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A new species of *Ripipteryx* from the Ecuadorian Andes (Orthoptera: Tridactyloidea: Ripipterygidae)

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Abstract

A new species of *Ripipteryx* Newman (Orthoptera: Tridactyloidea: Ripipterygidae) is described from a fragment of primary Andean forest on the slopes of the extinct Pasochoa volcano in Pichincha Province, northern Ecuador. *Ripipteryx pasochoensis* **sp. nov.** is distinguished from congeners by the morphology of the male terminalia, particularly the structure of the subgenital plate. Based on colouration, modification of the subgenital plate and structure of the phallic complex, the new species is assigned to the Forceps Group and appears most closely related to *Ripipteryx processata* Günther. Keys to the species groups of *Ripipteryx* and to the species of the Forceps Group are provided, and a preliminary subgeneric classification appended.

Key words: Orthoptera, Caelifera, Tridactyloidea, *Ripipteryx*, Ecuador, new species, taxonomy

Introduction

The genus *Ripipteryx* Newman, 1834 (Orthoptera: Tridactyloidea: Ripipterygidae) comprises around 45 species distributed throughout Central America and the northern half of South America. These diminutive orthopterans are similar to the closely related Tridactylidae, but are readily distinguished from the latter by the unsegmented cerci and often bizarrely modified paraproctal lobes of the males. *Ripipteryx* can be separated from *Mirhipipteryx* Günther, 1969, the only other genus in the family, by its larger size (always greater than 5.5 mm long) and the distinctly sclerotized lateral valvulae of the phallus (Günther, 1969). These valvulae are membranous in *Mirhipipteryx* which is also markedly smaller at only 3.0–5.0 mm long. *Ripipteryx* has a distinctly Neotropical distribution, being found throughout Central America and much of northern South America but has yet to be reported from Argentina, Chile, Paraguay or Uruguay. The genus was most recently revised by Günther (1969) whose careful and detailed study identified a suite of morphological characters useful for the delimitation of species. The male terminalia—in particular the epiproct, paraproctal lobes and subgenital plate—provide many valuable species-specific characters and the morphology of the phallic complex has proved most useful in identifying species-groups (e.g. see Günther, 1969 p. 421–422).

Here I present the description of a new species of *Ripipteryx* from primary Andean forest on the flanks of the extinct Pasochoa volcano, Pichincha Province, northern Ecuador. The type series was collected by T. C. MacRae (Missouri, USA) in 1989 and kindly passed on to me for examination. Searches in the collections of the Natural History Museum in London and the University of Michigan Museum of Zoology in Ann Arbor failed to reveal any additional material. The comparatively large size and almost complete absence of white markings indicate that the new specimens belong to the Forceps Group (Günther , 1969), though the morphology of the male subgenital plate clearly eliminates all previously described species. Specimens were studied using a Nikon SMZ 800 stereomicroscope and drawings produced with the aid of a camera lucida. Genitalia were removed through an incision in the pleural membrane of the abdomen and cleared in cold 20% KOH. Dissected parts are stored under glycerine in microvials mounted on the pin beneath the specimen. All material is deposited in the Insect Collection of the Illinois Natural History Survey (INHS).

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