Department for Environment, Food and Rural Affairs

Updated Outbreak Assessment #42

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

4 May 2023

Disease report

Since our last outbreak assessment on 15 March, 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 7 new infected premises (IPs) confirmed with HPAI H5N1 in Great Britain. Of these, 7 outbreaks were in commercial poultry premises and 1 was in a non-commercial premises. There have been 39 HPAI H5 events in wild birds in Great Britain since our last assessment.

The **wild bird risk** across Great Britain remains at **high.** The risk to **poultry with stringent biosecurity** remains at **low, with medium uncertainty (lowered from high),** and the risk to **poultry with suboptimal biosecurity** is maintained at **medium, 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 are still applicable.

Across Europe, HPAI H5N1 continues to be reported in domestic poultry and non-poultry species, including wild birds, although numbers of both wild bird cases and poultry IPs are generally decreasing with roughly 300 cases in April compared to around 720 in February. The World Organisation for Animal Health (WOAH) has reported outbreaks of HPAI H5N1 in domestic poultry in Bulgaria, Denmark, France, Germany, Hungary, Italy, Poland, Sweden and Switzerland. HPAI H5N1 events in non-poultry species, including wild birds, have been reported by WOAH in Austria, Belgium, Czech Republic, France, Germany, Hungary, Ireland, Italy, Lithuania, the Netherlands, Norway, Poland, Romania, Russia, Serbia, Slovenia, Spain, Sweden and Switzerland. There were 2 reports of HPAI H5Nx, 1 in Belgium and 1 in Sweden. There were also 20 reports of untyped or partially typed HPAI in Belgium. Of note in Europe is the over representation of black-headed gull cases in wild birds in Europe, which has continued since our last assessment, albeit at lower numbers.

Situation assessment

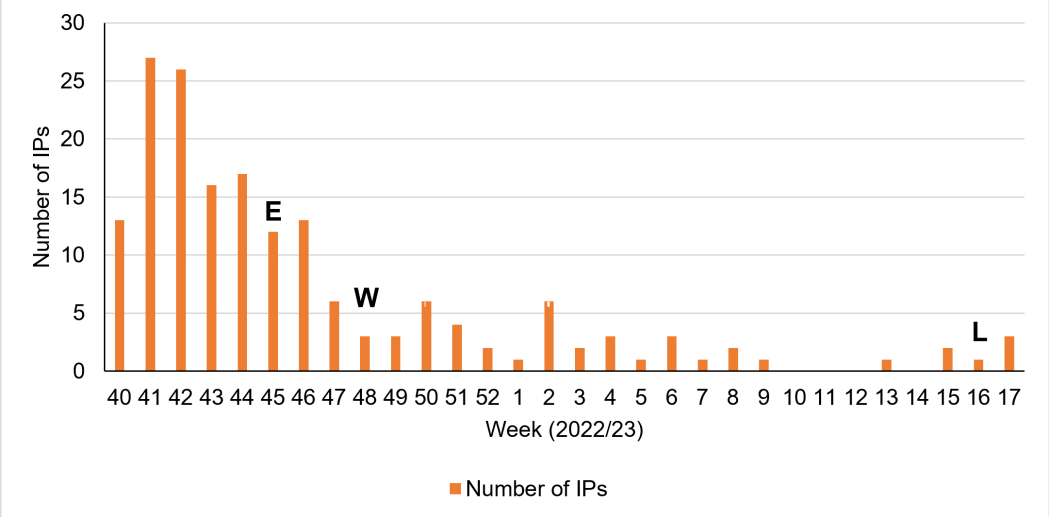
Here, a HPAI H5 event refers to a report of HPAI H5 in poultry or a location with at least one HPAI H5 positive wild bird. Individual HPAI H5 positive wild birds are referred to as cases.

United Kingdom

Since our last report on 15 March to 4 May 2023 there have been 7 further confirmed IPs with HPAI H5N1 in poultry[1] and captive birds. Of these, 4 were in England and 3 were in Wales (Map 1). These 7 IPs comprise of 6 commercial premises (more than 50 birds) and 1 non-commercial premises (50 and fewer birds). The commercial IPs were located in Devon (with mixed poultry), East Yorkshire (with ducks), South Yorkshire (with chickens) and Powys (2 with chickens, 1 with pheasants).

The non-commercial IP was a backyard premises (with fewer than 10 birds) in Northamptonshire with chickens and ducks.

Figure 1. Number of IPs confirmed with HPAI H5N1 in Great Britain between week 40 2022 (start of October) and week 17 2023 (end of April). Letters denote when housing measures were introduced across England (E) and Wales (W) and when measures were lifted in both administrations (L).

