

Updated Outbreak Assessment #5

High pathogenicity avian influenza (HPAI) in Great Britain and Europe

6 November 2024

Disease report

Since our [previous outbreak assessment on 30 October 2024](#), there has been one report of high pathogenicity avian influenza (HPAI) H5 clade 2.3.3.4b in domestic poultry in a free range flock in East Yorkshire. This is the first confirmed HPAI H5 Infected Premises (IP) since mid-February 2024. It is a free-range layer farm housing 20,000 chickens in East Riding of Yorkshire. While HPAI H5N5 has been detected in Great Britain in wild birds this autumn, this is the first confirmed outbreak of HPAI H5N5 in commercial poultry in Great Britain.

There has also been a further HPAI H5 clade 2.3.3.4b event involving one “found-dead” wild bird in Great Britain, a white-tailed eagle on the Isle of Rona, Scotland, collected in late September 2024. This was also confirmed as HPAI H5N5 (see Map 1 for wild bird cases collected since 1 October 2024). The wild bird risk level across Great Britain remains at high.

The risk level for HPAI H5 incursion in poultry:

- With stringent biosecurity remains at low (rare, but does occur) with low uncertainty and
- With non-stringent or suboptimal biosecurity is increased to medium (occurs regularly) with low uncertainty.

HPAI H5 reports continue across Europe, with outbreaks in vaccinated ducks in France and a sharp increase in incidence of poultry outbreaks of H5N1 in Hungary. Following increases in wild bird reports in recent weeks, this appears to have slowed over the last week though there are variable lags in reporting.

There have been no further reports of HPAI H5 in mammals in Europe.

Situation assessment

Here, an HPAI H5Nx event refers to a report of HPAI in poultry, or a location with at least one HPAI H5Nx positive wild bird. Individual HPAI H5Nx positive wild birds are referred to as cases.

