NEW AND LITTLE KNOWN SPECIES OF *Loxandrus* LeConte 1852 (COLEOPTERA: CARABIDAE) FROM NORTH AND SOUTH AMERICA

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**ABSTRACT**

Three new species of beetles in the genus *Loxandrus* are described: *L. straneoi* from the southern United States, *L. icarus* from the Eastern United States, and *L. quinarius* from central Bolivia. *Loxandrus icarus*, inhabitant of wet lowland habitat, is unique among eastern North American species in having reduced flight wings. The only other North American species with reduced flight wings, *L. omiltemi* Allen & Ball, is known from temperate cloud forest habitat in Mexico. *Loxandrus quinarius* shares a striking phenetic similarity to some members of the African caelostomine genus *Strigomerus* Chaudoir, and with *L. strigomeroides* Straneo. Illustrations of the male genitalia of *L. strigomeroides* and *L. mirei* Straneo are presented here to assist in identification of these species. The distributional range of *L. strigomeroides* is newly noted to extend across the Amazon basin. *Loxandrus inferus* Allen is placed into synonymy under *L. velocipes* Casey.

**KEYWORDS:** Carabidae, new species, *Loxandrus straneoi*, *L. icarus*, *L. quinarius*, brachyptery, new synonymy.

**INTRODUCTION**

*Loxandrini sensu* Bousquet and Larochelle (1993) is a formalization of the *Loxandrus* series of Moore (1965) plus the genera added by Allen and Ball (1979). Casey (1913:380) was the first to suggest that species allied with *Loxandrus* LeConte might deserve tribal recognition, though he knew only a much more restricted set of taxa. Defensive chemicals (Moore & Wallbank 1968; Moore 1979) and morphological characters (Allen & Ball 1979) are the basis for recognition of the group as distinct from Pterostichini (Bousquet & Larochelle 1993:31; but see Straneo 1991 for counter arguments).

Characteristics used to define *Loxandrus* are plesiomorphies for the tribe. Therefore, *Loxandrus* is probably paraphyletic relative to one or more of the other genera in the tribe (e.g. *Adrimus* Bates, *Oxycrepis* Rieche or *Zeodera* Sloane). Study of all the supraspecific groups within Loxandrini is required so that a more natural classification may be devised. Presently, species assignable to *Loxandrus* may be separated from other carabid genera using regional keys as follows: for northern North America, Lindroth (1969), for southern North America and Central America, Allen and Ball (1980), for South America, Straneo (1979), for Australia Moore (1965) and, for New Guinea, Darlington (1962).

The North and Central American *Loxandrus* species were systematically treated by Allen (1972) and Allen and Ball (1980). Many of the species considered in those works appear to comprise a monophyletic group characterized by lack of a spermatheca, and a greatly developed villous canal (e.g. Figs. 24–25, also Liebherr & Will, in press). The female reproductive tract of *L. straneoi* and *L. icarus* are typical