

THE NOMENCLATURE OF THE FISHES OF THE CHARACIN- OID GENUS TETRAGONOPTERUS.

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THE PRINCIPAL genus of Characiniids has been generally ascribed to Artedi, with the name *Tetragonopterus*. The history is a remarkable one and worthy of detail.

I.

In 1814 Cuvier, in his "Mémoire sur la Composition de la Mâchoire supérieure des Poissons," called attention to the diversities among the "Characins," and outlined the characteristics of *Tetragonopterus* in the following terms:

Je rétablis le genre *téragonoptère* de Séba, dont on a mal à propos confondu l'espèce avec le *salmo bimaculatus*; il a la même structure de mâchoires que le *serrasalme*, mais il porte deux rangs de dents à la supérieure, et son ventre n'est point trenchant ni dentelé.

In 1817 Cuvier, in his *Règne Animal*,¹ gave the Latin name *Tetragonopterus*, and attributed it to Artedi.²

In 1818 Cuvier, in his memoir "Sur les poissons du sous-genre Mylètes"³ remarked as follows:

Mon deuxième sous-genre * * * a été parfaitement décrit et représenté par Artedi dans ses *Species*, pag. 44, sous le nom de *Coregonus amboinensis*, et dans le cabinet de Séba, tome III, pl. XXXIV, fig. 3, sous le nom générique de *tetragonopterus* que je lui conserve. Cependant Artedi le lui avoit donné par erreur, croyant que ce poisson pouvoit se rapporter aux téragonoptères de Klein, lesquels ne sont que des charatodons.

In 1864 Günther attributed the genus *Tetragonopterus* to Cuvier⁴ and gave the following note:

Klein formed the name *Tetragonopterus* for fishes of the Linnæan genus *Tetrodon*, giving at the same time an etymological explanation of the word. Artedi afterwards referred a South American characinoid to the Kleinian genus, preserving the original and correct spelling. Cuvier, taking Artedi's species as the type of the genus, adopted the name erroneously used by Artedi, but, misunderstanding the derivation of the word, wrote *Tetragonopterus*.

¹ Vol. III, p. 166.

² *Les Tétragonoptères*. (*Tetragonopterus*, Artedi.)

³ Mem. Mus., IV, p. 455.

⁴ "Mem. Mus., 1818, IV, p. 455".

The name *Tetragonopterus* has been almost universally attributed to Artedi by other authors. Nevertheless, Artedi had nothing to do with the particular description in Séba's work;¹ Artedi was drowned (in 1735)² many years before the "missus quartus" with Klein's name was published (1744); the name *Tetragonopterus* was due to a *lapsus oculi* of Cuvier and never appeared in that form till 1815; and the name *Tetragonoptrus* was imagined by Klein for compressed quadrate or rhombiform fishes,³ such as *Chaetodonts* and the like, and had nothing to do with "Tetrodon," whose species were referred by Klein to his genus *Crayracion*.⁴

II.

In 1758 the third volume of Séba's "Locupletissimi rerum naturalium Thesauri Accurata Descriptio" was published, and on plate 34, fig. 3, was depicted, and on page 106 was described a fish of the genus now named *Tetragonopterus*. The species was called "*Tetragonoptrus argenteus, capite grandi, erserto; appendicula membranacea in extremo dorso; cauda multum bifurca.*" It appeared to the describer to belong to the genus *Tetragonoptrus* of Klein ("Ad genus *Tetragonoptrum* Kleiniianum pertinere videtur pisciculus admodum concinnus, quem exemplum Musei Sebani curate delineatum, ac dein ex icone descriptum exhibemus"). An extended description follows. The description is that of one unfamiliar with fishes, and as much unlike the manner of Artedi as is the reference of the species to a genus composed mainly of *Chaetodontids* and related fishes.⁵ References to Artedi are given in a preceding paragraph⁶ and in other pages, but the paragraphs were evidently from a later hand and less informed mind; nevertheless it is quite probable that Artedi actually had examined a specimen of the same species and described it.

¹I am, of course, acquainted with the statement of Cuvier and Valenciennes (I, 109): "Le texte avait été préparé dès 1734 et 1735 par Artedi, quoiqu'il n'ait pu être livré au public qu'en 1758, aux frais et par soins de Guabius." The statement is only partly true.

