Biospeleology Session
(Tuesday afternoon)

Eyes Wide Open: The "Eyeless" Cave Fish of Trinidad is not Blind

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Since being described in 1936, Chrosomus arichii (Pimelodidae) has been consistently listed as a blind cave representative of the ichthyofauna of Trinidad, West Indies. Our field and laboratory studies strongly suggest that members of this fish population not only have eyes, but also tapetum lucidum and display strong photophobic responses. Morphological variations in eye development and pigmentation could be the result of either an incipient process of troglomorphy (hypogean adaptation) or introgressive hybridization. We believe that this cave "species" is not a valid species at all but rather a deme of Lamichthys quoten. We also propose that the presence of tapetum lucidum in this fish is the result of convergent evolution and discuss its possible significance.