Case 2768

Lepidomenia Kowalevsky in Brock, 1883 (Mollusca, Solenogastres): proposed designation of Lepidomenia hystrix Marion & Kowalevsky in Fischer, 1885 as the type species

David Heppell

Department of Natural History, National Museums of Scotland, Edinburgh EH1 1JF, U.K.

**Abstract.** The purpose of this application is to establish the correct authorship and dates for the solenogaster names *Lepidomenia* and *L. hystrix*, and to designate *L. hystrix* as the type species of the genus in accordance with universal understanding and usage.

- 1. Both the generic and specific names of the binomen Lepidomenia hystrix were proposed in ways which have continued to cause confusion as to the correct attribution of date and authorship. Pilsbry (1898, p. 310) commented on 'the decidedly confused literature' and summarized the problem as follows: 'The name Lepidomenia was first used by Kowalevski in 1881 [sic] or 1883 in connection with Neomenia coralliophila and a Marseilles form supposed to be specifically the same as coralliophila, but apparently identical with what was subsequently described as L. hystrix. Simroth has chosen to restrict Lepidomenia to the later described species, although the record would incline one to choose N. coralliophila as the type.' No doubt because Kowalevsky's introduction of Lepidomenia was made in a literature-recording journal (1883) and not in the primary zoological literature, Pilsbry attributed the name to Kowalevsky & Marion, 1887. This attribution is still sometimes found in modern works (e.g. Jones & Baxter, 1987, p. 28). The spelling 'Kowalevsky' is adopted here, as that is the transliteration used by the author himself in non-Russian works, but he is also commonly cited as Kovalevsky, Kowalevski or Kowalewsky.
- 2. In 1872 Kowalevsky discovered two new species of Solenogastres associated with corals at La Calle, Algeria, which he assigned to the genus *Neomenia* Tullberg, 1875. The first of these, *N. gorgonophila*, appeared in an abstract (Kowalevsky in Brandt, 1880, p. 190), which was followed by a full description in vol. 37 of *Izvêstiya Imperatorskago Obshchestva Lyubitelei Estestvoznaniya...* (Kowalevsky, 1881a). The single specimen of the second species was described as *N. corallophila* (Kowalevsky, 1881b). The description of this species was intended for publication in an appendix to vol. 37 (1881) of *Izvêstiya*, and this was announced in vol. 41 (part 1, back cover, also published in 1881). The paper was, however, never published in that form and it is omitted from the index to *Izvêstiya* publications, 1863 to 1894 (Ivanovskii, 1894). Kowalevsky's work was, nevertheless, included in literature-recording publications (*Zoologischer Anzeiger* (1882, p. 422), *Zoologischer Jahresbericht* (1883, pp. 19, 28–29) and *Zoological Record* (1883, vol. 19, Mollusca, p. 8)) which noted it among the publications for 1882 as being published in 1881 in volume 43 of the *Izvêstiya* (or a

vernacular equivalent of the title of that periodical). Soulsby and Townsend's *Catalogue of the books... in the British Museum (Natural History) (Supplement)* (1933, p. 585) recorded that only 'author's copies' of the work were in existence. It was listed without comment as a separate publication by Kowalevsky & Marion (1887, p. 7, footnote) and in a bibliography of Kowalevsky's papers appended to his biography (Dogel', 1945, p. 150). A copy of Kowalevsky's work in the library of the Natural History Museum, London, shows no evidence that it is merely an unpublished proof; according to the plates it is a preprint of a paper intended for vol. 43 of the *Izvêstiya*. Kowalevsky's paper was presumably withdrawn from publication in the *Izvêstiya* at the last minute, and the completed text and plates issued as separates only (the entry in the *Zoologischer Jahresbericht* (1883, p. 19, no. 67) acknowledges 'Referat nach gütiger briefl. Mittheilung des Herrn Verfassers'). In the Museum copy the specific name of the solenogaster is spelled *corallophila* throughout, and it is odd, therefore, that all three literature-recording journals cite the name as '*coralliophila*'.

