

ECOLOGICAL AND SOCIO-ECONOMIC CORRELATES OF RANGE OCCUPATION BY BONOBO: A SPATIAL ANALYSIS

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Bonobo range covers approximately 400,000 km² of DR Congo's central cuvette. This range includes forest blocks with some of the historically lowest human occupation of all the great ape range in DR Congo. Earliest recorded observations of bonobos show that their occupation of this range is markedly variable. Bonobos are apparently absent or nearly so from large blocks of forest within the range. This patchy distribution of bonobos is not entirely recent, and is evident at a range of spatial scales. This study examines factors correlated with the occurrence and relative abundance of bonobos based on the results of large scale, systematic surveys of bonobo nests and human activities in the Salonga and Lomami landscapes, covering together over 70,000 km² (about 17 % of the bonobo's range). We examined the spatial correlation of the relative abundance of bonobo nest sites and other indicators of bonobo presence with environmental factors including forest type, seasonal inundation, and soil fertility, and with measures of human occupation and economic activity including population density, permanent settlement, forest degradation, proximity to access routes (rivers and roads) among others. We examine the relationship of selected eco-physical and human impact correlates on the occurrence of bonobos at different spatial scales. The results permit analysis of the potential impact of further human occupation and development of extractive resources in the bonobo's range..

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