

NOTES ON THE GENERA *APTERONOTUS* LACÉPÈDE, 1800, AND *STERNOPYGUS* MUELLER AND TROSCHEL, 1846, WITH A DISCUSSION ON THE ZOOLOGICAL CATEGORIES *APTERONOTOIDEA*, *nom. transl.*, *APTERONOTIDAE* Berg, 1940, AND *APTERONOTINAE* BERG 1940, *nom. transl.* EIGENMANN AND ALLEN, 1942. (*Cipriniformes: Gymnotoidei*).

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*Sternarchus* Bloch and Schneider, 1801, is being used extensively in the literature instead of *Apteronotus* Lacépède, 1800. This use is incorrect. Cuvier (1817) pointed out the priority of Lacépède's paper (1800) over Bloch and Schneider's (1801) for the first time. Jordan (1917), Heider *et al.* (1954) and Neave (1940) have stated the correct denomination for the prototype *Gymnotus albifrons* Linnaeus, 1766. Consequently, it seems justified to use *Apteronotoidea*, *nom. transl.*, *Apteronotidae* Berg, 1940, and *Apteronotinae* Berg, 1940, *nom. transl.* Eigenmann and Allen, 1942, to designate the superfamily, the family, and the subfamily, respectively, that include the genus in question, instead of *Sternarchoidea* Regan, 1911, *nom. transl.* Berg, 1940, *Sternarchidae* Regan, 1911, and *Sternarchinae*, Regan, 1911. Fowler (1951) has used the two former categories with a rather different meaning; he eliminates the genus *Sternopygus* from his family *Apteronotidae* and considers the species of this genus as members of *Gymnotus* Linnaeus, 1758, of his superfamily *Gymnotoidea*; the other genera of the subfamily *Sternopyginae* Regan, 1911 (also eliminated), were included in his family *Rhamphichthyidae*. In spite of all these important changes, he still considers his *Apteronotoidea* = *Sternarchoidea* Berg, 1940, and his *Apteronotinae* = *Sternarchinae* Gill, 1893. Both statements are erroneous for Berg's *Sternarchoidea* includes the genus *Sternopygus*, and the subfamily *Sternopygini*, and Gill's *Sternarchinae* grouped the genera *Rhamphichthys*,

*Hypopomus*, *Sternarchus*, *Sternopygus*, and *Sternarchorhynchus*, quite a different arrangement from the classification offered by Fowler. No discussion accompanies these rather drastic modifications of the known taxonomy of gymnotids. Berg (1947) uses *Apterontidae* as secondary naming for *Sternarchidae* Regan, 1911. Eigenmann and Allen (1942) introduce *Apterontinae* (= *Sternarchinae*, Regan, 1911).

The following notes, taken from the experiences of numerous authorities enumerate some of the different morphological criteria which have been adopted to establish the current classification of gymnotids, in regard to the categories discussed in the present paper.

(I) Superfamilies *Apterontoidea* and *Gymnotoidea* can be distinguished from each other by the following features: general shape of the body; general shape of the head; position of the vent; position of the anterior nostril; relative size of the mouth; dentition; size and shape of the hypocoracoid; development of the electric organs; presence of a frontal fontanel; development of mesocoracoid.

(II) Families *Rhamphichthyidae* and *Apterontidae* differ from one another on the following features: general shape of the body; general shape of the head and the snout; development of caudal and adipose fins; origin of anal fin; dentition; presence of mesocoracoid; presence of anterior bony - enclosing of the air - bladder; anatomical relations between hypocoracoid and cleithrum.

(III) Subfamilies *Apterontinae* and *Sternopyginae* are to be differentiated by: general shape of the caudal peduncle; presence of caudal fin; presence of dorsal filament (adipose fin); anatomical relations between maxillary and vomer or ethmoid.

(IV) Genera *Gymnotus* and *Sternopygus* differ from each other, in addition to all features but last two in note (I) above, by: relative size of the jaws; general configuration of the gape; number of anal rays; presence of a transparent membrane covering the eye; origin of anal fin; presence of a frontal fontanel; presence of mesocoracoid.

Resuming, the categories mentioned in the present work

are not to be confused with Fowler's, and they can be better defined as follows:

*Apteronotoidea*, nom. transl. = *Sternarchoidea* Regan, 1911, nom. transl. Berg, 1940.

*Apteronotidae* Berg, 1940 = *Sternarchidae* Regan, 1911.

*Apteronotinae* Berg, 1940, nom. transl. Eigenmann and Allen, 1942 = *Sternarchinae* Regan, 1911.

*Apteronotus* Lacépède, 1800 = *Sternarchus* Bloch and Schneider, 1801.

The original description for *Sternopygus* is most often dated on a paper published by Mueller and Troschel in 1848. However, this genus had been perfectly delimited in a former work by Mueller in 1844 and ascribed to both authors. No mention of this earlier contribution is given in either of two later works by the same writers (1848, 1849). Heider *et al.* (1917) and Neave (1940) give the right original reference. Therefore, the genus in question should be quoted *Sternopygus* Mueller and Troschel, 1846.

#### RESUMEN

Se destaca la prioridad de *Apteronotus* Lacépède, 1800, sobre *Sternarchus* Bloch y Schneider, 1801, y la de *Sternopygus* Mueller y Troschel, 1846. Ambas referencias han sido previamente señaladas pero diferentes autores continúan insistiendo en usar denominaciones incorrectas.

Se definen y clarifican las categorías zoológicas siguientes, confundidas por algunos autores.

Superfamilia *Apteronotoidea*, nom. transl. = *Sternarchoidea* Regan, 1911, nom. transl. Berg, 1940.

Familia *Apteronotidae* Berg, 1940 = *Sternarchidae* Regan, 1911.

Subfamilia *Apteronotinae* Berg, 1940, nom. transl. Eigenmann y Allen, 1942 = *Sternarchinae* Regan, 1911.

Género *Apteronotus* Lacépède, 1800 = *Sternarchus* Bloch and Schneider, 1801.

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