

VECTOR COMPETENCE OF BRITISH *CULICOIDES* SPECIES FOR BLUETONGUE VIRUS SEROTYPE 8

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The proportion of infected vectors which are able to transmit an arbovirus to a susceptible host has a significant impact on the epidemic potential of such a virus. Assessing vector competence is therefore crucial to evaluate accurately the risk posed by such a disease to any non-endemic region. The vector competence of various *Culicoides* species in Scotland for bluetongue virus serotype 8 (BTV-8) was assessed by a pad-feeding technique, and a high-throughput virus extraction and isolation procedure. This was coupled with a multiplex polymerase chain reaction (PCR) to identify members of the *Culicoides* Obsoletus complex to species level. These results are compared with vector competence

results of further *Culicoides* Obsoletus in South-East England assessed by the same method. A very low level of competence for this strain was detected in all *Culicoides* species tested, similar to that described for this strain in *C. imicola* originating from both Corsica and the Onderstepoort Veterinary Institute in South Africa. The implications of this are discussed in relation to future studies and also with regard to wider aspects of orbivirus transmission in the European Union.

KEYWORDS: *CULICOIDES* – *BLUETONGUE VIRUS* – SEROTYPE – VECTOR.

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