Department for Environment, Food and Rural Affairs

Updated Outbreak Assessment #44

High pathogenicity avian influenza (HPAI) in the UK and Europe

18 August 2023

Disease report

Since our last outbreak assessment on 11 July 2023, there have been further reports of high pathogenicity avian influenza (HPAI) H5 in domestic poultry in the United Kingdom (UK). These include 9 new infected premises (IPs) confirmed with HPAI H5N1 in Great Britain. Five of the outbreaks were in pheasant premises, the others being 2 commercial premises, 1 backyard premises and 1 rescue centre for wild birds (gulls). There have been 114 HPAI H5 events involving 370 “found-dead” wild birds in Great Britain since our last assessment. This included one week in July with 161 wild bird cases.

Although found-dead wild bird cases have fallen in Great Britain in the last few weeks, the **wild bird risk** level across Great Britain remains at **high.** The risk to **poultry with stringent biosecurity** remains at **low with low uncertainty** and the risk to **poultry with suboptimal biosecurity** remains at **low with high uncertainty**.

Although housing measures and the strengthened biosecurity requirements of the Avian Influenza Prevention Zones (AIPZs) have now been lifted, a ban on poultry gatherings remains in force in Scotland and Wales (this is to be lifted in England on 23 August for Galliformes poultry but not Anseriformes poultry).

Across Europe, HPAI H5N1 continues to be reported in domestic poultry and non-poultry species, including wild birds, although the number of wild bird cases is falling week on week with very few poultry outbreaks reported in July and August. Since 11 July 2023 the World Organisation for Animal Health (WOAH) has reported outbreaks of HPAI H5N1 in domestic poultry in Denmark, France, Germany, Netherlands, and Russia. HPAI H5N1 events in non-poultry species, including wild birds, have been reported by WOAH in Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Latvia, the Netherlands, Norway, Poland, Russia, Spain, Sweden, and Switzerland. There were also reports of untyped or partially typed HPAI in Belgium, Finland and Norway. The high frequency of black-headed gull cases in wild birds in Europe has continued since our last assessment, although other species including kittiwake, common tern, and guillemot have been affected. There has also been spread of HPAI H5N1 in mammals in fur farms (mainly Arctic fox) in south-west Finland.

Situation assessment

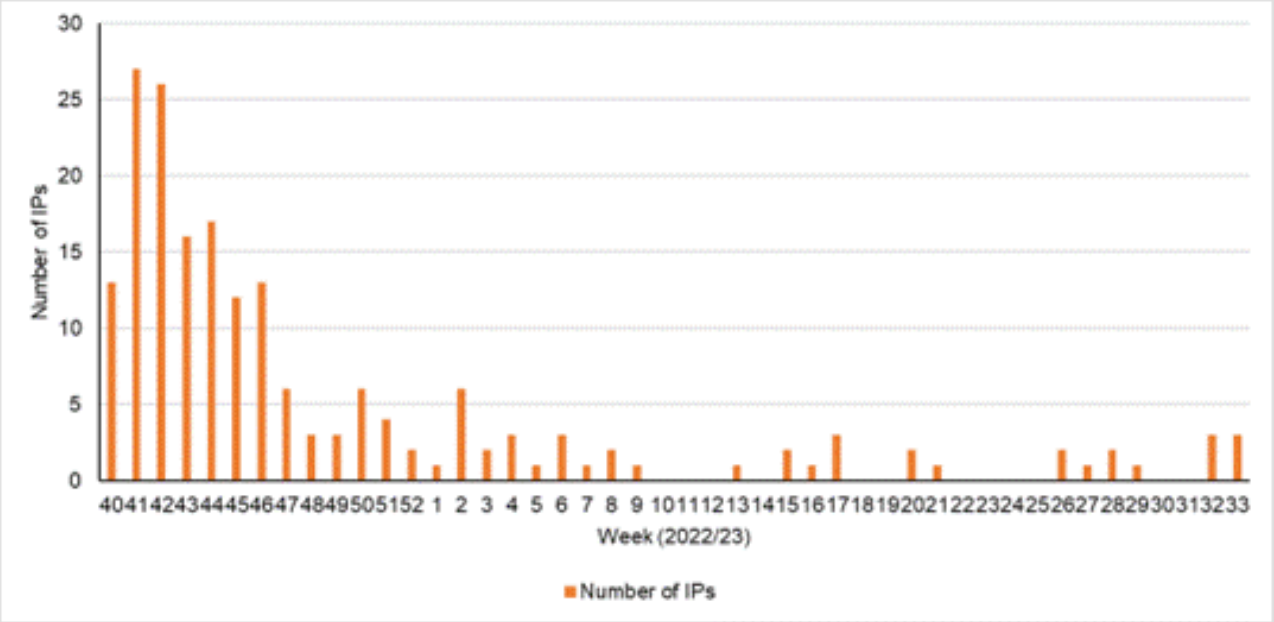
Here, a HPAI H5 event refers to a report of HPAI H5 in poultry or a location with at least one HPAI H5 positive wild bird. Individual HPAI H5 positive wild birds are referred to as cases.

