

BAT BANDING IN SOUTH AFRICA

by

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Bat banding in South Africa has been undertaken for some time but has seldom come into the limelight. Due to the enthusiasm of a small group of biologists and amateur naturalists, who were banding bats either alone or as a group in the Transvaal, the Transvaal Museum Bat Banding Committee was founded as far back as 1958, under the chairmanship of Dr. V. FitzSimons, former director of the Transvaal Museum. The activities of this group were carried out under the auspices of the Transvaal Museum which also financed the project. The successive directors of the Museum have always acted as chairmen, while the resident mammalogist has served as secretary/recorder to the Committee.

The banding of bats serves as an important aid in the study of bat biology. It provides useful information on their longevity, population structure and variations in this structure, reproductive biology, migration and the behaviour. Aspects such as external parasites and feeding habits can also receive attention in the course of this work.

Many obstacles have been overcome since the inception of the Committee. Periodic rumours of rabies being carried by bats resulted in many banders losing interest in our activities. It is indeed a pity that the press so often neglects to follow up their reports; I am referring particularly to a recent case which reached the headlines of a supposed rabid bat attacking a man near Warmbaths, Transvaal, resulting in the death of the victim. However, accurate tests carried out at Onderstepoort on the deceased's brain tissue, indicated with 99% certainty that the man did not die of rabies. This means that there is, as yet, still no confirmed case of rabies being carried by Southern African bats.

To date some 31,000 bats have been banded, of which more than 2,500 individuals were recaptured. Due to obvious obstacles, the Megachiroptera are neglected, but some 14 different species of insectivorous bats have been banded up to now. The most commonly banded cave bats are Miniopterus schreibersi, Rhinolophus clivus, R. simulator and Myotis tricolor, while house bats such as Tadarida also receive attention. Where banders in the past considered 300 bats banded as a good day's work, recent improved techniques allow two banders to easily band 3000 bats per day.

In 1969 a research unit of the Council for Scientific and Industrial Research, namely the Mammal Research Unit, was established at the Zoology Department, University of Pretoria, under the directorship of Professor J. Meester. The present director of the Transvaal Museum, Dr. C.K. Brain, felt that the interests of bat research could best be served by the Mammal Research Unit and consequently

Professor Meester is now the Project Leader, responsible for the co-ordination of research and organising of the banding programme. The M.R.U. is also responsible for the purchase of rings and other incidental expenses.

It was, however, decided that the mammalogist of the Transvaal Museum would retain his position as secretary/recorder of the Transvaal Museum Bat Banding Project, as it is now called. All records will continue to be housed at the Museum, and the secretary/recorder is responsible for the upkeep of these records, distribution of bands and data sheets, and for informing banders where their bats have been recaptured.

The bands in use are of a monel metal alloy obtained from Lambournes (B'ham) Ltd., Birmingham, usually of the A4 size, i.e. with a 4 mm diameter. After experimenting with a wide range of bands, including bird bands of suitable size, it was found that the flanges of the tips of the presently used rings minimize damage to the wing membrane. The metal used in manufacturing these bands is very light but strong; consequently bats are not handicapped in flight and bands are not so easily damaged through biting.

The bands are inscribed "TVL MUSEUM", followed by a serial number. In the past several press appeals have been made to the public not to kill bats carrying these rings, nor to remove the bands. Instead, it would be appreciated if people can furnish the secretary/recorder with the number inscribed on the ring, and supply data such as date when it was found, locality and sex.

All project members must either be specialists, or else are approved as members after a bat identification test. Prospective banders are invited to contact the Project Leader. Bands are supplied free of charge to members. Banding activities in the past have been concentrated in the Transvaal although several people pursuing the interests of the Project elsewhere in the country have been appointed as regional representatives. Present activities are restricted to the Transvaal and South West Africa, although it is hoped that activities will soon be extended to Rhodesia and the eastern Cape Province.

The success of the Project lies in continuous visits to banding sites. Banders should therefore preferably live close to the area in which they band. Apart from the scientific value of the Project, this work offers much to the adventurous spirit as well as contact with an aspect of Nature not often encountered.

