

RECENT OUTBREAKS OF AFRICAN HORSE SICKNESS VIRUS IN SOUTH AFRICA

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■ VECTOR SURVEILLANCE

Based on diagnostic samples received at the Agricultural Research Council – Onderstepoort Veterinary Institute (ARC-OVI), a reference centre for African horse sickness (AHS) and bluetongue (BT) for the World Organisation for Animal Health (OIE), the traditional picture on the presence and occurrence of AHS seems to have changed dramatically in South Africa. Outbreaks of AHS virus (AHSV) have increased in this country over the last three to eight years. Outbreaks tend to occur earlier in the season than normally expected. Unpredicted outbreaks of AHS during the past five years in the declared AHS-free area in the South-Western Cape has led to the temporary closure of the quarantine station in Cape Town and the ban on horse exports from South Africa with significant losses to the horse industry as a whole. In January and February 2006, outbreaks of AHSV serotype 9 have also occurred in the George/Knysna area in the Western Cape. Outbreaks in this area occurred over a relatively long period and continued into the colder months of the year. This seems to indicate that AHSV has overwintered

in this frost-free area, and that it could have occurred in cycling hosts (donkeys and zebras) and/or in adult *Culicoides* species. Since 2001, AHS has occurred annually in the Eastern Cape, South Africa, with at least four serotypes in circulation today. In an outbreak in April 2008 in Port Elisabeth, Eastern Cape, *C. bolitinos* was the dominant species in the coastal areas, whereas *C. imicola* was the dominant one in the inland area. In the outbreak in February and March 2008 in Robertson and in Kimberley, Northern Cape, *C. imicola* was the dominant species. Pools of midges have been tested for virus detection during each outbreak. From the outbreak in Robertson, 13 pools were positive for equine encephalosis virus (EEV) and two for BT. From the outbreak in Kimberley, EEV was isolated from one pool of *C. tuttifrutti*. The role of *C. tuttifrutti* as a vector is still poorly understood.

KEYWORDS: AFRICAN HORSE SICKNESS VIRUS – EQUINE ENCEPHALOSIS VIRUS – CULICOIDES – SOUTH AFRICA.

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