Catalog of Type Specimens of Recent Fishes in the National Museum of Natural History, Smithsonian Institution, 4: Gonorynchiformes, Gymnotiformes, and Siluriformes (Teleostei: Ostariophysi)

CARL J. FERRARIS, JR.
and
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Robert McC. Adams
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Catalog of Type Specimens of Recent Fishes in the National Museum of Natural History, Smithsonian Institution, 4: Gonorynchiformes, Gymnotiformes, and Siluriformes (Teleostei: Ostariophysi)

Carl J. Ferraris, Jr., and Richard P. Vari
ABSTRACT

Carl J. Ferraris, Jr., and Richard P. Vari. Catalog of Type Specimens of Recent Fishes in the National Museum of Natural History, Smithsonian Institution, 4: Gonorynchiformes, Gymnotiformes, and Siluriformes (Teleostei: Ostariophysi). Smithsonian Contributions to Zoology, number 535, 52 pages, 1992. The known type specimens of gonorynchiform, gymnotiform, and siluroid fishes in the collections of the Division of Fishes, National Museum of Natural History, Smithsonian Institution published through 1991 are listed. These include 9086 specimens in 628 lots including 119 holotypes, 8 lectotypes, 1 neotype, 196 syntypes, 8659 paratypes, and 103 paralectotypes of 339 nominal species and subspecies.

The listing is arranged in orders alphabetically by family, and in families alphabetically by original genus, species, and subspecies names. Information for each entry includes genus, species, and subspecies (if any) names; author(s) and date of publication; page of original description, and accompanying figures and plates (if any); current type status; USNM catalog number; number of specimens and their range of standard lengths; locality; collector, and date collected. This is followed by “Remarks,” which includes correction, expansion, and updating of information in the original description, and cross-reference to changes in type status. An index arranged by genus, species, and subspecies completes the catalog.

OFFICIAL PUBLICATION DATE is handstamped in a limited number of initial copies and is recorded in the Institution's annual report, Smithsonian Year. SERIES COVER DESIGN: The coral Montastrea cavernosa (Linnaeus).
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Catalog of Type Specimens of Recent Fishes in the National Museum of Natural History, Smithsonian Institution, 4: Gonorynchiformes, Gymnotiformes, and Siluriformes (Teleostei: Ostariophysi)

Carl J. Ferraris, Jr., and Richard P. Vari

Introduction

This paper continues a series of publications (Vari and Howe, 1991; Springer et al., 1991; Collette et al., 1992) listing the type specimens of various groups of Recent fishes in the Division of Fishes, National Museum of Natural History, Smithsonian Institution. These listings were prepared in response to Recommendation 72G(4) of the International Code of Zoological Nomenclature (ICZN) that “every institution in which name-bearing types are deposited should publish lists of name-bearing types in its possession or custody.” Vari and Howe (1991) outlined the history of the collections in the Division of Fishes, and of the use of the acronym USNM for the collections of recent fishes in the National Museum of Natural History. We refer readers to that publication for a discussion of those topics.

This paper is the second to deal with the USNM type specimens of the superorder Ostariophysi, the dominant group of freshwater fishes in the World. The three orders dealt with in this paper differ dramatically both in their distributions and number of included species. The Gonorynchiformes, by far the least speciose of the three orders in the Recent fauna, occurs in the marine, brackish, and sometimes freshwaters of the Indian and Tropical Pacific regions, and in the freshwaters of tropical Africa and the Nile River basin. Gymnotiforms (gymnotid eels) are widespread in the freshwaters of South and Central America. Siluriforms (catfishes), the most speciose group, are common in the freshwaters of North, Central, and South America, Europe, Africa, Asia, and Australia, with some members of two families widely distributed in tropical marine waters.

The type specimens of gonorynchiform, gymnotiform, and siluriform fishes in the collections of the Division of Fishes came from two primary sources, (1) the field work and systematic studies of curators and other researchers associated with the Division, and (2) exchanges from colleagues and institutions worldwide. Type specimens originally deposited in the Division and reported on during this century were typically, but not invariably, cited with USNM catalog numbers. Citations of USNM catalog numbers were often lacking for species described in the nineteenth century. Many type specimens were exchanged to the Smithsonian Institution subsequent to publication under a catalog number of another collection. Foremost among these are a number of paratypes of species described by Carl H. Eigenmann and his co-workers that were exchanged to the Smithsonian either directly from the Carnegie Museum and Indiana University, or secondarily through the Museum of Comparative Zoology. In addition, syntypes of various species of gonorynchiforms and siluriforms were received in exchange from The Natural History Museum, London and the Muséum National d’Histoire Naturelle, Paris.
This listing serves to bring those and other specimens to the attention of interested researchers.

Comments on Missing Type Specimens of Species Described by Gill and Girard.—Gill (1858, 1862a, 1870) described various siluriforms with type localities on the island of Trinidad, North America, and the western portions of the Amazon basin, respectively. In these three papers Gill neither cited the depository of the type specimens, nor typically stated the number of specimens on which he based his descriptions. Type series of two species described in Gill's 1858 paper (Hoplosoma aeneum, Hoplosternum Stevardii) are deposited in the collections of the Division of Fishes (see following listing). The type series of the two other siluriform species described in that paper (Callichthys Kneri, Pimelotenous Vilsoni) were not located in the collections of the Division of Fishes, nor was any indication found in the USNM ledgers that they had been deposited at the Smithsonian.

Gill (1862a) named three species of North American catfishes. The type series of one of these, Amiurus obesus, was located in the collections of the Division of Fishes, but included three specimens rather than the two cited by Gill. The type series of the other two species described in that paper (Ictalurus simpsoni, Noturus occidentalis) were not found in the collections and it is possible that the extra specimen in the type series of Amiurus obesus is a type specimen of one of those species.

Gill described five species of siluriforms from the western portions of the Amazon basin in 1870, again without any indication of where the material was deposited. The type series of four of these (Cetopsis ventralis, Rhamdia dorsalis, Sciades marmoratus, Sorubimichthys Ortoni) were located in the holdings of the Division of Fishes, but no indication was found of the type specimens of the other species of catfish described in that paper (Centromochlus Steindachneri). Vari and Howe (1991:1, 2) noted that the type series of a number of characiform species described by Gill in two of the cited publications are also missing.

Girard (1860) described eleven species of North American freshwater fishes. At least parts of the type series of ten of these were located in the USNM holdings. There is no indication that the type specimens of Pimelodus lynx were deposited in the Division of Fishes, and we have been unable to locate those specimens.

Abbreviations.—Many of the species listed in this catalog were described under USNM catalog numbers. A number of the cited type specimens, however, were deposited in other institutions when the species was described. In some instances specimens originally reported with USNM catalog numbers have been exchanged to other repositories. These various changes are noted under "Remarks" for each species with the following abbreviations for institutions and collections used in those citations.

AFY Personal collection of A. Fernández-Yépez
AMNH American Museum of Natural History, New York
ANSP Academy of Natural Sciences of Philadelphia
AMS Australian Museum, Sydney
BMNH The Natural History Museum, London; formerly the British Museum (Natural History), London
CAS California Academy of Sciences, San Francisco
CM Carnegie Museum, Pittsburgh; collections of Recent fishes subsequently transferred to FMNH.
FMNH Field Museum of Natural History, Chicago
IU Indiana University Collections, Bloomington. Often cited as I.U.M. by C.H. Eigenmann and collaborators. Specimens now largely at California Academy of Sciences, but with portions in other collections.
MBUCV Museo de Biologia, Universidad Central de Venezuela, Caracas
MCZ Museum of Comparative Zoology, Harvard University, Cambridge
MNHN Musée National d'Histoire Naturelle, Paris
MNRJ Museu National, Rio de Janeiro
MZUSP Museu de Zoologia da Universidade de São Paulo, São Paulo
NLU Northeast Louisiana University, Museum of Zoology
NNMH National Museum of Natural History, Smithsonian Institution, Washington, D.C.
RMNH Rijksmuseum van Natuurlijke Historie, Leiden
SU Stanford University, collections now at CAS
UL University of Louisville
UKEN University of Kentucky, Lexington
UMMZ University of Michigan, Museum of Zoology, Ann Arbor
USBF United States Bureau of Fisheries, collections now in USNM
USNM Former United States National Museum, collections in the National Museum of Natural History, Smithsonian Institution, Washington, D.C. (See also Vari and Howe (1991:2) for a discussion of acronym.)
ZMA Instituut voor Taxonomische Zoologie, Zoologisch Museum, Amsterdam
ZMUC Københavns Universitet Zoologisk Museum, Copenhagen
ZMUL Zoological Institute, University of Lund, Sweden

Acknowledgments.—This publication was made possible, in part, through a contract to C.J.F. from the Collection Improvement Fund of the National Museum of Natural History, Smithsonian Institution. Thomas M. Orrell, Jeffrey C. Howe, and Susan L. Jewett assisted with numerous aspects of this study at NMNH. Karsten E. Hartel and Horácio Higuchi (MCZ) helped us to resolve numerous questions concerning type specimens received from MCZ. Sarah Granato (AMNH) assisted in locating several rare references. The examination of various type specimens in South American collections was made possible by funding from the Neotropical Lowland Research Program of the International Environmental Sciences Program of the Smithsonian Institution. Bruce B. Collette (National Marine Fisheries Service, Systematics Laboratory), Karsten E. Hartel (MCZ), Horácio Higuchi (MCZ), and Victor G. Springer (NMNH) offered suggestions for the improvement of this paper.

Format
The following template has been used to structure each entry
in the “Catalog of Types.”

*Genus species* (subspecies) Author(s), year:page, figure(s), plate(s).

**Type Status**

USNM catalog number (number of specimens, range of standard length (gonorynchiforms, siluriforms) or length from snout to posterior end of anal-fin base (gymnotiforms) in mm). Locality (country, department, province or state, specific locality), collector(s), date(s) collected, as stated in the original description, but in standardized presentation.

**Remarks:** Includes comments on originally cited author-ship and year of publication; reference to lectotype, neotype, or paralectotype designation; corrections of originally cited USNM catalog numbers or previous depository and catalog number of specimens; and correction and/or expansion of data on locality, collector, and date collected.

This listing includes all known published gonorynchiform, gymnotiform, and siluriform type-specimens deposited in the collections of the National Museum of Natural History through 1991. The order of listing is alphabetical by order, within order alphabetical by family, and in families alphabetical by genus and then species and subspecies. Genus, species, and subspecies are spelled as in the original description, except that diacritical marks have been deleted as recommended by the International Commission on Zoological Nomenclature. In instances where the original description included an incorrect spelling there is a cross-reference to a corrected entry elsewhere in the text. Page refers to the first page of the species description. Complete references to publications are found in the “Literature Cited.” The classification of gonorynchiform families follows Mago-Leccia (1978). Siluriform classification follows Greenwood et al. (1966) with the addition of two subsequently recognized families: Scoloplacidae (Isbrücker, 1980) and Parakysidae (Roberts, 1989b). The families cited as Helogeneidae and Schilbeidae by many previous authors are listed as Helogenidae and Schilbidae following Steyskal (1980:174).

The presented “Type status” is that currently thought correct based on the original description and subsequent literature designations. The categories for primary and secondary types used are holotype, syntype(s), lectotype, neotype, paratype(s), and paralectotype(s) as defined by the International Commission on Zoological Nomenclature (1985), articles 73 and 74. The cited type status for many specimens exchanged to the Smithsonian after publication under the register numbers of another repository is typically based on information in the associated accession records. Discrepancies between the number of specimens originally reported or listed in the USNM ledgers, and those found when the lots were inventoried (1980 and 1985) or at this time are noted under “Remarks.” Types not located during this study are indicated as “MISSING.” Lots totally exchanged to another institution are cited as in the original description, but noted as “EXCHANGED.” The cited length for gymnorniform type specimens is the length from the snout to the posterior end of the base of the anal fin following Mago-Leccia et al. (1985). The cited length for gonorynchiforms and siluriforms is the standard length (SL) in millimeters (mm). Measurements of specimens greater than 100 mm are to whole mm; specimens less than 100 mm are reported to nearest one-tenth mm, except when damaged or contorted specimens do not warrant that level of precision. Comments about lengths under “Remarks” are included when a different length measurement (e.g., total rather than standard length) was used in the original description, or where there is a notable discrepancy between the originally cited length(s) and the present standard or total length(s). Locality is presented as in the original description, with sequence of presentation of data standardized throughout progressing from country to more specific locality data. Modern equivalents for countries are provided in brackets where necessary. Modern, corrected, and more detailed localities for specimens collected during the Thayer Expedition to Brazil follow Higuchi (ms). Data on the specimens in addition to, or inconsistent with that in the original species description either located in the jar, or in the ledgers in the Division of Fishes are discussed under “Remarks.” Complete references for papers involving lectotype and paralectotype designations can be found in the “Literature Cited.”

Numerous species cited in the following listing were described by Carl H. Eigenmann and his coworkers. Portions of the type series of these species were exchanged to the Smithsonian and other institutions from the Carnegie Museum and Indiana University prior and subsequent to the publication of the original descriptions. Those exchanges typically were not noted in the ledgers of the Indiana University and Carnegie Museum fish collections making it difficult, or more usually impossible, to determine the disposition of the entire type series. Material cited as type specimens in the correspondence associated with exchanges to the Smithsonian is included in the listing except where collection information for the specimens does not agree with that cited for the type series in the original species description. Correspondence concerning the type status of the specimens is archived in the files of the Office of the Registrar, National Museum of Natural History.