²"Die vigesima septima Septembris 1735, vocatur ex hospitio suo, et cum Seba cenam sumeret, confabulantur amici plures in seram noctem, tandem lætus & contentus valedicit, domum tendens per tenibricosas minusqui ipsi cognitæ plateas Amstelædamenses, dum infelici passu iossam intrat, decidit, clamat, frustra opem petit, submergitus, perit." (Linnæus in "Vita Authoris" prefixed to Artedi) *Ichthyologia*, 1738.

³Τετραγωνοπτρος, i. e., quadratus aspectu.

⁴Dr. Günther's substitution of *Tetrodon* for *Chatodon* was the result of following Valenciennes. The French naturalist (Vol. XXII, p. 126), referring to Cuvier's use of the *Tetragonopterus*, added, "Il a aussi eu soin de remarquer, dans ce mémoire, qu'Artedi lui avait donné par erreur la dénomination de Tétragonoptères de Klein, qui ne sont autres que les Tétrodons de Linne." *Tetrodon* was doubtless a heteropheme for *Chatodon*.

⁵*Tetragonoptrus* also included Pomacentrids, vomerine Carangids, etc.

⁶*Pisciculus elegans* ad *Balistas* Artedi, aut ad *Capriscos* Kleini, pertinere videtur. Séba's "Locupletissimi rerum naturalium Thesauri Accurata Descriptio" (p. 106).

III.

In 1735 (published in 1738) Artedi prepared a description of a fish evidently closely related and apparently conspecific with the fish figured in Séba's "Thesaurus" and called it *Coregonus amboinensis*. The only indication of locality was embodied in the sentence "*Coregonoides rel Albula ad Amboinam India Orientalis*." Of course, the alleged habitat is incorrect. No information as to the museum in which he saw the specimen was given. The fish could not have been the same as Séba's, for Artedi's individual was 3 inches long and 1 inch and 5 lines high, while Séba's was 3 inches and 6 lines long and 1 inch and 9 lines high. Valenciennes asserted that the type was in the old Museum of the Stadholder, and claimed to have seen it.¹ He has not indicated, however, how he ascertained that such was the case. Dr. Günther² has expressed the opinion that "it is quite evident that it [*T. artedii*, Valenciennes] is not the species examined by Artedi and figured by Séba, which agrees in every respect with *T. chalceus*."

IV.

The early history of the genus is recapitulated in the following synonymy:

Genus TETRAGONOPTERUS, Cuvier.

Coregonus, sp., ARTEDI.

Tetragonoptus, sp., SÉBA.

Tetragonoptère, CUVIER, Mem. Mus. Hist. Nat., I, p. 114, 1815.

Les téragonoptères (Tetragonopterus), CUVIER, Règne Animal, II, p. 166, 1817.

Tetragonopterus, CUVIER, Mem. Mus. Hist. Nat., IV, p. 455, 1818.

Since the preceding article was presented for publication, an important analytical synopsis of the genus *Tetragonopterus* has been published by Prof. Albert B. Ulrey. Professor Ulrey quite correctly refers the generic name to Cuvier, and in the synonymy of the genus omits all reference to Séba's and Artedi's works. In his synonymy of *T. argenteus* (p. 277), however, he refers to it—*Tetragonopterus argenteus*, etc., Artedi, in Séba, [etc.]—and identifies the *Coregonus* (misprinted *Daregonus*) *amboinensis* of Artedi with the same.

It is to be hoped that hereafter all association of Artedi with the name *Tetragonopterus* or with the *Tetragonoptus* of Séba's work, will be abandoned. Artedi had nothing to do with either of those names.

The analytical synopsis of Professor Ulrey will prove a valuable adjunct to students of the genus *Tetragonopterus*, but it must be used with caution, for it appears to have been based to a large extent on descriptions and figures. Just one hundred species of *Tetragonopterus* are admitted by Professor Ulrey, but only eighty-six have been sufficiently described for admission in the synoptical tables.

¹ Comme j'ai sous les yeux, dans les collections du Muséum, un des Tétragonoptères du cabinet du Stathonder, qui a servi aux travaux d'Artedi, je suis à même de reconnaître la figure peu correcte que nous trouvons dans Séba (XXVI, 128).

² Cat. Fish. Brit. Mus., IV, p. 319.