Department for Environment, Food and Rural Affairs

Updated Outbreak Assessment #44

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

11 July 2023

Disease report

Since our last outbreak assessment on 6 June, there have been further reports of high pathogenicity avian influenza (HPAI) H5 in domestic poultry in the United Kingdom (UK). These include 4 new infected premises (IPs) confirmed with HPAI H5N1 in Great Britain. Two of the outbreaks were in commercial premises, and two were in rescue centres. There have been 56 HPAI H5 events involving 145 wild birds in Great Britain since our last assessment.

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** is lowered to **low, with high uncertainty**.

Housing measures which came into force across the whole of England on 7 November 2022 and across Wales on 2 December 2022 were lifted on 18 April 2023. The strengthened biosecurity requirements of the Avian Influenza Prevention Zones (AIPZs) which were declared in England, Scotland, Wales, and Northern Ireland on 17 October 2022 were lifted on 2 June for Northern Ireland, and 4 July for England, Scotland and Wales, a ban on poultry gatherings remains in force.

Across Europe, HPAI H5N1 continues to be reported in domestic poultry and non-poultry species, including wild birds, with a similar number of reports compared with last month (around 290 in May versus 260 in April). The World Organisation for Animal Health (WOAH) has reported outbreaks of HPAI H5N1 in domestic poultry in France, Poland, Sweden and Russia. HPAI H5N1 events in non-poultry species, including wild birds, have been reported by WOAH in Austria, Belgium, Czech Republic, Estonia, Finland, France, Germany, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Norway, Poland, Russia, Slovenia, Spain, Sweden, and Switzerland. There were also reports of untyped or partially typed HPAI in Belgium, Finland, and Norway, and 1 report of HPAI H5N5 in Norway. The high frequency of black-headed gull cases in wild birds in Europe has continued since our last assessment, however overall numbers of HPAI reports are continuing to decrease from the peak observed in February and March.

Situation assessment

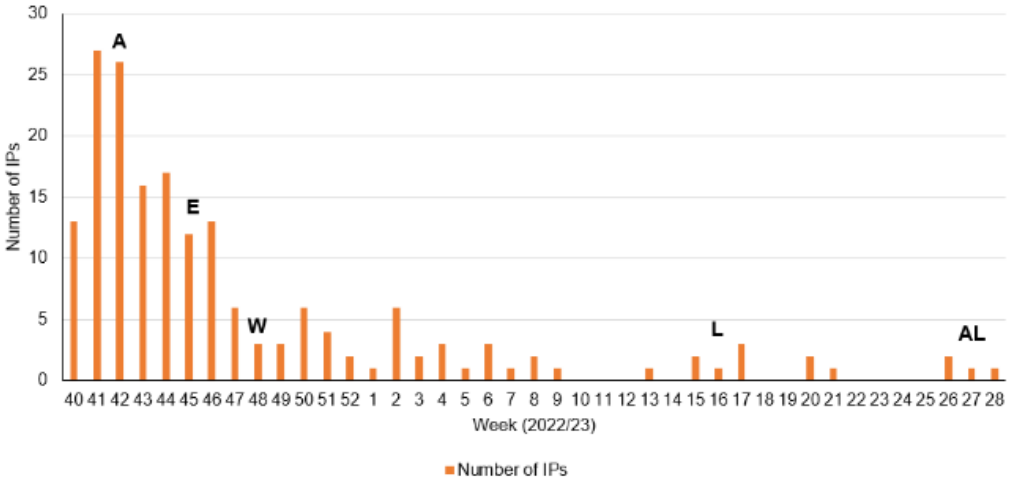
Here, a HPAI H5 event refers to a report of HPAI H5 in poultry or a location with at least one HPAI H5 positive wild bird. Individual HPAI H5 positive wild birds are referred to as cases.

United Kingdom

Since our last report on 06 June 2023 to 11 July 2023, there have been 2 further IPs confirmed with HPAI H5N1 in poultry[1] and 2 in rescue centres. One of the IPs was in Cumbria, England with 8,500 free-range laying hens and the other was in Aberdeenshire, Scotland with 32,000 free range laying hens. One of the rescue premises was in Moray, Scotland where 6 white-tailed eagles were detected with HPAI H5 following testing for a conservation relocation programme and the other was in West Sussex, England involving 85 gulls and 13 garden birds including 3 woodpigeons and 2 house sparrows (Map 1).

