



## Two new species of the coffinfish genus *Chaunax* (Lophiiformes: Chaunacidae) from the Indian Ocean

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### Abstract

Two new coffinfishes, *Chaunax nebulosus* n. sp. and *Chaunax africanus* n. sp., are described from the Indian Ocean. Both species belong to the *C. fimbriatus*-species group which is characterised by having filaments on the dorsal head and a complex color pattern on the dorsal surface. They are morphometrically and meristically conservative but differ in coloration. *Chaunax nebulosus* can be distinguished from its closest relatives by its dense covering of very small, irregular grayish green spots and having 5 small blackish markings on its dorsal surface. *Chaunax africanus* can be distinguished from other members in having a colour pattern of long narrow brown bars on the dorsal-fin base and head (forming a radiate pattern around the eye), and a complex white reticulate pattern (often double-lined) over the entire dorsal surface. Comments on species occurring in Indian Ocean and the status of members of *C. fimbriatus*-species group are also provided.

**Key words:** Pisces, *Chaunax*, coffinfish, taxonomy, new species, Indian Ocean

### Introduction

The chaunacid anglerfish genus *Chaunax*, also known as coffinfishes or sea toads, comprises 17 species. They are small benthic fishes (usually <40 cm total length) inhabiting continental shelves and slopes, mainly in tropical and warm temperate parts of the Atlantic, Indian and Pacific oceans. Most of the species occur in the Indo-west Pacific region, except for *C. pictus* Lowe 1846, *C. stigmaeus* Fowler 1946 and *C. sutkusi* Caruso 1989 from the Atlantic Ocean, and *C. latipunctatus* Le Danois 1984 from the eastern Pacific Ocean. Caruso (1989) divided the species into two primary subgroups (i.e. *C. fimbriatus*-species group and *C. pictus*-species group), and Ho & Shao (2010) added a third subgroup, the *C. abei*-species group, formerly included in the *C. fimbriatus*-species group.

Two species have been described from the Indian Ocean: *C. apus* Lloyd 1909a and *C. flammeus* Le Danois 1979 (originally a subspecies of *C. umbrinus* Gilbert 1905), both of which are confirmed to be valid in the present study. Smith in Smith & Heemstra (1986) recorded *C. penicillatus* McCulloch 1915 and *C. pictus* from South Africa; the latter is confirmed to be a misidentification from our examination. Although *C. umbrinus* has also been listed from the Indian Ocean, these records need to be verified.

The Australian coffinfishes were examined provisionally by the second author as part of a bioregionalisation of Australian seas for the purposes of regional marine planning (Last et al. 2005). Several unresolved taxonomic issues were identified and some of the species were thought to be undescribed. During a recent visit to Australian fish collections by the first author, one of these species belonging to *C. fimbriatus*-species group and held in collections of the Australian Museum (Sydney), Museum Victoria (Melbourne) and the CSIRO (Hobart), was confirmed to be undescribed.

Moreover, two additional specimens of an undescribed species, also belong to *C. fimbriatus*-species group, were found in the collection of the South Africa Institute of Aquatic Biology (Grahamstown). This species has a unique and highly distinctive color pattern. Coffinfishes offer relatively few useful identifying characters so coloration can be used to distinguish some species where the pattern is consistent and retained after preservation.