

Ecology and behaviour of the Jaguar (*Panthera onca*) in Belize, Central America

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Five adult male Jaguars and a translocated subadult female Jaguar were captured and followed by radio-telemetry in Cockscomb Basin, Belize. One adult male Jaguar, two resident female Jaguars, and a Puma were followed only by their tracks. Radio-collared males maintained overlapping ranges of 28–40 km², while resident females moved in minimum areas of 10 km² within the ranges of individual males. Despite range overlap, evidence of aggression or sign of more than one large cat in the same area simultaneously was uncommon. Such avoidance behaviour suggested some means of communication. Visual marking in the form of faeces and scrapes were found uncovered along roads and trails in areas of overlap between the cats; such marking could have helped in boundary delineation as well as spatial and temporal positioning. Males often remained in small areas of 2.5 km² for up to two weeks, a behaviour made possible by abundant prey. This behaviour may have facilitated avoidance with other Jaguars. Faecal analysis indicated opportunistic feeding on 17 prey species. Armadillo, Paca and brocket deer accounted for 94% of the available terrestrial prey and comprised 70% of the identified prey in the faeces. All Jaguars were primarily nocturnal, though activity varied between animals. The translocated female showed changes in activity patterns when feeding upon cattle. At least one Puma travelled within the ranges of several male Jaguars and appeared to be feeding on smaller prey items. The behavioural and ecological plasticity exhibited by the Jaguars in this study is beneficial for an animal whose habitat is rapidly diminishing.

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Introduction

The Jaguar (*Panthera onca*) is the largest land predator throughout Central and South America, yet remains one of the least studied large cats in the world. Except for recent research in

