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Editorial: Advances in the conservation of neotropical primates

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Editorial on the Research Topic
Advances in the conservation of neotropical primates

The biodiversity of the Platyrrhines, or Neotropical primates, is imperiled. All tropical forest biomes of have significant percentages of their area covered by anthropogenic landscapes, meaning that habitat loss and fragmentation, zoonotic disease, noise and hunting affect 40% or more of primate species (Estrada et al., 2017, 2018; Galan-Acedo et al., 2019). The persistence of populations of these diverse primate species will depend on the ability of individuals to survive, reproduce and disperse in these landscapes. Worldwide analyses and assessments suggest that most species living in anthropogenic landscapes (or Anthropogenic Land Covers, ALCs) show population declines (Galan-Acedo et al., 2019) and there is a considerable lack of understanding at the behavioral and ecological level about how different species are coping or can cope with specific attributes of the landscape (Nagy-Reis et al., 2017).

The persistence of populations in these altered landscapes will also depend on how well conservation and management strategies can address the human-primate interactions at different levels (Consorte-McCrea et al., 2022; Estrada and Garber, 2022). While attention is often focused on the impacts of forest fragmentation in these landscapes, it is similarly essential to understand the specifics of human land use and cultural patterns and how these influence the behavior and ecology of primates. There are a growing number of examples where research and conservation actions are making significant contributions to reverse the decline of populations. These range from protecting isolated populations to improving the status of species, usually through a combination of habitat protection and expansion, translocations and other forms of management, research and educational programs, and community engagement at local, national, and international scales involving zoos, universities, nongovernment and governmental organizations.

In this collection of original manuscripts, five sets of colleagues present tangible results from a diverse set of conservation and management initiatives involving Neotropical primates. All biodiversity conservation is predicated on a comprehensive understanding of taxonomic classifications, and correspondingly our Research Topic begins with Rylands

and Mittermeier's "Taxonomy and Systematics of the Neotropical Primates: A Review and Update." The recognition of biodiversity, as classified by taxonomic revisions of different species, has been a major driver of the reassessment and development of conservation action plans throughout the Neotropics. In "*Restoration of Alouatta guariba populations: A bi-national management program*," Oklander et al. build on the current risks to this Critically Endangered species to describe the international collaborative program that has been developed to prevent its extinction by directly addressing several of the issues of conservation in anthropogenic landscapes. Their approach offers a model that could be applied to other Critically Endangered species in the Neotropics and elsewhere with great effects.

The remaining three contributions investigate an array of conservation and management initiatives that deal with some of the ubiquitous problems seen in the Neotropics. Lagroteria et al. present a model for assessing the consequences of habitat overlap and ecological success among closely related species in their paper, "Assessing the invasive potential of *Saguinus midas* in the extent of occurrence of the Critically Endangered *Saguinus bicolor.*" In "Characterization of forest fragments occupied by the Critically Endangered and endemic San Martín titi monkey (*Plecturocebus oenanthe*)," Vargas et al. assess the probability of population persistence and the conditions needed to maintain it in a landscape typical of most of South America, where there is a mosaic of forest fragments, agricultural areas and human settlements of varying sizes. Finally, Lopez-Ramirez et al. provide behavioral insights about arboreal bridges to mitigate the effects of linear infrastructures in their investigation into the "Perception of the risk of predation by golden lion tamarins (*Leontopithecus rosalia*) and marmosets (*Callithrix* spp.) in relation to artificial connectivity structures over oil and gas pipelines." This paper also addresses the issue of conservation solutions designed for an endangered species but that could also favor the spread of an invasive species, a common problem that impacts several endangered Callitrichids throughout Brazil.

Taken together, these papers span a diversity of taxa and approaches that we hope will inspire and stimulate further conservation and management efforts on behalf of Neotropical primates and other endangered taxa throughout the world.

Author contributions

CR-M: Writing – original draft, Writing – review & editing. KS: Writing – original draft, Writing – review & editing.

Conflict of interest

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