

Tshumardu Nam, No 5 June 1982

hartebeest : habitat = 0,4  
diet = 0,5

Therefore under the above stocking densities the carrying capacity of white rhino would be approximately 325 animals. This value would obviously change if either the animal numbers or the species mix changes.

In the above method it is assumed that the total carrying capacity for an area is known, but in a majority of cases this is not true. The next step is therefore to use a more sophisticated technique which calculates this equilibrium value more accurately than the previous, largely subjective methods. In order to do this a mathematical model will be developed, making use of a number of environmental parameters and their respective interactions. The obvious advantage of using a simulation model is that the affects of applying different management options, e.g. culling, hunting, etc. can be analyzed.

It should finally be noted that although the model will not predict actual trends in the system, it will simulate the behaviour of the parameters modelled and thus lead to a better understanding of the relative importance of different factors in determining carrying capacity. Ultimately, this will lead to better estimates of the total carrying capacity (or equilibrium value) of an area such as Pilanesberg.

M. Borthwick .

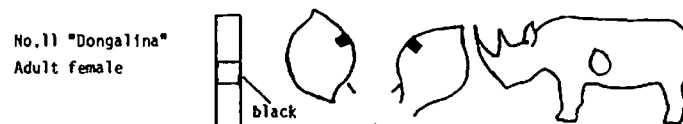
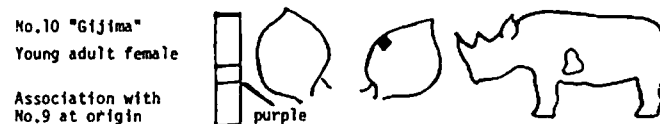
## NEW BLACK RHINOS

Four more black rhino were released in Pilanesberg Game Reserve on 16th May. They comprised two adult males, one adult female and one young adult female. The young female and one of the males were caught close together and had been known by Peter Hitchins to have had an association for some time. They bring the total of black rhinos in the reserve up to 12. Eleven have been released, but one of the females released in September last year had a calf around the end of January.

The rhinos were caught from Umfolozi Game Reserve on the 15th, transported overnight and released near the lower Mankwe valley. They have all been moving considerably since then. The first evening, the two females were close to the Mankwe Dam and the two smaller dams to the east respectively; the males were north and east of Pilanesberg workshops; distances of minimum 4,6,10 and 12 kilometres respectively. Shortly afterwards the young female moved to the area north of Manyane Gate, and subsequently through to Bakubung Gate, then along the southern fence line and into valleys there, a minimum of 43km by the end of May. She had been named "Gijima" (Zulu for the runner) in reference to the distance she moved during darting. She appears to have been living up to that name. The other female, "Dongalina", since she had been stuck in a donga on capture, moved through into the Tlou Drive area, then probably through the Tshukudu Link region to near Bakubung Gate. She then moved back round to the lower Mankwe Valley by the begin-

HILLMAN

ning of June. One of the males, who had been north of Pilanesberg, "Nani Amepotea" (which means 'He who was lost' in Swahili, since it had taken us over an hour and a half to find him after he had been darted at Umfolozi), moved along the Tlou Drive Valley to near the fence, then back, and at the beginning of June was along the fence line south of the lower Mankwe Valley, roughly 30 km. The other male "Madlozi" (from the area where he was caught in Umfolozi) moved from east of Pilanesberg, down near Bakubung Gate and then through to the Mankwe Valley, a minimum of 28 km. At the beginning of June three of them were thus within 5 km of where they were released, but had been a long way to get there and may still be moving. They do not however appear to have had any major problems and will probably soon settle. Water, food and cover have not been limiting factors which could have prompted so much movement. The young female has twice been observed disturbed, but the others have usually been eating, sleeping or once travelling, when seen recently.



K. Hillman.

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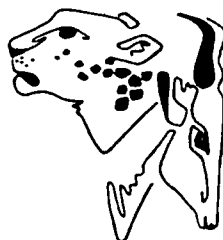
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Tshomarelo News is the bulletin of the Pilanesberg Game Reserve in Bophuthatswana.

This publication aims to keep interested people informed about activities and ongoing projects in the reserve.



# TSHOMARELO NEWS

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