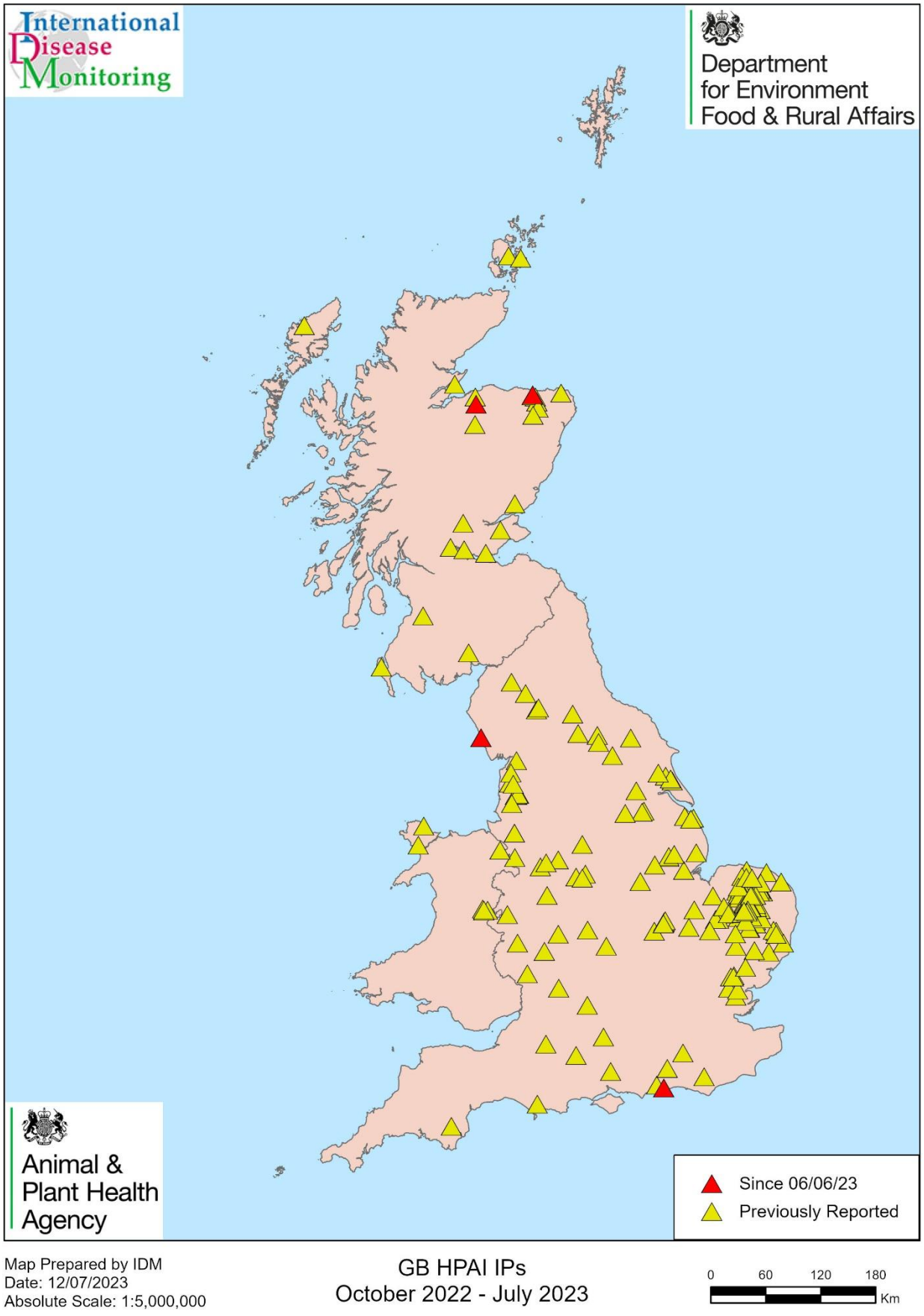
In Northern Ireland, housing measures were lifted on 18 April 2023, and the Avian Influenza Prevention Zone (AIPZ) was lifted on 2 June 2023, a ban on poultry gatherings remains in force. For further details, please see the reports on the latest situation regarding HPAI in domestic poultry and captive birds in England, Scotland, Wales and Northern Ireland.

