

**TOPIC: Tick-borne Diseases (*Rickettsia*, *Ehrlichia*, *Borrelia*)**

**APPROACH: Vector biology and eco-epidemiology**

**Ticks in periurban areas from the municipalities of La Costa and General Lavalle. A preliminary study.**

**Keywords:** ticks; periurban areas; preliminary study.

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In Argentina, spotted fever rickettsiosis caused by *Rickettsia parkeri* is a zoonotic disease with tick *Amblyomma triste* as its principal vector. The presence of this tick species restricts to areas of La Plata hydrographic basin in the province of Buenos Aires. The adult stages of *A. triste* can parasitize dogs and cats.

The aim of this study is to detect the presence of *A. triste* in dogs and humans from municipalities of General Lavalle and La Costa (Buenos Aires).

The study period was between September and December 2021, the period of the main activity for adults of *A. triste*. A total of two dog's shelters in peri-urban areas were surveyed: one private (General Lavalle, municipality of General Lavalle) and another public (Mar del Tuyú, municipality of La Costa). In addition, a citizen science scheme was proposed inviting the veterinarian to report tick samples obtained in their clinical practices and also the community was persuaded to collect ticks found on dogs and humans. The collected specimens were sent to the Laboratorio de Vectores y Patógenos de Transmisión Vectorial of Instituto de Zoonosis Luis Pasteur for taxonomic identification.

Forty-nine dogs were sampled, 21 from shelters (15 from General Lavalle and 6 from La Costa); and 28 referred by private veterinarians and the community (8 from General Lavalle, and 20 from La Costa). In addition, specimens were collected from 4 humans from Las Toninas and Mar del Tuyú (municipality of La Costa).

The presence of *A. triste* was confirmed in 20.4% of the sampled dogs, while *Rhipicephalus sanguineus* sensu lato was detected in the remaining 79.6% of the cases (14.3% and 32.6% for Gral. Lavalle; and 6.1% and 46.9% for La Costa, respectively). In total, 213 adult specimens were collected from dogs, 24 were identified as *A. triste* and 189 as *R. sanguineus* s.l. (188 adults and 1 nymphs).

The ticks collected on the four humans were identified as *A. triste* in 3 cases (12 adults) and *R. sanguineus* s.l. in the remaining case (one adult specimen).

This preliminary study has documented the presence of *A. triste* associated with dogs in peri-urban environments of the municipalities of La Costa and General Lavalle, as well as the occurrence of parasitism in humans. It is worth to note the importance of collaborative work with the community and private professionals when surveying areas not yet studied.