

# First records of *Chthonerpeton arii* Cascon and Lima-Verde, 1994 (Amphibia: Gymnophiona: Typhlonectidae) out of the type locality

Adriano Oliveira Maciel<sup>1\*</sup>, Bruno Vilela de Moraes e Silva<sup>2,3</sup>, Filipe Augusto Cavalcanti do Nascimento<sup>2</sup>, Diva Maria Borges-Nojosa<sup>4</sup> and Daniel Cassiano Lima<sup>4</sup>

- 1 Museu Paraense Emílio Goeldi, Departamento de Zoologia. Avenida Perimetral, 1901, Terra Firme. CEP: 66077-530. Belém, Pará, Brazil.
  - 2 Universidade Federal de Alagoas, Museu de História Natural, Setor de Zoologia. Av. Aristeu de Andrade, 452, Farol. CEP: 57051-090. Maceió, Alagoas, Brazil.
  - 3 Universidade Federal de Goiás, Instituto de Ciências Biológicas (Bloco ICB IV), Programa de Pós-Graduação em Ecologia e Evolução, Campus II/ UFG. CEP: 74001-970. Goiânia, Goiás, Brazil.
  - 4 Programa de Pós-Graduação em Ecologia e Recursos Naturais, Departamento de Biologia, Universidade Federal do Ceará, Fortaleza, Ceará, Brazil.
- \* Corresponding author. E-mail: [aombiologo@yahoo.com.br](mailto:aombiologo@yahoo.com.br)

**ABSTRACT:** *Chthonerpeton arii* was described from a large series of specimens from Limoeiro do Norte municipality, state of Ceará, Brazil. Here we provide the first records of the species out of the type locality, in the state of Bahia, and in its border with the state of Pernambuco, Brazil. We also provide color photographs of a preserved specimen.

Typhlonectidae Taylor, 1968 is a family of Gymnophiona, which includes the aquatic and semiaquatic caecilians of South America (Taylor 1968). There are five recognized genera up till now, for which *Chthonerpeton* Peters, 1880 is the most speciose, with eight known species (Wilkinson and Nussbaum 2006).

*Chthonerpeton arii* Cascon and Lima-Verde, 1994 was described based on 60 specimens collected in the municipality of Limoeiro do Norte, state of Ceará, northeastern Brazil. Here, we report the first records of this species out of the type locality, in the state of Bahia and in its border with the state of Pernambuco, in the São Francisco river (Figure 1).

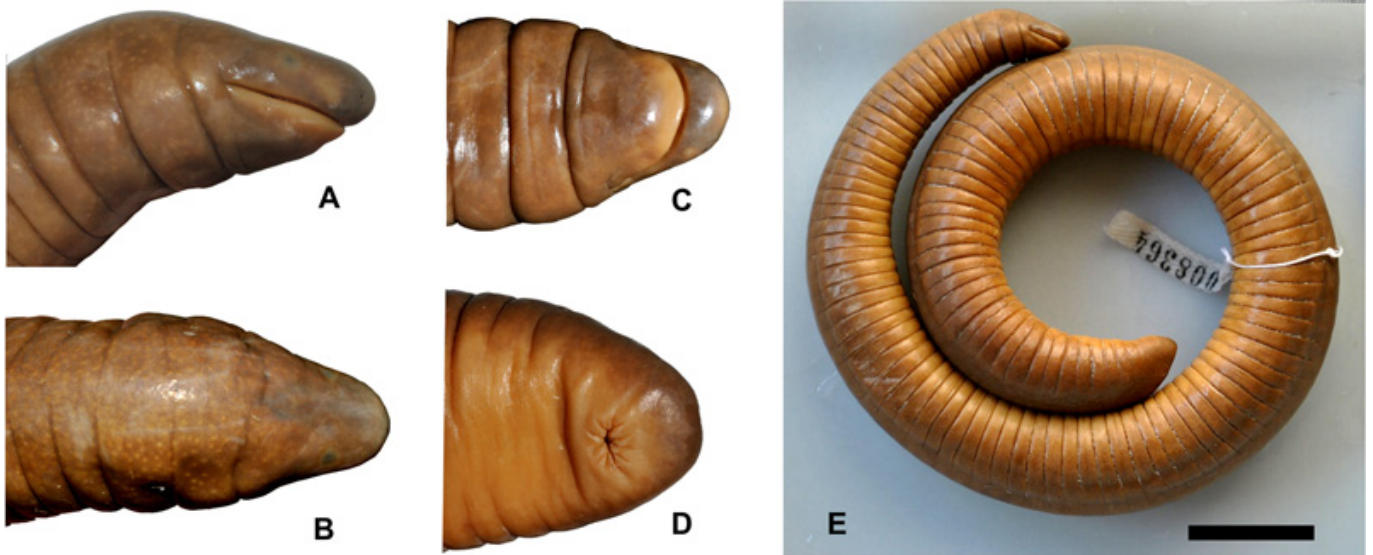
We found three specimens of *C. arii* in two Brazilian herpetological collections. One male specimen in the Universidade Federal do Ceará (UFC), Fortaleza, state of Ceará (UFC A2465; 282 mm total length; collected by J. S. Lima-Verde; September 1988) from the hydroelectric of Itaparica (current hydroelectric of Luiz Gonzaga), on the border between the states of Pernambuco and Bahia; and two female specimens in the Herpetological collection of the Museu de História Natural of Universidade Federal de Alagoas (MUFAL), Maceió, state of Alagoas (MUFAL 8363-64; respectively, 385 mm and 457 mm total length, Figure 2; collected by CHESF officials; July 1982) from a fish breeding station in the municipality of Paulo Afonso, state of Bahia. These two new localities are approximately 30 km apart from each other, and 440 km and 470 km, respectively, from the type locality. The species identification was made by comparison to the type series.

