



Taxonomy of the fishes of the family Leiognathidae (Pisces, Teleostei) from the West coast of India

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Abstract

A total of 16 species of the family Leiognathidae have been collected from the commercial landings from Cochin and Neendakara on the western coast of India from 1998–2000. Detailed morphometric data have been collected and all 16 species are redescribed with live color photographs here. Various relationships in the morphometric characteristics have been studied and regression equations fitted to enable comparison of the populations of these species from Kerala with those from other regions. Of the 16 species collected and described in the present work, five species, *Nuchequula nuchalis*, *Equulites absconditus*, *Equulites leuciscus*, *Aurigequula longispina*, and *Gazza achlamys*, are reported for the first time from the entire western coast of India.

Key words: slipmouths, silverbellies, ponyfishes, *Leiognathus*, West coast

Introduction

Fisheries are one of the most important renewable resources. With increasing fishing pressure, the only option left for the sustainability of fisheries is their rational management. Proper management is possible with a thorough knowledge of the dynamics of the fish stocks. For a meaningful study of the dynamics, knowledge of natural history of the species is necessary and this in turn can be acquired by the correct identification of fish species. This assumes greater importance in tropical seas where, a multitude of closely related and morphologically similar species occur. The role of taxonomy and proper identification cannot be overstressed in studies of population dynamics. The study is also a step towards understanding the bewildering biodiversity that characterizes the tropical seas.

In regard to the taxonomy of the family Leiognathidae from the Indian waters, Day (1878), described 14 species. Munro (1955) described twelve species of ponyfish (as members of this family are often called, they are also called silverbellies and slipmouths) from neighboring Sri Lanka. Recently Chakrabarty *et al.* (2008) redescribed the ponyfishes of Sri Lanka and resurrected *Aurigequula* Fowler, 1918. James (1969), Rani Singh and Talwar (1978a, 1978b), Jayabalan (1985) and James and Badrudeen (1990), added seven species to the known ponyfish species of India of which four were new to science and three were first reports from India. The most thorough and only comprehensive revision of the family Leiognathidae from the Indian seas was that of James (1975). Jayabalan and Ramamoorthi (1977) gave a synoptic key to the genera of Leiognathidae of Porto Novo and Talwar and Kacker (1984) described 15 species. James (1984) also described 17 species of ponyfish from the Western Indian Ocean including India.

The survey of literature on taxonomy of silverbellies from India clearly reveals that most of the work was carried out from the eastern and southeastern coasts. In the backwaters of Kerala, Shetty (1963) reported 6 species and Kurup and Samuel (1983) reported nine species which brought the total known species from Kerala to 11. Only two species *L. equulus* and *L. brevirostris* (now recognized as a junior synonym of *Photopectoralis bindus* that was long been misidentified as a member of *Nuchequula* – see Chakrabarty and Sparks 2007) were reported to be abundant. Adequate biometric data is lacking for marine species from the west coast of India. The literature on species