*Japan. J. Ichthyol.*
40(4): 498–499, 1994

魚類学雑誌
40(4): 498–499, 1994

# *Johnius aneus* Bloch, a Senior Synonym of *Pennahia macrophthalmus* (Bleeker), with Comments on the Identity and Status of an Alleged Lectotype of *J. aneus* (Sciaenidae: Perciformes)

Kunio Sasaki

Department of Biology, Faculty of Science,
Kochi University, 2–5–1 Akebono-cho, Kochi 780, Japan

*(Received August 3, 1993; in revised form December 15, 1993; accepted December 16, 1993)*

Bloch (1793) described a sciaenid fish, *Johnius aneus*, from Malabar coast of India. Trewavas (1977) described and designated as lectotype an alleged type of this species (ZMB 8798; see Leviton et al., 1985, for museum acronyms) on loan from the Berlin Museum. The specimen is a stuffed skin of about 200 mm SL. The swimbladder and otolith, whose structure would define its generic position, are lacking. Trewavas regarded *J. aneus* as a senior synonym of *Johnius* (*Johnieops*) *osseus* (Day, 1876), although admitting one discrepant feature, i.e., the interorbital space in the specimen being narrower than in any species of the subgenus.

Recently, I re-examined the "lectotype" and detected badly faded vertically elongate, discoid maculae on the flanks of the specimen. Such a colour pattern is a distinctive feature unique to *Nibea maculata* (=*Johnius maculatus* Bloch et Schneider, 1801) (see Trewavas, 1977: pl. 5), a common sciaenid fish in coastal waters of the Indian Ocean. All of the other available characters on the "lectotype" apply also to *N. maculata*, including the narrow interorbital space. Since the "lectotype" is clearly identical with *N. maculata*, Trewavas' assignment of the specimen to *Johnius* (*Johnieops*), in which swimbladder is hammer-shaped in contrast to the carrot-shaped structure in *Nibea*, was obviously in error. This finding questions the status of the specimen as a syntype of *J. aneus*, especially since Bloch (1793) did not describe the characteristic colouration. Based upon the original description and figure, I regard *J. aneus* as a senior synonym of a species presently known as *Pennahia macrophthalmus* (Bleeker, 1850), and that the "lectotype" is not a syntype of *aneus*.

Day (1876) first recognized *aneus* (in the binomen *Sciaena aneus*) as a senior synonym for *Otolithus macrophthalmus* Bleeker, being followed by several authors as recently as Chu et al. (1963) and Mohan (1972). Trewavas (1977), however, on placing *macrophthalmus* in *Pennahia*, tentatively regarded *aneus* as a senior synonym of *Johnius* (*Johnieops*) *osseus* (Day). This was subsequently followed by Baragi (1982) and Mohan (1983).

I believe Day (1876) was correct in placing *macrophthalmus* in the synonymy of *aneus*. Bloch's (1793) diagnosis included an advanced lower jaw, projecting in front of the upper jaw. The fish figured in Bloch's pl. 357, showing a prominent chin, is consistent with the diagnosis. This feature agrees well with *Pennahia macrophthalmus*, but is not applicable to *Nibea maculata* whose upper jaw overshoots the lower. Sharp, needle-like teeth on both jaws further support Day's synonymy. Although the figure shows the upper jaw to be short (ca. 40% HL vs. ca. 50% in *P. macrophthalmus*) as pointed out by Trewavas (1977), this is probably an error, considering Bloch's statement that the mouth was large. Moreover, although not referred to in the text, the illustration indicates that the specimen had rather long pectoral fins (28% SL), as *P. macrophthalmus* (25–28%, Mohan, 1983; 24–27%, pers. obs.), but different from *N. maculata* (23–24%, pers. obs.). Within Indian sciaenids, a combination of low dorsal fin soft ray number (24), advanced lower jaw tip, sharp, needle-like teeth, and long pectoral fins can be found only in *P. macrophthalmus*. Although the illustration shows a somewhat rounded, posterior margin of the caudal fin (vs. truncate in *P. macrophthalmus*), this is probably an error, or the result of wear, judging from the evidence of other characters. With so many points of disagreement between Bloch's description and figure on the one hand and the alleged type of *Johnius aneus* on the other, I feel bound to accept the evidence of the former and to regard the assignment of ZMB 8798 as a mistake in labelling. The Berlin collections were disturbed during the war of 1939–45. Accordingly, *J. aneus* should henceforth be considered a senior synonym of *P. macrophthalmus*. This subsequently reestablishes the seniority of *J. osseus*. Following I. C. Z. N. (1985) Art. 74a(v), because the "lectotype" of *aneus* was not a syntype of the species, ZMB 8798 loses lectotype status.

