

Dietary ranking of ungulates of the northern Serengeti

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Abstract:

The botanical composition of diets was determined for Thomson's (*Gazella thomsoni*) and Grant's gazelles (*G. granti*), impala (*Aepyceros melampus*), topi (*Damaliscus lunatus topi*), kongoni (*Alcelaphus buselaphus cokii*), wildebeest (*Connochaetes taurinus*), zebra (*Equus burchelli*), buffalo (*Syncerus caffer*), giraffe (*Giraffe camelopardalis*), and elephant (*Loxodonta africana*) in Masai Mara National Reserve by microhistological analyses of feces. The non-grazers (>50% dicotyledons) were Grant's gazelle, giraffe, and elephant. Thomson's gazelle, topi, kongoni, wildebeest, zebra, and buffalo were grazers (>50% monocots). The impala's diet consisted of equal percentages of dicots and grasses. No relation was found between diversity in diet and body mass among the ungulates studied. The buffalo, kongoni, wildebeest, topi, and Thomson's gazelle preferred the same grasses. The giraffe's diet was extremely dissimilar (11% overlap) to the other ungulates. Dietary similarities were not frequently higher in the dry season than in the wet season. The elephant was the only ungulate studied that did not select a botanical diet which was in significant disagreement with that of another.