Department for Environment, Food and Rural Affairs

Updated Outbreak Assessment #46

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

10 October 2023

Disease report

Since our last outbreak assessment on 13 September 2023, there have been further reports of high pathogenicity avian influenza (HPAI) H5 in domestic poultry in the United Kingdom (UK). These include 3 new infected premises (IPs) confirmed with HPAI H5N1 in Great Britain. Two of the outbreaks were smallholder premises and the other a backyard farm. There have been HPAI H5 events involving 8 “found-dead” wild birds in Great Britain since our last assessment.

Although found-dead wild bird cases have fallen greatly since the peak in the summer in Great Britain, 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** has been raised from **low with medium uncertainty to low with high uncertainty**. This is because of the unpredictability of the wild bird risk during the inward migration of wild birds that is now well underway.

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

Across Europe, HPAI H5N1 cases in wild birds are falling week on week, and there have been two poultry outbreaks and one captive bird report in the EU27 since our last report. Since 13 September 2023 the World Organisation for Animal Health (WOAH) has reported one outbreak of HPAI H5N1 in domestic poultry in each of Denmark and Poland, both of which were commercial premises. HPAI H5N1 events in non-poultry species, including wild birds, have been reported by WOAH in Belgium, Finland, France, Germany, Ireland, Italy, Norway, Serbia and Slovenia. There were reports of HPAI H5N5 in Iceland and Norway and untyped or partially typed HPAI in the Faroe Islands in non-poultry species, including wild birds. There have also been 5 further reports of HPAI H5N1 in mammals (mainly Arctic fox) in fur farms in south-west Finland.

Situation assessment

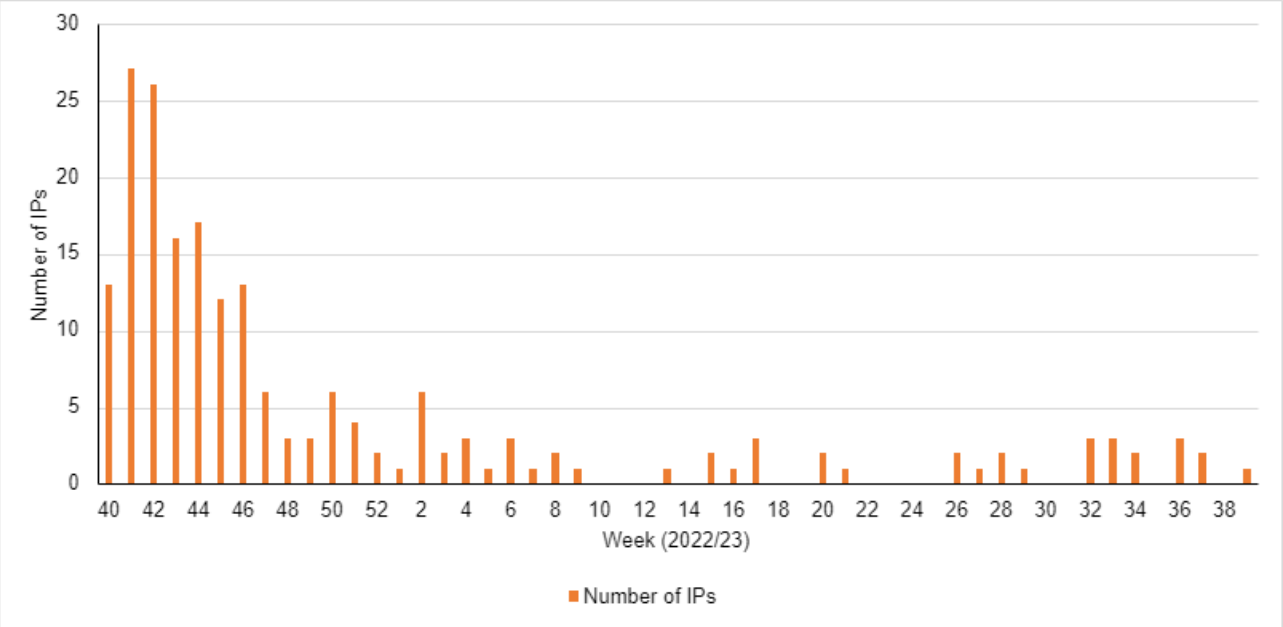
Here, a HPAI H5 event refers to a report of HPAI H5 in poultry or a location with at least one HPAI H5 positive wild bird. Individual HPAI H5 positive wild birds are referred to as cases.

