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SOME NEW TAXONOMIC NAMES OF FISHLIKE VERTEBRATES

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In a previous paper dealing with new taxonomic names I gave a number of items for the more primitive classes, from the Leptocardians to the lung fishes.¹ Since then, and in pursuit of the studies mentioned in that paper, I have found many other new items requiring further consideration, which were included in another paper,² though merely listed.

Interest in the higher groups or categories by the American Society of Ichthyologists and Herpetologists has led their committee on fish classification to formulate terminations for the groups ranking above genera to superorders. In the class group I have used the ending *icea* for superclass, *ea* is used for class and *ia* for subclass. Throughout and where necessary, name references are given in the higher categories, followed by the date of publication, this indicating their source and derivation. Thus if the derivation of the name is evident from the basic name given, I styled it emended. If the basic name is different I have called it new.

The phylogenetic arrangement of the groups is mainly that of Regan and as later expanded by Berg. It may be interesting to note that of the entire 114 orders admitted by Berg, 56 are fossil, and of the 58 remaining of recent forms the Hyrtl collection of skeletons contains 40 or more. I have examined representatives of 10 orders of living forms not represented by skeletons. The articulated skeletons are thus fairly representative. Fossils are indicated by the prefixed dagger.

Lampetrinae new subfamily name Petromyzonidae (Petromyzonidea)
Lampredia Rafinesque, *Analyse de la nature* 1915, p. 94.—*Lampetra* Bonnaterre, *Tabl. Ichth.* 1785, p. XL, 1. *Petromyzon planeri* Blotch type, fourth species.

¹ New taxonomic names of fishlike vertebrates. *Notulae Naturae Acad. Nat. Sci. Phila.*, no. 187, Feb. 21, 1947, p. 1-16.

² Some new or emended names of fishlike vertebrates. *The Fish Culturist*, vol. 30, no. 10, Supplement, May 31, 1951, pp. 1-4.

- †*Thelolepoides* new generic name Pteraspidae (Pteraspida)
Thelolepis Hoppe, Palaeontographica vol. 76, 1931, p. 72. *Thelolepis trilobata* Hoppe, type. Preoccupied by *Thelolepis* Pander, Monogr. Fische Silur. Russ. Balt. 1856, p. 67. *Thelodus parvidens* Agassiz, type. Same as *Thelodus* Agassiz, and with same genotype, according to Jordan, Genera of Fishes, pt. 2, 1919, p. 194.
- †Suborder Amphiaspina new name (Amphiaspida)
Amphiaspiformes Berg, Bull. Ac. Sci. URSS. 1937, p. 1277 (name only); Trav. Inst. Zool. Acad. Sci. URSS. vol. 5 (2) 1940, p. 362.
- †*Phoebammon sajassae* new specific name Coccosteidae (Coccostea)
Coccosteus obtusus Trautschold, Zeitschr. Deutsch. Geol. Ges., vol. 41, 1889, p. 44, pl. 5 figs. 7-9, pl. 6 figs. 1-2. Sajass River, Russia; (part; imperfect detached plates). Preoccupied by *Coccosteus obtusus* Pander, Reis. Petschoraland, Keyserling, 1846, p. 292 b. Uchta River, Russia, Petschora, Russia; Devonian (dermal plate).
- †Suborder Acanthoëssina new name (Acanthoëssida)
Acanthoëssoides Fowler, Notulae Nat. Acad. N. Sci. no. 187, 1947, p. 7. Acanthoëssidae Hay.
- †*Moythomasina* new generic name Ctenacanthidae (Heterodontida)
Goodrichia Moy-Thomas, P.Z.S. London 1936, 771. *G. eskdalensis* Moy-Thomas, monotype. Preoccupied by *Goodrichia* Clench, 1929 in Molluska. (This name not to be confused with *Moythomasia* Whitley 1951 in Pisces.)
- Superfamily Heterodonticae new name
Heterodontoidea Hay, Bull. U. S. Geol. Surv. no. 179, 1902, p. 285. Heterodontidae.
- Suborder Galeorhina new name Galeorhinidae (Carchariida)
Galeorhinoidei Fowler, Notulae Naturae Acad. N. Sci. Phila. no. 187, Feb. 21, 1947, p. 10. Galeorhinidae (as suborder).
- †*Aporomicrodus* new generic name
Microdus Emmons, Geol. Midland North Carolina 1857, p. 48. *M. laevis* Emmons, monotype. Preoccupied by *Microdus* Nees 1812 in Hymenoptera. (*ἀροπία* doubt + *Microdus*.)
- Subfamily Scylliogaleinae new name Triakidae
Scylliogaleidae Whitley, Fishes of Australia 1940 (July 20) pp. 68. 274 (as family). Type genus *Scylliogaleus* Boulenger 1902.
Dr. J. L. B. Smith proposes Scylliogaleidae *nom. nov.* (South African Journ. Sci., vol. 53, no. 14, Sep. 1957, p. 353) but without any reference to Whitley; genera *Scylliogaleus* Boulenger 1902 and *Mustelus* Link 1790.
- †*Actinobatis davisii* new name Rajidae (Rajida)
Raja minor Davis, Trans. Royal Dublin Soc., ser. 2, vol. 3, 1887, p. 493 pl. 21 fig. 2. Sahel Alma, Mount Lebanon, Syria: Upper Cretaceous (nearly complete skeleton). Preoccupied by "*Raja asterias*, Rond., var. *minor* or *juv?*" Doederlein, Man. Ittiol. Medit., fasc. 3, 1884, pp. 182, 184—*Raia oculata* Risso 1826.

Named for a very small fossil ray but 63 mm. long. The large pectoral fins extend forward beyond the mouth opening, but do not encircle the head. The pectoral rays number 58. Strong spines on front ventral rays, and the long caudal appendage with the attached recurved spinous bodies are other characters. This note is made from Davis's account, cited above.

