Notes on the systematics, morphology and biostratigraphy of fossil holoplanktonic Mollusca, 16<sup>1</sup>. Some additional notes and amendments on Cuvierinidae and on classification of Thecosomata (Mollusca, Euthecosomata)

# Arie W. JANSSEN

National Museum of Natural History *Naturalis*, Palaeontology Department, P.O. Box 9517, NL 2300 RA Leiden, The Netherlands; currently: 12, Triq tal'Hamrija, Xewkija VCT110, Gozo, Malta; ariewjanssen@waldonet.net.mt.

'Sorry to be ruining your day !!'
(P. Bouchet, in email, 29 December 2005)

Some critical remarks on a recently published paper on the development of Cuvierinidae (Basteria 69, 2005) are discussed. A diagnosis for the family Praecuvierinidae Janssen, 2005 is provided. A replacement name, *Urceolarica* nom. nov., is introduced for *Urceolaria* Janssen, 2005, not of Lamarck, 1801 or Stein, 1867. Authorship of some family group names is corrected and the systematics of Thecosomata are revised.

Key words: Gastropoda, Euthecosomata, Praecuvierinidae, Cuvierinidae, systematics, new subgenus.

Professor Dr Philippe Bouchet (Muséum national d'Histoire naturelle, Paris, France; in litt., December 2005) has made several critical remarks regarding my 2005 Cuvierinidae paper, which I will answer here, as follows:

## 1. Availability of the family name Praecuvierinidae

This new family was erected (Janssen, 2005: 35) to accommodate two new genera, *Praecuvierina* and *Texacuvierina*. To be available, according to ICZN art. 13.1.1, the name should 'be accompanied by a description or definition that states in words characters that are purported to differentiate the taxon ..'. Bouchet is right in noting that such a description or definition was not included. A diagnosis of the Praecuvierinidae family is as follows:

Bilaterally symmetrical Euthecosomata of Middle to Late Eocene age, with a *Cuvierina*-like shell of very small dimensions (1/5th to 1/10th the shell height of true Cuvierinidae) and without any surface ornamentation.

Praecuvierinidae are not considered to be ancestral to Cuvierinidae (known only from the Late Oligocene onwards), but rather as an earlier and unsuccessful offshoot from Creseidae.

# 2. The genus group name Urceolaria Janssen, 2005

<sup>1)</sup> For no. 15 in this series see Basteria, Supplement 3: 45-48 (2006).

Unfortunately, this name turns out to be preoccupied by *Urceolaria* Lamarck (1801: 389) (Rotifera) and *Urceolaria* Stein, 1867 (Protozoa, Ciliophora). Therefore, I here introduce the name *Urceolarica* nom. nov. (gender: feminine), also named after the specific name of *Cuvierina urceolaris* Mörch, 1850, as replacement name for *Urceolaria* Janssen, 2005 [not of Lamarck, 1801, or Stein, 1867).

## 3. Authorship of superfamily Cavolinioidea

Janssen (2003: 164) [a paper apparently not yet available to Bouchet & Rocroi (2005)], and Janssen (2005: 35) both cited Fischer, 1883 as author of the superfamily Cavolinioidea, following Van der Spoel (1967: 56, and 1976: 16, in both cases as Cavoliniidae Fischer, 1883). Indeed, Fischer (1883: 434) introduced the name Cavoliniidae, based on the genus name Cavolinia, although Gray (1850: 3, 4) had already used the name Cavolinidae (based on Cavolinia). I overlooked Opinion 883 of ICZN (1969: 28) in which Cavoliniidae Gray, 1850 (correction of Cavolinidae), based on the type genus Cavolinia Abildgaard, 1791, was placed on the Official List of Family Group Names in Zoology, with name number 438. According to the Principle of Coordination (ICZN, 1999, art. 36.1), all family group names based on a certain genus have the same authorship and date.

# 4. Authorship of Heterobranchia

According to Bouchet & Rocroi (2005: 209), the author of Heterobranchia is not Gray, 1840, as stated in Janssen (2005: 35), but Burmeister, 1837.

