

Mazzolli, M. & Hammer, L.A. 2007. Habitat suitability for jaguar and puma in southern atlantic forest of Brazil inferred from proportion of area occupied and prey richness. Wild Felid Biology and Conservation Conference. WildCru, Oxford.

Two month-long expeditions to the southern Atlantic forest of Brazil were conducted in 2006. Parameters collected from vestiges and camera-trap sampling were mammalian prey richness and proportion of area occupied (PAO) by jaguar and pumas. Eight quadrats 2 x 2 km were sampled, over an area of 130 square kilometers, where fourteen species of mammals were recorded (CI (\hat{N})=14 to 14, CAPTURE). Capture probabilities from PRESENCE were high for puma ($p=1$), but low for ocelot ($p=0.15$, $SE=0.08$) and for jaguar ($p=0.1$, $SE=0.07$), resulting in estimated PAOs of 25% for puma, and 100% for both jaguar and ocelot. It is argued that jaguar were expected to have capture probabilities similar to puma, as they both leave signs on open trails when present. The resulting jaguar PAO is thus likely to be an artefact derived from low area fidelity and/or low density, rather than a product of its low detection probability of the species. This conjecture is substantiated by the low frequency and non-detection of important prey species in many of the sampling quadrats. Results do not diminish the importance of the study site, instead, these observations objectively identify the need to restore prey populations in the area.