

PROPOSED SUPPRESSION OF THREE *NOMINA OBLITA* IN THE FAMILY BELONIDAE (PISCES). Z.N.(S.) 1723

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Revisionary studies on the family Belonidae for the "Fishes of the Western North Atlantic" necessitate the resolution of several conflicts in nomenclature between the recent papers by Berry and Rivas (1962) and Mees (1962, 1964). The purpose of this application is to request the International Commission on Zoological Nomenclature to suppress three *nomina oblita* used by Mees (1962, 1964) in contradiction to the provisions of Article 23b of the International Code of Zoological Nomenclature. More detailed discussion on the above papers is given elsewhere (Collette and Berry, 1965).

I. *Strongylura marina* (Walbaum)

The name *Esox marinus* Walbaum, 1792, has been consistently used to refer to this common western Atlantic needlefish, either as *Tylosurus marinus* or as *Strongylura marina* (Jordan and Fordice, 1887 : 351; Jordan and Evermann, 1896 : 714; Fowler, 1919 : 5; Hildebrand and Schroeder, 1928 : 148; Jordan, Evermann, and Clark, 1930 : 196; Breder, 1932 : 6; Bigelow and Schroeder, 1953 : 167; American Fisheries Society Checklist, 1960 : 20; Berry and Rivas, 1962 : 155). Mees (1962 : 33-36) resurrected the name *Esox houttuyni* which was described by Walbaum on the same page (p. 88) of the same paper in which he described *marinus*. Mees admitted that "... *marinus* has been widely used, whereas I am not aware that anybody has ever used the name *houttuyni* subsequent to its appearance in literature. This, however, I do not consider a drawback. . . ." We have not been able to find any reference to Walbaum's *houttuyni* other than the two given by Mees, the original description and a listing by Bloch and Schneider (1801 : 391) as "Var. b. *Houttuyni*" under *Esox belone*.

Therefore, under the provisions of Article 23b of the International Code, we request the International Commission to:

- (1) place the specific name *houttuyni* Walbaum, 1792, as published in the binomen *Esox houttuyni* on the Official Index of Rejected and Invalid Specific Names in Zoology;
- (2) place the specific name *marinus* Walbaum, 1792, as published in the binomen *Esox marinus* on the Official List of Specific Names in Zoology.

II. *Tylosurus crocodilus* (Peron and LeSueur)

In the western Atlantic Ocean, one species of needlefish has consistently been known as *Strongylura* or *Tylosurus raphidoma* (Ranzani, 1842) since about 1887 (Jordan and Fordice, 1887 : 353; Jordan and Evermann, 1896 : 715; Fowler, 1919 : 5; Jordan, Evermann, and Clark, 1930 : 196; Breder, 1932 : 14;

American Fisheries Society Checklist, 1960 : 20; Berry and Rivas, 1962 : 155). Mees (1962) regarded this species as worldwide and as having been described earlier in other parts of the world. The two most often used senior synonyms of *raphidoma*, on this systematic judgement, are *Belona crocodila* Peron and LeSueur, in LeSueur, 1821 (type locality Mauritius) and *Belone choram* Rüppell, 1837 (type locality Red Sea). Rüppell's name was based on Forskål (1775 : 67). After pointing this out, Mees (1962 : 45) continued: "This does not mean, however, that I agree with Weber & de Beaufort and with all other modern authors, that now *Belona crocodila* LeSueur (1821) becomes the oldest name available for the species, for Bloch & Schneider (1801) already based a name on Forskål's description, and their name *Marisrubri*, which apparently has not been used since its introduction, is the oldest name available." The closest approach we have found to the use of the name *marisrubri* for a needlefish, prior to Mees, was Valenciennes' use (in Cuvier and Valenciennes, 1846 : 328) of "de la phrase de Forskal . . . *Esox belone maris rubri*" in referring to Forskål's original paper.

Peron and LeSueur's description of *Belona crocodila* fits this species adequately and this specified name has been widely used throughout the Indo-West Pacific: Valenciennes in Cuvier and Valenciennes, 1846 : 327; Weber and de Beaufort, 1922 : 128; Fowler, 1928 : 74; Herre, 1928 : 229; Herre, 1953 : 448; Munro, 1955 : 72; Fowler, 1956 : 139; Smith, 1961 : 130. Some authors have also used the name for the population in the eastern Atlantic (Fowler, 1936 : 445; Poll, 1953 : 168).

Therefore, we request that the International Commission take action under the provisions of Article 23b of the International Code to:

- (1) place the subspecific name *Maris rubri* Bloch and Schneider, 1801, as published in the trinomen *Esox belone* Var. *Maris rubri*, on the Official Index of Rejected and Invalid Specific Names in Zoology;
- (2) place the specific name *crocodila* Peron and LeSueur, in LeSueur, 1821, as published in the binomen *Belona crocodila*, on the Official List of Specific Names in Zoology.