#### 5. Classification of Thecosomata

Bouchet & Rocroi (2005) presented a classification of the Thecosomata in which several ranks and authorships differ from the ones given in Janssen (2003: 164). Therefore it seems useful to give this classification again here, with corrected ranks and authorships as they should be in my opinion (several ranks deviate from Bouchet & Rocroi's classification):

Order Thecosomata De Blainville, 1824

Suborder Euthecosomata Meisenheimer, 1905

Superfamily Limacinoidea Gray, 1847

Family Limacinidae Gray, 1847

Superfamily Cavolinioidea Gray, 1850

Family Cavoliniidae Gray, 1850

Family Cliidae Jeffreys, 1869 (note 1)

Family Creseidae Curry, 1982 (note 2)

Family Cuvierinidae Van der Spoel, 1967

Family Praecuvierinidae Janssen, 2006 (this paper)

Family Sphaerocinidae Janssen & Maxwell, 1995

Suborder Pseudothecosomata Meisenheimer, 1905

Superfamily Cymbulioidea Gray, 1840 (note 3)

Family Cymbuliidae Gray, 1840

Subfamily Cymbuliinae Gray, 1840 Subfamily Glebinae Van der Spoel, 1976 ? Family Desmopteridae Chun, 1889 Family Peraclididae Tesch, 1913

Note 1. – I considered the name Clionae (Van der Spoel, 1967: 31, 57) to be a first introduction of a family group name based on the euthecosome *Clio*, but indeed Jeffreys (1869: 118) used Cliidae. Still, a much older name is Cliodinae Menke (1828), in corrected form and in family rank, Clioidae Menke, 1828. A proposal to put this name (as Cliidae) on the Official List of Family Group Names in Zoology was published by Willan et al. (2004) (ICZN Case 3211). This proposal, however, was criticised by Bouchet (2005), who stated that the name *Clio*, as used by Menke (1828), refers to a gymnosome genus, for which nowadays the name *Clione* Pallas, 1774, is in use. In Menke's days, the thecosome genus now referred to as *Clio*, used to be indicated as *Cleodora* Péron & Lesueur, 1810. At the time of submitting the present paper ICZN Opinion 2133 appeared (ICZN, 2006), ruling that the correct name for a family based on *Clio* is Cliidae Jeffreys, 1869.

Note 2. – Janssen (2003: 164) erroneously considered Rang (1828) to be the author of Creseidae. In Rang (1828: 305), however, just the name *Creseis* was introduced, as a subgenus of *Cleodora*. Bouchet & Rocroi (2005) presumed Curry, 1982 to be the author (of Creseinae, in their paper). Curry's paper is usually cited as 1981, but indeed, on 24 January 1982 Dennis Curry (in litt.) referred to his manuscript as 'in press'. In that paper, he used (p. 42) the name Creseidae Rampal, 1975. However, this name (Rampal, 1975: 127, as Creseidae) is not nomenclaturally available (unpublished Ph.D. thesis)(Bouchet & Rocroi, 2005: 57).

Note 3. – I was unaware of the family name Cymbuliidae Gray, 1840 (a paper not available to me, unfortunately). I accepted the authorship of Cantraine, 1841 after Van der Spoel (1976: 18, 35). Now, following the Principle of Coordination again, I accept the superfamily name Cymbulioidea Gray, 1840, on the authority of Bouchet & Rocroi (2005), instead of Peraclidoidea Tesch, 1913.

### **ACKNOWLEDGEMENTS**

Professor Philippe Bouchet (Muséum national d'Histoire naturelle, Paris, France) is thanked for his constructive criticism. Drs Jan van Tol and Edi Gittenberger (National Museum of Natural History Naturalis, Leiden, the Netherlands) kindly gave their opinion on the manuscript and on ICZN rulings. Mr Frank P. Wesselingh, of the same institute, critically read the manuscript. Dr John W.M. Jagt (Venlo, the Netherlands), as always, improved the English.

#### REFERENCES

BOUCHET, P., 2005. Comment on the proposal to remove the homonymy between Clionidae Rafinesque, 1815 (Mollusca) and Clionidae d'Orbigny, 1851 (Porifera). – The Bulletin of Zoological Nomenclature 62: 84-86.

