



A new species of sucking louse (Phthiraptera: Anoplura) from Australia, and a key to the Australian species of *Hoplopleura*

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Abstract

A new species of sucking louse, *Hoplopleura zyzomydis*, is described and illustrated from the common Australian rock rat *Zyzyomys argurus* (Thomas, 1889) (Rodentia: Muridae), collected in northwest Queensland, Australia. This is the first record of a sucking louse from the genus *Zyzyomys*, and its morphology is contrasted with other Australian *Hoplopleura* species. *Hoplopleura zyzomydis* is unique in having a combination of short dorsal principal thoracic setae and setae absent from paratergal plates 4–6. A key to the Australian species of *Hoplopleura* is presented.

Key words: Anoplura, Australia, *Hoplopleura*, Muridae, Phthiraptera, *Zyzyomys*

Introduction

The genus *Hoplopleura* Enderlein, 1904 (Phthiraptera: Anoplura) is a cosmopolitan group of anopluran lice comprising over 136 species worldwide, and its members parasitise rodents almost exclusively (Durden & Musser, 1994). There are seven endemic (Neumann, 1909; Johnson, 1960; Kuhn & Ludwig, 1967; Kim, 1972) and one introduced species (Ewing, 1924) of *Hoplopleura* currently known from Australia.

The rodent subfamily Hydromyinae is thought to have been present in Australia for the longest period of time with colonisation by ancestral hydromyine rodents occurring during the late Miocene (Godthelp, 2001). The Hydromyinae comprises three tribes, the Conilurini, the Uromyini and the Hydromyini. The Conilurini is the largest tribe and the most diverse, and includes the genus *Zyzyomys* Thomas, 1909. *Zyzyomys argurus* (Thomas, 1889) is the smallest member of the genus, and has the largest distribution. It is a rock-dwelling generalist, and occurs in outcrops of sedimentary or igneous rocks throughout tropical Australia (Fleming, 1995; Trainor, *et al.*, 2000).

While examining material for a parasitological study of *Z. argurus*, a new species of *Hoplopleura* was discovered and is described herein.

Material and methods

Zyzyomys argurus were live trapped at May Downs Station, Mount Isa (20°39'S, 139°23'E) in May 2005, Moondarra Dam, Mount Isa (20°32'S, 139°28'E) in July – August 2004 and May 2005, and Mount Morgan Gold Mine, Mount Morgan (23° 38'S, 150° 21'E) in February and June 2004, and April 2005 in Queensland, Australia. Host animals were euthanased by an intraperitoneal injection of pentobarbitone sodium.

The skins of 20 *Z. argurus* were each digested in a 5% aqueous solution of potassium hydroxide to