

Apogon limenus, a new species of cardinalfish (Perciformes: Apogonidae) from New South Wales

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ABSTRACT. *Apogon limenus* is described as a new species from New South Wales. This abundant species has been confused with *Apogon fasciatus*. The species is compared with other striped *Apogon* species which are similar in coloration. It differs from them in details of coloration and the combination of fin ray, scale and gill-raker counts, serrate free margin of the preoperculum and smooth to slightly serrate anterior preopercular ridge.

It is suggested that species collected by HMS *Herald* from "Victoria", were collected from the Victoria District of Western Australia. The district name was used in the 1800's for the area north of Perth and south of Carnarvon.

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The Apogonidae, popularly known as cardinalfishes, is one of the largest families of perciform fishes. Fraser (1972), whose study of the comparative osteology of the group has provided a foundation for the subfamilial, generic and subgeneric classification, estimated that there are 24 to 26 genera and about 200 species in the family. The largest of the genera is *Apogon* which he divided into ten subgenera. The family is in great need of revision in the Indo-west Pacific region at the species level, and as might be expected, the largest number of taxonomic problems lie within the genus *Apogon*, especially in the largest of the subgenera, *Nectamia*.

Many of the Indo-Pacific species of the subgenus *Nectamia* have several dark stripes on the head and body; these are among those most confused by ichthyologists. Fraser (1974) redescribed one of these species, *A. endekataenia* Bleeker, a name often applied to other striped cardinalfishes. Randall & Lachner (1986) differentiated six similar striped species: *A. angustatus* (Smith & Radcliffe), *A. cookii* Macleay, *A. fasciatus* (Shaw), *A. nigrofasciatus* Lachner, *A. novemfasciatus* Cuvier, and *A. taeniophorus* Regan. They also showed that no specimens are known from existing collections that match the description of *A. aroubiensis* Hombron &

Jacquinet, a striped species from Malaysia, the only type specimen of which has been lost.

From the study of Randall & Lachner it became apparent to the senior author (and independently to the junior author) that one of most common fishes of bays and harbours of New South Wales, a large dark-striped species of *Apogon*, is undescribed. This fish has often been misidentified as *A. cookii* (pl. 129 in Grant, 1982) or more commonly as *Apogon fasciatus* White (1790), the type locality of which is Port Jackson (= Sydney Harbour). White named it *Mullus fasciatus* and described it briefly as follows: "Pale yellow Mullet with longitudinal brown bands. Length about five inches; scales large". His illustration of *fasciatus* (reproduced by Radcliffe, 1911, pl. 21), though poor, is unquestionably a species of *Apogon*. There are three dark stripes – one midlateral and two well above it; no dark spot is present on the caudal-fin base. Because of the mention of pale yellow ground color, the lack of two lower stripes, and no indication of a black caudal spot, it seems likely that the Port Jackson fish was the species most ichthyologists have identified as *A. quadrifasciatus* Cuvier. Since there is no type of *fasciatus* extant, Lachner in Schultz & collaborators (1953: 439, pl. 35A) designated USNM 59972, 80.5 mm SL, from