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71

Points of View

REPRINT

Misuse of Generic Names of Shrimp (Family Penaeidae)

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Misuse of Generic Names of Shrimp (Family Penaeidae)

Misuse of names of the penaeid shrimp has been going on for well over a hundred years. The matter is of some importance because interest in these shrimp, both zoologically and commercially, is increasing greatly every year and use of the Latin names in general papers and statistical reports is increasing commensurately. Most authors are non-taxonomists and follow rather faithfully the erroneous spellings of reputedly authoritative works. Some of these spellings are wrong for the same reasons other words are sometimes spelled wrong. Others are based upon misconceptions. The latter are the more important and are the only ones treated in these remarks.

Peneus was first used as a generic name in a species list by F. Weber in 1795. The three species named were not described nor was the genus characterized, and all three species names were followed by the letter "S." In the introduction (p. III) Weber states that the "S" stands for "Supplementum insectorum ineditum Fabricii." Thus *Peneus* was a *nomen nudum* and remains one, for when Fabricius did publish his *Supplementum* in 1798, defining his genus about as well as things were done in those days, he used the word *Penaeus*. Whether or not this is the proper way to latinize a Greek name is beside the point with regard to zoological nomenclature. The genus was restricted by S. I. Smith (1886), who also used *Penaeus*. Practically all other authors have used the same name. There were some exceptions.

Lucas (1848) used *Penoëus*, with the *oe* as a ligature and, according to Burkenroad (1934), in a later publication which I have not seen, Lucas (1849) used *Peneus*. Philippi (1840) also used *Peneus*. Lucas' use

of the ligature *oe* may have been a printer's error, for in many of the older fonts the *a* in the *ae* ligature was script-like and therefore easily confused with the *oe*.

Smith (1871, not 1869 as is commonly stated) used *Peneus* and in the same paper described the genus *Xiphopeneus*. Later when he realized that *Peneus* was wrong and took up Fabricius' original spelling, he recognized that *Xiphopeneus* would have to stand (Smith 1882, 1886). The doyen of American carcinologists, Waldo L. Schmitt, apparently had a similar experience, for in 1926 he used *Peneus*, citing Weber as the original authority, but turned to *Penaeus* later (Schmitt, 1926, 1935).

The papers of Smith (1871) and Alcock (1901, 1905) really laid the grounds for the present confusion. Alcock used *Peneus* throughout and in his 1905 synonymic lists did not bother to give the spellings really used by the authors; thus, this paper is useless in that respect, except for the dates, and in error. In one place Alcock did say that Fabricius' name was *Penaeus*, but that was evidently an oversight on his part. These facts would make little difference, except that Alcock described certain new genera, *Atypopeneus*, *Parapeneopsis*, and *Trachypeneus*, in conformity with his idea of how *Penaeus* should be spelled. These names plus *Xiphopeneus* of Smith and *Trachypeneopsis* of Burkenroad (1934) do not conform to eight other shrimp genera where the word *Penaeus* or the root is used. This is unfortunate, but although the International Commission has advised against giving similar but different spellings for genera in the same family, the generic names cannot be changed once they are properly published, regardless of authors'

misconceptions or other matters. This is one of the basic rules upon which nomenclatural stability rests. Nevertheless, Anderson and Lindner (1943) emulated Alcock, but in the opposite direction, and changed everything except *Trachypeneus* to conform with *Penaeus*. Since this key has been used extensively, the misspellings, *Xiphopenaeus*, etc., have become widely disseminated. There are also some unfortunate misspellings of species names in this paper, but here we are concerned only with generic names. These remarks should in nowise be taken as a criticism of the general value of Anderson and Lindner's paper, for, in spite of one minor taxonomic error, it summarizes a great deal of literature, some of which is written in a style more concealing than revealing. Therefore, it is, as one carcinologist said, "one of the most useful penaeid papers of the century."

Dr. Fenner A. Chace, Jr. has recently drawn up a list of the generic names of the Penaeidae, which he has kindly allowed me to publish here.