United Kingdom

Since our last report on 13 September 2023 (to 10 October 2023), there have been 3 further IPs confirmed with HPAI H5N1 in poultry[1] including 2 in smallholder chicken premises, and 1 in a backyard holding (Figure 1). Two of the IPs were in Na h-Eileanan an Iar (Isle of Lewis), Scotland, one with 18 chickens, and the other with 14 chickens. The other IP was a backyard holding of 8 chickens in Shetland Islands, Scotland. (Map 1).

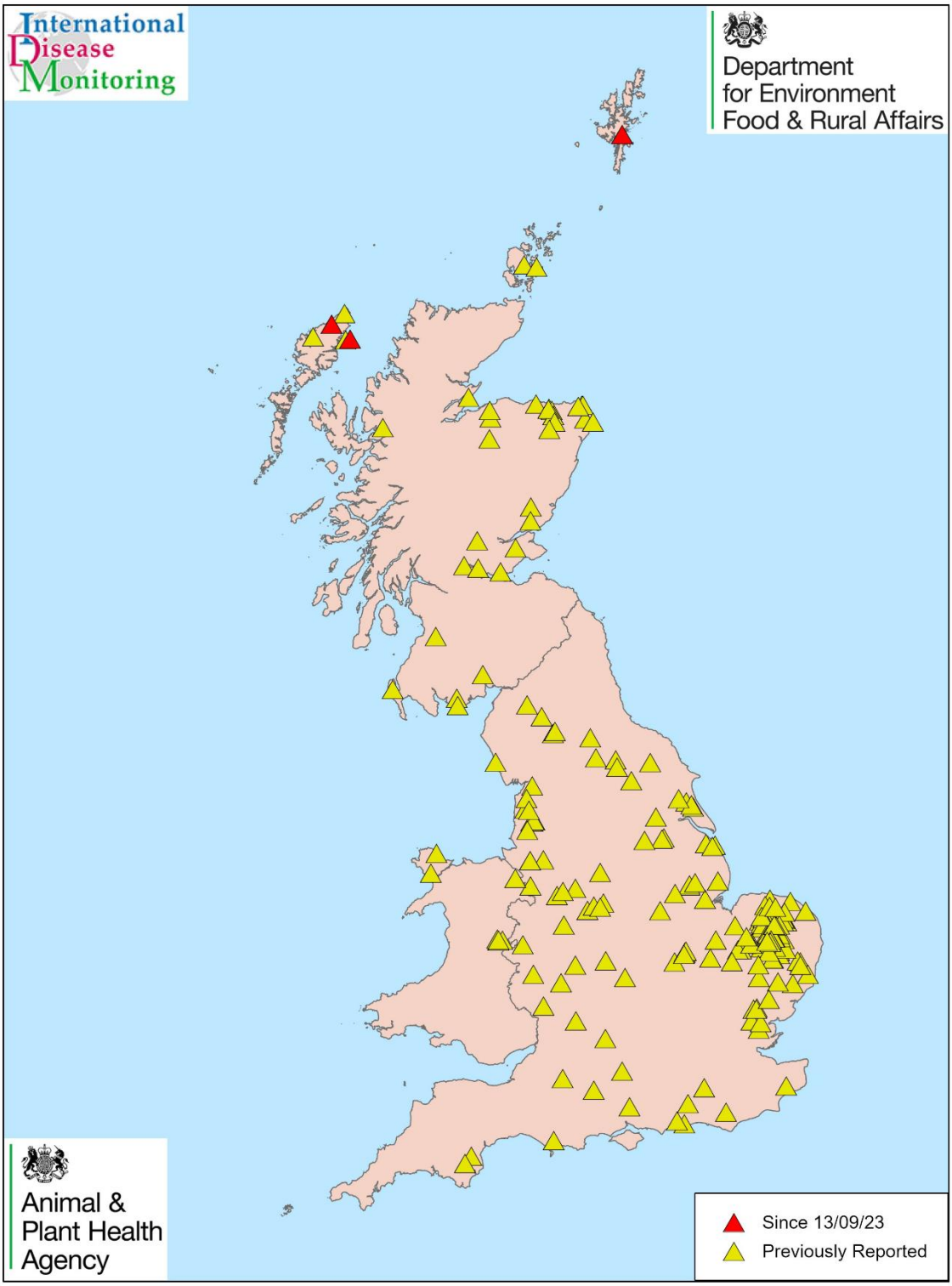
For further details, please see the reports on the latest situation regarding HPAI in domestic poultry and captive birds in England, Scotland, Wales and Northern Ireland.

