Corvina senegalla Cuvier, a Senior Synonym of Pseudotolithus (Pseudotolithus)
brachygnathus Bleeker
(Sciaenidae: Periciformes)

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Cuvier (1830) described *Corvina senegalla* from a single specimen from the eastern Atlantic, off Senegal. Although the species appeared to be very distinctive owing to its low dorsal soft ray count (22), no additional specimens have been recorded subsequently. Examination of the holotype (Fig. 1) revealed, however, that the low count was the result of a congenital abnormality and that the species was identical with *Pseudotolithus* (*Pseudotolithus*) brachygnathus Bleeker, 1863, distributed from Senegal to Angola (Chao, 1981).

Trewavas (1962) pointed out the close similarity between Corvina senegalla and Pseudotolithus (Pseudotolithus) brachygnathus, suggesting that the difference in dorsal soft ray count (22 vs. 25–27, respectively) was due to an anomaly in the former. Despite this, however, Trewavas considered the status of C. senegalla as "species dubia," because she verified neither the anomaly, nor Cuvier's (1830) statement that the swimbladder was without appendages (the holotype being completely eviscerated). Following Trewavas, Bauchot and Desoutter (1987) treated Corvina senegalla as "? Pseudotolithus sp."

The swimbladder of the eastern Atlantic subfamily Pseudotolithinae (sensu Sasaki, 1989) is characteristic in having a pair of tube-like appendages, divided into several tubules, arising at the anterior end of the bladder. This conflicts with the original description of Corvina senegalla. Although it is now not possible to examine the swimbladder of the holotype, the specimen has the haemal canal of the fourth centrum covered by a rounded bony roof. This is diagnostic for the tribe Pseudotolithini (Sasaki, 1989). Because swimbladder appendages in the tribe closely adhere to the bladder wall, they may well have been overlooked by Cuvier. Thus Cuvier's reference to a simple swimbladder is considered to be erroneous. Within the genera and subgenera of the Pseudotolithini, the specimen clearly belongs to Pseudotolithus (Pseudotolithus) owing to its combination of a slender body, oblique mouth, less than 30 dorsal soft rays, and 7 anal soft rays. In particular, it approaches P. (P.) brachygnathus in its low dorsal soft ray count.

A radiograph revealed that the holotype has 24 vertebrae (11+13), rather than the 25 (11+14)characteristic of Pseudotolithus (Pseudotolithus) brachygnathus and most other sciaenids (10+15 or 11+14). Twenty four vertebrae are in fact highly exceptional for the family, being known only in two New World species (Chao, 1978; pers. obs.). However, in the holotype of C. senegalla, the 18th centrum bears two neural spines and 22th centrum, two neural and two haemal spines. This aberrant condition strongly suggests that some kind of fusion or loss has occurred in the caudal vertebrae. Owing to the size and shape of centra themselves being normal, it is not possible to specify exactly where or how modification has occurred. However, it is likely to have taken place in the caudal peduncle, since its length (20.4%)

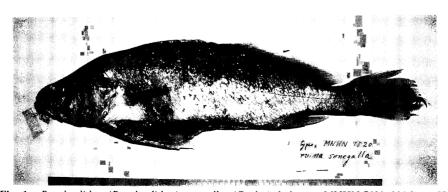


Fig. 1. Pseudotolithus (Pseudotolithus) senegallus (Cuvier), holotype, MNHN 7520, 284.9 mm SL.

SL) is shorter for the subgenus. The low number of dorsal soft rays may well be attributed to the reduction in vertebral number resulting in less space for dorsal fin pterygiophore insertion. Because the insertion of two or three pterygiophores between two vertebrae in the caudal peduncle is the usual condition in the tribe, the (anomalous) holotype is considered to represent a species usually characterized by 24 or 25 dorsal soft rays. This puts the specimen within the range (25–27) of *Pseudotolithus* (*Pseudotolithus*) brachygnathus.

