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NOTES ON GEOGRAPHIC DISTRIBUTION

Amphibia, Anura, Brachycephalidae, *Ischnocnema oea* (Heyer, 1984): Distribution extension, new state record and geographic distribution map

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ABSTRACT: We provide the record of *Ischnocnema oea* in the municipality of Muriaé, state of Minas Gerais, southeastern Brazil. This is the first record of this species in Minas Gerais, extending the know distribution of *I. oea* around 227 km southwest from its type locality.

The genus *Ischnocnema* Reinhardt and Lütken 1862 currently comprises 34 species (Canedo and Pimenta 2010; Canedo et al. 2010), and several of them are members of the leaf litter frog communities of Atlantic Forest remnants (Martins *et al.* 2010).

Ischnocnema oea (Heyer 1984) (Figure 1) was described from the municipality of Santa Teresa, state of Espírito Santo, southeastern Brazil and until recently known only from the type locality. Silva-Soares *et al*. (2009) reported a specimen from Macaé de Cima, municipality of Nova Friburgo, state of Rio de Janeiro, extending the species distribution *ca.* 335 km southwards. Almeida-Gomes *et al*. (2010) reported *I. oea* from a locality *ca*. 120 km north of Macaé de Cima, at the municipality of Cambuci, state of Rio de Janeiro, filling the distribution gap between previous records. Later, Tonini *et al.* (2010) reported the ocurrence of *I. oea* for Reserva Biológica de Duas Bocas, state of Espirito Santo, 40 km southeast from the type locality.

In the present paper we report a new record for *I. oea* and provide a map of the current known distribution of this species based on published data and specimens collected by the authors. Voucher specimens (Figure 1) are deposited at the herpetological collection of Museu de Zoologia João Moojen, Universidade Federal de Viçosa (MZUFV), Viçosa, Minas Gerais, Brazil, under the labels MZUFV 8894 - 8900 (Collection permits 17696-1, 17152-1 and 17310-1).

During a field expedition on 13 September 2008 in a forest fragment at the locality of Usina da Fumaça, municipality of Muriaé, state of Minas Gerais (42°26'48" S, 21°00'49" W), five males and two females of *I. oea* were collected on the forest floor. This is the first record of this species in the state of Minas Gerais. The record of *I. oea* in Muriaé extends its geographic distribution in approximately 227 km southwest from the type locality (Figure 2). These specimens were previously referred as

FIGURE 1. *Ischnocnema oea* from Usina da Fumaça, Muriaé, Minas Gerais. (A) MZUFV 8894 (SVL 25.18) and (B) MZUFV 8895 (SVL 22.52) (both females) Photos: Diego J. Santana.

Ischnocnema sp. by Santana *et al*. (2010), who mentioned that this species was found only inside forest fragments. A posterior analysis of the voucher specimens revealed some diagnostic characters, such as the indistinctly mottled posterior surface of thighs and the dark stripe on the outer surface of tibiae. The specimens were dissected, revealing that two of them are females (SVL 22.52 – 25.18 mm) with granular ovaries, possibly mature or in maturing process; four are reproductive adult males (SVL 16.85 – 17.88 mm) with evident testicles, and one is a juvenile of undetermined sex (SVL 13.7 mm). Moreover, the specimens' size agree to the species size range reported by Heyer (1984). This combination of characters confirmed the identity of these specimens.

Pimenta and Peixoto (2004) categorized *Ischnocnema oea* as "Near Threatened" since at that time its known extent of occurrence was less than 5,000 km^2. Later, Machado *et al*. (2005) suggested *I. oea* as a "Data Deficient" species. However, both classifications were done before the records of Silva-Soares *et al*. (2009) and Almeida-Gomes *et al*. (2010). Based on their records and on data presented here, we suggest that new populations of *I. oea* might be found when the sampling effort is increased, and that this species must be kept under the "Data Deficient" classification, since the knowledge on its geographic range is still increasing.

