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A new species of *Amazophrynella* (Anura:Bufonidae) from the southwestern part of the Brazilian Guiana Shield

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Abstract

Amazophrynella is a genus of the family Bufonidae, currently represented by three species. The type species of the genus, *Amazophrynella minuta*, however, is a complex of species occurring throughout the Amazonian biome. This group remains problematic taxonomically; the difficulty lays principally in the lack of diagnostic characters in the original description of *A. minuta*, the lack of molecular data and refined taxonomic comparison of individuals through its wide distribution. We describe a new species of the genus *Amazophrynella*, distributed in the southwestern part of the Guiana Shield of Brazil based on a series of morphological and molecular characters. The new species differs from others of the genus by presenting a slightly truncated triangular snout, ventral texture covered by many fine granules, white belly covered with black spots and by fifteen molecular autapomorphies in the 16S rDNA fragment. Uncorrected p-distances of a fragment of the 16S mitochondrial rDNA gene revealed high divergence among other *Amazophrynella* species (9%–14%). Additionally we provide a new diagnosis of topotypic material of *Amazophrynella minuta* including molecular data. Our results show the existence of a subestimated diversity in the genus *Amazophrynella*.

Key words: Amphibian, Anura, Bufonidae, *Amazophrynella*, Brazil

Resumo

Amazophrynella é um gênero da família Bufonidae, atualmente representado por três espécies. *Amazophrynella minuta* é considerada como um complexo de espécies que se distribui por todo o bioma amazônico. Este grupo permanece taxonomicamente problemático, sendo as principais dificuldades a ausência de caracteres diagnósticos na descrição original de *A. minuta*, a inexistência de dados moleculares e comparações taxonômicas detalhadas dos indivíduos, através de sua extensa distribuição. Descrevemos uma nova espécie do gênero *Amazophrynella*, distribuída no sudoeste da região do escudo da Guiana baseados em caracteres morfológicos e moleculares. A nova espécie difere de outras do gênero por apresentar um focinho triangular ligeiramente truncado, textura ventral coberto por muitos grânulos finos, barriga branca coberta por manchas pretas e quinze automorfias moleculares no fragmento do 16S rDNA. As distâncias não corrigidas (p - distâncias) no fragmento 16S rDNA revelaram uma alta divergência entre as outras espécies de *Amazophrynella* (9%–14%). Adicionalmente providenciamos uma nova diagnose do material topotípico de *Amazophrynella minuta*, incluindo dados moleculares. Nossos resultados mostram a existência de uma diversidade subestimada dentro do gênero *Amazophrynella*.

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APPENDIX 1. Specimens examined.

- Amazophrynella bokermanni*—INPA-H 31861, INPA-H 31864, INPA-H 31863, INPA-H 31862, INPA-H 31865, municipality of Juruti, Pará State, Brazil (50 km from type locality).
- Amazophrynella vote*—INPA-H 12256, 12331, 12255, 12342, 12343, 12366, 12267, Cachoerinha, Madeira River, municipality of Manicoré, INPA-H 12326, Lago do Açaí, Aripuanã River, municipality of Novo Aripuanã, INPA-H 21558, Parque Estadual do Guariba, municipality of Manicoré, INPA-H 27412, 27417-27419, 27421-27423, 27425-27426, Parque Nacional Nascentes do Lago Jari, Tapauá municipality, Amazonas State, Brazil. UFMT-A 11138, Fazenda São Nicolau, municipality of Cotriguaçu, Mato Grosso State, Brazil.
- Amazophrynella minuta*—INPA-H 32725, INPA-H 32723, INPA-H 32729, INPA-H32730, INPA-H32736, INPA-H32731 (females) and INPA-H 32724, INPA-H32728, INPA-H 32733, INPA-H 32735, INPA-H 32722, INPA-H 32738, INPA-H 32737, INPA-H 32739. INPA-H 32720, INPA-H 32732, INPA-H 32726, INPA-H 32730, INPA-H 32740, INPA-H 32734, INPA-H 32721 (males), Taracuá, right bank of the Uaupés River, Amazonas State, Brazil.

ONLINE SUPPLEMENT 1. Raw measurements of the 57 individuals of *Amazophrynella manaos* sp. nov. examined in this study.