



A new species of *Picicola* Clay and Meinertzhagen, 1938 (Phthiraptera: Ischnocera) parasitic on the Rufous-sided Broadbill (Passeriformes: Eurylaimidae) in Ghana

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Abstract

Picicola donwebbi, a new species of chewing louse from the Rufous-sided Broadbill (*Smithornis rufolateralis* Gray, 1864) collected in Ghana, is herewith described and illustrated. This is the first species of Ischnocera recorded from the broadbills (Passeriformes: Eurylaimidae) and, based on morphology, is placed in the *Picicola quadripustulosus* species group recorded from the Pittidae (Passeriformes). To evaluate its genetic distinctiveness and phylogenetic position in the *Degeeriella* complex, sequences of nuclear (elongation factor-1 α) and mitochondrial (cytochrome oxidase I) genes for *Picicola donwebbi* are compared to various other species. Although this new species is genetically distinct, its phylogenetic position within the larger complex is unclear.

Key words: Africa, chewing lice, *Picicola donwebbi*, *Smithornis rufolateralis*, *Degeeriella* complex, elongation factor-1 α , cytochrome oxidase I, maximum-likelihood

Introduction

No species of chewing louse (Insecta: Phthiraptera) of the suborder Ischnocera has been described from the broadbills (Aves: Eurylaimidae). This family of birds is an Old World group of suboscine songbirds (Passeriformes). The other major family of suboscines in the Old World is the Pittidae, which has 10 valid species of *Picicola* (Ischnocera) recorded from 10 host species (Somadder & Tandan 1977; Price *et al.* 2003). Here we describe the first ischnoceran louse collected from the Eurylaimidae and place it in the genus *Picicola* Clay and Meinertzhagen, 1938.

Picicola was originally erected for three species of Ischnocera found on the Picidae (Piciformes) by Clay and Meinertzhagen (1938). Price *et al.* (2003) considered 29 of the 39 named species in the genus valid. Subsequent to Price *et al.* (2003), an additional seven species have been described (Price & Weckstein 2006; Valim & Linardi 2006). Of these 36 species, 18 have been recorded from the avian order Piciformes (Picidae, Bucconidae, and Galbulidae) and 18 from the Passeriformes (Pittidae, Tyrannidae, Furnariidae, Mimidae, Parulidae, Cracticidae, Dicruridae, and Ptilonorhynchidae). Dalglish (1969) revised species of *Picicola* from the Picidae, Somadder and Tandan (1977) those from the Pittidae, and Williams (1979) and Cicchino (1981) those of the Passeriformes excluding those from the Pittidae. Most recently, Price and Weckstein (2006) reviewed the species from the Bucconidae and Galbulidae.

Picicola falls within the larger *Degeeriella* complex and although the monophyly of this historically recognized taxonomic complex (Clay 1958; Eichler 1963) is strongly supported by morphological (Smith 2001)