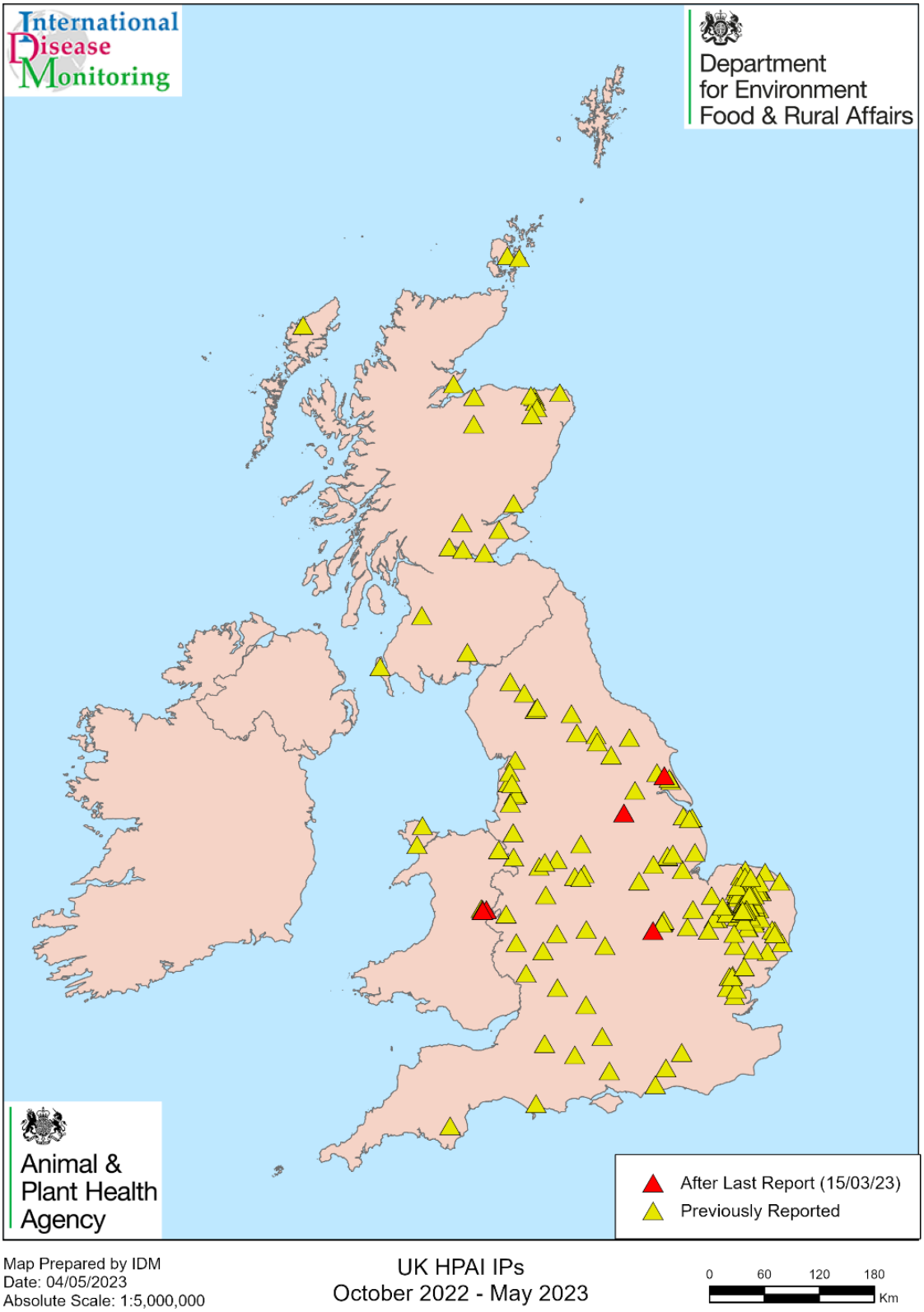


Description of Figure 1. Bar chart showing the number of infected premises with HPAI H5N1 in Great Britain between the start of October 2022 and end of April 2023. The number of infected premises has fluctuated in the last 4 weeks, with 0, 2, 1 and 3 premises confirmed, respectively.

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

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.

