

## DEVELOPMENT OF HERPETOLOGY IN ZAMBIA — HISTORY AND FUTURE PROSPECTS

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### HISTORICAL ASPECTS

Until recently, herpetology in Zambia has hardly ever been considered a biological discipline. The first attempts at studying the herpetofauna of Zambia were done by field workers who only had a peripheral interest in the subject and were themselves not trained herpetologists. The first serious work on the herpetofauna of Zambia was that of Pitman (1934), entitled "A check list of reptilia and amphibia occurring and believed to occur in Northern Rhodesia". Broadley (1971) discussed briefly several interesting earlier reports of herpetofauna of Zambia. His 1971 work however, was to form the foundation upon which future work and advances in the field of herpetology could be based. Some of the most interesting, earlier reports of the herpetofauna of Zambia included work by Vesey-FitzGerald (1958) — a review of Zambian snakes, Broadley and Pitman (1960) on snakes collected by H.J. Bredo in the Northern Province and Wilson (1965) on snakes of the Eastern Province of Zambia. All these studies have essentially been on taxonomy of Zambian reptiles and the level of knowledge of the herpetofauna then had not advanced beyond that of descriptive natural history.

This was all to change and in the late sixties, the research division of herpetology was founded at the Livingstone museum. However, the division had not gained a status of its own, i.e. executing research in herpetology, until a professional research officer (Assistant Keeper of Herpetology) was employed by the National Museum's Board in March 1975.

This officially marked the birth of herpetology as a biological discipline in Zambia. Since we pioneered the field of herpetology, lower vertebrate research in Zambia is only carried out at the Livingstone Museum. I and my research assistant, Anderson Muyundu, bear the burden of studying the herpetofauna of Zambia and the responsibility of collecting and documenting the herpetological heritage of the country. This is an insurmountable task indeed.

### PRESENT NEEDS

There is generally an urgent need in Southern Africa to train taxonomists. Many active taxonomists who have retired from active research have never been replaced. Technical aid for training of taxonomists must be forthcoming within the next decade otherwise progress in many research fields, including herpetology, cannot be expected.

The other most urgent issue is that of financial support for research scientists working in the so called less industrially developed countries (LDC). Our situation in the Livingstone Museum is worth noting. Since the beginning of the economic problems that Zambia has been facing, the division of herpetology has suffered considerably. We have been forced to abandon subscribing to herpetological and other scientific journals relevant to our research work because of the inflation caused by the weakening of the local currency, the kwacha, compared to sterling and the American dollar. This has caused us, after five to six years, to discontinue subscriptions to the *Journal of Herpetology*, *Herpetologica* and *Evolution*. Suffice it to say, these journals provided our only link with other herpetologists outside Zambia. Worse still, we have not been able to buy new books for the past two years. We have an updated check list of reptiles and amphibians of Zambia, with a bibliography of the Zambian herpetofauna (Simbotwe, 1986) ready to publish, but this cannot be printed because of lack of funds. We last went out to collect herpetological specimens seven years ago and yet there are areas in Zambia not hitherto collected by any herpetologist! I have in mind areas around Mwinilunga, Lake Bangweulu, Mweru Wantipa, Muchinga escarpment etc. Most important also is the rapid rate of development in the country which leaves behind great destruction to the environment. Exploitive development continues without regard for the natural heritage which is rapidly disappearing. It is apparent that to work in an as little known biological discipline as herpetology, one must not

only be knowledgeable in the subject but one must have in addition an interest. Besides many personal financial sacrifices in building up a paper research library, there is the problem of isolation in the absence of professionals in the same field of work. When working in Africa, a good library is a priority function of research. We would like the international herpetological community to understand our plight and to realize that a discipline-like herpetology does not feature in the official thinking of the developing countries in Africa (except perhaps South Africa). According to local funding agencies, reptiles and amphibians are considered non-commodity resources hence not on the priority list.

#### FUTURE PROSPECTS

Since the early seventies, herpetology in Zambia has advanced rapidly and the taxa are now relatively well known. Our research activities have produced good data and these we have been able to publish over the years (see list of publications). We also have under our care a wet collection of 3,000 plus specimens.

We have hoped however to do better, but because of financial problems, any form of field research has recently been abandoned. Attempts to secure funding within and outside Zambia have failed and yet we need for example only \$US3,000 to carry out a full season of research or undertake a collecting trip. Our duty is to study the herpetofauna of Zambia which is in fact part of the world heritage in itself. Hence it is also the responsibility of each and everyone of us in the field of herpetology to provide help in the best way we can. Perhaps together we can manage to influence the thinking of many people in developing countries and arouse in them a consciousness of their responsibilities towards ensuring a lasting future of natural resources in their countries. Without a noble effort of this kind, the prospects of advancement of the less known biological disciplines like herpetology will only be a distant dream. We count on the international herpetological community for urgent help. We have so far done well and it would be a great shame if our work comes to a halt merely because of the lack of research funds.

*Ed. Note:* Dr Malumo Simbotwe is Head of the Department of Natural History at the Livingstone Museum, the national museum in Zambia. His research interests are in the population and community ecology of reptiles, amphibians and birds. His Masters Degree research was carried out under Prof. W.E. Duellman (University of Kansas, Lawrence, U.S.A.) and Ph.D. under Prof. H. Heatwole (University of New England, Armidale, Australia). He has published in *Amphibia-Reptilia* and other journals, mainly in Africa but also in the U.S.A., and has been in contact with a few herpetologists in the U.K. One important article he has published is entitled "Southern Africa in need of taxonomists", whose title is self-explanatory, and he has written this article in the hope of helping the case of the Livingstone Museum to receive financial assistance in order to purchase much needed books and to subscribe to essential herpetological and other biological journals. He would particularly appreciate receiving any donated herpetological publications for the Museum. He is also very interested in participating actively at the first World Congress of Herpetology in the U.K. in 1989, but seeks sponsorship for this purpose.

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