
Book Reviews

Mammalian Taxonomy

Classification of Southern African Mammals by J.A.J. Meester, I.L. Rautenbach, N.J. Dippenaar and C.M. Baker. 1986. *Transvaal Museum Monograph* No 5, Transvaal Museum, Pretoria. Pp. 359. Price R44,80 (including GST).

A number of important publications have appeared over the last thirty years dealing with the classification of southern African mammals. These were indeed milestones in a road that appears to have no end, for every year sees new advances in our knowledge of the relationships of our mammals. The present generation of taxonomists has the advantage of being able to build on what has already been written and of having access to new techniques developed within recent years in the fields of genetics, electrophoretic analysis of serum proteins and blood cell enzymes, all of which are invaluable tools in the understanding of relationship. No doubt other techniques remain to be developed and applied in the years to come.

Within the 30-year period several important publications appeared including Roberts' (1951) *The Mammals of South Africa* and Ellerman, Morrison-Scott & Hayman's (1953) *Southern African Mammals 1758 to 1951: a reclassification*. Those among other works did a great service in stimulating further research on our mammals and, by highlighting the weakness in our knowledge, actuated the obtaining of new material and data by the initiation of regional surveys over the years from about 1960 onwards.

By 1971 there appeared the obvious necessity to review the work done over the previous twenty years, to update this and consolidate it into a convenient form. Following a colloquium in Brussels in 1964, the Smithsonian Institution, Washington, D.C. agreed to sponsor a revised classification which appeared over the years 1971 to 1977 in the form of a loose leaf publication edited under the direction of J. Meester and H.W. Setzer, *The Mammals of Africa: an identification manual*. This in its turn became the basis of mammalian classification and at the same time acted as a catalyst in stimulating an increase in research on southern African mammals.

The ten years that have elapsed since the last sections of this publication appeared have been a most productive time in the history of mammalian research by South African and overseas biologists. It was manifest that the time was ripe for yet another review of progress in the classification of our mammals. This challenge has been accepted by the four authors of the work under review (Professor J. Meester and Mrs C.M. Baker of the University of Natal, Durban and Dr. I.L. Rautenbach and Dr. N.J. Dippenaar of the Transvaal Museum, Pretoria) and has resulted in yet another major step forward in our better understanding of the subject.

Covering 331 extant species known to occur in southern Africa south of the Cunene/Zambezi rivers the text includes in addition the two species which have become extinct within historical times, the quagga and blue antelope. The status of each of the 15 orders represented in the area is commented upon and keys provided to the 47 families, 182 genera and 333 species included. Each genus has a full list of

synonymy giving the reference to the original description, a pattern followed for the species as well and such subspecies as the authors, from their experience, are prepared to accept. In other cases where there is doubt of their validity, a full list of those described from the area is given. The authors name and date of the original description is given for all genera, species and subspecies listed as well as a reference to and in the case of the species the English and Afrikaans colloquial names. The geographical distribution of each species is given in broad terms for the area, together with a list of extralimital countries in which it is known to occur.

Where southern African species may be conspecific with others occurring further north the possibility is commented upon giving the viewpoint of authors on the issue with due reference.

A list of selected references is given in an eight-page bibliography and a very comprehensive index provided.

Obviously the proof reading has been most diligently carried out, a process that is more difficult in a work of this sort than in a straight text for such errors as can be found are trivial. The layout of the text and choice of typefaces makes the work very easy to use and is a tribute to the supervision of Dr N.J. Dippenaar of the Editorial Department of the Transvaal Museum and to the printers, CTP Book Printers of Cape Town.

It may be a surprise to some readers to find the orders Lagomorpha, the hares and rabbits, and the Macroscelidea, the elephant shrews, which is now given ordinal rank, relegated to the end of the text. In the past the elephant shrews have been considered as insectivores, the hares and rabbits being placed in close relationship to the rodents. This follows from recent investigations which suggest that, in spite of their apparent morphological differences, the two are more closely related to each other than to the Insectivora or any other group and their fossil history is so fragmentary as to raise doubts as to their relationship of either to other orders.

Following modern thought the Otariidae, the fur seals, and the Phocidae, the true seals, are considered as families of the Carnivora rather than being dealt with, as in the past, as families of an order of their own, the Pinnipedia. This former treatment, while recognising their morphological differences, such as the possession of flippers instead of limbs and their other adaptations to a marine life, obscured the fact that they are carnivores and as such rightly belong to the order Carnivora in which they are now placed.

The authors exclude the Prince Edward Islands which, as an integral part of the Republic of South Africa, is indeed part of the area dealt with. While not adding greatly to the number of species dealt with it would at least have allowed for the inclusion of the Antarctic fur seal, *Arctocephalus gazella*, which breeds on Marion Island and the Weddell seal, *Leptonychotes weddellii* recorded in 1979 on this island.

Three introduced species that have become feral, the house mouse, the house rat and the Norwegian rat are included in the text and, although specifically excluded in the Introduction, it is a pity that the gray squirrel, the house cat, the fallow deer and the Himalayan tahr were not similarly included for they have an equal claim, now being feral, to be included. The reason given is that synonymies of these can be found in appropriate sources but these are not always immediately available to readers and it would have been convenient to have them. The same remark applies

to the domestic rabbit which has been feral on off-shore islands since the earliest days of settlement in the Cape.

The type of the finless porpoise, *Neophocaena phocaenoides* (Cuvier, 1829) which is included was purported to have come from the "Cape of Good Hope" but it has not since the time of its description, over 150 years ago, been recorded nearer to the Cape than the west coast of India and the Persian Gulf. There are several examples of early collectors pausing in their journeys back to Europe and taking the opportunity of labelling their collections as if from African ports or giving the impression in other ways of their origin from these localities. Since Allen (1923) and other authorities such as Best (1971) throw doubt on the type locality it would have been as well to remove this species from the list until material evidence of its occurrence in South African waters becomes available.

The silvery molarat, *Heliophobius argenteocinereus* has not so far been recorded south of the Zambezi River in Moçambique and has therefore no claim at the moment to inclusion in the list.

The use of colloquial names is a highly controversial issue, perhaps not so much in the mammalian field as in others. It is surprising to find the ground squirrel, *Xerus inauris* and the mountain ground squirrel, *X. princeps* referred to in Afrikaans as *meerkatte* a name that has carnivore connotations. If indeed they are referred to under this name in some part of the country it is high time writers were at pains to point out that they are indeed *eechorings* by the use of this name in place of *meerkatte*.

In spite of these minor criticisms the authors have brought right up to date our knowledge of the classification of our mammals and their excellent and authoritative publication provides a sound base applicable to any type of work on our mammals which will stand for many years to come. As such it should be possessed by everyone in any way interested in our mammalian fauna, whether they be professional or amateur.

Available from the Bookshop, Transvaal Museum, P O Box 413, Pretoria 0001, RSA.

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