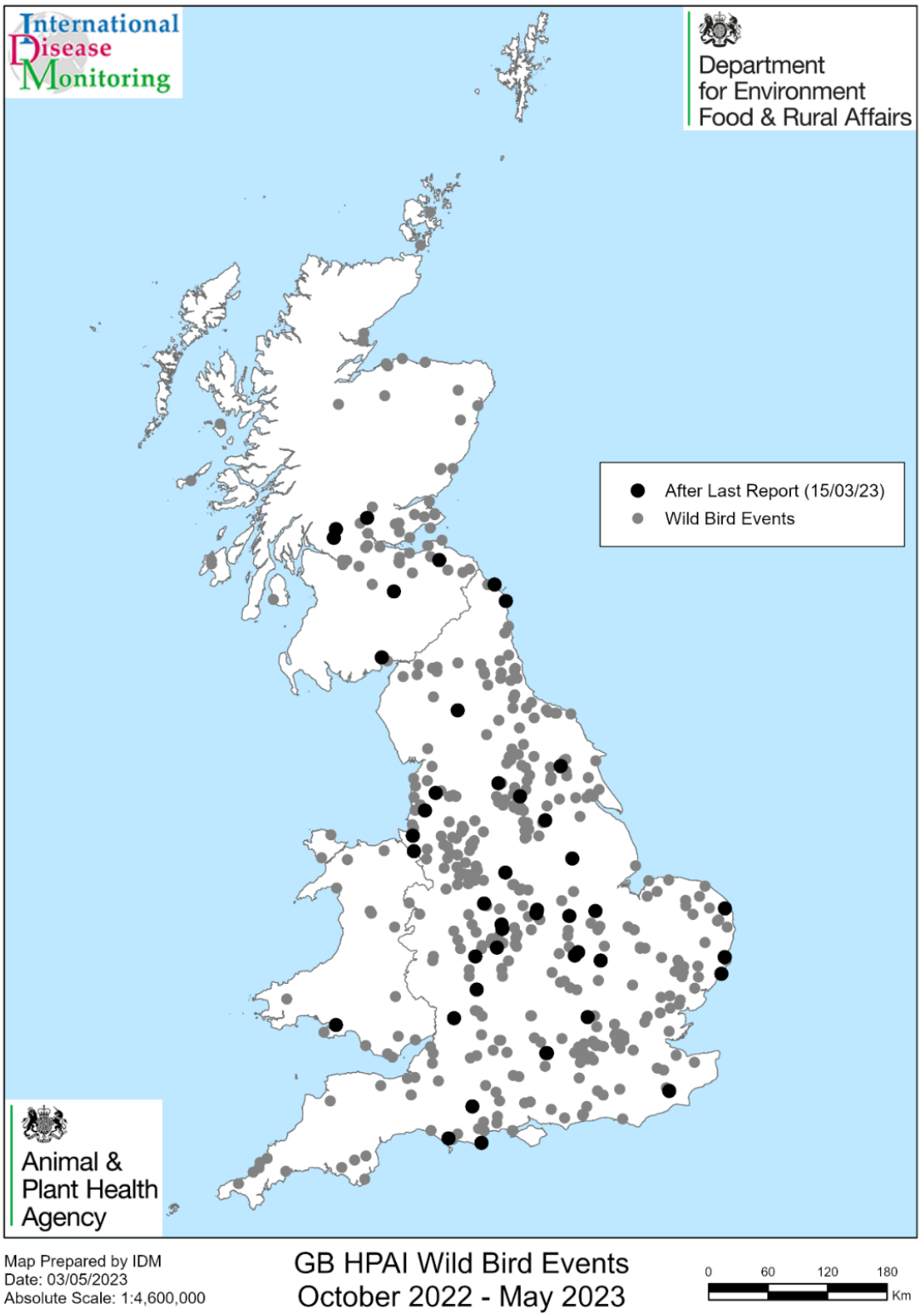
Map 1. HPAI H5 outbreaks in poultry[1] and captive birds across the United Kingdom, 1 October 2022 to 3 May 2023.



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

Description of Map 1. Across the United Kingdom, there have been outbreaks of HPAI H5N1 confirmed in Devon, East Yorkshire, South Yorkshire and Powys.

Map 2. Map showing the HPAI H5 positive findings in wild birds across Great Britain which were confirmed between 1 October 2022 and 3 May 2023.



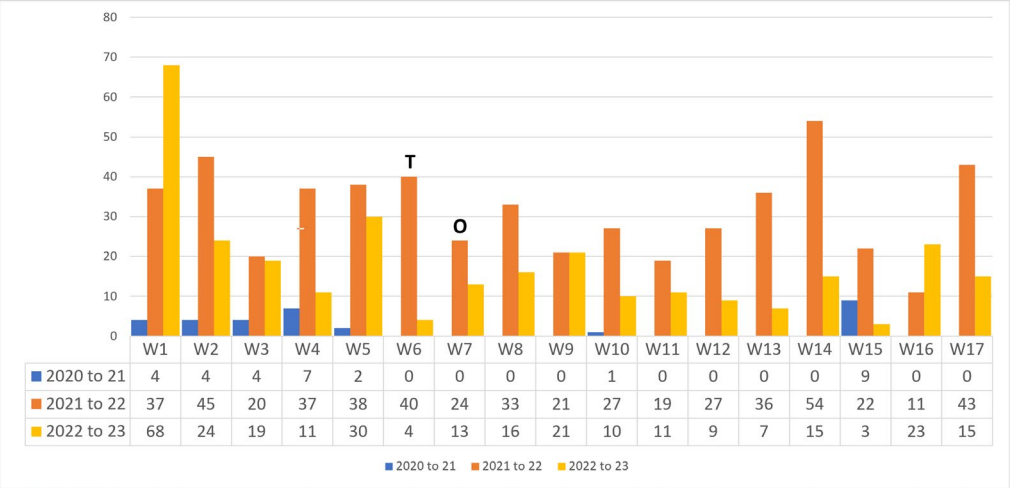
Description of Map 2. Across Great Britain, wild birds have been confirmed with HPAI H5 in widespread locations including coastal and inland parts of England, Scotland and Wales.

