

Age validation, growth and mortality patterns of *Brachyplatystoma rousseauxii* in the Madeira River basin

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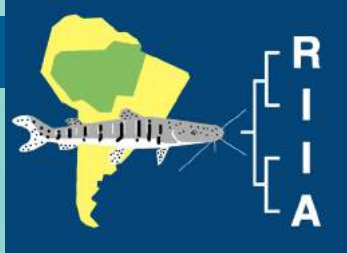
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Brachyplatystoma rousseauxii, popularly known as “dorado”, is one of the most important large catfishes of the Amazon basin. Besides their economic importance, large catfish species also have key ecological functions as top predators in the food chain. Although information on the life cycle of *B. rousseauxii* has been proposed for the Amazon, yet there is no conclusive information about its bioecology in the Madeira River basin. The present document provides a validation of growth marks deposition, growth and mortality patterns of *Brachyplatystoma rousseauxii* in the Madeira River basin. Fish were collected monthly between February 2005 and March 2009 in the Bolivian basin; between April 2009 and July 2012 at the Brazilian basin, in the main fishing ports. Validation of the periodicity of *Lapillus* otoliths growth marks formation was performed by the relative marginal increment method. The species exhibited two growth marks per year, one during the flood and another in the low water period. On this basis, age structure, growth and mortality parameters were also determined. The specimens exhibited between 0 and 18 years. In the Brazilian portion of the basin, mainly young individuals between 3 and 5 years were found. In the Bolivian portion, however, most sampled specimens were adults and especially older than Brazil (> 4 years). These results indicate a resident behavior of the adults in this species: after migrating upstream to reproduce, they remain in the headwaters of the Madeira River to grow old and apparently don't go back to Central Amazonia.



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