ACTIVITY BUDGET AND FORAGING PATTERNS OF NUBIAN GIRAFFES (Giraffa camelopardalis camelopardalis) IN LAKE NAKURU NATIONAL PARK, KENYA

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Abstract

The behavior of animals potentially affects their survival and reproduction. The activity budget of the Critically Endangered giraffe Giraffa camelopardalis camelopardalis has been investigated in populations across Africa and found to be influenced by body size, diet and sex. Foraging patterns show how an animal chooses to forage in its environment, and is influenced by resource availability, competition and predation risk. The activity budget and foraging patterns of Nubian giraffes vary considerably between ecosystems. The Nubian giraffe is a recently identified subspecies G. camelopardalis camelopardalis). This Critically Endangered giraffes which includes Rothschild's giraffes, occurs only within Kenya, Uganda, Ethiopia, and Southern Sudan. We observed the behavior of a population of Nubian giraffes in Lake Nakuru National Park, Kenya, to assess seasonal activity budgets and foraging patterns. In the wet and dry seasons, giraffes spent approximately the same amount of time (53 and 57%, respectively) foraging. Movement and resting duration decreased slightly from the dry to the wet season (22 to 20% and 25 to 22%, respectively. Across both seasons, Vachellia xanthophloea (67%), Maytenus senegalensis (19%), and Solanum incanum (9%) made up the bulk of the giraffe's diet. In the dry season, giraffe additionally foraged on Maerua triphylla (2%), Vachellia gerrardi (2%), and Grewia similis (1%); in the wet season, they added Vachellia abyssinica (2%) and Rhus natalensis (2%) to their diet. The most utilized browsing height was 3.5 m below their average height.. Overall, season did not appear to influence the Nubian giraffe's activity time budget or foraging patterns in Lake Nakuru National Park. Improved knowledge of the behavioral patterns of this subspecies will allow managers to manage and conserve the species and its habitat better. For instance, planting perennial plants in all vegetation types used by giraffes in the park minimizes browsing pressure on the already over browsed Vachellia.

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