

Giant Anteater (*Myrmecophaga tridactyla*) Population Survey in Emas National Park, Brazil – A Proposed Monitoring Program



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Abstract

The population density of giant anteaters (*Myrmecophaga tridactyla*) at Emas National Park in central Brazil was estimated to determine the most suitable method to monitor this population. The data obtained is expected to underpin a more thorough evaluation of the population's recovery rate following a fire in 1994, and factors possibly affecting its numbers significantly. Population estimates were based on: 1) linear terrestrial transect surveys (distance method), which led to a density estimate of 0.396 ± 0.069 (se) individuals/km² for the park's flat area; 2) aerial surveys with double count correction, showing an estimated 0.209 ± 0.104 and 0.196 ± 0.065 (se) individuals/km² for the Park's central and flat areas, respectively. A preliminary giant anteater population-monitoring proposal was outlined based on aerial count data. A power analysis indicated that, to achieve a > 90% probability of detecting a 5% annual population decline, a monitoring program would have to be established using five transects repeated five times a year for 18 years, four times a year for 17 years, or three times a year for 21 years. Terrestrial transect surveys seem more appropriate for more accurate estimates, although aerial surveys may be the best option in most cases.

About the Authors

Guilherme H. B. de Miranda is a Geologist and a Biologist, with a PhD in Ecology from the University of Brasília. He was chief of the Division of Management of Natural Resources of the Botanical Garden of Brasília, Zoology teacher in the Catholic University of Brasília, and Wildlife Researcher of Embrapa Pantanal. Currently, he is a Forensic Expert of the Department of Federal Police, acting in environmental issues.

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