



Jaguar Conservation Program

Jaguar occurrence and abundance in the landscape of Sector San Cristobal, Guanacaste Conservation Area, Costa Rica.

Ronit Amit

Abstract:

Priority actions for long-term conservation of jaguars include investigation of restrictions at the landscape scale (Taber *et al.* 2002). If species need non-protected heterogeneous areas, where habitat has been more or less disturbed, we have to focus our attention on how to manage these areas within each particular context of land tenure and use. This task must consider scale with landscape approach. Jaguar (*Panthera onca*) and their prey reflect important processes of this approach, like predation and dispersal. In this sense, this felid must be studied as an integral part of the system, taking advantage of its classification as a charismatic, umbrella, keystone and landscape species. The landscape studies here is a linkage between two National Parks with a mosaic of different forest cover and land uses. As such, the model of conservation applied intends to accomplish the consolidation of a conservation area, but general monitoring of biodiversity and ecological functionality is lacking. One of the objectives of this study is to determine how many jaguars exist in the landscape of Sector San Cristobal, between Guanacaste and Rincon de la Vieja National Parks, using photographic capture-recapture sampling. The other objective is to detect if a relationship exists between the frequency of jaguar occurrence and two landscape characteristics: heterogeneity and prey availability. For this portion of the study I will make track counts and obtain frequencies of occurrence, and map these using GIS.

Jaguar presence in Sector San Cristobal is important for action planning and for the long-term viability of the jaguar population in the Guanacaste Conservation Area (ACG). If landscape characteristics (heterogeneity and prey diversity) have an important effect on individuals, habitat management will be relevant. Also, if individual jaguars are crossing between the national parks, this could serve as evidence of functional connectivity of the parks. Management recommendations are to reconsider the role of connectivity in the ACG conservation strategy. Finally, this study will provide base line information for a jaguar monitoring strategy.

Contact Information

Email: ronit_amit@yahoo.com