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ABSTRACT BOOK

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First Fossil record of the spitting Elapidae in the Cradle of Humankind (South Africa)

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There are currently 151 snake species in Southern Africa, distributed among 7 families, but little is known about their diversity and evolution during the past 23 million years. Snakes are poorly represented, even in the richly fossiliferous Plio-Pleistocene deposits in the Cradle of Humankind. This is especially true for the venomous snakes of the family Elapidae which comprises the cobras, rinkhals, mambas and African garter snakes because their remains are quite small. The Locus X Cave from Bolt's Farm Cave System in the Sterkfontein Valley (Cradle of Humankind World Heritage Site) yielded part of a snake maxilla carrying a complete fang, and this specimen was extracted from the cemented matrix (breccia) mainly by acid preparation in the Plio-Pleistocene Palaeontology section of the DNMNH. The present study shows that this fossil belongs to a spitting snake, today only known in elapids. It is currently impossible to report at specific level as only one piece of the fragmentary maxilla was discovered and there are no vertebrae associated with it, but it could belong either to rinkhals, represented in Southern Africa today by an endemic species *Hemachatus haemachatus* or to the *Afronaja* species. A well-established methodology exists in Europe for comparing fossil and extant osteological material of snakes in palaeontology as well as in archaeology, but this has not been the case in Southern Africa. This study indicates that it is now also possible in Southern Africa; the methodology is preliminary, however, and is yet to be developed. This sets the stage for a new approach to research – not only in palaeo-herpetology but also in herpetology in general.

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