The locality of additional type specimens for species are noted only in two circumstances. First, for type specimens originally cited with USNM catalog numbers that were subsequently exchanged to other institutions. Second, for type specimens originally cited under the catalog number of another institution that were subsequently transferred to Smithsonian Institution. Unresolved questions concerning recognizable species are common in the orders dealt with herein. Thus, it is premature to comment on the validity or possible synonymy of most of these nominal species.
Catalog of Types
Arranged Alphabetically by Order, Family, Genus, Species, and Subspecies

GONORYNCHIFORMES

GRASSEICHTHYIDAE

Grasseichthys gabonensis Géry, 1964:4806, unnumbered fig.
Paratypes
USNM 199590 (10, 13.8–18.8 mm). Gabon, Ivindo basin, stream tributary to the Nzingmeoyng.
Remarks: Received from J. Géry; 2 specimens cleared and stained.

Paratypes
USNM 199591 (2, 17.5–18.4 mm). Gabon, Ivindo basin, stream tributary to the Nzingmeoyng.
Remarks: Received from J. Géry; specimens cleared and stained.

KNERIIDAE

Paratype
USNM 212026 (1, 44.1 mm). Angola, Cutato River, at bridge between Chitembo and Chimbangombe, about 200 m N of Jamba Water Level Recorder (13°31'S, 16°25'E); MJ. Penrith and J. Batista, 13 Oct 1972.

PHRACTOLAEMIDAE

Paratype
USNM 92978 (1, 48.4 mm). Gaboon, Sangha; A. Baudon.
Remarks: Received from J. Pellegrin through G.S. Myers; formerly MNHN 29-250, in part.

GYMNOTIFORMES

APTERONOTIDAE

Adontosternarchus clarkae Mago-Leccia et al., 1985:14, fig. 16.
Paratypes
USNM 266551 (3, 94.7–126 mm). Brazil, Roraima, Rio Negro near confluence with Rio Branco, and lower 30 m of Rio Branco (1°224'S, 61°27’W); "Alpha Helix," Mar–Apr 1967.

Adontosternarchus devenanzii Mago-Leccia et al., 1985:11, fig. 14.
Paratypes
USNM 264839 (68, 84.3–116 mm). Venezuela, Río Orinoco, Delta Amacuro Territory, main channel S of Isla Portuguesa; 20 Feb 1978.

Apterolus cuchillo Schultz, 1949:69, pl. 3a.
Holotype
USNM 121591 (1, 337 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.
Paratypes
USNM 121587 (13, 145–329 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.
Remarks: Taken with holotype.

Paratypes
USNM 121588 (EXCHANGED). Venezuela, Maracaibo basin, Río Palmar at bridge 70 km SW of Maracaibo; L.P. Schultz, 17 Mar 1942.
Remarks: 3 specimens originally in lot exchanged to UMMZ Jul 1949; listed as 215–375 mm TL in original description.

Paratypes
USNM 121589 (7, 65–350 mm). Venezuela, Maracaibo basin, Río Motatán, at bridge 22 km N of Motatán; L.P. Schultz, 26 Feb 1942.
Remarks: 7 specimens cited in original description; 1 specimen exchanged to MBUCV 21 Jun 1975; 1 specimen cleared and stained.

Oedemognathus exodon Myers, 1936:115.
Holotype
USNM 102040 (1, 189 mm). Peru, Río Ampiyacu; W.G. Scherer, 14 Dec 1935.
Remarks: Locality is in Departamento Loreto.

Sternarchogiton cuchillo Schultz, 1949:72, pl. 3b.
Holotype
USNM 121600 (1, 122 mm). Venezuela, Maracaibo basin,
Rio Motatán, 8 km below Motatán; L.P. Schultz, 24 Mar 1942.

Paratypes
USNM 121598 (7, 47-123 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.

Paratypes
USNM 121599 (39, 69-143 mm). Venezuela, Maracaibo basin, Río Motatán at bridge, 22 km N of Motatán; L.P. Schultz, 17 Mar 1942.
Remarks: 47 specimens cited in original description; 2 specimens exchanged to MCZ Jul 1951, 2 specimens exchanged to ZMA Mar 1958, 2 specimens exchanged to G. Dahl Aug 1955, 2 specimens unaccounted for.

Paratypes
USNM 121601 (4, 116-141 mm). Venezuela, Maracaibo basin, Río Motatán at bridge, 22 km N of Motatán; L.P. Schultz, 17 Mar 1942.
Remarks: 5 specimens cited in original description; 1 specimen exchanged to MBUCV Aug 1975; taken with holotype.

Ubidia magdalenensis Miles, 1945:461, figs. 11, 12.
Paratype
USNM 123795 (1, 249 mm).
Remarks: Data in USNM ledgers indicate specimen was collected at Colombia, Río Magdalena; received from C. Miles.

HYPOPOMIDAE

Hypopomus beebei Schultz, 1944d:40, fig. 1; pl. 1: fig. 4.
Holotype
USNM 120753 (1, ?). Venezuela, Caripito; W. Beebe, 1942.
Remarks: Tail missing making it impossible to measure length; length originally reported as 112 mm. Data in USNM ledgers indicates that specimen was collected in Río Caripe.

Sternopygidae

Eigenmannia goajira Schultz, 1949:63, pl. 1b.

Holotype
USNM 121596 (1, 379 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above its mouth; L.P. Schultz, 24 Feb 1942.

Paratype
USNM 121597 (1, 344 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above its mouth; L.P. Schultz, 24 Feb 1942.
Remarks: Taken with holotype.

Paratype
USNM 265222 (1, 145 mm). Brazil, Amazonas, creek connecting Río Solimões (Río Tefé) with blackwater lake, −24 km W of Coari.
Remarks: USNM register number incorrectly cited as 26522 in original description; collected by H.R. Axelrod, Mar 1974.

Paratypes
USNM 226306 (41, 78.0-115 mm). Venezuela, Territorio Federal Delta Amacuro, Río Orinoco, main channel N of Isla Tórtona, −123 nautical miles [228 km] from sea buoy; 19 Feb 1978.
Remarks: Locality is 8°38'N, 61°53'W; collectors J. Lundberg et al.

Rhabdolichops electrogrammus Lundberg and Mago-Leccia, 1986:70, figs. 6, 8, 9, 13, 14.
Paratypes
USNM 273686 (9, 90-156 mm). Venezuela, Territorio Federal Delta Amacuro, Río Orinoco, above Isla Varadero, about 150-151 nautical miles [278-280 km] from sea buoy.
Remarks: Original description cited 10 specimens in lot, 9 specimens received.

Paratypes
USNM 280124 (2, 130-132 mm). Venezuela, Bolivar, Río Orinoco, near mouth of Río Caura.

Rhabdolichops zareti Lundberg and Mago-Leccia, 1976:74, figs. 6, 10-12, 15, 16.
Paratypes

Sternopygus dariensis Meek and Hildebrand, 1916:309, pl. XXVI.
Paratypes
USNM 78766 (11, 163-735 mm). Panama, Darien, Río
Tuyra, Marrigante.
Remarks: 12 specimens listed in USNM ledgers; 1 specimen unaccounted for.

*Sternopygus pejeraton* Schultz, 1949:60, pl. 1a.

**Holotype**
USNM 121572 (1, 446 mm). Venezuela, Maracaibo basin, Río Apón, about 35 km S of Rosario; L.P. Schultz, 26 Feb 1942.

**Paratypes**
USNM 121564 (13, 144–589 mm). Venezuela, Maracaibo basin, Río Apón, about 35 km S of Rosario; L.P. Schultz, 26 Feb 1942.
Remarks: 17 specimens cited in original description; 4 specimens exchanged to FMNH; taken with holotype.

**Paratypes**
USNM 121565 (12, ?). Venezuela, Maracaibo basin, Río Motatan, at bridge 22 km N of Motatan; L.P. Schultz, 17 Mar 1942.
Remarks: 14 specimens cited in original description; 2 largest and smallest specimens with tails missing making it impossible to take lengths.

**Paratypes**
USNM 121566 (7, 105–545 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.

**Paratypes**
USNM 121567 (17, 133–380 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.

**Paratypes**
USNM 121568 (3, 141–159 mm). Venezuela, Maracaibo basin, Río Machango, 20 km above bridge, S of Lagunillas; L.P. Schultz, 21 Mar 1942.

**Paratypes**
USNM 121569 (EXCHANGED). Venezuela, Maracaibo basin, Río Palmar, near Totuma, about 100 km SW of Maracaibo; L.P. Schultz, 21 Feb 1942.
Remarks: 2 specimens cited in original description, exchanged to UMMZ Jul 1949; originally cited as 195–288 mm TL.

**Paratypes**
USNM 121570 (10, 86–239 mm). Venezuela, Maracaibo basin, Río Palmar, at bridge, 70 km SW of Maracaibo; L.P. Schultz, 6 Mar 1942.
Remarks: 14 specimens cited in original description; 2 specimens exchanged to ZMAM 1949, 1 specimen exchanged to MBUCV Aug 1975, 1 specimen exchanged to G. Dahl Aug 1955.

**Paratypes**
USNM 121571 (2, 570–658 mm). Venezuela, Maracaibo basin, Río Machango, at bridge, S of Lagunillas; L.P. Schultz, 16 Mar 1942.

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**Amphilius cryptobullatus** Skelton, 1986:279, fig. 15.

**Paratypes**
USNM 269285 (4, 38.6–85.4 mm). Zambia, Luongo River, above and at route 74 crossing (10°11’S, 29°43’E), upper Zaire system; E.K. Balon, 18 Nov 1970.
Remarks: Taken with holotype.

**Amphilius pictus** Nichols and La Monte, 1933:1, fig. 1.

**Paratype**
USNM 118677 (1, 33.6 mm). Liberia, from a stream near Kaleata; G.W. Harley, Feb 1932.
Remarks: Received from AMNH, formerly AMNH 12314, in part; taken with holotype.

**Paramphilius firestonei** Schultz, 1942:333, pl. 36: fig. 3.

**Holotype**
USNM 118811 (1, 51.8 mm). Liberia, Bromley; W.M. Mann, 1940.
Remarks: USNM ledger cites collection data as Liberia, Bromley, a few miles above mouth of St. Pauls River; 6 Jun 1940.

**Paratypes**
USNM 118812 (29, 35.8–55.8 mm). Liberia, Bromley; W.M. Mann, 1940.
Remarks: Taken with holotype; USNM ledger cites collection data as Liberia, Bromley, a few miles above mouth of St. Pauls River; 6 Jun 1940.

**Paratype**
USNM 118813 (1, 45.4 mm). Liberia, Harbel; W.M. Mann, 1940.
Remarks: USNM ledger cites collection data as Liberia, Harbel (Firestone Plantation), between lower part of Du (= Du Queah-Junk) River and Borlor-Farmington rivers; 10 Mar to 17 Jul 1940.

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**ARIIDAE**

*Aeluroidichthys pinnimaculatus* Steindachner, 1876:565 (reprint p. 15), pl. VIII.

**Syntypes**
USNM 123011 (2, 179–237 mm). Panama.
Remarks: Received from MCZ, formerly MCZ 23746, in part. USNM ledger cites collector as Hassler Expedition, 1872.

**Arius augustus** Roberts, 1978:36, figs. 14, 20d.

**Holotype**
USNM 217065 (EXCHANGED). Papua New Guinea, mouth of Binge River, tributary of the Middle Fly, 675 km...
upriver from Toro Pass, (6°32.5'S, 140°55'E); T.R. Roberts, 23 Nov 1975.
Remarks: Exchanged to AMS, in trust for Government of Papua New Guinea; originally cited as 342 mm SL.
Paratypes
USNM 217066 (1 EXCHANGED, 1 MISSING). Papua New Guinea, mouth of Binge River, tributary of the Middle Fly, 675 km upriver from Toro Pass (6°32.5'S, 140°55'E); T.R. Roberts, 23 Nov 1975.
Remarks: One specimen exchanged to AMS, in trust for government of Papua New Guinea, Apr 1981.
Paratypes
USNM 217067 (1, 412 mm). Papua New Guinea, ox-bow lake with mouth open to main-stream of Upper Fly, 4 km downstream from Kiunga, 828 km upriver from Toro Pass (6°09.2'S, 141°16.2'E); T.R. Roberts, 27 Oct 1975.

**Arius cephtolepis** Roberts, 1978:37, figs. 15, 20e.

Holotype
USNM 217069 (EXCHANGED). Papua New Guinea, Elevala River, tributary of the Upper Fly, 17 km E of Kiunga, 859 km upriver from Toro Pass (6°05.7'S, 141°27.7'E); T.R. Roberts, 26 Oct 1975.
Remarks: Exchanged to AMS in trust for Government of Papua New Guinea; originally cited as 309 mm SL.

Paratype
USNM 217070 (1, 218 mm). Papua New Guinea, small tributaries and mainstream of Upper Fly, 1–2 km upstream from mouth of Elevala River, 856 km upriver from Toro Pass (6°03.3'S, 141°24.3'E); T.R. Roberts, 26 Oct 1975.

Paratypes
USNM 217071 (3, 131–375 mm). Papua New Guinea, ox-bow lake with mouth open to mainstream of Upper Fly, 4 km downstream from Kiunga, 828 km upriver from Toro Pass (6°09.2'S, 141°16.2'E); T.R. Roberts, 27 Oct to 19 Nov 1975.
Remarks: 6 specimens cited in original description; 1 specimen exchanged to BMNH, 2 specimens exchanged to Kanudi Fisheries Station, Papua New Guinea.

**Arius equestris** Baird and Girard, 1854:26.

Holotype
USNM 836 (1, 125 mm). Texas, Indianola; J.H. Clark.
Remarks: Original description apparently based on one specimen. The specimen is thus considered the holotype.

**Arius insculptus** Jordan and Gilbert, 1882:41.

Syntypes
USNM 29415 (1, 265 mm). Panama; Rev. Mr. Rowell.

Arius eilatturus Jordan and Gilbert, 1882:45.

Holotype
USNM 29408 (MISSING). Panama, Pacific coast; C.H. Gilbert.
Remarks: Not found during 1985 inventory or this study.

Paratype
USNM 30995 (1, 250 mm). Panama; Rowell.

