Since our last update on the 11th December, Netherlands has reported three cases of H5N6 Highly Pathogenic Avian Influenza (HPAI) in wild birds in Flevoland, near the outbreak reported on the 8th December in commercial ducks. The birds were all reported to be mute swans (Cygnus olor) and in total 8 were found dead and all tested positive. On the 21st December an outbreak of H5N6 HPAI was reported in captive birds in Flevoland, where according to initial reports, 49 out of 58 birds were found dead and all tested positive for the virus. Further definitive analysis is awaited to identify if there are links between the findings, the origins and possible zoonotic risk of this new virus.
Situation assessment

Since our last update on 11th December 2017 reports of H5N8 HPAI in Europe, there have been no further outbreaks reported since the last one in Italy on the 11th in Ravenna in 60 day old turkeys (IZSV, 2017).

The finding of H5N6 HPAI in dead mute swans in Netherlands is concerning for several reasons: this is the first time this virus has been reported in wild birds in Europe; it has been reported in the past few months in SE and E Asia, where it is also affecting wild waterbirds, for example the endangered Black-faced spoonbill (*Platalea minor*) in a national park in Taiwan and mute swans, tufted ducks (*Aythya fuligula*) and black headed gulls (*Larus ridibundus*) in Japan; in Asia, poultry outbreaks from as wide afield as the Phylipines to South Korea have been reported which suggests it is spreading easily within the wild bird migratory flyway and finally, it is present in the Netherlands which serves as a near stop-over point for waterfowl migrating further west into the UK at this time of year.

Incursions of H5N6 HPAI through wild bird migration from Europe will remain a continuous risk to the UK until February. Indeed numbers of certain waterfowl species (Russian white-fronted goose (*Anser albifrons albifrons*) and Bewick’s swan (*Cygnus columbianus bewickii*)) have been reported at sites in the UK to have increased slightly over the last two weeks although the number of birds in the flocks are small, but this pattern could be mirrored by migrations of the other Anatidae waterfowl, such as tufted ducks and wigeon. Other factors such as environmental conditions and food source availability can promote movement from Europe to the UK. Thus, a cold winter in Central Europe would encourage more waterfowl to migrate west and into the UK usually until February, or even beyond.

In 2014, prior to the first outbreaks of H5N8 HPAI in the UK and North Europe, a similar pattern of disease was seen with the virus affecting migratory wild waterfowl in E Asia. Although the Asian and UK wild waterfowl populations use different flyways, these overlap at the northern end of the range in Northwest Siberia where there are moulting and breeding sites and a relatively high concentration of waterfowl, such as the Eurasian wigeon which could represent an opportunity for disease transmission (D. Fouracre and J. Allan, pers comm).

Although the birds could stop-over in the Netherlands where they might be exposed to virus, they could also migrate from the Baltic to the UK in one flight, for example, so reducing risk of exposure. Furthermore the clinical effects of infection with HPAI H5N6 on the individual bird may diminish its chances of flying to the UK, or even make it delay the flight. The developing situation with H5N6 in the Netherlands is a significant new event that merits close monitoring both in terms of further outbreaks and spread in the Netherlands (and within northern Europe) and the reporting of dead waterbirds (particularly swan species) within the UK..

Conclusion

The EURL at Weybridge has the necessary diagnostic capability for this strain of virus.
Given the uncertainty in the distribution and prevalence of H5N8 in wild birds in northern Europe and the developing situation with H5N6 in the Netherlands, it is appropriate to keep the risk level for incursion of eHPAI into UK at “MEDIUM” for the present but keep under continuous review. Because of the proximity of the Netherlands to the UK and possibility of wild birds flying to the UK from Europe, the main focus must now be on H5N6 in wild birds in the UK rather than H5N8, the risk of which appears to be diminishing within Europe at least. The risk of introduction of infection onto individual poultry premises in the UK remains “LOW” for, but will depend on levels of biosecurity which we recommend should be increased.

We strongly recommend that all poultry keepers (including backyard keepers) review their biosecurity measures and business continuity plans now, as the risk level may well increase in the coming weeks. They 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


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