Zootaxa 1042: 1–26 (2005)
www.mapress.com/zootaxa/

ISSN 1175-5326 (print edition)
ZOOTAXA
ISSN 1175-5334 (online edition)

1042

On the cranial morphology of *Elapomorphus, Phalotris and Apostolepis* (Serpentes: Colubridae), and its phylogenetic significance

CLARICE HOFSTADLER-DEIQUES[1] & THALES DE LEMA[2]

[1] *Universidade do Vale do Rio dos Sinos (UNISINOS), Centro de Ciências da Saúde, Av. Unisinos, 950, 93022-000, São Leopoldo, RS, Brazil (deiques@unisinos.br)*

[2] *Pontifícia Universidade Católica do Rio Grande do Sul, PUCRS, Laboratório de Herpetologia, Av. Ipiranga, 6681, 90619-900, Porto Alegre, RS, Brazil, crothales@pucrs.br*

Abstract

The skull of *Elapomorphus quinquelineatus* is described in detail and the phylogenetic relationships among the neotropical snakes *Apostolepis*, *Elapomorphus* and *Phalotris* are studied based on 17 skull characters and 3 external morphological characters. Representants of the subfamily Xenodontinae were included in this work for phylogenetic comparisons. The results indicate elapomorphine snakes form a clade supported by 3 synapomorphies, which, in turn, is closely related to representatives of the African Atractaspididae, this latter assemblage being supported by 9 synapomorphies. The revalidation of the name Elapomorphinae Jan 1862, as subfamily of the Colubridae is proposed.

Key words: South America, Elapomorphinae, skull, morphology, phylogeny

Introduction

The elapomorphines are part of an assemblage of colubrid snakes that comprises fossorial small species inhabiting the Cisandean South America through forested and open areas, from Amazonia and Caatinga to Cerrado and Pampas, and to northern and eastern Patagonia through Chaco. Besides the morphological adaptations to the fossorial life, they present some modifications as the great reduction of maxillary bones, with reductions of prediastemal teeth followed by two great deeply sulcated fangs, large Duvernoy's gland and tubular and reinforced skull.

Jan (1862) named Elapomorphinae for several fossorial snakes from Africa, Asia and South America as subfamily of the Calamaridae. Amaral (1930b) included the elapomorphines in the subfamily Boiginae (Colubridae), which the type genus is *Boiga* Fitzinger,

Accepted by S. Carranza: 29 Jun. 2005; published: 30 Aug. 2005