## OPINION 93

Twelve Generic Names of Fishes Placed in the Official List, by Suspension of the Rules

SUMMARY.—The following 12 generic names of fishes are herewith placed in the Official List of Generic Names, under the Plenary Power for Suspension of the Rules: Conger Cuv., 1817 (Muraena conger L.); Coregonus Linn., 1758 (Salmo lavaretus L.); Eleotris Bloch & Schneider, 1801 (gyrinus Cuv. & Val.); Epinephelus Bloch, 1792 (marginalis Bloch); Gymnothorax Bloch, 1795 (reticularis Bloch); Malapterurus Lacépède, 1803 (Silurus electricus L.); Mustelus Linck, 1790 (Squalus mustelus L. [=Mustelus laevis]); Polynemus Linn., 1758 (paradisaeus L.); Sciaena Linn., 1758 (umbra L.=Cheilodipterus aquila Lacép. as restr. by Cuvier, 1815); Serranus Cuv. (Perca cabrilla L.); Stolephorus Lacép., 1803 (commersonianus Lacép.); Teuthis Linn., 1766 (javus L.).

Names now current are not to be discarded unless the reasons for change show a clear-cut necessity.

STATEMENT AND DISCUSSION OF CASE.—The following cases are submitted and discussed by Commissioner David Starr Jordan. The U. S. Bureau of Fisheries (signature H. F. Moore, Acting Commissioner) concurs in the recommendations regarding them.

It seems to me that a legitimate use of the plenary power will be to cast it on the side of names now current unless the reason for change is a clear-cut necessity, priority of actual date for example. But in cases where a reasonable argument on both sides exists, it seems better to give current nomenclature the preference.

The earlier writers had no conception of genotype, regarding a genus merely as a convenient pigeon-hole in which to stow species, to be more or less arbitrarily divided when the receptacle became too full or its contents too obviously incongruous. In applying the rule of the first reviser, we find many difficulties as every taxonomist knows. Often a name has been dislocated by application to a species unknown to the original author. Often a wiser or more characteristic choice could have been made; still more often a writer mentions a given species not as a type, but rather as an illustration. And it is a rare case where a designated type among the early authors can be "rigidly construed" as indicated in accepted rules.

I now ask the Commission to consider stabilizing current nomenclature in a number of genera of fishes, in which the pertinence of current nomenclature has been questioned, for reasons more or less plausible, but in no case beyond question. I propose that, subject to possible new information, the following current generic names be provisionally legalized with the type species indicated, notwithstanding certain contrary arguments of greater or less validity, but in no case clear-cut and conclusive.

AETOBATUS Blainville, 1816: type Raja narinari Euphrasen.

The name Aëtobatus was applied by Blainville to the Eagle Rays, of which Raja aquila L. = Aëtobatus vulgaris Blainville would be the natural type. But as the genus Myliobatis (Duméril) Cuvier, 1817, had been established also for the Eagle Rays, the first reviser, Müller & Henle adopted both names, assigning R. aquila to Myliobatis and an unwonted type, R. narinari to Aëtobatus. From this arrangement Cantor (1849) dissented making Myliobatis a synonym of Aëtobatus and giving a new name, Stoasodon to R. narinari. It will create less confusion, however, to let the first revision stand, accepting R. narinari as type of Aëtobatus.

Conger Cuvier, 1817: type Muraena conger L.

The name *Leptocephalus* was given by Gronow, a non-binomial author, in 1763 to a translucent ribbon-like larva, now shown to be that of the Conger Eel. In binomial nomenclature, this name dates from its adoption by Scopoli in 1777. The name *Conger*, used by Houttuyn in 1764, is said not to be available, although noted as such in Jordan, Genera of Fishes, p. 22.

As Leptocephalus and its derivatives have been in use for more than a century as the designation of these peculiar larvae I recommend that this use be continued and that the generic name of the Conger eels be established as Conger, in accordance with current usage.

[Apstein, 1915a, 187: Conger Cuv., 1817, type vulgaris Richards, 1844.]

Coregonus Linnaeus, 1758: type Salmo lavaretus L.

The generic name Coregonus, taken from Artedi, is given by Linnaeus in the plural form only as Coregoni. The sub-generic names Truttae (Salmo trutta), Osmerus (Salmo eperlanus) and Characinus (Salmo gibbosus) appear in the same fashion as plurals. To reject these names in almost universal use, to substitute some possible later synonym would be a source of needless confusion. I recommend that these plural nouns be maintained as valid.

[Apstein, 1915a, 187: Coregonus Cuv., 1817, type wartmanni Bl., 1784.]

Eleotris Bloch and Schneider, 1801: type Eleotris gyrinus Cuv. & Val.