Figure 1 Number of IPs confirmed with HPAI H5N1 in Great Britain from week 40 2022 (start of October 2022) to week 39 2023 (end of September 2023).



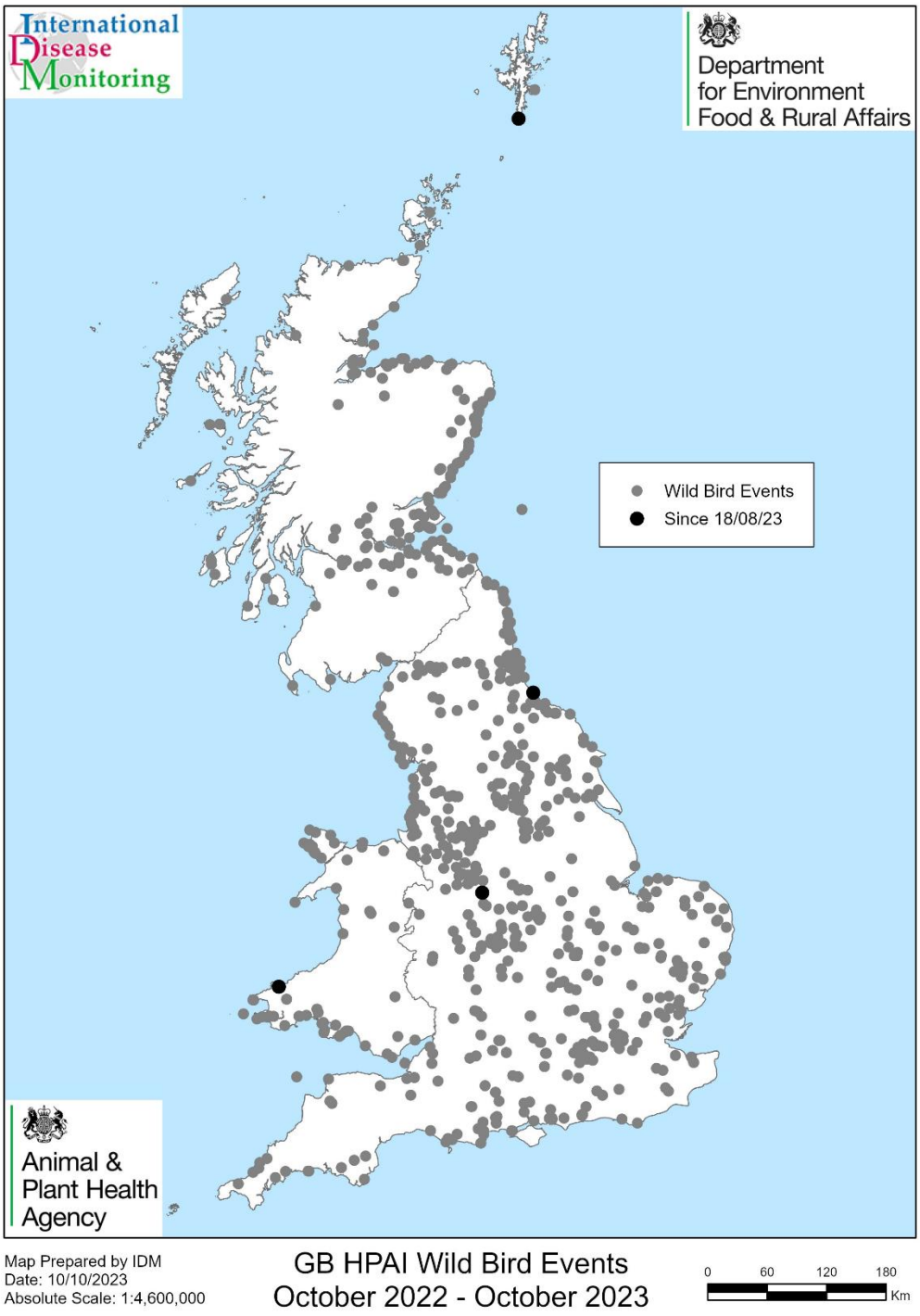
[1] According to the 2021 WOAH definition of poultry. Terrestrial Code Online Access - WOAH - World Organisation for Animal Health

Map 1. HPAI H5 outbreaks in poultry[2] and captive birds across Great Britain, 1 October 2022 to 10 October 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 10 October 2023.