**Arius osculus** Jordan and Gilbert, 1882:46.

Holotype
USNM 29476 (1, MISSING). Panama, Pacific coast; C.H. Gilbert.
Remarks: Not found during 1980 inventory or this study.

**Arius sciurus** Smith, 1931:30.

Holotype
USNM 90310 (1, 195 mm). Siam [= Thailand], Tapi River, near Bandon; 30 Sep 1923.

**Arius taylori** Hildebrand, 1925:250, fig. 10.

Holotype
USNM 87224 (1, 265 mm). El Salvador, Rio Lempa, San Marcos; F.J. Foster and S.F. Hildebrand, 8 Feb 1924.
Remarks: Length of 360 mm cited in original description was apparently total length.

**Arius tuyra** Hildebrand in Meek and Hildebrand, 1923:128, pl. 5.

Holotype
USNM 79413 (1, 193 mm). Panama, Darien, Rio Tuyra, mouth of Rio Yape; S.E. Meek and S.F. Hildebrand. Remarks: USNM ledger cites collection date as 6 Mar 1912.

Paratype
USNM 79411 (1, 174 mm). Panama, Darien, Rio Tuyra, Marriganti; S.E. Meek and S.F. Hildebrand.
Remarks: USNM ledger cites collection date as 9 Mar 1912.
Paratypes
USNM 79412 (2, 172-187 mm). Panama, Darien, Río Tuyra, Marriganti; S.E. Meek and S.F. Hildebrand.
Remarks: USNM ledger cites collection date as 9 Mar 1912.

Paratypes
USNM 79414 (2, 186-223 mm). Panama, Darien, Río Tuyra, Boca de Cupe; S.E. Meek and S.F. Hildebrand.
Remarks: USNM ledger cites collection date as 28 Feb 1912.

Conorhyncos nelsoni Evermann and Goldsborough, 1902:140, fig. 1.

Holotype
USNM 50001 (1, 308 mm). Mexico, Yucatan, Río Usumacinta, Montecristo; E.W. Nelson and E.A. Goldman, 8 May 1900.

Paratype
USNM 52963 (1, 258 mm). Mexico, Yucatan, Río Usumacinta, Montecristo; E.W. Nelson and E.A. Goldman, 8 May 1900.
Remarks: Taken with holotype; formerly USFC 2382.

Galeichthys eigenmanni Gilbert and Starks, 1904:21, pi. IV: fig. 7.

Paratype
USNM 50379 (1, 235 mm). Panama Bay; C.H. Gilbert et al., 1896.

Galeichthys gilberti Jordan and Williams in Jordan, 1895:395, pl. XXVI.

Holotype
USNM 29213 (1, 268 mm). Mexico, Mazatlan; C.H. Gilbert.

Paratype
USNM 28161 (1, MISSING). Mexico, Mazatlan; C.H. Gilbert.
Remarks: Jordan and Gilbert (1882) reported on this specimen and others as Arius assimilis. Jordan and Williams (1895:395), in their description of Galeichthys gilberti, stated: “the description is essentially that of Jordan and Gilbert (1882) under the name of Arius assimilis.” Given that data from this specimen presumably was included secondarily in the description of G. gilberti, we consider it a paratype. Not found during 1985 inventory or this study.

Paratype
USNM 28189 (1, 184 mm). Mexico, Mazatlan; C.H. Gilbert.
Remarks: See comments under USNM 28161.

Paratype
USNM 28210 (1, MISSING). Mexico, Mazatlan; C.H. Gilbert.
Remarks: See comments under USNM 28161; not found during 1985 inventory or this study.

Paratype
USNM 28213 (1, MISSING). Mexico, Mazatlan; C.H. Gilbert.
Remarks: See comments under USNM 28161; not found during 1985 inventory or this study.

Paratypes
USNM 28221 (2, MISSING). Mexico, Mazatlan; C.H. Gilbert.
Remarks: See comments under USNM 28161; not found during 1985 inventory or this study.

Paratype
USNM 28232 (1, 146 mm). Mexico, Mazatlan; C.H. Gilbert.
Remarks: See comments under USNM 28161.

Paratype
USNM 28276 (1, 207 mm). Mexico, Mazatlan; C.H. Gilbert.
Remarks: See comments under USNM 28161.

Paratype
USNM 28304 (1, 153 mm). Mexico, Mazatlan; C.H. Gilbert.
Remarks: See comments under USNM 28161.

Galeichthys simonsi Starks, 1906:764, figs. 1, 2.

Holotype
USNM 53466 (1, 205 mm). Peru, Callao; P.O. Simons, 1898-1899.

Hemipimelodus taylori Roberts, 1978:40, figs. 19, 20h.

Holotype
USNM 217076 (EXCHANGED). Papua New Guinea, mainstream of Palmer [River] and lower end of small tributary about 1 km up the Palmer from Thompson Junction (mouth of Wai Mungi), 65 km NE of Kiunga, 930 km upriver from Toro Pass (6°46.8'S, 141°36.6'E); T.R. Roberts, 10-11 Nov 1975.
Remarks: Exchanged to AMS in trust for Government of Papua New Guinea; cited as 353 mm SL in original description.

Paratype
USNM 217077 (1, 330 mm). Papua New Guinea, mainstream of Palmer [River] and lower end of small tributary about 1 km up the Palmer from Thompson Junction (mouth of Wai Mungi), 65 km NE of Kiunga, 930 km upriver from Toro Pass (6°46.8'S, 141°36.6'E); T.R. Roberts, 10-11 Nov 1975.
Remarks: 2 specimens cited in original description; 1 specimen exchanged to Kanudi Fisheries Station, Papua New Guinea; taken with holotype.

Netuma insularum Greene in Gilbert, 1897:439.

Holotype
USNM 47577 (1, 214 mm). Galapagos Islands; Albatross collection.
Remarks: Published type-locality erroneous. This specimen mentioned by Jordan and Bollman (1890), as *Tachysurus elatturus* from “Albatross” sta 2800, in the Gulf of Panama; Snodgrass and Heller (1905) corrected locality to Gulf of Panama.

*Netuna planifrons* Higuchi et al., 1982:12, figs. 1, 3.

**Paratypes**
USNM 233896 (4, 67-121 mm). Brazil, Lagoa dos Patos.
Remarks: Specimens cited as paratypes in addendum to description (Higuchi et al., 1982:15); reported lengths (91-163 mm) evidently represent total lengths; locality is in Rio Grande do Sul.

Paratypes
USNM 233897 (4, 105-130 mm). Brazil, Lagoa dos Patos.
Remarks: Specimens cited as paratypes in addendum to description (Higuchi et al., 1982:15); only 3 specimens cited in original description; reported lengths (138-171 mm) evidently represent total lengths; locality is in Rio Grande do Sul.


**Holotype**
USNM 134347 (1, 386 mm). Guatemala, Lago de Izabal, about 1 mi W of El Paraiso; R.R. Miller and A.D. Holloway, 6-7 Apr 1946.

**Paratypes**
USNM 134346 (8, 254-394 mm). Guatemala, Lago de Izabal, near mouth of Rio Polochic; R.R. Miller and A.D. Holloway, 7 Apr 1946.

Paratype
USNM 134348 (1, 217 mm). Guatemala, north shore of Lago de Izabal, about 3 mi W of El Estor; R.R. Miller and A.D. Holloway, 8-9 Apr 1946.

Paratypes
USNM 179837 (2, 253-396 mm). Guatemala, Lago de Izabal, about 1 mi W of El Paraiso; R.R. Miller and A.D. Holloway, 6-7 Apr 1946.
Remarks: Originally cited as USNM 139837; 3 specimens cited in original description, only 2 received at USNM; taken with holotype.

*Tachysurus liropus* Starks, 1906:766, figs. 3, 4.

**Holotype**
USNM 53470 (1, 151 mm). Ecuador, Guayaquil; P.O. Simons, 1898-1899.

*Tachysurus liropus* Bristol in Gilbert, 1897:438.

**Syntypes**
USNM 47584 (2, 132-174 mm). Mexico, Sonora, San Juan Lagoon, near Rio Ahome mouth; Albatross collection.
Remarks: 6 specimens cited in original description; 4 specimens unaccounted for.

**ASPREDINIDAE**

*Bunocephalus chamaiselus* Eigenmann, 1912a:127, pl. II: fig. 1.

**Paratype**
USNM 66122 (1, 23.8 mm). British Guiana (= Guyana), Gluck Island; C.H. Eigenmann, 1908.
Remarks: Received from CM, presumably formerly CM 1559a-b.

*Bunocephalus salathei* Myers, 1927:125.

**Paratypes**
USNM 92975 (2, 24.7-25.6 mm). Brazil, Morro Ajudo, 100 km from Rio de Janeiro; R. Brocca and Salathé.
Remarks: Received from G.S. Myers, 15 Jun 1933.

*Dupouyichthys sapiot* Schultz, 1944a:245, pl. 4d; fig. 4b.

**Holotype**
USNM 121072 (1, 22.8 mm). Venezuela, Maracaibo basin, Rio Motatán at bridge, 22 km N of Motatán; L.P. Schultz, 17 Mar 1942.

**Paratypes**
Remarks: Taken with holotype.

Paratypes
USNM 121074 (1, 17.9-18.3 mm). Venezuela, Maracaibo basin, Rio San Juan about 12 km S of Rosario; L.P. Schultz, 26 Feb 1942.
Remarks: 3 specimens cited in original description; 1 specimen exchanged to MCZ Jul 1951.

Paratype
USNM 121122 (1, 18.3 mm). Venezuela, Maracaibo basin, Rio Negro below mouth of Rio Yasa; L.P. Schultz, 2 Mar 1942.

*Hoplomyzon arizona* Myers, 1942:95, fig. 3.

**Paratype**
USNM 130639 (1, 25.7 mm). Venezuela, Estado Táchira, tributary of Rio Zulia, at Estacion Táchira, 60 km N of San Cristobal; F.F. Bond, 14 Jun 1938.
Remarks: Presumably a paratype, 5 paratypes originally cited without catalog numbers; received from SU, formerly SU 36495; taken with holotype.
Hoplomyzon atrizona petroleus Schultz, 1944a:248, pl. 4c; fig. 4a.

Holotype
USNM 121070 (1, 25.3 mm). Venezuela, Maracaibo basin, Río Motatán, 4 km above Motatán; L.P. Schultz, 25 Mar 1942.

Paratype
USNM 121071 (1, 24.6 mm). Venezuela, Maracaibo basin, Río Motatán, 4 km above Motatán; L.P. Schultz, 25 Mar 1942.

Remarks: Taken with holotype.

Astroblepidae

Arges orientalis Boulenger, 1903:601.

Syntype
USNM 133142 (1, 58.2 mm). Venezuela, Albirregas and Milla rivers; S. Briceño.

Remarks: Received from BMNH, formerly BMNH 1903.6.30:81-90, in part.

Astroblepus nicefori Myers, 1932:137.

Paratype
USNM 94178 (1, 68.0 mm). Colombia, Antioquia; N. Maria.

Remarks: Received from G.S. Myers; cited as paratype in correspondence.

Astroblepus phelpsi Schultz, 1944a:283, pl. 7d.

Holotype
USNM 121126 (1, 53.6 mm). Venezuela, Río Catatumbo system, Río Cobre above its mouth near La Grita, tributary to Río Quinta; L.P. Schultz, 31 Mar 1942.

Paratypes
USNM 121127 (475, 9.2-63.9 mm). Venezuela, Río Catatumbo system, Río Cobre above its mouth near La Grita, tributary to Río Quinta; L.P. Schultz, 31 Mar 1942.


Astroblepus pholeter Collette, 1962:311, figs. 1, 2.

Holotype
USNM 196623 (1, 62 mm). Ecuador, Napo Province, a large cave in Latas, 4 km N of Archidona; P. Porras G., 1961.

Paratypes
USNM 196671 (2, 64-66 mm). Ecuador, Napo Province, a large cave in Latas, 4 km N of Archidona; P. Porras G., 28 Jan 1962.

Cyclopium pirrense Meek and Hildebrand, 1913:83.

Paratypes
USNM 78376 (20, 22.0-95.3 mm). Panama, Río Cana, Cana; S.E. Meek and S.F. Hildebrand.

Remarks: Probable paratypes; original description specifically cited only type (= holotype) but is based on more than one specimen; these specimens collected at type locality; USNM ledger cites 21 specimens, 1 specimen unaccounted for; USNM ledger cites collection date as 1 Mar 1912.

Paratypes
USNM 78377 (6, 31.5-72.6 mm). Panama, Tuyra River basin.

Remarks: See comments under USNM 78376 concerning type status; USNM ledger cites 7 specimens, 1 specimen unaccounted for; USNM ledger cites collection data as Darien, Río Cana; S.E. Meek and S.F. Hildebrand, 1 Mar 1912.

Cyclopium trifasciatum Eigenmann, 1912b:14.

Paratypes
USNM 79198 (2, 48.0-48.1 mm). Colombia, Caldas; C.H. Eigenmann, Jan-Apr 1912.

Remarks: Received from CM, presumably formerly CM 4869a-n, in part.

Cyclopium unifasciatum Eigenmann, 1912b:15.

Paratypes
USNM 79199 (3, 38.1-44.4 mm). Colombia, Caldas; C.H. Eigenmann, Jan-Apr 1912.

Remarks: Received from CM, presumably formerly CM 4872a-p, in part.

Auchenipteridae

Ageneiosus freiei Schultz, 1944a:240, pl. 48.

Holotype
USNM 121260 (1, 205 mm). Venezuela, Río Agua Caliente, 2-3 km above Lago Maracaibo; L.P. Schultz, 1 May 1942.

Paratype
USNM 121261 (1, 225 mm). Venezuela, Río Agua Caliente, 2-3 km above Lago Maracaibo; L.P. Schultz, 1 May 1942.

