

Redescription of a Poorly Known Deepwater Cardinalfish, *Epigonus affinis* (Actinopterygii: Perciformes: Epigonidae), and Comparison with Related Species

Makoto Okamoto¹, Hiroyuki Motomura² and Takashi Asahida³

¹Seikai National Fisheries Research Institute,
1551-8 Taira-machi, Nagasaki, 851-2213 Japan
E-mail: okamako@affrc.go.jp

²The Kagoshima University Museum,
1-21-30 Korimoto, Kagoshima, 890-0065 Japan

³School of Marine Biosciences, Kitasato University,
160-4 Okirai, Sanriku-cho, Ofunato, Iwate, 022-0101 Japan

(Received 25 February 2011; Accepted 6 May 2011)

A deepwater cardinalfish, *Epigonus affinis* Parin and Abramov, 1986, is re-described on the basis of the type specimens and two additional specimens collected from the eastern Central Atlantic, and compared with related species of the genus. This species differs from other congeners in having the following combination of characters: presence of a pungent opercular spine and palatine teeth; second dorsal-fin rays I, 9; pectoral-fin rays 18 or 19; total gill rakers 30–33; vertebrae 10+15; absence of maxillary mustache-like processes; and absence of ribs on last abdominal vertebra.

Key Words: Teleostei, *Epigonus affinis*, ribs, maxillary mustache-like process, Atlantic Ocean.

Introduction

The deepwater cardinalfish genus *Epigonus* Rafinesque, 1810 consists of 30 extant species distributed from temperate to tropical waters in the world (Mayer 1974; McCosker and Long 1997; Okamoto and Motomura 2011). Most species of the genus have been reported from continental slopes, with records ranging from 100 m to depths exceeding 1,000 m (Mochizuki 1984, 1990; Gon 1985; Mytilineou *et al.* 2005; Ida *et al.* 2007).

Recently, while investigating the species of *Epigonus* that have a pungent opercular spine (e.g., Okamoto 2011), the first author found two specimens of *Epigonus affinis* Parin and Abramov, 1986 from the eastern Central Atlantic in the research collection of the Hokkaido University Museum. *Epigonus affinis* was originally described from 15 specimens taken at a locality (03°02'S, 00°44'E) in the eastern Central Atlantic (Parin and Abramov 1986a). Subsequently, in his taxonomic review of the genus *Epigonus*, Abramov (1992) proposed four species groups, viz., the *E. denticulatus* group, the *E. oligolepis* group, the *E. robustus* group, and the *E. telescopus* group, and included *E. affinis* within the *E. robustus* group. However, the limits between the four species groups except for the *E. oligolepis* group are unclear (Okamoto and Motomura 2011). Moreover, these taxonomic studies (Parin