Impact of African Elephants (*Loxodonta africana*) on Trees in Chobe National Park, Botswana: A Spatial Analysis

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Controversy surrounds management of the world's largest population of African elephants in Chobe National Park, Botswana. While the variety of wildlife within and around Chobe serves as the basis for a booming tourism industry, generating significant jobs and revenues for local communities, the estimated 200,000 elephants in the region are also a source of human-wildlife conflict, raiding crops and sometimes killing people and livestock. This project was conducted in the eastern half of Chobe National Park to investigate the spatial dynamics of elephant impact upon trees. Impact was assessed using a series of vegetation transects. Water is a key factor influencing elephant distribution and analysis was based upon distance of trees from the Chobe River, the only permanent water source in the area. Preliminary data from the project are presented and findings are compared with those suggested by piosphere effect theory. Ramifications for landscape stability over time are discussed.

Keywords: Elephant, *Loxodonta africana*, spatial heterogeneity, piosphere effect, animal-plant interactions, land cover change

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