# PHYLOGENETIC ANALYSIS AND BARCODING OF GOBY SPECIES IN MARAGONDON RIVER, CAVITE USING CO1 GENE

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**ABSTRACT**

Gobiidae is one of the largest families of acanthomorph fishes found in the Philippines. Despite this, much has to be discovered and determined, especially in Margondon River, at the foot of Mts. Palay-Palay National Park, a protected landscape. Morphometrics and morphological characteristics were examined for initial identification. Pre-extracted DNAs were amplified using primers for cytochrome c oxidase subunit 1 (CO1); the sequences were analyzed to estimate divergence and determined phylogenetic relationship of the samples. Cytochrome c oxidase subunit 1 (CO1) ranged from 676 to 692 bp. B9 and B10 was identified as *Glossogobius aureus*, while B4, B5 B6, B8 and B11 putatively belongs to *Glossogobius* spp. All the query sequences formed a paraphyletic family of Gobiidae, although not well supported, as well as polyphyly of subfamilies *Gobiinae* and *Gobionellinae.*

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