

***Colobosauroides cearensis* Cunha, Lima-Verde and Lima, 1991 (Squamata, Gymnophthalmidae): new record for the Northeast of Brazil**

Aldenir Ferreira da Silva Neta¹, Tatiana Feitosa Quirino², Cícera Silvilene Leite Matias³

¹ Universidade Federal da Paraíba, Programa de Pós-Graduação em Ciências Biológicas- PPGCB (Zoologia). Via Expressa Padre Zé Jardim Cidade Universitária 58051001 - João Pessoa, PB – Brazil.

² Universidade Regional do Cariri (URCA), Programa de Pós-Graduação em Bioprospecção Molecular. Cel. Antônio Luis, Pimenta Street 1161, CEP 63.105-000 Crato, CE, Brazil.

³ Programa de Pós-graduação em Sistemática, Uso e Conservação da Biodiversidade, Departamento de Ciências Biológicas, Universidade Federal do Ceará, Campus Universitário Do Pici, CEP 60021970, Fortaleza, CE, Brazil

Locality— Seven individuals of *Colobosauroides cearensis* were found in a Caatinga region in the municipality of Mauriti (7°22'46.08"S; 38°38'47.87"W) state of Ceará. The first example was captured on the 14th of December of 2016 through the pitfall method. The area in which the specimens were captured is located within the drainage basin of Salgado river, with biome Caatinga prevailing alongside its extension, and the vegetation composed of Deciduous Thorn Woodland and semi-deciduous Tropical Rainforest (IPECE, 2015). Specimens were collected by A.F. Silva-Neta and C.S.L. Matias. The specimens were deposited in the Universidade do Cariri herpetology collection, categorised by numbers (URCA-H 11.454-11.459-11.464-11.467-11468-11.472-11.476).

Comments— According to Cunha *et al.* (1991) the lizard *Colobosauroides cearensis* (Fig. 1) is a species associated with an enclave of forests, holding records involving Baturité massif (Sítio Lorena, Mulungu municipality), establishing in peripheral areas of Fortaleza city (Sítio Batista Central, Parque Manibuna), Ceará (Cunha *et al.*, 1991; Borges-Nojosa and Caramaschi, 2003).

Studies have enlarged its distribution towards Piauí, in the Paquetá environmental park (03°58.828'S; 042°05.659'W), the municipality of Batalha (Silva *et al.*, 2007), characterised by typical formations of a transition between Cerrado and Caatinga, with the Cerrado field prevailing, with simultaneous presence of riparian woodlands along with the streams (Silva *et al.*, 2015).

Seven specimens were analysed, four females and three males, all the morphologic features and the meristic data were utilised for identifying the individuals. The sex identification of each sample

was performed through a ventral incision in order to observe the sex glands (Table 1).

Although the distribution of *Colobosauroides cearensis* is associated with forest (Borges-Nojosa and Caramaschi, 2003; Rodrigues, 2003), this study relates the occurrence in an area of Caatinga with open development abundant in leaf-layers. The spreading of the semi-arid regions triggered the woodlands extinction, resulting in the current Caatinga landscape and extinguishing the data that would reveal its linkage to the native forest (Rodrigues, 2003). This lizard may have gotten used to a different environment from the original, seeking shelter in a forest which could provide it with resources for its physiological processes (Rodrigues, 2003). Therefore, the occurrence of these species restricted to Caatinga region gives support to the vanish refugee theory (Vanzolini and Williams, 1981), however; the diversity and the distribution of this lizard remains unknown (Rodrigues *et al.*, 2003).

The current work spreads the distribution of *Colobosauroides cearensis* in the state of Ceará toward to the municipality of Mauriti (7°22'46.08"S; 38°38'47.87"O) around 356 km to the north in relation to the location of type-species in the Sítio



Figure 1. Live adult, male specimen of *Colobosauroides cearensis* (URCA 11.464) from Mauriti, Ceará (photo by Herivelto Oliveira).

Table 1. Morphological and meristic characters of the seven individuals of *C. cearensis* analysed. SVL = snout-vent length (mm), TL = tail length (mm), SL/IL = supralabials/infralabials, DSB = number of dorsal scales on the body, PCP = number of pre-cloacal plates, PCPo = number of pre-cloacal pores, CPo = number of cloacal pores, IL4F = interdigitalis number of lamellae of 4 finger, FP = femoral number of pores, RGE = row number of gular scales. Reference: Cunha *et al.* (1991).

URCA	SEX	SVL	TL	SL/IL	DSB	PCP	PCPo	CPo	IL4F	FP	RGE
11454	F	48.41	22.23	6/7	29	4	0	5	9	0	5
11459	F	41.43	25.55	6/7	30	4	0	5	9	0	5
11472	F	45.00	66.90	6/7	30	4	0	5	9	0	5
11476	F	41.90	59.98	6/7	30	4	0	5	9	0	5
11464	M	47.19	54.25	6/7	31	4	4	5	9	4	5
11467	M	43.99	60.83	6/7	30	4	4	5	9	4	5
11468	M	41.74	68.27	6/7	30	4	4	5	9	4	5
Ref.	-	-	-	6/7	30	4	0-F				
4-M	5	9	4	5							

Lorena, municipality of Mulungu, state of Ceará. It stretches to 534 Km southwest of Paquetá environmental park, Piauí, in relation to the municipality of Mauriti, thereby stretching the distribution of this species to the Northeastern region inward (Fig. 2).