†*Eucompsacanthus* new generic name

Ichthyodorulites

Compsacanthus Davis, Trans. Royal Dublin Soc., ser. 2, vol. 1, 1883, p. 354. *C. carinatus* Davis, orthotype. *Compsacanthus* Davis preoccupied by Newberry, Proc. Acad. Nat. Sci. Phila., vol. 8, 1856, p. 100. *C. laevis* Newberry, monotype.

†*Heilprinina* new generic name

Xenacanthidae (Xenacanthida)

Trachylepis Pander, Monogr. Foss. Fisch. Silur. Russ. 1856, 52. *T. formosa* Pander, type. Preoccupied by *Trachylepis* Fitzinger 1843 in Reptilia. (For Prof. Angelo Heilprin of Philadelphia, 1852—1907.)

†Ganopristodida new order name

(Dipterica)

Uronemidea Naef, Handb. Verebungswiss. vol. 3, lief 13, 1931 (grade not given; includes Neodipnoi and Tetrapoda).

†Family Ganopristodidae new name

Uronemidae Berg, Trav. Inst. Zool. Acad. Sci. URSS. vol. 5 (2) 1940, p. 386. *Ganopristodus* Traquair.

Subclass Polypteria new name

Pneumobranchii Bonaparte, Cat. Metod. Pesc. Europ. 1846, p. 4.

†Platysiagida new order name

(Acipenserica)

Platysiagiiformes Brough, Triassic Fish. Besano 1939, p. 14. Platysiagidae Brough 1939, type family.

†Family Thrissonotidae new name

Oxygnathidae Berg, Travaux Inst. Zool. Acad. Sci. URSS. vol. 5, livr. 2, 1940, p. 400. *Oxygnathus* Egerton 1854, preoccupied by *Oxygnathus* Dejean 1826 in Coleoptera. Thrissonotidae is required, as *Thrissonotus* Agassiz 1844 is first generic name available.

†Suborder Uropterygina new name

(Palaeoniscida)

Platysomida Moy-Thomas, Palaeozoic Fishes 1939, pp. 115, 126. *Uropterygina* necessary, as the type genus *Platysomus* Agassiz 1833—*Uropteryx* Agassiz 1835, is preoccupied by *Platysomus* Desjardines 1832 in Duleidae. The following also eventuates:

†Family Uropterygidae new name

Platysomidae Young, Quart. Journ. Geol. Soc. London, vol. 32, 1866, p. 316.

†*Pycnodus matheroni* new specific name

Pycnodonidae (Pycnodonida)

Pycnodus affinis Matheron, Rech. Pal. Midi France, 1878, pl. C-17, fig. 5 (figures only; dentition).—Arnaud, Bull. Soc. Géol. France, ser. 3, vol. 10, 1882, p. 133. Orgon, Apt, Vauchuse; Lower Cretaceous—Virginian (detached teeth). Misidentification for *P. affinis* Pictet, Rept. Poiss. Foss. Jura neuchatelois 1869, p. 50, pls. 12, 12

bis, pl. 19 fig. 1, which has been referred to the genus *Mesodon* Wagner, "notwithstanding its preoccupation among Mollusca by Rafinesque 1819." Woodward (Cat. Foss. Fishes Brit. Mus., pt. 3, 1895, p. 199, footnote). (Named for M. Matheron, discoverer of the species.)

†*Pycnodus woolmani* new specific name

P. irregularis Sauvage, Bull. Soc. Sci. Nat. Yonne, vol. 33, no. 2, 1879, p. 44 pl. 1 fig. 7. Seigelay, Yonne, France; Cenomanian (vomere dentition). Misidentification for *P. irregularis* Quenstedt, Der Jura 1858, p. 781, pl. 96, fig. 32. Schnaitheim, Wuerttemberg; Upper Corallian (portion of vomer). (For Lewis Woolman, local geologist and palaeontologist, author of several papers 1886 to 1898.)

†*Pholidophorus johnsoni* new specific name Pholidophoridae (Pholidophorida)

P. angustus Agassiz, Poiss. Foss., vol. 2, pt. 1, text 1844, p. 285, pl. 42a, fig. 2. Poland; gres rouge jurassique (Jurassic) (imperfect fish).

Name preoccupied by *P. angustus* Muenster, Neues Jahrb., 1842, p. 43. Karlheim; Lower Kimmeridgian (Lithographic Stone).—? *Eugnathus* according to Woodward (Cat. Foss. Fishes Brit. Mus., pt. 3, 1895, p. 477). (For Charles W. Johnson, 1863-1932, entomologist and conchologist, Curator of the Wagner Free Institute of Science, in Philadelphia, and later of the Boston Society of Natural History.)

†*Ionoscopus eastmani* new specific name (Oligopleuridae)

Oenoscopus elongatus Eastman, Ann. Carnegie Mus., vol. 8, 1912, p. 185, pl. 11. France; Jurassic. Preoccupied by *Pachycormus elongatus* Muenster, Neues Jahrb., 1842, p. 43. Kelheim, Bavaria; Lower Kimmeridgian. *Oenoscopus* Costa 1864 is preoccupied by *Ionoscopus* Costa 1853. The specific name of *Oenoscopus elongatus* Eastman is preoccupied by *Pachycormus elongatus* Muenster 1842—*Aethalion subovatus* Muenster 1842, herein admitted as *Ionoscopus subovatus* (Muenster). (For Professor Charles W. Eastman, 1868-1918, the accomplished American palaeontologist.)

†*Perigrammatolepis wittichi* new specific name Raphiosauridae (Clupeida)

Osmeroides maximus Wittich, Notizbl. Ver. Erdk. Darmstadt, (4) vol. 18, 1897, p. 43 pl. 5 figs. 1-3. Mayence Basin; Middle Oligocene. Preoccupied by *O. maximus* Davis, Trans. Royal Dublin Soc. (2) vol. 3, 1887, p. 566. Sahel Alma, Mt. Lebanon, Syria; Upper Cretaceous. This is also a species of *Perigrammatolepis*. (Named for Ernst Wittich, who first described the species.)

