

**CYTOGENETIC CHARACTERIZATION IN TWO *GEOPHAGUS BRASILIENSIS* (CICHLIDAE, PERCIFORMES)  
ALLOPATRIC POPULATIONS FROM THE GRANDE RIVER BASIN**

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Tema/Meio de Apresentação: cytogenetic, conservatism, cichlids/Poster.

*Geophagus brasiliensis* is a fairly common fish prevalent in southern Brazil. These cichlids are more popularly called Papa Terra in some regions of Brazil. In aquariums they settle by digging the substrate, hence its name. They are extremely territorially aggressive, and often omnivorous. The males have a quite evident sexual dimorphism, developing a bulge in the front of the head at the time of reproduction, which gives a more aggressive look. From the cytogenetic point of view, cichlids in general have little chromosome divergence and the genus *Geophagus* is not an exception. The aim of this work is to study the chromosomes from two allopatric populations of *Geophagus brasiliensis* from the Grande river basin. Eight specimens were captured in Formiga and six in Borá River in the State of Minas Gerais, Southern Brazil. Chromosomes were obtained according to standard fish cytogenetic techniques and the slides were stained with Giemsa to access the metaphases. The Nucleolar Organizing Regions were detected by silver nitrate impregnation and the heterochromatin was detected by C-banding. Best metaphases were captured with digital camera to get the karyotypes. Both population shows  $2n = 48$  chromosomes and no fundamental differences between the studied populations of *G. brasiliensis* could be seen with the classic cytogenetic markers, which are consistent with the chromosomal conservatism described in other literatures. The Nucleolar Organizer Region (NOR) was evidenced at the short arm of an acrocentric pair. C-Banding technique showed heterochromatic blocks in telomeric regions of few chromosomes. There is an hypothesis about the chromosome conservatism of this species due to vicariant events in Neotropical populations, or due to a gene flow along the geological break up or barrier.

Financial support: FAPEMIG