Wild birds

Between 13 September 2023 and 10 October 2023, HPAI H5 has been detected in 8 found-dead wild birds in 4 separate locations in Great Britain, including 4 wild bird species (listed in Appendix 1) across 4 counties. Most of the wild bird cases since 13 September 2023 were at coastal locations (Map 2). 75% of the findings were in England (6), 12.5% (1) were located in Scotland, and 12.5% (1) were in Wales. (See Appendix 1).

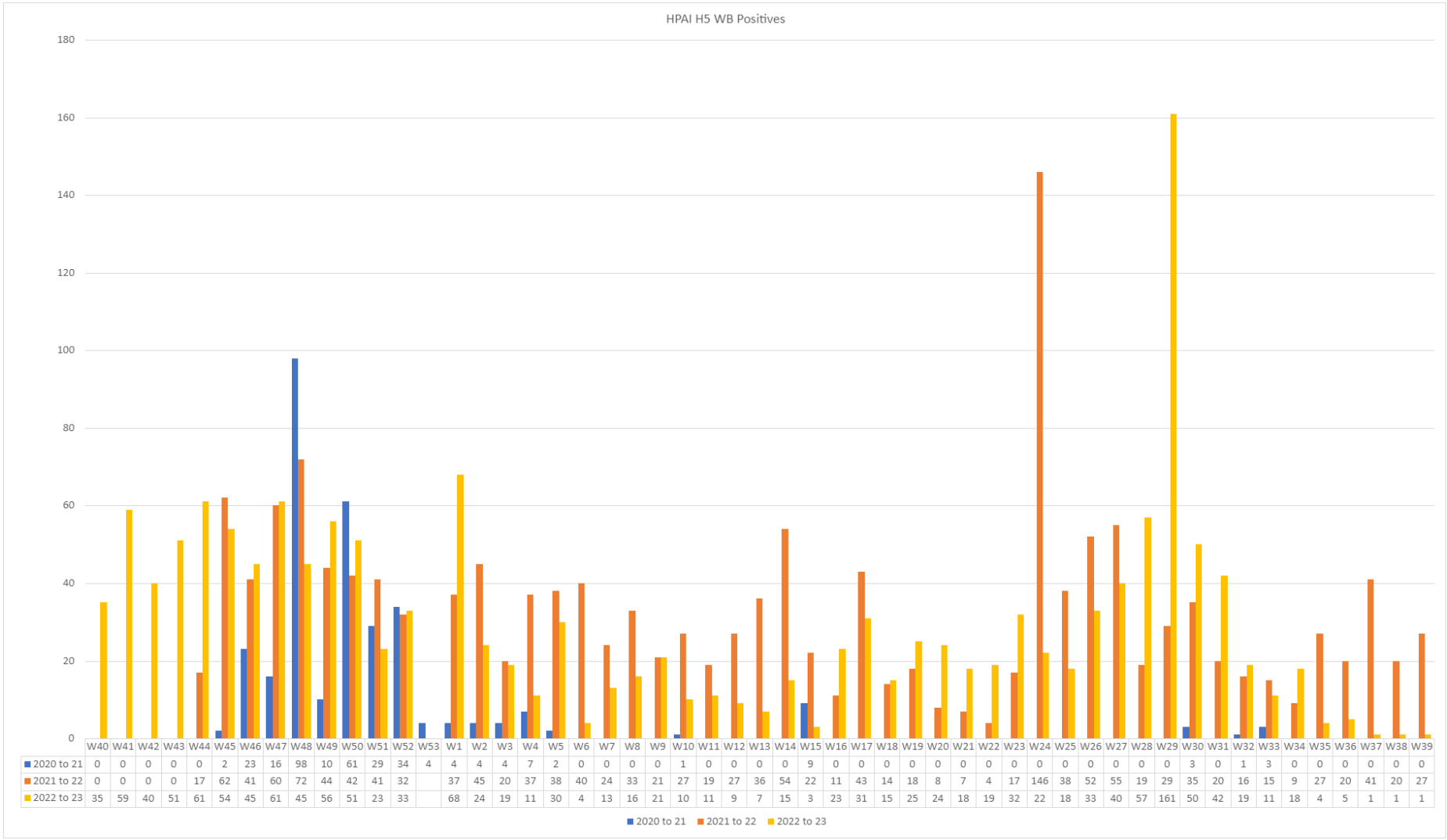
There have been relatively few found-dead wild bird cases reported at inland locations since 13 September 2023 (Map 2). From 13 September to 10 October 2023, there were 2 further cases for which the HPAI H5 genotype has been identified, with characterisation of neuraminidase (NA) subtype in progress.