Figure 1 Number of IPs confirmed with HPAI H5N1 in Great Britain between week 40 2022 (start of October) and week 28 2023 (mid- July). Letters denote when AIPZ was put into place across Great Britain (A) and lifted (AL), also when housing measures were introduced across England (E) and Wales (W) and when measures were lifted in both administrations (L).



[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 11 July 2023.



Map 2. Map showing the HPAI H5 positive findings in wild birds across Great Britain which were confirmed between 1 October 2022 and 11 July 2023.

Wild birds

Between 06 June and 11 July 2023, HPAI H5 has been detected in 145 wild birds in 56 separate locations in Great Britain, including 13 wild bird species (listed in Appendix 1) across 31 counties. Most of the findings were in England (96) with 31 wild bird cases located in Scotland and 18 in Wales (see Appendix 1). As in previous weeks, HPAI-positive findings were widespread across Great Britain including both coastal and inland locations. The majority of detections (89) were in gulls, with 2 detections in birds of prey, 51 in seabirds,1 detection in a passerine, 1 detection in a corvid, and 1 detection in waterfowl.

From 6 June to 11 July 2023, there have been 20 further cases for which the HPAI H5 genotype has been identified, with characterisation of neuraminidase (NA) subtype in progress.

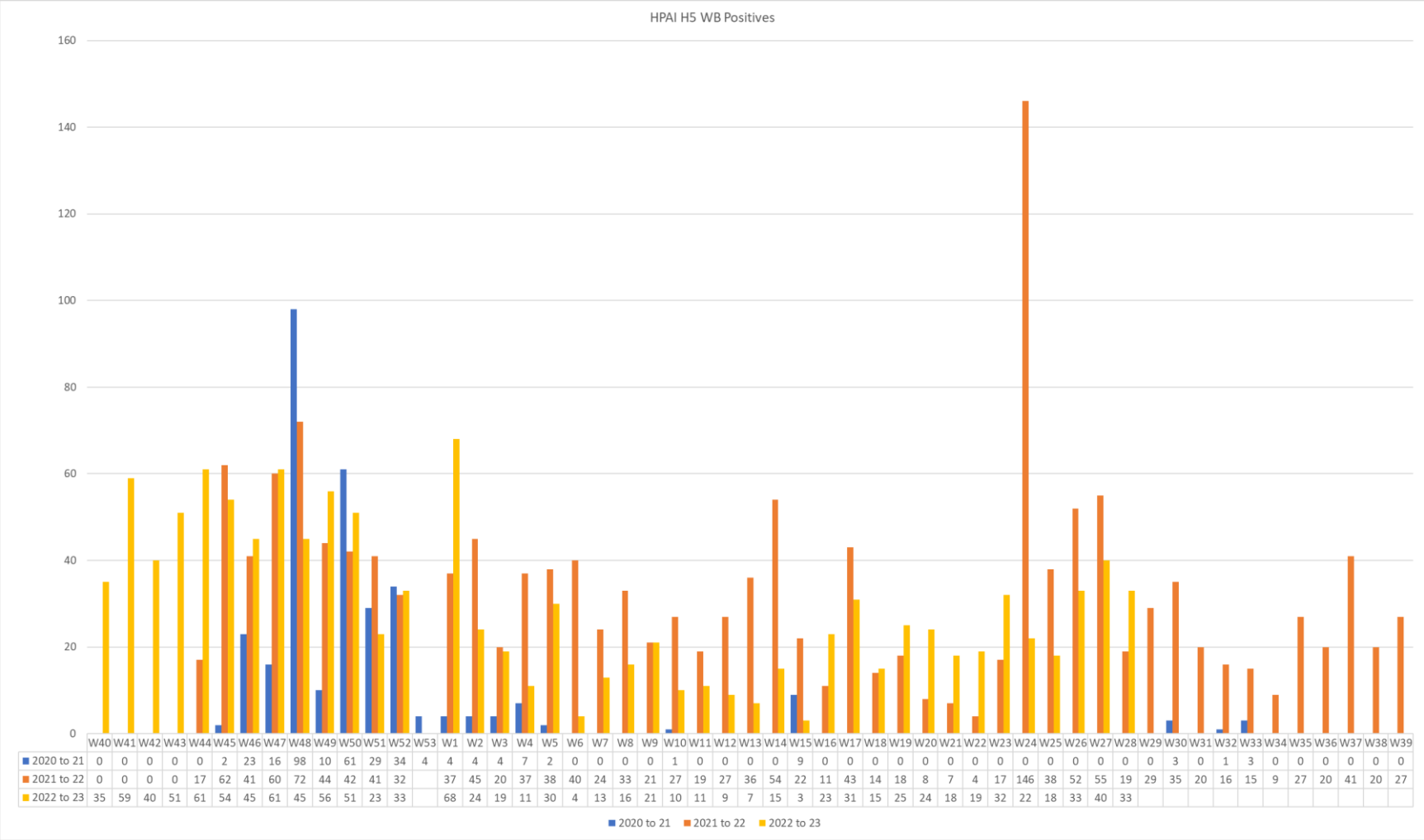
The number of HPAI H5 detections in wild birds has varied between 15 to 40 over the last 8 weeks (Figure 2), these numbers have been largely associated with mass die-offs involving black-headed gulls and terns. These events to date appear to have remained localised to aggregated (and often legally protected) colonies of birds. Similar events in black headed gulls observed across Europe do not appear to have led to any large increase in the number of infected poultry premises, however as fledging and further foraging occurs in the coming months, this is likely to provide a further opportunity for interactions between black headed gulls and poultry.