Remarks: 2 specimens cited in original description; 1 specimen exchanged to MCZ Jul 1951; taken with holotype.
Auchenipterus brevior Eigenmann, 1912a:202, pi. XXI: fig. 1.
Paratype
USNM 66102 (1, 47.8 mm). British Guiana [= Guyana], Tumatumari; C.H. Eigenmann, 1908.
Remarks: Received from CM, presumably formerly CM 1716a-d, in part; taken with holotype.

Epapterus blohmi Vari et al., 1984:463, figs. 1, 6.
Paratypes
USNM 260637 (6, 65.3–74.7 mm). Venezuela, Guarico, Laguna Los Guácmisos, a broad shallow lagoon located on Fundo Pecuario Masaguaral (8°34'N, 67°35'W); R.P. Vari et al., 19 Jan 1983.
Remarks: 2 specimens cleared and stained; 7 specimens cited in original description; taken with holotype.

Felichthys amblops Meek and Hildebrand, 1913:77.
Paratypes
USNM 78299 (4, 70.2–110 mm). Panama, Río Tuyra, Marriganti; S.E. Meek and S.F. Hildebrand.
Remarks: Probable paratypes; original description specifically cited only type (= holotype) but is based on more than one specimen; these specimens collected at type locality; USNM ledger cites collection date as 8 Mar 1912.

Trachycorystes fischeri Eigenmann, 1916:82.
Paratypes
USNM 76929 (6, 49.8–72.8 mm). Colombia, Río Truando; Wilson.
Remarks: Received from IU, presumably formerly IU 13497, in part.

Trachycorystes insignis peloichthys Schultz, 1944a:236, pl. 4A.
Holotype
USNM 121281 (1, 160 mm). Venezuela, Río Agua Caliente, 2–3 km above Lago Maracaibo; L.P. Schultz, 1 May 1942.
Paratypes
USNM 121282 (3, 134–157 mm). Venezuela, Río Agua Caliente, 2–3 km above the SW corner of Lago Maracaibo; L.P. Schultz, 1 May 1942.
Remarks: 4 specimens cited in original description; 1 specimen exchanged to MCZ Jul 1951; taken with holotype.

BAGRIDAE
Bagrichthys micranodus Roberts, 1989b:115, fig. 89.
Paratypes
USNM 230276 (3, 55.2–72.6 mm). Borneo, Kapuas River, mainstream 58 km NE of Sintang and 1 km downstream from Sebruang; T.R. Roberts, 16 Aug 1976.
Remarks: Taken with holotype.

Paratype
USNM 216380 (1, 155 mm). Zaire River, near Inga hydroelectric dam (5°31.5'S, 13°37.5'E); T.R. Roberts and D.S. Stewart, 4–6 Aug 1973.
Remarks: Received from MCZ, formerly MCZ 50527, in part.

Paratypes
USNM 256707 (2, 73–74 mm). Zambia, Lake Tanganyika, near Mbulungu; Mar–Apr 1972.

Chrysichthys ansorgii Boulenger, 1910:558.
Paratype
USNM 86636 (1, 103 mm). Angola, Quanza River at Dondo; W.J. Ansorge.
Remarks: Received from BMNH; formerly BMNH 1911.6.1:116–125, in part.

Chrysichthys helicophagus Roberts and Stewart, 1976:276, pl. 6e.
Paratype
USNM 216366 (1, 68.1 mm). Zaire River, near Tadi about 50 km downstream from Kibunzi (5°14'S, 13°56'E); T.R. Roberts and D.S. Stewart, 21 Jul 1973.
Remarks: Received from MCZ, formerly MCZ 50293, in part; taken with holotype.

Paratypes
USNM 227619 (5, 35.8–63.5 mm). South Africa, Cape Province, Noordhoeks River at roadbridge (32°43'15"S, 19°03'59"E), Olifants River system; F. Farquharson, 7 Apr 1967.

Paratypes
USNM 230280 (3, 38.9–76.6 mm). Borneo, small forest stream flowing into Kapuas River mainstream (0°24'N, 111°51'E), NE of Gunung Setunggul, 53 km NW of Sintang; T.R. Roberts, 16 Aug 1976.
Remarks: Taken with holotype.

**Holotype**
USNM 35732 (1, 144 mm). North Borneo, Sadong; Hornaday.
Remarks: Length of 161.5 mm cited in original description is total length.

**Paratype**
USNM 171526 (1, 105 mm). North Borneo, Sadong; Hornaday.

Lophiobagrus aquilus Bailey and Stewart, 1984:24, figs. 5b, 6b, 8.

**Paratypes**

Mystus havmolleri Smith, 1931:24, fig. 12.

**Holotype**
USNM 90304 (1, 36.8 mm). Siam [= Thailand], Klong Thalerng, near Ronpibun; Jan 1927.

**Paratypes**
USNM 90305 (3, 30.4–39.2 mm). Siam [= Thailand], Klong Thalerng, near Ronpibun; Jan 1927.
Remarks: 6 paratypes cited in original description; 3 specimens unaccounted for; taken with holotype.

Mystus mukherjii Ganguly and Datta, 1975:293.

**Paratypes**
USNM 205615 (2, 74.2–75.1 mm). India, Bihar. Remarks: USNM ledger cites collection data as Ranchi district, Subarnarekha River; Dec 1967.

Notoglanidium pallidum Roberts and Stewart, 1976:276, pl. 7a–c.

**Paratypes**
Remarks: Received from MCZ, formerly MCZ 50294, in part.

Pseudobagrus emarginatus Sowerby, 1921:1.

**Holotype**
USNM 76716 (1, 395 mm). China, mouth of the Hun Kiang, in the Yalu River, on the south Manchurian border; A. de C. Sowerby, 1915.

**CALLICHTHYIDAE**

Aspidoras albater Nijssen and Isbricker, 1976a:115, figs. 6, 15f, 16e.

**Paratypes**
USNM 213540 (5, 26.7–33.0 mm). Brazil, Goids, Rio Tocantinzinha near São João da Aliança (14°46’S, 47°30’W), Rio Tocantis system; G. Brasil, Jan 1974.
Remarks: Taken with holotype.

Aspidoras brunneus Nijssen and Isbricker, 1976a:116, figs. 7, 15g, 16f.

**Paratype**
USNM 213569 (1, 18.5 mm). Brazil, Mato Grosso, Serra do Roncador, km 125 of the road Chavantina-Caximba; E.J. Fittkau, 17 Aug 1965.
Remarks: Taken with holotype.

Aspidoras poecilus Nijssen and Isbricker, 1976a:121, figs. 13, 15o, 16m.

**Paratypes**
USNM 191624 (1, 31.0 mm). Brazil, Goid’s, Rio Araguaia, near Aruanã (14°58’S, 51°04’W); H.R. Axelrod, 1960.

Aspidoras spilotus Nijssen and Isbricker, 1976a:123, figs. 14, 15q, 16n.

**Paratypes**
USNM 213568 (2, 23.8–25.0 mm). Brazil, Ceará, Riacho dos Macacos, tributary of Rio Acarau; J.L. de Meneses, 10 Nov 1969.
Remarks: Taken with holotype.

Callichthys adspersus Steindachner, 1877a:135, pl. XI: fig. 2.

**Syntype**
USNM 41518 (1, 61.8 mm). Brazil, Tabatinga; Bourget. Remarks: Received from MCZ, formerly MCZ 8245 or 8265, in part; 2 specimens cited in ledger; 1 specimen unaccounted for; complete collection information: Brazil, Rio Solimões at Tabatinga and environs; D. Bourget, Sep 1865.

Chaenothorax multiradiatus Orces, 1960:2, pl. 1.

**Holotype**
USNM 200739 (1, 77.2 mm). Ecuador, tributary of Rio Lagartococha near town of Garza-Cocha, Upper Rio Napo system; M. Olalla, Nov 1958.
Remarks: Originally cataloged in the private collection (no. 4,280) of the author, Gustavo Orces V., Escuela Politecnica Nacional, Quito, Ecuador, from whom it was received. Length cited as 82 mm in original description.

Corydoras adolfoi Burgess, 1982:15, unnumbered fig.

**Paratypes**
Corydoras amapaensis Nijssen, 1972:417, figs. 2, 3, 11a; pl. III.  
Paratype  
USNM 205865 (1, 47.8 mm). Brazil, Amapá, Cachoeira Creek at right bank of Rio Amapari, 4 km downstream of Casa do 7; J.P. Gosse, 12 Dec 1962.  
Remarks: Taken with holotype.

Corydoras atropersonatus Weitzman and Nijssen, 1970:123, figs. 2, 6b.  
Holotype  
USNM 204359 (1, 38.8 mm). Ecuador, Pastaza, Rio Conambo at mouth of Rio Shione (2°00'S, 76°30'W), Rio Tigre system; R. Olalla, Sep 1960.  
Paratypes  
USNM 204360 (5, 29.7-39.9 mm). Ecuador, Pastaza, Rio Conambo at mouth of Rio Shione (2°00'S, 76°30'W), Rio Tigre system; R. Olalla, Sep 1960.  
Remarks: Taken with holotype.

Paratypes  
USNM 205866 (2, 29.0-36.2 mm). Brazil, Pará, creek in left bank of Rio Cururu; tributary of upper Rio Tapajós near Maloca do Gonzalo (7°45'S, 58°00'W); J.P. Gosse, 20 Nov 1964.  
Remarks: Taken with holotype.

Corydoras bondi Gosline, 1940:20.  
Paratype  
USNM 130633 (1, 25.1 mm). Venezuela, Rio Carichapo, a tributary to Rio Yuaruari, 30 km E of Upata.  
Remarks: Received from SU, formerly SU 35068, in part.

Corydoras condiscipulus Nijssen and Isbrücker, 1980b:494, figs. 1, 4b.  
Paratypes  
USNM 205869 (2, 35.0-37.1 mm). French Guiana, Adjoumba Creek at right bank of Rio Oiapoque between Camopi Village and Sikini Village; J.P. Gosse, 6 Dec 1969.  
Remarks: Taken with holotype, these specimens are also paratypes of Corydoras oiapoquensis Nijssen (1972:425) (see that species account).
Corydoras gossei Nijssen, 1972:424, figs. 6, 11d.
Paratypes
USNM 205867 (2, 50.5–52.2 mm). Brazil, Rondônia, Rio Mamore system, creek near Guajará Mirim (10°50'S, 65°21'W); J.P. Gosse, 26 Nov 1967.
Remarks: Taken with holotype.

Corydoras gracilis Nijssen and Isbrücker, 1976b:91, 4 unnumbered figs.
Paratype
USNM 216074 (1, 19.7 mm). Brazil, Rio Madeira drainage, within 100 mi of Porto Velho, Trans-Amazonica Highway; H. Bleher, 1975.
Remarks: USNM ledger cites collection data as Brazil, Amazonas, Rio Madeira basin, Rio Jauna at Trans-Amazonica highway (about 6°09'S, 59°55'W), tributary at right bank of Rio Aripuana.

Corydoras guianensis Nijssen, 1970:21, figs. 9, 25c.
Paratypes
USNM 204218 (2, 26.4–32.9 mm). Surinam, Nickerie District, creek at right bank of Nickerie River, 12 km WSW of Stiondansie Fall; H. Nijssen, 5 Apr 1967.
Remarks: Taken with holotype.

Paratypes
USNM 204222 (2, 38.9–45.0 mm). Surinam, Saramacca District, creek at left bank of Coppename River (3°52'N, 56°55'W); H. Nijssen, 18 May 1967.

Corydoras leopardus Myers, 1933:188.
Lectotype
USNM 93305 (1, 40.3 mm). N.E. Brazil (?); Griem, 1933.
Remarks: Also described as new in Myers (1935) where this specimen was cited as holotype; lectotype designated by Nijssen and Isbrücker (1980a:197).
Paralectotype
USNM 93306 (1, 22.9 mm). N.E. Brazil (?); Griem, 1933.
Remarks: Also described as new in Myers (1935) where a holotype was cited (USNM 93305); lectotype designated by Nijssen and Isbrücker (1980a:197).

Corydoras Myrsi P. Miranda Ribeiro, 1942:427, fig. 1.
Paratypes
USNM 163252 (2, 39.2–40.1 mm). Brazil, Amazonas, Rio Javari, Municipio de Benjamin Constant; A. Parko, Mar 1942.
Remarks: Received from MNRJ through P. Miranda Ribeiro.

Corydoras napoensis Nijssen and Isbrücker, 1986:73, figs. 25, 26, 33c.
Paratypes
USNM 270358 (2, 27.6–30.0 mm). Ecuador, Rio Napo drainage, Lagartococha, tributary of Rio Aguarico, between mouth of river and Garzacocha Village (0°39'S, 75°16'W to 0°28'S, 75°21'W); M. Olalla, Jan 1966.

Corydoras octocirrus Nijssen, 1970:26, figs. 12, 13, 25a,b.
Paratypes
USNM 204222 (2, 56.3–56.8 mm). Surinam, Brokopondo District, Surinam River system, Marchall Creek, 1.5 km N of Marchall Village; H. Nijssen, 8 Dec 1966.
Remarks: Taken with holotype.

Corydoras oelemariensis Nijssen, 1970:29, figs. 14, 25g.
Paratypes
USNM 204221 (2, 31.0–39.6 mm). Surinam, Marowijne District, Marowijne river system, creek at left bank of Oelemari River, near airstrip; J.P. Gosse, 10 Nov 1966.
Remarks: Taken with holotype.

Corydoras orapoensis Nijssen, 1972:425, figs. 7, 11e.
Paratypes
USNM 205868 (2, 27.0–35.9 mm). French Guiana, Adjoumba Creek at right bank of Rio Oiapoque between Camopi Village and Sikini Village; J.P. Gosse, 6 Dec 1969.
Paratypes
USNM 205869 (2, 35.0–37.1 mm). French Guiana, Adjoumba Creek at right bank of Rio Oiapoque between Camopi Village and Sikini Village; J.P. Gosse, 6 Dec 1969.
Remarks: Later designated as paratypes of Corydoras condiscipulus Nijssen and Isbrücker (1980b:494) (see that species account).

