

Distribution and monitoring of black rhinoceros *Diceros bicornis* populations in Zimbabwe

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The historical distribution of the black rhinoceros *Diceros bicornis* (Linnaeus, 1758) in Zimbabwe and early translocation programs together with estimates of rhinoceros numbers are given (Child & Savory 1964; Roth 1967; Kerr & Fothergill 1971). The approximate nature of the population estimates in the past reflects the lack of specific rhinoceros surveys in the major rhinoceros refuges. Because reliable and cost-effective aerial survey techniques had not yet been developed for rhinoceros counts in Zimbabwe, estimated rhinoceros figures have generally been based on appraisals of ground sightings, signs and other data collected in an unsystematic way, or on incidental sightings during aerial surveys carried out to count elephant *Loxodonta africana* (Blumenbach, 1795).

However, since 1978 aerial surveys — conducted by the Department of National Parks and Wild Life Management — have become standardised in accordance with modern survey methodology. The need for a cost-effective technique for rhinoceros monitoring has become particularly urgent as a result of the uncertainty over the long-term success of the anti-poaching effort in the Zambezi Valley. A joint Department of National Parks and Wild Life Management /World Wide Fund for Nature (WWF) rhinoceros monitoring project in this area commenced in 1988 and a suitable survey methodology is being developed. A new technique, utilizing an advanced microlight aircraft (CRM Shadow) operating within predetermined blocks, is being tested. The purpose of this approach is to derive correction factors to correlate aerial observations with data derived on the ground. The present (1987/1988) distribution of black rhinoceros, as well as population estimates in Zimbabwe is given in Table 1.

Table 1
*Black rhinoceros population estimates
in Zimbabwe (1987/1988)*

Zambezi Valley complex (Mana Pools National Park, Urungwe, Sapi and Chewore Safari Areas)	500 — 1 000
Matusadona National Park	200 — 250
Chizarira National Park	200 — 300
Chete Safari Area	150
Remainder of Sebungwe region (including communal lands)	100
Hwange — Matetsi area	250
Gona-re-Zhou National Park	20
Matopos (Matobo) National Park	12
Ranches in Midlands area	50
Ranches in Chiredzi area	25
Ranches in West Nicholson area	14
Other private land	50
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	1 550 — 2 200

CHILD, G. and C.R. SAVORY. 1964. Distribution of large mammal species in Southern Rhodesia. *Arnoldia* 1 (14): 1-15.

KERR, M.A. and R. FOTHERGILL. 1971. Black rhinoceros in Rhodesia. *Oryx* 11 (2-3): 129-134.

ROTH, H.H. 1967. White and black rhinoceros in Rhodesia. *Oryx* 9 (3): 217-231.