

THE IMPORTANCE OF SPATIAL ECOLOGY IN THE EFFECTIVE CONSERVATION OF CHACMA BABOONS IN THE CAPE PENINSULA, SOUTH AFRICA

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The chacma baboon population (*Papio ursinus*) of the Cape Peninsula, South Africa is small, isolated and in direct competition with humans for access to limited space and resources. A popular local perception is that resources are abundant due to large expanses of 'natural' vegetation within the Table Mountain National Park (TMNP) - an open park running the length of the Cape Peninsula. In this study we test the generality of this assumption by quantifying the spatial ecology of Cape Peninsula troops. The baboons used only 39 % of the available land within the TMNP. Home range sizes varied from 1.54 – 37.65 km² and deviated from the expected positive correlation between range size and troop size. Resource selection analyses showed heterogeneity in habitat cover to best explain spatial variation. Exotic vegetation and urban habitats were favoured over indigenous vegetation, and home range size decreased whilst density increased with greater access to both exotic and urban habitat types. All troops selected low lying land and rarely entered the abundant space found at higher altitudes. It is thus apparent that space is not a limiting resource for Cape Peninsula baboons. However, suitable space where the critical resources of sleeping sites, permanent water and high quality food sources are spatially coincident is greatly limited and almost always adjacent to urban and agricultural areas. To reduce conflict and improve baboon conservation efforts, researchers and managers are using this information to rethink the prioritisation of key spatial resources to baboons and humans in the Cape Peninsula.

Keywords: home range, resource selection, human-modified environments, human-wildlife conflict