



EXPLORING THE DISTRIBUTION OF HEMISORUBIM PLATYRHYNCHOS (VALENCIENNES, 1840) (SILURIFORMES: PIMELODIDAE): IS IT REALLY WIDE?

Vanessa Meza-Vargas^{1, 2} Dario Faustino-Fuster^{1,2} Ricardo Britzke^{1,2} Diego Salazar² Nathan K. Lujan³ Jorge L. Ramirez^{1, 2}

ABSTRACT

Species with wide distribution, old description and without recent taxonomic revision are candidates to be a complex of species. In 1840, the French zoologist Achille Valenciennes described the species *Platystoma platyrhynchos*, posteriorly, in 1862, Bleeker describe the monotypic genus *Hemisorubim*, designed *Platystoma platyrhynchos* as type species. Since then, more than 160 years have passed and *Hemisorubim* has not been taxonomically revised, with a wide distribution in the Neotropical region. In the present study, we applied several species delimitation approaches (ABGD, ASAP, bPTP, GMYC, mPTP) based on molecular data (Cytochrome oxidase subunit I) to investigate the number of species and the boundaries they comprise. The molecular results are represented by 42 sequences and 591 base pairs with a maximum intraspecific genetic distance of 5.13%. The species delimitation methods differentiate seven well-supported lineages corresponding to the Araguaia, Itaperucu, Marowijne, Madeira, Paraguay-Paraná, Upper Amazon, and Tapajós and Orinoco basins. These results provide a basis for future studies of systematic and evolution, as well as for the description of new species in the major Neotropical basins.

Key words: Catfish, Pimelodidae, species delimitation, systematic, taxonomy, Ucayali basin.

Email

www.ebi.bio.br

¹ Departamento de ictiologia, Museo de Historia Natural, UNMSM, Peru, <u>meza.sv@gmail.com;</u>

² Facultad de Ciencias Biológicas, Universidad Nacional Mayor de San Marco, Peru,

³ Department of Natural History, Royal Ontario Museum, Toronto, Canada.