

The Ceratioid Anglerfishes of Australia

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ABSTRACT. Ceratioid anglerfishes recently collected from Australian waters and primarily housed at the Australian Museum, Sydney, represent eight of the 11 recognized families of the suborder, including 12 genera and 15 species, one of which is here described as new. These are listed below together with all additional records of ceratioids from Australian waters. Revised and supplemental diagnostic and descriptive data as well as notes on geographic distribution are included. Pending the chance of subsequent discovery of any as yet unrecorded ceratioids from Australian waters, diagnoses of all families of the Ceratioidei and references to all recent family revisions are provided.

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Mid-water trawling off eastern Australia in the last ten years has amassed a collection of ceratioid anglerfishes housed at the Australian Museum in Sydney that represents eight of the 11 recognized families of the suborder, 12 genera and 15 species, one of which is here described as new. These are listed below together with all additional records of ceratioids from Australian waters. Keys, revised and supplemental diagnostic and descriptive data as well as notes on geographic distribution are also provided. Since most of the approximately 130 recognized species of the Ceratioidei appear to be very widely distributed, diagnoses and key to all families of the Ceratioidei are provided on the plausible chance that representatives will turn up in Australian waters.

Methods and Materials

Australian waters are defined as that area lying within 200 miles of the Australian continent.

Standard lengths (SL) are used throughout. Terms are defined as follows: *illicium*: the first dorsal spine that bears a terminal bait; *esca*: the fleshy bait at the tip of the first dorsal spine; *denticular*: small, tooth-bearing ossification present in the skin of the snout above the symphysis of the premaxillae and at the tip of the lower jaw of male ceratioids (Bertelsen, 1951); *caruncle*: fleshy, club-shaped light-organ situated on the dorsal mid-line just anterior to the soft dorsal fin of females of the Ceratiidae. Methods for taking counts and measurements, and terminology used in describing esca morphology, follow Pietsch (1974, fig. 60).

Only material in the collections of the Australian Museum, Sydney (AMS) and the Western Australian Museum, Perth (WAM), is listed. All specimens were collected by the Fisheries Research Vessel "Kapala" with an Engel Midwater Trawl, unless otherwise indicated. Material from other sources referred to in the descriptions is catalogued in the following institutions:

BMNH: British Museum (Natural History), London
 IOAN: Institution of Oceanology, Academy of Sciences of the USSR, Moscow
 ISH: Institut für Seefischerei, Hamburg
 LACM: Natural History Museum of Los Angeles County
 USNM: National Museum of Natural History, Washington DC
 ZMB: Zoologisches Museum der Humboldt-Universität zu Berlin
 ZMUC: Zoological Museum, University of Copenhagen

All material is female unless otherwise indicated.

Suborder CERATIOIDEI

Diagnosis. Most distinctly differing from other suborders of Lophiiformes in being bathy- and mesopelagic, lacking pelvic fins (except in larval and newly metamorphosed *Caulophryne*) and having extreme sexual dimorphism. Most females have a single external cephalic fin-ray, illicium with esca photophore (illicium absent in *Neoceratias* and esca bulb and photophore lacking in *Caulophrynidae* and *Rhynchactis*; an external second cephalic ray present in juvenile *Diceratiidae* and *Ceratiidae*). Males are