Wild birds

Between 15 March and 4 May 2023, HPAI H5 has been detected in 71 wild birds in 39 separate locations in Great Britain, including 13 wild bird species (listed in Appendix 1), in 31 counties. Most of the findings were in England (64) with 6 wild bird cases located in Scotland and 1 was 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 (48) were in gulls, with 14 detections in birds of prey and 9 in waterbirds.

From 15 March to 4 May 2023, there have been 8 further cases for which the HPAI H5 genotype has been identified, with characterisation of neuraminidase (NA) subtype in progress.

Figure 2. Wild bird HPAI H5 positive cases[a] per week across Great Britain in each season from week 1 (start of January) to week 17 (end of April). Letters denote change in carcass collection threshold for geese and swans from 5 to 3 (T) in England and from 3 to 1 (O) across Great Britain.



	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15	W16	W17
2020 to 21	4	4	4	7	2	0	0	0	0	1	0	0	0	0	9	0	0
2021 to 22	37	45	20	37	38	40	24	33	21	27	19	27	36	54	22	11	43
2022 to 23	68	24	19	11	30	4	13	16	21	10	11	9	7	15	3	23	15

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

Description of Figure 2. Over the last 4 weeks, the number of wild birds detected with HPAI H5 in Great Britain was 15, 3, 23 and 15, respectively. The weekly number of detections in wild birds has increased slightly compared to the previous 4 weeks (10, 11, 9 and 7 detections, respectively).

While the number of HPAI H5 detections in wild birds has varied over the last 4 weeks and represents a slight increase compared with the previous 4 weeks (15, 3, 23, 15 versus 10, 11, 9, 7), these numbers have been largely influenced by mass die-offs involving black-headed gulls. Given that these events to date have remained localised to aggregated (and often protected) colonies of birds, the likelihood of significant spread to the wider wild bird population and poultry population in Great Britain appears to be low at this time. Similar events in black headed gulls observed across Europe have not yet led to any large increase in the number of infected poultry premises. It is important to note that these 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. We will continue to monitor the situation closely. For

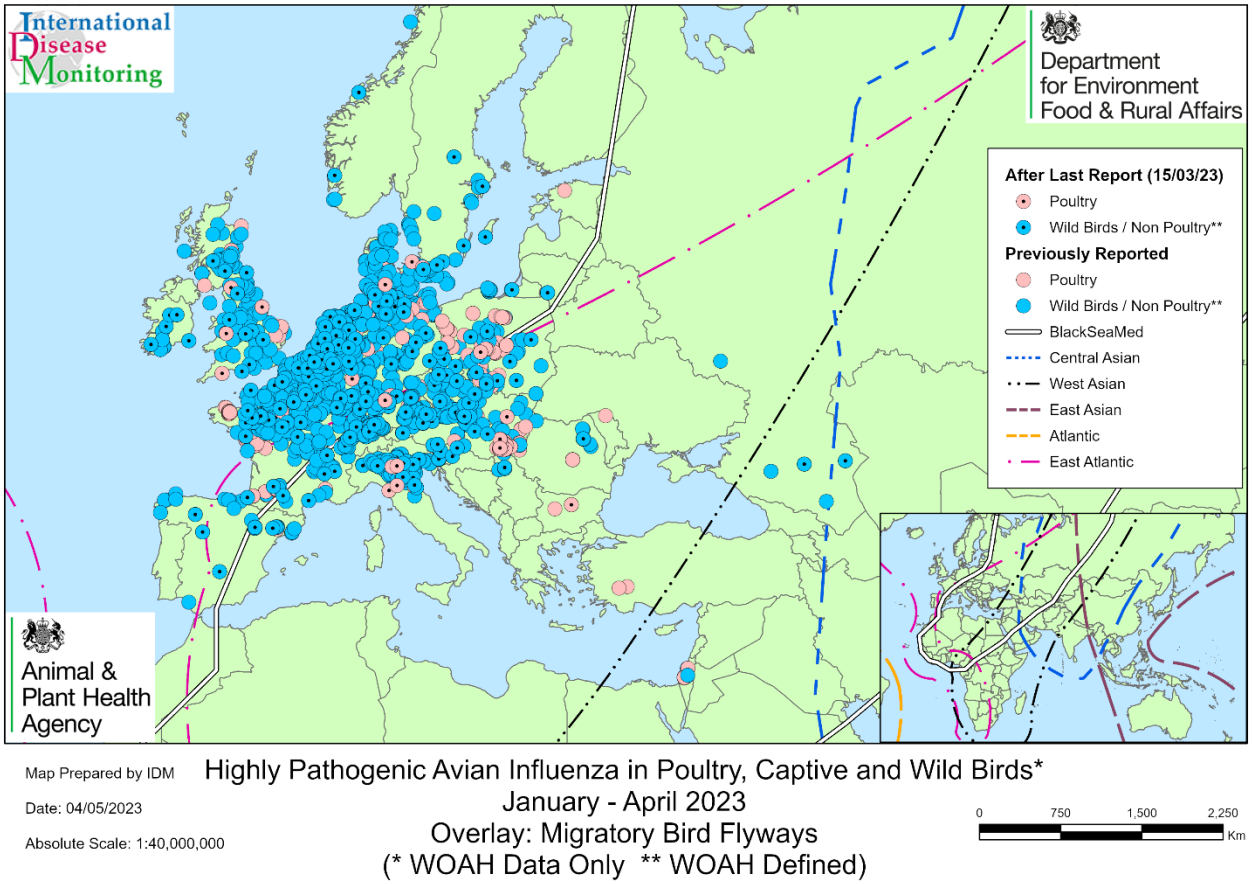
further details, please see the report (updated weekly) on findings of HPAI in wild birds in Great Britain and Northern Ireland.