Corydoras ornatus Nijssen and Isbrücker, 1976c:126, figs. 1–3.
Paratype
USNM 216075 (1, 39.1 mm). Brazil, Pará, Rio Tapajós, 80 km E of Jacareacanga (6°09'S, 58°15'W); H. Baensch, Sep 1974.
Remarks: Taken with holotype.

Corydoras orphnopterus Weitzman and Nijssen, 1970:125, figs. 3, 6c.
Holotype
USNM 204361 (1, 57.7 mm). Ecuador, Pastaza, lower Río Bobonaza between Montalvo and Chicherota (2°06'S, 76°59'W), Río Pastaza system.
Paratype
USNM 204362 (1, 56.4 mm). Ecuador, Pastaza, lower Río Bobonaza between Montalvo and Chicherota (2°06'S, 76°59'W), Río Pastaza system.

Corydoras osteocarus Böhlke, 1951:824.
Paratype
USNM 157367 (1, 26.1 mm). Venezuela, San Fernando de
Atabapo, where the Río Atabapo empties into Río Orinoco (~4°5'S, 67°43'W); C. Ternetz, 8 Apr 1925.
Remarks: Formerly SU 16334, in part; taken with holotype.

*Corydoras pastazensis* Weitzman, 1963:59, fig. 1.
Holotype
USNM 177216 (1, 49.0 mm). Ecuador, Pastaza, Chichereata, near mouth of Río Bobonaza, a tributary of the Río Pastaza, itself a tributary of the Río Marañón (2°23'S, 76°40'W); R. Olalla, Jan 1954.
Paratypes
USNM 164464 (3, 48.9–61.9 mm). Ecuador, Napo-Pastaza, settlement near the mouth of the Río Bobonaza; R. Olalla, 19 Jan 1954.

*Corydoras pastazensis orcesi* Weitzman and Nijssen, 1970:120, figs. 1, 6a.
Holotype
USNM 204358 (1, 55.5 mm). Ecuador, Pastaza, Río Conambo near village Conambo (1°55'S, 76°51'W), Río Tigré system; P. Mena, May 1961.
Paratypes
USNM 203827 (2, 49.2–54.0 mm). Ecuador, Pastaza, Río Conambo near village Conambo (1°55'S, 76°51'W), Río Tigré system; P. Mena, May 1961.
Remarks: Taken with holotype.
Paratypes
USNM 203828 (5, 48.5–64.0 mm). Ecuador, Pastaza, Río Conambo near village Conambo (1°55'S, 76°51'W), Río Tigré system; P. Mena, May 1961.
Remarks: Taken with holotype.

*Corydoras pauciradiatus* Weitzman and Nijssen, 1970:129, figs. 5, 6e.
Holotype
USNM 191625 (1, 23.2 mm). Brazil, Goiás, Río Araguaia, near Aruanã (14°58'S, 51°04'W); H.R. Axelrod, 1960.
Paratype
USNM 204363 (1, 22.6 mm). Brazil, Goiás, Río Araguaia, near Aruanã (14°58'S, 51°04'W); H.R. Axelrod, 1960.
Remarks: Taken with holotype.

*Corydoras robineae* Burgess, 1983:42, 2 figs.
Paratypes
USNM 257869 (3, 36.0–42.5 mm). Brazil, Amazonas, Rio Aiuna, a tributary of the Río Negro; A. Schwartz, Mar 1983.

*Corydoras schwartzi surinamensis* Nijssen, 1970:39, figs. 22, 25h.
Paratypes
USNM 204223 (2, 30.4–35.8 mm). Surinam, Saramacca District, creek at right bank of Coppename River (3°52'30"N, 56°53'W); H. Nijssen, 19 May 1967.
Remarks: Taken with holotype.

*Corydoras septentrionalis* Gosline, 1940:16.
Paratype
USNM 130634 (1, 43.1 mm). Venezuela, Río Piña, N of Maturin; F.F. Bond, 18 Mar 1939.
Remarks: Taken with holotype; received from SU, formerly SU 35056.

*Corydoras simulates* Weitzman and Nijssen, 1970:126, figs. 4, 6d.
Holotype
USNM 197615 (1, 51.0 mm). Colombia, Río Ocoa near Puerto López (4°06'N, 72°57'W), Río Meta system; K. Nelson, 23 Aug 1961.
Paratypes
USNM 197616 (4, 31.6–53.3 mm). Colombia, Río Ocoa near Puerto López (4°06'N, 72°57'W), Río Meta system; K. Nelson, 23 Aug 1961.
Remarks: Taken with holotype.
Paratype
USNM 197667 (1, 52.9 mm). Colombia, Meta, Caño Pochaquiaro at Via Puerto Lopez; K. Nelson, 22 Aug 1961.

*Corydoras weitzmani* Nijssen, 1971:91, figs. 1, 8a.
Paratype
USNM 206018 (1, 39.8 mm). Peru, Estado Cuzco, Vilcanota River system (13°32'S, 71°57'W); C. Kalinowski, 18 Feb 1949.
Remarks: Taken with holotype.

*Corydoras xinguensis* Nijssen, 1972:429, figs. 9, 11g.
Paratype
USNM 205870 (1, 28.7 mm). Brazil, Río Xingu system, Mato Grosso, forest creek near Posto Diauarum (11°15'S, 53°00'W); J.P. Gosse, 12 Nov 1964.

*Hoplosoma aeneum* Gill, 1858:403 (reprint p. 43).
Lectotype
USNM 1116 (1, 46.6 mm). Trinidad; T. Gill et al., 1858.
Remarks: Lectotype designated by Nijssen and Isbrücker (1980a:208); paralectotypes recataloged as USNM 205649.
Paralecotypes
USNM 205649 (3, 34.6–47.1 mm). Trinidad; T. Gill et al., 1858.
Remarks: Formerly USNM 1116, in part; lectotype designated by Nijssen and Isbrücker (1980a:208).

Paratypes
USNM 78378 (2, 70.0–73.6 mm). Panama, Río Marte Amade, a small coastal stream 6 mi E of Panama [City]; S.E. Meek and S.F. Hildebrand, Apr 1911.
Remarks: Probable paratypes; original description spe-
cifically cited only type (= holotype) but is based on
more than one specimen; these specimens collected at
type locality; USNM ledger cites collection date as 22
Apr 1911.

Hoplosternum Stevardii Gill, 1858:401 (reprint p. 41).
Syntype
USNM 5944 (1, 165 mm). Trinidad; T. Gill et al., 1858.
Remarks: 2 specimens mentioned in original descrip-
tion; 1 specimen unaccounted for.

CETOPSIDAE

Cetopsis ventralis Gill, 1870:95.
Holotype
USNM 8307 (1, 113 mm). Río Marañón or Río Napo, J.
Orton.

Hemicetopsis othonops Eigenmann, 1912b:17.
Paratypes
USNM 79213 (2, 54.4–77.3 mm). Colombia, Río Magda-
lena basin, Giardot; C.H. Eigenmann, Jan–Apr 1912.
Remarks: Received from CM, presumably formerly CM
4831a-j, in part.
Paratypes
USNM 76972 (6, 53.9–93.5 mm). Colombia, Río Magda-
lena basin, Apulo; C.H. Eigenmann, Jan–Apr 1912.
Remarks: Received from IU, presumably formerly IU
12685a-j, in part.
Paratypes
USNM 167853 (4, 66.0–95.3 mm). Colombia, Río Magda-
lena basin, Giardot; C.H. Eigenmann, Jan–Apr 1912.
Remarks: Received from UKEN, through W.R. Allen;
presumably formerly IU 12684a-j, in part.

Pseudocetopsis plumbeus motatanensis Schultz, 1944a:255, pl.
5B.
Holotype
USNM 121265 (1, 147 mm). Venezuela, Maracaibo basin,
Río Motatán, 4 km above Motatán; L.P. Schultz, 25
Mar 1942.
Paratype
USNM 121266 (1, 56.6 mm). Venezuela, Maracaibo
basin, Río San Juan at bridge S of Mene Grande,
Motatán system; L.P. Schultz, 20 Mar 1942.
Paratypes
USNM 121267 (2, 67.0–82.0 mm). Venezuela, Mara-
caibo basin, Río Motatán, 8 km below Motatán; L.P.
Schultz, 24 Mar 1942.
Paratypes
USNM 121268 (2, 112–159 mm). Venezuela, Maracaibo
basin, Río Motatán, 4 km above Motatán; L.P. Schultz,
25 Mar 1942.

Remarks: Taken with holotype.
Paratypes
USNM 121269 (3, 56.0–112 mm). Venezuela, Maracaibo
basin, Río Motatán at bridge, 22 km N of Motatán; L.P.
Schultz, 17 Mar 1942.
Remarks: 5 specimens cited in original description; 1
specimen exchanged to MCZ Jul 1951, 1 specimen
exchanged to UMMZ Oct 1944.

Pseudocetopsis plumbeus orinoco Schultz, 1944a:253, pl. 5A.
Holotype
USNM 121263 (1, 95.3 mm). Venezuela, Río Torbes, 1
km above Táraba, Río Orinoco system; L.P. Schultz, 31
Mar 1942.
Paratype
USNM 121264 (1, 92.2 mm). Venezuela, Estado de
Aragua, Río Guárico and tributaries between San
Sebastián and San Casimiro; L.P. Schultz et al., 12 May
1942.
Remarks: 2 specimens cited in original description; 1
specimen exchanged to MCZ Jul 1951.

Pseudocetopsis praecox Ferraris and Brown, 1991:162, fig. 1.
Paratypes
USNM 309184 (2, 33.5–40.5 mm). Venezuela, Territorio
Federal Amazonas, tributary of Río Mawarinuma of

CLARIIDAE

Clarias gilli Smith and Seale, 1906:74, fig. b.
Holotype
USNM 55620 (1, 293 mm). Philippines, Mindanao, Río
Grande; Dr. Morse, Oct 1903.
Paratype
USNM 126628 (1, 310 mm). Philippines, Mindanao, Río
Grande; Dr. Morse, Oct 1903.
Remarks: Probably the one paratype of this species; no
catalog number given in original description; formerly
USBF 1668.

Clarias laeviceps Gill, 1862b:139, footnote.
Holotype
USNM 4099 (1, 169 mm). Probably Liberia.
Remarks: No locality given but Gill suggests it probably
came from Liberia, without providing supporting
evidence. Teugels’ results (1986:143) agree with that
suggestion.

Uegitglanis zammaranoi Gianferrari, 1923:1, pl. 1.
Paratype
USNM 93131 (1, 84.0 mm). Italian Somalia [= Somalia],
Pozzi di Uegit (el Uegit); V.T. Zammarano.
DORADIDAE

Doraops zuloagai Schultz, 1944a:271, fig. 5, pl. 7A.

Holotype
USNM 121015 (1, 278 mm). Venezuela, Maracaibo basin, Río de Los Pajaros, 3 km above Lago Maracaibo; L.P. Schultz, 30 Apr 1942.

Paratypes
USNM 121016 (3, 330–475 mm). Venezuela, Maracaibo basin, Río Apón, a few km below mouth of Río Cogello, about 35 km S of Rosario; L.P. Schultz, 26 Feb 1942.

Remarks: 7 specimens cited in original description; 2 specimens exchanged to MCZ, 1 specimen exchanged to FMNH; 1 specimen exchanged to UMMZ.

Paratypes
USNM 121017 (3, 230–345 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.

Remarks: 4 specimens cited in original description; 1 specimen exchanged to SU, now SU 41005 (Bohlke, 1953:41).

Paratype
USNM 121018 (1, 365 mm). Venezuela, Lago Maracaibo, 1 km off Pueblo Viejo; L.P. Schultz, 7–9 Apr 1942.

Hemidoras microstomus Eigenmann, 1912a:193, pl. XVIII: fig. 2.

Paratype
USNM 66200 (1, 45.7 mm). British Guiana [= Guyana], Crab Falls; C.H. Eigenmann, 1908.

Remarks: Received from CM, presumably formerly CM 1651a-b, in part.

Leptodoras linnelli Eigenmann, 1912a:191, pl. XVII: fig. 1; pl. XVIII: fig. 1.

Paratype
USNM 66222 (1, 141 mm). British Guiana [= Guyana], Tumatumari; C.H. Eigenmann, 1908.

Remarks: Received from CM, presumably formerly CM 1627a-e, in part; taken with holotype.

Leptodoras myersi Bohlke, 1970:54, figs. 1, 2.

Paratypes
USNM 203816 (2, 68.5–74.8 mm). Peru, vicinity of Iquitos, Río Amazonas (Marañón) between Isla Iquitos and Isla Lapuna, near Isla Lapuna shore; C.C.G. Chaplin and R. Patrick, 9 Oct 1955.

Megalodoras irwini Eigenmann, 1925:308, pl. 1: fig. 4; pl. 3: fig. 3; pl. 6; pl. 25: fig. 2.

Paratype
USNM 167837 (1, 178 mm). Peru, Iquitos; W.R. Allen, 1920.

Remarks: Received from UKEN, through W.R. Allen; presumably formerly IU 15427, in part.

HELOGENIDAE

Helogenes gouldingi Vari and Ortega, 1986:7, fig. 3.

Paratypes
USNM 269446 (4, 25.8–46.0 mm). Brazil, Amazonas, Igarapé, 15 km from Humaitá along Río Madeira (7°31'S, 63°02'W); M. Goulding, 7 Aug 1984.

Remarks: Taken with holotype; 1 specimen cleared and stained.

Helogenes marmoratus uruyensis Fernández-Yépez, 1967:166, pl. 2; pl. 3: fig. 2.

Paratype
USNM 219598 (1, 41.5 mm). Venezuela, Río Uruyen; A. Fernández-Yépez et al., Apr 1956.

Remarks: Taken with holotype; received from MBUCV through F. Mago-Leccia; formerly MBUCV-V-2615, in part; originally AFY 56.614, in part.

