A new species of coralsnake (Micrurus: Elapidae) from southern Brazil

MARCOS DI-BERNARDO1†, MARCIO BORGES-MARTINS2 & NELSON JORGE DA SILVA, JR.3,4
1Laboratório de Herpetologia, Museu de Ciências e Tecnologia e Faculdade de Biociências, Pontifícia Universidade Católica do Rio Grande do Sul, Avenida Ipiranga, 6681, CEP 90619-900, Porto Alegre, RS – BRAZIL.
2Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul, Rua Dr. Salvador França, 1427, CEP 90690-000, Porto Alegre, RS – BRAZIL.
3Centro de Estudos e Pesquisas Biológicas and Mestrado em Ciências Ambientais e Saúde, Universidade Católica de Goiás, Avenida Universitária, 1440, Setor Universitário, CEP 74605-010, Goiânia, GO – BRAZIL. E-mail: herp@terra.com.br
4Corresponding author
† Deceased

Abstract

A new species of triadal coralsnake (Micrurus) is described from Rio Grande do Sul, Brazil. The new species differs from other Micrurus species in southern Brazil by the following characters: snout mostly black, head completely black, white gular region, triads with middle black ring 1.5 to 2 times longer than the external black rings, white rings shorter than the external black rings. The new species occurs sympatrically with M. altirostris and adds to the following known triadal species for the region: M. baliocoryphus, M. pyrrhocryptus, M. lemniscatus, and Micrurus decoratus. Its current range is restricted to Rio Grande do Sul but it may reach adjacent areas of Argentina and Paraguay.

Key words: Serpentes, Elapidae, Micrurus silviae, new species, Southern Brazil

Introduction

Coralsnakes (Serpentes: Elapidae) are generally arranged as Leptomicrurus Schmidt, Micruroides Schmidt, and Micrurus Wagler (Roze 1996; Silva & Sites 1999, 2001; Campbell & Lamar 2004). The genus Micrurus contains as many as 70 species, many of which are polytypic, but taxonomic boundaries are poorly defined in many of them. Phenetic groups can be recognized on the basis of body color pattern (rings); the monadal and triadal groups are recognized by many authors (Roze & Bernal-Carlo 1987; Campbell & Lamar 1989; Savage & Slowinski 1992; Slowinski 1995; Silva & Sites 1999, 2001). Recently Campbell & Lamar (2004) proposed four groups (based on phenetic differences): monadal (with 44 species, including M. pacaraimae Carvalho 2002, and M. tamaulipensis Lavin-Murcio & Dixon 2004), Central American triadal (with 2 species), South American triadal (with 20 species, including M. tricolor Hoge 1956), and the bicolored coralsnakes (with 4 species). This was also suggested in part by other authors that indicated evolutionary relationships (Roze & Bernal-Carlo 1987; Slowinski 1995).

Triadal coralsnakes are diagnosable by a combination of characters that include head coloration (dorsal, lateral and ventral views), ventral and subcaudal scales counts, and triad pattern (number and lengths of red, white and black rings) (Roze 1996; Silva & Sites 1999; Campbell & Lamar 1989, 2004). The Micrurus frontalis complex was used to designate the taxonomic arrangement of coralsnakes grouped into subspecies of Micrurus frontalis, which were elevated to full species by Roze (1996; M. diana and M. pyrrhocryptus) and Silva & Sites (1999; M. altirostris, M. baliocoryphus, M. brasiensis, and M. tricolor). Previously Strüssmann & Sazima (1993) also suggested the specific status of Micrurus tricolor. Silva & Sites (1999) described