



# Article

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## ***Epigonus exodon*, a new species of deepwater cardinalfish (Teleostei: Perciformes: Epigonidae) from Réunion, western Indian Ocean**

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### Abstract

A new species of deepwater cardinalfish, *Epigonus exodon*, is described based on two specimens, 97.0–60.2 mm standard length, from Réunion (depth 450–480 m), western Indian Ocean. *Epigonus exodon* belongs the *Epigonus oligolepis* group, defined as having seven spines on the first dorsal fin, one spine and 10 soft rays on the second dorsal fin, 35–37 pored lateral-line scales to the end of the hypural and lacking an opercular spine and ribs on the last abdominal vertebra. It differs from other members of the group in having a narrow tongue, a shallow V-shaped tooth patch on rear two-thirds of tongue, anteriorly projecting teeth on each side of the symphysis of lower jaw, and 26–28 total gill rakers.

**Key words:** Taxonomy, *Epigonus*, new species, *Epigonus oligolepis* group, Réunion

### Introduction

The deepwater cardinalfish family Epigonidae comprises six genera and 36 nominal species worldwide and is mainly found on the continental slope and seamounts from temperate to tropical latitudes. The genus *Epigonus* Rafinesque is the most species-rich of the family, with 30 valid species (Mayer 1974; Abramov 1992; Okamoto and Fukui 2011). In a worldwide taxonomic review of the genus *Epigonus*, Abramov (1992) proposed four species groups: the *E. denticulatus* group, the *E. oligolepis* group, the *E. robustus* group, and the *E. telescopus* group. Of these, the *E. oligolepis* group was redefined by Okamoto and Motomura (2011), and consists of four described species characterized by the absence of an opercular spine and ribs on the last abdominal vertebra, seven spines on the first dorsal fin, one spine and 10 soft rays on the second dorsal fin, and 33–40 pored lateral-line scales: *E. carbonarius* Okamoto and Motomura (2011) from the Marquesas Islands; *E. devaneyi* Gon (1985) from the Hawaiian Islands; *E. glossodontus* Gon (1985) from the Hawaiian Islands; and *E. oligolepis* Mayer (1974) from the Gulf of Mexico, the Caribbean region, and east of Florida Peninsula. We herein describe a new species in this group, based on two specimens from Réunion in the western Indian Ocean.

### Material and methods

Meristic and morphometric methods follow Mayer (1974) and Okamoto (2011). Missing lateral-line scales were estimated by counting scale pockets. The number of pored lateral-line scales on the caudal fin is represented as “+ n”. The first caudal vertebra is defined as the first vertebra bearing a definite hemal spine. Measurements were made with calipers to the nearest 0.1 mm. Terminology and formula of the supraneural bones follow Mabee (1988) and Ahlstrom *et al.* (1976) respectively. Counts of supraneurals, vertebrae, and ribs were taken from radiographs. The term “maxillary mustache-like process” is used for a process on the maxillary head (see Okamoto *et al.* 2011: fig. 2). The number of pyloric caeca and sex were established by dissection of the abdomen on the right side of specimens. Standard length is abbreviated as SL. Specimens of the new species are deposited in the collections of the Muséum National d’Histoire Naturelle, Paris (MNHN). Comparative material examined is deposited in BPBM, HUMZ, UF, and USNM. Institutional abbreviations follow Fricke and Eschmeyer (2012).