

Preliminary Outbreak Assessment

West Nile virus in Germany

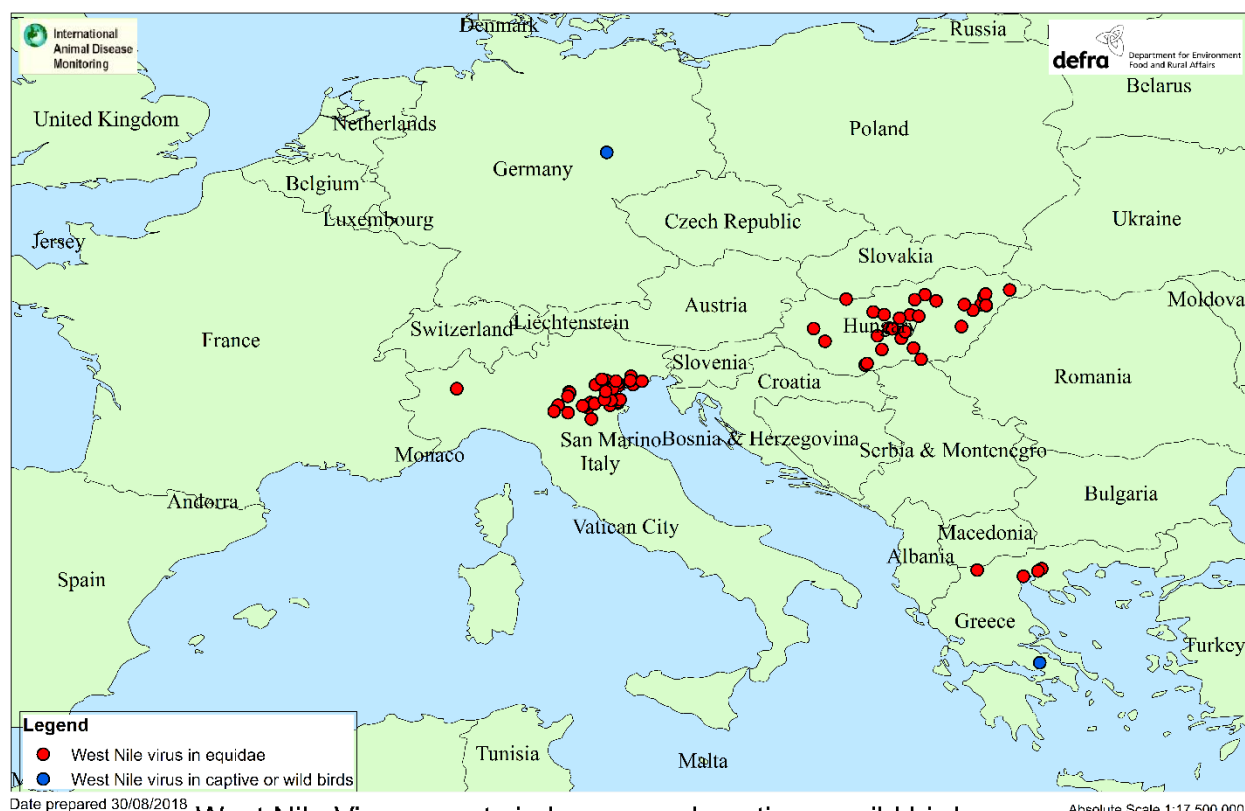
30 August 2018

Ref: VITT/1200 WNV in Germany

Disease report

The German Authorities have reported two cases of West Nile virus (WNV) in great grey owls (*Strix nebulosa*) at a zoological collection in Halle, Lower Saxony (FLI, 2018). This is the first time WNV has been identified in Germany, and was detected as part of the surveillance system in place for several years to detect Usutu and West Nile viruses in wild birds. Raptors are particularly susceptible to WNV in Europe.

This is one of the most northerly reports in Europe of this virus ever, to our knowledge (see map). It is not known if the bird is a recent addition to the collection from Europe or North America, where this species is common.



West Nile Virus reports in horses and captive or wild birds
June - August, 2018

Situation assessment

West Nile virus is one of the vector borne viral diseases causing equine encephalitis. The virus circulates between wild birds, transmitted by ornithophilic haematophagous (ie bird-loving, bloodsucking) mosquitos (the most common is *Culex pipiens*) in Southern and Eastern Europe, North America, East and West Africa. Horses and humans are rare accidental spill-over events, and can be infected through the bite of a bridging species of mosquito, such as *Culex modestus* and *Cx pipiens molestus* or very rarely, through surgical interventions, such as blood transfusion, organ transplant or injecting blood products.

This year has seen a very warm summer associated with an earlier start to the season in continental Europe leading to more number of cases of WNV in humans (Haussig, *et al.* 2018) but the geographic range of cases appears to have remained stable over the last few years (see disease maps produced by the European Centre for Disease Prevention and Control, ECDC, 2018). It is not known if the new case in Germany represents the most northerly range of disease distribution or if it is an “imported” case. The virus lineage is not known at present and further genetic testing is being undertaken; in Europe two lineages circulate with both causing disease: Lineage 1 has been detected in Spain, Portugal and Southern France. Lineage 2 has been detected in Central and Eastern Europe, particularly Greece. Both lineages have been found in Italy.

ECDC has updated their rapid risk assessment for public health, highlighting that more cases may be detected in the coming months, from new areas in Europe and that vigilance and prompt reporting of disease is paramount.

The majority of infected horses will not show any clinical signs, but some horses may develop a fever, and rarely, central nervous signs, such as tremors, staggering and death. WNV is a notifiable disease in horses and suspicion of disease must be reported to APHA.

Conclusion

The risk of incursion of WNV to the UK as a result of this new report at present remains very low, but there is a level of uncertainty around the situation in Germany and the lack of wild bird surveillance data across Europe. Virus could arrive through the movement of infected wild birds and subsequent transmission to local mosquito populations or assisted movement of infected mosquitos (in containers, vehicles, used car tyres etc). The movement of infected people or horses would not be a risk pathway for establishing disease in the UK as neither are viraemic hosts. Nevertheless, British mosquitos would be capable of transmitting WNV and recent surveillance by PHE has found established populations of *Culex modestus* in southern England (Phipps *et al.*, 2018; Cull, *et al.*, 2016). No cases of autochthonous WNV infection in either humans or horses have ever been

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reported in the UK. Mosquito activity declines from October and WNV transmission would not occur.

We would like to remind veterinarians and operators of equine establishments of the requirement to report suspect disease to APHA and that there is a “testing to exclude” programme to rule out infection in horses showing clinical signs where WNV is a differential diagnosis. Veterinarians should discuss this option with their local APHA office. (<https://www.gov.uk/government/organisations/animal-and-plant-health-agency/about/access-and-opening>).

We will continue to monitor the situation.

Authors

Dr Helen Roberts

Jonathan Smith

Dr Jolyon Medlock (PHE)

Dr Amanda Walsh (PHE)

Dr Lorraine McElhinney

Dr Nick Johnson

Dr Paul Gale

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All disease reports are available from the OIE WAHIS database.

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