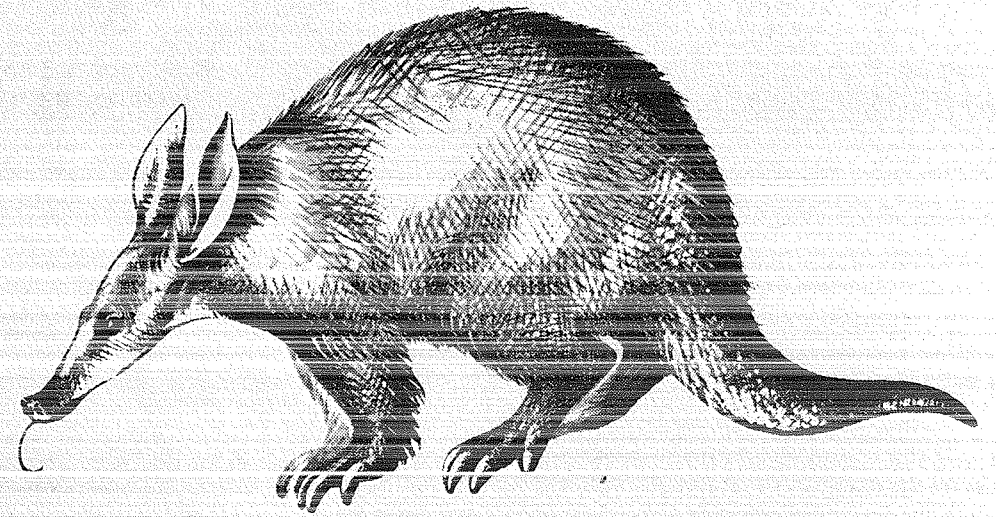
RECENT RESEARCH ON FRESH-WATER FISHES IN SOUTHERN AFRICA

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Under the direction of Dr. Mario da Costa, Lourenco Marques, a survey of the freshwater fishes of Mocambique is being carried out. Specimens are being sent to the Albany Museum for identification and these samples are proving to be interesting additions to the collection and zoogeographical studies. Of particular interest is the first record of a representative of the genus Parakneria Poll from this part of Africa, specimens of which were collected in the Gorongozo Game Reserve. From the Gorongozo Mountain plateau, above a series of waterfalls totalling some 700 feet, there are specimens of Kneria auriculata Pellegrin.

Another valuable collection which has been presented to the Albany Museum is that made by Mr. I.G. Gaigher, Provincial Fisheries Institute, Lydenburg, in the Okavango Swamps and Lake Ngami area during the month of April. Over a century ago Frederic Daviaud made the first collection of fishes from Lake Ngami for Count F. de Castelnau, French Consul at the Cape, who described them, rather inadequately, in 1861. In 1909 Mr. R.B. Woosnam visited the same area. Although Woosnam was searching for birds he made a collection of fishes along the Thama-lakane River for the British Museum. In 1930 the same area was visited by two American expeditions, the de Schauensee Expedition and the Vernay-Lang Kalahari Expedition. Fishes collected by these expeditions were taken back to America for study and description. This all resulted in a certain amount of confusion regarding the taxonomy of the fishes of the Lake Ngami - Okavango Swamp area. Mr. Gaigher's collection, prepared by an experienced fish biologist, is proving most valuable as a check on the nomenclature in use and the validity of some of the doubtful species.

A study is being made of the fishes of the dolomite sink holes and springs in Southern Africa. Although not many species are involved it is interesting to note that the same widely distributed Tilapia sparrmanii and Hemihaplochromis philander, or described subspecies, occur in all of them except the large sink hole near Sinoia, Rhodesia, which contains exotic Carassius auratus, the common goldfish, which was introduced some 40 years ago. The "Wondergat" near Mafeking was visited in October for the purpose of obtaining further material and data. This sink hole is of particular interest as it has been thoroughly explored by skin divers. Contrary to conditions in the Sinoia sink hole in which the water temperature is isothermal at 24°C to a depth of some 90 meters, a distinct seasonal thermocline develops in the Wondergat at a depth of about 18 meters, the autumn overturn being accompanied by an inversion of visibility when the bottom waters, usually crystal clear, become turbid with what appears to be some algal bloom. Another surprising piece of information supplied by Mr. J. van der Walt is that night divers encounter Clarias gariepinus at depths of as much as 42 meters. The Wondergat, apart from the four fish species Clarias gariepinus, Tilapia sparrmanii, Hemihaplochromis philander and the exotic Carassius auratus, is inhabited by the freshwater shrimp, Caradina.



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