United Kingdom

Since our last report on 11 July 2023 (to 18 August 2023), there have been 9 further IPs confirmed with HPAI H5N1 in poultry[1] including 5 in pheasant premises and 1 in a rescue centre (Figure 1). One of the IPs was in The Highlands, Scotland with 100 chickens, one in Isle of Lewis, Scotland with 18 chickens, and the other was a mixed flock commercial premise Kent, England, with ducks, chickens, turkeys, partridges and geese (Map 1). The rescue premises was in Aberdeenshire, Scotland where 17 gulls were detected with HPAI H5 following testing. Of the 5 pheasant premises detected, 2 were in Dumfries & Galloway, Scotland and 3 in Aberdeenshire, Scotland (Map 1).

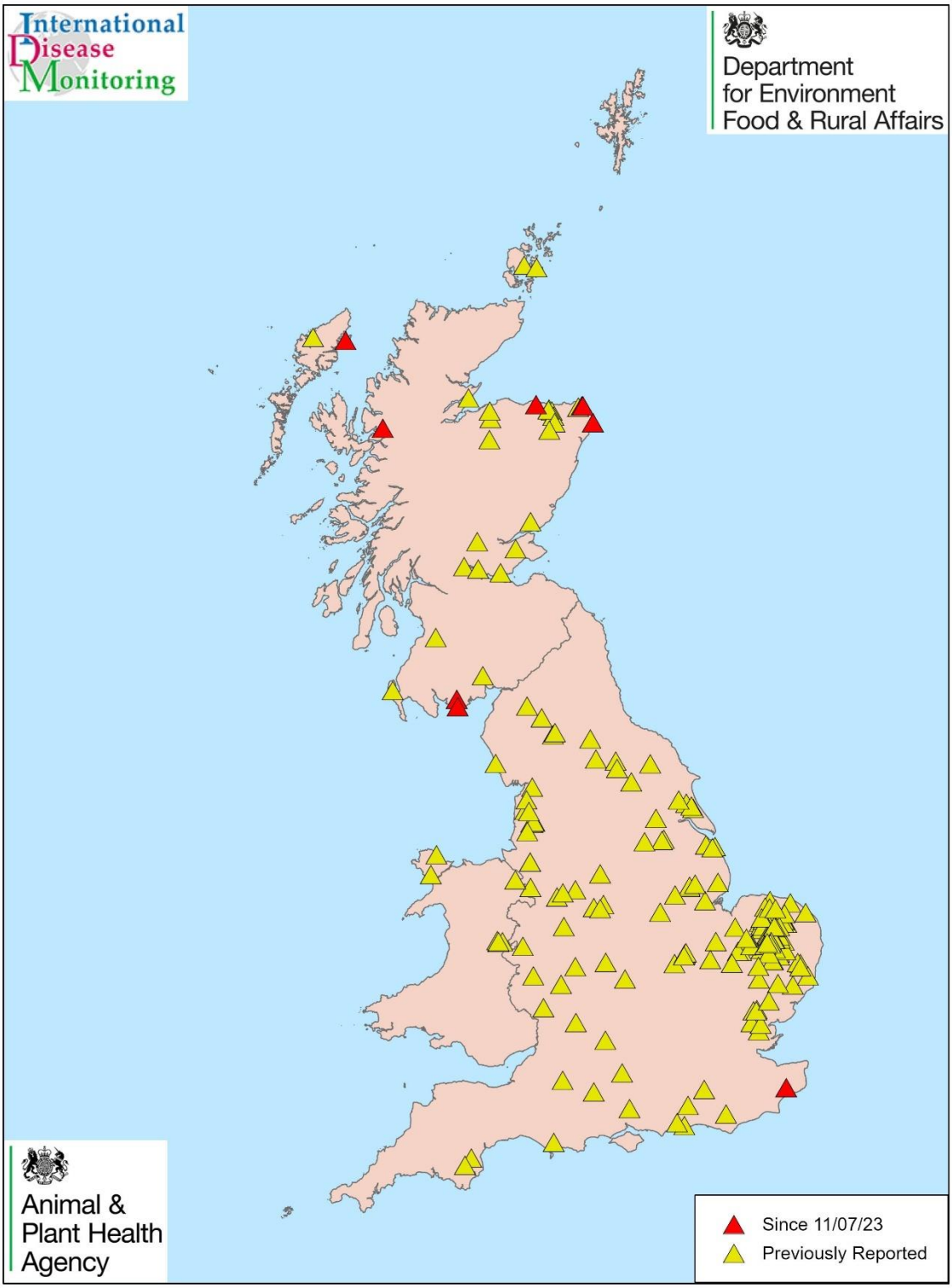
For further details, please see the reports on the latest situation regarding HPAI in domestic poultry and captive birds in England, Scotland, Wales and Northern Ireland.

Figure 1 Number of IPs confirmed with HPAI H5N1 in Great Britain from week 40 2022 (start of October 2022) to week 33 2023 (mid- August 2023).