There are two entries as type of *Pennahia anea* in the catalogue of ZMB. However, one specimen is lost and the other cannot presently be located (H.-J. Paepke, pers. comm.; K. Sasaki, pers. obs.). For *Nibea maculata*, the catalogue records two stuffed

specimens (ZMB 8732 and 8805) as *Johnius maculatus* from Tranquebar (type locality), suggesting that they are syntypes of the species, but they too cannot be found. ZMB 8798 may also be a syntype of the species, but since information is lacking in the catalogue, it is unwise to designate that specimen as the lectotype of *N. maculata.* In any case, since both *P. anea* and *N. maculata* are distinctive, well diagnosed species, it is unnecessary to designate lectotype and/or neotype specimens at present.

## Acknowledgments

I thank H.-J. Paepke for making material and information available, and for his kind hospitality during my visit to ZMB. G. Hardy, H.-J. Paepke, and E. Trewavas reviewed the manuscript.

## Literature Cited

Baragi, V. M. 1982. A redescription of the sciaenid fish, *Johnius* (*Johnieops*) *aneus* Bloch. Matsya, 8: 33–39.

Bleeker, P. 1850. Bijdrage tot de kennis der sciaenoiden van den Soenda-Molukschen Archipel, met beschrijving van 7 nieuwe soorten. Varh. Vatav. Gennot. Kunst. Wet., 23: 1–23.

Bloch, M. E. 1793. Naturgeschichte der ausländischen Fische. Part 7: i–xiv＋1–144, pls. 325–360.

Bloch, M. E. and J. G. Schneider. 1801. Systema ichthyologiae iconibus ex illustratum. Berlin. 1x＋584 pp., 110 pls.

Chu, Y.-T., Y.-L. Lo and H.-L. Wu. 1963. A study on the classification of the sciaenid fishes of China, with description of new genera and species. Science & Technology Press, Shanghai. 100 pp., 40 pls. (In Chinese with English abstract.)

Day, F. 1876. The fishes of India; being a natural history of the fishes known to inhabit the seas and fresh waters of India, Burma, and Ceylon. Part 2: 169–368.

I. C. Z. N. 1985. International code of zoological nomenclature, 3rd edition, adopted by the XX General Assembly of the International Union of Biological Sciences. Intern. Trust Zool. Nomencl., Brit. Mus. (Nat. Hist.), London. 338 pp.

Leviton, A. E., R. H. Gibbs, Jr., E. Heal and C. E. Dawson. 1985. Standards in herpetology and ichthyology: Part I. Standard symbolic codes for institutional resource collections in herpetology and ichthyology. Copeia, 1985: 802–832.

Mohan, R. S. L. 1972. A synopsis of the Indian genera of the fishes of the family Sciaenidae. Indian J. Fish., 16: 82–98.

Mohan, R. S. L. 1983. Sciaenidae. 69 pp. *in* W. Fischer and G. Bianchi, eds. FAO species identification sheets for fishery purposes, western Indian Ocean; fishing area 51. Vol. 4. FAO, Rome.

Trewavas, E. 1977. The sciaenid fishes (croakers or drums) of the Indo-West-Pacific. Trans. Zool. Soc. Lond., 33: 253–541, pls. 1–14.

## ニベ科魚類 *Johnius aneus* Bloch は *Pennahia macrophthalmus* (Bleeker) のシニア・シノニムであること，および *J. aneus* の「レクトタイプ」は無効であること

佐々木邦夫

Trewavas (1977) は Bloch (1793) によりインドから記載されたニベ科魚類 *Johnius aneus* のレクトタイプ (ZMB 8798) を指定し，本種をコニベ属（アブラグチ亜属）の *Johnius* (*Johnieops*) *osseus* (Day, 1876) のシニア・シノニムと考えた．レクトタイプを検討した結果，この標本はニベ属の *Nibea maculata* (Bloch et Schneider, 1801) であることが判明した．さらに，*J. aneus* の原記載とレクトタイプを比較をしたところ，多くの形質で不一致が認められた．原記載は現在 *Pennahia macrophthalmus* (Bleeker, 1850) として知られている種とよく一致した．したがって，*J. aneus* は *P. macrophthalmus* のシニア・シノニムであり，*P. anea* (Bloch) が有効名となる．また本種の「レクトタイプ」はシンタイプに基づかないので，命名規約上無効である．

（〒780 高知市曙町 2–5–1　高知大学理学部生物学教室）