

# Spatial ecology of Paraguay's last remaining Atlantic forest Jaguars (*Panthera onca*): implications for their long-term survival

Roy T. McBride Jr. and Jeffrey J. Thompson

## Abstract

Using GPS telemetry, we quantified space use and movements of Jaguars (*Panthera onca*) in remnant populations in the Paraguayan Atlantic forest, within a comparative context with populations in the Argentine and Brazilian Atlantic forest. Mean estimated home range size was 160 km<sup>2</sup>, estimated to be nearly equal to Jaguars in the Morro do Diabo State Park in Brazil, but Jaguars in other populations in Argentina and Brazil had a 73% (Iguazú/Iguaçu national park complex) and 96% (Ivinhema State Park) probability of having larger home ranges. We found no relationship between home range size or movements and human population or the Human Footprint Index, while 75% of locations from all individuals were in protected areas. Our data and analysis highlight the dependence of Atlantic forest Jaguars on protected areas, an avoidance of the landscape matrix and an extreme isolation of the remaining Paraguayan Atlantic forest Jaguars.