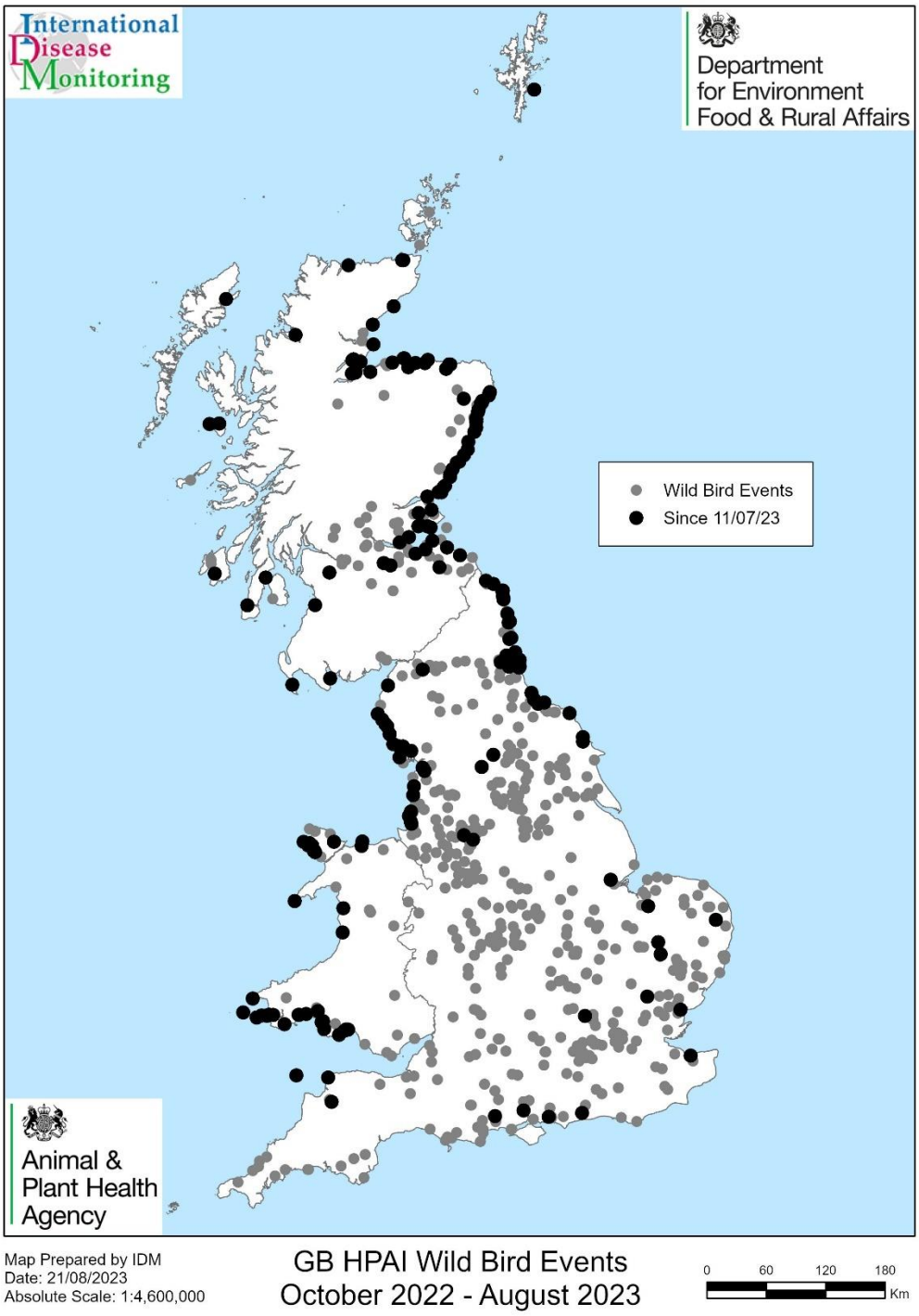
[1] According to the 2021 WOAH definition of poultry. Terrestrial Code Online Access - WOAH - World Organisation for Animal Health

Map 1. HPAI H5 outbreaks in poultry[2] and captive birds across Great Britain, 1 October 2022 to 18 August 2023.



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

Map 2. Map showing the HPAI H5 positive findings in wild birds across Great Britain which were confirmed between 1 October 2022 and 18 August 2023.



Wild birds

Between 11 July 2023 and 18 August 2023, HPAI H5 has been detected in 370 found-dead wild birds in 114 separate locations in Great Britain, including 34 wild bird species (listed in Appendix 1) across 41 counties. Most of the wild bird cases since 11 July 2023 were at coastal locations (Map 2). Almost half of the findings were in Scotland (179) with over a third of cases (137) in wild bird located in England and 54 in Wales (see Appendix 1). There have been relatively few found-dead wild bird cases reported at inland locations

since 11 July 2023 (Map 2). The majority of detections (208) were in seabirds (auks, gannets, fulmar, kittiwakes) with 106 cases in gull species (black-headed, Mediterranean, common, herring, great black-backed, lesser black-backed), 31 cases in terns, 6 detections in birds of prey, 1 detection in a passerine, 1 detection in an unspecified bird, 2 detections in corvids, and 14 detections in resident water birds including 1 grey heron, 4 mallards and 2 mute swans. There was a case in a red grouse in Scotland and a case in a Columbiform (feral pigeon/rock dove).