Albulinae new subfamily name (Albulidae)

Albulina Guenther, Cat. Fishes Brit. Mus, vol. 7, 1868, p. 468 (as group).

Albulidi new tribe. Type genus *Albula* Scopoli.

Last ray of dorsal fin, and of anal fin, not prolonged. *Albula vulpes* Linnaeus genotype.

Dixoninidi new tribe name. Type genus *Dixonina* Fowler

Last ray of dorsal, and of anal, prolonged. *Dixonina nemoptera* Fowler, genotype.

Subfamily Dussumieriinae Jordan and Gilbert (Dussumieriidae)

Teeth always present. Branchiostegals 14 to 18. Scales transversely 11 to 15. Dorsal rays 16 to 21. Adult 150 to 350 mm.

Dussumieriidi new tribe. Type genus *Dussumieria* Valenciennes

Ventrals below dorsal fin. Anal rays 14 to 19. *Dussumieria acuta* Valenciennes, genotype.

Etrumeidi new tribe. Type genus *Etrumeus* Bleeker

Ventrals behind anal fin. Anal rays 9 to 13. *Clupea micropus* Temminck and Schlegel, genotype.

Stolephorinae new subfamily

Teeth often absent. Branchiostegals 6 or 7. Scales transversely 6 to 10. Dorsal rays 9 to 17. Adults 50 to 110 mm.

Stolephoridi new tribe. Type genus *Stolephorus* Lacepède

Ventrals before or below dorsal. Scales 35 to 45. *Atherina japonica* Houttuyn = *Spratelloides argyrotaenia* Bleeker, genotype.

Parahaleculidi new tribe. Type genus *Parahalecula*, new generic name.

Ventrals behind dorsal. Scales nearly 60. *Etrumeus acuminatus* Gilbert, genotype.

Parahalecula new generic name. *Etrumeus acuminatus* Gilbert, type species.

New generic name necessary as *Halecula* Jordan 1924 is preoccupied by *Halecula* Facciola, Nat. Sicil., vol. 10 (1) 1891, p. 18.—*Centrolophus* Lacepède Hist. Nat. Poiss. 4, 1803, p. 441. (*Para* (near) + *Halecula*).

Parahalecula acuminata (Gilbert)

†*Hayina* new generic name (Clupeidae)

Smithites Jordan and Gilbert, Stanf. Publ. Univ. Series, Sep. 18, 1919, p. 30. *S. elegans* Jordan and Gilbert, orthotype. As fossil Dussumieriid. Preoccupied by Lomocue 1916 in Mollusca.

Jobertina White and Moy-Thomas, 1941 is also based on *Smithites* Jordan and Gilbert 1919, but is preoccupied by *Jobertina* Pellegrin (Bull. Mus. Hist. Nat. Paris, 1908, p. 151. *Characidium interruptum* Pellegrin, monotype, in Pisces). (For Prof. Oliver Perry Hay, 1846—1930, well known as ichthyologist and palaeontologist.)

Hyrtilinus new genus (Brevoortiinae)

Short body deeply ovoid in contour, well compressed, the body depth but little over half of the standard length. Moderate sized head deep. Mouth terminal. Mandibular rami deep and elevated. Teeth in jaws very small, simple, feeble and uniserial. Palate with 2 elongated dentigerous areas, covered with very minute, thickly set villiform teeth. Vertebrae 40. A series of epineurals and epicentrals. Anterior caudal vertebrae with ribs all attached to parapophyses. Dorsal postmedian. Anal small, rays 15, behind dorsal. Low set pectoral reaches half way to ventral.

Although the external characters, such as the squamation, various proportions, color and other details are not now obtainable, the distinctive structural characters show great differences from the apparently related *Brevoortia* Gill, *Ethmidium* Thompson and *Ethmalosa* Regan. From all these *Hyrtlinus* differs chiefly in its greatly fewer gill rakers, dentigerous palatines and greatly deeper body. Genotype *Hyrtlinus altiforma* new species. (For Dr. Joseph Hyrtl.)

***Hyrtlinus altiforma* new species**

Depth $2\frac{1}{2}$ to hypural; head $3\frac{2}{3}$, width $1\frac{1}{3}$ in its length. Snout (in profile) measured to orbit $3\frac{1}{3}$ in head; orbit 3; maxillary 2, expansion $1\frac{1}{3}$. Preorbital shorter than orbit, its lower edge broadly convex; infraorbital greatly deeper than preorbital. Opercle with only obscure feeble striae. Preopercle wide. Gill rakers 17+13, compressed, pointed, lanceolate. Branchiostegals 6, shorter than hyoid arch, posteriorly broad. Urohyal with deep keels, greatly compressed. Pharyngeals with upper having broad expansion furnished with foramen. Vertebrae 12+28 (=40). Abdominal scutes 16+12. D. III, 14. A. II, 13. P. I, 13. V. I, 5. South America. U.P. 116 (972). Length 115 mm.

Gudusiinae new subfamily

Adipose eyelids wide. Lower gill rakers 200 or more. Scales 80 to 120 in median lateral row. Abdominal scutes 18 or 19+9 or 10. *Gudusia* Fowler 1911 type genus.

Opisthoneminae new subfamily

Fourth left epibranchial with broad, elevated, thin expansion. Lower gill rakers 60 to 100. Abdominal scutes 17 to 20+13 to 16. Branched dorsal rays 14 to 17. Branched anal rays 16 to 22, with last ray prolonged. Ventral rays 8. *Opisthonema* Gill 1861 type genus.

Anodontostomidi new tribe. Type genus *Anodontostoma* Bleeker (Dorosomidae)

Small mouth inferior and transverse. Last dorsal ray not prolonged. Includes *Gonialosa* and *Indialosa*.

Clupanodonidi new tribe. Type genus *Clupanodon* Lacepède

Terminal or partly terminal mouth with a lateral cleft. Maxillary with one or no front supramaxillary. Last dorsal ray a prolonged filament.