III. *Tylosurus acus* (Lacépède)

The third species of needlefish has had a more complicated nomenclatorial history than the preceding two. At least eight names have been used for it in the Atlantic, and three more names were established for its Indo-Pacific representatives. Günther (1866 : 241-242) recognized *Belona caribaea* LeSueur, 1821, and *Tylosurus cantrainii* Cocco, 1833, but did not mention *Sphyræna acus* Lacépède, 1803, or *Esox imperialis* Rafinesque, 1810. In their review of the American species of Belonidae, Jordan and Fordice (1887 : 355) recognized *acus* and tentatively placed *imperialis* and *cantrainii* in its synonymy. They also recognized *caribaea*, but stated that it was very close to and might be the same as *acus*. Jordan and Evermann (1896 : 716-717) and Jordan, Evermann, and Clark (1930 : 197) also recognized both *acus* and *caribaea*. Following Jordan's concepts, most publications on Atlantic Belonidae refer only to the name *acus* (Fowler, 1919 : 5; Hildebrand and Schroeder, 1928 : 149; Breder, 1932 : 14; Fowler, 1936 : 443; American Fisheries Society Checklist, 1960 : 20). Fowler

questioningly (1944 : 81) placed *acus* in the synonymy of *carribaea*. Berry and Rivas (1962 : 155) placed *carribaea* in the synonymy of *acus* and did not refer to the eastern Atlantic *imperialis* and *cantrainii*.

The original description (p. 325) and figure (pl. 1, fig. 3) of *Sphyraena acus* Lacépède, 1803, refer to one of the two species of *Tylosurus* in the Atlantic. The counts of 25 dorsal and 24 anal rays are at the upper limit of the counts we have made (dorsal 23–26, mode 24; anal 20–24; mode 22) for the species presently known as *acus*, and the anal ray count is two rays higher than the maximum we have found for *Tylosurus crocodilus*. If the fin ray counts are accepted, the only other species of needlefish that could have been represented is *Ablennes hians* (Valenciennes, 1846); Lacépède's figure, although crudely drawn, clearly is not *hians*, because it lacks the falcate pectoral fin, the arched based on the upper jaw, dark body bars, and the compressed body of *hians*. Based on the fin ray counts and the figure of Lacépède, there is little doubt that Jordan and Fordice (1887) were justified in considering the description of *acus* to be identifiable with this species.

After rejecting the poorly described *acus*, Mees (1962 : 38–40) chose to recognize the equally poorly described *Esox imperialis* Rafinesque, 1810. Mees admitted that the number of dorsal and anal rays in the original description was higher than that for any needlefish (except the South American freshwater genus *Potamorhaphis*). However, he felt justified because the description appeared to be of a needlefish different from the common Mediterranean *Belone belone* and so must refer to the only other species of Mediterranean needlefish. This argument is not valid because we have examined a third species of needlefish from the Mediterranean – *Tylosurus crocodilus*. Furthermore, a large proportion of the museum specimens of *Belone belone* and *Tylosurus acus* that we have examined have been misidentified, so we see no reason to assume that Rafinesque necessarily distinguished between them.

If *acus* were rejected as unidentifiable, then *imperialis* would similarly be rejected, and the name *carribaea* LeSueur, 1821, would then be available. This would be another reasonable solution, especially because the number of fin rays in LeSueur's original description (dorsal 24, anal 22) matches the mode for the western Atlantic specimens we have examined. Also, LeSueur contrasted the slender jaws and elongated body of *carribaea* with the stout jaws and thick body of *crocodila*, indicating that he had both species. However, in view of the wide usage that *acus* has had up until the time of Mees (1962, 1964), it seems in the best interests of stability to retain it. The name *imperialis* has apparently not been used as a senior synonym since its original description, except by Mees (1962, 1964) and by Tortonese (1963).

Therefore, under the provisions of Article 23b of the International Code, we request the International Commission to:

- (1) place the specific name *imperialis* Rafinesque, 1810, as published in the binomen *Esox Imperialis* on the Official Index of Rejected and Invalid Specific Names in Zoology;
- (2) place the specific name *acus* Lacépède, 1803, as published in the binomen *Sphyraena acus* on the Official List of Specific Names in Zoology.

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Collette, Bruce B. and Berry, Frederick H. 1966. "Proposed suppression of three nomina oblita in the family Belonidae (Pisces) Z.N. (S.) 1723." *The Bulletin of zoological nomenclature* 22, 325–329.

<https://doi.org/10.5962/bhl.part.11125>.

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