The Genera of Shrimps of the Family
Penaeidae

Subfamily SOLENOCERINAE

- Haliporus* Bate, 1881
- Hymenopenaeus* Smith, 1882
- Solenocera* Lucas, 1849

Subfamily ARISTAEINAE

- Aristaeomorpha* Wood-Mason, 1891
- Aristeus* Duvernoy, 1840
- Bentheogennema* Burkenroad, 1936
- Benthesicymus* Bate, 1881
- Gennadas* Bate, 1881
- Hemipenaeus* Bate, 1881
- Hepomadus* Bate, 1881
- Plesiopenaeus* Bate, 1881

Subfamily PENAEINAE

- Artemesia* Bate, 1888
- Atypopeneus* Alcock, 1905
- Funchalia* Johnson, 1868 (including *Pelagopenaeus* Burkenroad, 1934)
- Heteropenaeus* De Man, 1896

- Macropetasma* Stebbing, 1914
- Metapenaeus* Wood-Mason, 1891
- Parapenaeus* Smith, 1885
- Parapeneopsis* Alcock, 1901
- Penaeopsis* Bate, 1881 (including *Metapenaeopsis* Bouvier, 1905)
- Penaeus* Fabricius, 1798
- Protrachypene* Burkenroad, 1934
- Trachypeneopsis* Burkenroad, 1934
- Trachypeneus* Alcock, 1901 (including *Trachysalambria* Burkenroad, 1934)
- Xiphopeneus* Smith, 1871

Subfamily SICYONINAE

- Sicyonia* H. Milne Edwards, 1830

These names are correct as written and, under the Rules, cannot be changed by authors for purposes of uniformity. It should not strain the minds of zoologists much further to remember that five genera of penaeids are spelled with *e* rather than *ae*. This seems to be preferable to applying to the International Commission for a plenary ruling bringing about uniformity, although that avenue is open.

In the first place, such action might set a precedent leading to a host of appeals over similar minutia; secondly the matter is not determinable on the basis of any clear grammatical rule, but shades off into matters of usage, preference or even original pronunciation about which we know little. The ligature *ae* was often changed to *e* in English and other European languages and such words as aesthetic, aether, etc. became esthetic, etc. However, this sets no precedent for Latin. Instead, printers have set one themselves for zoological Latin by dropping the ligature from their fonts within the past fifty years, while equating the ligature to the simple digraph *ae*. Thus, all older workers spelled *Penaeus* with the ligature, but since about 1910 the usage has almost ceased and it is now a rare printing press which has the ligature in its font.

If the matter of uniformity were settled on a basis of majority usage, the *ae* spelling would easily be selected. Fabricius (1698), Spence Bate (1881), S. I. Smith

(1882, 1885), Wood-Mason (1891) and De Man (1896) named eight genera, using *ae*. These genera probably contain the majority of species. Furthermore, Latreille, H. and A. Milne-Edwards, Heller, Bouvier and most other students of shrimp followed this spelling. In contrast, S. I. Smith (1871), Alcock (1901, 1905) and Burkenroad (1934) named five genera using the *e* spelling. (All papers in this paragraph are not cited. They can be easily traced from taxonomic papers).

The argument has been raised that *Peneus* was the proper spelling of the Latin name of a river in Thessaly and also the name of a river god. However, I can see the fortunate aspect of an error, if error it was, by which Fabricius failed to name a group of marine animals after a river or a mythical fresh-water god. Similarly, I attach little importance to the desire to rectify the matter now. Other aspects of the case are considerably more important.

Some curious inequities would arise from any plenary ruling for uniformity. If *Peneus* were adopted, among the authors listing several genera, only Alcock, whose usage was mostly wrong under the rules when he wrote, would in a sense be validated. If *Penaeus* were adopted, the only authors generally validated would be Anderson and Lindner (1943), who were in good part wrong when they wrote. Some names in most other papers including recent papers (cf. Burkenroad, 1934, 1939 and Voss, 1955, who were carefully correct) would be wrong. Injustices would be done to careful authors by any plenary ruling, and there would be no profit in it.

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