Dorosomidi new tribe. Type genus *Dorosoma* Rafinesque

Slender maxillary with 1 or 2 supramaxillaries. Last dorsal ray prolonged. Includes *Nematalosa*, *Signalosa*, and *Fluvialosa*.

Engraulidi new type. Type genus *Engraulis* Cuvier Engraulinae (Engraulidae)

Body robust or partly cylindrical. Gill membranes entirely separate. Lower gill rakers 26 to 46. Vertebrae 41 to 49. Anal rays 20 to 24.

Cetengraulidi new tribe. Type genus *Cetengraulis* Guenther

Body contour ellipsoid, reaching 160 mm. Gill membranes widely united with age, as a thin transparent membrane, easily torn. Lower gill rakers 25 to 60. Ventrals inserted below, or only slightly before dorsal origin.

Setipinnidi new tribe. Type genus *Setipinna* Swainson (Anchoviinae)

Distinguished by the complicated riblike structure emanating from the precaudal vertebrae.

†**Argentina weileri** new specific name Argentiniidae (Salmonina)

A. elongata Weiler, Senckenbergiana, Frankfurt vol. 26, 1943, p. 88, pl. 1 fig. 2. South Rumania; Tertiary (otolith).

The above name required as *A. elongata* Weiler is preoccupied by *A. elongata* Hutton, Ann. Mag. Nat. Hist., ser. 5, vol. 3, 1879, p. 53. Brighton, near Dunedin, New Zealand.

Mallotinae new subfamily

Minute teeth uniserial in jaws, on vomer, palatines and pterygoids. An elliptical patch of teeth on tongue, somewhat enlarged. Branchiostegals 8 to 10. Scales minute, with a band above the lateral line and along each side of the belly enlarged; in mature males they may become densely imbricated, lanceolated, elongated, and with the free projecting points forming villous bands. Old males have the scales on the back and belly similarly modified, and also with the top of the head and rays of the paired fins finely granulated. Large pectorals with 18 to 20 rays. Type genus *Mallotus* Cuvier.

Manducinae new subfamily Gonostomidae (Stomiatina)

Dorsal origin before anal origin, or above space between the ventral and anal fins. No adipose dorsal fin. Additional rows of photophores along lateral line. Type genus *Manducus* Goode and Bean. Also includes *Lychnopoles*, *Polymetme*, *Yarella*, and *Valenciennellus*.

Harpadoniceae new superfamily (Myctophida)

Premaxillaries alone present. Skeleton very delicately ossified, with thin fragile bones. Vertebrae without transverse extensions. Ribs sessile. Frontals and interorbitals form complete double interorbital septum. Harpadonidae.

Lampanyctus macropterus novae-guineae new specific name Myctophidae

L. macropterus taaningi Angel and Verrier, Ann. Inst. Océanogr. Paris, new ser., vol. 10, 1931, 124 fig. 2. Near New Guinea.

New specific name required as the above preoccupied by *L. taaningi* Parr, P. Nat. Mus. vol. 76 (10) 1929, p. 27. Atlantic Ocean.

Aulopinae new subfamily name Aulopidae

Aulopidini Bonaparte, Saggio Distrib. Vertebr. Roma 1839, p. 57. Type genus *Aulopus* Cloquet.

Giganturina new suborder name (Giganturida)

Atelazia Starks, B. Mus. Comp. Z. 52, 1908, 1 pl. 1 (lateral view of *Stylophorus chordatus* Shaw), pls. 2-5 (osteology) (as suborder for Stylophoridae).

Saccopharyngina new suborder name (Saccopharyngida)

Lyomeri Gill and Ryder, P. Nat. Mus. 6, 1883, 263.

Saccopharynginae new subfamily name

Saccopharyngichthyini Bleeker, Act. Soc. Sci. Ind. Néerl. (no. 3) 6 1859 xxxiii (as tribe). Type genus *Saccopharynx* Mitchill.

Gnathonemus pfaffi new specific name Mormyridae (Mormyrida)

G. elongatus Pfaff, Vid. Med. Nat. For. Kjoebenhavn vol. 94, 1933, 276 fig. 1. Niger River, West Africa.

The specific name *elongatus* is preoccupied in *Gnathonemus*, as the synonym *Mormyrus elongatus* Rueppell 1832, in the synonymy of *Gnathonemus cyprinoides* (Linnaeus). (Named for J. R. Pfaff, discoverer of the species.)

Petrocephalus steindachneri new specific name

P. affinis Steindachner, Denks. Akad. Wiss. Wien vol. 92, 1916, p. 64. East Africa.

Renamed as *P. affinis* Steindachner is preoccupied with the same name given by Sauvage in 1878, a synonym of *Stomatorhinus walkeri* (Guenther). (For Franz Steindachner.)

Tetragonopteridi new tribe Tetragonopterinae (Tetragonopteridae)

Upper lip covering premaxillary teeth.

Tetragonopterini new subtribe

Gill rakers setiform, or branched. Type genus *Tetragonopterus* Cuvier.

Scissorini new subtribe

Short gill rakers lanceolate. Type genus *Scissor* Guenther.

Henoehilidi new tribe

Premaxillary teeth exposed, not covered by upper lip. Type genus *Henoehilus* Garman. Includes *Psalidodon*.

Alestidi new tribe

Upper teeth biserial, inner with obliquely truncate or molarlike excavated crowns. Dorsal begins over or behind pectorals. Type genus *Alestes* Mueller and Troschel.

Bryconaethiopsidi new tribe

Upper teeth triserial, inner with more or less molarlike with excavated crowns. Dorsal begins before ventrals. Type genus *Bryconaethiops* Guenther.

Grundulidi new type

Cheirodonidae

No adipose dorsal fin. Teeth conic, or tricuspid in both jaws. Lateral line incomplete. Type genus *Grundulus* Valenciennes.

Aphyocharacidi new tribe

Teeth tricuspid or conic. Type genus *Aphyocharax* Guenther.

Cheirodonidi new tribe

Teeth 5 lobed, or at least partly so. Adipose fin present. Type genus *Cheirodon* Girard.