Corvina senegalla is accordingly considered to be a senior synonym of Pseudotolithus (Pseudotolithus) brachygnathus. Attention should be paid, however, to avoid confusion of the name P. (P.) senegallus with that of another valid species in the same subgenus, P. (P.) senegalensis (Valenciennes).

Material examined. Pseudotolithus (Pseudotolithus) senegallus: MNHN (Muséum national d'Histoire naturelle, Paris) 7520, holotype, 284.9 mm SL, Senegal; RMNH (Rijksmuseum van Natuurlijke Histoire, Leiden) 671, holotype of P. (P.) brachygnathus, 171.5 mm SL, Ghana; BMNH (British Museum, Natural History, London) 1900.6.28. 275–279, 4 specimens, 154.3–225.8 mm SL, Senegal; BMNH 1902.4.14.3, 73.6 mm SL, Congo.

Pseudotolithus (Pseudotolithus) senegalensis: MNHN 7512, holotype, 288.5 mm SL, Senegal; BMNH 1980.8.1. 21-22, 2 specimens, 251.5-289.5 mm SL, Congo; BMNH 1980.8.1.26, 159.9 mm SL, Sierra Leone.

Pseudotolithus (Pseudotolithus) typus: BMNH 1937. 4.19.15, 217.4 mm SL, Nigeria; BMNH 1939.7.12.42, 202.0 mm SL, Ghana.

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Literature Cited

Bauchot, M. L. and M. Desoutter. 1987. Catalogue cri-

- tique des types de poissons du Muséum national d'Histoire naturelle (Suite). Famille des Sciaenidae. Bull. Mus. Natn. Hist. Nat., Paris, Ser. 4, 9(A)(3) (suppl.): 1-43.
- Bleeker, P. 1863. Mémoire sur les poissons de la côte de Guinée. Nat. Vehr. Holl. Maatsch. Wetensch., 2, Verz. Deel 18: 1-136.
- Chao, L. N. 1978. A basis for classifying western Atlantic Sciaenidae (Teleostei: Perciformes). NOAA Tech. Rep., NMFS Circ., (415): i-v+1-64.
- Chao, L. N. 1981. Sciaenidae. Pages 1-37 in W. Fischer, G. Bianchi and W. B. Scott, eds. FAO species identification sheets for fishery purposes, eastern Central Atlantic; fishing area 37 and 47 (part). Vol. 3. FAO, Rome.
- Cuvier, G. L. and A. Valenciennes. 1830. Histoire naturelle des poissons. Vol. 5, F. G. Levrault, Paris. 499 pp.
- Sasaki, K. 1989. Phylogeny of the family Sciaenidae, with notes on its zoogeography (Teleostei, Perciformes). Mem. Fac. Fish. Hokkaido Univ., 36: 1-137.
- Trewavas, E. 1962. A basis for classifying the sciaenid fishes of tropical West Africa. Ann. Mag. Nat. Hist., (13)5: 167-176.

東大西洋産ニベ科魚類 Corvina senegalla Cuvier は Pseudotolithus (Pseudotolithus) brachygnathus Bleeker の古参シノニム

佐々木邦夫

東大西洋産のニベ科魚類 Corvina senegalla Cuvier, 1830 の完模式標本を検討した結果、本種は現在 Pseudotolithus (Pseudotolithus) brachygnathus Bleeker, 1863 として知られている種と同一であることが明らかになった。これまでも両種の類似性は指摘されてきたが、背鰭軟条が前者では22 本、後者では25-27 本であることから、C. senegalla は完模式標本のみから知られる実体が不明の種としてあつかわれてきた。レントゲン写真の所見から、完模式標本の尾柄部では脊椎骨の癒合ないしは消失が生じており、この奇形にともない脊鰭担鰭骨(背鰭軟条)の減少が引き起こされたと判断される。したがって、P.(P.) brachygnathus にかわってP.(P.) senegallus (Cuvier) が有効名となるが、同亜属の他の有効名 P.(P.) senegallus (Valenciennes) と混用しないよう注意を払う必要がある。

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