



On the identity of two species of Proctophyllodidae (Acari: Astigmata: Analgoidea) described by Herbert F. Berla in Brazil, with a description of *Lamellodectes* gen. nov. and a new species

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Abstract

Two proctophyllodid species described by Herbert F. Berla were studied, re-described and their generic status was re-evaluated. A new genus, *Lamellodectes* gen. nov. (Proctophyllodidae: Pterodectinae), is erected to accommodate *Pterodectes ocelatus* Berla, 1960 from the White-collared Foliage-gleaner, *Anabazenops fuscus* (Vieillot) (Furnariidae), and a new species, *L. distinctus* sp. nov., from the Double-collared seedeater, *Sporophila caerulescens* (Emberizidae). *Proctophyllodes minor* Berla, 1959a is herein transferred to the genus *Platyacarus* Kudon, 1982a (Proctophyllodinae) and given a valid name *Platyacarus minor* (Berla) comb. nov. Updated keys to subfamilies and genera of the family Proctophyllodidae are presented. In addition, the known biogeographical distribution for each genus is summarized.

Key words: Feather mites, Astigmata, Pterodectinae, new genus, *Platyacarus*, *Lamellodectes*

Introduction

Proctophyllodidae is the most diverse and species rich family within the Analgoidea (Acari: Astigmata), containing 50 genera and ~435 known species distributed into two subfamilies, Proctophyllodinae and Pterodectinae (Mironov 2009) (Table 1). Mites of both subfamilies live between barbs on the ventral sides of flight feathers of the wings and tail, and are mainly associated with the order Passeriformes, although eight pterodectine genera are associated exclusively with hummingbirds (Apodiformes: Trochilidae) (Atyeo & Braasch 1966; Park & Atyeo 1971a). The main morphological characters distinguishing the subfamilies are, in males, the presence (Proctophyllodinae) or absence (Pterodectinae) of terminal lamellae on the opisthosoma, and in females, the epigynum fused with (Pterodectinae) or free from (Proctophyllodinae) the tips of epimerites IIIa and IV (Gaud & Atyeo 1996; Mironov 2009).

Among the proctophyllodid taxa described by Herbert F. Berla (1912–1985) — an early Brazilian acarologist and ornithologist (see Pacheco & Parrini 1999; Valim & Hernandez 2006) — two species remained so far as problematic regarding their taxonomic position: *Pterodectes ocelatus* Berla, 1960 and *Proctophyllodes minor* Berla, 1959a. Atyeo & Braasch (1966: 316) transferred *P. minor* to the genus *Pterodectes* based on the shape of spermatheca in females and the shapes of epimerites I and of the genital organ in males. Park & Atyeo (1971b) considered both species to be intermediate forms between the subfamilies Proctophyllodinae and Pterodectinae, due to the fact that the males of these species bear a small pair of lamellae on the posterior extremity of the body, a character until then known to occur only in males of Proctophyllodinae. On the other hand, in females of *Pterodectes ocelatus* the epigynum is fused with sclerites of coxae III and IV, but it is clearly free in the single female known for *Proctophyllodes minor*. Nowadays, knowledge of the Proctophyllodidae has increased, and other taxa bearing short terminal projections have been discovered in males of Proctophyllodinae (e.g., Kudon 1982a, Hernandez *et al.* 2007) and also for the Pterodectinae, for example in *Nanopterodectes* Mironov, *Picapterodectes* Mironov *et al.*, and *Vireodectes* Mironov *et al.* (Mironov 2009; Mironov *et al.* 2012; Hernandez & Valim 2012).

- Epimerites I united in a U. Male: paragenital sclerites present, adanal suckers disc-like. Female: hysteronotal shield separated into anterior and lobar parts *Ptyctophyllodes* Atyeo, 1967
- 20. Setae *f*₂ absent (except in *P. minor*). Male: genital sheath ensiform, arising from small genital arch; terminal lamellae small; opisthogastric shields absent, only one or two pairs of adanal shields present. *Platyacarus* Kudon, 1982a
- Setae *f*₂ present. Male: genital sheath of various conformations, but not ensiform; terminal lamellae variously formed; opisthogastric shield present, variously shaped (unpaired, paired, or split into several fragments). *Proctophyllodes* (Robin and Mégnin, 1877)

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