

Revision of the myrmicine ants of the *Adelomyrmex* genus-group (Hymenoptera: Formicidae)

FERNANDO FERNÁNDEZ C.

Profesor Asociado, Instituto de Ciencias Naturales, Universidad Nacional de Colombia, Apartado 7495,
Bogotá D.C., Colombia; ffernandezca@unal.edu.co

TABLE OF CONTENTS

ABSTRACT	2
INTRODUCTION	2
TAXONOMIC HISTORY	3
METHODS	4
Depositories	4
TAXONOMIC SYNOPSIS	5
TAXONOMIC ACCOUNT	6
<i>Adelomyrmex</i> genus-group (Figs. 1–77)	6
Key to genera of <i>Adelomyrmex</i> genus-group	8
Genus <i>Adelomyrmex</i> Emery	8
Key to the species (workers)	11
<i>Adelomyrmex betoi</i> Fernández NEW SPECIES (Fig. 72)	13
<i>Adelomyrmex biroi</i> Emery (Figs. 66, 76)	14
<i>Adelomyrmex boltoni</i> Fernández NEW SPECIES (Figs. 65, 74)	14
<i>Adelomyrmex brevispinosus</i> Fernández (Figs. 45–50)	15
<i>Adelomyrmex cristiani</i> Fernández NEW SPECIES (Figs. 36, 75)	16
<i>Adelomyrmex costatus</i> Fernández NEW SPECIES (Figs. 35, 75)	17
<i>Adelomyrmex foveolatus</i> Fernández (Fig. 62)	17
<i>Adelomyrmex grandis</i> Fernández NEW SPECIES (Figs. 34, 75)	18
<i>Adelomyrmex hirsutus</i> Mann (Fig. 67, 76)	18
<i>Adelomyrmex laevigatus</i> MacKay (Figs. 38, 51–56)	19
<i>Adelomyrmex longinodus</i> Fernández & Brandão NEW SPECIES (Figs. 57–61, 64, 74)	20
<i>Adelomyrmex longinoi</i> Fernández NEW SPECIES	21
<i>Adelomyrmex mackayi</i> Fernández NEW SPECIES	22
<i>Adelomyrmex micans</i> Fernández	23
<i>Adelomyrmex microps</i> Fernández (Fig. 63)	23
<i>Adelomyrmex minimus</i> Fernández	24
<i>Adelomyrmex myops</i> (Wheeler) (Figs. 7–12, 31, 71)	24
<i>Adelomyrmex robustus</i> Fernández NEW SPECIES (Figs. 4–6, 25–30, 72)	26
<i>Adelomyrmex samoanus</i> Wilson & Taylor (Figs. 68, 76)	27

<i>Adelomyrmex silvestrii</i> (Menozzi) (Figs. 13–18, 32, 73)	28
<i>Adelomyrmex striatus</i> Fernández NEW SPECIES (Figs. 37, 74)	29
<i>Adelomyrmex tristani</i> (Menozzi) (Figs. 19–24, 33, 39–40, 73).....	30
<i>Adelomyrmex vaderi</i> Fernández NEW SPECIES (Figs. 41–44, 75)	33
<i>Baracidris</i> Bolton (Figs. 69, 70, 77)	34
Key to species (workers).....	35
<i>Baracidris meketra</i> Bolton (Fig. 77)	35
<i>Baracidris pilosa</i> Fernández NEW SPECIES (Figs. 69, 77).....	35
<i>Baracidris sita</i> Bolton, 1981 (Fig. 77).....	36
BIOGEOGRAPHICAL CONSIDERATIONS	37
ACKNOWLEDGMENTS	37
APPENDIX	38

ABSTRACT

A revision of the myrmicinae ants of the *Adelomyrmex* genus-group is made. This group is recognized in workers and females by a combination of: antennae of 12 segments with club of 2 segments, median portion of clypeus forming a longitudinal platform and the lamelliform setae in the internal border of the mandibles. This last trait, unknown in other ants, is proposed as autapomorphy for the *Adelomyrmex* genus-group. The group contains two genera, *Adelomyrmex* Emery, 1897 (Neotropics, New Guinea, Fiji, Samoa) and *Baracidris* Bolton, 1981 (Africa), with 26 species (12 described as new) as follows: *Adelomyrmex betoi* Fernández sp.n. (México); *A. biroi* Emery, 1897 (New Guinea), *A. boltoni* Fernández sp.n. (Brazil and Paraguay); *A. brevispinosus* Fernández, 2003 (México and Costa Rica); *A. costatus* Fernández sp.n. (Colombia); *A. cristiani* Fernández sp.n. (Colombia); *A. foveolatus* Fernández, 2003 (Costa Rica); *A. grandis* Fernández sp.n. (Colombia); *A. hirsutus* Mann, 1921 (Fiji Islands); *A. laevigatus* MacKay, 2003 (Costa Rica); *A. longinodus* Fernández & Brandão sp.n. (Brazil); *A. longinoi* Fernández sp.n. (México and Costa Rica); *A. mackayi* Fernández sp.n. (México); *A. micans* Fernández, 2003 (México); *A. microps* Fernández, 2003 (Costa Rica); *A. minimus* Fernández, 2003 (Costa Rica); *A. myops* (Wheeler, 1910) (Guatemala to Colombia); *A. robustus* Fernández sp.n. (México); *A. samoanus* Wilson & Taylor, 1967 (Samoa); *A. silvestrii* (Menozzi, 1931) (Mesoamerica); *A. striatus* Fernández sp.n. (Brazil); *A. tristani* (Menozzi, 1931) (México to Colombia); *A. vaderi* Fernández sp.n. (Colombia); *Baracidris meketra* Bolton, 1981 (Nigeria), *B. pilosa* Fernández sp.n. (Kenya and Gabon); *B. sitra* Bolton, 1981 (Gabon). A key to workers of genera and all species is provided, with illustrations of most of them. The first queen for American *Adelomyrmex* and the first male of *Adelomyrmex* are described. The distribution of the group suggests an ancestor that lived in Gondwana before the splitting off of Africa and also suggests that ants could have originated earlier than the known fossil record.

Key words: Taxonomy, identification, key, Formicidae, Myrmicinae, *Adelomyrmex* genus-group

INTRODUCTION

Myrmicinae is the most diverse ant subfamily in genera and species (Bolton, 1995). This diversity is a partial explanation of the inadequate understanding of the phylogenetic rela-