

## Origine and early evolution of cyprinid fishes (Ostariophysi) in the North Hemisphere

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Which order is ancestral among the unique group, Ostariophysi? Ichthyologists often have regarded Characiformes most ancestral because other orders seem more specialized appearances. Despite records of Characiformes and Siluriformes from Cretaceous deposit in South America, however, nothing records from Cretaceous of any continent about Cypriniformes. Recent research made it clear that, a piscivorous cyprinid fish, Aptosyax grypus from Mekong river in Thailand shows a large similarity to marine Gonorhynchiformes fish, Chanos chanos, suggested that, the former is the direct descendant from the latter, consequently, all cyprinid fishes were derived from Aptosyax. Nextly shows important morphological data of the two fishes. This result means a rapid morphological change---comparable to the case of first amphibia, Ichthyostega from osteolepid fish, Eustenopteron during Carboniferous period. Here will develop idea of the lecturer about back-ground of this evolution. Why ichthyologists could not make clear the origin of cyprinid fishes so long? Beside luck for the lecturer, they were apt to investigate difficult subfamilial interrelationships, and further difficulty may come from very early differentiation of them, which made them often miss tracing their history, or primitive characters. Nextly will give some examples of early days' differentiation. Analysis of these data will provide perspectives about the origin of remained orders of Ostariophysi, which have never developed from Chanos.