, findings have been at both coastal and inland locations, however the greatest number of findings were in waterfowl (27). The other detections were in 11 seabirds and one raptor.

As of 10 October 2022, there have been four cases for which the HPAI H5 genotype has been identified, but characterisation of neuraminidase (NA) subtype is in progress due to low viral loads in samples.

Figure 1: Wild bird HPAI H5N1 positives per week across Great Britain: January to October 2021 and January to October 2022. Asterisks denote changes in

surveillance sensitivity[1]. For earlier data from both HPAI seasons, see our [previous outbreak assessment](#).



	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	W21	W22	W23	W24	W25	W26	W27	W28	W29	W30	W31	W32	W33	W34	W35	W36	W37	W38	W39	W40
2021	4	4	4	4	7	2	0	0	0	0	1	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	3	0	0	0	0	0	0	0
2022	37	45	20	37	38	40	24	33	21	27	19	27	36	54	22	11	43	14	18	8	7	4	17	146	38	52	55	19	29	35	20	16	15	9	27	20	41	20	27	35

[1]Increased sensitivity of surveillance in England in week 12 and decreased sensitivity of surveillance in heavily affected seabird populations across Great Britain in week 25.

The number of cases in sea birds observed over the summer has begun to decrease. This could be due to breeding colonies dispersing to wintering sites. The increased number of detections observed in waterfowl, particularly in inland locations suggest a high infection pressure amongst resident bird species. For further details, please see the report (updated weekly) on findings of HPAI in wild birds in Great Britain and Northern Ireland.

Europe

2021 – 2022 HPAI season

Between 21 and 30 September 2022, there have been a total of 40 HPAI H5 events reported by the WOAH in domestic poultry and non-poultry including wild birds across Europe (Table 1). This includes 12 outbreaks of HPAI H5N1 in domestic poultry, with outbreaks in France (6), Germany (2), Italy (1), Poland (1), Portugal (1) and Spain (1). There were also 27 HPAI H5N1 events reported in non-poultry/wild birds in Denmark (4), France (16), Germany (3), Ireland (1), Portugal (2) and Russia (1). In addition, there was an HPAI H5N5 event reported, involving wild birds in Norway.

Table 1: Number of HPAI H5 events in domestic poultry and wild birds reported by the WOAH, 21 to 30 September 2022 (WOAH, 2022)

Country	H5N1 (WB)	H5N1 (P)	H5N5 (WB)	H5N5 (P)	Total
Denmark	4				**4**
France	16	6			**22**
Germany	3	2			**5**
Ireland	1				**1**
Italy		1			**1**
Norway			1		**1**
Poland		1			**1**
Portugal	2	1			**3**
Russia	1				**1**
Spain		1			**1**
Grand Total	27	12	1	0	**40**

2022 – 2023 HPAI season

Between 01 and 10 October 2022, there has been a total of 27 HPAI H5N1 events reported by the WOAH in domestic poultry and non-poultry including wild birds across Europe (Table 2). Twelve events were reported in domestic poultry in Belgium (1), Germany (4) and the Netherlands (7). Fifteen events were reported in non-poultry/wild birds in Italy (1), Norway (1) and Spain (13).

Table 2: Number of HPAI H5 events in domestic poultry and wild birds reported by the WOAH, 01 to 10 October 2022 (WOAH, 2022)

Country	H5N1 (WB)	H5N1 (P)	H5N5 (WB)	H5N5 (P)	Total
Belgium		1			**1**
Germany		4			**4**
Italy	1				**1**
Netherlands		7			**7**
Norway	1				**1**
Spain	13				**13**
Grand Total	15	12	0	0	**27**

Across Europe, the number of poultry IPs reported weekly by IZSVe is still low but gradually increasing; at five to 10 per week (Figures 2 and 3). The weekly number of HPAI cases in wild birds has fluctuated over the past few weeks, with around 27 cases reported in week 38, just over 40 cases in week 39, then around 30 cases reported in week 40 (Figure 3). Although the number of HPAI outbreaks in poultry and cases in wild birds reported per week across Europe is low compared with observations in recent weeks, there are a greater number of cases being reported overall, compared with week 40 in 2021, where fewer than 5 cases in wild birds were reported (Figure 2).