BOUCHET, P., & J.P. ROCROI, 2005. Classification and nomenclator of gastropod families. - Malacologia

- 47: 1-397.
- CURRY, D., 1982. Ptéropodes éocènes de la tuilerie de Gan (Pyrénées Atlantiques) et de quelques autres localités du SW de la France. Cahiers de Micropaléontologie 4 (1981): 35-44.
- FISCHER, P., 1880-1887. Manuel de conchyliologie et de paléontologie conchyliologique ou histoire naturelle des mollusques vivants et fossiles suivi d'un appendice sur les brachiopodes par D.P. Oehlert, 1-12: i-xxiv, 1-1369. Paris.
- GRAY, J.E., 1850. Catalogue of the Mollusca in the collection of the British Museum, 2. Pteropoda: i-iv, 1-45. London.
- INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE, 1969. Opinion 883. Cavolinia Abildgaard, 1791 (Gastropoda): grant under the plenary powers of precedence over Cavolinia Bruguière, 1791. The Bulletin of Zoological Nomenclature 26: 28-29.
- INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE, 1999. International code of zoological nomenclature, fourth edition: i-xxix, 1-306. London.
- INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE, 2006. Opinion 2133. Clionidae d'Orbigny, 1851 (Porifera, Hadromerida): emended to Clionaidae to remove homonymy with Clionidae Rafinesque, 1815 (Mollusca, Pteropoda). The Bulletin of Zoological Nomenclature 63: 51-53.
- JANSSEN, A.W., 2003. Notes on the systematics, morphology and biostratigraphy of fossil holoplanktonic Mollusca, 13. Considerations on a subdivision of Thecosomata, with the emphasis on genus group classification of Limacinidae. – Cainozoic Research 2: 163-170.
- JANSSEN, A.W., 2005. Development of Cuvierinidae (Mollusca, Euthecosomata, Cavolinioidea) during the Cainozoic: a non-cladistic approach with a re-interpretation of Recent taxa. – Basteria 69: 25-72.
- JEFFREYS, J.G., 1869. British conchology, or an account of the Mollusca which now inhabit the British Isles and the surrounding seas, 5. Marine shells and naked Mollusca to the end of the Gastropoda, the Pteropoda, and Cephalopoda; with a supplement and other matter, concluding the work: 1-258.
- LAMARCK, J.B.[P.A. DE], 1801 (an 9). Système des animaux sans vertèbres, ou tableau général des classes, des ordres et des genres de ces animaux; présentant leurs caractères essentiels et leur distribution, d'après la considération de leurs rapports naturels et de leur organisation, et suivant l'arrangement établi dans les galeries du Muséum d'Hist. Naturelle, parmi leurs dépouilles conservées; précédé du discours d'ouverture du Cours de Zoologie, donné dans le Muséum National d'Histoire Naturelle l'an 8 de la République: i-viii, 1-432. Paris.
- RAMPAL, J., 1975. Les thécosomes (mollusques pélagiques). Systématique et évolution écologie et biogéographie méditerranéennes: 485 pp. Aix-Marseille (unpublished thesis Univ. Provence CNRS AO 11932).
- RANG, [P.C.A.L.], 1828. Notice sur quelques mollusques nouveaux appartenant au genre cléodore, et établissement et monographie du sous-genre créseis. Annales des Sciences Naturelles 13: 302-319.
- SPOEL, S. VAN DER, 1967. Euthecosomata, a group with remarkable developmental stages (Gastropoda, Pteropoda): 1-375. Gorinchem (thesis University of Amsterdam).
- SPOEL, S. VAN DER, 1976. Pseudothecosomata, Gymnosomata and Heteropoda (Gastropoda): 1-484. Utrecht.
- WILLAN, R.C., B. ALVAREZ, R. BURN & H.G. SPENCER, 2004. Comment on the proposal to emend the spelling of Clionidae d'Orbigny, 1851 (Porifera, Hadromerida) to Clionaidae to remove homonymy with Clionidae Rafinesque, 1815 (Mollusca) The Bulletin of Zoological Nomenclature 61: 167-169.