The generic name *Eleotris* first appears in Gronow, Zoophylaceum p. 183, 1763, with a good description and three species polynomially named, the name *Eleotris* being especially associated with a Chinese species, *Gobius eleotris* L., *Gobius chinensis* Osbeck. The other, apparently a true "*Eleotris*" was named *Gobius pisonis* by Gmelin (1789), and *Gobius amorea* by Walbaum (1792).

The first binomial author to revive the name *Eleotris* is Schneider in his edition of Bloch. The genus is here nominally equivalent to *Gobius*, the ventral fins being described as "connexae," a statement true of some of the species named but not of the *Eleotris* of Gronow. No species belonging to the genus *Eleotris* as now understood is included, though reference is made to *Eleotris pisonis* as a "species non definienda."

Meanwhile the Amore Pixuma of Marcgrave's pre-Linnaean Historia Naturalis Brasiliae edited by Dr. Wilhelm Piso is brought into the synonymy. This is a crude figure of some small goby with two dorsal fins, perhaps an *Eleotris*, but not the actual type of any specific name.

In 1800, Lacépède established a genus Gobiomoroides on a dried fish "sent by Holland to France," which he identified as Gobius pisonis, naming it Gobiomoroides piso. It could, however, not be either Electris pisonis or "Amore pixuma" as it had a single dorsal of 45 rays and canine teeth. It was probably not a goby, and the name cannot be used for Electris.

Eleotris Lext appears with Cuvier (Règne Animal 1, 257, 1817) who accepts the name from Gronow, and gives a correct definition. His types are specimens from Levaillant taken in Surinam. The species described by Cuvier and Valenciennes as Eleotris gyrinus later authors have generally regarded as the type of Eleotris. It is identified by Jordan & Evermann with Gobius pisonis Gmelin.

We have apparently two alternatives in case Gronow's names, "binary" but not binomial, are not accepted.

- (1) We may use the name *Eleotris* as dating from Schneider, taking *Gobius pisonis* Gmelin, waiving the fact that this is a "species non definienda" in Schneider's conception—thus stabilizing current nomenclature.
- (2) We may apply the name *Eleotris* to some one of the species enumerated by Schneider, thus arbitrarily displacing one of the following well-established names: *Valenciennea*, *Nomeus*, *Apocryptes*, *Hypseleotris*, *Boleophthalmus* or *Pomatomus*, genera of later date included in the incoherent mass.

Convenience as well as justice is served by adopting the first alternative, using the name *Electris* in the sense of Gronow and Cuvier with *Gobius pisonis* as the type.

The name Gobiomoroides has no place in this connection, and its type is as yet unidentified.

Epinephelus Bloch, 1792: type Epinephelus marginalis Bloch.

The genus *Epinephelus* was based on *E. afer, E. marginalis, E. merra*, and *E. ruber: marginalis* and *merra* are congeneric, and belong to the great group called *Epinephelus* by Gill, Bleeker, and nearly all recent authors. Of these, *marginalis* is typical. The species named first, *afer*, has been on that account chosen as type by Fowler. This species was separated as the type of *Alphestes* by Bloch & Schneider, 1801; *ruber* was named as type by Jordan & Gilbert, in 1882, who supposed it to be congeneric with *marginalis* and this species under another name (*acutirostris* Cuv. & Val.) became the type of *Parepinephelus* Bleeker, 1875. Justice and convenience are best served by retaining the name *Epinephelus* for its chief components, typified by *E. marginalis*, as understood by nearly all authors. Otherwise the genus would stand as *Cerna* Bonaparte, 1837, unless, with Fowler, we recognize *Epinephelus gigas* (*Perca gigas*) L. as the type of *Serranus* Cuvier, 1817, a change I think unnecessary.

GYMNOTHORAX Bloch, 1795: type Gymnothorax reticularis Bloch.

As originally given, *Gymnothorax* was simply a substitute name for *Muraena* L. Later, in dividing this extensive genus, Bleeker and after him Günther used the name *Gymnothorax* for one of its great divisions, and this arrangement has been largely followed. The first fixation of type may be held to separate *Gymnothorax* from *Muraena*, and I think that the use of the former name

should be preferred to the later *Lycodontis* McClelland based on one of the species of *Gymnothorax*. The case for the use of *Gymnothorax* is stated in Jordan, Genera of Fishes p. 168, that for its suppression on p. 53.

LAMPETRA Gray, 1851: type Petromyzon fluviatilis L.

The type of Ammocoetus Duméril, 1806, Petromyzon planeri, is a larval lamprey of uncertain genus, and the name may be preferably used (as Ammocoetes) as the designation for larval lampreys; while Lampetra, the earliest name based on Petromyzon fluviatilis L. may be retained.