Figure 2: Number of HPAI positive events reported in poultry, captive and wild birds each week in Europe from October 2021 to 30 September 2022 (IZSVe, 2022)

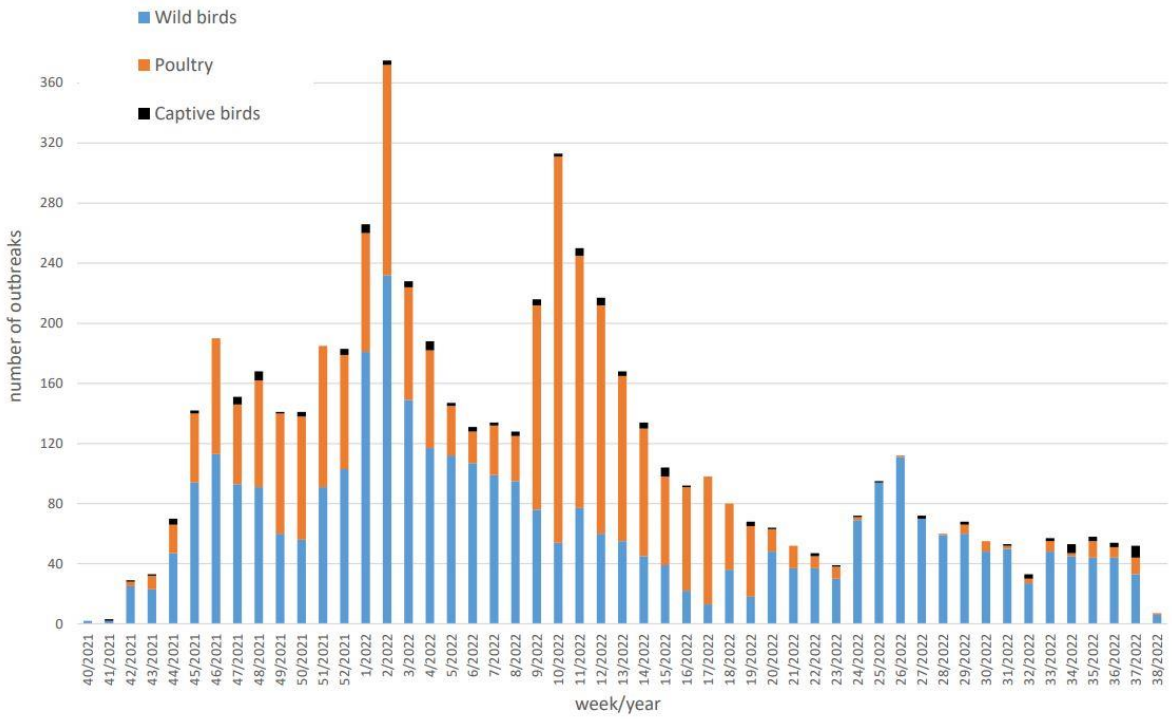
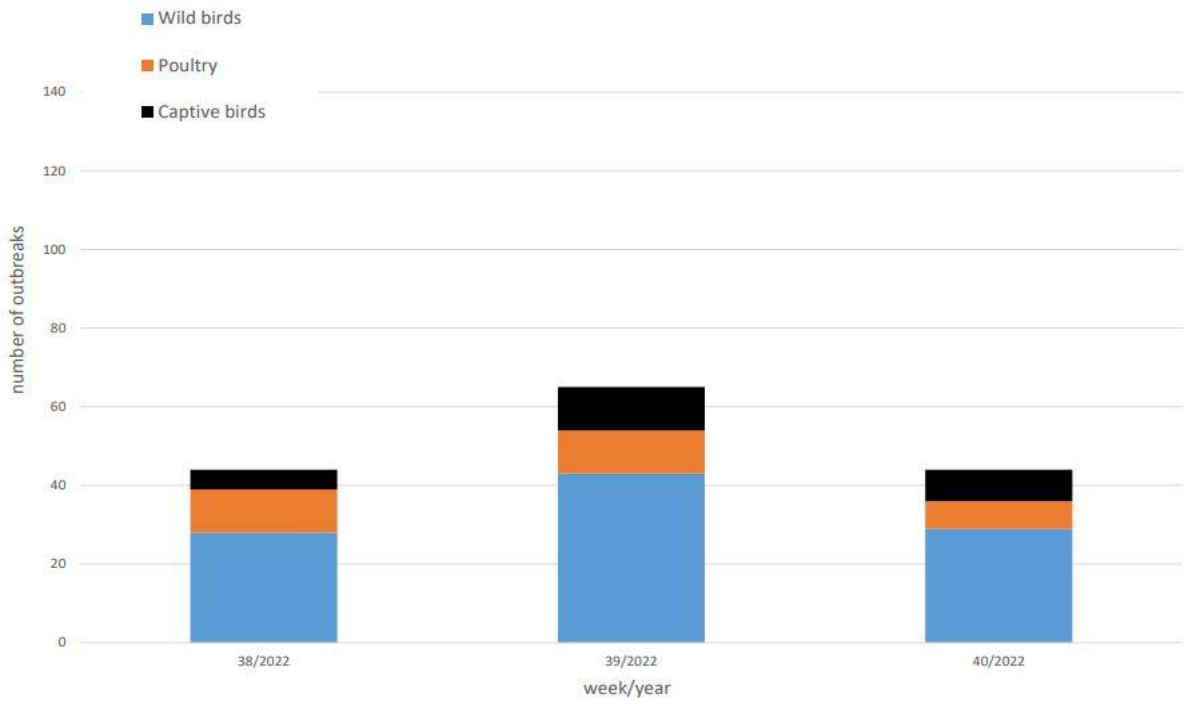