Specimens from Paulo Afonso are more robust than the other known specimens of *C. arii* but we do not have an explanation about, since we have few specimens from it locality to test geographic variation. *Chthonerpeton arii* is the species in the genus with the most septentrional

distribution in Brazil, occurring in water bodies in the Caatinga biome: temporary ponds at the type locality; in a river and in a fish breeding station in our new locality records. Collection of more specimens will be needed to improve the knowledge of it species.



**FIGURE 1.** Distribution of *Chthonerpeton arii*. Star = type locality, municipality of Limoeiro do Norte, state of Ceará, Brazil; upper circle = UHE Itaparica, border between states of Bahia and Pernambuco, Brazil (approx. 09° 08' S; 38° 18' W; 270 m elev.); lower circle = municipality of Paulo Afonso, state of Bahia, Brazil (approx. 09° 22' S; 38° 13' W; 235 m elev.).



**FIGURE 2.** Specimen of *Chthonerpeton arii* (MUFAL 8364). Lateral (A), dorsal (B), and ventral (C) view of the head; cloacal opening, and (D) entire specimen (scale = 3 cm). (Photos by Bruno Vilela).

**ACKNOWLEDGMENTS:** We are grateful to Gabriel Skuk (in memoriam) who called us attention about these specimens.

**LITERATURE CITED**

Cascon, P. and J.S. Lima-Verde. 1994. Uma nova espécie de *Chthonerpeton* do nordeste brasileiro (Amphibia, Gymnophiona, Typhlonectidae). *Revista Brasileira de Biologia* 54(4): 549-553.  
Silva, H.R., M.C. de Britto-Pereira and U. Caramaschi. 2003. A new species of *Chthonerpeton* (Amphibia: Gymnophiona: Typhlonectidae) from Bahia, Brazil. *Zootaxa* 381: 1-11.  
Taylor, E.H. 1968. *The Caecilians of the World*. A taxonomic review. University of Kansas Press. Lawrence, Kansas. 848 pp.

Wilkinson, M. and R.A. Nussbaum. 2006. Caecilian phylogeny and classification; pp. 39-78 In J. M. Exbrayat (Ed.). *Reproductive Biology and phylogeny of Gymnophiona (caecilians)*. Enfield: Science Publisher Inc.

RECEIVED: August 2012  
ACCEPTED: May 2013  
PUBLISHED ONLINE: August 2013  
EDITORIAL RESPONSIBILITY: Raúl Maneyro