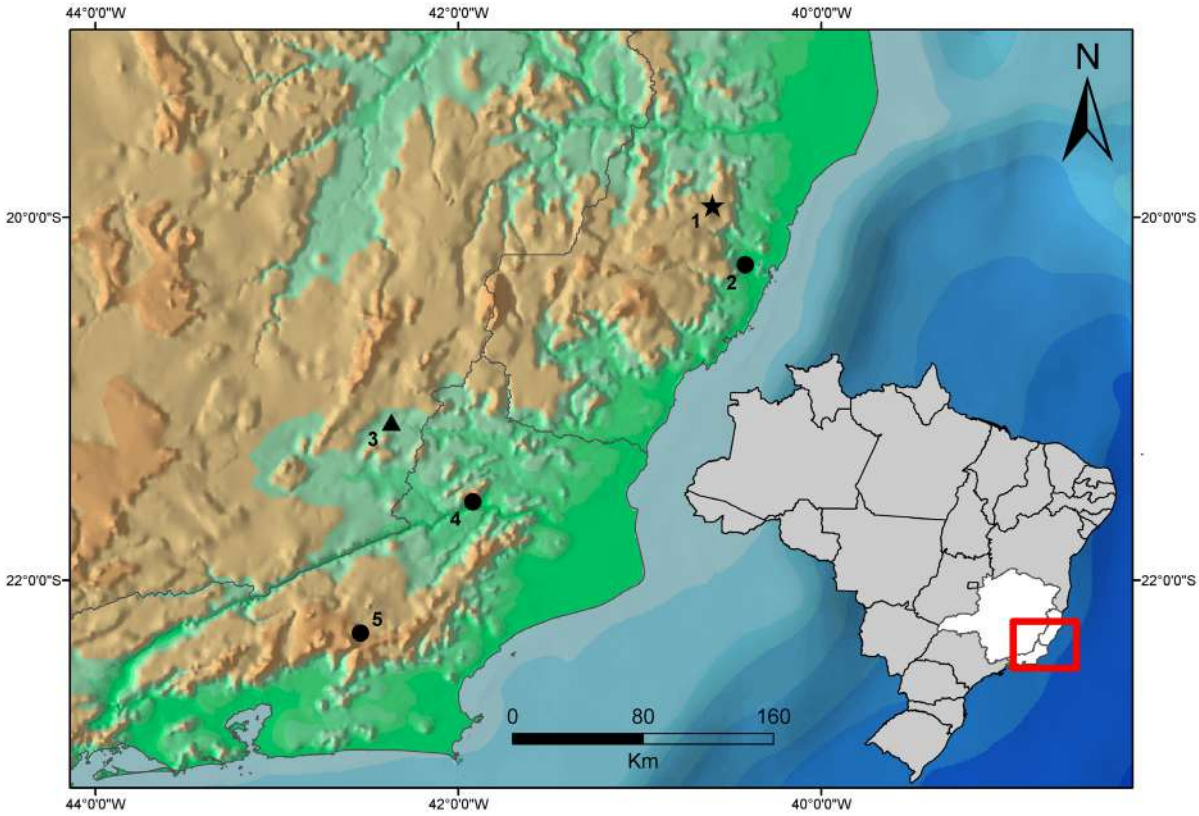

Figure 2. Geographic distribution of *Ischnocnema oea*. 1 = Santa Teresa (type locality) and 2 = Reserva Biológica de Duas Bocas, state of Espírito Santo (literature record); 3 = Muriaé, state of Minas Gerais (new record); 4 = Nova Friburgo and 5 = Cambuci, state of Rio de Janeiro (literature record).

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Literature Cited

Almeida-Gomes, M., M. Almeida-Santos, P. Goyannes-Araújo, V.N.T. Borges-Júnior, D. Vrcibradic, C.C. Siqueira, C.V. Ariani, A.S. Dias, V.V. Souza, R.R. Pinto, M. Van Sluys and C.F.D. Rocha. 2010. Anurofauna of an Atlantic Rainforest fragment and its surroundings in Northern Rio de Janeiro State, Brazil. *Brazilian Journal of Biology* 70(3): 871-877.

Canedo, C., and B.V.S. Pimenta 2010. New species of *Ischnocnema* (Anura, Brachycephalidae) from the Atlantic Rainforest of the State of Espírito Santo, Brazil. *South American Journal of Herpetology*. 5(3) 199-206.

Canedo, C., B.V.S. Pimenta, F.S.F. Leite and U. Caramaschi. 2010. New species of *Ischnocnema* (Anura, Brachycephalidae) from the state of Minas Gerais, Southeastern Brazil, with comments on the *I. verrucosa* species series arrangement. *Copeia*. 2010(4): 629-634.

Heyer, W.R. 1984. Variation, systematics, and zoogeography of *Eleutherodactylus guentheri* and closely related species (Amphibia: Anura: Leptodactylidae). *Smithsonian Contributions to Zoology* 402: 1-42.

Martins, A.C.J.S., M.C. Kiefer, C.C. Siqueira, M. Van Sluys, V.A. Menezes and C.F.D. Rocha. 2010. Ecology of *Ischnocnema parva* (Anura: Brachycephalidae) at the Atlantic Rainforest of Serra da Concórdia, State of Rio de Janeiro, Brazil. *Zoologia* 27(2): 201-208.

Machado, A.B.M., C.S. Martins and G.M. Drummond. 2005. *Lista da fauna brasileira ameaçada de extinção: incluindo as listas das espécies quase ameaçadas e deficientes em dados. Belo Horizonte*. Fundação Biodiversitas: Belo Horizonte. 157 p.

Pimenta, B. and O.L., Peixoto. 2004. *Ischnocnema oea In* IUCN 2010. *IUCN Red List of Threatened Species. Version 2010.4*. Electronic Database accessible at http://www.iucnredlist.org/. Captured on 11 December 2010.

Santana, D.J., V.A. São-Pedro, P.S. Hote, H.M. Roberti, A.C. Sant'Anna, C.A.F. Andrade and R.N. Feio. 2010. Anurans in the region of the High Muriaé River, state of Minas Gerais, Brazil. *Herpetology Notes*. 3: 001-010.

Silva-Soares, T., R.B. Ferreira and P.N. Costa. 2009. Geographic distribution: *Ischnocnema oea*. *Herpetological Review* 40(1): 108-109.

Tonini, J.F.R., L.M. Carão, I.S. Pinto, J.L. Gaparini, Y.L.R. Leite, and L.P. Costa. Non-volant tetrapods from Reserva Biológica de Duas Bocas, State of Espírito Santo, Southeastern Brazil. *Biota Neotropica* 10(3): 339-351.

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