Figure 3: Number of HPAI positive events reported in poultry, captive and wild birds in Europe between September and 07 October 2022 (IZSVe, 2022)



Implications for GB

Following the maintenance of HPAI H5N1 in breeding seabirds over the summer months in GB and north-west Europe, disease events in GB have started to occur in domestic poultry and wild birds at a much earlier point in time than in previous years. This is different to previous years where HPAI has generally not been detected in wild birds in the summer months but reappears following the introduction of virus by migratory waterbirds in the autumn.

Most of the recent wild bird cases in Europe are in north-western Europe (and the Iberian Peninsula), running along the English Channel through the northern coast of France and Belgium into The Netherlands, northern Germany and as far east as Denmark. The presence of HPAI in wild birds in northern Europe at this time of year is of concern as a potential source of infection for ducks, geese and swans migrating west to GB, many of them flying through the Baltics and west through the Netherlands to GB. Although there have been fewer reports this month of wild bird cases in northern Norway, Svalbard, Iceland and off Greenland (Jan Mayen Island for example), many geese and swans will be currently flying into the UK through these routes and may be exposed to virus via any remaining seabirds. These include whooper swans, Greenland barnacle geese, pink-footed geese and Greenland white-fronted geese from Greenland and Iceland, and Solway Barnacle geese from Svalbard. In addition, HPAI H5N1 was circulating in wild geese and ducks in North America during the 2021/22 winter/spring, with potential for carriage of H5N1 virus to their breeding sites in north-west Greenland where, over the summer, mixing may have occurred with light-bellied brent geese which will currently be returning to their wintering sites around the island of Ireland. Highest numbers are seen at Strangford Lough in Northern Ireland in October, where most congregate on arrival, before moving to other estuarine sites in Co Derry, Co Dublin, Co Kerry, and Co Wexford as well as other sites. Auks infected with H5N1 were detected in Canada north of Hudson Bay (Coat's Island) this summer, although it is not known if H5N1 was carried as far north as western Greenland.

It is important to note that current outbreaks of HPAI H5N1 in the USA are of no relevance to GB because birds do not fly across the Atlantic. Also, wild birds in north America only move north-south between Greenland/Canada and the USA in spring and autumn, with Greenland the potential mixing point.

Residual infectivity from affected seabird colonies at coastal sites in southern and eastern England could serve as a source of infection for the dark-bellied brent geese and pink-footed geese which overwinter in the UK. These geese will be returning from their summer breeding sites (along the arctic coast of Russia for dark bellied brent geese, Iceland and Greenland for the pink-footed geese) in the next few weeks.