The first detections in seabirds this year have been reported, involving common, sandwich and artic tern species. 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, as well as the size and location of carcasses, meaning that this surveillance may 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 6 June to 11 July, 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 28 (mid-July).

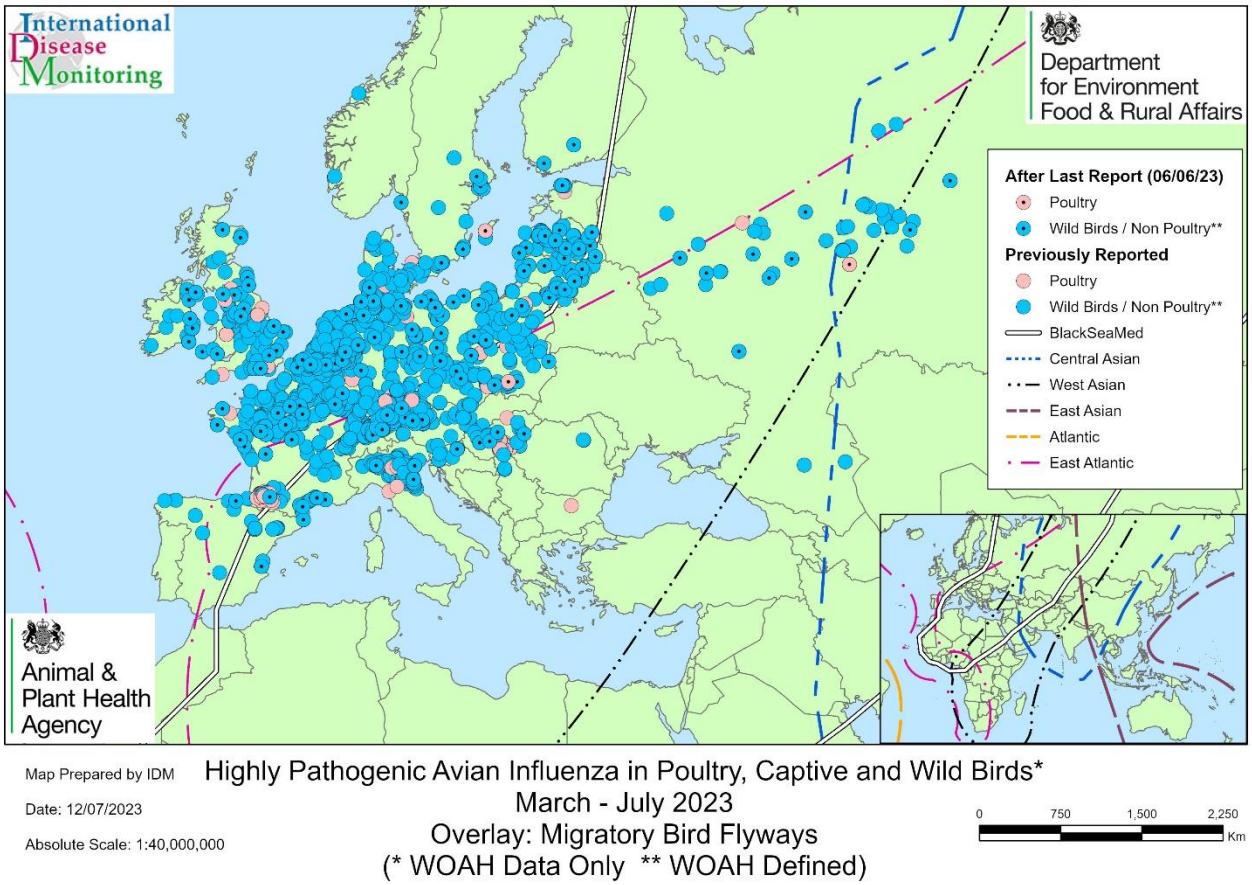


	W40	W41	W42	W43	W44	W45	W46	W47	W48	W49	W50	W51	W52	W53	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	W21	W22	W23	W24	W25	W26	W27	W28	W29	W30	W31	W32	W33	W34	W35	W36	W37	W38	W39