- 3. In 1882 Kowalevsky and Marion collected what they believed was a second specimen of *Neomenia corallophila*, also associated with a coral, from the north coast of the island of Ratonneau, near Marseilles. An abstract of Kowalevsky's 1881(b) paper, published by Brock (1883), incorporated details of this second specimen, evidently supplied by Kowalevsky. The second specimen was in better condition than the first and its features resulted in the species being placed in a new genus, *Lepidomenia* (p. 29), the name referring to the characteristic scaly integument. This is the first valid introduction of the generic name and it is formally attributed to 'Kowalevsky in Brock' (Recommendation 51B of the Code). The single nominal species originally included was *Neomenia corallophila* (incorrectly spelled *coralliophila*; see para. 2 above) which, in this 1883 usage, was a composite of the Algerian and French specimens.
- 4. As early as January 1883 Kowalevsky and Marion realised that the Marseilles specimen of Neomenia represented a species distinct from the Algerian corallophila. Marion (1883, p. 69) listed the Marseilles specimen as Lepidomenia hystrix. The specific name was a nomen nudum here, but Marion indicated that a full description would be given in the 'Recueil' of the museum. This must have been a provisional title for the new periodical, as the description was eventually published in the Annales (Kowalevsky & Marion, 1887, pp. 7–25), although a shortened version of the paper appeared the previous year (Marion & Kowalevsky, 1886, pp. 757-759) from which the name would be available. However, the specific name validly dates from a year earlier: Fischer (1885, pp. 884-889) incorporated an article by Marion on the Aplacophora; this included a description of the genus Lepidomenia and a figure of part of the scaly, spinous integument of Lepidomenia hystrix. This illustration (drawn by Marion) is an indication sufficient to make the name hystrix available from 1885 (Article 12b(7) of the Code), and the attribution of the name to Marion and Kowalevsky (p. 889) established the joint authorship. Authorship of the name would be formally cited as 'Marion & Kowalevsky in Fischer' (Recommendation 51B of the Code). The attribution of Lepidomenia to 'Marion, 1884' on the same page is presumably to a manuscript usage.
- 5. Simroth (1893a) proposed the new generic names *Nematomenia* (p. 324; type species *Dondersia flavens* Pruvot, 1890) and *Echinomenia* (p. 325; type species *Neomenia corallophila* Kowalevsky, 1881). He retained *hystrix* as the sole species in *Lepidomenia* (see also Simroth, 1893b, pp. 138, 233) and this has been interpreted (wrongly; see Article 69b of the Code) as fixing *L. hystrix* as the type species of the

genus. Thiele (1913a, p. 38) synonymized *Echinomenia* with *Nematomenia* (see also Thiele, 1913b, p. 14). Since then, *corallophila* and *hystrix* have been placed consistently in *Nematomenia* and *Lepidomenia* respectively.

- 6. Both species appear to be rare. Neomenia (currently Nematomenia) corallophila is known only from the type specimen. Lepidomenia hystrix is possibly known only from the type locality (Salvini-Plawen, 1969), although Salvini-Plawen (1986, p. 191) gives Llansa (Spain) as a doubtful additional locality. Specimens from north of the island of Riou, near Marseilles, described as L. hystrix by Swedmark (1956, p. 93) were subsequently identified as a new species, L. swedmarki, by Salvini-Plawen (1985, p. 103). There is also some doubt about the identity of specimens recorded as L. hystrix from Strangford Loch, Northern Ireland, by Boaden (1966, p. 127) and from off the north coast of Brittany by Swedmark & Teissier (1967, p. 70).
- 7. The International Commission on Zoological Nomenclature is accordingly asked:
  - (1) to confirm the authorship of the generic name *Lepidomenia* as Kowalevsky in Brock (1883);
  - (2) to confirm the authorship of the specific name *hystrix* (as published in the binomen *Lepidomenia hystrix*) as Marion & Kowalevsky in Fischer (1885);
  - (3) to use its plenary powers to set aside all previous fixations of type species for the nominal genus *Lepidomenia* Kowalevsky in Brock, 1883, and to designate *Lepidomenia hystrix* Marion & Kowalevsky in Fischer, 1885, as the type species;
  - (4) to place on the Official List of Generic Names in Zoology the name *Lepidomenia* Kowalevsky in Brock, 1883 (gender: feminine), type species by designation in (3) above *Lepidomenia hystrix* Marion & Kowalevsky in Fischer, 1885;
  - (5) to place on the Official List of Specific Names in Zoology the name hystrix Marion & Kowalevsky in Fischer, 1885, as published in the binomen Lepidomenia hystrix (specific name of the type species of Lepidomenia Kowalevsky in Brock, 1883).

