



## A review of the genus *Forficuloecus* Conci (Phthiraptera: Philopteridae) from parrots (Psittaciformes: Psittacidae), with descriptions of four new species

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### Abstract

Ten species, including four new species, of the chewing louse genus *Forficuloecus* Conci, 1941, are recognized from Australasian parrots, and a key is given for their identification. The new species and their type hosts are: *F. cameroni* ex the Red-winged Parrot, *Aprosmictus erythropterus* (J.F. Gmelin, 1788); *F. banksi* ex the Mulga Parrot, *Psephotus varius* Clark, 1910; *F. wilsoni* ex the Northern Rosella, *Platycercus venustus* (Kuhl, 1820); and *F. josephi* ex the Bourke's Parrot, *Neopsephotus bourkii* (Gould, 1841). Partial sequences of the mitochondrial COI gene support the genetic distinctiveness of these new species.

**Key words:** *Forficuloecus*, chewing lice, taxonomy, Australasia, parrots, cytochrome oxidase I, new species

### Introduction

The genus *Forficuloecus* Conci, 1941, contains six species (Price *et al.* 2003), all found on parrots from Australasia. *Forficuloecus* has been thoroughly treated in two papers by Guimarães (1974, 1985). However, upon examining specimens representing those six species, together with some series of lice from hosts not previously represented, we can review all known species of this genus. Included are brief redescriptions of the six previously described species, descriptions of four new species, and additional host data where appropriate. A portion of the mitochondrial cytochrome oxidase I (COI) gene has been sequenced for some of these lice to evaluate the genetic distinctiveness of the species and their phylogenetic relationships (using methods described by Johnson *et al.* 2001).

For the following descriptions, all measurements were made with an ocular micrometer. Dimensions (in millimeters) of all the specimens available for each species are summarized in Table 1. This tabulation is especially appropriate since Guimarães (1985) erred in all of the measurements given for the four new species he described in that paper, with his values being approximately 60% of what they actually should be. Measurements are accurately given for the species described in Guimarães (1974), and we do not know how the discrepancies occurred in the 1985 paper.

The host nomenclature follows Dickinson (2003). Deposition of holotypes, paratypes, and other material is indicated by: ANIC (Australian National Insect Collection, Canberra), FMNH (Field Museum, Chicago, Illinois), INHS (Illinois Natural History Survey, Champaign, Illinois), MONZ (Museum of New Zealand Te Papa Tongarewa, Wellington), KCEM (K.C. Emerson Museum, Oklahoma State University, Stillwater, Oklahoma), NHM (The Natural History Museum, London), QVTA (Queen Victoria Museum and Art Gallery, Tasmania), UMSP (University of Minnesota, St. Paul, Minnesota), and UU (University of Utah, Salt Lake City, Utah).