From 11 July 2023 to 18 August, there were also 33 further cases for which the HPAI H5 genotype has been identified, with characterisation of neuraminidase (NA) subtype in progress.

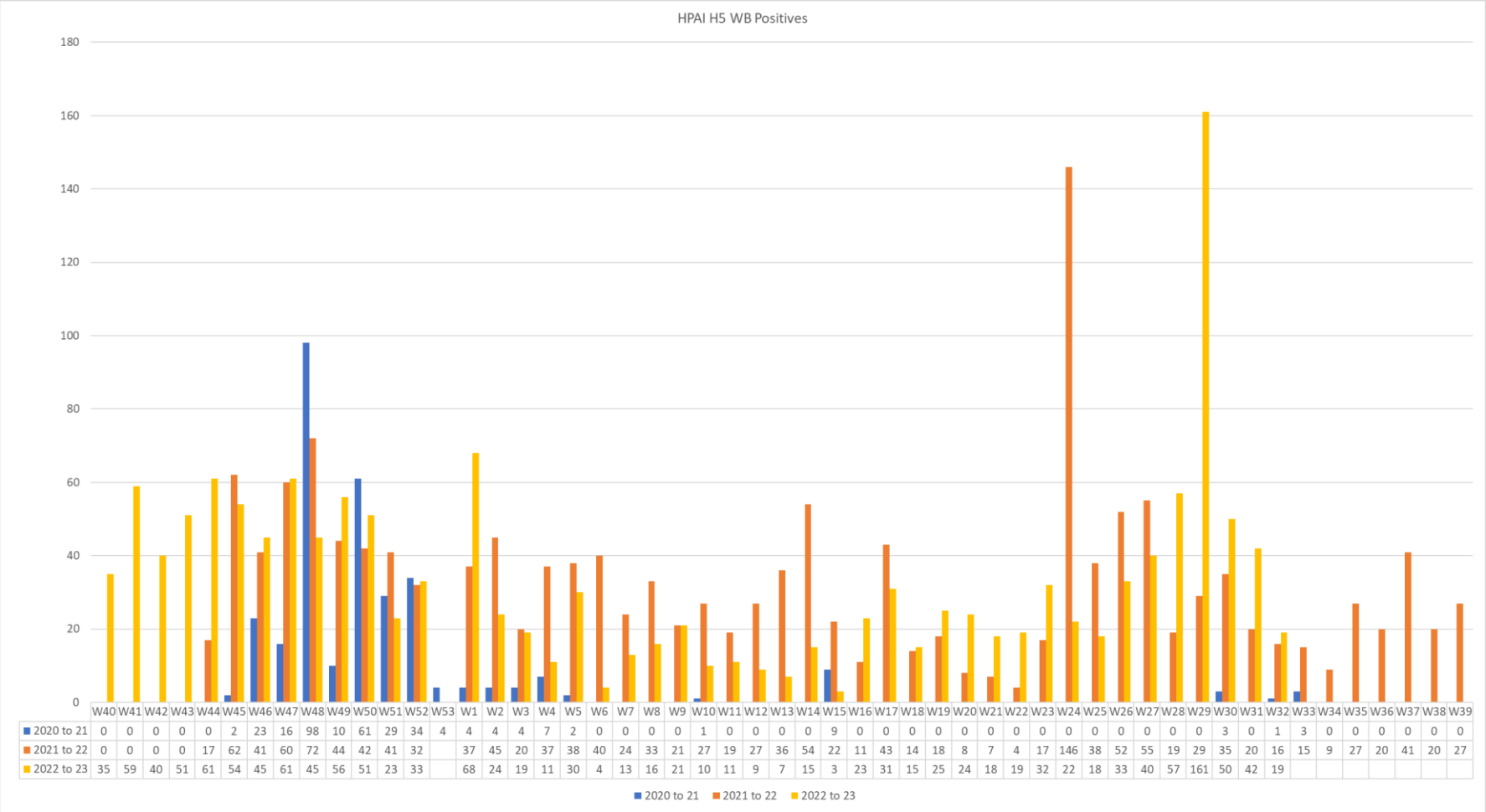
The number of HPAI H5 detections in wild birds showed a very large peak of 161 cases reported in one week in July (Figure 2). These numbers have been largely associated with mass die-offs involving guillemots and kittiwakes. These birds are coastal and are considered unlikely to associate with poultry. By mid-August many will have flown back out to sea to spend the winter. This may account for the recent fall in cases, although it should be noted that the sensitivity of wild bird detection was decreased on 12 July with the threshold number of dead gulls increased from one to five before analysis. While seabirds present little risk to poultry, the fledging and inland foraging of black-headed gulls this month may provide opportunity for interactions between gulls and poultry at inland sites. Spread to resident waterbirds in Great Britain may occur in the coming weeks presenting a greater risk to poultry.