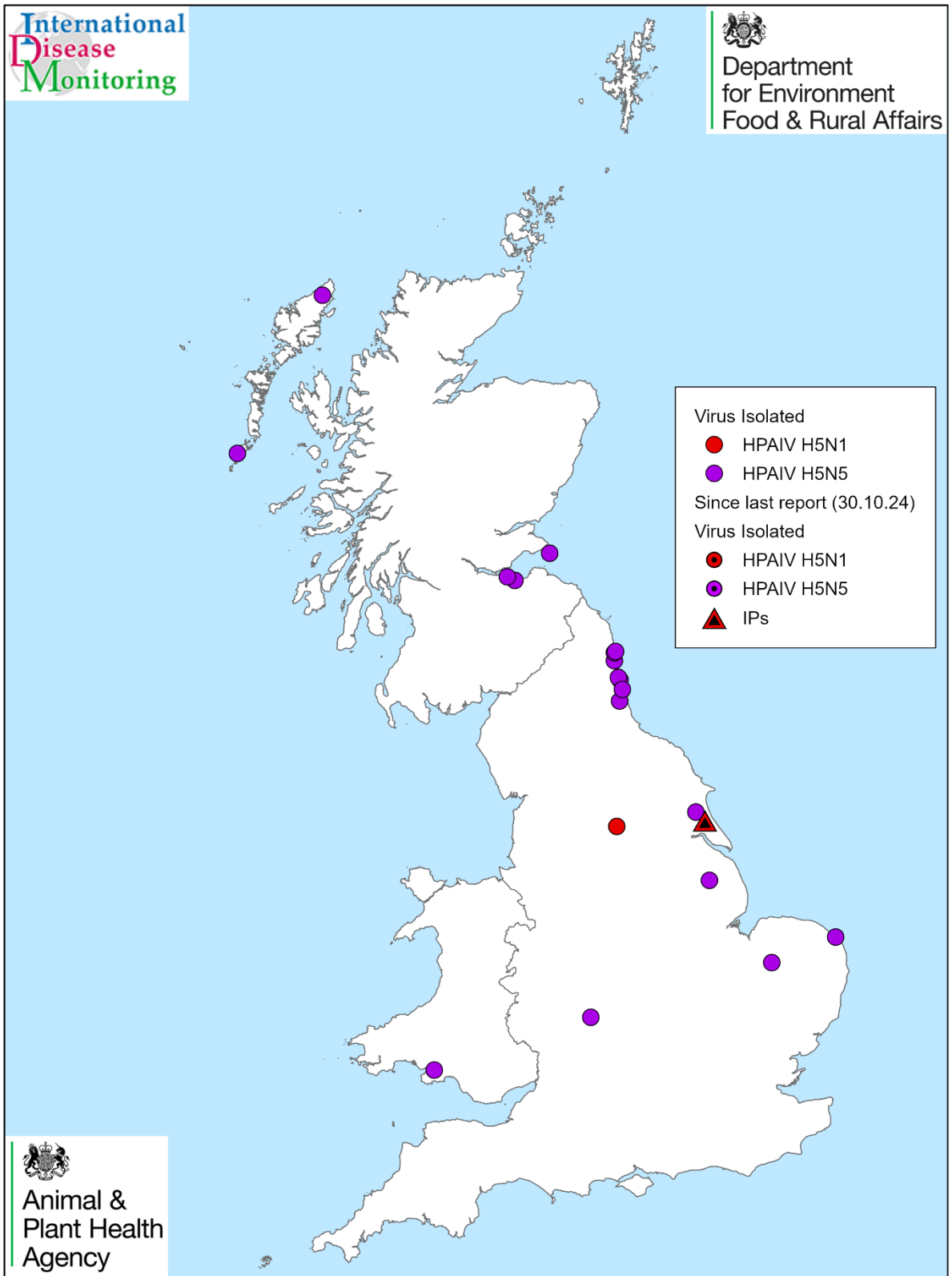
Great Britain

Since our last outbreak assessment on 30 October 2024, there has been one IP confirmed with HPAI H5N5 in poultry. This was on a free-range layer farm in East Riding of Yorkshire, England housing 20,000 chickens. All poultry on the infected premises will be humanely culled and a 3 km protection zone and 10 km surveillance zone have been put in place surrounding the premises. For updates on the latest situation in England please see [Gov.uk](https://www.gov.uk)

Wild birds

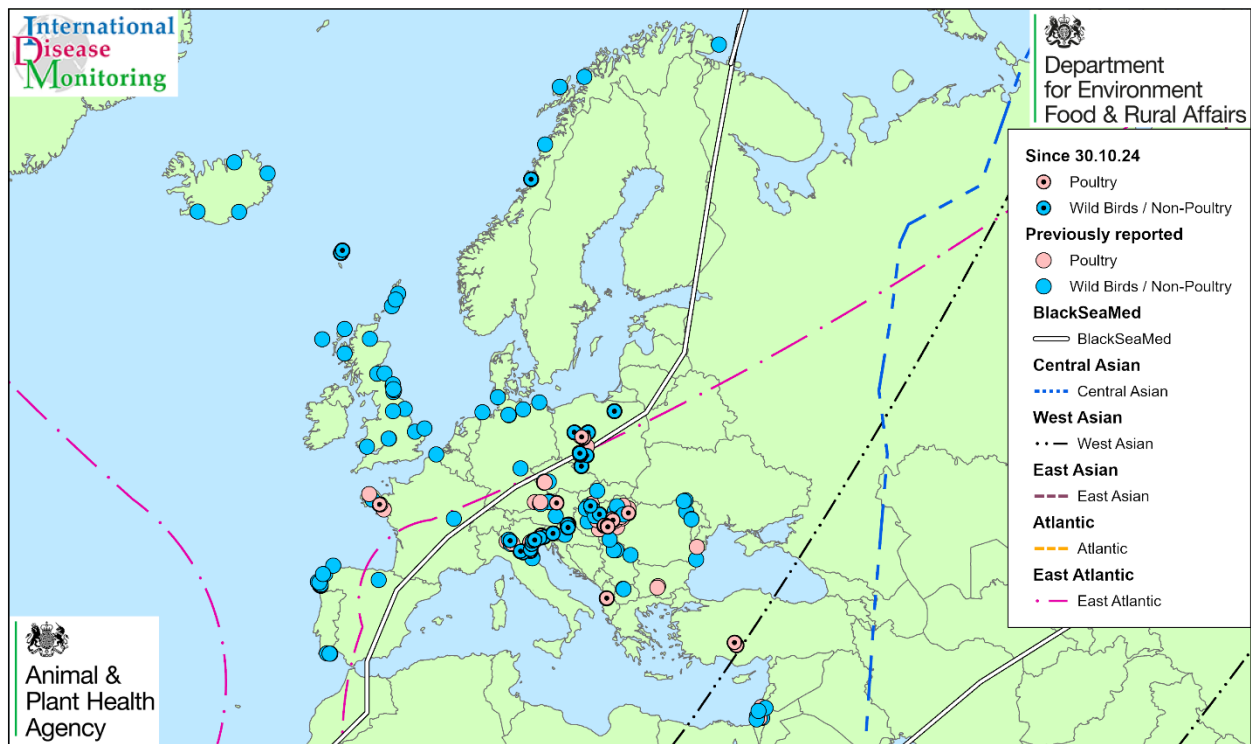
It should be noted that there is a variable lag period between the collection of found-dead wild birds and the reporting of results to sampling and testing.

