

West Nile virus in Europe: understanding the present to gauge the future

R Lelli (r.elli@izs.it)¹

1. Istituto Zooprofilattico Sperimentale dell'Abruzzo e del Molise "G. Caporale", Italian Reference Centre for the Study of Foreign animal diseases, Teramo, Italy

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To the editor: I carefully read the paper from P Reiter titled "West Nile virus in Europe: understanding the present to gauge the future", published on 11 March 2010 in *Eurosurveillance*. In his paper P Reiter presents some interesting considerations on the mechanisms behind the spread of West Nile virus (WNV) in the recent years. However, although he intends to consider particularly the European situation, his review is mainly based on studies performed in United States and it ignores some important and recent events that occurred in Italy in the last two years.

In August 2008, after ten years of no activity, a large WNV fever outbreak affected eight provinces in three northern Italian regions (Emilia Romagna, Veneto, Lombardy), where a total of 794 cases of WNV infection in 251 equine stables were detected on the basis of clinical signs and as a result of a serological screening in horses living in the area [1-3]. Some human cases were also reported [4] and the involvement of resident birds, like magpies (*Pica pica*) and pigeons (*Columba livia*) was evident [1]. In 2009 a new epidemic re-emerged mostly in the 2008 outbreak area with additional new foci of infection in central Italy [5]. The WNV circulation was coupled with the transmission in the same areas of the Usutu virus, another *Flavivirus* transmitted by mosquitoes and frequently associated with WNV circulation [6]. The first human case ever registered of neuroinvasive infection of Usutu virus was recently observed [7,8].

To my knowledge the epidemiological characteristics of WNV epidemics in Italy are unique. The re-occurrence of WNV transmission in 2009 in areas far from localities with a high density of migratory birds, and the positive virological results consistently obtained from sampled resident birds suggest the establishment of an efficient local overwintering mechanism with the possible involvement of these bird species. To my knowledge this is the first time that clear evidence of WNV endemicity in autochthonous bird species was observed in Europe. In Reiter's paper there is no reference to the Italian situation and it appears to have been overlooked, especially considering the aim of the

paper in relation to the possible future perspectives of WNV infection in Europe.

Please, consider my comments as a contribution for the completeness of the theories exposed in the Reiter paper.

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