It is important to note that these surveillance figures are based on passive surveillance of found dead birds and as such, may be affected by several factors including frequency of visiting areas with dead birds, sensitivity (discussed above) as well as the size and location of carcasses, meaning that this wild bird surveillance does not capture all of the cases that occur. We will continue to monitor the situation closely. For further details, please see the report (updated weekly) on findings of HPAI in wild birds in Great Britain and Northern Ireland.

Non-avian wildlife

Since 11 July 18 August, there have been no further positive HPAI H5N1 detections in non-avian wildlife in Great Britain. For further details and for previously reported detections in non-avian wildlife from retrospective testing, please see the report on findings of HPAI in non-avian wildlife in Great Britain.

Figure 2. Wild bird HPAI H5 positive cases[a] per week across Great Britain in each season from week 40 (start of October) to the beginning of week 32 (early August).

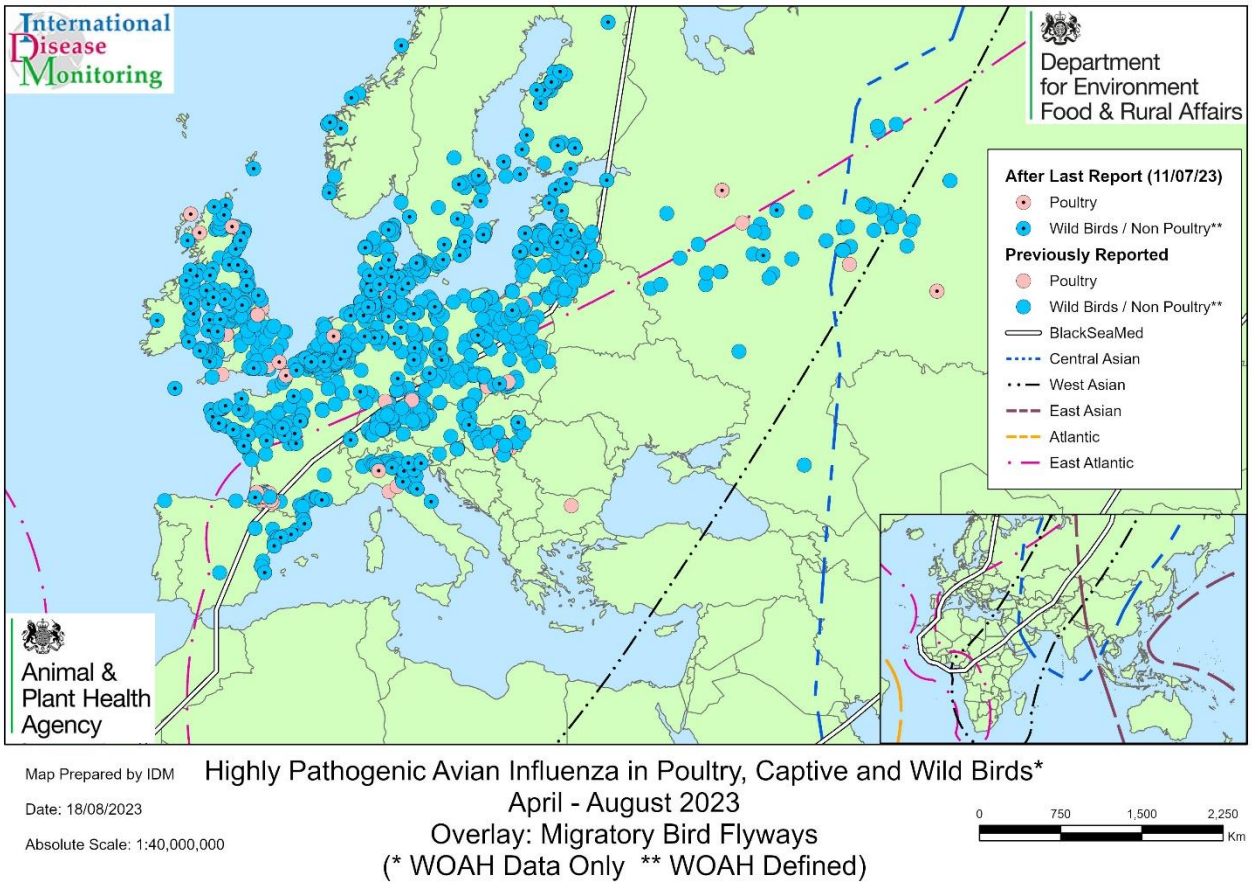


	W40	W41	W42	W43	W44	W45	W46	W47	W48	W49	W50	W51	W52	W53	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	W21	W22	W23	W24	W25	W26	W27	W28	W29	W30	W31	W32	W33	W34	W35	W36	W37	W38	W39
2020 to 21	0	0	0	0	0	2	23	16	98	10	61	29	34	4	4	4	4	7	2	0	0	0	0	1	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	3	0	0	0	0	0	0	0
2021 to 22	0	0	0	0	17	62	41	60	72	44	42	41	32		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	
2022 to 23	35	59	40	51	61	54	45	61	45	56	51	23	33		68	24	19	11	30	4	13	16	21	10	11	9	7	15	3	23	31	15	25	24	18	19	32	22	18	33	40	57	161	50	42	19								