Non-avian wildlife

Since 15 March to 4 May, there have been no further positive HPAI H5N1 detections in non-avian wildlife in Great Britain. The 8 positive detections in mammals collected since 1 October 2022 comprise of 2 red foxes in Powys and Perth and Kinross, a Eurasian otter in Shropshire, a harbour porpoise in East Yorkshire, 2 common dolphins in Pembrokeshire and Devon and 2 grey seals in Cornwall (for map see Appendix 2). 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.

Europe

Map 3. Map showing HPAI H5 events in domestic poultry and wild birds in Europe reported by WOAH between 1 January and 28 April 2023 (WOAH, 2023).

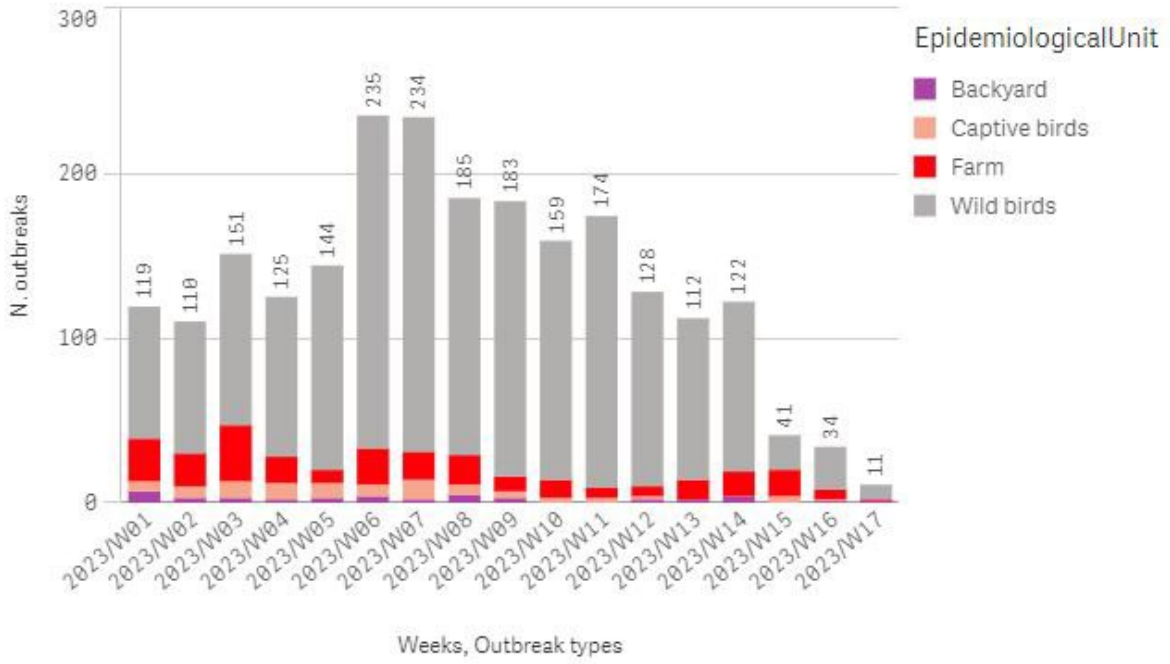


Description of Map 3. Since 15 March 2023, HPAI H5 events in poultry, captive and wild birds have been widely reported across Europe by the WOAH.

