Abstract

The Family Ariidae (Siluriformes) in the New World: Composition and Species Concentration Areas †

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Abstract: Ariidae (sea catfishes) is one of the two catfish (Siluriformes) families that occur frequently in tropical marine and estuarine waters. There are at least 130 ariid species worldwide, but when samples are carefully studied, they tend to yield cryptic new species, given the group’s extremely conservative morphology. Mouth brooding is one of the synapomorphies of the family and is, consequently, responsible for the strong speciation within the group. Sea catfishes comprise two subfamilies: Galeichthyinae, including Galeichthys peruvianus, which live mainly in South Africa; G. peruvianus is endemic to Peru; and is, therefore, an interesting biogeographic enigma. The subfamily Ariinae, on the other hand, occurs along the family distribution, inhabiting continental tropical shores influenced by freshwater and with abundant mangrove development. The closing of the Tethys Sea sharply separated the Ariinae into two geographic groups that do not share any genus. The Old World, including African, Asian, and Australian–New Guinean waters, comprises almost 30 genera and 60 species. Eleven genera and at least 70 species are known from the New World. Seven genera and forty-one species occur in the Tropical Eastern Pacific, while from the Caribbean, eight genera and thirty species are known. The main New World regions where sea catfish species are concentrated are the Panama Bight, including Southern Caribbean, and the area between the mouths of the Orinoco and Amazon rivers.

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