

Cranial morphology and karyotypic analysis of *Ceratophrys joazeirensis* (Anura: Ceratophryidae, Ceratophryinae): taxonomic considerations

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Abstract

The frog species *Ceratophrys joazeirensis* Mercadal, 1986 is only known from the Caatinga (semi-arid savanna) and, until recently, from the type locality of Juazeiro, State of Bahia, Brazil. It has now also been found in the States of Paraíba and Rio Grande do Norte, in environments of hyperxerophytic Caatinga. Cytogenetic and comparative analysis of the cranial morphology of *C. joazeirensis* and *C. aurita* (Raddi, 1823) were undertaken. The karyotype of the species is also shown for the first time. The results show important differences in the cranial morphology between *C. joazeirensis* (8n) and *C. aurita* (8n), species whose areas of distribution (Caatinga and Northeast Atlantic forest, respectively) are contiguous. The chromosomes of *C. joazeirensis* show similar size and morphology to the ones of *C. aurita* (*C. dorsata*), *C. ornata* Bell, 1843 (8n) and *C. cranwelli* Barrio, 1980 (2n). Such data would be in agreement with the opinion of some authors who consider these species to constitute a monophyletic group.

Key words: *Ceratophrys joazeirensis*, *Ceratophrys aurita*, cranial morphology, karyotype, osteology, taxonomy

Introduction

The genus *Ceratophrys* Wied-Neuwied, 1824 is currently represented by eight species distributed throughout South America. These are *Ceratophrys cornuta* (Linnaeus, 1758), *C. aurita* (Raddi, 1823), *C. ornata* (Bell, 1843), *C. stolzmanni* Steindachner, 1882, *C.*