2020 to 21	0	0	0	0	0	2	23	16	98	10	61	29	34	4	4	4	4	7	2	0	0	0	0	1	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	1	3	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	33												

[a] Note that the wild bird sampling strategy may vary, particularly between seasons.

Europe

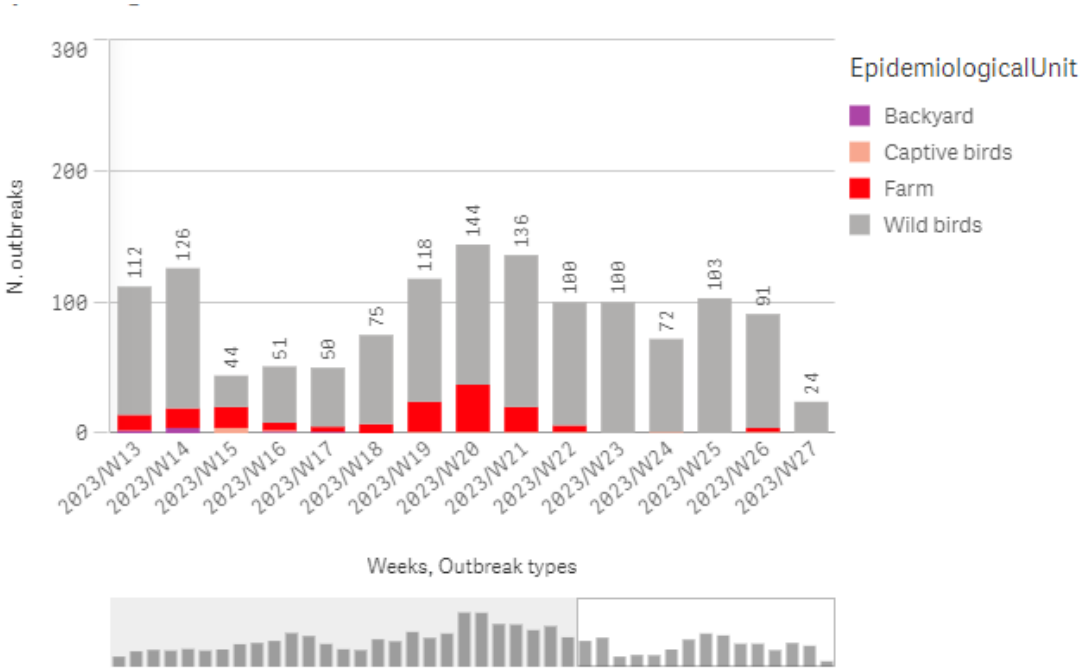
Map 3. Map showing HPAI H5 events in domestic poultry and wild birds in Europe reported by WOAH between 1 March and 11 July 2023 (WOAH, 2023).



Description of Map 3. Since 4 May 2023, HPAI H5 events in poultry, captive and wild birds have been widely reported across Europe by the WOAH, however the number of reports is decreasing.

