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A new six-pored *Amphisbaena* (Squamata: Amphisbaenidae) from the coastal zone of northeast Brazil

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Abstract

We describe a new *Amphisbaena* from the Brazilian coastal zone at the municipalities of Guamaré and Macau, state of Rio Grande do Norte. The new species, *Amphisbaena littoralis* **sp. nov.**, is characterized by six precloacal pores, 252–264 body annuli, 30–34 tail annuli with autotomy on the 6th tail annuli, 20–22 dorsal and 21–24 ventral segments to the mid-body annulus.

Key words: Reptilia, Rio Grande do Norte, Fossorial, Amphisbaenians, Faunal rescue

Introduction

Amphisbaena Linnaeus comprises 103 species distributed to Central and South America (Pinna *et al.* 2010; Gomes & Maciel 2012). Currently 68 species of *Amphisbaena* are recognized in Brazil (Bernils & Costa 2012; Gomes & Maciel 2012), most of them described from regions previously unexplored (Rodrigues 1996; Vanzolini 1996; Rodrigues *et al.* 2003; Mott *et al.* 2009; Ribeiro *et al*. 2011). Recently, the Brazilian electrical sector has experienced a huge expansion (Tolmasquim 2012), which causes several environmental impacts, such as deforestation, habitat fragmentation and biodiversity loss (Junk & Mello 1990; Gomes & Maciel 2012). In this context, the high rate of amphisbaenid species described in Brazil is clearly related to the increasing number of faunal rescue operations due to the installation of water dams and transmission lines (Ribeiro *et al.* 2008; Strüssmann & Mott 2009; Mott *et al.* 2011; Gomes & Maciel 2012). In a recent survey in the coastal zone of the Rio Grande do Norte State, Brazil, as a part of the Environmental Impact Study of a faunal rescue, we obtained 13 specimens of a small six-pored *Amphisbaena*, which herein we described as a new taxon.

Material and methods

Specimens collected were deposited at the "Coleção Herpetológica da Universidade Regional do Cariri" (URCA-H; Crato, Ceará, Brazil). Specimens used for comparisons are listed in Appendix I. Museum acronyms of specimens examined are MZUSP (Museu de Zoologia da Universidade de São Paulo) and UFMT-R (Coleção Zoológica da Universidade Federal de Mato Grosso). Measurements were taken using a digital caliper (0.1 mm), except snout-vent length, taken with a flexible ruler to the nearest millimeter. Meristic data follows Gans & Alexander (1962) and for head scalation follows Pinna *et al*. (2010). Sex and maturity was determined by dissection and direct examination of the gonads, considering males to be adults if they had convoluted epididymides (Colli & Zamboni 1999). We determined of females to be adults by the presence of vitellogenic follicles (Colli & Zamboni 1999).

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provide opportunities to locate fossorial fauna, because underground animals emerge from the soil following such profound disturbances as earthwork, soil rooting, and flooding (Ribeiro *et al*. 2008; Strüssmann & Mott 2009; Mott *et al.* 2011).

The developing pressures for constructions of wind energy parks, steel industry and gas pipelines have been causing deforestation and soil removal of huge areas at the coast of Rio Grande do Norte State. Despite the need of sustainable energy development, the impact of the access and building constructions on the herpetofauna is often unknown, especially for fossorial reptiles (Ribeiro *et al*. 2008; Brito *et al.* 2012).

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APPENDIX I. Specimens examined.

Amphisbaena alba—URCA-H 337, Exu, Pernambuco, Brazil; URCA-H 355, Crato, Ceará, Brazil; URCA-H 2095, Curionópolis, Pará, Brazil; URCA-H 3383, Alto Alegre, Maranhão, Brazil; URCA-H 4737, Trairi, Ceará, Brazil; URCA-H 5884, Caldeirão Grande do Piauí, Piauí, Brazil.

Amphisbaena bolivica—MZUSP 82531, Santa Cruz, Bolivia.

Amphisbaena camura—MZUSP 6683, Taunay, Mato Grosso, Brazil; 7706, Porto Esperança, Mato Grosso do Sul, Brazil; MZUSP 1929, Corumbá, Mato Grosso do Sul, Brazil.

Amphisbaena fuliginosa amazonica—UFMT-R 6186, 6645, Aripuanã, Mato Grosso, Brazil.

Amphisbaena heathi - URCA-H 3434-3444; 3553-3592, Guamaré, Rio Grande do Norte, Brazil.

Amphisbaena heterozonata—MZUSP 5915-5916, La Plata, Buenos Aires, Argentina; MZUSP 13744-13746, Tucuman, San Miguel de Tucumán, Argentina.

Amphisbaena pretrei—URCA-H 11-12, Crato, Ceará, Brazil; URCA-H 1895, Barbalha, Ceará, Brazil; URCA-H 5684, Paracuru, Ceará, Brazil; URCA-H 3863, Quebrangulo, Alagoas, Brazil; URCA-H 6209, Lagoa dos Gatos, Pernambuco, Brazil.

Amphisbaena ignatiana—MZUSP 72616 (Holotype), MZUSP 72618-72619 (Paratypes), MZUSP 93480, Santo Inácio, Bahia, Brazil.

Amphisbaena lumbricalis—MZUSP 79433 (Holotype), UHE Xingó, Alagoas, Brazil; MZUSP 79431-79432 (Paratypes), UHE Xingó, Sergipe, Brazil.

Amphisbaena mertensi—MZUSP 42772, Ilha Solteira, São Paulo, Brazil; MZUSP 6521, São Manoel, São Paulo, Brazil; MZUSP 77067, Maracaí, São Paulo, Brazil; MZUSP 69852-69853, Alto Uruguaia, Mato Grosso, Brazil; MZUSP 82537, Anastácio, Mato Grosso do Sul, Brazil; MZUSP 95380, Itirapina, São Paulo, Brazil; MZUSP 87668-87669, Parque Nacional das Emas, Goiás, Brazil; MZUSP 7313, Campinas, São Paulo, Brazil; MZUSP 6648, Rancharia, São Paulo, Brazil; MZUSP 30718, Botucatu, São Paulo, Brazil.

Amphisbaena vermicularis—URCA-H 14-20, 3073, 6728-6730, Crato, Ceará, Brazil; URCA-H 342, 346, 1429, Exu, Pernambuco, Brazil; URCA-H 3972, Fortaleza, Ceará, Brazil.