The recent increase in outbreaks in domestic poultry in GB reported herein are occurring concurrently with increasing numbers of cases in wild birds, particularly in waterfowl species. Whereas in previous years, confirmation of disease in wild birds has preceded the first outbreaks to occur in domestic poultry, this is not the case at present. These unprecedented events may in part be due to spill-over of infection from breeding seabirds to resident wild water birds at inland sites which are more likely to come into contact with poultry than seabirds, therefore recoupling the risk to poultry which was previously considered uncoupled when infection was circulating solely in seabirds. The arrival of migratory waterfowl in GB has now begun and although it is currently unclear whether migratory birds are arriving with HPAI, the resultant increase in bird population numbers will support rapid virus amplification, increase infection pressure in the environment, and therefore increase the spread of infection. Furthermore, HPAI H5 detections in wild birds and poultry have been reported in France, Germany and the Netherlands, all of which have driven increases in the risk to wild birds in GB in previous years. For these reasons, the national risk level for HPAI H5 in wild birds is raised to **high, with low uncertainty**.

In view of the significant increase in poultry outbreaks in both the UK and north-west Europe, the risk of infection of poultry in GB with sub-optimal biosecurity is increased from medium, with medium uncertainty to **high,** with **low uncertainty**. Furthermore, the risk of infection of poultry in GB with stringent biosecurity is increased from low with, medium uncertainty to **medium,** with **high uncertainty**. It is imperative that biosecurity is maintained to the highest extent possible to mitigate against the ongoing risk of infection posed by wild birds across the UK, especially since the infection pressure in wild birds is anticipated to increase in the coming months. The ongoing wild bird infection pressure will likely expose any weaknesses that exist, even where biosecurity is good.

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.

There have been 1,727 confirmed cases of HPAI H5 in wild birds in Great Britain during the 21/22 HPAI season to 30 September 2022 across a range of species. Since the beginning of October and the start of the 2022/ 2023 HPAI outbreak season, there have been 39 confirmed cases of HPAI H5 in wild birds in GB, again spanning a range of waterfowl, seabirds and raptors.

The risk of HPAI H5 infection in wild birds in GB is increased to **HIGH, with low uncertainty**. There is currently a high infection pressure from wild birds, which will be

further bolstered by the arrival of migratory waterfowl, plus environmental conditions favouring virus survival during the coming cooler winter months.

The risk of exposure of poultry across GB where biosecurity is suboptimal is therefore increased to **HIGH** (with low uncertainty) while the risk to poultry in GB where biosecurity is stringent is increased to **MEDIUM** (with high uncertainty).

On 24 November 2021, the Chief Veterinary Officers for England, Scotland, Wales, and Northern Ireland announced housing measures, which came into force on the 29 November 2021. The housing measures were subsequently lifted across the UK on Monday 2 May 2022. Although the GB-wide AIPZ was lifted on 16 August 2022, regional AIPZs were subsequently declared in Cornwall, Devon and parts of Somerset on 31 August 2022 and in Norfolk, Suffolk and parts of Essex on 27 September 2022, respectively. Additional housing measures came into force for Norfolk, Suffolk and parts of Essex on 12 October 2022.

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

It is particularly important that stringent adherence to good biosecurity practices is still maintained, particularly as the onset of cold and wet weather begins. Strict attention should be made to ensure compliance with reviewed contingency plans, with regular maintenance checks and repairs being carried out promptly not only on buildings, but to fencing and boundaries of outdoor areas to minimise contact with wild birds.

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 WOAH, 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 to 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, Scotland and Wales, any findings of the following dead wild birds found at the same location at the same time should be reported to the Defra Wild bird Helpline (Telephone: 03459 33 55 77 – select option 7):

- 3 or more swans, geese, ducks, gulls and waders
- Any number of birds of prey, including owls
- five or more birds of any species

It is advisable that you do not touch these birds.

Appendix 1: Poultry[1] and captive bird premises with High Pathogenicity Avian Influenza (HPAI) H5N1 in Great Britain and Scottish Isles as of 30 September 2022. For resolved outbreaks, see our previous outbreak assessment

Outbreak Number	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved[2]
123	07 August 2022	Near Cullompton, Devon	Commercial laying ducks	
124	09 August 2022	Near Cullompton, Devon	Commercial ducks and quail	
125	10 August 2022	Near Tiverton, Devon	Backyard mixed species	
126	19 August 2022	Near Newlyn, Cornwall	Wild bird hospital	
127	21 August 2022	Near Gayton, Norfolk	Commercial fattening geese	
128	26 August 2022	Near Cullompton, Devon	Commercial rearing turkeys	
129	28 August 2022	Near Bridlington, East Yorkshire	Commercial fattening turkeys	
130	30 August 2022	Near Paignton, Devon	Zoo	
131	30 August 2022	Near Constantine, Cornwall	Backyard laying hens	