Between 15 March and 28 April 2023, there have been a total of 665 HPAI H5N1 events reported by the WOAH in domestic poultry and non-poultry including wild birds across Europe. A total of 74 outbreaks of HPAI H5N1 were reported in domestic poultry in Bulgaria, (1), Denmark (2), France

(1), Germany (3), Hungary (50), Italy (9), Poland (2), Sweden (1) and Switzerland (1). 591 HPAI H5N1 events were reported in non-poultry including wild birds in Austria (30), Belgium (17), Czech Republic (11), France (43), Germany (97), Hungary (2), Ireland (5), Italy (102), Lithuania (2), the Netherlands (166), Norway (2), Poland (12), Romania (1), Russia (3), Serbia (2), Slovenia (5), Spain (8), Sweden (6) and Switzerland (65). There were 2 cases of HPAI H5 reported in non-poultry including wild birds in Belgium (1) and Sweden (1). Additionally, there were 20 cases of untyped or partially typed HPAI reported in non-poultry including wild birds in Belgium.

Figure 3. Weekly outbreaks of HPAI in poultry and captive birds and cases in wild birds reported across Europe between January and the end of April 2023 (IZSVe, 2023)



Description of Figure 3. The number of outbreaks of HPAI H5 in poultry and captive birds and cases in wild birds reported across Europe has decreased sharply over the last 4 weeks, with report totals of 122, 41, 34 and 11 for weeks 14, 15, 16 and 17 of 2023, respectively.

The number of outbreaks of HPAI in poultry farms each week across Europe has shown a generally decreasing trend over the last 4 weeks, with 15 outbreaks in week 14 and 16 outbreaks in week 15, then dropping to 6 outbreaks in week 16 and 1 in week 17. The number of cases in wild birds has also decreased, with 103 cases reported in week 14, dropping to 21 in week 15 then a slight increase to 26 in week 16 and 9 cases reported in week 17. Although the overall number of HPAI H5 detections in wild birds is decreasing, over 50% of wild bird detections across Europe have involved black headed gulls since 15 March (IZSVe, 2023). It is important to note that wild bird surveillance methods may differ between countries and may contribute to the variability in the number of wild birds reported each week.

Implications for Great Britain

Migratory waterbirds (ducks, geese and swans) have now left Great Britain on their outward migration to their breeding grounds in northern Europe and Russia. The migrant waterbirds may have played some role in maintaining the virus over the winter although the small proportion of positive cases in migrant species compared to resident wild bird species suggests this was relatively small. Most resident GB waterbird species that breed in UK do not breed together in large colonies, instead breeding in well defined territories, the exception being seabirds around the coast together with certain gull species such as black-headed gulls. The seabirds are currently returning to their breeding colonies. The increased number of detections associated with mass die-off events in black headed gulls both in Great Britain and across Europe may be linked with this. The current increase in day length and ambient temperatures will reduce survival of the HPAI H5N1 virus in the environment although circulation of virus in seabird colonies may be maintained through close bird contacts as was observed in summer 2022.

Wild bird cases increased in continental Europe from early January peaking at around 200 cases per week in the second week of February (Figure 3) and have steadily decreased through February, March and April. In Europe wild bird cases were across much of central and eastern Europe and not just in north-western Europe as earlier in the winter (see map 3). The ongoing presence of HPAIV in wild birds in north-western Europe is of little concern to Great Britain compared to early autumn as a potential source of infection.

The overall infection pressure within wild bird populations in Great Britain is reducing (Figure 2), despite slight increases in the number of detections per week over the last few weeks due to black headed gull mortalities. The number of detections per week has dropped substantially since the beginning of January (68 detections in week 1 versus 15 detections in week 17), indicating an overall decrease in infection pressure. In addition, as daylight hours lengthen in the summer months, the increased ultraviolet (UV) exposure will contribute to reducing the amount of residual virus in the environment. 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, with 3 confirmations in week 17 (Figure 1). This represents a slight increase in confirmed IPs in recent weeks, though this may be an effect of lifting housing measures across England and Wales and the resulting increased exposure to wild birds. The overall reduced number of detections observed in wild birds is indicative of a reduced infection pressure. While the slight increase in confirmed IPs observed recently has occurred concurrently with the increased detections of HPAI H5 in wild black headed gulls, the detections in black headed gulls have thus far been observed in larger colonies rather than widely dispersed birds. The potential impacts of HPAI positive black headed gulls and other gull species on the risk to poultry in Great Britain remains unclear. However, the fact that such large scale mass mortalities observed across Great Britain and Europe have not coincided with significantly increased numbers of confirmed IPs suggests that any potential impact of black headed gulls could be small. Notably, Scotland did not implement a housing order and a similar trend of reduced IP

