



Taxonomic Revision of the Southeast Asian Ant Genus *Euprenolepis*

JOHN S. LAPOLLA

Department of Biological Sciences, Towson University, 8000 York Road, Towson, Maryland 21252 USA. E-mail: jlapolla@towson.edu

Abstract

The taxonomy of *Euprenolepis* has been in a muddled state since it was recognized as a separate formicine ant genus. This study represents the first species-level taxonomic revision of the genus. Eight species are recognized of which six are described as new. The new species are *E. echinata*, *E. maschwitzi*, *E. thrix*, *E. variegata*, *E. wittei*, and *E. zeta*. *Euprenolepis antespectans* is synonymized with *E. procera*. Three species are excluded from the genus and transferred to *Paratrechina* as new combinations: *P. helleri*, *P. steeli*, and *P. stigmatica*. A morphologically based definition and diagnosis for the genus and an identification key to the worker caste are provided.

Key words: fungivory, Lasiini, *Paratrechina*, *Prenolepis*, *Pseudolasius*

Introduction

Until recently, virtually nothing was known about the biology of *Euprenolepis* ants. Then, in a groundbreaking study by Witte and Maschwitz (2008), it was shown that *E. procera* are nomadic mushroom-harvesters, a previously unknown lifestyle among ants. In fact, fungivory is rare among animals in general (Witte and Maschwitz, 2008), making its discovery in *Euprenolepis* all the more spectacular. Whether or not this lifestyle is common to all *Euprenolepis* is unknown at this time (it is known from at least one other species [V. Witte, pers. comm.]), but a major impediment to the study of this fascinating behavior has been the inaccessibility of *Euprenolepis* taxonomy. Since being raised to full genus level by Brown (1953), there has been no taxonomic synthesis of *Euprenolepis* and considerable confusion as to which species actually belong within it.

Euprenolepis was constructed as a subgenus within *Prenolepis* by Emery (1906), but he later moved the subgenus to *Paratrechina* (Emery, 1925). When *Euprenolepis* was raised to full genus level by Brown (1953), he also synonymized *Chapmanella* with *Euprenolepis*. Work in progress (LaPolla et al., in prep) will address the phylogenetic position of *Euprenolepis* and its close relatives.

This study provides a morphological framework for defining and diagnosing *Euprenolepis*, and represents the first species-level revision of the genus.

Materials and methods

Specimens examined for this study are deposited in the following institutions:

ANIC	CSIRO, Australian National Insect Collection, Canberra, Australia
BMNH	Natural History Museum, London, UK
KEPC	Katsuyuki Eguchi personal collection, Nagasaki, Japan
MCSN	Museo Civico di Storia Naturale “Giacomo Doria”, Genova, Italy
MCZC	Museum of Comparative Zoology, Cambridge, MA, USA