ICTALURIDAE

Amiurus brunneus Jordan, 1877b:366.

Lectotype
USNM 20148 (1, 73.3 mm). Georgia, Dekalb County, South Fork [= South River] of the Ocmulgee River at Flat Shoals; D.S. Jordan and C.H. Gilbert, 1876.

Remarks: Specimen originally deposited at Butler University, Indiana. Lectotype designated by Jordan and Evermann (1896:142), but Yerger and Relyea (1968:370) proposed USNM 17861 as lectotype, based on data in USNM ledger. That information, however, was written in a different hand from original catalog entry, presumably at a later date, and is not considered authoritative.

Paralectotype
USNM 17861 (1, 108 mm). Georgia, Dekalb County, South Fork [= South River] of the Ocmulgee River at Flat Shoals; D.S. Jordan and C.H. Gilbert, 1876.

Remarks: Specimen originally deposited at Butler University, Indiana.

Amiurus cragini Gilbert, 1884:10.

Holotype
USNM 36814 (1, 97.8 mm). Kansas, “the Lake” (a blind arm of the Arkansas River), at Garden City; F.W. Cragin.

Amiurus dugesii Bean, 1880b:304.

Syntype
USNM 23122 (1, 276 mm). Mexico, Río Turbio, Guanajuato; A. Dugès.
Syntype
USNM 23123 (1, 298 mm). Mexico, Río Turbio, Guanajuato; A. Duges.

Andurus erebennus Jordan, 1877a:85, figs. 19, 20.

Holotype
USNM 19093 (1, 215 mm). Florida, St. John's River; G.B. Goode.
Remarks: Length of 275 mm cited in original description is apparently total length.

Andurus natalis analis Jordan, 1877a:81, fig. 31.

Holotype
USNM 31088 (MISSING). Arkansas River, Arkansas.
Remarks: Jordan (1877a:87) and Jordan and Evermann (1896:140) listed locality as the Arkansas River, but the Little Red River is cited in the figure caption and in the key to varieties of Amiurus natalis in Jordan and Evermann (1896:139, 140).

Amiurus obesus Gill, 1862a:45.

Syntypes
USNM 8968 (3, 72.0–175 mm). Nebraska; M. McCarthy.
Remarks: Gill (1862a:45) stated “two specimens were collected . . .”, but three specimens originally listed in USNM ledgers.

Amiurus ponderosus Bean, 1880a:286.

Holotype
USNM 287439 (1, ?). Missouri, Mississippi River near St. Louis; J.G.W. Steedman.
Remarks: Originally cataloged as USNM 23388, with only the skeleton preserved and a cast made of the body. The skeleton apparently was recataloged as USNM 25928, and then recataloged to its current number. The cast retained the original number (USNM 23388). Specimen said to be 5 ft long by Jordan and Evermann (1896:137).

Ichthaelurus robustus Jordan, 1877a:76, figs. 3, 4.

Holotype
USNM 20056 (1, 308 mm).
Remarks: Original description stated “the record of the locality is lost,” but USNM ledger cites locality as “Mississippi Valley”; the paratype from the Ohio River not located.

Ictalurus anguilla Evermann and Kendall, 1898:125, pl. 6: fig. 1.

Holotype
USNM 48788 (1, 330 mm). Louisiana, Atchafalaya River; Evermann and Chamberlain.
Remarks: USNM ledger cites collection date as 24 Apr 1897.

Paratype
USNM 48787 (1, 390 mm). Louisiana, Atchafalaya River; Evermann and Chamberlain.
Remarks: USNM ledger cites collection date as 24 Apr 1897.

Paratype
USNM 48789 (1, 275 mm). Louisiana, Atchafalaya River; Evermann and Chamberlain.
Remarks: USNM ledger cites collection date as 24 Apr 1897.

Paratype
USNM 61240 (1, 348 mm).
Remarks: Formerly USFC 1079; USNM ledger cites collection data as Louisiana, Melville; Evermann and Chamberlain.

Paratype
USNM 61236 (1, 249 mm).
Remarks: Formerly USFC 1078; USNM ledger cites collection data as Louisiana, Morgan City; Evermann and Chamberlain.

Ictalurus serracanthus Yerger and Relyea, 1968:373, fig. 4.

Holotype
USNM 231711 (1, 131 mm). Florida, Gadsden County, N shore of Lake Talquin, 6.8 mi WSW of Ochlockonee River bridge at US Highway 90, between Tallahassee and Quincy; A.D. Cochran and E. Grover, 20 Oct 1959.

Paratypes
Remarks: Originally cited as USNM 254550-F10; K. Relyea and R.F. Christensen listed as collectors on jar label.

Noturus albater Taylor, 1969:144, pl. 4: fig. 4; pl. 11: fig. 2.

Paratypes
USNM 59132 (5, 33.8–40.2 mm). Arkansas, Main Fork White River, Fayetteville; S.E. Meek.

Paratypes
USNM 73569 (3, 33.8–43.8 mm). Arkansas, Spring River, Black Rock; S.E. Meek.

Paratypes
USNM 116375 (32, 33.6–42.3 mm). Arkansas, Middle Fork White River, Fayetteville; S.E. Meek, 1893.

Paratypes
USNM 202484 (9, 41.3–59.1 mm). Missouri, Reynolds County, Sinking Creek at Highway K, 9.2 mi [14.7 km] from Highway 21 junction; L.W. Knapp, 29 Jun 1964.

Paratypes
USNM 202485 (11, 36.0–56.3 mm). Missouri, Wayne County, Black River at Highway A, 3 mi [4.8 km] W of Williamsville; L.W. Knapp, 29 Jun 1964.

Paratypes
USNM 202488 (2, 45.9–60.2 mm). Missouri, Douglas
County, Bryants Creek, Highway 14, 14 mi [22.4 km] E of Ava; L.W. Knapp, 21 May 1965.

*Noturus baileyi* Taylor, 1969:141, pl. 4: fig. 3; pl. 11: fig. 1.
Holotype
USNM 201602 (1, 45.8 mm). Great Smoky Mountains National Park, lower portion of Abrams Creek; E.W. Whitney et al., 8 Jun 1957.
Paratypes
USNM 201601 (3, 40.7-45.3 mm). Great Smoky Mountains National Park, lower portion of Abrams Creek; E.W. Whitney et al., 8 Jun 1957.
Remarks: Taken with holotype.

*Noturus elassochir* Swain and Kalb, 1883:639.
Holotype
USNM 29677 (1, 94.6 mm). Illinois, Illinois River, Napierville; E.R. Copeland.

*Noturus elegans* Taylor, 1969:150, pi. 4: figs. 5, 6; pi. 12.
Paratypes
USNM 163065 (9, 37.1-52.5 mm). Kentucky, Casey County, tributary of Green River, 4.5 mi [7.2 km] SSW of Liberty on Highway 35; F.B. Schwartz et al., 25 Apr 1952.
Paratypes
USNM 163066 (2, 39.5-43.3 mm). Kentucky, Casey County, tributary of Green River, 6 mi [9.6 km] NE of Liberty, on Highway 35; F.B. Schwartz et al., 25 Apr 1952.
Paratypes
USNM 163090 (17, 27.5-60.1 mm). Kentucky, Metcalfe County, tributary of Russell Creek, 7 mi [11.2 km] NE of Edmonton, on Highway 80; F.B. Schwartz et al., 25 Apr 1952.
Remarks: 4 specimens cleared and stained.
Paratypes
USNM 163091 (2, 27.6-35.2 mm). Kentucky, Metcalfe County, tributary of Green River, Highway 80, at Edmonton; F.B. Schwartz et al., 24 Apr 1952.
Paratypes
USNM 163092 (2, 44.5-46.5 mm). Kentucky, Casey County, tributary of Green River, 0.2 mi [0.32 km] E of Dunnville on Highway 35; F.B. Schwartz et al., 25 Apr 1952.
Paratypes
USNM 163093 (2, 53.5-58.7 mm). Kentucky, Adair County, Russell River, about 1 mi [1.6 km] SE of Columbia, on Highway 80; F.B. Schwartz et al., 25 Apr 1952.
Paratypes
USNM 174902 (5, 37.7-43.3 mm). Kentucky, Green County, Green River, at Greensburg; R.M. Bailey et al., 5 Apr 1953.

*Noturus eleutherus* Jordan, 1877b:371.
Holotype
USNM 29678 (1, 59.6 mm). Tennessee, French Broad River near Newport; D.S. Jordan and C.H. Gilbert.

*Noturus flavater* Taylor, 1969:204, pi. 4: fig. 15; pl. 20: fig. 2.
Paratype
USNM 73592 (1, 35.7 mm). Indian Territory, Sallisaw River; E.R. Meek.
Remarks: Note in jar by Taylor indicates that locality is probably incorrect.
Paratype
USNM 163546 (2, 71.2-76.0 mm). Missouri, Ozarks County, North Fork White River, near Tecumseh; A.C. Bauman, Aug 1944.
Paratype
USNM 163547 (1, 56.1 mm). Missouri, Shannon County, Jacks Fork of Current River, Highway 17, Alley Spring; Funk and Bauman, 9 Oct 1945.

*Noturus flavipinnis* Taylor, 1969:201, pl. 4: fig. 14; pl. 20: fig. 1.
Holotype
USNM 163801 (1, 65.2 mm). Tennessee, Clinton, Hines Creek; C.H. Gilbert and J. Swain, 1884.
Paratypes
USNM 36820 (3, 29.2-31.5 mm). Tennessee, Clinton, Hines Creek; C.H. Gilbert and J. Swain, 1884.
Remarks: Taken with holotype.
Paratype
USNM 125417 (1, 45.3 mm). Tennessee, Chickamauga Creek; R.R. Gurley, Oct 1893.

*Noturus flavus* Rafinesque, 1818:41.
Neotype
USNM 202494 (1, 114 mm). Kentucky, Grant County,
Eagle Creek, pool below bridge on State Highway 36, 3.5 mi [5.3 km] E of Jonesville; W.R. Turner, 11 Aug 1959.
Remarks: Formerly UL 12460; neotype designated by Taylor (1969:118).

**Noturus funebris** Gilbert and Swain in Gilbert, 1891:153.
Lectotype
USNM 36696 (1, 77.5 mm). Alabama, a spring run tributary to North River, near Tuscaloosa; J. Swain and C.H. Gilbert, summer 1884.
Remarks: 4 specimens cited in original description; 2 specimens removed to USNM 161732 and USNM ledger cites 2 specimens as exchanged to SU, but Böhlke (1953) lists a single specimen (SU 3952). Lectotype designated by Jordan and Evermann (1896) who cited its length as 3½ inches. Taylor (1969) overlooked this designation and chose the same specimen as lectotype.
Paralectotypes
USNM 161732 (2, 46.2-52.5 mm). Alabama, a spring run tributary to North River, near Tuscaloosa; J. Swain and C.H. Gilbert, summer 1884.
Remarks: Removed from USNM 36696.

**Noturus furiosus** Jordan and Meek in Jordan, 1889:351, pl. XLIII: figs. 1, 1a, 1b.
Lectotype
USNM 39932 (1, 70.5 mm). North Carolina, Neuse River, at Millburnie, near Raleigh; D.S. Jordan et al., summer 1888.
Remarks: Lectotype designated by Taylor (1969:184); 5 specimens listed in USNM ledger with this catalog number; 2 specimens recataloged as USNM 164109, 2 specimens exchanged to SU, now SU 1380.
Paralectotypes
USNM 20926 (6, 71.5–91.8 mm). North Carolina, Edgecomb County, Tarboro; J.W. Milner. Remarks: 11 specimens listed in USNM ledger; 1 specimen exchanged to ANSP; 2 specimens exchanged to UMMZ, 2 specimens exchanged to SU.
Paralectotype
USNM 40398 (1, 28.0 mm). North Carolina, Tar River, at Rocky Mount; D.S. Jordan et al., summer 1888.
Paralectotype
USNM 40572 (1, 34.3 mm). North Carolina, Little River, Goldsborough; D.S. Jordan et al., summer 1888.
Paralectotype
USNM 67937 (1, 36.7 mm). Remarks: USNM ledger lists locality as North Carolina, Neuse River, Raleigh; O.P. Jenkins and S. Meek, 27 Aug 1888.
Paralectotypes
USNM 164109 (2, 52.3–54.9 mm). North Carolina, Neuse River, at Millburnie, near Raleigh; D.S. Jordan et al., summer 1888.
Remarks: Formerly USNM 39932, in part.

**Noturus gilberti** Jordan and Evermann in Jordan, 1889:352, pl. XLIII: figs. 2, 2a, 2b.
Lectotype
USNM 39931 (1, 69.3 mm). Virginia, Roanoke River, Salem; D.S. Jordan, 1888.
Remarks: Lectotype designated by Taylor (1969); Böhlke (1953) credited Jordan and Evermann (1896) with lectotype designation but they cited the catalog number without specifying a particular specimen. Lot originally contained 4 syntypes; 2 specimens from original syntype series recataloged as USNM 161733; 1 paralectotype reidentified as Noturus insignis and recataloged as USNM 161734.
Paralectotypes
USNM 40219 (8, 46.3–62.3 mm). Virginia, Roanoke River, Roanoke; D.S. Jordan, 1888.
Paralectotypes
USNM 161733 (2, 51.2–61.2 mm). Virginia, Roanoke River, Salem; D.S. Jordan, 1888.
Remarks: Originally cataloged as USNM 39931, in part.
Paralectotype
USNM 161734 (1, 56.5 mm). Virginia, Roanoke River, Salem; D.S. Jordan, 1888.
Remarks: Reidentified as Noturus insignis and removed from USNM 39931.

