

VIABILITY ASSESSMENT FOR A POPULATION OF THE MEXICAN HOWLER MONKEY: POTENTIAL THREATS AND PERFORMANCE OF DIFFERENT MANAGEMENT INTERVENTIONS

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With three areas of core habitat, Los Tuxtlas Biosphere Reserve represents the northernmost distribution of *Alouatta palliata mexicana*. In the southern zone of this reserve (core zone III) the status of *A. p. mexicana* is uncertain. At first glance, the zone may harbour a robust number of individuals given its protection status, but there was not ground based information to validate this assumption. We generated the first set of demographic data for *A. p. mexicana* inhabiting the zone together with a population viability assessment (PVA) to investigate factors affecting its longer term survival and what kinds of management might contribute to secure the population for the future. Two months field research revealed a smaller population than expected (0.043 individual/ha, CI 95%: 0.017-0.108) and the PVA revealed 31% risk of falling below a population threshold of 5 individuals in 25 years highlighting the survival of adults as the stage linked to its successful persistence. Management interventions such as the reintroduction of individuals are discouraged since illegal hunting may be taking place and habitat requirements may not be satisfied. Conversely, immediate attention should be applied to provide protection to the population of *A. p. mexicana* and its habitat. In addition a next step to follow could be to investigate intrinsic factors reducing the survivorship such as parasitic infestations as well as the effects of habitat loss and fragmentation in the current degree of isolation from other populations. These measures will be advantageous towards secure howlers' population survival for the years to come.

Keywords: Demography, Critical life-history stage, Extinction risk, Protection measures.