MALAPTERURUS Lacépède, 1803: type Silurus electricus L.

In 1775, Forskål discovered the Electric Catfish of the Nile (Silurus electricus L.), which he confused with the Electric Ray (Raja torpedo L.) and which seemed to him to justify generic separation from Raja. He questions whether it might be allied to Mormyrus or whether it might find a place among the torpedoes of Rondelet, or might it be type of a new genus. "Aut potius novum constituere genus. Certe determinatur torpedinis Character Genericus: Piscis branchiostegus: apertura lineari, obliqua supra pinnae pectorales; corpore nudo; pinnis ventralibus seu abdominalibus; dentibus numerossissimis densis, subulatis." This statement leaves no question as to the species in mind.

In view of the confusion in Forskål's account, and the uncertain fashion in which he describes the supposititious new genus, I suggest that the current use of *Torpedo* for the Electric Ray and *Malapterurus* for the Electric Catfish be approved.

[Apstein 1915a, 188: Malapterurus Lacép., 1803, type electricus Gmel., 1788.]

Mustelus Linck, 1790: type Squalus mustelus L. (= Mustelus laevis).

The generic name Mustelus has been applied to a genus of sharks, typified by Squalus mustelus L. by several authors (Linck, 1700; Leach, 1812; Fischer, 1813; and Cuvier, 1817). This Linnaean species is however based on references to both the two European species of this group, now usually regarded as belonging to different genera or subgenera. These have been usually called Mustelus laevis Risso, the "smooth hound" and Mustelus stellatus Risso (canis), the "spotted hound." Those of the early writers who recognized these fishes failed to use the specific name mustelus for either, or else applied it to both.

Linck, the earliest writer to propose the name Mustelus, however, distinctly mentions Mustelus laevis as a synonym of Squalus mustelus L. and as his type, a fact which must fix the name Mustelus mustelus on the "Smooth Hound." The name thus replaces Pleuracromylon Gill. Galeus Rafinesque (as restricted by Jordan and Evermann, to S. mustelus L.) is also a synonym of Mustelus.

The genus containing the "Spotted Hound" should then stand as Cynias Gill, the type species standing as Cynias canis (Mitchill).

Valmont de Bomare, 1768, speaks of the "Spotted Hound" as "Galeus asterias aut Mustelus stellaris; chien de mer à taches rondes." But this binomial combination is merely a Latin translation of the French, certainly not intended as a scientific name.

Garman (*Plagiostomia*, 1913) rejects the name *Mustelus* altogether, because of its similarity to *Mustela*. But *Mustela* is a weasel and *Mustelus* a shark, a case parallel to that of *Pica* and *Picus*.

[Apstein, 1915a, 188: Mustelus Cuv., 1817, type vulgaris J. Müll. & Henle, 1841.]

Polynemus Linnaeus, 1758: type Polynemus paradisaeus L.

The first real restriction seems to be that of Günther, Cat. Fishes, II, 1860, 319. No type is specified, but the non-congeneric species, *P. quinquarius* L., is removed to form the genus *Pentanemus*, a name originally employed by Artedi, but changed to *Polynemus* by Gronow. As this species, *quinquarius*, was the only one known to Artedi or to Gronow, Dr. Gill, with numerous writers, ourselves included, has regarded it as the type of *Polynemus*. But common usage with the formal selection of *P. paradiseus* L. as type by the first reviser, Jordan & Gilbert, Synopsis Fishes, 1882, should prevail.

Sciaena Linnaeus, 1758: type Sciaena umbra L. = Cheilodipterus aquila Lacépède, as restricted by Cuvier, 1815.

Sciaena umbra of Linnaeus was a complex species made up of the later Sciaena aquila Lacépède and Corvina nigra (Bloch); umbra is the natural type of Sciaena, but its component parts are not congeneric. The two species were confused until Cuvier (Mém. du Museum, 1815, and later in the Règne Animal, Edition II, 1829) made clear the difference and definitely chose aquila as the type of Sciaena. Jordan & Evermann have adopted Corvina nigra, under the name of Sciaena umbra, as type of Sciaena. An argument can be made for either arrangement, but convenience is best served and probably justice also by accepting the name umbra for the species called aquila and recognizing this as type of Sciaena. The two species concerned should then stand as Sciaena umbra L. and Corvina nigra (Bloch). Bleeker has chosen as type Sciaena cirrosa, the species placed first as the type of Umbrina Cuvier, but this arrangement is not the first revision.

[Apstein, 1915a, 189: Sciaena L., 1758, type aquila Risso, 1826.]

Serranus Cuvier: type Perca cabrilla L.