It is important to note that these surveillance figures for Great Britain are based on passive surveillance of found dead birds reported to Defra by the general public and as such, may be affected by several factors including frequency of visitors accessing areas with bird populations, the potential for immunity in the wild bird population (which may result in fewer birds developing clinical disease and or dying with HPAI), variable surveillance system sensitivity, as well as the size, location and accessibility of carcasses, meaning that this wild bird surveillance does not necessarily 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 [HPAI in wild birds in Northern Ireland](#).



Map 1. Wild bird positive cases and IP for HPAI H5Nx across Great Britain from 1 October 2024 to 6 November 2024. Discussed in body of report.

Europe



Map Prepared by IDM

Date: 07/11/2024

Absolute Scale: 1:48,000,000

Highly Pathogenic Avian Influenza in Poultry, Captive and Wild Birds

October to November 2024

Overlay: Migratory Bird Flyways

(* WOA Data Only ** WOA Defined)

0 900 1,800 2,700 Km

Map 2. Map showing HPAI events in domestic poultry and wild birds in Europe reported by WOA between 1 October and 6 November 2024 (WOAH, 2024) cases and outbreaks are observed across Europe, as described in the main body of this report. Note the H5N5 outbreak in England is not on WOA at time of writing.

Between 30 October 2024 and 6 November 2024, there were a total of 68 HPAI H5 events reported by WOA in domestic poultry, captive birds and non-poultry including wild birds across Europe. The majority of these occurred in central and eastern Europe. In total, there were 71 reports on WOA in wild birds. These were seen mainly in gulls, geese and swans. All species are set out in Table 2. Please note, there are differences in the level of detail between reports from WOA and the EU's Animal Disease Notification System (ADIS), which we are not able to access. This report brings together multiple sources of information, including WOA, ADIS summaries and media reports and publications.

Albania

On 30 October, Albania's first outbreak of HPAI H5N1 of the season in poultry was reported by WOA. This was in a backyard flock of 20 birds in Tiranës.

Austria

Following the first report of HPAI H5N1 of the season earlier in October Austria set up a task force for HPAI and has been conducting [weekly risk assessments and modelling](#). Since then, Austria has reported 2 further outbreaks in the Amstetten district affecting over 100,000 chickens and turkeys and has implemented a 3km Protection Zone (PZ) and 10km Surveillance Zone (SZ) with a [general obligation to keep poultry housed within these zones](#).

Bulgaria

Earlier in the year, Bulgaria established additional measures with regards to the prevention and control of HPAI. This involved establishing high risk periods and where poultry should be kept inside alongside awareness campaigns, when markets should be banned and movement restrictions ([Bulgaria, PAFF October 2024](#)) Following the initial outbreaks in pheasants, turkeys, chickens, ducks, geese and guineafowl (mixed species across 2 outbreaks), Bulgaria have implemented the relevant control measures in compliance with EU and Animal Health requirements. Further controls in Bulgaria include a reorganisation of the duck sector, with the whole cycle in one holding (or different but belonging to the same owner). This aims to decrease the movement of ducks from farm-to-farm and avoiding one farm being used by different owners and companies. Separate transport must also be used for ducks and Galliformes, with GPS equipment for all poultry transport to allow traceability. Additionally, Bulgaria have implemented a mandatory housing order from 1 October to 31 March and 'open door' exhibitions are banned for the year.

