

The sex ratio of steenbok
Raphicerus campestris
Thunberg in the Namib Desert
Park, South West Africa

by

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ABSTRACT

The sex ratio of steenbok *Raphicerus campestris* observed in the Namib Desert Park is analysed. One hundred and twenty-two animals were sexed (49♂♂ and 73♀♀). This information is compared with other data available.

INTRODUCTION

In 1964 Van Bruggen published a study of steenbok of the Kruger National Park indicating a significant departure from the assumed sex ratio of 1:1. His observations of 4,7♂♂ to 1♀ ratio stimulated others to investigate this phenomenon in the same and other localities. To date the most westerly population analysed in this way was carried out by Penzhorn (1971) in the Kalahari Gemsbok National Park (20° E). Other studies have been carried out by Rowe-Rowe (1971) in the Wankie National Park (26° E); in the Hans Merensky Nature Reserve (30° E) by Oates (1972) and in the Kruger National Park (31° E) by Penzhorn (1971) and Rowe-Rowe (1971). Further studies have been carried out in less restricted areas by Mentis (1970) in Zululand, Child (1968) in Botswana and Dasmann and Mossman (1962) in Rhodesia. The results of these studies are summarized in the table (excluding those calculated from foeti and museum specimens).

METHODS AND DISCUSSION

Observations in the present study were made along a forty mile stretch of the Kuiseb River, where most of the Namib Desert Park's steenbok are to be found, during the period May 1973 to January 1974. All observations were made from a motor vehicle and only definitely sexed animals were recorded, a total of thirty one animals were not sexed. The habitat is riverine forest predominantly composed of *Acacia giraffae*, *Acacia albida*, *Euclea pseudebenus*, *Salvadora persica* and *Tamarix usneoides*.

A total of 122 steenbok were recorded; of these twenty-one pairs and two groups of three were noted. Remaining records were of single animals. Of the total 49 were males and 73 were females giving a ratio of 1♂:1,48♀♀. It was assumed that the steenbok population has a 1:1 sex ratio and a chi-square test was carried out to determine significance of departure from this ratio. It was found that the male to female ratio of the Namib Desert Park steenbok population does not differ significantly from the assumed 1:1 ratio.

Chi-square tests on all the data presently available, with the exception of that of van Bruggen, indicate that the ratio of male to female steenbok does not significantly differ from the assumed 1:1. This supports the assumption made by Penzhorn that steenbok populations in southern Africa have a 1:1 sex ratio.

Table 1. Sex ratio of steenbok populations in southern Africa.

| AUTHOR | AREA | ♂♂ | ♀♀ | RATIO | |
|----------------------------|---|-----|-----|-------|--------|
| | | | | ♂ | ♀ |
| Child (1968) | Botswana | 23 | 25 | 1 | : 1,13 |
| Dasmann and Mossman (1962) | Rhodesia | 120 | 134 | 1 | : 1,12 |
| Mentis (1970) | Zululand | 154 | 170 | 1 | : 1,1 |
| Oates (1972) | Hans Merensky Nature Reserve; Transvaal, R.S.A. | 18 | 27 | 1 | : 1,5 |
| Penzhorn (1971) | Kalahari Gemsbok National Park, Cape; R.S.A. | 18 | 30 | 1 | : 1,7 |
| Rowe-Rowe (1971) | Kruger National Park, Transvaal, R.S.A. | 16 | 23 | 1 | : 1,4 |
| | Wankie National Park, Rhodesia. | 17 | 18 | 1 | : 1,06 |
| Stuart (1974) | Namib Desert Park, S.W.A. | 49 | 73 | 1 | : 1,48 |
| Van Bruggen (1964) | Kruger National Park; Transvaal | 47 | 10 | 4,7: | 1 |

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