TETHYIDAE IN GASTROPODS, SPONGES AND ASCIDIANS: PROPOSALS TO REMOVE THE HOMONYMY. Z.N.(S.) 1780

By the Secretary, International Commission on Zoological Nomenclature

Abstract. The name TETHYIDAE has been used to denote three families. It is in long-continued use for the first two (in Gastropods and Sponges). This homonymy can be removed by the use of the plenary powers to rule that the stem of Tethys (the gastropod genus) is Tethyd - instead of Tethygiving TETHYDIDAE. The family name in Ascidians has long fallen into disuse, having been replaced by PYURIDAE. Here it is proposed to use the plenary powers to suppress the name of its type-genus, Tethyum Gunnerus, 1765.

In September 1975 (Bull. zool. Nom. vol. 32: 144-145) Mr Joshua L. Baily, Jr. (San Diego, California) proposed that the ruling given in Opinion 200 validating the generic name Tethys Linnaeus, 1767 in Gastropoda should be completed by placing the family name concerned, TETHYIDAE Fischer, 1886, on the Official List. (In November 1975 Dr W.O. Cernohorsky (Auckland Institute and Museum, Auckland, New Zealand) wrote to point out that the family name dates from Rafinesque, 1815, Analyse de la Nature: 141, as "Tethydia".) Mr Baily's application was supported by Dr Allyn G. Smith (California Academy of Sciences, San Francisco).

2. Mr Baily's application had asked that the family name APLYSIIDAE should also be placed on the Official List. The generic name Aplysia Linnaeus, 1767 had also been validated in Opinion 200. Mr Baily gave the author and date of this family name as "Pilsbry, 1895-6" (but see Clench & Turner, 1962, New names introduced by H.A. Pilsbry in the Mollusca and Crustacea, Acad. nat. Sci. Philadelphia. Spec. Publ. 4: 174). However, Dr Cernorhorsky, in the letter already cited, showed that the name must be attributed to Swainson, 1840, Treatise Malacology: 247, 248, 252 (as "Aplysianae").

3. In October 1975 Dr L. B. Holthuis wrote to the Secretary: "Before the Commission takes action on the family name TETHYIDAE in the Mollusca, it should realise that there exists a family TETHYIDAE J.E. Gray, 1867 (as "Tethyadae"), type-genus Tethya Lamarck, 1814, in the Porifera. Both Tethya Lamarck, 1814 (Mém. Mus. Hist. nat. Paris vol. 1 (1): 69) and TETHYIDAE Gray, 1867 (Proc. zool. Soc. London, 1867: 540) are as far as I

names of the type-genera concerned, and reference to the

Commission is obligatory under Article 55a of the Code.

4. A further complication was brought to light by Dr Jon-Arne Sneli (Biologisk Stasjon, Trondheim, Norway). He wrote in January 1976 to mention not only TETHYIDAE Gray in Porifera, but also TETHYIDAE Huntsman, 1912, in Ascidia, typegenus Tethyum Gunnerus, 1765. Huntsman published this name twice in 1912: in Contrib. Canad. Biol. 1906-1910: 162, and in Trans. Canad. Inst. No. 21, Vol. 9 (2): 133. The date of the former is given simply as "1912" and under Article 21b must be taken as [31 December] 1912. That of the latter is given as "May 1912" and under the same provision must be taken as [31]May 1912 and as being the prior publication.

