



Chromosomal diversity in *Hypostomus* (Siluriformes, Loricariidae) with emphasis on physical mapping of 18S and 5S rDNA sites

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Genet. Mol. Res. 12 (1): 463-471 (2013)

Received August 1, 2012

Accepted November 27, 2012

Published February 8, 2013

DOI <http://dx.doi.org/10.4238/2013.February.8.11>

ABSTRACT. We examined chromosomes of three species of the genus *Hypostomus*, in order to contribute to the understanding of the karyotype evolution of this group. Specimens of *H. ancistroides* and *H. nigromaculatus* displayed differences in karyotype formulas, distribution and location of heterochromatin and nucleolus organizer regions when compared to other populations of the same species. We made the first cytogenetic characterization of *H. tapijara*, an endemic species in the Ribeira de Iguape River. These specimens had $2n = 66$ chromosomes, while *H. ancistroides* showed $2n = 68$ and *H. nigromaculatus* $2n = 76$ chromosomes. Physical mapping of 18S and 5S rDNA sites of the three species showed simple, multiple and syntenic clusters. Synteny of ribosomal sites was found in *H. ancistroides* and *H. tapijara*, and an interspersed pattern between these sites in all chromosomes bearing the synteny was observed. We conclude that the genus *Hypostomus* has a high chromosome complexity that is accompanied by great

morphological variation. It is evident that this group comprises an interesting model for understanding the chromosome evolution of Neotropical ichthyofauna.

Key words: Fish; Hypostominae; Fiber-FISH; Chromosome evolution