

PREDICTING BONOBO (*PAN PANISCUS*) DISTRIBUTION: INFLUENCE OF NEST HABITAT VS. HUMAN PRESENCE.

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Predicting bonobo distribution requires an understanding of how forest characteristics and humans influence bonobo occurrence. Our earlier studies in the Salonga National Park (SNP) showed that bonobos nest in dry mixed mature forests and that forest and understory influence their distribution: nest density is highest in Marantaceae understory (MmM) and second highest in woody (Mmw) -- when human signs are rare. We also demonstrated that using the aid of satellite images we can *a priori* locate forest blocks that have a higher proportion of MmM forest type and higher nest density than randomly placed transects in the Salonga. To examine whether these trends hold true for other forest regions within the bonobo range, we surveyed 1800 km² of forest between the Lomako and Lonkomo Rivers in the Maringa-Wamba-Lopori landscape, 200km north-northeast of the SNP. We found similar forest types in the SNP and Lomako sites; nest-forest types occur in similar patterns -- on interior plateaus between major waterways. Nests in the Lomako are also non-randomly distributed, occurring more in MmM and Mmw (terra firma) than in other forest types. However, high hunting levels, the ubiquitous distribution of hunting signs, and low nest densities precluded finding a significant relationship between forest types and nest counts. Hence, the effects of nest-forest type and humans on bonobo distribution and density are often confounded. We must consider each factor and their interaction when creating spatial models.

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