confirmations and wild bird detections has been observed. While new IPs are still occurring regularly, the numbers confirmed per week have been consistently low between 0 and 3 for the last 4 weeks. Therefore, risk of infection of poultry in Great Britain with stringent biosecurity is maintained at **low** with **medium uncertainty (reduced from high)**. The risk of infection of poultry in Great Britain with sub-optimal biosecurity is maintained at **medium,** with **high uncertainty**. It remains to be seen how long into the summer that new IPs will continue to occur. 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. The ongoing high wild bird infection pressure will expose any weaknesses that exist, even where a good biosecurity plan is in place. If this plan is not properly implemented, and there are biosecurity breaches (such as poor maintenance of buildings) exposure of housed poultry to virus could occur, resulting in infection.

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, albeit at a decreasing rate.

Since 1 October 2022, there have been 936 confirmed cases of HPAI H5 in wild birds in Great Britain, spanning a range of waterfowl, seabirds, and birds of prey.

The risk of HPAI H5 infection in wild birds in Great Britain is maintained at **HIGH**. There is currently a high infection pressure on poultry from wild birds. While lengthening daylight hours and increased UV intensity will favour a reduction in environmental virus contamination, the continued detections in wild birds demonstrate that the infection pressure is still present. This presents opportunities for transmission to poultry through poor biosecurity, or where there are biosecurity breaches. There have been some black-headed gull die-offs and it remains to be seen whether this will transfer into seabird colonies around the coast of Great Britain.

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 medium uncertainty), while the risk to poultry in Great Britain where biosecurity is suboptimal is maintained at **MEDIUM** (with high uncertainty).

Housing measures that came into force across England on 7 November 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 are still applicable.

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 onset of cold and wet weather. **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, such as fully netted enclosures and runs, and fenced enclosures and ranges where there is currently an AIPZ in place, 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. This could be via direct contact with wild birds (getting in to 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
- 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 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)
- 3 or more dead birds that include at least 1 gull, swan, goose or duck
- 5 or more dead wild birds of any species

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 4 May 2023

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (15 March 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
England	**0**	**772**
Black Swan	0	1
Canada Goose	2	173
Great White Egret	0	1
Grey Heron	0	1
Greylag Goose	0	112
Herring Gull	7	13
Kestrel	0	6
Mute Swan	1	143
Pink footed goose	0	27
Unspecified Goose	0	5
Unspecified Swan	0	2
Whooper swan	0	15
Common Buzzard	7	77
Red Kite	0	2
Pheasant	0	31
Curlew	0	1

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (15 March 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Barnacle goose	0	3
Mallard duck	1	6
Unspecified duck	2	2
Black Headed Gull	38	57
Sparrowhawk	0	19
Goshawk	1	1
Wood Pigeon	0	4
Common Gull	1	2
Tawny Owl	0	6
Gannet	0	7
Great Black Backed Gull	1	1
Carrion Crow	0	1
Razorbill	0	1
Little Egret	0	1
Rock Dove	0	10
Lesser black-backed gull	0	1
Crow	0	1
Pintail duck	0	1

