# **Titre d’article**: Prevalence of Trypanosoma evansi in horses (Equus caballus) and donkeys (Equus asinus) in El-Bayadh district, southwestern Algeria

**Abstract :**

T. Trypanosoma evansi is a parasite that causes surra in a variety of wild and domestic animals and is mainly transmitted by biting flies in Africa, Asia and Latin-America. Horses infected by Trypanosoma evansi present a chronic weight loss, icterus, oedema, anemia, abortions and neurological troubles. Due to this parasite, cases of human trypanosomiosis have been reported in different countries by contacting with infected animals. In this study, 206 healthy equines (177 horses and 29 donkeys) from El-Bayadh district, located in southwest Algeria, were tested for the presence of parasites in blood using Giemsa-stained blood films and for the presence of antibodies against T. evansi using CATT /T. evansi. While none of the equines showed detectable parasites in the blood, the individual seroprevalence of T. evansi was found to be 46.6% (CI 95%, 40.7-54.4%). Out of 98 positives samples, 56.1% (55/98) were shown at level 1 (+), 27.5% (27/98) at level 2 (++) and 16.3% (16/98) at level 3 (+++). The results show that out of 177 tested horses, 80 were seropositive to T. evansi, 45.2% (CI 95%, 37.8-52.5%) and out of 29 tested donkeys, 18 were seropositive to T. evansi, 62.1% (CI 95%, 44.4-79.7%). A questionnaire for the owners, targeted to associate risk factors for surra in horses, showed that environmental factors that are favorable for Tabanids, such as water and vegetation, but also promiscuity with dromedaries were positively associated with the seroprevalence rate in the horses. El-Bayadh district is a highly endemic region for surra in Algeria.