



<http://dx.doi.org/10.11646/zootaxa.3745.2.5>

<http://zoobank.org/urn:lsid:zoobank.org:pub:37286260-96AB-442A-B623-530BBC2C5B0C>

Two new species of scale mites (Acari: Pterygosomatidae) parasitizing *Agama agama* (Sauria: Agamidae) from Kenya

MONIKA FAJFER

Department of Animal Morphology, Faculty of Biology, Adam Mickiewicz University, Umultowska 89, 61–614 Poznan, Poland.
E-mail: mfajfer@amu.edu.pl

Abstract

Two new species of pterygosomatid mites *Pterygosoma garissi* **sp. nov.** and *P. fragilis* **sp. nov.** (Acari: Pterygosomatidae) are described from the agamid lizard *Agama agama* (Sauria: Agamidae) from Kenya. *P. garissi* **sp. nov.** is similar to *P. annectans* Jack, 1962 but in the new species the peripheral setae are slightly expanded apically, 3 pairs of setae are situated on the coxal fields I and 2 pairs on II coxal fields, all pseudoanal setae are paddle-shaped with minute spicules on the apical part, setae *dFIV* are absent and *lTrIV* present. *P. fragilis* **sp. nov.** is most closely related to *P. garissi* **sp. nov.** but differs by the presence of setae *n* on the subcapitulum, the hypostome with several denticles at the apex, the fixed cheliceral digit bearing a spinous process, the presence of 8–9 pairs of the peripheral setae, 1–2 pairs of genital setae *g*, and by the cheliceral shaft 2.1 times longer than the cheliceral base.

Key words: Acari, ectoparasites, Agamidae, lizards, Pterygosomatidae

Introduction

Most representatives of the family Pterygosomatidae (Acariformes) are permanent and highly specified, mono- or oligoxenous ectoparasites of reptiles; only species of the genus *Pimeliaphilus* Trägårdh are probably secondarily associated with terrestrial arthropods (Peredes-Leon *et al.* 2012).

The subgenus *Pterygosoma* currently includes 60 species and subspecies. Most of them (53 species) are known from the African and Asian agamid lizard—s (Squamata: Agamidae) and only seven species were described from the South American iguanid lizards (Squamata: Liolaemidae) (Fajfer 2012, 2013).

Below, I describe two new species, *Pterygosoma garissi* **sp. nov.** and *P. fragilis* **sp. nov.** from *Agama agama* (Linnaeus) originating from Kenya.

Material and methods

The material used in the present study was collected from *Agama agama* (Squamata: Agamidae) and preserved in 70% ethanol. Mites were cleared and softened in Nessbitt's solution at +40°C for 24 hours before mounting in Hoyer's medium. Specimens were studied using the light microscope Olympus BH-2 with differential interference contrast (DIC) illumination and drawings were made using a camera lucida. All measurements including scale bars are given in micrometers (µm); the measurements of paratypes are given in parentheses. In the species descriptions, names of the leg and idiosomal setae follow Grandjean (1939, 1944), names of the palpal setae follow Grandjean (1946). Grandjean's nomenclatures were adapted to the family Pterygosomatidae by Bochkov and OConnor (2006). The scientific names of the lizards follow Uetz (2013). Specimen depositories and reference numbers are cited using the following abbreviation: AMU—Adam Mickiewicz University, Department of Animal Morphology, Poznan, Poland; ZISP—Zoological Institute of the Russian Academy of Sciences, St. Petersburg, Russia; ZMUC—Zoological Museum, University of Copenhagen, Denmark.

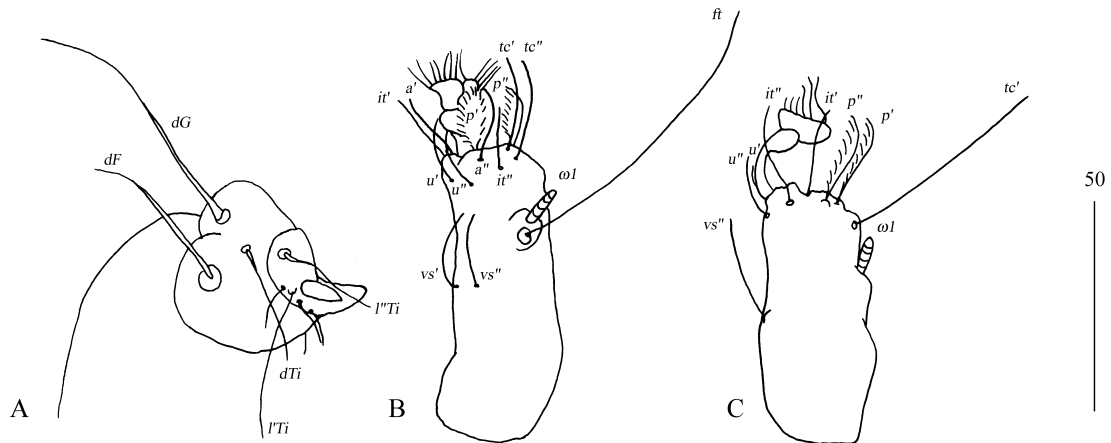


FIGURE 5. *Pterygosoma fragilis* sp. nov., female; details. **A**, palps in dorsal view; **B**, tarsus I in ventro-lateral view; **C**, tarsus II in lateral view.

Acknowledgments

I would like to thank Dr. Andre V. Bochkov (ZISP) for all his guidance that improved the quality of this manuscript. I also thank Mogens Andersen (ZMUC) for his irreplaceable help during my collection of the mites. This research was supported by a grant from the European Commission's (FP6) Integrated Infrastructure Initiative programme SYNTHESYS (DK-TAF).

References

- Bochkov, A.V. & OConnor, B.M. (2006) A review of the external morphology of the family Pterygosomatidae and its systematic position within the Prostigmata (Acari: Acariformes). *Parasitologia*, 40, 201–214.
- Fajfer, M. (2012) Acari (Chelicerata) - Parasites of Reptiles. *Acarina*, 20, 108–129.
- Fajfer, M. (2013) Three new species of scale mites (Acari: Pterygosomatidae) parasitizing *Agama sankaranica* (Sauria: Agamidae). *Zootaxa*, 3700 (2), 271–282.
<http://dx.doi.org/10.11646/zootaxa.3700.2.5>
- Grandjean, F. (1939) Les segments postlarvaires de l'hysterosoma chez les oribates (Acariens). *Bulletin Societe Zoology France*, 64, 273–284.
- Grandjean, F. (1944) Observations sure les Acariens de la famille des Stigmaeidae. *Archives des Sciences physiques et naturelles*, 26, 103–1131.
- Grandjean, F. (1946) Au sujet de l'organe de Claparede, des eupathides multiples et des taenidies mandibulaires chez les Acariens actinochitineux. *Archives des Sciences physiques et naturelles*, 28, 63–87.
- Jack, K.M. (1962) New species of *Pterygosoma* (Acari, Pterygosomatidae). *Proceedings of the Zoological Society of London*, 138, 579–603.
<http://dx.doi.org/10.1111/j.1469-7998.1962.tb05333.x>
- Paredes-León, R., Klompen, H. & Pérez, T.M. (2012) Systematic revision of the genera *Geckobiella* Hirst, 1917 and *Hirstiella* Berlese, 1920 (Acari: Prostigmata: Pterygosomatidae) with description of a new genus for American species parasites on geckos formerly placed in *Hirstiella*. *Zootaxa*, 3510, 1–40.
- Uetz, P. (2013) The Reptile Database. Available from: <http://www.reptile-database.org> (accessed 1 February 2013)