

## Large palaeophiid and nigerophiid snakes from Paleogene Trans-Saharan Seaway deposits of Mali

Jacob A. McCartney, Eric M. Roberts, Leif Tapanila, and Maureen A. O'Leary

*Acta Palaeontologica Polonica* 63 (2), 2018: 207-220 doi:<https://doi.org/10.4202/app.00442.2017>

The Paleogene was a time of high diversity for snakes, and was characterized by some of the largest species known to have existed. Among these snakes were pan-Tethyan marine species of Nigerophiidae and Palaeophiidae. The latter family included the largest sea snake, *Palaeophis colossaeus*, known from the Trans-Saharan Seaway of Mali during the Eocene. This paper describes new material collected from Malian Trans-Saharan Seaway deposits, including additional material of *Palaeophis colossaeus*, a new, large species of nigerophiid, *Amananulam sanogoi* gen. et sp. nov., and a medium-sized snake of indeterminate affinities. The material provides new information on the intracolumnar variation of the vertebral column in *Palaeophis colossaeus*. We estimate the total length of each species by regression of vertebral measurements on body size. Both *Palaeophis colossaeus* and *Amananulam sanogoi* gen. et sp. nov. are the largest or among the largest members of their respective clades. The large size of Tethyan snakes may be indicative of higher temperatures in the tropics than are present today.

**Key words:** Serpentes, body size, Paleogene, Teberemt Formation, Tamaguelelt Formation, Tilemsi Valley, Gao Trench, Mali.


Jacob A. McCartney [[mccartneyj@geneseo.edu](mailto:mccartneyj@geneseo.edu)], Department of Biology, State University of New York College at Geneseo, Geneseo, New York, 14423, USA.


Eric M. Roberts [[eric.roberts@jcu.edu.au](mailto:eric.roberts@jcu.edu.au)], Department of Earth and Oceans, James Cook University, Townsville, Queensland, 4811 Australia. Leif Tapanila [[tapaleif@isu.edu](mailto:tapaleif@isu.edu)],

Department of Geosciences and Idaho Museum of Natural History, Idaho State University, Pocatello, Idaho, 83209, USA. Maureen A.

O'Leary [[maureen.oleary@stonybrook.edu](mailto:maureen.oleary@stonybrook.edu)], Department of Anatomical Sciences, Stony Brook University, Stony Brook, New York, 11794, USA.

Attribution License (for details please see [creativecommons.org](https://creativecommons.org)), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

 [Full text \(519.9 kB\)](#) |

 [Supplementary file \(85.9 kB\)](#)