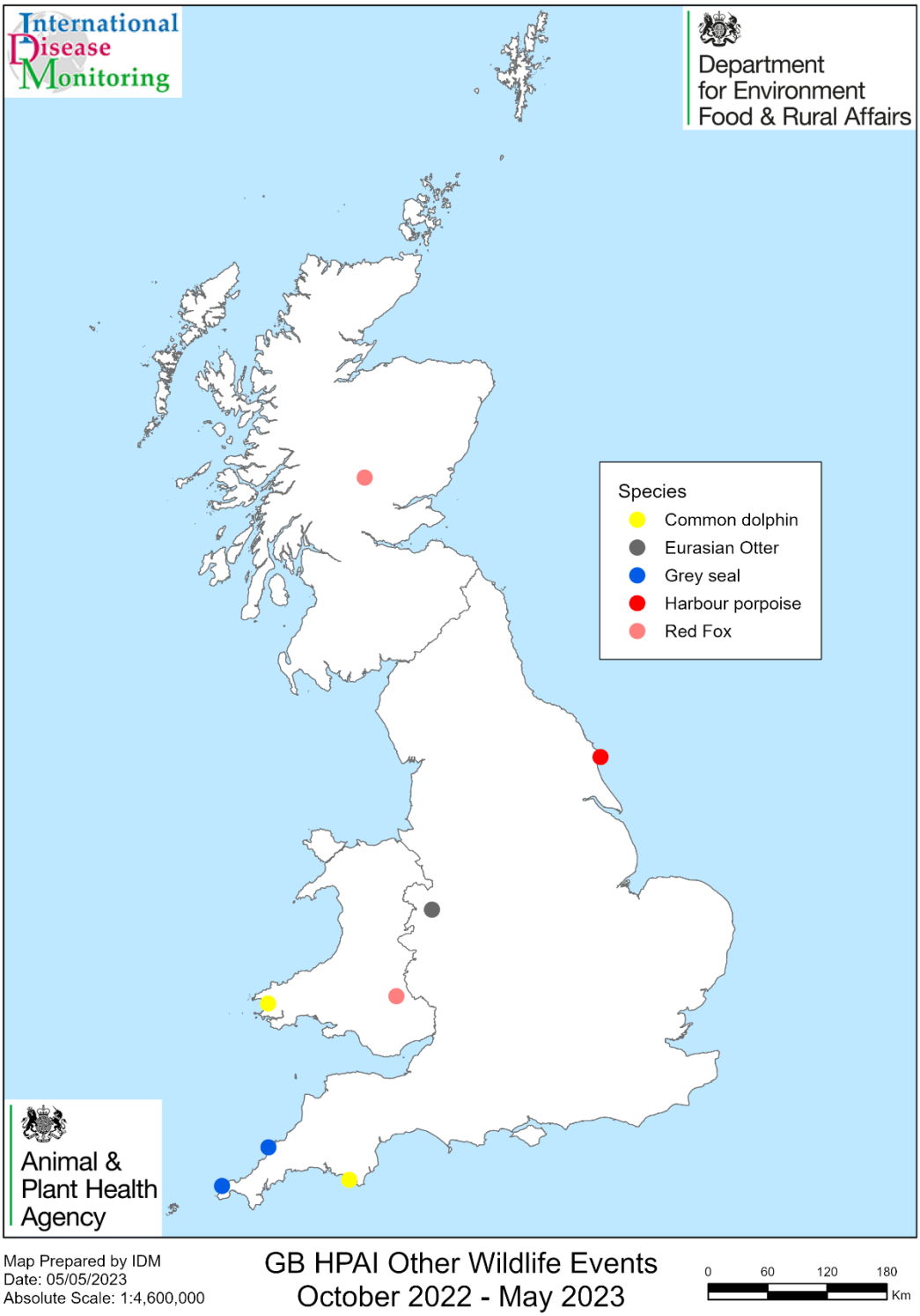
Region and species	Total number of birds testing positive with HPAI H5 since last assessment (15 March 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Peregrine	3	15
Unidentified Avian	0	2
Barn Owl	0	2
Red Legged Partridge	0	1
Goosander	0	1
Red Breasted Goose	0	2
Fantail Dove	0	1
Unspecified Bird of Prey	0	2
Other Crow	0	2
Unlisted Goose	0	3
Unspecified Pheasant	0	3
Shoveler	0	1
Greater Spotted Woodpecker	0	1
Dove Pigeon	0	1
Teal	0	1
Scotland	**0**	**123**
Greylag Goose	0	4
Herring Gull	0	10

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (15 March 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Mute Swan	0	14
Pink footed goose	2	23
Unspecified Goose	1	4
Whooper swan	0	2
Common Buzzard	2	10
Pheasant	0	4
Barnacle goose	0	19
Black Headed Gull	0	1
Sparrowhawk	0	2
Guillemot	0	1
Hen Harrier	0	1
White Fronted Goose	0	2
Unspecified Gull	0	6
Common Gull	0	5
Tawny Owl	1	1
Fulmar	0	1
Lesser black-backed gull	0	2
Osprey	0	1

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (15 March 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
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
Wales	**0**	**41**
Canada Goose	0	3
Greylag Goose	0	5
Mute Swan	0	10
Common Buzzard	0	4
Pheasant	0	9
Mallard duck	0	2
Guillemot	0	1
Hen Harrier	0	1
Moorhen	0	1
Gannet	0	2
Lesser black-backed gull	1	2

Region and species	Total number of birds testing positive with HPAI H5 since last assessment (15 March 2023)	Total number of birds testing positive with HPAI H5 since 1 October 2022
Unspecified Bird of Prey	0	1
GRAND TOTAL	**71**	**936**

Appendix 2. Non-avian wildlife species in Great Britain that have tested positive for HPAI H5 between 1 October 2022 and 4 May 2023.



Description of Appendix 2. Since 1 October 2022, HPAI H5 has been detected in Perth and Kinross (red fox), Powys (red fox), Shropshire (Eurasian otter), East Yorkshire (harbour porpoise), Pembrokeshire (common dolphin), Devon (common dolphin) and Cornwall (2 grey seals).

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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
- 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.