

Systematic Taxonomy and Phylogenetic of Commercial Fish Species of Family Nemipteridae from Malaysian Waters and Neighboring Seas

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Abstract : Family Nemipteridae is among the most abundantly distributed family in Malaysian fish markets due to its high contribution to landing sites of Malaysia. Using an advanced molecular approach that used two mitochondrial (Cytochrome oxidase c I and Cytochrome oxidase b) and one nuclear gene (Recombination activating gene, RAGI) to expose cryptic diversity and phylogenetic relationships among commercially important species of family Nemipteridae. Our research covered all genera (including 31 species out total 45 species) of family Nemipteridae, distributed in Malaysia. We also found certain type of geographical barriers in the South China sea that reduces dispersal and stops a few species to intermix. Northside of the South China Sea (near Vietnam) does not allow genetic diversity to mix with the Southern side of the South China sea (Sarawak) and reduces dispersal. Straits of Malacca reduce the intermixing genetic diversity of South China Sea and the Indian Ocean.

Keywords : Nemipteridae, RAG I, south east Asia, Malaysia

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