

**FOSSIL LIZARDS (SQUAMATA, REPTILIA) FROM THE EARLY
PLEISTOCENE OF COOPER'S CAVE (SOUTH AFRICA): TAXONOMY
AND FURTHER IMPLICATIONS FOR HERPETOFAUNAL STUDIES OF
THE PLIO-PLEISTOCENE SITES FROM THE CRADLE OF
HUMANKIND**

By

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A thesis submitted to the Faculty of Science, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Doctor of Philosophy.

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DECLARATION

I declare that this thesis is my own, unaided work. It is submitted for the Degree of Doctor of Philosophy at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

Signature: _____

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ABSTRACT

South Africa is well known for its many, important fossil bearing deposits of Plio-Pleistocene age. Many of these sites contain abundant remains of extinct and extant animals including hominins. Non-herpetological fauna have been used to reconstruct important information about past environments and for chronological data. This study tried a different method; using herpefauna to establish past environments of Cooper's Cave. Herpetological fauna potentially have numerous advantages in their use for such questions, including typically limited ranging behaviors, and specific temperature requirements. Despite these advantages only a few studies have even mentioned the presence of squamate fauna in the fossil assemblages of these sites.

This study has demonstrated that herpefauna exists, in reasonable levels of abundance and with adequate preservation within the fossil record of the dolomitic region now known as the Cradle of Humankind. It has also demonstrated for the first time the presence of a relative abundance of herpefauna at numbers far greater than any previous study has recognized. The present study was however, handicapped in not being able to fully utilize the material at hand to interpret past environments, owing to the lack of comparative material needed to move beyond the family or generic level in most cases with any degree of confidence. However, Agamids and Pseudocordylids were described to generic level.

However, the many shortcomings that this work highlighted should not be seen as reason not to pursue the study of herpefauna, but to improve present comparative collections and collecting methods around the fossils themselves.

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