

GRAZING LAWNS ACROSS AFRICA: A CASE STUDY COMPARISON BETWEEN
KRUGER NATIONAL PARK AND SERENGETI NATIONAL PARK

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Abstract

Grazing lawns are highly-utilized grassland patches that represent key resource areas for large herbivores in savanna ecosystems. Two parallel studies were conducted in 2011 in Kruger National Park (KNP), South Africa and Serengeti National Park (SNP), Tanzania to compare key functional and structural characteristics between lawns and the surrounding matrix. Our study asked the following three key questions: how is lawn vegetation different from the surrounding matrix? Are the differences between the lawn and matrix associated with below ground factors? Are differences due to plant community turnover or intraspecific variation?

Broadly, both sites shared a pattern of greater foliar nutritional quality in lawns compared to the surrounding matrix despite there being very little evidence for edaphic differences. Given the lack of clear relationships with plant available nutrients in KNP and SNP, these patterns are likely mediated by aboveground effects, i.e., herbivores.

If herbivores alone maintain grazing lawns, a shift in herbivore numbers or distribution may result in the loss of grazing lawn plant communities. The two studies help highlight the variability between grazing systems and adds to further discussion of top-down versus bottom-up drivers in savanna grazing systems.