

## Situation Assessment #4

# Update on H5N6 HPAI in UK/Europe and H5N8 HPAI in Europe/Western Russia

9<sup>th</sup> July 2018

Ref: VITT/1200 Avian Influenza in Europe

## Disease report

This is an update to our previous assessment on the 4<sup>th</sup> April 2018 on the current situation for highly pathogenic avian influenza virus (HPAIV) H5N6 in the UK, including the current status of the prevention zones and other findings in Europe and an assessment of the ongoing H5N8 HPAIV outbreaks in poultry in south-eastern Europe and in western Russia.

The two H5N6 outbreaks in poultry in northern Europe in the early part of this year were swiftly controlled with no secondary spread. It is important to note that to date, there have still been **no detections of H5N6 HPAI in poultry in the UK**, either in the commercial or non-commercial sectors. There has been one further wild bird finding in the UK (Northern Ireland) and the late winter period to March resulted in sporadic detections of H5N6 in Northern Europe but at much lower levels than with H5N8 in 2017/18. The number of wild bird H5N6 cases, however, has markedly decreased through April into May, probably due to a combination of firstly the departure from the UK of the wintering water birds (which were the main source of virus) and secondly an increased rate of decay of any excreted virus present in the aquatic environment due to higher ambient temperatures, thus diminishing further exposure to resident wild birds. The risk of further incursions in wild birds in the UK is now considered greatly diminished (reduced to LOW across UK) compared to earlier in the year (Defra, 2018) and as a result the Avian Influenza Prevention Zones in place in England and in Wales were lifted on Friday 25 May 2018.

This report is to inform readers of the ongoing likelihood of more HPAIV findings in wild birds in the UK during the summer and to review the biosecurity needs to continue to prevent incursions into poultry farms and backyard poultry.

## Situation assessment

### H5N6 in the UK/Republic of Ireland

Since the last report (April 2018), there have been no further findings in wild birds in Wales. In Northern Ireland a dead wild Greylag goose (*Anser anser*) found in a wildlife park on the 8<sup>th</sup> June tested positive for H5N6. Sequence analysis indicates high homology

to the virus isolated from a Eurasian buzzard (*Buteo buteo*) in Northern Ireland on 23<sup>rd</sup> March 2018. Thus this does not appear to be a new incursion but is connected to the seasonal wild bird cases seen over the winter and shows that these events can extend over several months with few cases indicating there is still maintenance of residual virus albeit at low levels. In England a Eurasian buzzard was found dead and tested positive in mid-April at the same site in Suffolk as the Eurasian buzzard cases in late March, indicating a local source of virus perhaps in a resident population of wild waterfowl. Buzzards eat carrion when their preferred prey of small rodents/birds is not available so they (and other raptors) make good sentinels for HPAIV. There have been no cases in poultry in the UK and no cases were reported in wild birds in Scotland despite widespread surveillance.

No further outbreaks in wild birds have been reported in the Republic of Ireland.

Wild bird surveillance is continuing across the UK, although we have raised the threshold for testing from one to three or more birds of the target species found dead (specifically wild geese, wild ducks, swans and gulls in the same location). The thresholds for other avian species remain unchanged: namely single birds of prey and five or more of the same non-target species (associated with mass mortality events).

## **H5N6 HPAI in Europe**

The return migration of wild waterfowl species from their wintering sites in Western Europe (including the UK) to their summer breeding grounds in the Arctic tundra in late March/early April may have been responsible for many of the cases of H5N6 reported in wild birds in northern Europe including Scandinavia since the previous report. Indeed the general increased movement of waterfowl species across the region leads to further spread of risk. It is interesting to note that the cases were located along the migration route on the Baltic Sea through to Finland (see map below). Going west to east, Denmark, Sweden and Finland reported cases in wild birds in April and into May. Denmark in particular recorded a number of cases in wild birds with 10 findings during April. The species were Eurasian buzzards and a few White-tailed eagles (*Haliaeetus albicilla*) but also Hooded crows (*Corvus cornix*), Mute swans (*Cygnus olor*) and other waterbird species. Sweden reported three more White-tailed eagles in April/early May. Finland reported two cases in White-tailed eagle in mid and late April in south-west near a key migration route. Germany recorded a single case in early May in a Eurasian buzzard, following a nearby case in a White stork (*Ciconia ciconia*) at the end of April. The White stork case is interesting in that it may have been a newly arrived spring migrant from Africa and was presumably infected on arrival in Germany.



