

THE ROLE OF WATER RESOURCES ON HOME RANGES OF  
INTRODUCED WHITE RHINOCEROS (*Ceratotherium simum simum*  
Klos.) IN LAKE NAKURU NATIONAL PARK

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## ABSTRACT

The successful introduction of translocated rhinoceros to new areas requires a detailed monitoring of their ranging behaviour after release. Studies reported here were conducted on recently introduced white rhinoceros (*Ceratotherium simum simum* K.) in Lake Nakuru National Park between November 1994 and February 1995. The main objective of the study was to determine home range sizes in relation to water resources. Home ranges of 15 rhinos were determined by the use of a Global Positioning System machine. The location points of water resources were plotted on a map as Universal Transverse Mercator coordinates and the outermost points were joined to make polygons. Water resources were plotted on maps and later their locations patterned on individual home ranges. Distances between closely interacting individuals were recorded when animals foraged, drank water or rested. Eighty percent of all home ranges of rhinos were located in the southern part of the park; one or more water points were recorded within each of these home ranges. No rhinos were recorded more than 2.9 km away from a water point or around dry dams. Rhinos translocated from South Africa had larger home ranges than those from Solio ranch in Kenya. Both adult sexes were closer to their young than they were among themselves and the greatest mean distance between interacting individuals was recorded between males, whereas, the shortest was recorded between adult females or males with the young. Results suggested that core areas of white rhinos is determined by availability of water, over and above other survival resources indicating that an increase in water resources could result to an even spatial distribution of rhinos over the entire National park (LNNP).