Between the 6 June and 11 July, there were a total of 287 HPAI H5N1 events reported by the WOAH in domestic poultry and non-poultry including wild birds across Europe. A total of 6 outbreaks of HPAI H5N1 were reported in domestic poultry in France (1), Germany (2), Poland (1), Sweden (1) and Russia (1). 289 HPAI H5N1 events were reported in non-poultry including wild birds in Europe: Austria (3), Belgium (9), Czech Republic (2) Estonia (3), Finland (1), France (30), Germany (57), Hungary (8), Ireland (7),Italy (13) Latvia (41), Lithuania (20), Luxembourg (1), Norway (7) Poland (18), Russia (11), Slovenia(1), Spain (4), Sweden (7) and Switzerland(2). There were cases of HPAI H5 reported in non-poultry including wild birds in Belgium (2 in a magpie and a crow) Finland (1 sparrowhawk) and Norway (1 herring gull). Additionally, there was 1 case of HPAI H5N5 reported in a wild bird (glaucous gull) in Svalbard (Norway).

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 July 2023 (IZSVe, 2023)



The number of outbreaks of HPAI in poultry farms each week across Europe continues to fall, with no outbreaks in weeks 23, 24 and 25 and just one in week 26 (Figure 3). The number of cases in wild birds, however, has fluctuated but remains high, with around 100 cases reported in week 23, 72 in week 24, 103 cases reported in week 25 and 91 in week 26. The majority of these findings in wild birds still comprise black headed gulls accounting for example for 56% of wild bird cases in week 24 (IZSVe, 2023). However, other gull species such as black-legged kittiwakes on the north coast of Norway and also tern species are being affected in Europe. In the first week of July, it is noted that three corvids (two magpies and a carrion crow) in Belgium, two red kites in Ireland, and a backyard premises with 30 pheasants in Poland have tested positive for HPAI H5N1, possibly signalling a shift in the wild bird species affected in Europe. However, it is important to note that wild bird surveillance methods may differ between countries and may contribute to the variability in the species and number of wild birds reported each week.

Implications for Great Britain

All the migratory waterbirds (ducks, geese and swans) departed Great Britain on their outward migration to their breeding grounds in northern Europe and Russia several months ago. Most resident GB waterbird species that breed in Great Britain do not breed together in large colonies, instead breeding in well-defined dispersed territories, the exception being seabirds around the coast together with certain gull species such as black-headed gulls which nest in colonies. The seabirds have now returned to their breeding colonies around the Great Britain coast, with relatively few cases so far this summer compared to last summer. However, there is some evidence of increased cases in guillemots and kittiwakes in Great Britain recently which will be addressed in our next

report. The increased number of detections associated with mass die-off events in black headed gulls both in Great Britain and across Europe does not appear so far to be associated with increased reports of HPAI in other wild bird species, although this may change as juvenile black-headed gulls and common terns begin to disperse. The current long day lengths, high sunlight (UV) intensities and high ambient temperatures are expected to reduce survival of the HPAI H5N1 virus in the environment although circulation of virus in black-headed gull colonies, may be maintained through frequent bird-to-bird contacts.

Wild bird cases in continental Europe declined through March and April from the peak of around 200 cases per week in the second week of February but have increased again in May with around 100 cases per week in weeks 20 and 21 (Figure 3). While cases then started to fall, they have increased again in the last couple of 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 later to be seen in Great Britain. It is speculated that the spread of HPAI through black-headed gulls in Europe and Great Britain is due to the birds aggregating at breeding sites in spring where they have much closer behavioural contacts than when not breeding. Indeed, the northward spread of black-headed gull cases in Great Britain over the last few weeks is apparent (see Map 2).

The overall infection pressure within wild bird populations in Great Britain remains high (Figure 2) with the number of detections per week over the last few weeks between 30 and 39 per week mainly due to black-headed gull mortalities, and common terns and other gull species. A further northward spread in black-headed gull cases has been observed with cases in Scotland. For these reasons, the national risk level for HPAI H5 in wild birds is maintained at **high**.

