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A new diminutive frog species of *Adelophryne* (Amphibia: Anura: Eleutherodactylidae) from the Atlantic Forest, southeastern Brazil

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Abstract

The genus *Adelophryne* is composed of diminutive frogs occurring in northern Amazonia and the Atlantic Forest. Herein we describe a new species of *Adelophryne* found in the leaf litter of primary and secondary forests in the mountainous region of Espírito Santo state, southeastern Brazil. The new species is characterized by its small body size, two phalanges in the finger IV, and a glandular ridge line that runs from the posterior part of eye to the insertion of the forelimb. This species is sensitive to edge effect and conversion of native forest into coffee and *Eucalyptus* plantations and may be listed as Endangered (EN) under B1ab(iii) criteria of the IUCN Red List.

Key words: Biodiversity, Conservation, Espírito Santo, Morphology, Natural history, Santa Teresa, Taxonomy

Resumo

O gênero *Adelophryne* é composto por espécies diminutas que ocorrem no norte da Amazônia e na Mata Atlântica. Descrevemos uma nova espécie de *Adelophryne* encontrada na serrapilheira de florestas primárias e secundárias na região montanhosa do estado do Espírito Santo, sudeste do Brasil. A nova espécie é caracterizada pelo pequeno tamanho, duas falanges no dedo IV e uma linha glandular rígida que vai da parte posterior do olho em direção aos membros anteriores. Esta espécie apresentou sensibilidade aos efeitos de borda e a conversão das florestas em plantações de café e *Eucalyptus* e pode ser classificada como Em Perigo pelos critérios B1ab(iii) Lista Vermelha da IUCN.

Palavra-chave: Biodiversidade, Conservação, Espírito Santo, Morfologia, História natural, Santa Teresa, Taxonomia.

Introduction

The current massive species decline generates pressure on biologists to document and describe the world's biodiversity (Barnosky *et al.* 2011). This is particularly critical in the tropics, which host the bulk of biodiversity on Earth (Gaston & Williams 1996) but still remains largely under-documented (Haddad *et al.* 2013). The Atlantic Forest of Brazil provides a dramatic contrast, harboring a large number of endemic species in small-isolated forest patches (Becker *et al.* 2007). Despite being flagged among the “biodiversity hotspots” (Myers *et al.* 2000), this biome is still being degraded at a fast/steady pace (Ribeiro *et al.* 2009). In the last decades many studies have revealed a large underestimation of amphibian species occurring in the Atlantic Forest (Giam *et al.* 2012) and previously unrecognized lineages sometimes >10 millions of years old (e.g. Fouquet *et al.* 2012).

Adelophryne Hoogmoed & Lescure, 1984 is a genus of small-sized, agile, cryptic, and secretive frog species

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APPENDIX

Specimens examined:

- Adelophryne adiaastola*—Ecuador: **Pastaza**: Kurintza (División de Herpetología, Museo Ecuatoriano de Ciencias Naturales, Quito, Ecuador) DHMECN 4378.
- Adelophryne baturitensis*—Brazil: **Ceará**: Guaramiranga (Célio F.B. Haddad Collection, Universidade Estadual Paulista, Rio Claro, São Paulo, Brasil) CFBH 20469–76; Tiangua CFBH 24554–67; Viçosa do Ceará CFBH 24579–85.
- Adelophryne glandulata* (under the name *Adelophryne* cf. *pachydactyla*)—Brazil: **Espírito Santo**: Santa Teresa: Estação Biológica de Santa Lúcia, (Museu Nacional do Rio de Janeiro, Rio de Janeiro, Brasil) MNRJ 28344, 34932.
- Adelophryne maranguapensis*—Brazil: **Ceará**: Maranguape: CFBH 24515–27.
- Adelophryne meridionalis*—Brazil: **Minas Gerais**: Juiz de Fora, Parque Municipal de Lajinha, (Museu de Zoologia João Moojen, Universidade Federal de Viçosa, Viçosa, Minas Gerais, Brasil) MZUFV 12625.
- Adelophryne mucronatus*—Brazil: **Bahia**: Una CFBH 23672, RPPN Nova Angélica, (Museu de Zoologia da Universidade Estadual de Campinas “Adão José Cardoso”, Campinas, São Paulo, Brasil) ZUEC 16169,12139,16626, (Museu de Zoologia da Universidade Estadual de Santa Cruz, Ilhéus, Bahia, Brasil) MZUESC 9091–96.
- Adelophryne pachydactyla*—Brazil: **Bahia**: Itacaré (RPPN Capitão) ZUEC 18212–13 and Una (RPPN Nova Angélica) ZUEC 17825.