

Large herbivore dynamics in northern Gonarezhou National Park, Zimbabwe

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Abstract

We compared densities and distribution of wild ungulates and domestic livestock based on aerial surveys conducted during 1991 - 2010 in northern parts of Gonarezhou National Park (GNP), Zimbabwe. The sampled area covered approximately 320 km² (Chipinda Pools area) representing ca. 27 % of the GNP, which was colonized by a few herder families along with their cattle in the year 2000. We hypothesized that (1) human and livestock encroachment in the park would lead to decline in densities of native ungulates, and (2) wild ungulates would avoid habitats influenced by humans. The results show that cattle densities significantly increased after the year 2000 whereas the densities of the native ungulates did not differ significantly after 2000. The 'no change' situation in herbivore populations is attributed to strict anti-poaching measures and restriction of human activities within small portion (4 %) of the park. However, the aerial survey does suggest that human and livestock presence in the northern GNP did influence the distribution of wild ungulates. Repeat observations during various seasons would be necessary to understand the spatio-temporal segregation among cattle and wild ungulates