# **Titre d’article**: Molecular detection of the B1 gene of Toxoplasma gondii in blood samples of female sheep and goats in Tebessa, northeastern Algeria

**Abstract :**

Toxoplasmosis, caused by Toxoplasma gondii, is a parasitic zoonosis of crucial medical and veterinary importance. It is mainly diagnosed by serological methods which are limited by insufficient sensitivity. Therefore, it is necessary to rely on direct detection of the parasite. The present study was aimed for direct detection of the parasite DNA in the blood samples of sheep and goats using PCR targeting the B1 gene. The study was carried out in 20 small ruminant farms between 2016 and 2018 in Tebessa region, part of north-eastern Algeria, and concerned 227 and 91 aborted female sheep and goats respectively. DNA of T. gondii was detected in 35.24 % and 18.68 % blood samples of sheep and goats respectively (p < 0.001). Molecular prevalence was higher in 13􀀀 24 month old female sheep (93.33 %) than 1􀀀 12 month old female sheep (14.37 %) (p < 0.0001). While, in goats no significant difference was observed in relation to age. Female sheep that aborted between 1􀀀 60 days of gestation were found to be more infected (46.41 %) compared to females that aborted between 61􀀀 120 days of gestation (12.16 %) (p < 0.001). Whereas, female goats that aborted between 61􀀀 120 days of gestation were found to be more infested (30.77 %) compared to females that aborted between 1􀀀 60 days of gestation (16.67 %) (p < 0.001). This study revealed that small ruminants are highly infected with T. gondii, which represents a major risk for the consumer in Tebessa. Further studies are needed to improve our knowledge of the different genotypes of T. gondii infecting small ruminant population.