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 below) 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 13 September, there have been 2 further positive HPAI H5N1 detections from retrospective testing in wild mammals in Great Britain. These involved two otters which were previously frozen. For further details and for previously reported detections in wild mammals, please see the report on findings of HPAI 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 2022) to the end of week 39 (end of September 2023).

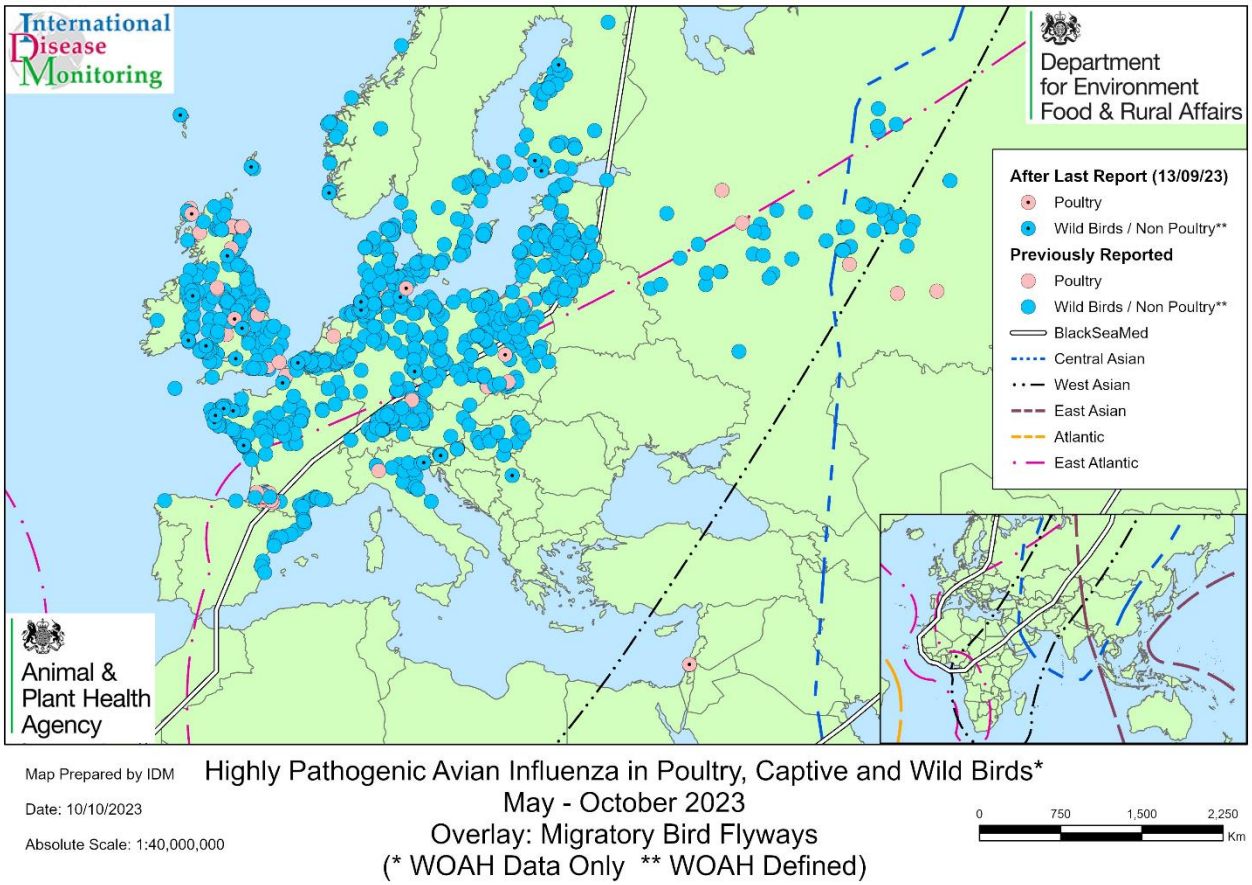


	W40	W41	W42	W43	W44	W45	W46	W47	W48	W49	W50	W51	W52	W53	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17	W18	W19	W20	W21	W22	W23	W24	W25	W26	W27	W28	W29	W30	W31	W32	W33	W34	W35	W36	W37	W38	W39
2020 to 21	0	0	0	0	0	2	23	16	98	10	61	29	34	4	4	4	4	7	2	0	0	0	0	1	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	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	11	18	4	5	1	1	1