Erythrinidi new tribe

Erythrinae (Erythrinidae)

Dentary with short conical teeth; 2 canines near 2 at symphysis, without larger ones. Scales 33. Type genus *Erythrinus* Scopoli. Includes *Hoplerythrinus* and *Pseuderythrinus*.

Hoplidi new tribe

Dentary with canines in front and on sides. Maxillary with front canine. All teeth pointed. Scales 39 to 44. Type genus *Hoplias* Gill.

Chalceidi new tribe

Piabucinae

Median lateral scales enlarged, greatly in contrast with lower scales. Lateral line 35. Type genus *Chalceus* Cuvier.

Piabucinidi new tribe

Scales all more or less of uniform size. Scales 28 to 30 in lateral line. Type genus *Piabucina* Valenciennes.

Plethodectidi new tribe

Scales more or less uniformly large. Scales 19 in lateral line, meeting anal fin opposite anal origin. Type genus *Plethodectes* Cope.

Carnegiellidi new tribe

Gasteropelecinae (Gasteropelecidae)

Maxillary with single large hooked tooth. No adipose fin. Type genus *Carnegiella* Eigenmann.

Gasteropelecidi new tribe

Maxillary with large hooked teeth. Adipose fin present. Type genus *Gasteropelecus* Bloch.

Triportheidi new tribe

Triportheinae

Dorsal origin before anal origin. Type genus *Triportheus* Cope.

Clupeacharacidi new tribe

Dorsal origin behind anal origin. Type genus *Clupeacharax* Pearson.

Characidi new tribe

Characinae (Characidae)

Clavicle with a notch. No outer denticles on jaws. Scales 40 to 60 in lateral line. Anal origin before dorsal origin. Type genus *Charax* Scopoli.

Cynopotamidi new tribe

Clavicle with a notch. No outer denticles on jaws. Scales exceed 90 in lateral line. Anal origin behind dorsal origin. Type genus *Cynopotamus* Valenciennes.

Moralesicus new generic name

Moralesia Fowler, Bol. Mus. Univ. San Marcos, ano 7, nos. 24 and 25, 1943, p. 96.

Anacyrtus tectifer Cope, orthotype.

Requires a new name, for according to Trevassos, Dusenía 14, 1951-52, p. 94. Moralesia Fowler "Ocupa a genero de Espanol 1944 Coleoptera."

Roeboididi new tribe

Clavicle with shallow notch to receive Pectoral base. Jaws with external denticles. Long anal fin with origin well advanced, or before dorsal origin. Type genus *Roeboides* Guenther.

Exodonidi new tribe

External denticles on outer surfaces of jaws. Clavicle not notched to receive pectoral base. Short anal fin with less than 30 rays. Type genus *Exodon* Mueller and Troschel.

Hepsetinae new subfamily name

Sarcodacinae Regan, Ann. Mag. Nat. Hist. ser. 8, vol. 8 1911, 16. Type genus *Sarcodaces* Guenther.

Sarcodacinae is precluded as Hepsetus Hubbs (Copeia, Ann Arbor 1939, p. 168) has priority for its type genus *Sarcodaces*, thus requiring the above new subfamily name.

Cynodonidi new tribe

Cynodoninae

Dorsal origin behind anal origin. Anal rays 80. Type genus *Cynodon* Spix.

Hydrolicidi new tribe

Dorsal fin in advance of anal fin. Anal rays 35. Type genus *Hydrolicus* Mueller and Troschel.

Iguanodectidi new tribe

Iguanodectinae

Breast not compressed, without a median keel. Type genus *Iguanodectes* Cope.

Piabucidi new tribe

Breast compressed, with median keellike edge. Type genus *Piabucus* Oken 1817. Based on Piabucinae Fowler, Archiv. Zool. São Paulo vol. 6 (2) 1950, p. 340 (as undefined subfamily).

Bryconidi new tribe

Bryconinae

Large scales 43 to 60 in lateral line. Type genus *Brycon* Mueller and Troschel.

Chalcinopsidi new tribe

Small scales 61 to 83 in lateral line. Type genus *Chalcinopsis* Kner.

Brachychalcinidi new tribe

Scales of moderate size, less than 40. Erectile predorsal spine simple, scale like or saddle like. Type genus *Brachychalcinus* Boulenger. Also includes *Poptella*.

Stethaprionidi new tribe

Small scales 60 or more in lateral line. Erectile predorsal spine spear shaped and slender. Type genus *Stethaprion* Cope.

Serrasalmidi new tribe

Serrasalminae

Uniserial teeth in both jaws. Type genus *Serrasalmus* Lacepède. Includes *Pygocentrus* and *Pygopristis*.

Myleidi new tribe

Myleinae

Teeth more or less close set, incisor like or with inclined cutting edge, or molariform; outer row on each premaxillary with 5 teeth, and 2 in inner row. Conic mandibular teeth present or absent. Jaws equal in front, or lower little projecting. Predorsal spine present or absent. Type genus *Myleus* Mueller and Troschel.

Catoaprionidi new tribe

Teeth widely set, largely concealed by lips and gums, with projecting conical cusps. Outer of each premaxillary with 2 large projected teeth, and 3 smaller but similar teeth in inner row. No conical mandibular teeth. Lower jaw strongly projecting. Predorsal spine present. Type genus *Catoaprion* Mueller and Troschel.

Labeo worthingtoni new specific name

Labeoninae (Cyprinidae)

L. intermedius Worthington, P.Z.S. London 1933, p. 297 text-fig. 3. Lake Nyasa. Preoccupied by *Labeo intermedius* Nichols and Griscom (Bull. Am. Mus. Nat. Hist. vol. 37, art. 25, Nov. 26, 1917, p. 694, fig. 10. Stanleyville; Rungu). (For E. B. Worthington, author of the "Fishes of Lake Nyasa.")

