

## FIRST RECORDS OF OCCURRENCE FOR TWO SPECIES OF BATS IN THE KRUGER NATIONAL PARK

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The Kruger National Park (KNP), Republic of South Africa, is one of the most intensively studied areas of Africa. Underlying the management practices for such a Park as well as broad-based ecological studies, is a thorough knowledge of the diversity and distribution of the fauna and flora under conservation. Confirmed mammalian richness for the KNP hitherto totals 133 species, which includes 36 species categorized as "large" (Pienaar 1963 *Koedoe* 6: 1-37). and 97 "small" mammal species (Pienaar 1964 *Koedoe* 7:1-25; Rautenbach 1975 *Koedoe* 18:203-204; Schlitter & Rautenbach 1977 *Koedoe* 20: 187-188; Pienaar, Rautenbach & De Graaff 1980, *The Small Mammals of the Kruger National Park*, Publ. National Parks Board).

As predicted by Pienaar (1964; and 1972 *Koedoe* 15: 91-93), the presence of several species of small mammals has been confirmed in the Park since his initial survey results were published in 1964. During a short collecting endeavour during 23-30 January 1982, two species of insectivorous bats were recorded for the first time within the boundaries of the Park. Two specimens were collected of each species, and the material was divided for deposition in the National Parks Board's reference collection maintained at Skukuza and the Transvaal Museum mammal collection. Both species were recorded from the same locality in the Pafuri area. The locality is described as follows: RSA/Tvl: KNP — Luvuvhu hippo pool, 4 km W of road bridge. The coordinates are 22° 26'S, 31° 11'E.

A male and female specimen of *Rhinolophus swinnyi* Gough, 1908 (Swinny's horseshoe bat: Swinnyse saalneusvlermuis) were thus accrued. The metric mensural data for the male (TM 34210) are: Tot. 69; T. 24; H. ft 8,5 cu; E. 15,5; F.arm 43 w; Mass 5 gram, and for the female (NKW Chir. 135) Tot.71; T. 24; H. ft 8,5 cu; E. 19; F.arm 42 w; Mass 5 gram. Both specimens display the rufous colour phase

which is also known from other species of *Rhinolophus*, as well as from *Hipposideros* and *Nycteris* species. Since this rufous colour phase is prevalent amongst cave-dwelling bats, it can be deduced that both specimens reported here, utilized a cave as daytime roost.

Pienaar (1964, 1972) predicted the seasonal migration of *R. swinnyi* into the Park. However, from what little is known of the migratory habits of *Rhinolophus*, migration appears to be more localized. Furthermore, *R. swinnyi* is known from the eastern Cape Province (Hayman & Hill 1971, *In* Meester & Setzer, *The Mammals of Africa — an identification manual*, Washington: Smithsonian Institution Press) and from Port St. Johns (TM collection), as well as Zimbabwe (Smithers & Wilson 1979 *Museum Mem. No 9*, National Museums, Zimbabwe) and Mocambique (Smithers & Lobão Tello 1976, *Museum Mem. No 8*, National Museums, Zimbabwe). Based on these arguments, it seems more likely that Swinny's horse-shoe bat is a permanent resident of the KNP and the rest of the eastern Transvaal lowveld and that it has been overlooked thus far.

*Eptesicus hottentotus* (A. Smith, 1833) (Longtailed serotine bat: langstertdakovlermuis) is not well represented in museum collections. Virtually nothing is known of its general biology and habitat requirements. It is known only from scattered localities in the Cape Province, Natal, S.W.A./Namibia, Mocambique, Zimbabwe and Zambia. Its eventual discovery in the KNP could thus not be predicted with confidence. However, two males of this species were collected during the same period and at the same locality as *R. swinnyi*, described above. The metric measurements are: (TM 34239) Tot. 118; T. 50; H. ft 9 cu; E. 18; F. arm 49 w; Mass 13 gram, and (NKW Chir. 134) Tot. 110; T. 48; H. ft 9 cu; E. 16,5; F. arm 48 w; Mass 13 gram.

*Eptesicus capensis* and *E. zuluensis* have not been recorded to undertake seasonal migrations, whereas known colonies of these two species inhabit the same roosts throughout the year. It thus appears unlikely that *E. hottentotus* would be a migrator. This, coupled to the fact that it has been recorded from the Itala Nature Reserve in Natal (Rautenbach, Nel & Root 1981 *The Lammergeyer* 31: 21-37) central Western Mocambique (Smithers & Lobão Tello 1976) and central-eastern Zimbabwe (Smithers & Wilson 1979), suggest strongly that the long-tailed serotine bat is in fact a permanent resident throughout the Kruger National Park.

The specimens of both species were netted after sunset in the figtree forest on the south bank of the Luvuvhu River. Consequently no direct evidence of its habits and daytime roosts in the KNP can be presented.

The specimens reported here represent not only the first records of occurrence for the species in the KNP, but in fact for the entire Province of Transvaal.

The confirmed occurrence of *R. swinnyi* and *E. hottentotus* in the KNP increases the total number of mammalian species in the Park to 135.

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