The phylogenetic analyses of the HPAI viruses identified in Bulgaria between August 2023 and August 2024 suggest both the persistent circulation of some genotypes in poultry farms, and the emergence of new ones. Epidemiological investigations have often highlighted gaps in biosecurity as a mechanism for the entry and spread of HPAI viruses within and between establishments, though further details on gaps were not provided in the [recent evaluation](#).

Bulgaria has also undertaken a [vaccination plan project](#), with critical points to address identified including inadequate levels of biosecurity on the farms to be vaccinated, insufficient information about the virus circulation and strains in wildlife, absence of a database to record information on vaccination and its traceability, duration of vaccination as yet undetermined, unclear hygiene and biosecurity requirements for vaccinated holdings, the co-housing of vaccinated and non-vaccinated poultry flocks on the same holding and uncertainty about the impact of vaccination on international trade in poultry and poultry products. The plan made recommendations for surveillance in wild birds by identifying the strategic areas and selecting and sampling the most appropriate target species in a representative manner. The surveillance recommendations for poultry were that the Bulgarian competent authority should increase the efficiency of active surveillance in the farms by regularly collecting dead birds and, or, to sample animals with suspected clinical signs. In duck farms, active surveillance should be carried out if no dead birds are

found. Biosecurity recommendations were centred around awareness and preparedness, including training for veterinarians and farmers in the poultry industry and a review of the production systems in order to reduce the risk of spread of the disease, for example by reducing the density of avian influenza susceptible animals in some critical areas and the number of movements between holdings.

The overall recommendation was that any vaccination plan should be postponed until all the highlighted gaps are filled.

Croatia

Though not yet reported by WOA, Croatia confirmed their first outbreak of HPAI H5N1 following observation of increased mortality and clinical signs on a turkey fattening premises with over 38,000 birds, on 15 October. A census of poultry premises within the Restricted Zone (RZ) is ongoing. Amendment OG 55/2024 from May 10 2024 is still in force, requiring poultry and captive birds to be kept in a way where contact with wild birds is not possible across the whole country ([PAFF, Croatia 2024](#)).

Faeroe Islands

Since our last assessment, the Faeroe Islands have reported 2 events of HPAI H5N5 in wild birds, in a common eider and 2 hooded crows.

France

WOAH reported 1 outbreak of HPAI H5 in poultry in France since our last report, in a flock of 51,000 birds in Morbihan. There have been two poultry outbreaks previously reported in Morbihan near Vannes, on 23 October in a farm of 7,500 vaccinated ducks (2 doses) in the foie gras sector and on 25 October in a farm of 30,000 vaccinated ducks (1 dose) in the meat sector. In total, 3 outbreaks were therefore detected in 1 week in Morbihan (Plateforme). In total, the country has declared 6 poultry outbreaks, 2 captive bird outbreaks and 10 wild cases since the start of the season.

Germany

Following the first outbreaks in the south of the country in Bavaria in a goose premises and mixed species web-footed premises at the end of October, Germany has noted an increase in wild bird detections of HPAI. Since our last report on 30 October, Germany has reported 7 events in wild birds including swans in Hamburg (2), Bavaria (2) and Thuringia (1), and geese in Bavaria (2). In the same time period, Germany has also had one outbreak of HPAI H5 in a mixed poultry premises in Bavaria, housing turkeys, chickens, ducks and geese (TSIS).

Hungary

Hungary have seen a sharp increase in the incidence of poultry outbreaks of HPAI H5N1, with 30 outbreaks reported since our last assessment on 30 October. The outbreaks are clustered in the south (a dense area for poultry production ([https://empres-i.apps.fao.org/general using GLW2020](https://empres-i.apps.fao.org/general_using_GLW2020) data) and the east of the country. The majority of these 30 outbreaks affected the foie-gras sector with 21 in foie-gras ducks and 3 in foie-gras goose premises. The remainder of outbreaks were in goose fattening (2) and duck fattening (1) premises, followed by goose breeding premises (1) and backyard poultry premises (2). Detections in wild birds continue in Hungary, with one event of H5N1 in a mute swan since our last report. From the most recent [PAFF presentation](#), Hungary have implemented control measures including pre-movement testing of waterfowl going to slaughter in high-risk areas, pre-movement testing for all waterfowl that are moving to live across the country and housing orders for poultry kept in high-risk counties (from 11 October).

