

BLUETONGUE AND *CULICOIDES* SPP. DISTRIBUTION BETWEEN 2005 AND 2008 IN PORTUGAL

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The first outbreak of bluetongue (BT) in Portugal occurred in 1956 and was caused by BT virus serotype 10 (BTV-10). The disease was declared eradicated in 1960. Forty-four years later, in November 2004, BT re-occurred in Portugal, caused by BTV-4, and again, in September 2007, by BTV-1. It has persisted in some regions of the country since then. To help control the disease, a BT entomological programme was implemented in Portugal in 2005 and some of the results are now reported, focusing on *Culicoides* species as BTV potential vectors. In the framework of the national entomological programme, the country was divided into 45 geographical units (GUs) (50 km side squares). Mini-CDC light traps were used to collect insects in selected ruminant herds in different GUs. During the period of September 2005 to May 2008, 2990 valid catches were made and ten *Culicoides* species were identified. *C. imicola* was the main species identified and accounted for 81.73% of the specimens collected, with a peak

occurrence in September. *C. Obsoletus* complex accounted for 4.45% of the specimens, with peaks occurring from May to July. *C. pulicaris* accounted for 0.04% only of the collections. *C. imicola* was caught 18.3 times more and mean specimens were collected 8.9 times more per trap than *C. obsoletus*. Although *C. imicola* was collected in more northern latitudes than previously reported in Portugal, these catches were sporadic and with a low number of specimens. *C. imicola* predominantly occurred in the East-Central and South regions of Portugal and prevailed in the areas where BT outbreaks occurred. Its marked seasonal occurrence coincided with the period of BT outbreaks in Portugal. *C. imicola* is thus considered the main vector of BTV in Portugal, and official sanitary prophylactic and control measures should be implemented accordingly to decrease the risk of transmission.

KEYWORDS: *CULICOIDES* – BLUETONGUE – PORTUGAL.

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