A new species of Szelenyiopria Fabritius (Hymenoptera: Diapriidae), larval parasitoid of Acromyrmex subterraneus subterraneus (Forel) (Hymenoptera: Formicidae) from Brazil

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Abstract

Szelenyiopria talitae sp. nov. is described and illustrated. This species is shown to be a larval parasitoid of Acromyrmex subterraneus subterraneus (Forel).

Key words: Diapriids, ants, parasitoidism

Introduction

Diapriids that develop as primary koinobionts parasitoids, solitary or gregarious, of mature larvae and pupae of Formicidae all belong to the tribe Diapriini of the Diapriinae. These ant parasitoids are abundant and diverse in the Neotropics. They can be very common in mature colonies of Formicidae like leaf-cutter and fungus-growing ants of genus Acromyrmex (Attini) from a variety of microhabitats. Loiácono et al. (2000) collected 1560 wasps (adults and immatures) from 430 parasitized larvae from three partial colonies of Acromyrmex, which shows how aggressive these wasps can be attacking the ants. The objective of this contribution is the study of diaprin parasitic on larvae of Acromyrmex subterraneus subterraneus workers in Brazil.

Leaf-cutter ants are considered major pests in Brazil, with only a few plant species that are not attacked. According to Hölldobler and Wilson (1990), leaf-cutter ants are the dominant herbivores of the Neotropics, and consume more vegetation than any other group of animals of comparable taxonomic diversity. The genus Acromyrmex is found from California in the United States to Patagonia in Argentina, including Cuba and Trinidad but there is no record for Chile (Della Lucia 2003). In Brazil they are represented by 20 species and nine subspecies in the following states: São Paulo, Amazonas, Ceará, Rio Grande do Norte, Minas Gerais, Mato Grosso, Parana, Santa Catarina, Rio Grande do Sul and Rio de Janeiro (Gonçalves 1961; Mayhe-Nunes 1991). Acromyrmex subterraneus subterraneus is commonly known as "quenquém" or "caiapó". Its workers remove leaves to grow fungus which they feed. Below the mound are two or three chambers of diameter less than 80 cm, usually long and flat (Della Lucia & Moreira 1993). There are nests of 17 to 20m² of land area containing one or more queens. Workers of Acromyrmex subterraneus subterraneus cut leaves of various plants, including Eucalyptus spp., Ligustrum lucidum W.T. Aiton, Acalypha wilkesiana Müll. Arg., Rosa sp., Cedrela sp., causing great damage in agriculture and forestry in Brazil.