Rohteeinae new subfamily name

Smiliogastrini Bleeker, Atlas. Ichth. Ind. Néerl. vol. 3, 1865, p. 33 (as stirps). Type genus *Rohtee* Sykes.

Semiplotus dayi new specific name

Semiplotinae

Scaphiodon aculeatus Day, P.Z.S. London 1880, p. 227. Misidentification for *Chondrostoma aculeatum* Valenciennes, Hist. Nat. Poiss., vol. 17, 1844 pp. (304) 408. Persia, in fresh water. (A species of *Varicorhinus*). *Scaphiodon aculeatus* Day appears to represent a distinct species of *Semiplotus*, for which the above name is proposed. (For Francis Day, 1829-1889, the distinguished British ichthyologist and author of numerous works on Indian fishes.)

Barbus jacobus-boehlkei new specific name

Barbinae

Puntius simus H. M. Smith, Bull. U. S. Nat. Mus., no. 188, 1945, p. 185 text-fig. 32. Siam. Preoccupied [subgenus *Puntius-Barbus*] by *Barbus (Systemus) simus* Sauvage and de Thiersant, Ann. Sci. Nat., Paris, ser. 6, vol. 1, Zool. (art. 5) 1875, p. 85. South China. (For Dr. James Boehlke, of the Department of Ichthyology and Herpetology in the Academy.)

Barbus dageti new specific name

B. kessleri Derjavin, Bull. Ichthy. Lab. Baku, vol. 2 (2) 1929, p. 75, fig. 3. Baku. Preoccupied by *Puntius kessleri* Steindachner, Verh. Zool. Bot. Ges. Wien, vol. 16,

1866, p. 768 pl. 14 fig. 3. Angola. (For J. Daget, author of the excellent "Les poissons du Niger Supérieur 1954.")

Barbus decioi new specific name

B. nicholsi Vinciguerra, Ann. Mus. Civ. Stor. Nat. Genova vol. 53, 1928, p. 11. Congo. Preoccupied by *Barbus nicholsi* Myers, Am. Mus. Novitates no. 150, 1924, p. 5. Burma. (For Decio Vinciguerra, author of many valuable contributions to systematic ichthyology [1879-1913]).

Barbus donaldson-smithi new specific name

B. lepidus Pfaff, Vid. Med. Nat. For. Kjoebenhavn vol. 34, 1933, p. 284 fig. 3. Niger River, West Africa. Preoccupied by *Puntius (Capoeta) lepidus* Day, P.Z.S. London 1868, p. 196. Bowang River. (For the late Dr. A. Donaldson-Smith, of Philadelphia, explorer in China, Indonesia and Africa, who secured valuable collections for the Academy.)

Barbus fernandez-ypezii new specific name

B. aureus Tirant, Bull. Soc. Etudes Indochinoises 1883. Hue River, Indo-China. Serv. Océanogr. Pech. Indochine, 6 note, 1929, p. 27 (Hue River), p. 162. Preoccupied by [*Barbus*] *Labeobarbus aureus* Cope, Trans. Am. Philos. Soc., ser. 2, vol. 13, 1866 (1869), p. 406. Umvoti Mission, South Africa. (To Fernandez-Ypez, of Caracas, Venezuela, for his interesting works on Venezuela fishes.)

Barbus liui new specific name

B. compressus Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 12, 1898, p. 202. Fort Stedman, 3000 feet elevation, South Shan States. Preoccupied by *Barbus (Barbodes) compressus* Day, P.Z.S. London 1869, p. 55. Cashmere. (Named for Mr. Tangshui Liu, Chief Curator, Taiwan Museum, Taipei, China.)

Barbus luapulae new specific name

B. intermedius Boulenger, Rev. Zool. Africaine vol. 4, 1917, 167. Rio Luapula. Preoccupied by *Barbus intermedius* Rueppell, Mus. Senckenberg, vol. 2, 1837, p. 7, pl. 1, fig. 2. Lake Zana. (Named for the Luapula River.)

Barbus yunnanensis new specific name

B. gregorii Norman, Ann. Mag. Nat. Hist., ser. 9, vol. 11, 1923, p. 562. Yunnan. Preoccupied by *Barbus gregorii* Boulenger, Ann. Mag. Nat. Hist., ser. 7, vol. 10, 1902, p. 422. Upper Tana River, East Africa.

Leuciscus oshimae new specific name

(Leuciscinae)

L. mongolicus Oshima, Journ. Zool. Tokyo 2 1929, p. 83. Japan. Preoccupied in *Leuciscus* by *Squalius mongolicus* Kessler, Mongol. Przewalski vol. 3, pt. 2, 1876, p. 21 pl. 2 fig. 2. Dalai Nor. (For Dr. Masamitsu Oshima, author of valued works on Formosan fishes.)

Bariliinae new subfamily name

Chedri Bleeker, Atlas I. Ind. Néerland., vol. 3, 1863, p. 30 (as phalanx). Comprises as type genus *Chedrus* Swainson [= *Barilius* Buchanan-Hamilton 1822] and *Plargyrus* Rafinesque—*Notropis* Rafinesque (American).

Barilius shanensis new specific name

B. ornatus Boulenger, Ann. Mag. Nat. Hist., ser. 6, vol. 12, 1893, p. 203. Fort Stedman,

3000 feet elevation; Nampandet, 2000 feet; South Shan States. Preoccupied by *Barilius ornatus* Sauvage, Bull. Soc. Philomath. Paris, ser. 7, vol. 7, 1882, p. 153. Me Nam, Siam.

Gibelioninae new subfamily name

Catlae Bleeker, Atlas Ichth. Ind. Néerl., vol. 3, 1863, 28 (as phalanx). New name required as type genus *Gibelion* Heckel, Russegger Reis., vol. 1, pt. 2, 1843, p. 1014. *Cyprinus catla* Buchanan-Hamilton,

Oreininae new subfamily name (Schizothoracinae)

Oreini Bleeker, Atlas Ich. Ind. Néerl., vol. 3, 1863, p. 301 (as phalanx). Type genus *Oreinus* McClelland.

