The flower flies of subgenus Platycheirus (Tuberculanostoma) Fluke as flagship entities for the conservation of Páramo ecosystems in Tropical Andes

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Abstract

Above 3000 m a.s.l., 'Páramo' ecosystems cover more than 35,000 km2 of Tropical Andes. The Paramos or tropical alpine ecosystems are isolated mountain systems, located above the tree line and forming intracontinental "sky islands" surrounded by forests and disturbed areas. In these ecosystems, animals and plants have faced recent and rapid radiation, as a result of altitudinal isolation and geographical barriers (Andean uplift), facilitated by allopatric speciation. The availability of unique microhabitats and harsh environmental conditions have favored the establishment and adaptation of unique fauna. Despite their importance, Paramos are among the ecosystems most threatened by global warming and anthropogenic pressure, with a high number of projected extinctions. One emblematic group exclusively inhabiting Páramo is the subgenus Platycheirus (Tuberculanostoma) Fluke, including four recognized species as well as seven in process of description, distributed from their northernmost point at 8.8°N in Venezuela to -18.23°S on the Bolivian southern. The restricted distribution, local abundance and the fact that inhabit threatened ecosystems in the hotspot (Protected and Conserved Areas) are compelling reasons to consider them as flagship entities for the conservation of Páramo. In this sense, it is necessary to assess the conservation status following the criteria of the International Union for Conservation of Nature (IUCN) as a first step to developing a conservation strategy for future planning and management projects in Páramo ecosystems. Acknowledgments: Thanks to Entomology Group, University of Antioquia (GEUA). Funds were provided by COLCIENCIAS (Convocatorias 745–2016, 647-2014, 1030-2021). Thanks are also due to the IRD and the symposium organizing Committee which made participation to the Syrphidae symposium feasible.

Keywords: Highland ecosystems, Flagship species, assessment of conservation status, Endemism, unique fauna.

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