## References

- Boaden, P.J.S. 1966. Interstitial fauna from Northern Ireland. Veröffentlichungen des Instituts für Meeresforschung in Bremerhaven, Sonderband 2: 125–130.
- **Brandt**, A. 1880. Verhandlungen der zoologischen Section der VI. Versammlung russischer Naturforscher und Ärzte. *Zoologischer Anzeiger*, 3: 186–191.
- Brock, J. 1883. Mollusca. A. Anatomie und Entwicklungsgeschichte. Zoologischer Jahresbericht, 1882(3): 16-47.
- Dogel', V.A. 1945. A.O. Kovalevskii, 1840–1901. 153 pp., 1 pl. Akademii Nauk SSR, Moscow. [In Russian.]
- Fischer, P. 1885. Manuel de conchyliologie et de paléontologie conchyliologique ou histoire naturelle des mollusques vivants et fossiles, part 9, pp. 785–896. Savy, Paris.
- Ivanovskii, A.A. 1894. Publications of the Society from 15 October 1863 to 1 August 1894. Bibliographical index. *Izvêstiya Imperatorskago Obshchestva Lyubitelei Estestvoznaniya*, Antropologii i Étnografii pri Imperatorskom Moskovskom Universitetê, 89: 1–30 (60 columns). [In Russian.]
- Jones, A.M. & Baxter, J.M. 1987. Molluscs: Caudofoveata, Solenogastres, Polyplacophora and Scaphopoda. Synopses of the British Fauna (N.S.), 37: 1–123.
- Kowalevsky, A.O. 1881a. Neomenia gorgonophila. Izvêstiya Imperatorskago Obshchestva Lyubitelei Estestvoznaniya, Antropologii i Étnografii pri Imperatorskom Moskovskom Universitetê, 37(1): 181–186. [In Russian.]

- Kowalevsky, A.O. 1881b. On Neomenia corallophila and Coeleplana metschnikowii. 5 pp., 2 pls. Moscow. [In Russian.]
- Kowalevsky, A.O. & Marion, A.F. 1887. Contributions à l'histoire des Solenogastres ou Aplacophores. *Lepidomenia hystrix*: nouveau genre de la famille des Néoméniées. *Annales du Musée d'Histoire Naturelle de Marseille*, 3(1): 7–25.
- Marion, A.F. 1883. Esquisse d'une topographie zoologique du golfe de Marseille. *Annales du Musée d'Histoire Naturelle de Marseille*, 1(1): 1–108.
- Marion, A.F. & Kowalevsky, A.O. 1886. Organisation du *Lepidomenia hystrix*, nouveau type de Solénogastre. *Comptes Rendus Hebdomadaires des Séances de l'Académie des Sciences.* Paris, 103(17): 757–759.
- **Pilsbry, H.A.** 1898. Order Aplacophora von Ihering. *Manual of Conchology*, vol. 17, part 68, pp. 281–310. Academy of Natural Sciences, Philadelphia.
- Salvini-Plawen, L. von. 1969. Lepidomenia hystrix Marion & Kowalevsky, 1886. Schede Malacologiche del Mediterraneo, No. 98 Ab 01.
- Salvini-Plawen, L. von. 1985. New interstitial Solenogastres (Mollusca). Stygologia, 1(1): 101–108.
- Salvini-Plawen, L. von. 1986. Caudofoveata e Solenogastres del Mediterraneo. *Bolletino Malacologico*, **22**(9–12): 189–196.
- Simroth, H. 1893a. Kritische Bemerkungen über die Systematik der Neomeniidae. Zeitschrift für Wissenschaftliche Zoologie, 56(2): 310–327.
- Simroth, H. 1893b. Aplacophora. Pp. 133–233 in: H.G. Bronn's Klassen und Ordnungen des Thier-Reichs, vol. 3, part 1. Winter, Leipzig.
- Soulsby, B.H. & Townsend, A.C. 1933. Catalogue of the books, manuscripts, maps and drawings in the British Museum (Natural History), vol. 7, Supplement (J-O). 967 pp. British Museum, London
- Swedmark, B. 1956. Étude de la microfaune des sables marins de la région de Marseille. *Archives de Zoologie Expérimentale et Générale*, 93 (Notes et Revue No. 2): 70–95.
- Swedmark, B. & Teissier, G. 1967. Structure et adaptation d'Halammohydra adherens. Cahiers de Biologie Marine, 8: 63–74.
- Thiele, J. 1913a. Antarktische Solenogastren. Deutsche Südpolar-Expedition 1901–1903, 14(Zoologie, 6): 35–65.
- Thiele, J. 1913b. Mollusca. Solenogastres. Das Tierreich, 38: 1–57.