Acknowledgements

We are grateful to the Coordenação de Aperfeiçoamento de Pessoal de Nível Superior (CA-

PES) for granting master's scholarships to Silva-Neta, A. F. scientific initiation fellowship to CSLM (121944/2017-4). To Oliveira, H. F. for his field assistance and photography. The Instituto Chico Mendes de Conservação da Biodiversidade (ICM-Bio) for collecting permits.

Literature cited

- Borges-Leite, M.J.; Rodrigues, J.F.M. & Borges-Nojosa, D.M. 2014. Herpetofauna of a coastal region of northeastern Brazil. *Herpetology Notes* 7: 405-413.
- Borges-Nojosa, D.M. & Caramaschi, U. 2003. Composição e Análise Comparativa da Diversidade e das Afinidades Biogeográficas dos Lagartos e Anfisbenídeos (Squamata) dos Brejos Nordestinos: 181-236. In: Leal, I.R.; Tabarelli, M. & Silva, J.M.C. (eds.), *Ecologia e conservação da Caatinga*. Editora Universitária, Universidade Federal de Pernambuco, Recife, Brasil.
- Cunha, O.R.; Lima-Verde, J.S. & Lima, A.C.M. 1991. Novo Gênero e Espécie de Lagarto do Estado do Ceará (Lacertilia: Teiidae). *Boletim do Museu Paraense Emílio Goeldi* 7: 2.
- Rodrigues, M.T. 2003. Herpetofauna da Caatinga: 181-236. En: Leal, IR; Tabarelli, M & SILVA, J.M.C. (ed.), *Ecologia e conservação da Caatinga*. Editora Universitária, Universidade Federal de Pernambuco, Recife, Brasil.
- Silva, M.B.; Carvalho, L.S. & Rodrigues, V. 2015. Reptiles in na ecotonal área in northern state of Piauí, Brazil. *Boletim do Museu de Biologia Mello Leitão* 37:4.
- Silva, M.B.; Rocha, W.; Rodrigues, V. & Barreto, L. 2007. *Colobosauroides cearensis*. *Herpetological Review* 38: 351.
- Vanzolini, P.E. & Williams, E.E. 1981. The vanishing refuge: a mechanism for ecogeographic speciation. *Papeis Avulsos de Zoologia* 34: 251-255.

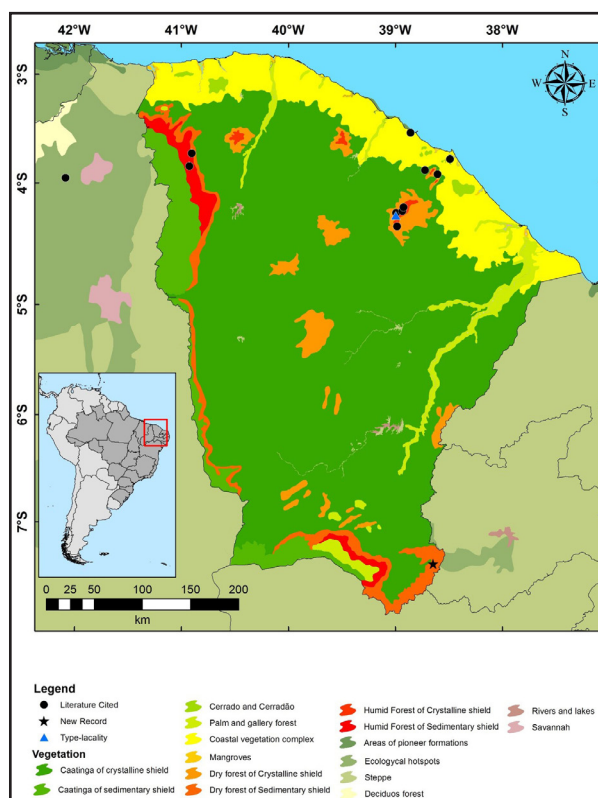


Figure 2. Geographic distribution of *Colobosauroides cearensis*. Black circles represent the previous records (Borges-Nojosa and Caramaschi, 2003; Silva *et al.*, 2007; Borges-Leite *et al.*, 2014), the blue triangle represents the type-locality (Cunha *et al.*, 1991) and the black star shows the new record, Mauriti, Ceará (Map by Herivelto Oliveira).

Recibida: 23 Enero 2019
 Revisada: 08 Marzo 2019
 Aceptada: 19 Marzo 2019
 Editor Asociado: A. S. Quinteros

doi: 10.31017/CdH.2019.(2019-006)

© 2019 por los autores, licencia otorgada a la Asociación Herpetológica Argentina. Este artículo es de acceso abierto y distribuido bajo los términos y condiciones de una licencia Atribución-No Comercial 2.5 Argentina de Creative Commons. Para ver una copia de esta licencia, visite <http://creativecommons.org/licenses/by-nc/2.5/ar/>

