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**Pterygosomatid mites of a new species group *ligare*  
(Acariformes: Pterygosomatidae: *Pterygosoma*)  
parasitizing tree iguanas (Squamata: Liolaemidae: *Liolaemus*)**

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**Abstract**

A new species group, *ligare*, is established within the subgenus *Pterygosoma* (Acariformes: Pterygosomatidae: *Pterygosoma*) based on an analysis of female morphology. This group includes 6 newly described species—all from *Liolaemus* spp. (Squamata: Liolaemidae) from Chile: *P. ligare* **sp. nov.**, *P. formosus* **sp. nov.**, *P. ovata* **sp. nov.**, and *P. levissima* **sp. nov.** from *Liolaemus pictus*; *P. chilensis* **sp. nov.** from *L. chilensis*, and *P. cyanogasteri* **sp. nov.** from *L. cyanogaster*. The *ligare* species group differs from other mites of the subgenus *Pterygosoma* by the presence of the movable cheliceral digit without a basal spur, solenidion  $\omega$  of the palp tarsus, anterior mid-dorsal setae, large number of setae (about 200–300 pairs) on the lateral and the posterior parts of the idiosomal dorsum and the lateral parts of the idiosomal venter, by the idiosomal hypertrichy of ventro-median setae *vm*, setae *3a* located outside of coxal fields II, the absence of setae *4b*, the presence of paired setae *tc* and *vs* on tarsi III–IV, 5 setae on tibiae II–IV, 4 or 5 setae on genua I, II, 3 setae on genua III–IV, 5 setae on femur I, 5 or 4 setae on femur II and 3 setae on femur III. A key to females of the new species group is provided. *Pterygosoma patagonica* Dittmar de la Cruz, Morando and Avila, 2004 insufficiently described but showing most characteristics of *ligare* group is considered as nomen dubium.

**Key words:** Acari, ectoparasites, Liolaemidae, lizards, Pterygosomatidae

**Introduction**

Most representatives of the family Pterygosomatidae (Acariformes: Pterygosomatidae) are permanent and highly specified, mono- or oligoxenous ectoparasites of lizards (Reptilia: Squamata), only the genus *Pimeliophilus* Trägårdh contains species that are parasites of arthropods. The subgenus *Pterygosoma* includes 48 species. Most of them are known from hosts of the family Agamidae (47 species) and only one species is known from hosts of the family Liolaemidae (Fajfer 2012).

In this work, we describe six new *Pterygosoma* spp. from the three iguanid lizards of the genus *Liolaemus* (Squamata: Liolaemidae) from Chile. These new species constitute a separate species group *ligare* which clearly differs from other known species of the subgenus. A key to females of the new species group is provided.

**Material and methods**

Mites used in the present study were preserved in 70% ethanol. Before mounting in Hoyer's medium, mites were cleared and softened in Nessbitt's solution at +60°C for 1–3 hours. Specimens were studied using the light microscope Olympus BH-2 with differential interference contrast (DIC) illumination and drawings were made using a camera lucida. Specimens destined for scanning electron micrographs (SEM) were dehydrated in ethanol, dried by using the critical point technique, covered with gold, and examined with a Carl Zeiss AG—EVO@40