Diplophysoides new generic name Noemachilinae (Cobitidae)

Diplophysa Kessler, Reis. Turkestan, Fedchenko, vol. 2 (6) 1874, p. 57. *Diplophysa trauchii* Kessler, monotype. Preoccupied by Gegenbaur 1853 in *Coelenterata*. *Deuterophysa* Rendahl, Ark. Zool. Stockholm vol. 25 A, 1933, p. 23 (as subgenus; based on Kessler). Preoccupied by Warren 1889 in *Lepidoptera*. (*Diplophysa* + εἶδος likeness.)

Myxocyprininae new subfamily Catostomidae

Dorsal rays 52 to 56, with fin extending whole length of back, which last is elevated forward or in front. Type genus *Myxocyprinus* Gill 1878.

Opsodoras ogilviei new specific name Doradidae (Silurida)

Leptodoras trimaculatus Fowler, Proc. Acad. Nat. Sci. Phila., May 29, 1914, p. 264, fig. 14. Rupununi River, British Guiana. Preoccupied in *Opsodoras* by *Hemidoras trimaculatus* Boulenger, Trans. Z. S. London, vol. 14, 1898, p. 42, pl. 40 fig. 1. Rio Zarua, Brazil. (For Mr. J. Ogilvie, who collected the type.)

†*Xenopholoides* new generic name Siluridae

Type *Xenopholis carinatus* Davis.

Xenopholis Davis, Trans. Royal Dublin Soc. (2) vol. 3, 1887, p. 548. *X. carinatus* Davis, monotype. Preoccupied by *Xenopholis* Peters, Monatsb. Akad. Wiss. Berlin 1869, p. 440, in Reptilia.

Sorubiminae Schultz Pimelodidae

P. Nat. Mus., vol. 94, 1944, p. 227. *Sorubim* Bleeker 1864.

New subfamily name required as *Platystoma* Agassiz 1829 is preoccupied by Meigen 1803 in Diptera; *Sorubim* Bleeker 1862 not available as precluded by *Abron* Gistel, Naturgesch. Thierr. 1848, p. x. Type *Silurus lima* Agassiz. A substitute for *Platystoma* Ag. 1829, preoccupied in insects according to Jordan, Genera of F., pt. 2, 1919, p. 237.

Helogeninae new subfamily name Helogenidae

Band of teeth in jaws and two patches on vomer. Type genus *Helogenes* Guenther.

Helogenidae Jordan, Stanf. Publ. Biol. Sci., vol. 3 no. 2, 1923, p. 150 (as family).

Pangasiidi new tribe

Pangasiinae (Pangasiidae)

Eye above level of hind mouth angle. Barbels as 2 to 4 pairs. Type genus *Pangasius Valenciennes*.

Pangasianodonidi new tribe

Eye below level of hind mouth angle. Only 2 maxillary barbels present. Size enormous. Type genus *Pangasianodon Chevey*.

Parauchenoglanis Boulenger

(Porcidae)

Cat. Freshwater F. Africa vol. 2, 1911, p. 364. *Pimelodus guttatus* Loennberg, first species, designated orthotype by Jordan, Genera of F., pt. 4, 1920, p. 539. This genotype, however, is preoccupied by *P. guttatus* Lacepède.

loennbergi new specific name

Pimelodus guttatus Loennberg, Öfvers. Vet. Akad. Förh. Stockholm 1895, no. 3, p. 184. Cameroon. Preoccupied by *Pimelodus guttatus* Lacepède, H. Nat. Poiss., vol. 5, 1803, p. 96, 111 pl. 5 fig. 1. Based on "la collection des peintures chinoises."

Claroteidi new tribe name

Claroteini Bleeker, Atlas Ichth. Ind. Néerl. vol. 2, 1862, p. 4 (as stirps: comprises *Clarotes* Kner).

Bagrichthyidi new tribe name

Bagrichthyes Bleeker, l.c. p. 8 (as phalanx: comprises *Bagrichthys* Bleeker).

Lower jaw with movable labial teeth. Dorsal with long pungent spine, sometimes long as body, exclusive of head or body.

Ritainae new subfamily name

Ritae Bleeker, l.c. p. 8 (as phalanx: comprises *Rita* Bleeker and *Rama* Bleeker).

Astroblepinae new subfamily name

(Astroblepidae)

Astroblepiformes Bleeker, l.c. p. 15 (as subfamily; comprises *Astroblepus* Humboldt [type genus] and *Brontes* Humboldt).

Loricariidi new tribe name

(Loricariidae)

Loricariini Bleeker, Atlas Ichth. Ind. Néerl., vol. 2, 1862, p. 3 (as stirps; comprises 11 genera).

Small teeth in jaws, or in moderate number, not setiform. More or less distinct orbital notch present. Type genus *Loricaria* Linnaeus.

Chaetostomidi new tribe

Interopercle more or less freely movable, and usually spinate or bristly. Type genus *Chaetostomus* Heckel.

Farlowellidi new tribe name

Acestrini Bleeker, l.c. p. 4 (as stirps; comprises *Acestra* Kner).

Numerous setiform teeth in jaws. Circular orbit without a distinct notch. Type genus *Farlowella* Eigenmann and Eigenmann.

Osorina Whitley Muroenesocidae (Congrida)

Proc. Royal Soc. N. S. Wales, 1949-50 (1951) 68 (based on Osorio).

Muraenosaurus Osorio, Mem. Mus. Bocage, vol. 1, 1909, p. 161. *Muraenosaurus guentheri* Osorio, monotype. Preoccupied by *Muraenosaurus* Seeley, Quart. Journ. Geol. Soc. London vol. 30, 1874, p. 197 in Reptilia. (For Dr. Balthazar Osorio, 1886-1911, in appreciation of his contributions to ichthyology.)

Urocongrinae new subfamily Congridae

Front nostrils not tubular. Type genus *Uroconger* Kaup.

