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TEMA:

Sampling insects at remote and threatened regions: The ants (Hymenoptera, Formicidae) of Cordillera del Cóndor, Ecuador, South America.

Inventario de insectos en regiones remotas y amenazadas: Hormigas (Hymenoptera, Formicidae) de la Cordillera del Cóndor, Ecuador, Sur América.

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Abstract

The sub-Andean mountain ranges in Northwestern South America may well be considered amongst the least biologically studied regions of the continent. With the exception of certain groups of plants and anurans which condense the research in few locations of this mountainous system, the remaining organisms, particularly insects, are scarcely known to humans. Since these tropical cordilleras, located at the interplay of the main Andean chain and Amazonia, are considered "continental islands" it is predicted they harbor an endemic but rich biota. However, this "hotspot" of biodivertsity is currently in peril mainly by largescale mining and forest clearings. With the goal of advancing our knowledge of the insect fauna inhabiting in this remote but threatened region, we disclose a comprehensive account of one of the most conspicuous and ecologically important groups of the entomofauna: the ants. Based on a series of biological rapid assessments in Cordillera del Cóndor (CC), the largest of the sub-Andean ranges, together with a re-examination of an earlier published study of this insect group in the Nangaritza region (southern-most part of CC), we present an annotated list of 165 ant species along with comments on their biology and ecology with focus on the genus level and we report six new species records for Ecuador. This ant diversity may arguably be the highest found to date for any similar region in the Neotropics. Moreover, at least a quarter of this fauna is potentially new to science, and possibly a number of species are only distributed in these singular habitats.