Outbreak Number	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved[2]
132	02 September 2022	Near North Molton, Devon	Commercial pheasants	
133	03 September 2022	Near Holt, Norfolk	Backyard mixed species	
134	05 September 2022	Near Arthog, Gwynedd	Backyard mixed species	
135	06 September 2022	Near Bridlington, East Riding of Yorkshire	Commercial laying hens	
136	06 September 2022	Near Heybridge, Essex	Commercial gamebirds	
137	08 September 2022	Near Torpoint, Cornwall	Backyard mixed species	
138	10 September 2022	Near Milford Haven, Pembrokeshire	Commercial broiler chickens	
139	14 September 2022	Near Crewe, Cheshire	Non-commercial mixed species	
140	16 September 2022	Near Bury St Edmunds, Suffolk	Backyard chickens	
141	18 September 2022	Near Clacton on Sea, Essex	Backyard chickens	

Outbreak Number	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved[2]
142	19 September 2022	Near Honington, Suffolk	Commercial chickens	
143	19 September 2022	Near Attleborough, Norfolk	Commercial chickens	
144	20 September 2022	Near Dartington, Devon	Commercial mixed species	
145	22 September 2022	Near Honington, Suffolk	Commercial mixed species	
146	22 September 2022	Near Easingwold, North Yorkshire	Commercial broiler chickens	
147	23 September 2022	Near Northwold, Norfolk	Commercial geese	
148	24 September 2022	Near Babergh, Suffolk	Small commercial mixed species	
149	24 September 2022	Near Poulton-le-Fylde, Lancashire	Commercial mixed species, layers	
150	27 September 2022	Near Attleborough, Norfolk	Commercial fattening turkeys	
151	28 September 2022	Near Selby, North Yorkshire	Commercial laying hens	

Outbreak Number	Date HPAI H5N1 confirmed	Location, County	Description	Date resolved[2]
152	29 September 2022	Near Lowestoft, Suffolk	Small holder mixed species	

[1] According to the 2021 WOAH definition of poultry: Terrestrial Code Online Access - WOAH - 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

Appendix 2: Current poultry[1] and captive bird premises with High Pathogenicity Avian Influenza (HPAI) H5N1 in Great Britain between 01 October and 10 October 2022.

Outbreak Number	Date HPAI H5N1 confirmed	Location, County	Description
1	01 October 2022	Near Bury St Edmunds, Suffolk	Small holder mixed species
2	01 October 2022	Near Attleborough, Norfolk	Commercial laying ducks
3	01 October 2022	Near Attleborough, Norfolk	Commercial turkeys and geese
4	03 October 2022	Near Kidsgrove, Staffordshire	Small holder mixed species
5	04 October 2022	Near Babergh, Suffolk	Commercial mixed species
6	04 October 2022	Near Faringdon, Oxfordshire	Commercial geese
7	05 October 2022	Near Attleborough, Norfolk	Commercial broiler chickens
8	06 October 2022	Near Mundford, Norfolk	Commercial geese
9	07 October 2022	Near Kelvedon, Essex	Commercial turkeys and geese
10	07 October 2022	Near Attleborough, Norfolk	Commercial fattening ducks
11	07 October 2022	Near Frome, Somerset	Small holder mixed species

Outbreak Number	Date HPAI H5N1 confirmed	Location, County	Description
12	07 October 2022	Near Cheddleton, Staffordshire	Small holder chickens
13	08 October 2022	Near Bury St Edmunds, Suffolk	Backyard chickens
14	08 October 2022	Near Maldon, Essex	Commercial turkeys
15	09 October 2022	Near Maldon, Essex	Commercial mixed species
16	09 October 2022	Near Witham, Essex	Small holder mixed species
17	09 October 2022	Near Ormskirk, Lancashire	Captive bird premises
18	09 October 2022	Near Attleborough, Norfolk	Commercial ducks
19	10 October 2022	Near Munford, Norfolk	Commercial mixed species
20	10 October 2022	Near Munford, Norfolk	Commercial ducks
21	10 October 2022	Near Attleborough, Norfolk	Commercial turkeys
22	10 October 2022	Near Holt, Norfolk	Commercial fattening turkeys