Labiichthyinae new subfamily name Nemichthyidae (Nemichthyina)

Avocettinini Berg, Travaux Inst. Zool. Acad. Sci. URSS., vol. 5, livr. 2, 1940, p. 452. Type genus *Avocettina* Jordan and Davis—*Labiichthys* Gill and Ryder.

Olssonichthys new generic name Gadidae (Gadida)

Hypsirhynchus Facciola, Natural. Siciliano vol. 3, 1884, p. 112. *H. hepaticus* Facciola, monotype. Preoccupied by *Hypsirhynchus* Guenther 1856, in Reptilia. (For Axel A. Olsson, geologist and paleontologist, of Coral Gables, Florida, to whom I am indebted for interesting fishes.)

Lamprinae new subfamily name Lampridae (Lamprida)

Depth of body half its length, compressed, oval. No teeth. Scales minute. Pectorals fold downwards. Fins spineless. Type genus *Lampris* Retzius.

Regalecinae new subfamily name Regalecidae (Trachipterina)

Gymnetrini Bonaparte, Fauna Italica Pesc. vol. 3, pt. 1, 1832-41 introduction (on 13th page): as subfamily. Type genus *Gymnetrus* Bloch 1788 = *Regalecus* Acanthus 1772.

†*Macrostomoides* new generic name Amphistiidae (Caprina)

Macrostoma Agassiz, Rech. Poiss. Foss., pt. 4, 1836, pp. 15, 260. *Macrostoma altum* Agassiz, orthotype. Preoccupied by *Macrostoma* Risso, Hist. Nat. Eur. Mérid., vol. 3, 1826, p. 447—*Notoscopelus* Guenther 1864. (*Macrostoma* Wied, in Insecta, not involved.) (*Macrostoma* + εἶδος likeness.)

Campbellina new genus Ditreptidae (Berycida)

Discus Campbell, Trans. New Zealand Inst. vol. 11, 1879, p. 297. *Discus aureus* Campbell, monotype. Preoccupied by *Discus* Fitzinger 1833 in Mollusca; Lesson 1837 in Coelenterata; Haldeman 1840, King 1944, Albers 1850 and Sandberger 1875 all in Mollusca. (For W. D. Campbell, who first described the species.)

Campbellina aurea (Campbell)

†*Costaichthys* new generic name Family? (Berycida)

Heterolepis Costa, Atti Acad. Sci. Fis. Nat. Napoli vol. 2, no. 22, 1865, p. 4, pl. 1. Atypic. Type locality, Pietrojia, Province of Benevento, Italy: Cretaceous (portion of fish). Preoccupied by *Heterolepis* Nees, Hymenopt. aff., vol. 21, 1834, p. 21, in Hymenoptera. Affinities and species undetermined. (For O. G. Costa, its discoverer.)

Anomalopinae new subfamily name

Anomalopidae

Heterophthalminae Gill, P. Acad. Phila. April 1862, p. 237. Type genus *Anomalops* Kner 1868 = *Heterophthalmus* Bleeker 1856, the last name preoccupied by Blanchard 1851 in Coleoptera.

Atherthyrina new generic name

Atherinidae (Mugilida)

Thyrina Jordan and Culver, in Jordan, Proc. Calif. Acad. Sci., ser. 1, vol. 5, 1895, p. 419. *Thyrina evermanni* Jordan and Culver, in Jordan 1895, orthotype. Preoccupied by *Thyrina* Poujade, Ann. Soc. Entomol. France ser. 6, vol. 6 Bull. 1886 cxliii in Lepidoptera. (ᾠθύρ arrow + Thyrina.)

Chenia new generic name

Serranidae (Percida)

Colpognathus Klunzinger, Anzeiger Akad. Wiss. Wien vol. 22, 1879, p. 254; Sitzs. Akad. Wiss. Wien vol. 79 pt. 1, 1879, p. 339. *Plectropoma dentex* Cuvier, orthotype. Preoccupied by Wesmael, Nouv. Mém. Acad. Bruxelles vol. 18, 1844, pp. 165, 174, in Hymenoptera. (For Dr. Johnson T. F. Chen, formerly of the Taiwan Museum, Taipei, Taiwan, China.)

Eteliseinae new subfamily name

Lutjanidae

Doederleiniinae Fowler, Bull. U. S. Nat. Mus., no. 100, vol. 11, 1931, p. 82. Type genus *Doederleinia* Steindachner and Doederlein, monotypic, but this name preoccupied by Mayer, Beitr. Geol. Kart Schweiz, vol. 11, Beilage 1872, p. 502, in Mollusca. Type species of *Doederleinia* Steindachner and Doederlein is *D. orientalis* Steindachner and Doederlein.

Acanthocephalus Doederlein, in Steindachner, Denks. Akad. Wiss. wien vol. 27, pt. 1. 1883, p. 237. *D. orientalis* Steindachner and Doederlein, monotype. Preoccupied by Koelreuter, N. comment. Ac. Petropol. vol. 15, 1771, pp. 499, 500, in Vermes. Also by Tilesius 1819 in Crustacea and Cobbold 1879 in Vermes.

Spondylosominae new subfamily

Sparidae

Narrow incisors lanceolate, with band of cardiform teeth behind them. Oblong ovate body compressed. Dorsal spines 10 or 11. Type genus *Spondylosoma* Cantor 1849.

Elatinae W. D. Pierce MS. new subfamily

Platycephalidae (Cottina)

Opercle with single spine at angle. Scales 125 in lateral line. Upper caudal lobe extended. Type genus *Elates* Jordan and Seale.

Acanthostelgis new generic name

Agonida

Stelgis Cramer, in Jordan and Starks, Proc. Calif. Acad. Sci., ser. 2, vol. 5, 1896, p. 51. *Agonus vulsus* Jordan and Gilbert, monotype. *Stelgis* Cramer preoccupied by *Stelgis* Pomel, Pal. Oran, pt 2 (Spong.) 1872, p. 149, in Spongida. (A spine + Stelgis.)

Acanthostelgis vulsus (Jordan and Gilbert).