[a] Note that the wild bird sampling strategy may vary

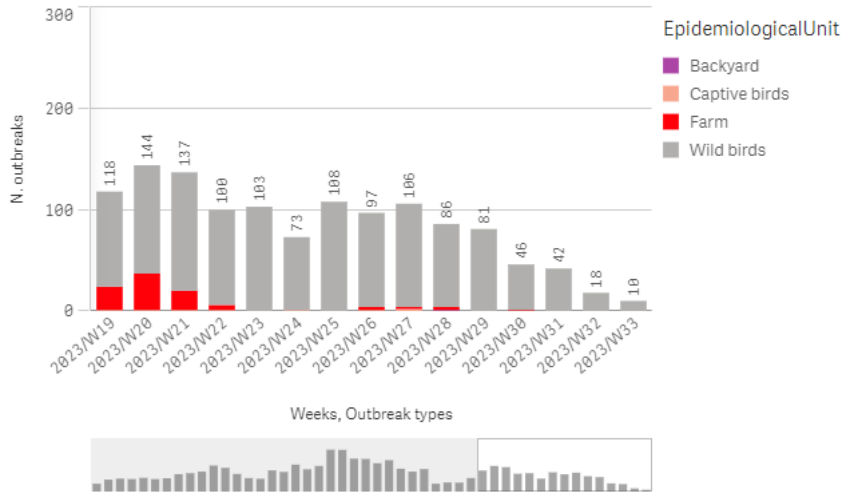
Europe

Map 3. Map showing HPAI H5 events in domestic poultry and wild birds in Europe reported by WOAH between 1 March and 18 August 2023 (WOAH, 2023).



Between the 11 July and 18 August, there were a total of 315 HPAI H5N1 events reported by WOAH in domestic poultry and non-poultry including wild birds (and mammals) across Europe. Most are still occurring along the northern coasts from France to the Baltic and up along the coast of Norway (Map 3). A total of 9 outbreaks of HPAI H5N1 were reported in domestic poultry, namely Denmark (1), France (3), Germany (1), Netherland (1), and Russia (3). 306 HPAI H5N1 events were reported in non-poultry including wild birds in Europe: Austria (1), Belgium (17), Czech Republic (1), Denmark (37), Estonia (6), Finland (59), France (39), Germany (34), Hungary (2), Ireland (4), Italy (23) Latvia (10), Norway (25) Poland (4), Russia (8), Spain (15), Sweden (20) and Switzerland(1). There were 5 cases of HPAI H5 reported in non-poultry including wild birds in Belgium (2 in a Eurasian jackdaw and a herring gull), Finland (one in a razorbill) and Norway (2 in a herring gull and a great skua).

Figure 3. Weekly outbreaks of HPAI in poultry and captive birds and cases in wild birds reported across Europe between mid-March 2023 and mid-August 2023 (IZSVe, 2023)



The number of outbreaks of HPAI in poultry farms each week across Europe has continued to be low, with just a few or no outbreaks each week over the last few weeks (Figure 3). The number of cases in wild birds, however, has fallen steadily week on week for the last five weeks, albeit from a high level of over 100 cases per week with 42 and 18 cases per week respectively in the last two weeks. Notably the proportion of black-headed gulls in week 31 has fallen to just over 10% (five of 42 detections). Previously black-headed gulls accounted for 56% of wild bird cases in week 24 for example (IZSVe, 2023). Other gull species such as black-legged kittiwakes on the north coast of Norway and also tern species are still being affected in Europe. Terns will migrate south from Great Britain and Europe and kittiwakes will disperse out to sea in the coming weeks.

There has also been spread of HPAI H5N1 in fur farms in Finland, with 20 Arctic (blue, silver) fox farms, 2 American mink farms and 3 racoon dog farms affected since 11 July 2023. The most recent outbreak was on 10 August 2023 (Finnish Food Authority 2023). The fur farms are located relatively close to each other in Ostrobothnia in south-west Finland. There have been several cases of H5N1 in black-headed gulls in the area. The Finnish Food Authority (FFA) reported that, based on preliminary sequencing results, the lineage of isolates from the fur animals matches the lineage of the virus circulating among gulls in the country. On 1 August 2023, the FFA ordered all mink on fur farms with diagnosed avian influenza infections should be euthanised. Transmission between foxes or other infected mammals and humans has not been observed so far. Finland is one of the world's largest producers of fox pelts, producing nearly a million a year.

Implications for Great Britain

The number of positive wild bird cases is starting to fall in Great Britain in the last few weeks after the peak of 161 in week 29 (Figure 2). While this may in part be due to the decrease in sensitivity of wild bird testing after the threshold for gulls was increased from

one to five carcases on 12 July 2023, the trend is supported by a decrease in reports and is considered to likely be reflecting the dispersion of many of the seabirds from their coastal breeding colonies to the sea. The migratory waterbirds (ducks, geese, and swans) will start to arrive in Great Britain at the end of next month (September) with numbers increasing through to December. Last year HPAI H5N1 cases in resident waterbirds (mallard, mute swan, Canada goose) were detected in Great Britain prior to the arrival of the migratory birds. While there have been a few cases in mallards and other resident waterbirds in the last month, numbers have not significantly increased. It remains to be seen therefore which species of found-dead wild bird that HPAI will be detected in the coming weeks, and what risk this will pose to poultry.

