Identification of Non-native Suckermouth Armoured Catfish Species (*Pterygoplichthys*, Loricariidae) in Sri Lanka Based on Morphology and Mitochondrial Cytochrome b Gene Sequences

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Introduction of suckermouth armoured catfish (*Pterygoplichthys*, Loricariidae) species, native to South America, has caused serious ecological and economic impacts worldwide due to their invasive nature. At least four species of suckermouth armoured catfish (*Hypostomus plecostomus, Pterygoplichthys multiradiatus, Pterygoplichthys pardalis* and *Pterygoplichthys disjunctivus*) are believed to have been introduced to water bodies in Sri Lanka. Yet considerable uncertainty exists about the taxonomic status of these fish species due to their very similar morphology. In this study, we used morphological traits (body colouration, 41 morphometric and 6 meristic characteristics) and mitochondrial cytochrome b (Cyt b) gene sequences to unravel this taxonomic uncertainty using 120 fishes, randomly caught from seven water bodies (Victoria, Randenigala, Polgolla, Giritale, Udawalawe reservoirs, Angammadilla, and Somawathiya). Evidence from both data sets rejected the existence of *H. plecostomus* and *P. multiradiatus* in the sample. The results of the present study indicate that the fish occurring in these water bodies should be identified as *P. pardalis* and *P. disjunctivus*, as all individuals whose genes were sequenced, grouped with two corresponding mitochondrial Cyt b clades. Morphological identification did not match the two mitochondrial clades detected. Nevertheless, fish collected from the water bodies present a contiguous variation, among which approximately 30.83% could not be defined as either species and thus were grouped as an intermediate form. Further, some of the morphometric and meristic characteristics had no significant differences between the two species. Therefore, the morphological analysis may indicate the existence of hybrids between these two species, while phylogenetic analysis based on mitochondrial Cyt b gene sequences showed that there were two species, namely *P. pardalis* and *P. disjunctivus*.

Key words: Suckermouth armoured catfish, *Pterygoplichthys*, Cyt B, Morphological identification

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