Ticks (Acari: Ixodidae, Argasidae) of Coyotes in Panama

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Abstract

Data are presented for 103 tick specimens collected from four coyotes in two provinces of Panama. Six tick species were recovered: Amblyomma cajennense s.l., Amblyomma oblongoguttatum, Amblyomma ovale, Amblyomma sp. near parvum, Haemaphysalis juxtakochi, and Ornithodoros sp. near puertoricensis. These collections constitute a preliminary checklist of ticks from the southern coyote population.

Key words: ticks, coyotes, Panama, zoonosis risk

Introduction

Coyotes, Canis latrans Say, are common large carnivores in North and Central America, occupying ecosystems in both natural and human-dominated environments (De la Rosa & Nocke 2000, Bekoff & Gese 2003). Like other Carnivora, coyotes play an important role in controlling populations of smaller mammals; however, from an economic perspective, they are a threat because they hunt sheep, calves and poultry, and even attack pets and humans (Connolly 1992, Bekoff & Gese 2003, Literák et al. 2012). Coyotes may also spread pathogens, increasing the risk of infections to domestic animals and humans (Stull & Mengak 2009, Niehaus et al. 2012).

In North America, it is known that coyotes are parasitized by different groups of mites, ticks, fleas and lice, which are important vectors of several diseases (Bekoff & Gese 2003, Gompper et al. 2003, Stull & Mengak 2009). However, data on Central American ectoparasites of coyotes are scare, particularly in the case of ticks, where there is but a single record of coyote parasitism by Amblyomma ovale Koch in Panama (Murgas et al. 2013).

The first observation of C. latrans in Panama dates back to 1981, but coyotes are now widely distributed along Panama’s Pacific coast (Méndez et al. 1981, Vaughan-Dickhaut 1983, DGD unpublished data). Recently, we had an opportunity to collect ticks from coyotes in two of Panama’s provinces, and our results constitute a preliminary checklist of ticks that may be expected to occur on these important mammals in southern Central America.

Materials and methods

We collected ticks from four road-killed coyotes in Panama: one in Los Santos Province (Tonosí) and three at sites in Panama province (La Chorrera, Arraiján and Paraíso) (Fig. 1). Tonosí lies in a...