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

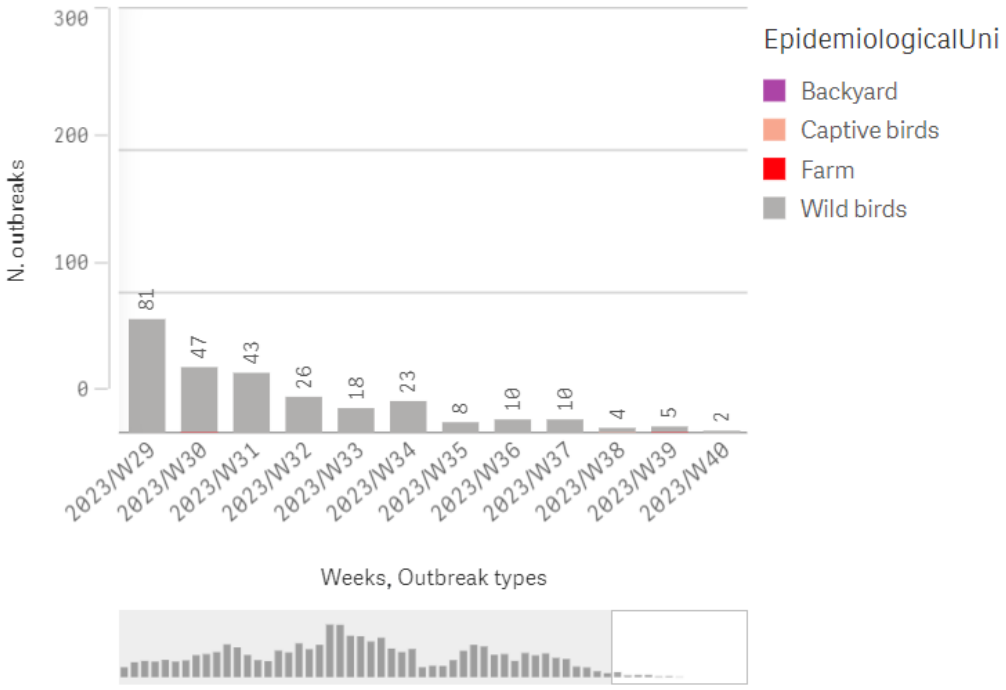
Europe

Map 3. Map showing HPAI H5 events in domestic poultry and wild birds in Europe reported by WOAH between 1 May and 10 October 2023 (WOAH, 2023).



Between the 13 September and 10 October, there were a total of 45 HPAI H5N1 events (including the United Kingdom) 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 to the coast of Finland (Map 3). 2 outbreaks of HPAI H5N1 were reported in domestic poultry in Denmark and Poland. A total of 26 HPAI H5N1 events were reported in non-poultry including wild birds in Europe: Belgium (1), Finland (3), France (10), Germany (4), Ireland (1), Italy (1), Norway (2), Serbia (1) and Slovenia (3). There were 4 cases of HPAI H5N5 reported in non-poultry including wild birds in Iceland (2) and Norway (2) and 1 case of HPAI H5 in the Faroe Islands.

Figure 3. Weekly outbreaks of HPAI in poultry and captive birds and cases in wild birds reported across Europe between mid-July 2023 and mid-October 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 months (Figure 3). The number of cases in wild birds has also fallen steadily week on week for the last six weeks, albeit from a high level of over 100 cases per week in July, with 4 and 2 cases per week respectively in the last two weeks. A range of species such as birds of prey, gulls, and waterfowl are currently being detected across Europe.

