



Chewing lice of the genus *Myrsidea* (Phthiraptera: Menoponidae) from the Cardinalidae, Emberizidae, Fringillidae and Thraupidae (Aves: Passeriformes) from Costa Rica, with descriptions of four new species

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Abstract

A total of 376 individuals of 35 bird species belonging to the families Cardinalidae, Emberizidae, Fringillidae, and Thraupidae were examined for chewing lice in Costa Rica in 2004, 2009 and 2010. A total of 128 birds of 19 species were parasitised with 17 species of *Myrsidea*. Descriptions and illustrations are given for four new species of *Myrsidea*. These new species and their type hosts are: *Myrsidea bidentata* ex *Piranga bidentata* (Cardinalidae), *M. dolejskiae* ex *Arremon brunneinucha* (Emberizidae), *M. roubalovae* ex *Ramphocelus sanguinolentus* (Thraupidae), and *M. rubica* ex *Habia rubica* (Cardinalidae). Records of new host-lice associations are: *Chlorospingus ophthalmicus* (Emberizidae) and *Euphonia hirundinacea* (Fringillidae) for *M. violaceae*, *Ramphocelus costaricensis* (Thraupidae) for *M. fusca*, and *Tangara dowii* (Thraupidae) for *M. bonariensis*. Records of ten other louse species of the genus *Myrsidea* from birds belonging to these families are also presented and discussed.

Key words: *Myrsidea*, Menoponidae, Amblycera, Phthiraptera, new species, Passeriformes, Costa Rica, grosbeaks, buntings, euphonias, tanagers, new host-lice associations

Introduction

Myrsidea is the most speciose menoponid genus, parasitizing mainly passerines. This genus currently contains 328 recognized species occurring throughout the world, with 309 species recorded from 343 host species in 46 families of Passeriformes (Palma and Price 2010; Sychra 2010). As a consequence of the large number of species, the only practical manner to deal with the taxonomy of such a large genus is to treat lice from each host family as a unit (Price and Dalglish 2007). Because of current taxonomic uncertainties regarding the members of Cardinalidae, Emberizidae, Fringillidae, and Thraupidae, it is ideal to study *Myrsidea* from all four families simultaneously.

At present there are 55 species of the genus *Myrsidea* Waterston recorded from passerine hosts in the families Cardinalidae, Emberizidae, Fringillidae, and Thraupidae (as defined in Clements *et al.* 2010). Of these, 16 species from Thraupidae, 2 from Cardinalidae, 18 from Emberizidae, and 3 from Fringillidae were reviewed by Price and Dalglish (2006, 2007) and Klockenhoff (1984b), respectively. Subsequently 13 species of *Myrsidea* from these host families have been described by Sychra *et al.* (2007), Price *et al.* (2008), Price and Johnson (2009), and Palma and Price (2010). Finally 4 species of *Myrsidea* from Fringillidae are known only from their original descriptions (Carriker 1902; Kellogg and Chapman 1902; Kellogg 1906; Klockenhoff 1984a). It should be noted that Price and Dalglish (2006) and Price and Johnson (2009) included in their treatment of thraupid *Myrsidea* species from hosts that are now recognized as members of the Cardinalidae, Emberizidae, or Fringillidae. Conversely, Price *et al.* (2008) included in their papers on cardinalid *Myrsidea* species from hosts that are now recognized as members of Thraupidae.