The number of poultry IPs in Great Britain remains significantly lower than the peaks of 27 and 26 in the second and third weeks of October 2022, with an average of less than one IP confirmation per week since week 18 (Figure 1). During June 2023 the risk level was medium with low uncertainty for poultry with suboptimal biosecurity. The effect of the spread of HPAI through black-headed gulls in Great Britain on IP numbers was unknown. However, cases in black-headed gulls appear to have spread north through much of England and Wales with no increases in poultry IPs suggesting the link between HPAI H5N1 in black-headed gulls and the risk to poultry is currently low even though black-headed gulls nest at inland sites and may forage near poultry ranges. This is consistent with data from Europe where the earlier spread of HPAI through black-headed gulls did not correlate with increased numbers of poultry IPs. As such, the risk to poultry with suboptimal biosecurity is reduced from medium to **low** (**with high uncertainty**). The high uncertainty reflects our concerns that as foraging behaviours change in black-headed gulls following fledging there is likely to be more opportunity for interactions between black headed gulls and poultry in late summer. We have seen the northward progression of cases in black-headed gulls through England, Wales and more recently up into Scotland through high density poultry areas on a national scale with no translation into poultry

outbreaks. 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 imminent dispersal of black headed gulls is likely to result 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, and black-headed gulls and common terns in particular, continue to be reported across Europe and in Great Britain since our last assessment.

Since 1 October 2022, there have been 1,188 confirmed cases of HPAI H5 in 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** but long daylight hours and high UV intensity will favour a reduction in environmental virus contamination. The continued detections in wild birds demonstrate that the infection is still present in these species. . There have been many black-headed gull die-offs with an increasing number of terns being detected as infected over the last month.

The number of IPs has reduced substantially since the peak in mid-October and the infection pressure from wild birds and residual environmental infectivity has reduced. Therefore, the risk of exposure of poultry across Great Britain where biosecurity is stringent is maintained at **LOW** (with low uncertainty), while the risk to poultry in Great Britain where biosecurity is suboptimal is reduced to **LOW** (with high uncertainty).

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 11 July 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	1	174
Great White Egret	0	1
Grey Heron	0	1
Greylag Goose	0	112
Herring Gull	15	37
Kestrel	0	6
Mute Swan	0	143
Pink footed goose	0	27
Unspecified Goose	0	5
Unspecified Swan	0	2
Whooper swan	0	15
Common Buzzard	0	77
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	0	6
Unspecified duck	0	2
Black Headed Gull	47	179
Sparrowhawk	0	19
Goshawk	0	1
Wood Pigeon	0	5
Unspecified Gull	0	1
Common Gull	1	3
Tawny Owl	1	7
Gannet	0	7
Great Black Backed Gull	0	1
Common Tern	21	23
Carrion Crow	0	1
Razorbill	0	1
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	0	1
Crow	0	1
Pintail duck	0	1
Peregrine	1	19
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	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
Teal	0	1
Sandwich Tern	6	6
Reed Warbler	1	1
Mediterranean Gull	1	1
Kittiwake	1	1
England total	**105**	**972**
Scotland		
Greylag Goose	0	4
Herring Gull	1	11
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	4	5

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
Sparrowhawk	0	2
Guillemot	2	3
Hen Harrier	0	1
White Fronted Goose	0	2
Unspecified Gull	6	12
Common Gull	0	5
Tawny Owl	0	1
Fulmar	0	1
Lesser black-backed gull	0	2
Osprey	0	1
Unspecified Tern	0	3
Barn Owl	0	1
Red-throated Diver	0	1
Unspecified Heron	0	1
Ringed Plover	0	1
Unknown Buzzard	0	3
Sandwich Tern	4	4
Common Tern	3	3

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
Kittiwake	11	11
Scotland total	**31**	**165**
Wales		
Canada Goose	0	3
Greylag Goose	0	5
Herring Gull	1	2
Mute Swan	0	10
Common Buzzard	0	4
Pheasant	0	9
Mallard duck	0	2
Black Headed Gull	13	19
Guillemot	1	2
Hen Harrier	0	1
Moorhen	0	1
Gannet	0	2
Arctic Tern	0	1
Common Tern	2	4

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
Sandwich Tern	0	2
Lesser black-backed gull	0	2
Unspecified Bird of Prey	0	1
Unspecified Crow	1	1
Wales total	**18**	**86**
Grand total	**145**	**1188**

Authors

- Candida Adridge
- Dr Paul Gale
- Dr Lauren Perrin
- Joe Bowen

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
- 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.