Wild bird cases in continental Europe have fluctuated considerably this season, although the number has fallen steadily over the last few weeks (Figure 3). The ongoing presence of HPAIV in wild birds in northern Europe is of little direct concern to Great Britain compared to early autumn as a potential source of HPAI entry to Great Britain. However, trends in Europe, particularly in north-western Europe, may reflect those to be seen later in Great Britain. Recent cases have appeared mainly along the northern coastal regions from France and Belgium through to the Baltic with clusters in northern Italy and north-eastern Spain (see Map 3). It should be noted that there is a recent poultry outbreak of HPAI H5N1 in southern Russia north of Afghanistan (Map 3). While H5N1 has been spreading steadily east in Russia from Eastern Europe since spring with many cases in gulls east of Moscow, it should be noted that at this time of year (August) the first appearances of HPAI coming towards Europe from the east have been seen in previous years. Whether this outbreak in southern Russia is the first indication of HPAI coming into Europe this autumn is too early to tell.

Most cases of HPAI H5 in wild birds since 11 July are coastal (Map 2) and seabirds will be dispersing out to sea or have already done so. However, although the number of wild bird detections per week over the last three weeks has decreased, the overall infection pressure within wild bird populations in Great Britain remains high (Figure 2). The national risk level for HPAI H5 in wild birds is maintained at **high**.

The number of poultry IPs in Great Britain remained low for July with an average of less than one IP confirmation per week to 18 August (Figure 1). The sudden detection of five outbreaks in captive pheasants in mid-August in Scotland (Map 1) is a concern. However, it is too early to tell whether this represents a significant increase in risk to poultry in general and it is noted there has not been an increase in outbreaks in backyard poultry premises. The risk to poultry in Great Britain with suboptimal biosecurity is therefore maintained at **low** (**with high uncertainty**). The high uncertainty reflects our concerns that as foraging behaviour changes in black-headed gulls following fledging there is likely to be more opportunity for interactions between black-headed gulls and poultry at this time of year. However, it is notable that black-headed gull cases are decreasing both in Great Britain and Europe and it is now important to assess whether HPAI H5N1 transmission moves to resident waterbirds in the coming weeks. The risk of infection of poultry in Great Britain with stringent biosecurity is maintained at **low** with **low uncertainty.**

It remains to be seen whether HPAI will be detected in other wild bird species during late summer such that infection is maintained into the autumn. Although the poultry risk is currently assessed as low, HPAI is still circulating in wild birds and the dispersal of black headed gulls could result in more interactions with poultry. It is important that biosecurity is maintained to the highest extent possible to mitigate against the risk of infection posed by wild birds across Great Britain.

Conclusion

Cases of HPAI H5 in wild birds, mainly black-headed gulls, kittiwakes, common terns, guillemots continue to be reported in Great Britain and in northern Europe since our last assessment on 11 July 2023. However, the number of wild bird cases reported per week is falling both in Great Britain and Europe (though we note that there will be variation in surveillance plans across Europe).

Since 1 October 2022, there have been 1,558 confirmed cases of HPAI H5 in found-dead wild birds in Great Britain, spanning a range of waterfowl, gulls, terns, birds of prey, and passerines.

The risk of HPAI H5 infection in wild birds in Great Britain is maintained at **HIGH**. Although long daylight hours and high UV intensity in the summer do reduce environmental virus contamination, they are not sufficient to stop direct bird to bird spread in high density breeding colonies. While dispersal of seabirds will reduce the risk, it is not clear how and whether transmission will continue in resident wild birds in Great Britain over the next month.

The number of IPs has reduced substantially since the peak in mid-October 2022, though there have been recent reports in pheasant premises, it is as of yet unclear whether these represented multiple incursions of virus from wild birds or are a result of secondary spread. Epidemiological investigations are ongoing. While the number of wild bird cases is still high with a peak of 161 cases in one week in July 2023, the infection pressure from wild birds on poultry appears to have reduced mainly because most of the wild bird cases in July are in seabirds (kittiwakes and guillemots) and are coastal. Therefore, the risk of exposure to poultry across Great Britain is maintained at **LOW** with low uncertainty for stringent biosecurity but high uncertainty where biosecurity is suboptimal.

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

It is particularly important that stringent adherence to good biosecurity practices is still maintained, particularly with the impending dispersal of black headed gulls and likely increased interactions with poultry in the coming weeks.

