

First report of *Geckobiella stamii* (Acari: Pterygosomatidae) parasitizing *Iguana iguana* (Squamata: Iguanidae) in Panama

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Abstract: *Geckobiella stamii*, an ectoparasite of lizards of the family Iguanidae, is reported for the first time from Panama based on individuals collected on a male *Iguana iguana*.

Key words: Acari, Pterygosomatidae, *Geckobiella stamii*, ectoparasite, *Iguana iguana*, Panama.

Primer reporte de *Geckobiella stamii* (Acari: Pterygosomatidae) parasitando *Iguana iguana* (Squamata: Iguanidae) en Panamá

Resumen: *Geckobiella stamii*, un ácaro ectoparásito de lagartos de la familia Iguanidae, se registra por primera vez de Panamá, en base a individuos colectados sobre un macho de *Iguana iguana*.

Palabras clave: Acari, Pterygosomatidae, *Geckobiella stamii*, ectoparásito, *Iguana iguana*, Panamá.

The genus *Geckobiella* Hirst 1917 consists of 11 species of mites, all of which are obligate ectoparasites of lizards of the families Iguanidae, Phrynosomatidae, Crotaphytidae and Tropiduridae (Paredes-León *et al.*, 2012). Generally these mites are located under the scales of the legs and base of the tail, where they can be seen as a series of red dots, occasionally confused with chiggers (De La Cruz, 1984; Walter *et al.*, 2009). Despite the wide distribution and importance of their hosts, there are few reports of these mites in the literature, so the purpose of this note is to present the first report of *Geckobiella* for Panama.

The mites were observed as white and red dots located between scales in the neck and legs of a male *Iguana iguana* (L. 1758), which was kept in captivity as pet. The owner of this iguana brought it to the Department of Medical Entomology of the Gorgas Memorial Institute for the extraction and identification of mites. Using the key of Paredes-León *et al.* (2012), we were able to identify the red dots as nymphs and adults of *Geckobiella stamii* (Jack, 1961), whereas the white dots belonged to the molts and eggs of this mite species (Fig. 1-2).

Geckobiella stamii was originally described in the genus *Hirstiella* Berlese from individuals collected from *I. iguana* captive in Holland (Jack, 1961). Recently, this species was reported in the United States, Mexico and Dominica from *I. Iguana* and *Iguana delicatissima* Laurenti, 1768 (Corn *et al.*, 2011; Knapp *et al.*, 2012; Paredes-León *et al.*, 2012), indicating that *G. stamii* is a specific parasite of the genus *Iguana*.

In Panama, *I. iguana* has only been reported to be parasitized by the ticks *Amblyomma dissimile* Koch, 1844 and *Amblyomma sabanerae* Stoll, 1894 (Fairchild *et al.*, 1966). Thus, this report provides further information on the ectoparasite-host associations in Panama and the second record of the genus *Geckobiella* for Central America, since Jack (1959) reported *Geckobiella texana* on *Sceloporus acanthinus* Bocourt, 1873 from Costa Rica.

Parasitism by *Geckobiella* may cause problems during the molting process of their hosts, stress and anemia (Walter *et al.*, 2009). Further, some species are potential vectors of *Plasmodium mexicanum* and *Haemogregarina* (Newell and Ryckman 1964). This

report has important implications for human health, since in Panama, the green iguana is either kept for food or as pet. Breeders and owners of these reptiles should be aware of the presence of these ectoparasites.

Acknowledgment

To Sergio Bermúdez (ICGES, Panama) and Helen Esser (Department of Environmental Sciences, Wageningen University, the Netherlands) by reviewing the manuscript.

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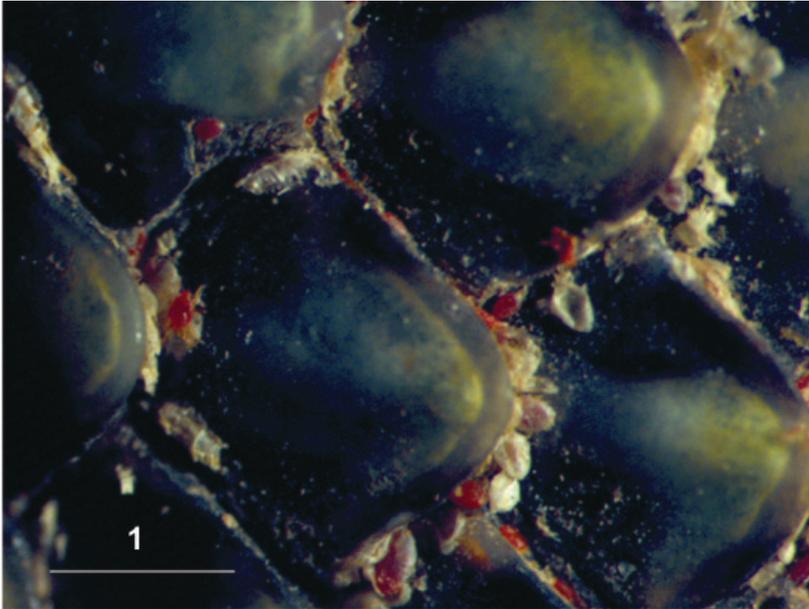


Fig. 1-2. *Geckobiella stamii* (Jack, 1961). 1. On side near the fore leg of *Iguana iguana* (scale= 3 mm). 2. Males mounted in Hoyer's medium (Scale= 1 mm).