In proposing the generic name Serranus, Cuvier speaks of the species of the genus as "les serrans," "leur nom sur plusieurs côtes du Méditerranée." "La Méditerranée en produit beaucoup, dont les plus communes s'y confondent sous les noms vulgaires de perche de mer, de serran, etc., et sont fort remarquables par la vivacité de leurs couleurs surtout à l'époque de l'amour."

These Serrans thus designated are obviously the species still called by that name, Serranus cabrilla and Serranus scriba of authors. But Cuvier neglects to mention either by its scientific name. In a further paragraph he mentions in Serranus, another species "beaucoup plus grand," Holocentrus gigas Schneider, which is a species of Epinephelus. For this reason, Fowler (Proc. Acad. Nat. Sci. Phila. 1907, 266) has taken gigas as the type of Serranus, thus replacing Epinephelus of authors, which name he leaves to Alphestes afer. No other writer has taken this view of the case, and I recommend the approval of the current nomenclature, regarding Perca cabrilla L. as the genotype of Serranus.

[Apstein, 1915a, 189: Serranus Cuv., 1829, type scriba L., 1758.]

Stolephorus Lacépède, 1803: type Stolephorus commersonianus Lacépède.

Under the head of Stolephorus, Lacépède (Hist. Nat. Poiss. V. 381, 1803) mentions two species, the first the Atherina japonica of Houttuyn, the second his own S. commersonianus. From the latter he derives his description, and on the latter Bleeker bases the genus Stolephorus as largely accepted. The Atherina japonica is very briefly and incorrectly described by Houttuyn, and it has been taken for granted that it was congeneric with the other, and being the first species named, it was indicated as type of the genus by Jordan & Evermann in 1896. It is probable, however, that Houttuyn had in mind the species of another family, named by Bleeker, Spratelloides argyrotaenia. In 1917 (Genera of Fishes, 67) the present writer gave reasons for retaining A. japonica as type of Stolephorus, thus replacing Spratelloides Bleeker, while Stolephorus of Bleeker and authors generally would stand as Anchoviella Fowler. But it would make far less confusion as well as secure substantial justice to retain Stolephorus for the large group of which S. commersonianus is typical.

TEUTHIS Linnaeus, 1766: type Teuthis javus L.

In the twelfth edition of the Systema Naturae, Linnaeus introduces the genus *Teuthis*, with two species, *Teuthis hepatus* and *Teuthis javus*. These species under polynomial names constitute the genus *Hepatus*, of the non-binomial Zoophylaceum of Gronow, 1763. The name *Teuthis* was taken from Browne (Jamaica), 1756, a pre-Linnaean writer, whose type was congeneric with that of Forskål's *Acanthurus*.

The two Linnaean species of *Teuthis* are but distantly related, a fact recognized by various subsequent writers. In 1775, the relatives of *hepatus* were set off by Forskål as *Acanthurus*, those of *javus* as *Siganus*. Cuvier used *Teuthyes* as a group name covering both types, the one being called *Acanthurus*, the other, after Bloch and Schneider, 1801, *Amphacanthus*.

The first author after Linnaeus to use *Teuthis* as a generic name was Cantor, 1849. It here replaces *Siganus*, with a correct definition and the Linnaean species *Teuthis javus*, placed at the head of the series.

In this usage, Günther and all European writers have followed, and although the word "type" is not mentioned by Cantor, the arrangement will bear rigorous interpretation.

Later Gill showed reasons why Teuthis hepatus should have been taken as type, Teuthis being a re-naming of Hepatus of Gronow, by reverting to the still earlier name of Browne. There is room for argument on both sides, but inasmuch as the first reviser (Cantor) selected Teuthis javus as type of Teuthis and current nomenclature outside of America uses Acanthurus for hepatus and its relatives and Teuthis instead of Siganus, I recommend that this course be approved by the Commission. In my own papers I have lately followed the suggestion of Dr. Gill, replacing the familiar Acanthurus by Teuthis or by Hepatus, reviving Siganus for the javus group. I am inclined to think this change unnecessary as it was certainly confusing, and that to follow Cantor is in better accord with established rules.

Opinion prepared by Commissioner David Starr Jordan.

Report on final vote: Two names Aëtobatus and Lampetra have been tabled without prejudice pending further discussion at the next

meeting of the Commission. The other 12 names are unanimously adopted by a vote of 13 to 0.

Opinion concurred in by thirteen (13) Commissioners: Apstein, Bather, Handlirsch, Hartert, Horvath, Jordan, D. S., Jordan, K., Loennberg, Monticelli, Neveu-Lemaire, Skinner, Stiles, and Warren.

Opinion dissented from by no Commissioner.

Not voting, four (4) Commissioners: Dabbene, Hoyle, Kolbe, and Stejneger.



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