There have also been further reports of HPAI H5N1 in fur farms in Finland, with 25 Arctic (blue, silver) fox farms, 5 American mink farms and 3 racoon dog farms affected since 11 July 2023. The most recent outbreak was on 6 October 2023 (Finnish Food Authority 2023). The fur farms are located relatively close to each other in Ostrobothnia in south-west Finland, but there appears to be some spread towards central Finland. 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 however, killing decisions for foxes and raccoon dogs will be made on a case-by-case basis. 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

HPAI H5 is still circulating in wild bird populations. Three of the four cases of HPAI H5 in wild birds since 13 September are coastal (Map 2) and most seabirds have long since dispersed out to sea. There is currently no obvious indication of increased infection pressure at inland locations, though our surveillance is limited to found dead wild birds. The number of positive wild bird cases has decreased markedly in Great Britain in the last few weeks with just single cases in each of the last three weeks (weeks 37 to 39). This is a trend that has continued since the peak of 161 cases in week 29 (Figure 2). The sensitivity of wild bird testing was increased in England and Scotland for gulls by reducing the threshold for testing from five carcases to one carcase on 29 September 2023. Sensitivity of wild bird testing for gulls had previously been increased in Wales on 1 September 2023. The sensitivity was increased due to the lack of wild bird reports and concerns that some wild bird HPAI H5 positive cases may be missed. Increasing sensitivity also provides the greatest chance of detecting an increase in found dead wild bird cases. It is anticipated that over the next month, wild bird cases may increase at short notice, with the ongoing arrival of migratory waterbirds to Great Britain. 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 few months, numbers have not significantly increased. It remains to be seen, therefore, which species of found-dead HPAI H5 positive wild birds will be detected in the coming weeks, and what risk they will pose to poultry.

The number of positive wild bird cases in continental Europe has fallen steadily over the last few months with very few wild bird positive cases (Figure 3) each week in the last three weeks, although there are still detections. The ongoing presence of HPAI in wild birds in northern and eastern Europe is now (autumn) of much greater interest to Great Britain than in spring and summer as a potential source of HPAI entry to Great Britain because many of the migratory ducks, geese and swans will fly from or through Eastern Europe and the Baltics on their journey to Great Britain. There have been too few reports in wild birds in recent three weeks to give indication of any change, particularly in Eastern Europe. While this is encouraging, it is important to note that there will be differences in surveillance effort across Europe. In our previous update, it was noted that there were outbreaks of HPAI H5N1 in poultry in southern Russia north of Kazakhstan in August/early September (see Map 3) and that these may represent the first appearances of HPAI coming west towards Europe from the east as has been seen in previous years. While HPAI may not be reported in Belarus or Ukraine, HPAI H5N1 has been detected on a chicken farm in central Poland in early October and also on a poultry farm in Denmark in late September (see Map 3). Whether these outbreaks represent the incursion of HPAI into Europe from the east this autumn is not known. However, in “traditional” years when HPAI H5 has not over-summered in Great Britain and western Europe, such poultry outbreaks in Poland and Denmark at this time of year would raise concern of potential incursion westwards into Great Britain. The recent warmer weather observed across Europe may also impact migration and delay departure until colder weather hits.

The detection of HPAI H5N5 in wild birds in Great Britain is a concern as it is an emerging strain that has not been detected in Great Britain for some years and appears to be spreading from the far north of Europe and the Arctic into north-western Europe, including the UK. Over the summer, HPAI H5N5 has been detected in glaucous gulls in Svalbard in the high Arctic, and a further case of H5N5 was reported in a purple sandpiper in September, together with ongoing H5N1 cases in kittiwakes. H5N5 has now been detected in a white-tailed eagle and an eider duck in Iceland and an eagle owl in south-west Norway. There was also an outbreak of H5 (N untyped) in poultry on the Faroe Islands in September. Solway barnacle geese migrate from Svalbard along the north coast of Norway to Scotland at this time of year, which raises concerns regarding further incursions to Great Britain. Further migration routes of note are whooper swans, pink-footed geese and Greenland barnacle geese migrating south through Iceland and the Faroes and into Scotland, as well as light-bellied brent geese migrating south into Northern Ireland via Iceland together with Greenland white-fronted geese.

While the number of wild bird detections per week over the last three weeks has decreased and there have been limited detections inland, it is anticipated that the wild bird risk will increase in the coming weeks as the migratory wild waterbirds arrive and the resident wild waterbirds aggregate at their wintering sites (mainly inland lakes and coastal marshes). The national risk level for HPAI H5 in wild birds is therefore maintained at **high** during this period of flux until we have further information and there is less uncertainty.

