Promotion of the Cycling of Diet-Enhancing Nutrients by African Grazers

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Abstract

Experiments in Serengeti National Park, Tanzania, provide direct evidence that large, free-ranging mammalian grazers accelerate nutrient cycling in a natural ecosystem in a way that enhances their own carrying capacity. Both nitrogen and sodium were at considerably higher plant-available levels in soils of highly grazed sites than in soils of nearby areas where animal density is sparse. Fencing that uncoupled grazers and soils indicated that the animals promote nitrogen availability on soils of inherently similar fertility and select sites of higher sodium availability as well as enhancing that availability.