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A new basal snake from the mid-Cretaceous of Morocco

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## 12 Abstract

13 Fossil snakes are relatively well represented in the Upper Cretaceous of northern Africa, with  
14 material known from Morocco, Sudan, Egypt, Libya, Algeria, and Niger. The Moroccan Kem  
15 Kem beds yield a particularly diverse snake assemblage, with Simoliophiidae, Madtsoiidae,  
16 ?Nigerophiidae and several unnamed taxa co-occurring. These fossils are important for our  
17 understanding of the early evolutionary history of snakes, and may shed light on the ecology  
18 and initial diversification of basal snakes. We describe a new taxon, *Norisophis begaa* gen. et  
19 sp. nov., from the Kem Kem beds of Begaa, in southeast Morocco. It is characterised by a  
20 marked interzygapophyseal constriction, parazygantral foramina, an incipient  
21 prezygapophyseal process, and an antero-posteriorly short centrum. Several characteristics  
22 shared with *Najash*, *Seismophis*, Madtsoiidae, and *Coniophis* suggest that *Norisophis* is a stem  
23 ophidian. *N. begaa* further increases the diversity and disparity of snakes within the Kem Kem  
24 beds, supporting the hypothesis that Africa was a mid-Cretaceous hotspot for snakes.

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26 Keywords: Cretaceous, Ophidia, Serpentes, Kem Kem, Morocco

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