

Summer occurrence of tick species (*Acari: Ixodidae*) on cattle in three regions of north-eastern Algeria

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Hard ticks are ectoparasites and vectors of many pathogens. Studies addressing hard ticks in cattle have rarely been carried out in this region. This study aims to estimate the infestation rate, distribution and biological diversity of hard tick species infesting 122 cattle in the provinces of Mila, Jijel and Guelma (north-eastern Algeria) during the summer of 2019. A total of 1,927 ticks were collected. Two hard tick genera (*Hyalomma* and *Rhipicephalus*) and nine species were identified. *Rhipicephalus* spp were more abundant (85.83%) than *Hyalomma* (14.17%). *Rhipicephalus (Boophilus) annulatus* (54.5%) and *Rhipicephalus bursa* (28.18%) were widespread in north-eastern Algeria. Several species were reported for the first time in the regions studied: *Rhipicephalus sanguineus* in Mila, *Rhipicephalus sanguineus*, *Hyalomma anatolicum* and *Hyalomma marginatum* in Jijel, and *Hyalomma impeltatum* in Guelma. Thus, *Hyalomma anatolicum* is geographically widespread in Algeria. In addition, tick infestation was found to be highest in exotic cattle breeds, female and cattle over four years of age. Ecological analyses showed that in Guelma there is a high diversity and hard ticks are not uniformly distributed within the species. The information gathered could help to develop more effective tick control programmes in these regions. However, further studies are needed in other regions of Algeria to generate a comprehensive national tick database.

Keywords: hard ticks · *Hyalomma impeltatum* · *Hyalomma anatolicum* · *Rhipicephalus sanguineus* · cattle · Algeria