
Review of the Recent species of *Ocenebra* Gray, 1847 and *Ocinebrellus* Jousseaume, 1880 in the Northwestern Pacific

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ABSTRACT. The generic position of *O. acanthophora* (A. Adams, 1863), *Ocenebra inornata* (Récluz, 1851), *O. lumaria* (Yokoyama, 1926) and *Ocinebrellus falcatus* (Sowerby, 1834) is discussed. The geographical distribution in the northwestern Pacific is given for each species.

means that the character was observed in a few cases but not in all specimens.

Other abbreviations:

BM(NH): The Natural History Museum, London, U.K.

MNHN: Muséum national d'Histoire naturelle, Paris, France.

SMF: Forschungsinstitut Senckenberg, Frankfurt, Germany.

USNM: National Museum of Natural History, Washington, D.C., U.S.A.

ZISP: Zoological Institute of the Russian Academy of Sciences, St. Petersburg, Russia.

UMUT: The University Museum, The University of Tokyo, Japan.

RH: collection of Roland Houart.

ad.: adult specimen.

juv.: juvenile specimen.

al.: alcohol preserved specimen.

lv.: live collected specimen.

dd.: dead collected specimen.

Introduction

The starting point of this paper was a set of apparently different ocenebrine species from the Northwestern Pacific sent for identification and comments. After having compared this material with specimens stored in the Zoological Institute of the Russian Academy of Sciences, in the RH collection, and with specimens illustrated in recent publications, it appeared necessary to classify these species in an adequate genus before discussing the geographical range of each species in the studied area, the aim of this paper.

Different names, both generic, subgeneric and specific, have been used during the past years to designate all these species [Vokes, 1971; Fair, 1976; Yoo, 1976; Radwin, D'Attilio, 1976; Kaicher, 1978, 1979, 1980; Choe, Park, 1997; Amano, Vermeij, 1998; Tsuchiya, 2000, and others], leaving a very intricate classification.

Ocenebrine species are characterized by having a shell with a usually ventrally sealed siphonal canal (however, it is open in a few genera), and a D-shaped, purpuroid operculum with a nucleus in lower right. The radula (Fig. 8 C-F) has a rachidian tooth with a broad, fairly long, weakly or strongly prominent central cusp and long lateral cusps at each side. Each lateral cusp is flanked by inner and outer lateral denticles. They are followed by a series of serrated marginal denticles, preceding a short or fairly long marginal cusp.

Description: the terminology used here is largely based on Merle [1999, 2001] (Fig. 1). The spiral sculpture was carefully studied in all the specimens. However, no special attention was given to the apertural denticles which are low or absent in many cases. The terminology is occasionally put in brackets, this

Taxonomy

Family MURICIDAE Rafinesque, 1815

Subfamily OCENEBRINAE Cossmann, 1903

Genus *Ocenebra* Gray, 1847

Type species by monotypy: *Murex erinaceus* Linnaeus, 1758. Recent; Europe.

= *Tritonalia* Fleming, 1828 (suppressed, ICZN opinion 886)

Ocenebra is here used for three species instead of *Ocinebrellus*, *Ceratostoma* or *Pteropurpura* as done by previous authors (see references under *O. inornata*). The shell morphology and measurements in *O. acanthophora*, *O. inornata* and *O. lumaria* are closer to *Ocenebra* than to *Ocinebrellus* (see Tables 2-6): the shell of *Ocinebrellus* is broader (spines included) than in *Ocenebra*, the aperture is smaller (length and breadth), and the siphonal canal is com-