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

Appendix 3: 2021-2022 HPAI season; Wild bird species in Great Britain that have tested positive for HPAI H5 between October 2021 and 30 September 2022

Region and species	Total number of birds testing positive
England (below)	**1052**
Black Swan	2
Canada Goose	177
Grey Heron	3
Greylag goose	49
Herring Gull	120
Kestrel	6
Mute Swan	255
Peregrine Falcon	6
Pink Footed goose	18
Unspecified Goose	16
Whooper Swan	31
Common Buzzard	65
Red Kite	3
Pheasant	32
Curlew	3
Gull	12
Great-crested Grebe	3
Barnacle Goose	13
Mallard Duck	22
Unspecified Duck	1
Widgeon	1
Sea Eagle	2
Black headed gull	38
Unidentified Swan	17

Region and species	Total number of birds testing positive
Lapwing	1
Sparrowhawk	8
Bewick's Swan	1
Little Gull	1
Goshawk	1
Guillemot	15
Coot	2
Magpie	1
Kittiwake	10
Common Eider	1
Hen Harrier	3
White Fronted Goose	1
Moorhen	5
Pied Wagtail	6
Gadwall	1
Unspecified Dove	2
Tufted Duck	1
Tawny Owl	3
Oystercatcher	1
Gannet	64
Great black backed gull	1
Arctic Tern	1
Puffin	1
Common Tern	8
Sandwich Tern	9
Razorbill	1
Roseate Tern	1
Little Egret	1

Region and species	Total number of birds testing positive
Cormorant	4
Rock Dove	2
Wales (below)	**69**
Canada Goose	4
Greylag goose	2
Herring Gull	9
Lesser black backed gull	1
Mute Swan	15
Peregrine Falcon	1
Unspecified Goose	5
Common Buzzard	5
Pheasant	5
Curlew	1
Black headed gull	2
Unidentified Swan	1
Sparrowhawk	1
Goshawk	1
Kittiwake	1
Hen Harrier	3
Gannet	9
Carrion Crow	2
Rock Dove	1
Scotland (below)	**606**
Canada Goose	3
Greylag goose	26
Herring Gull	16
Kestrel	1
Lesser black backed gull	1

Region and species	Total number of birds testing positive
Mute Swan	31
Pink Footed goose	80
Unspecified Goose	42
Whooper Swan	9
Common Buzzard	64
Red Kite	3
Great Skua	22
Gull	19
Barnacle Goose	34
Mallard Duck	1
Unspecified Duck	2
Sea Eagle	5
Black headed gull	2
Unidentified Swan	15
Sparrowhawk	5
Bird of Prey Unspecified	5
Guillemot	53
Blackbird	1
Magpie	1
Kittiwake	5
Wood Pigeon	1
Common Eider	16
Unspecified waterfowl	1
Gannet	115
Great black backed gull	4
Arctic Tern	5
Puffin	4
Sandwich Tern	1

Region and species	Total number of birds testing positive
Unspecified Crow	1
Razorbill	3
Manx Shearwater	1
Golden Eagle	3
Unspecified Skua	1
Great Northern Diver	1
Fulmar	2
Long tailed skua	1
Grand Total	**1727**

Appendix 4: 2022-2023 HPAI season; Wild bird species in Great Britain that have tested positive for HPAI H5 between 01 and 10 October 2022

Region and species	Total number of birds testing positive
England (below)	**33**
Canada Goose	7
Greylag Goose	8
Herring Gull	2
Mute Swan	8
Black Headed Gull	1
Common Gull	1
Gannet	5
Razorbill	1
Wales (below)	**4**
Greylag Goose	1
Mute Swan	2
Lesser black-backed gull	1
Scotland (below)	**2**
Mute Swan	1

Region and species	Total number of birds testing positive
Hen Harrier	1
Grand Total	**39**

Authors

- Dr Lorna Freath
- Dr Sonny Bacigalupo
- Prof Ian Brown
- Dr Ash Banyard
- Anthony Pacey
- Dr Paul Gale
- Dr Lauren Perrin

References

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

- DAERA (2022) Department of Agriculture, Environment and Rural Affairs Avian influenza information page
- IZSVe (2022) IZSVe report - Number of highly pathogenic avian influenza positive events notified by country and poultry category (pdf)
- WOAH (2022) WAHIS (woah.org)

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