The number of poultry IPs in Great Britain has remained low in September with an average of one IP confirmation per week to 10 October (Figure 1). The risk of infection of poultry in Great Britain with stringent biosecurity is therefore maintained at **low** with **low uncertainty.** The risk to poultry with suboptimal biosecurity in Great Britain is also maintained at **low**. However, we are now concerned about the uncertainty in the risk from migratory wild birds over the next month and the uncertainty in the low risk for poultry with suboptimal biosecurity has been raised from medium to **high**. It now remains to be seen whether HPAI H5N1 transmission spreads in from Europe in the coming weeks, and whether there will be more H5N5 cases in wild birds. It is noted that the risk to poultry could be elevated at short notice.

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

Since our last assessment on 13 September 2023, the number of wild bird cases of HPAI H5 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 1,594 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** in anticipation that there will be an increase in wild bird cases in the next few weeks.

The number of IPs has reduced substantially since the peak in mid-October 2022. There is no evidence as yet that the infection pressure from wild birds on poultry has increased, and 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 likely increased wild bird 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
- 1 or more dead gulls
- 5 or more dead wild birds of any species (not 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 10 October 2023.

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (13 September 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
England		
Unspecified Falcon	0	1
Black Swan	0	1
Canada Goose	0	174
Great White Egret	0	1
Grey Heron	0	2
Greylag Goose	0	113
Herring Gull	1	62
Kestrel	0	6
Mute Swan	0	145
Pink footed goose	0	27
Unspecified Goose	0	5
Unspecified Swan	0	2
Whooper swan	0	15
Common Buzzard	0	78
Red Kite	0	3

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (13 September 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Pheasant	5	36
Curlew	0	1
Barnacle goose	0	3
Mallard duck	0	10
Unspecified duck	0	2
Black Headed Gull	0	195
Sparrowhawk	0	20
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	0	33
Carrion Crow	0	2
Razorbill	0	3
Little Egret	0	1

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (13 September 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Rock Dove	0	10
Lesser black-backed gull	0	2
Crow	0	1
Pintail duck	0	1
Peregrine	0	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

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (13 September 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Dove Pigeon	0	1
Teal	0	1
Sandwich Tern	0	6
Reed Warbler	0	1
Mediterranean Gull	0	2
Kittiwake	0	27
Guillemot	0	32
Coot	0	2
Moorhen	0	1
Artic Tern	0	10
Puffin	0	1
Roseate Tern	0	3
Fulmar	0	1
Little Tern	0	2
Unspecified Guillemot	0	2
Feral pigeon/Rock dove	0	1
England total	**6**	**1,120**

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (13 September 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Scotland		
Peregrine Falcon	0	2
Greylag Goose	0	4
Herring Gull	0	47
Mute Swan	0	14
Pink footed goose	0	23
Unspecified Goose	0	4
Whooper swan	0	2
Common Buzzard	0	10
Pheasant	0	8
Barnacle goose	0	19
Black Headed Gull	1	8
Sparrowhawk	0	3
Guillemot	0	62
Hen Harrier	0	1
White Fronted Goose	0	2
Unspecified Gull	0	25

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (13 September 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Common Gull	0	10
Tawny Owl	0	1
Fulmar	0	1
Lesser black-backed gull	0	2
Osprey	0	1
Unspecified Tern	0	5
Barn Owl	0	1
Red-throated Diver	0	1
Unspecified Heron	0	1
Ringed Plover	0	1
Unknown Buzzard	0	4
Sandwich Tern	0	4
Common Tern	0	7
Kittiwake	0	45
Curlew	0	1
Arctic Tern	0	5
Puffin	0	2
Carrion Crow	0	1

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (13 September 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Razorbill	0	11
Cormorant	0	3
Shag	0	2
Red Grouse	0	1
Great Black backed gull	0	1
Scotland total	**1**	**345**
Wales		
Canada Goose	0	3
Greylag Goose	0	5
Herring Gull	0	8
Mute Swan	0	10
Common Buzzard	0	4
Pheasant	0	9
Mallard duck	0	2
Black Headed Gull	0	20
Guillemot	0	40
Hen Harrier	0	1

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (13 September 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Moorhen	0	1
Gannet	0	4
Arctic Tern	0	1
Common Tern	0	4
Sandwich Tern	0	2
Lesser black-backed gull	0	3
Unspecified Gull	1	1
Unspecified Bird of Prey	0	1
Unspecified Crow	0	1
Unspecified Bird	0	1
Great black-backed gull	0	2
Common gull	0	2
Kittiwake	0	1
Wales total	**1**	**126**
Grand total	**8**	**1594**

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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.