

## New species and a new subgenus of South American *Neoathyreus* Howden and Martínez (Coleoptera: Geotrupidae: Athyreini)

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### Abstract

Five new species of South American *Neoathyreus* Howden and Martínez are described and figured, these include: *N. julietae*, **n. sp.** from Bolivia; *N. antennatus*, **n. sp.** from Bolivia; *N. moraguesi*, **n. sp.** from Brazil; and *N. fallolobus*, **n. sp.** from Peru. A fifth species is placed in the new subgenus, *Mesoathyreus*, of *Neoathyreus* with *N. (M.) guyanensis*, **n. sp.** from French Guiana, as its type species.

**Key words:** South America, Geotrupidae, *Neoathyreus*, new subgenus, new species

### Introduction

In my revision of the South American *Neoathyreus* (Howden 1985) 44 species were recognized. Of these, 17 species were represented by fewer than 6 specimens, 13 by 6 to 11 specimens, and 14 by more than 11 specimens. At the time, the lack of a series for many of the species caused a number of difficulties, including determining species limits versus geographic variation. Most specimens at that time (before 1985) were taken "at light". A few brightly colored, greenish or bicolored species were taken flying during the day, but they were the exception, as most species are crepuscular or nocturnal.

Since that time the lack of series has been slightly improved by the use of flight interception traps (FITs). Unfortunately, habitat destruction in many areas usually limits FIT usefulness to patches of forest, often widely separated. So what may appear to be disjunct sibling species may actually be clinal variation in a single species, the disjunction being the result of human disturbances. With these factors in mind, although I know of a number of undescribed species of *Neoathyreus*, I have limited descriptions of new species to those represented by five or more specimens, particularly when they are very closely related to other species. Even then, as more specimens become available, some of these may prove to be only geographic variants of one species. Several of the species described