**Noturus hildebrandi lautus** Taylor, 1969:138, pi. 4: fig. 2; pi. 10: fig. 2.
Holotype
USNM 201665 (1, 40.3 mm). Tennessee, Henry County, North Fork Obion River, at Highway 69; C.E. Ruhr et al., 27 Jul 1954.
Paratypes
USNM 193470 (16, 34.0–44.4 mm). Tennessee, Henry County, North Fork Obion River, at Highway 69; C.E. Ruhr et al., 27 Jul 1954.
Remarks: Taken with holotype; 1 specimen cleared and stained.
Paratypes
USNM 197395 (4, 23.2–44.8 mm). Tennessee, Weakley County, North Fork Obion River, Highway 6, Gleason Crossing; C.E. Farrell, 15 Sep 1954.
Paratypes
USNM 197402 (2, 32.5–44.8 mm). Tennessee, Weakley County, Middle Fork of Obion River, Highway 6, Gleason Crossing; C.E. Farrell, 15 Sep 1954.

**Noturus lachneri** Taylor, 1969:54, pi. 3: fig. 2; pi. 5: fig. 2.
Holotype
USNM 201592 (1, 40.0 mm). Arkansas, Garland County,
Middle Fork of the Saline River at Highway 7 crossing, 11.2 mi [17.9 km] N of Mountain Valley; L. and B. Knapp, 27 May 1967.

Paratypes
USNM 165901 (5, 27.3–62.2 mm). Arkansas, Saline County, Tributary of Saline River, about 1 mi [1.6 km] NW of Benton, just off U.S. 70, Ouachita drainage; E.A. Lachner et al., 22 Apr 1952.
Remarks: 1 specimen cleared and stained.

*Noturus marginatus* Baird in Cope, 1869:237.

Syntypes
USNM 1571 (9, 32.7–94.6 mm). The Susquehanna.
Remarks: USNM ledger cites 20+ specimens collected by S.F. Baird, 1847; Taylor (1969) reports syntypes at UMMZ (1), ANSP (2), MNHN (2), and MCZ (1); remaining specimens unaccounted for.

*Noturus munitus* Suttkus and Taylor, 1965:171, figs. 1, 2.

Paratypes
USNM 197708 (23, 22.0–46.0 mm). Mississippi, Marion County, Pearl River, 2.6 mi [4.2 km] E of Sandy Hook; R.D. Suttkus and K.T. Nielsen, 24-25 Nov 1951.
Remarks: 2 specimens cleared and stained.
Paratypes
USNM 198208 (25, 27.7–40.7 mm). Mississippi, Marion County, Pearl River, 2.6 mi [4.2 km] E of Sandy Hook; R.D. Suttkus and R.P. Anderson, 14 Nov 1955.
Remarks: Taken with holotype.


Lectotype
USNM 36461 (1, 45.4 mm). Arkansas, Saline River, Benton; D.S. Jordan et al., Jul–Sep 1884.
Remarks: Lectotype designated by Taylor (1969); 2 specimens recataloged as USNM 201388.
Paralecotypes
USNM 36383 (28, 25.0–45.3 mm). Indian Territory, Poteau River, Slate Ford W of Hackett City; D.S. Jordan et al., Jul–Sep 1884.
Remarks: 1 specimen reidentified as *Noturus exilis* and recataloged as USNM 161730.
Paralecotypes
USNM 36426 (15, 30.2–37.6 mm). Poteau River.
Remarks: USNM ledger cites locality as Arkansas, Washita River, at Arkadelphia; 16 specimens cited in original description; 1 specimen reidentified as *Noturus eleutherus* and recataloged as USNM 161731.
Paralecotype
USNM 161730 (1, 37.8 mm). Indian Territory, Poteau River, Slate Ford W of Hackett City; D.S. Jordan et al., Jul–Sep 1884.
Remarks: Reidentified as *Noturus exilis* and removed from USNM 36383.

*Noturus phaeus* Taylor, 1969:100, pl. 3: fig. 8; pl. 7: fig. 2.

Holotype
USNM 202143 (1, 94.6 mm). Tennessee, Henry County, North Fork Obion River, at Highway 69; C.E. Ruhr et al., 27 Jul 1954.

Paratypes
USNM 175389 (1, 29.2 mm). Mississippi, Benton County, Shones Lake, E of Holly Springs; YJ. McGaha, 9 Jun 1952.
Paratypes
USNM 175390 (2, 30.1–37.2 mm). Mississippi, Marshall County, Little Spring Creek, 2 mi [3.6 km] N of Little Tallahatchie River on Highway 7; YJ. McGaha, 16 Jun 1952.
Paratypes
USNM 175391 (2, 26.0–27.2 mm). Mississippi, Benton County, Snow Creek, 5 mi [8.0 km] W of Ashland; W.L. Hudspeth, 12 May 1951.
Paratypes
USNM 193465 (3, 72.9–100 mm). Tennessee, McNairy County, Moss Creek, about 4 mi [6.4 km] W of Selmer; C.E. Ruhr, 18 Aug 1954.
Paratypes
USNM 193466 (1, 89.3 mm). Tennessee, Hardeman County, Indian Creek, 3 mi [4.8 km] S of Grand Junction; C.E. Ruhr, 6 Aug 1954.
Paratypes
USNM 193467 (13, 36.8–91.8 mm). Tennessee, Henderson County, Deer Creek at Huron; C.E. Ruhr, 21 Jul 1954.
Paratypes
USNM 193468 (8, 56.9–110 mm). Tennessee, Fayette...
County, Loosahatchie River N of Somerville on Highway 76; C.E. Ruhr, 31 Aug 1954.
Remarks: 1 specimen cleared and stained.

Paratype
USNM 193469 (1, 77.2 mm). Tennessee, Fayette County, Loosahatchie River, 5 mi [8.0 km] N of Oakland; C.E. Ruhr, 31 Aug 1954.

Paratypes
USNM 193471 (10, 40.2-97.8 mm). Tennessee, Henry County, North Fork Obion River, at Highway 69; C.E. Ruhr et al., 27 Jul 1954.
Remarks: Taken with holotype; 3 specimens cleared and stained.

Paratypes
USNM 193473 (4, 61.5-104 mm). Tennessee, Hardeman County, Spring Creek, about 4 mi [6.4 km] SSW Bolivar; C.E. Ruhr, 4 Aug 1954.

Noturus placidus Taylor, 1969:168, pl. 4: fig. 9; pl. 15: fig. 2; pl. 17: fig. 2.

Paratypes
USNM 200677 (38, 18.8-36.4 mm). Kansas, Chase County, Cottonwood River at mouth of South Fork of Cottonwood River, sec. 25, T.19S, R.8E; W.R. Taylor et al., 13 Aug 1965.

Paratypes

Noturus stanauli Etnier and Jenkins, 1980:19, figs. 1, 2.

Paratype
USNM 219281 (1, 24.3 mm). Tennessee, Hancock County, Clinch River at Frost Ford, Clinch River mi 181.1, 11.8 air km WSW of Kyles Ford; 1 May 1976.
Remarks: USNM ledger cites collector as D.A. Etnier.

Paratypes
USNM 219282 (1, 25.2 mm). Tennessee, Humphreys County, Duck River, just above mouth of Hurricane Creek, Duck River mi 17.5; 28 Apr 1974.
Remarks: USNM ledger cites collector as G.F. Bordonow.

Noturus stigmosus Taylor, 1969:173, pl. 2: fig. 4; pl. 4: fig. 11; pl. 16: fig. 1; pl. 18: fig. 1.

Paratype
USNM 174906 (1, 7 mm). Michigan, Washtenaw County, Huron River, 1.75 mi [2.8 km] NW of Dexter; R.M. Bailey et al., 10 Aug 1951.
Remarks: Disarticulated dry skeleton.

Holotype
USNM 206181 (1, 38.0 mm). Arkansas, Montgomery County, South Fork of the Caddo River, 1.6 km SE of Hopper and 0.8 km S of Highway 240; N.H. Douglas et al., 5 Mar 1971.

Paratypes
USNM 206182 (15, 28.0-43.0 mm). Arkansas, Montgomery County, South Fork of the Caddo River, 1.6 km SE of Hopper and 0.8 km S of Highway 240; N.H. Douglas et al., 5 Mar 1971.
Remarks: Taken with holotype.

Paratypes
USNM 211571 (13, 25.6-48.0 mm). Arkansas, Montgomery County, Caddo River, at junction of Highway 8 and Highway 240, 9 km NW of Glenwood; 21 Feb 1970.
Remarks: Received from NLU, originally NLU 15233; USNM ledger cites collectors as P. Hambrick and H. Daily.

Noturus trautmani Taylor, 1969:156, pl. 4: fig. 7; pl. 13: fig. 1.

Paratypes
USNM 202493 (6, 24.0-36.0 mm). Ohio, Pickaway County, SE Jackson Township, Big Darby Creek, 1 mi [1.6 km] S of Fox; M.B. Trautman and D.I. Mount, 16 or 17 Nov 1957.
Remarks: 1 specimen cleared and stained.

Syntypes
USNM 837 (9, 55.8-126 mm). Rio Grande del Norte; J.H. Clark.
Remarks: 10 specimens cited in USNM ledger; 1 specimen unaccounted for.
Pimelodus ailurus Girard, 1858a:210, pl. XLIV.
Syntypes
USNM 904 (2, 215–225 mm). Minnesota, Lake Amelia, near Fort Snelling; G. Suckley, 1853.
Remarks: 2 specimens with this catalogue number but only 1 specimen listed in original description; second specimen may be USNM 905.

Syntype
USNM 905 (MISSING). Minnesota, Lake Amelia, near Fort Snelling; G. Suckley, 1853.
Remarks: 1 specimen cited in original description; may have been combined with USNM 904.

Pimelodus antoniensis Girard, 1858a:209.
Holotype
USNM 923 (1, 163 mm). Texas, near San Antonio; C.B. Kennerly, 1853.

Pimelodus catulus Girard, 1858a:208, pl. XLI: figs. 4–6.
Syntype
USNM 926 (1, 92.1 mm). Arkansas, Fort Smith; G.G. Schumard, 1853.
Syntypes
USNM 927 (MISSING). Arkansas, Fort Smith; G.G. Schumard, 1853.
Remarks: 5 specimens cited in original description; not found during 1980 inventory or this study.

Pimelodus confinis Girard, 1860:159.
Syntypes
USNM 1514 (7, 54.2–207 mm). Wisconsin, Racine, Root River; S.F. Baird.
Remarks: USNM ledger indicates that “some sent to ZMUC 1881” but only 8 specimens originally listed in ledger.
Syntypes
USNM 1515 (3, 62.5–153 mm). Wisconsin, Racine, Root River; S.F. Baird.
Remarks: USNM ledger cites 6 specimens; 3 specimens unaccounted for; see also remarks for USNM 1514.

Pimelodus cupreoides Girard, 1860:159.
Syntypes
USNM 1497 (4, 33.1–157 mm). Illinois, Aux Plaines; R. Kennicott.

Pimelodus dekayi Girard, 1860:160.
Syntype
USNM 1512 (MISSING). New York, Lake Ontario at Oswego; S.F. Baird.
Remarks: Not found during 1980 inventory or this study.
Syntypes
USNM 1513 (4, 36.3–122 mm). New York, 4 Mile Creek, near Oswego; S.F. Baird.
Remarks: USNM ledger cites 7 specimens; 3 specimens unaccounted for.

Pimelodus felinus Girard, 1858a:209.
Lectotype
USNM 924 (1, 106 mm). “Tributary of Gypsum Creek, Canadian”; H.B. Mollhausen, 1853.
Remarks: Lectotype designated by Jordan and Evermann (1896:140).
Paralectotypes
USNM 925 (MISSING). Arkansas, Coal Creek; H.B. Mollhausen, 1853.
Remarks: 2 specimens cited in original description; not found during 1980 inventory or this study.

Syntypes
USNM 1511 (2, 109–111 mm). Louisiana, Prairie Mer Rouge; J. Fairie.
Remarks: 3 specimens cited in ledger; 1 specimen unaccounted for.

Pimelodus houghi Girard, 1860:159.
Syntype
USNM 1532 (1, 241 mm). New York, St. Lawrence County, Summerville; F.B. Hough.

Pimelodus hoyi Girard, 1860:159.
Syntypes
USNM 1539 (3, 73.2–173 mm). Wisconsin, in the neighborhood of Racine, Dr. Hoy.
Remarks: USNM ledger cites 4 specimens and collection date as 1852; 1 specimen unaccounted for.

Pimelodus lupus Girard, 1858a:211.
Syntype
USNM 915 (1, 152 mm). From Indianola to Nueces [United States]; J. Pope, 1854.
Syntypes

Pimelodus marmoratus Holbrook, 1855:54, pl. VI: fig. 4.
Holotype
USNM 9031 (1, 185 mm). Georgia, Altamaha River.
Remarks: Originally deposited in “the collection of Prof. Agassiz at Cambridge, Massachusetts.”

Syntype
USNM 1535 (1, 137 mm). Alabama, Black Warrior River and Bigsby River; A. Winchell.
Remarks: 3 specimens cited in USNM ledger; 2 specimens unaccounted for.
Pimelodus olivaceus Girard, 1858a:211, pl. XLI: figs. 1–3; pl. XLI.

Syntypes
USNM 906 (3, 87.2–153 mm). Nebraska, Fort Pierre; J. Evans, 1853.
Remarks: 5 specimens cited in original description; 2 specimens unaccounted for.

Syntype
USNM 908 (1, 173 mm). Nebraska, Yellowstone; F.V. Hayden, 1854.
Remarks: 2 specimens cited in original description; 1 specimen unaccounted for.

Syntypes
USNM 907 (5, ?–125 mm). Near mouth of Poteau River; G.G. Shumard, 1853.
Remarks: 6 specimens cited in original description; 1 specimen unaccounted for; smallest specimen dehydrated at some point and now immeasurable.

Syntype
USNM 910 (1, 82.5 mm). Arkansas River, near Fort Smith; G.G. Shumard, 1853.

Syntype
USNM 911 (MISSING). Nebraska; Mr. Walker, 1856.
Remarks: Many specimens cited in original description, but only 1 listed in USNM ledger; specimen(s) not found during 1980 inventory or this study.