Italy

Since our last assessment, Italy has reported 2 outbreaks of HPAI H5N1 in backyard poultry holdings in the north of the country. Italy continues to report events of HPAI H5N1 in wild birds, with 13 since 30 October including waterfowl, gulls and birds of prey (see table 2 for details). In the most recent [PAFF presentation](#), Italy commented that the current epidemic season, compared to the one of 2023 to 24, started earlier in the autumn (in week 39 vs week 44), with the first positive wild bird found positive at the end of September.

Norway

HPAI H5N5 continues to be reported in wild birds in Norway, with 1 event in herring gulls confirmed since our last assessment.

Poland

Since 30 October, Poland has reported 4 outbreaks of H5N1 in the west of the country, 3 of these were in commercial poultry premises affecting between 4,000 and roughly 206,000 birds. The fourth was in a backyard premises with 83 'non-poultry' birds, no further details are currently available. Cases in wild birds continue in Poland, in Anatidae and an event in the Eurasian blackbird (table 2).

Slovakia and Slovenia

Slovakia and Slovenia have reported cases of HPAI H5N1 in mute swans since our last report (table 2).

Table 2: Wild bird cases of HPAI H5 in Europe reported on WOAAH since 30 October 2024 (to 6 November 2024). Number of cases in parentheses.

Country	Wild bird species (WOAH data only)
Faeroe Islands	Common Eider (1), Hooded crow (1)
Hungary	Mute Swan 18)
Italy	Black-headed gull (1), Common teal (1), Eurasian wigeon (1), Greylag goose (2), Mallard (5), Peregrine falcon (1), Yellow-legged gull (2)
Norway	Herring gull (1)
Poland	Bean goose (1), Eurasian blackbird (1), Greylag goose (1), Mute swan (4)
Slovakia	Mute Swan (1)
Slovenia	Mute Swan (4)

There have been no new cases of HPAI reported in mammals in Europe since our previous update on 7 October 2024.

Implications for Great Britain

The implications for Great Britain have not changed markedly since our previous outbreak assessment on 30 October 2024. [However, it is notable that the risk level for poultry with sub-optimal biosecurity has increased \(see below\).](#)

In this update we focus on the situation in Great Britain HPAI H5N5 in northern Europe and HPAI H5N1 in eastern and central Europe as little has changed in western France and the Iberian Peninsula.

HPAI H5N5 is ongoing in northern Europe with wild bird cases in gulls in northern Norway and corvids on the Faroe Islands albeit from October. The case in the common eider duck on the Faroes was in August adding more evidence for the circulation of HPAI H5N5 in seabirds over the early autumn when pink-footed geese, Greenland barnacle geese and whooper swans would be migrating south into Great Britain. The hooded crow cases in the

Faroe Islands are another example of the transmission to non-marine scavenging birds as has occurred recently in Great Britain with cases in buzzards and red kites. The detection of the first poultry IP with HPAI H5N5 is a concern not only in Great Britain but globally as it demonstrates the potential for HPAI H5N5 to spread to poultry. In previous seasons H5N5 in Europe seemed confined to marine birds. However, potential spread to poultry was anticipated in October 2024 with the report of cases in released pheasants in Worcestershire.

In terms of genotype, where sequence is available, the detections of H5N5 virus in Great Britain are designated European Union Reference Laboratory (EURL) H5N5 genotype I. This genotype emerged in Russia at the end of 2020 and has been detected in Norway since 2021. In September 2023 viruses of this genotype, highly related to the Norwegian viruses, were identified in Iceland, the United Kingdom and Greenland and then in February 2024 in Germany. The genotype analysis supports a considerable geographic expansion of this variant which is clearly ongoing.

