

Diet composition and preferences of mountain nyala (*Tragelaphus buxtoni*) in Bale Mountains National Park, Southeastern Ethiopia

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Abstract

An endemic mammal mountain nyala has declined substantially in number and range of its distribution. Thus, Ecological monitoring is essential for conservation. Past ecological studies on mountain nyala focused more on demography, dynamics and social organization of the species but less attention was paid to the diet composition and preferences. Thus, the aim of this study was to assess diet composition and preferences of mountain nyala in Bale Mountains National Park (BMNP), Ethiopia. The study was conducted from September 2017 – January 2018 during both wet and dry seasons. Direct observation scan sampling method was employed to collect behavior data in two habitat types namely; Gaysay grassland and woodland (park head quarter) of BMNP. Scan sampling of target group selected were carried out for 10 minutes in 15 minutes interval and routine follow up were carried out (early morning and late afternoon) to identify plant species consumed by the species and the frequency of consumption of each plant species consumed. Nutrient proximate analysis of representative plant species from highly, moderately and least preferred plant species were conducted to understand governing principle that determine selective grazing and browsing. A total of 32 plant species out of 85 plant species available classified under 18 families were recorded during the study period. Mountain nyala are selective mixed feeders (mostly grazers) and predominantly folivores. Moreover, a clear seasonal dietary pattern was found in this study. In general the findings of this study imply that preference for forage species could be explained by nutritional quality. Consequently, increasing the abundance of preferred plant species is expected to benefit mountain nyala.

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Fig.1. MNEE.docx available at <https://authorea.com/users/502812/articles/582742-diet-composition-and-preferences-of-mountain-nyala-tragelaphus-buxtoni-in-bale-mountains-national-park-southeastern-ethiopia>

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