Date Prepared 10/07/2018

H5N6 HPAI and H5N8 HPAI in poultry, captive and wild birds  
January 2018 - July 2018

Actual Scale 1:25,000,000

Map prepared by IDM



## H5N8 HPAI in Europe

The HPAIV H5N8 strain has only been reported in southern and south-east Europe this year. Bulgaria had not reported any H5N8 cases in poultry since early March until an outbreak on a commercial duck farm in the Drobrich region on the 25 May following an increase in mortality. According to information from the Bulgarian authorities, this premises also had H5N8 HPAI outbreak earlier in October 2017. The same or very similar virus appears to have been maintained at low level in this area raising the issue of the effectiveness of secondary cleansing and disinfection and/or the need for continual biosecurity preventing incursion from wild birds. Another outbreak of H5N8 has also been recently reported in July in Bulgaria in the same region at a commercial premises.

## H5N8 HPAI in western Russia

Since early June, some 32 outbreaks of H5N8 have been reported in commercial poultry across several oblasts of western Russia including Kurskaya Samarskaya, Orlovskaya, Saratovskaya, Kurskaya, Smolenskaya and Penzenskaya. In addition, one outbreak occurred in a large poultry farm of 190,000 birds in Penzenskaya oblast in mid-June. This emphasises the requirement for robust control measures in order to ensure mitigation for risk of spread of infection. These outbreaks currently present very low risk to UK, because

migratory wild waterbirds are not migrating from this region until the autumn. The status of H5N8 in wild birds in western Russia is not known at present.

## Conclusion

The EU/OIE/FAO international reference laboratory/UK national laboratory at Weybridge has the necessary ongoing diagnostic capability for these strains of virus, whether low or highly pathogenic AI.

The wild migratory waterfowl which have over-wintered in the UK have now returned to their breeding grounds in north-eastern Europe, Russia and the Arctic tundra. The new migration season for overwintering waterfowl arriving in the UK will begin again towards the end of the summer but this may be weather dependent. We would like to remind readers that while H5N6 and H5N8 HPAI viruses were both circulating in Europe this year, there was a single case of H5N2 HPAI in Russia in December 2017 which could be circulating in wild birds as well.

The recent case in a wild bird in Northern Ireland was not unexpected as residual infectivity in the wild resident water bird population will diminish over months, and sporadic cases are to be expected in the summer months as seen in recent years.

We therefore consider there is now a low likelihood of further findings in the resident wild bird populations including wild ducks and raptors. Moreover, levels of environmental H5N6 will be diminishing due to natural decay and dilution in the water/silts and this rate of decay will increase as ambient temperature and day-length (solar radiation) increase over the summer, particularly with the current heat wave.

Overall, it is considered that the risk of further outbreaks of H5N6 in wild birds in the UK is “**LOW**”. The presence of H5N8 in southern Europe and western Russia poses a “**VERY LOW**” risk to wild birds in the UK because there are no waterfowl that migrate from these regions at this time of year. Other pathways for incursion through legal trade remain negligible.

On the basis that environmental contamination with the H5N6 HPAI virus may now be greatly diminished across the UK, the Avian Influenza Prevention Zones were lifted on Friday 25 May 2018 across England and Wales. The risk of introduction of infection onto individual poultry premises in the UK remains “**LOW**” for those poultry farms which have strong biosecurity measures in place, but we continue to recommend that poultry keepers remain vigilant to any notifiable avian disease and continue to maintain strong biosecurity.

We strongly recommend that all poultry keepers (including backyard keepers) should familiarise themselves with government guidance on good biosecurity and how to report suspicion of disease appropriately.

Further information is available here: <https://www.gov.uk/guidance/avian-influenza-bird-flu> including updated biosecurity advice for poultry keepers for England;

<http://gov.wales/topics/environmentcountryside/ahw/poultry/bird-gatherings-advice/?lang=en> for Wales and; <http://gov.scot/avianinfluenza> for Scotland

We ask that the public use the **Defra helpline (Tel: 03459 33 55 77)** to report findings of dead wild birds where there are three or more of wild ducks, wild geese, swans, gulls, or single birds of prey or where there are more than five birds of any other species found dead in the same location.

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## References

Defra (2018) Updated Rapid Risk Assessment on the finding of H5N6 HPAI in wild birds in England, Scotland and Wales.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/708535/avian-flu-rra-may2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/708535/avian-flu-rra-may2018.pdf)



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