Genetic Variability of piramutaba *Brachyplatystoma vaillantii* (Siluriformes:Pimelodidae) in Estuário-Amazonas-Solimões Sistem

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Abstract

The piramutaba (*Brachyplatystoma vaillantii*) is among the two most important catfish species in the Amazon, mainly for exportation. Studies by several authors suggest that the piramutaba is composed by a single population that migrates seasonally, using diferent areas for reproduction, feeding/growth in the Estuary-Amazonas-Solimões (EAS) System. In this manner, the piramutaba is captured by both, artisanal fishing that occurs along the EAS system, and to the industrial fishing that occurs only in estuary together with the artesanal fishing. The main objectives of this study were to estimate the genetic variability and verify if there is correlation between geographic and genetic distance between individuals of *B. vaillantii* collected in five points along the EAS system. Samples were obtained by the popular markets in Belém, Santarém, Manaus, Tefé and Tabatinga. A total of 942 base pairs sequenced, corresponding to the complete control region of mtDNA for 100 individuals from the five locations. The sequences were utilized to analyze the DNA polymorphism, phylogeny, AMOVA and Mantel's test and identified 92 haplotypes and 87 singletons. The phylogenetic analysis and AMOVA demonstrated that there is no genetic segregation between the individuals of *B.vaillantii* in the EAS, and, by the Mantel's test results, there is no correlation between the geographic and genetic distances for the individuals colleted five sampled location.

Key-words*:* siluriformes, piramutaba, genetic variability, mitochondrial DNA, control region

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