- 5. The next step must be to determine the type-species of the type-genera of these families, and how they were fixed. For *Tethys* and *Aplysia* these were dealt with in Opinion 200 they are *Tethys fimbria* Linnaeus, 1767 and *Aplysia depilans* Gmelin, 1791, respectively.
- 6, Tethya Lamarck, [1814], Mem. Mus. Hist. nat. Paris vol. 1 (1): 69 was established with six originally included species without the fixation of a type-species. Five of these are now either assigned to other genera or treated as species dubiae, and only Alcyonium lyncurium Linnaeus, 1767, Syst. Nat., ed. 12, vol. 1: 1295 remains in the genus. Alcyonium aurantium Pallas, 1766, Elenchus Zoophytorum: 357 is cited among the synonyms by Linnaeus and is now regarded as providing the valid specific name. The first valid fixation of a type-species that I have found is by Topsent, 1920, Bull. Mus. nat. Hist. nat. Paris, vol. 20: 643. He expressly designated T. lyncurium (Linnaeus) and cited T. aurantium Pallas as a senior synonym. He also said that Lendenfeld (1903, Das Thierreich, Lief. 19: 23) had designated another of the originally included species, T. cranium (O.F. Müller) as type-species (which would have led to much confusion), but I have not found any fixation of a type-species for Tethya in that work. I should be grateful for any information about earlier fixations than that by Topsent cited here.

7. Tethyum Gunnerus, 1765 (K. norske Vidensk. Selskab Skr. [= Det Trond. Selskab Skr], vol. 3: 102 was established for T. sociabile Gunnerus, T. papillosum Gunnerus (a replacement name for T. coriaceum Bohadsch, whose work was suppressed under the plenary powers in Opinion 185), and another of Bohadsch's species. In 1770 (K. dansk. Vidensk. Selsk. Skr., vol. 10: 166-167) Gunnerus stated that his T. sociabile was a senior synonym of Ascidia intestinalis Linnaeus, 1767, but his name has not been used as a valid name and Sneli & Gulliksen (1975, Bull. zool. Nom. vol.

32: 127-128, Z.N.(S.) 2087) have asked for its suppression. The first valid type-designation was made by Huntsman, May, 1912, of T. papillosum Gunnerus. The correctness of this was accepted by the then principal authority in Ascidia (Hartmeyer, 1913, Zool. Anz. vol. 41: 190), but in fact Tethyum seems not to have been used as a valid name since Huntsman's work. The nomenclature of these Ascidia appears to be highly confused, and this is not the place to attempt a thorough clarification. Huntsman adopted Tethyum and TETHYIDAE to replace Cynthia Savigny, 1816, Halocynthia Verrill, 1878, and CYNTHIIDAE of authors, but in fact the generic name that has been adopted for his taxon is Pyura Molina, 1782 - a name that is not without complications of its own.

8. Pvura Molina, 1782 (Sag. Stor. nat. Chili: 196) is described, but no species are referred to it. On: 348 the binomen Pvura chilensis is mentioned in a bare list and must be regarded as a nomen nudum. In the second edition of Molina's work (1810) the genus is again described but no specific name appears at all. Blainville (1824, Dict. Sci. nat. vol. 32: 365) described Pyura and listed Pyura molinae, but only as a nomen nudum. The earliest author known to me as having referred any species to Pyura under an available name is Gay, C., 1854, Hist. fis. y polit. de Chile. Zool. vol. 8: 393. He described a single species, Pyura molinae Gay, and this appears, on the information at present known to me, to be the type-species of Pyura, by subsequent monotypy. I am, however, assuming that this is the same species that was before Molina and hence that the concept denoted by the generic name is not altered. If any specialist in Ascidia has reason to believe differently, I hope

he will let me know without delay.

9. Pyura Molina, 1782, seems to have been overlooked by all authors until Michaelsen rediscovered it (1904, Mitt. naturh. Mus. Hamburg, Jahrg. 21:15). He then stated that he had no intention of adopting it in place of the established Halocynthia or of making the corresponding change in the family name. Hartmeyer, however (1908, Zool. Annalen, vol. 3:7, 15, 26) refers to Michaelsen's work and adopts Pyura as a valid name in place of Halocynthia and proposes PYURIDAE as the family name. (Although not strictly relevant, it may be mentioned that Holocynthia had been proposed by Verrill, 1879, as a new replacement name for Cynthia Savigny, a junior homonym of Cynthia Fabricius, 1807, a 1816. lepidopteran.) Hartmeyer was quoted and followed by Michaelsen (1908, Mitt. naturh. Mus. Hamburg, Jahrg. 25: 227-287), and all subsequent authors with the sole exception of Huntsman have adopted his usage.

