**Picobia ictericus** sp. n., an ectoparasite of two icterid bird species from Brazil
(Acari: Prostigmata: Syringophilidae)

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**ABSTRACT.** A new species of the genus *Picobia Haller* (Acari: Syringophilidae: Picobiinae) from icterid birds (Icteridae) is described and figured: *Picobia ictericus* sp. n. parasitizing *Pseudoleistes guirahuro* (Vieillot) and *Cacicus chrysopterus* (Vigors) from Brazil. This new species differs from closely related *P. ephthamura* Skoracki et al., 2008 by the length of propodonotal setae *vi* 45-55, *ve* 125-145 and *si* 165-175, and the length ratio of terminal setae *f1:h1* 1:1.

Key words: acarology, taxonomy, Syringophilidae, quill mites, *Picobia*, birds, Icteridae.

**INTRODUCTION**

The mites of the family Syringophilidae are obligatory and permanent ectoparasites of birds. The family is subdivided into two subfamilies, Syringophilinae Lavoipierre represented by 36 genera and Picobiinae Johnston & Kethley with two genera (Bochkov et al. 2004). The members of the genus *Picobia Haller* (subfamily Picobiinae) inhabit exclusively quills of body feathers. Up to date, 19 named species of this genus have been recorded from birds of six orders: Piciformes, Columbiformes, Galliformes, Psittaciformes, Upupiformes and Passeriformes (Skoracki et al. 2004). Until now, picobiin mites fauna of South America has been represented by only one species - *Picobia brotogeris* Fain et al., 2000 described from *Brotogeris jugularis* (Psittaciformes: Psittacidae) in Brazil (Fain et al. 2000).
In this paper, we give a description of the next species found in Brazil, *Picobia ictericus* sp. n. parasitizing body feathers of two icterid hosts (Passeriformes: Icteridae): *Pseudoleistes guirahuro* (Vieillot) and *Cacicus chrysopterus* (Vigors).

**MATERIAL AND METHODS**

The material used in the study was acquired from the bird collection (dry skins) deposited in the Museum of Natural History, Wroclaw, Poland (MNHW). Mites were mounted on slides in Hoyer’s medium and examined using an Olympus BH2 light microscope with DIC (interference contrast phase) optics. All measurements, including scale bars in the figures are given in micrometers (µm). The idiosomal setation follows Grandjean (1939) as adapted for Prostigmata by Kethley (1990). The system of nomenclature for leg chaetotaxy follows that proposed by Grandjean (1944). The application of these chaetotaxic schemes to Syringophilidae was recently provided by Bockkov et al. 2008. The latin names of the birds follow Howard & Moore (1980).

Abbreviations for locations where the materials are deposited: Department of Animal Morphology, A. Mickiewicz University, Poznan, Poland (AMU), Zoological Institute of the Russian Academy of Sciences, St. Petersburg, Russia (ZISP).

**RESULTS**

*Family: Syringophilidae Lavoipierre, 1953*
*Subfamily: Picobiinae Johnston & Kethley, 1973*
*Genus: Picobia Haller, 1878*

*Picobia ictericus* Skoracki & Glowka sp. n.
(Figs 1-9)

**ETYMOLOGY**
The name *ictericus* refers to the family name of the host – Icteridae.

**TYPE MATERIAL**
Female holotype, four female and four male paratypes (AMU-SYR.223) from quills of *Pseudoleistes guirahuro* (Vieillot); Brasil, 1896-1910. Type deposition. All type material is deposited at AMU. Host specimen is deposited at MNHW.

**ADDITIONAL MATERIAL**
Six females and two males (AMU-SYR.222) from the same habitat of *Cacicus chrysopterus* (Vigors); Brasil, 1896-1910. All material is deposited at AMU except 2 females at ZISP. Host specimen is deposited at MNHW.

**DIFFERENTIAL DIAGNOSIS**
*Picobia ictericus* sp. n. is morphologically similar to *Picobia epthianura* Skoracki et al., 2008, described from *Epthianura aurifrons* Gould (Passeriformes: Meliphagidae) from Australia (Skoracki et al. 2008). In females of both species the hypostomal apex
is tapering, the propodonotal shield is divided into three fragments, and one pair of pseudanal setae is present. This new species is distinguished by the following characters: in females of *Picobia ictericus* sp. n. the lengths of propodonotal setae $vi$, $ve$ and $si$ are 45-55, 125-145 and 165-175, respectively. The length ratio of terminal setae $f1:h1$ is 1:1. In females of *Picobia epthianura*, the lengths of setae $vi$, $ve$ and $si$ are 20, 40 and 90 respectively. The length ratio of setae $f1:h1$ is 1.8:1.

1-2. *Picobia ictericus* sp. n., female: 1 - dorsal view, 2 - ventral view
DESCRIPTION

Female (Figs 1-7). Total body length of holotype 455 (455-470) in 4 paratypes. Gnathosoma. Hypostomal apex tapering (Fig. 3). Infracapitulum not punctated. Peritremes M-shaped, each transverse branch with 5-7 chambers, each longitudinal branch short, with invisible borders between chambers (Fig. 4). Stylophore rounded posteriorly, 130 (120) long. Idiosoma. Propodonotal shield divided into 3 sclerits, two lateral fragments bearing bases of setae si and se and one median bearing bases of setae vi, ve and cl (Fig. 1). Setae vi situated anterior to level of setae ve. All idiosomal setae knobbed (Fig. 5). Length ratio of setae vi:ve:si 1:2.5:3. Setae cl bases located slightly anterior to level of setae se. Hysteronotal shield absent. Distances between d2-dl and dl-e subequal. Pygidial shield well developed, not punctated. Length ratio of terminal setae f1:f2 1:2, f1:h1 1:1, h1:h2 1:4.6. Length ratio of aggenital setae ag1:ag2:ag3 1.5:1:1.5. Setae ag1 situated anterior to level of setae ag2. One pair of genital setae and one pair of pseudanal setae present (Fig. 6). Legs. All coxal fields well sclerotized. All setae of legs I-IV knobbed. Setae 3c 2.7 times longer than 3b. Setae tc’ and tc” subequal in length. Antaxial and paraxial members of claw pair similar in shape and size (Fig. 7). Lengths of setae: vi 55 (45-50); ve 140 (130-145); si 175 (165); se 180 (190); cl 180; c2 180 (190); dl 170 (165); d2 175 (180); e 170 (155-160); f1 50 (45);

8-9. Picobia ictericus sp. n., male: 8 - dorsal view, 9 - ventral view
ag2. Legs. Coxal fields I and II well sclerotized, III and IV weakly sclerotized. Setae 3c 2.4 times longer than 3b. Lengths of setae: \(vi\) (20-30); \(ve\) (85-100); \(si\) (125-140); \(se\) (135-145); \(c1\) (145-160); \(c2\) (145); \(dl\) (15-20); \(d2\) (120-135); \(e\) (10-15); \(h2\) (145); \(ag1\) (55-70); \(ag2\) (15); \(tc'\) (45-50); \(tc''\) (50); \(3b\) (30-40); \(3c\) (65).

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**REFERENCES**


