

Vector-Borne Diseases: Impact of Climate Change on Vectors and Rodent Reservoirs
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Entomological and epidemiological surveys for monitoring bluetongue disease

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The agent of bluetongue disease (BTD), a notifiable viral disease affecting domestic and wild ruminants, belongs to the genus orbivirus. It is transmitted by biting midges of the family Ceratopogonidae, genus *Culicoides*. In Germany, BTD (serotype 8) was detected for the first time on 21 August 2006 in the vicinity of Aachen, North Rhine-Westphalia. *Culicoides* species belonging to the *obsoletus* and *pulicaris* complexes were caught in this area during the outbreak and found infected (Mehlhorn et al., 2007).

Based on the decision 2007/20/EU of 22 December 2006 and funded by BLE through BMELV, a large-scale serological, entomological and virological surveillance programme was initiated in selected regions. Data on the autochthonous biting midges and their potential infection with BTD virus are collected.

Further emphasis is placed on an assessment of the occurrence and dispersal of the midges in different regions. In addition, it is intended to appraise their seasonal abundance and to define optimal methods for the reliable identification of the indigenous species of biting midges. At the same time, BTD-free cattle were monitored to detect a re-appearance of the disease in the current year as early as possible. Based on the knowledge acquired, appropriate strategies will be developed to help contain the further spread of BTD.