Reinforcement of good biosecurity awareness behaviours and practices should be frequently communicated to all personnel working with birds. Any lapse of these measures could still result in disease being introduced to poultry and captive birds. This could be via direct contact with wild birds (getting into housing or on the

range) or indirect contact, such as contact with contaminated feed, water, bedding, equipment, vermin or clothing, including footwear of people in contact with infected birds or contaminated environment including flood water. 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. Contact

- 03000 200 301 in England
- 0300 303 8268 in Wales
- your local field services office in Scotland

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
- Northern Ireland is available on DAERA's website

The WOAH, FAO International Reference Laboratory and the UK National Reference Laboratory at Weybridge have the necessary diagnostic capability for strains of avian influenza virus, whether of low or high pathogenicity, and continually monitor changes in the virus on a wide scale, whilst utilising global networks to gain early insights into 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 online (https://www.gov.uk/guidance/report-dead-wild-birds) or to the Defra wild bird helpline on 03459 33 55 77:

- 1 or more dead birds of prey (such as an owl, hawk or buzzard)

- 1 or more dead swans, goose or duck
- 5 or more dead wild birds of any species (including gulls)

It is advisable that you do not touch these birds.

Appendix 1. 2022 to 2023 HPAI season - wild bird species in Great Britain that have tested positive for HPAI H5 between 1 October 2022 and 18 August 2023.

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (11 July 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
England		
Black Swan	0	1
Canada Goose	0	174
Great White Egret	0	1
Grey Heron	1	2
Greylag Goose	0	112
Herring Gull	21	58
Kestrel	0	6
Mute Swan	2	145
Pink footed goose	0	27
Unspecified Goose	0	5
Unspecified Swan	0	2
Whooper swan	0	15
Common Buzzard	1	78
Red Kite	0	3
Pheasant	0	31

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (11 July 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Curlew	0	1
Barnacle goose	0	3
Mallard duck	4	10
Unspecified duck	0	2
Black Headed Gull	15	193
Sparrowhawk	0	19
Goshawk	0	1
Wood Pigeon	0	5
Unspecified Gull	0	1
Common Gull	0	3
Tawny Owl	0	7
Gannet	0	7
Great Black Backed Gull	0	1
Common Tern	10	33
Carrion Crow	1	2
Razorbill	2	3
Little Egret	0	1
Rock Dove	0	10

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (11 July 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Lesser black-backed gull	1	2
Crow	0	1
Pintail duck	0	1
Peregrine	4	23
Unidentified Avian	0	2
Barn Owl	0	2
Red Legged Partridge	0	1
Goosander	0	1
Red Breasted Goose	0	2
Fantail Dove	0	1
Unspecified Bird of Prey	0	5
Other Crow	0	2
Unlisted Goose	0	3
Unspecified Pheasant	0	3
Shoveler	0	1
Greater Spotted Woodpecker	0	1
Dove Pigeon		1

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (11 July 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Teal	0	1
Sandwich Tern	0	6
Reed Warbler	0	1
Mediterranean Gull	1	2
Kittiwake	23	24
Guillemot	31	31
Coot	2	2
Moorhen	1	1
Artic Tern	6	6
Puffin	1	1
Roseate Tern	3	3
Fulmar	1	1
Little Tern	2	2
Unspecified Guillemot	1	1
Feral pigeon/Rock dove	1	1
England total	**137**	**1097**
Scotland		

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (11 July 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Greylag Goose	0	4
Herring Gull	35	46
Mute Swan	0	14
Pink footed goose	0	23
Unspecified Goose	0	4
Whooper swan	0	2
Common Buzzard	0	10
Pheasant	0	4
Barnacle goose	0	19
Black Headed Gull	2	7
Sparrowhawk	1	3
Guillemot	59	62
Hen Harrier	0	1
White Fronted Goose	0	2
Unspecified Gull	13	25
Common Gull	5	10
Tawny Owl	0	1
Fulmar	0	1

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (11 July 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Lesser black-backed gull	0	2
Osprey	0	1
Unspecified Tern	2	5
Barn Owl	0	1
Red-throated Diver	0	1
Unspecified Heron	0	1
Ringed Plover	0	1
Unknown Buzzard	0	3
Sandwich Tern	0	4
Common Tern	2	5
Kittiwake	33	44
Curlew	1	1
Arctic Tern	5	5
Puffin	2	2
Carrion Crow	1	1
Razorbill	11	11
Cormorant	3	3
Shag	2	2

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (11 July 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Red Grouse	1	1
Great Black backed gull	1	1
Scotland total	**179**	**333**
Wales		
Canada Goose	0	3
Greylag Goose	0	5
Herring Gull	6	8
Mute Swan	0	10
Common Buzzard	0	4
Pheasant	0	9
Mallard duck	0	2
Black Headed Gull	1	20
Guillemot	38	40
Hen Harrier	0	1
Moorhen	0	1
Gannet	2	4
Arctic Tern	0	1

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (11 July 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Common Tern	0	4
Sandwich Tern	0	2
Lesser black-backed gull	1	3
Unspecified Bird of Prey	0	1
Unspecified Crow	0	1
Unspecified Bird	1	1
Great black-backed gull	2	2
Common gull	2	2
Kittiwake	1	1
Wales total	**54**	**125**
Grand total	**370**	**1555**

Authors

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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 (2023) Department of Agriculture, Environment and Rural Affairs Avian influenza information page
- Finnish Food Authority (2023) Avian influenza in Finland - Finnish Food Authority (ruokavirasto.fi)
- IZSVe (2023) EURL Avian Flu Data Portal (izsvenezie.it)
- WOAH (2023) 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.