Caesio xanthalytos, a new species of fusilier (Perciformes: Caesionidae) from the Western Indian Ocean, with records of range extensions for several species of Caesionidae

WOUTER HOLLEMAN[1], ALLAN D. CONNELL[1] & KENT E. CARPENTER[2]

[1]*South African Institute for Aquatic Biology, Private Bag 1015, Grahamstown, 6140 South Africa (Corresponding author)*
[2]*Department of Biological Sciences, Old Dominion University, Norfolk, Virginia, USA*

Abstract

Caesio xanthalytos, a new species of fusilier, closely related to *Caesio caerulaurea* Lacepède 1801, is described from several specimens from various localities on the east coast of Africa, and from southern Madagascar. While very similar in colour pattern to *C. caerulaurea*, its lateral line lies within a dominant, composite yellow stripe, whereas in *C. caurulaurea* the lateral line lies immediately below the yellow stripe. The two species also differ in the number of lateral-line scales, the modal number of pectoral-fin rays, in the form of the nuchal scale patch, and genetically. The new species has been observed to school with *C. caerulaurea* and with *C. varilineata* Carpenter 1987. The ranges of several species of *Caesio* and *Pterocaesio* and of *Dipterygonotus balteatus* and *Gymnocaesio gymnoptera* are extended to localities on the South African east coast.

Key words: Caesionidae, *Caesio*, Western Indian Ocean, *Caesio xanthalytos* sp. nov., *Caesio caerulaurea*, *Caesio lunaris*, *Caesio xanthonota*, *Dipterygonotus balteatus*, *Gymnocaesio gymnoptera*, *Pterocaesio chrysozona*, *Pterocaesio marri*, *Pterocesio pisang*, *Pterocaesio tile*, *Pterocaesio trilineata*, range extensions

Introduction

Fishes of the family Caesionidae are streamlined, fast-swimming, schooling planktivores associated with coral reefs in the tropical and sub-tropical areas of the Indo-Pacific Ocean. The family is divided into two sub-families, the Caesioninae, with two genera and 19 species (including the new species described herein), and the Gymnocaesioninae, with two monotypic genera (Carpenter 1987, 1988). The family is most closely related to the Lutjanidae, the snappers. All species are found near reefs, except *Dipterygonotus balteatus*, where only the juveniles are encountered near reefs, while the adults are caught with sardines, anchovies and other nearshore pelagic species (Carpenter 1988).

All but three species are widespread in the Indian Ocean or across the Indo-West Pacific; *Caesio striata* and *C. suevica* are confined to the Red Sea, and *Pterocaesio capricornis* has a limited range from the Equator to Pinda Island, Mozambique (14°30' S), and to the Seychelles. Several species, such as *Caesio striata* Rüppell 1830, *C. varilineata* Carpenter 1987 and *C. caerulaurea* Lacepède 1801 have similar striped, blue, yellow and silver colour patterns and are easily confused, particularly as different species often school together. These species also differ little from each other meristically and morphometrically.

Over a number of years several people had recognised that there was another species of *Caesio* with a colour pattern similar to, but different from that of the two widespread WIO species, *C. caerulaurea* and *C. varilineata*. We (KEC) had collected several specimens in Kenya as far back as 1983; a number of members of the organisation Fishwatch had seen the fish and had asked Phil and Elaine Heemstra whether it was *C. caerularea* or not, and in 2006 the Heemstras collected specimens from KwaZulu-Natal. We (ADC) collected additional specimens in KwaZulu-Natal and southern Mozambique in 2009, took tissue samples for DNA analysis, and found the specimens to be separate from *C. caerulaurea*. Monica Mwale of the South African Institute for Aquatic Biodiversity collected specimens in Zanzibar, and also took tissue samples. This species is herein described and