Situation Assessment #3

Update on H5N6 HPAI UK/Europe and H5N8 HPAI in Europe

4th April 2018

Ref: VITT/1200 Avian Influenza in Europe

Disease report

This is an update to our previous assessment on the 14th February on the current findings for H5N6 HPAI in the UK and Europe and includes an assessment of the ongoing H5N8 HPAI outbreaks in poultry in northern Italy and south-eastern Europe. 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. However, since the first outbreak in commercial poultry detected in Netherlands in December 2017 there have been further wild bird findings in northwest Europe (namely Denmark, Finland, Germany, Ireland, the Netherlands, Slovakia and Sweden). The limited H5N6 outbreaks in poultry in Europe to date have been swiftly controlled with no secondary spread. This markedly smaller poultry epizootic to date compared to 2016/17 is noteworthy and suggests a quantifiably different but still real infection risk for poultry may continue into the coming weeks as occurred last year with the H5N8 HPAI virus.

This report is to inform readers of the ongoing likelihood of more HPAIV findings in wild birds in the UK during the spring and to review the need for strong biosecurity to continue to prevent incursions into poultry farms and backyard poultry. It is noted that at the time of writing, there is a balance between the diminishing H5N6 reservoir with the migratory waterfowl now departing from the UK and north-west Europe and the recent cold weather and generally cool environmental temperatures at this time of year which favours virus survival in the aquatic environment.

Situation assessment

H5N6 in the UK/Republic of Ireland

Previously there were 11 findings of HPAIV H5N6 in wild birds in England, but none in Wales, Scotland or Northern Ireland, despite widespread testing of wild birds. In addition the first finding of H5N6 HPAI was reported in the Republic of Ireland in a White Tailed Eagle (Haliaeetus albicilla) found dead on the shore of Lough Derg in County Tipperary on 31 January 2018.
Since the last report (February 2018), there have been a further 7 findings in wild birds in England, 1 in south Wales, and 1 in Northern Ireland in late March. The recent findings are:

1. Two Mute Swans on a river in Surrey on 28 February
2. Northern Goshawk (*Accipiter gentilis*) in Suffolk on 28 February
4. Eurasian (Common) Buzzard (*Buteo buteo*) in Devon on 28 February.
5. Eurasian Buzzard in South Glamorgan on 28 February.
6. Eurasian Buzzard in Hampshire on 28 February.
7. Eurasian Buzzard in Antrim, Northern Ireland on 23 March.
8. Two Eurasian Buzzards in Suffolk on 28 March.

This takes the current total of events of H5N6 HPAI in wild birds in the UK to 20. Unlike some of the earlier wild bird events in December and early January, these findings are now not only at sites with high numbers of waterfowl and water birds but also involve birds of prey.

In addition, two further outbreaks in birds of prey have been reported in the Republic of Ireland. These are:-

- A second White-Tailed Eagle on the 6 March in Lough Derg near Mountshannon, Co. Clare, Clare. This is near to the first White-Tailed Eagle case in January.
- A Eurasian Buzzard (*Buteo buteo*) on the 23 February was found dead in the same area near Lough Derg, Co. Tipperary.

White-Tailed Eagles and Eurasian Buzzards both hunt and scavenge birds and are likely to have been infected through this route. The Republic of Ireland Government have advised the poultry industry to increase biosecurity measures.

Wild bird surveillance continues and the map above shows the locations of samples taken for testing from found dead wild birds in the UK. These are locations rather than individual
birds and therefore there may be more than one sample taken at each location and more than one time point.

**H5N6 in Europe**

The extreme cold weather in Europe in February/March may have played a role in the survival of H5N6 virus in the aquatic environment and may be responsible in part for the sporadic outbreaks this spring in Germany, Sweden and the Netherlands. The first case of H5N6 in Sweden was a White-Tailed Eagle found on 20 February in the south of the country, followed by a Eurasian (common) Buzzard a few days later in the same part of the country. Sweden’s poultry outbreak was in backyard birds (chickens, turkeys, quails) on the 11 March. This outbreak is of interest because of its northerly latitude (see map below) and could be from waterfowl migrating from the UK or from Western Europe due to timing. Nearer to Sweden, two White-Tailed Eagles infected with H5N6 were found in Denmark on the 12 and 13 February. Three more cases of H5N6 were found in Denmark in White-Tailed Eagles on the 10, 14 and 16 March (see map) and the latest finding was in a White Tailed Eagle in Finland (28 March) at the same latitude as the Swedish poultry case.

H5N6 is still reported in the Netherlands with two new poultry cases in late February and early March. Two findings of H5N6 in birds of prey, namely a Eurasian buzzard and a Peregrine Falcon (*Falco peregrinus*) were reported from late February in the Netherlands in addition to a waterfowl case (a Greater Scaup, *Aythya marila*).

H5N6 was detected in a smallholding with captive birds in northern Germany on 20 March again along an eastward migration route from the UK and Netherlands. Slovakia has also
reported a single finding in a Black Headed Gull (*Larus ridibundus*), which is a migratory species and recent ringing data have shown they migrate from their wintering grounds in Scandinavia to South Europe breeding grounds, therefore it is possible this bird was travelling along the more northerly route.

**H5N8 in Europe**

H5N8 is still present in parts of south-eastern Europe. On 2 March, a H5 (N type awaited) HPAI was reported on a poultry farm in Bulgaria. This follows on from belated reports of H5N8 outbreaks in November 2017. Italy reported three outbreaks of H5N8 in poultry farms in the north in early March in similar areas to previous recent cases. The same or similar virus appears to have been maintained at low level in this area with sporadic outbreaks since 2017.

**Conclusion**

The EURL at Weybridge has the necessary diagnostic capability for these strains of virus, whether low or highly pathogenic.

The wild migratory waterfowl which have over-wintered in the UK will now (late March) be returning to their breeding grounds in north-eastern Europe, Russia and the Arctic tundra. According to ornithologists, most migratory swans and ducks will have left for the NE Europe, while there may still be some geese (Pink foot, Greylag, Barnacle and White-fronted geese) will go any day now towards the north and Greenland / Iceland. The recent cold weather in Europe is unlikely to have brought more waterfowl from continental Europe into the UK because at this time of the year, those birds will be migrating, however cold weather may ground the birds as they look for food, which could explain the apparent easterly move of infected birds in the last four weeks.

We consider there is still a high likelihood of further findings, possibly in resident wild waterfowl or in scavenging birds of prey. The increase in cases in the latter is consistent with previous H5 HPAI epizootics and also reflects the high sensitivity of these species when exposed infected via dead or moribund/sick wild birds. 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 the weather gets warmer.

Overall, taking into account the declining number of findings of H5N6 HPAI in wild resident waterbirds and that migration is well underway, it is considered that the risk of further outbreaks of H5N6 in wild birds in the UK is declining but given the latest findings, the risk level is maintained at present at "HIGH". The presence of H5N8 in southern Europe poses a "VERY LOW" risk to wild birds in the UK because there are no waterfowl that migrate from this region of Europe in a north westerly direction particularly 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 still be present in parts of the UK, the Avian Influenza Prevention Zones should be maintained
across England and Wales meaning that poultry keepers must maintain enhanced biosecurity (excluding housing, but using every other means to prevent contact with wild birds). 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 “MEDIUM” for those with poor 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.


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

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References