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Wild Mammal Dung Abundance in Lake Mbuoro National Park Is Lower Than in Adjacent Ranchlands

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Abstract

The establishment of livestock ranchlands adjacent to protected areas in savannah ecosystems is believed to threaten wild animals. Intensive competition for vegetative resources, water and poaching are considered to be immediate factors that reduce the capacity of protected areas to sustain wild mammals. The coexistence of wild mammals and ranchlands is common in Southern Africa but has rarely been suggested as a viable conservation option in East Africa. To assess the importance of ranchlands in conserving wild mammals, 36 plots of 20 × 20 m dimension were positioned along a 7240 m stretch from the boundary in Lake Mbuoro National Park (LMNP) and 36 plots of similar dimension were set within the ranchlands adjacent to the Park. The dung counts of different species recorded in the plots were used as a relative index of mammal abundance in the ranchlands and in LMNP. The results reveal 18 wild mammal species recorded in both sampled areas, 12 within LMNP and 17 in the adjacent ranchlands. The topi *Damaliscus lunatus* was only found in the park. Total dung count estimated in both ranchlands and LMNP was 2,586 with LMNP accounting for 29% and ranchlands 71%. In terms of wild mammal dung, ranchlands had a higher wild mammal dung count than LMNP (30% higher). The study points to the compatibility of the two land uses in conserving wild mammals and biodiversity in general, negating the common belief of competition and exclusion. Future research is needed on the compatibility of ranchlands with protected areas on biodiversity status of other species.

Keywords: Abundance, cattle, land use, livestock, protected area, ranches, savannah, Uganda, wild mammals