Some H5N5 genotype I strains contain a mutation in PB2 (E627K) which is associated with mammalian adaption although this has not been seen in recent wild bird detections in Great Britain. This H5N5 genotype I has made transatlantic incursions into Canada from Norway through migratory wild birds with spillover into mammals. The neuraminidase (NA) of this genotype also has a deletion in the stalk. Deletions in the stalk have previously been associated with increased virulence in chickens.

HPAI H5N1 continues to spread in central and eastern Europe. Notably Albania has reported its first outbreak in poultry at the end of October and the virus continues to spread west in northern Italy with 13 more wild bird cases and two poultry outbreaks. The wild bird species include two migratory species, namely wigeon and teal, in addition to five mallards and some gull species. Although there are as yet no mute swan cases in Italy, there are two greylag geese cases. Both the mute swan and the greylag goose are two species that are frequently listed in positive case reports for H5N1 in central and Eastern Europe. As noted in our previous update on 30 October, the ongoing reports of HPAI H5N1 in central and eastern Europe indicate a common pathway which could lead to further incursions into Great Britain in the coming weeks. In particular, stopover sites on the Baltic and in Russia may provide an opportunity for mixing and disease transmission for birds flying on into Great Britain.

Considering the ongoing trends in both HPAI H5N5 and HPAI H5N1 in Great Britain and Europe, the risk of wild bird incursion into Great Britain is currently assessed as high. At this time of year, it is considered that a high risk for wild birds naturally increases the infection pressure on domestic poultry in Great Britain. On the basis of the recent changes in the disease process for HPAI H5N5 in wild birds together with the first detection of HPAI H5N5 in poultry, the risk for poultry with sub-optimal biosecurity is now increased from “low but heightened” (with high uncertainty) to medium (with low uncertainty). The risk level for poultry with stringent biosecurity is still considered to be low (with low uncertainty).

Conclusion

In the week following our [previous outbreak assessment on 30 October 2024](#), there has been an outbreak of HPAI H5N5 in free-range chickens in Yorkshire. This is the first IP in Great Britain since mid-February 2024 and more importantly it is the first outbreak of H5N5 in poultry both in Great Britain and in Europe (to our knowledge). Genotype is yet to be confirmed. This represents a continuation of the changing disease process with H5N5 shifting inland and into terrestrial avian species including pheasants, scavengers and now poultry. Although there has only been one more wild bird case of HPAI H5 in Great Britain since our previous assessment on 30 October 2024 (namely H5N5 in a white-tailed eagle in Scotland from late September), it is considered that the wild bird risk in Great Britain is still high with further incursions of HPAI H5 expected from continental Europe in the coming weeks. Given the ongoing high wild bird risk and the first IP of HPAI H5N5 in Great Britain, the risk to poultry with sub-optimal biosecurity is now raised further from “low but heightened” (with high uncertainty) to medium (with low uncertainty). The risk of infection of poultry in Great Britain with stringent biosecurity is still considered low with low uncertainty. Here we consider stringent biosecurity to be the highest standards of biosecurity, which are applied by premises in the poultry compartments scheme including air and door locks, shower in – shower out facilities and pristine areas in the poultry sheds as defined [previously in the scientific opinion on the incursion of HPAI H5N1 into housed or not housed poultry flocks and captive birds](#).

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

It is particularly important that stringent adherence to good biosecurity practices is maintained, particularly in the coming weeks as wader bird species and then migratory ducks, geese and swans have started to arrive in Great Britain for the autumn and winter.

Advice for working with birds

Reinforcement of good biosecurity awareness behaviours and practices should be frequently communicated to all personnel working with birds.

Any lapse of these measures could result in disease being introduced to poultry and captive birds.

This could be by direct or indirect contact with wild birds.

Direct contact includes wild birds getting into housing or onto the range.

Indirect contact with wild birds includes faecal contamination of:

- feed
- water
- bedding
- equipment

- vermin
- 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 WOA, Food and Agriculture Organisation (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.

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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).

- Anon (2024) [Confirmation of avian influenza in a Breton farm | Successful poultry \(reussir.fr\)](#)
- DAERA (2024) [Department of Agriculture, Environment and Rural Affairs Avian influenza information page](#)
- IZSVE (2024) [EURL Avian Flu Data Portal \(izsvenezie.it\)](#)
- WOAH (2024) [WAHIS \(woah.org\)](#)



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