



## A review of the *Acanthopagrus bifasciatus* species complex (Pisces: Sparidae) from the Indian Ocean, with redescriptions of *A. bifasciatus* (Forsskål 1775) and *A. catenula* (Lacepède 1801)

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### Abstract

The Doublebar Seabream, *Acanthopagrus bifasciatus* (Forsskål 1775) with two conspicuous vertical black bars across the head has long been recognized as a distinctive species from the Red Sea and Western Indian Ocean. Two distinct colour patterns are associated with two allopatric populations except southern Oman and Somalia which appears to be a zone of overlap: a northern population (Red Sea, through Persian Gulf, to Pakistan) with dorsal and caudal fins immaculate yellow; and a southern population (east coast of Africa from the Horn of Africa to South Africa, Madagascar, and Mascarene Islands) having the dorsal fin with a wide black margin and caudal fin rear margin with a narrow black edge (and both black margins disappearing with growth in specimens over 30 cm SL). Both populations resulted in the two valid species: *A. bifasciatus* for the northern population and *A. catenula* (Lacepède 1801) for the southern population. Nominal species (junior synonyms) of the two species are discussed.

**Key words:** Pisces, Perciformes, Sparidae, Taxonomy, *Acanthopagrus bifasciatus*, *Acanthopagrus catenula*

### Introduction

The Doublebar Seabream, *Acanthopagrus bifasciatus* (Forsskål 1775) was described originally from the Red Sea and is also found in association with reefs in shallow coastal waters (2–20 m depth) of the Persian Gulf (Grandcourt *et al.* 2004). A popular food fish, commonly known as the Doublebar Seabream, is exploited with a variety of gear including hook and line, traps and trawls. Like other sparid species, *A. bifasciatus* appears to be a protogynous hermaphrodite (Grandcourt *et al.* 2004).

*Acanthopagrus bifasciatus* has long been recognized as a distinctive species of the Western Indian Ocean and Red Sea, with two different colour patterns ascribed to a northern population (Red Sea, through Persian Gulf, to Pakistan) and a southern population (east coast of Africa from the Horn of Africa to South Africa, Madagascar, and Mascarene Islands). Fish of the northern population have completely yellow dorsal and caudal fins whereas fish of the southern population have a wide black margin along the dorsal-fin and a narrow black margin along the rear edge of the caudal fin.

Reassessment of the identity of specimens from both of these populations revealed additional characters that distinguish them. Here we recognize and describe *Acanthopagrus bifasciatus* (Forsskål 1775) and *A. catenula* (Lacepède 1801) as two valid species.

### Material and methods

Counts and measurements generally followed Hubbs & Lagler (1964), Iwatsuki & Carpenter (2006, 2009) and Iwatsuki & Heemstra (2010). Basal width of the four middle teeth in the six anterior incisors (or curved canines in