

****Ecological Consequences of Selective Logging: - Insights from the Chiquibul Forest Reserve (Poster)**

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Selective logging is a forestry practice designed to extract timber while maintaining biodiversity and ecosystem function. However, there is still much to learn about its impacts on surrounding ecosystem structure and composition, particularly in tropical regions. In this study, we investigated how changes to vegetation structure at logged and unlogged sites impact wildlife abundance in the Chiquibul Forest Reserve (CFR) in southwestern Belize. Using data collected from remote camera traps deployed at 9 unlogged sites and 13 logged sites (i.e., one-year post-harvest), we employed random effects Poisson modeling to analyze the relationship between logging status and wildlife abundance. We found there was a significant difference in wildlife abundance between logged and unlogged areas, with a mean abundance of 53.9 individuals in logged regions compared to 28.1 individuals in unlogged areas ($p < 0.00046$). Some species, such as Baird's tapir (*Tapirus bairdii*) were more abundant at logged sites, while others, including the common paraque, were less abundant. These results underscore the complex dynamics between logging practices and wildlife species composition, highlighting the ecological implications for wildlife management and conservation strategies. We recommend examining the long-term impacts of logging on vegetation structure and associated impacts on wildlife abundance and diversity to better understand the ecological implications of sustainable logging practices on tropical wildlife.