- 10. The Ascidia are a difficult group and specialists are not very numerous. I have sought the advice of Dr R.H. Millar (Scottish Marine Biological Association, Dunstaffnage, Argyll, Scotland) and of Dr Cl. Monniot (Laboratoire de Biologie des Invertébrés Marins et Malacologie, Muséum national d'Histoire naturelle, Paris). Both agree that the nomenclature currently in use has been stable since the work of Hartmeyer (Huntsman's work not having had any influence) and that Tethyum and TETHYIDAE ought by no means to be revived.
- 11. If one of the three homonymous family names involved in this case can be disposed of by the simple operation of the Law of Homonymy and by suppressing the name of its type-genus, a means must still be found of dealing with the homonymy between the names of the gastropod and sponge families. It is fortunately easy to find such a way by the device adopted by the Commission in earlier cases of this kind of altering the stem of the name of one of the type-genera. Tethya Gray gives as genitive tethyae and the family name TETHYIDAE. Tethys is a classical Greek noun of a sort that would be expected to give the genitive tethydis, although the dictionaries show that its genitive in both ancient Greek and Latin was tethyos. The obvious solution is, therefore, to rule under the plenary powers that the stem of Tethys for the purposes of Article 29 is TETHYD-, giving the family name TETHYDIDAE.

12. The International Commission on Zoological

Nomenclature is accordingly asked

(1) To use its plenary powers

(a) to rule that the stem of the generic name *Tethys* Linnaeus, 1767 for the purposes of Article 29 is TETHYD-

(b) to suppress the generic name *Tethyum* Gunnerus, 1765, for the purposes of the Law of Priority but not for those of the Law of Homonymy.

2) To place the following names on the Official List of

Generic Names in Zoology:

(a) Tethya Lamarck, [1814] (gender, feminine), typespecies, by subsequent designation by Topsent, 1920, Alcyonium lyncurium Linnaeus, 1767;

(b) Pyura Molina, 1782 (gender, feminine), typespecies, by subsequent monotypy, Pyura molinae

Gay, 1854.

(3) To place the following names on the Official List of Specific Names in Zoology:

(a) aurantium Pallas, 1766, as published in the binomen Alcyonium aurantium;

- (b) molinae Gay, 1854, as published in the binomen Pyura molinae (specific name of type-species of Pyura Molina, 1782).
- (4) To place the following names on the Official List of Family-Group Names in Zoology:
 - (a) TETHYDIDAE (correction, through the ruling given under the plenary powers in (1) (a) above, of TETHYIDAE) Rafinesque, 1815 (as "Tethydia"), type-genus *Tethys* Linnaeus, 1767;
 - (b) APLYSIIDAE Swainson, 1840 (as "Aplysianae"), type-genus Aplysia Linnaeus, 1767;
 - (c) TETHYIDAE J.E. Gray, 1867 (as "Tethyadae"), type-genus *Tethya* Lamarck, [1814];
 - (d) PYURIDAE Hartmeyer, 1908, type-genus Pyura Molina, 1782.
 - (5) To place the generic name *Tethyum* Gunnerus, 1765, as suppressed under the plenary powers in (1) (b) above, on the Official Index of Rejected and Invalid Generic Names in Zoology;
 - (6) To place the following names on the Official Index of Rejected and Invalid Family-Group Names in Zoology:
 - (a) TETHYIDAE Rafinesque, 1815 (as "Tethydia") as an incorrect spelling in consequence of the ruling given under the plenary powers in (1) (a) above;
 - (b) TETHYIDAE Huntsman, 1912, a junior homonym of TETHYIDAE J.E. Gray, 1867.



Melville, R. V. 1978. "Tethyidae In Gastropods, Sponges And Ascidians Proposals To Remove The Homonymy. Z.n.(S.) 1780." *The Bulletin of zoological nomenclature* 34, 247–251.

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