

HOST-LOCATION AND FLIGHT BEHAVIOUR IN *CULICOIDES* IN THE UNITED KINGDOM: CURRENT STATUS OF WORK AND POSSIBLE FUTURE DIRECTIONS

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■ VECTOR SURVEILLANCE

An overview of two areas of recent research at the Institute of Animal Health Pirbright is presented. Firstly, the work carried out to define semiochemicals that can be used in trapping surveillance and behavioural studies as surrogates for ruminant hosts is discussed. In a preliminary experiment, light trap catches, CDC traps baited with semiochemicals, and natural hosts are compared. The limitations of these designs and possible future developments to improve their efficacy are then analysed. Secondly, the work that has been conducted to define both activity levels and flight range in *Culicoides*, and which has been

used subsequently to refine modelling of wind-borne incursion risk of BTV is examined. This includes a discussion of the data both currently used, and that which may be available in the future with new diagnostic techniques. Taking a broad view, the way in which both of these technologies may be integrated into attempts to understand orbivirus epidemiology in the field is finally discussed.

KEYWORDS: *CULICOIDES* – SEMIOCHEMICALS – BEHAVIOUR – DISEASE SURVEILLANCE – UNITED KINGDOM.

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