Chewing lice (Insecta: Phthiraptera) from estrildid finches (Aves: Passeriformes: Estrildidae) and louse-flies (Insecta: Diptera: Hippoboscidae) from birds in Senegal, with descriptions of three new species of the genus Brueelia

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Abstract

Descriptions and illustrations are given for three new species of the genus Brueelia Kéler from estrildid finches (Estrildidae) from Senegal. They and their type hosts are: B. fasciata from Amodina fasciata, B. senegala from Lagonosticta senegala and B. cantans from Euodice cantans. Records of three other louse species of the genus Myrsidea Waterston from estrildid finches and records of louse-flies (Hippoboscidae) from birds in Senegal are also given.

Key words: Brueelia, Chewing lice, Estrildidae, Hippoboscidae, louse-flies, Myrsidea, Passeriformes, Phthiraptera, Senegal

Introduction

The family Estrildidae comprising waxbills, munias and allies represents a relatively large family of passerine birds. About 141 species of these gregarious and often colonial seed-eaters are distributed in the Old World tropics and Australasia, of which 23 occur in Senegal (Fry & Keith 2004, Lepage 2009, according to taxonomy in Clements 2007). Data concerning records of chewing lice from Senegalese Estrildidae are scarce. To date, only four described species of chewing lice are likely to occur in Senegal, and they have been reported from five host species (Clay 1970, Price 1975, Tendeiro & Mendes 1994). However, there are no published records of those estrildid louse species from Senegal. The aim of this paper is to present data on species of chewing lice found on estrildid finches in Senegal, including descriptions of three new species. We also include data on Hippoboscidae (louse-flies) found on birds examined by us in Senegal.

Material and methods

We collected chewing lice from estrildid hosts from 30 January to 28 February 2005 and from 7 to 18 September 2007 in five separate localities in Senegal: Lengué Kountou (13° 04' N, 13° 01' W), Simenti (13° 02' N, 13° 18' W) and Dar Salam (13° 15' N, 13° 12' W) in Niokolo Koba National Park, Matam (15° 37' N, 13° 20' W), and Kaolack (14° 09' N, 16° 06' W). Birds were mist-netted, identified, sexed and aged according to Fry & Keith (2004). Chewing lice and louse-flies were collected by use of a fumigation chamber method (Clayton & Drown 2001), complemented with visual search of the head. Birds were released back into the wild as quickly as possible to minimize disturbance. Lice as well as louse-flies were stored in 70% ethanol in the field. Lice were subsequently slide-mounted in laboratory in Canada balsam as permanent