Syntype
USNM 909 (5, ?–125 mm). Near mouth of Poteau River; G.G. Shumard, 1853.
Remarks: 2 specimens reported in original description, 1 specimen unaccounted for; USNM 907 evidently erroneously recataloged as USNM 8449, labels containing each number are found in jar; tail missing from specimen.


Paralectotypes
USNM 1534 (5, 156–175 mm). South Carolina, Anderson; E. Daniel.
Remarks: Lectotype designated by Yerger and Relyea (1968:364); originally 7 specimens in lot; 1 specimen exchanged to MCZ; 1 specimen exchanged to ANSP.

Pimelodus puma Girard, 1860:160.

Holotype
USNM 1536 (1, 169 mm). South Carolina, Charleston; C. Girard.

Pimelodus vulpeculus Girard, 1860:160.

Holotype
USNM 1530 (1, 173 mm). South Carolina, Charleston; C. Girard.

Pimelodus vulpes Girard, 1858b:170.

Syntypes
USNM 843 (2, 108–115 mm). Texas, fresh water, rivers and streams.

 Remarks: USNM ledger lists collection data as Texas, Live Oak Creek; Major Emory; Girard (1859) cited collector as C.B. Kennerly.

Syntype
USNM 844 (MISSING). Texas, fresh water, rivers and streams.
Remarks: 1 specimen listed in USNM ledger and by Girard (1859) who cited collector as J.H. Clark; USNM ledger cites collection data as Texas, Camanche Spring; Col. Graham.

Syntypes
USNM 845 (4, 42.4–57.6 mm). Texas, fresh water, rivers and streams.
Remarks: 6 specimens listed in USNM ledger and by Girard (1859), 2 specimens unaccounted for; USNM ledger lists collection data as Rio Leon, Nueces; Col. Graham; Girard (1859) cited collector as J.H. Clark.

Syntype
USNM 846 (4, 39.1–67.0 mm). Texas, fresh water, rivers and streams.

Syntype
USNM 847 (MISSING). Texas, fresh water, rivers and streams.
Remarks: 1 specimen listed in USNM ledger and by Girard (1859) who cited collector as J.H. Clark; ledger lists collection data as Texas, Devil’s River; Col. Graham.

Syntype
USNM 848 (MISSING). Texas, fresh water, rivers and streams.
Remarks: 1 specimen listed in USNM ledger and by Girard (1859) who cited collector as J.H. Clark; ledger lists collection data as Camanche Spring; J.D. Graham, 1851.


Paratypes
USNM 164169 (3, 37.8–46.2 mm). Mexico, Coahuila, well at the base of Sierra de Santa Rosa, Muzquiz; C. Bolivar and J. Carranza, 29 Aug 1954.
Remarks: 1 specimen cleared and stained.

Schilbeodes hildebrandi Bailey and Taylor, 1950:32, pl. 1; pl. 2: figs. e, f.

Paratypes
USNM 112066 (4, 33.4–36.8 mm). Mississippi, Amite
County, Brushy Creek, 1 mi [1.6 km] above mouth in Homochitto River; M.K. and R.M. Bailey, 1 Apr 1948.
Remarks: Received from UMMZ, formerly UMMZ 155338, in part.

Schilbeodes marginatus atrorus Hubbs and Raney, 1944:10, pl. 1.
Paratypes
USNM 104091 (2, 52.5–56.0 mm). Virginia, Giles County, Sinking Creek, 3 mi [4.8 km] above its mouth in the New River; L.P. Schultz and E.D. Reid, 17 June 1937.

Holotype
USNM 5115 (1, 99.2 mm). Canada (West), St. Cather-ine’s; D.W. Beadle.

LORICARIIDAE

Acanthicus canensis Meek and Hildebrand, 1913:80.
Paratypes
USNM 78300 (14, 24.4–52.9 mm). Panama, Río Cana, Cana; S.E. Meek and S.F. Hildebrand.
Remarks: Probable paratypes; original description specifically cited only type (= holotype) but is based on more than one specimen; these specimens collected at type locality; 15 specimens cited in ledger; 1 specimen unaccounted for; USNM ledger cites collection date as 1 Mar 1912.

Ancistrus brevifilis bodenhameri Schultz, 1944a:305, pl. 10a
Holotype
USNM 121066 (1, 61.2 mm). Venezuela, Maracaibo basin, Río San Pedro at bridge S of Mene Grande, Río Motatán system; L.P. Schultz, 20 Mar 1942.
Paratypes
USNM 121067 (123, 22.4–64.8 mm). Venezuela, Maracaibo basin, Río San Pedro at bridge S of Mene Grande, Río Motatán system; L.P. Schultz, 20 Mar 1942.
Remarks: 132 specimens cited in original description; 3 specimens exchanged to MCZ Jul 1951; 6 specimens exchanged to UMMZ May 1944; taken with holotype.
Paratype
USNM 121068 (1, 25.3 mm). Venezuela, Maracaibo basin, Río San Juan, 12 km S of Rosario, Río Motatán system; L.P. Schultz, 26 Feb 1942.
Paratypes
USNM 121069 (2, 27.6–54.7 mm). Venezuela, Zulia, Maracaibo basin, Río Machango at bridge S of Lagunillas; L.P. Schultz, 16 Mar 1942.
Paratype
USNM 121299 (1, 26.9 mm). Venezuela, Maracaibo basin, Río San Juan, 12 km S of Rosario, Río Motatán system; L.P. Schultz, 26 Feb 1942.

Ancistrus lithurgicus Eigenmann, 1912a:241, fig. 3; pl. 25: fig. 3.
Paratype
USNM 66104 (1, 36.5 mm). British Guiana [= Guyana], Crab Falls; C.H. Eigenmann, 1908.
Remarks: Received from CM, presumably formerly CM 1525a-d, in part; taken with holotype.

Ancistrus pirareta Muller, 1989:891, fig. 2.
Paratypes
USNM 307766 (2, 63.2–65.5 mm). Paraguay, Alto Parana, Río Aparay, above the lake behind the dam (25°23’S, 54°42’W); C. Dlouhy, 15 May 1982.
Remarks: Taken with holotype.

Ancistrus piriformis Muller, 1989:887, fig. 1.
Paratypes
USNM 78312 (2, 163–180 mm). Panama, Río Tuyra, Boca de Cupe; S.E. Meek and S.F. Hildebrand.
Remarks: Probable paratypes; original description specifically cited only type (= holotype) but is based on more than one specimen; these specimens collected at type locality; USNM ledger cites collection date as 26 Feb 1912.
Paratypes
USNM 79137 (1, 147 mm). Panama, Río Tuyra, Boca de Cupe; S.E. Meek and S.F. Hildebrand.
Remarks: See comments under USNM 78312.
Paratypes
USNM 79138 (4, 24.6–50.1 mm). Panama, Tuyra River basin; S.E. Meek and S.F. Hildebrand.
Remarks: See comments under USNM 78312 concerning type status; these specimens collected near type locality; USNM ledger cites collection data as Darien, Satiganti, Cana; 1 Mar 1912.

Ancistrus triradiatus martini Schultz, 1944a:302, pi. 9c,d.
Holotype
USNM 121064 (1, 81.7 mm). Venezuela, Maracaibo basin, Río Cataumato system, Río Táchira, 7 km N of San Antonio; L.P. Schultz, 1 Apr 1942.
Paratype
USNM 120094 (1, 79.8 mm). Colombia, Maracaibo basin, Río Catatumbo system, Cúcuta; N. Maria.
Paratypes
USNM 121065 (2, 13.8–50.7 mm). Venezuela, Maracaibo basin, Río Catatumbo system, Río Táchira, 7 km...
Chaetostoma anomala sovichthys Schultz, 1944a:292, pl. 8a,b.

Holotype
USNM 121053 (1, 71.3 mm). Venezuela, Maracaibo basin, Río San Pedro at bridge, Motatán system; L.P. Schultz, 20 Mar 1942.

Paratypes
USNM 86262 (2, 20.3-36.7 mm). Venezuela, Maracaibo basin, Trujillo, Río Motatán near Valeria; H. Pittier, 1923.

Paratypes
USNM 121054 (15, 11.9-29.8 mm). Venezuela, Maracaibo basin, Río Motatán, 8 km below Motatán; L.P. Schultz, 24 Mar 1942.

Paratypes
USNM 121055 (20, 12.8-45.3 mm). Venezuela, Maracaibo basin, Río Motatán, 4 km above Motatán; L.P. Schultz, 25 Mar 1942.

Paratypes
USNM 121056 (94, 19.7-72.1 mm). Venezuela, Maracaibo basin, Río San Pedro at bridge, Motatán system; L.P. Schultz, 20 Mar 1942.

Remarks: 118 specimens cited in original description; 8 specimens exchanged to ZMA Mar 1958; 6 specimens exchanged to UMMZ May 1944, 10 specimens exchanged to MCZ Jul 1951; taken with holotype.

Paratypes
USNM 121057 (3, 17.3-44.7 mm). Venezuela, Maracaibo basin, Río Jimelres, 12 km E of Motatán, Río Motatán system; L.P. Schultz, 24 Mar 1942.

Paratypes
USNM 121058 (11, 43.9-62.6 mm). Venezuela, Maracaibo basin, Río San Juan above bridge S of Mene Grande, Río Motatán system; L.P. Schultz, 17 Mar 1942.


Chaetostoma tachiraensis Schultz, 1944a:288, pl. 7c,d.

Holotype
USNM 121052 (1, 58.4 mm). Venezuela, Estado de Táchira, Maracaibo basin, Río Catatumbo system, Río Táchira, 7 km N of San Antonio; L.P. Schultz, 1 Apr 1942.

Paratype
USNM 101612 (1, 86.8 mm). Colombia, Santander del Norte, Maracaibo basin, Río Pamplonita, near Cúcuta; N. María.

Chaetostomus anomalus Regan, 1903a:599.

Syntype
USNM 133135 (1, 90.8 mm). Venezuela, Albirregas and Milla rivers, above Merida; S. Briceño.

Remarks: Received from BMNH; formerly BMNH 1903.6.30:91-102, in part.

Cochlidon pospisili Schultz, 1944a:312, pl. 11c,d.

Holotype
USNM 121003 (1, 66.8 mm). Venezuela, Maracaibo basin, Río Palmar near Totuma, about 100 km SW of Maracaibo; L.P. Schultz, 21 Feb 1942.

Questionable Paratypes
USNM 121004 (6, 14.8-18.7 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.

Remarks: Status uncertain; comments in original description equivocal as to whether these are paratypes.

Paratype
USNM 121005 (1, 36.6 mm). Venezuela, Maracaibo basin, Río Motatán, 4 km above Motatán; L.P. Schultz, 25 Mar 1942.

Paratype
USNM 121006 (1, 13.9 mm). Venezuela, Maracaibo basin, Río Machango, at bridge; L.P. Schultz, 16 Mar 1942.

Paratypes
USNM 121007 (33, 16.3-46.7 mm). Venezuela, Maracaibo basin, Río Motatán at bridge, 22 km N of Motatán; L.P. Schultz, 17 Mar 1942.

Remarks: 46 specimens cited in original description; 4 specimens exchanged to ZMA, 3 specimens exchanged to MCZ Jul 1951, 4 specimens exchanged to G. Dahl Aug 1955, 2 specimens exchanged to O. Schindler Oct 1958.

Paratypes
USNM 121008 (23, 15.3-62.4 mm). Venezuela, Maracaibo basin, Río Machango, 20 km above bridge, S of Lagunillas; L.P. Schultz, 21 Mar 1942.

Remarks: 24 specimens cited in original description; 1 specimen exchanged to UMMZ Oct 1944.

Paratype
USNM 121009 (1, 26.8 mm). Venezuela, Maracaibo basin, Río Palmar at bridge 70 km SW of Maracaibo; L.P. Schultz, 6 Mar 1942.

Paratypes
USNM 121010 (13, 25.4-65.8 mm). Venezuela, Maracaibo basin, Río Palmar near Totuma, about 100 km SW of Maracaibo; L.P. Schultz, 21 Feb 1942.

Remarks: Taken with holotype.

Paratypes
USNM 121011 (11, 21.4-34.8 mm). Venezuela, Maracaibo basin, Río Motatán 8 km below Motatán; L.P. Schultz, 24 Mar 1942.

Corymbophanes venezuelae Schultz, 1944d:41, pl. 1: figs. 1-3.

Holotype
USNM 120752 (1, 72.5 mm). Venezuela, Río Caripe, Caripito; W. Beebe, 1942.
**Farlowella curtirostra** Myers, 1942:102, fig. 11.
Paratypes
   USNM 130635 (2, 59.0–80.0 mm). Venezuela, Río Monay, 35 km N of Trujillo.
   Remarks: Additional collection data in USNM ledger F.F. Bond, 14 Mar 1938; received from SU, formerly SU 36510, in part.

**Farlowella viitata** Myers, 1942:103, fig. 12.
Paratype
   USNM 130636 (1, 92.1 mm). Venezuela, tributaries of Río Uribanto, from San Cristóbal to the Llanos; F.F. Bond, 15 June 1938.
   Remarks: Taken with holotype; received from SU, formerly SU 36513, in part.

**Ilarttia loricariformis** Steindachner, 1877b:669, pi. VI: figs. 2, 2a, 2b.
Paralectotype
   USNM 120415 (1, 177 mm). Brazil, Río Parahyba; Thayer Expedition.
   Remarks: Lectotype designated by Isbrücker (1979:113); received from MCZ, presumably formerly MCZ 8118, in part. Complete collection information: Brazil, Río de Janeiro, Río Paraiba do Sul between Barra do Piraj and Três Rios (Dom Pedro II Railroad); L. Agassiz and D. Bourget, Apr 1865.

**Harttia microps** Eigenmann and Allen, 1942:211, pl. VIII: figs. 3, 4; pl. IX: fig. 1.
Paralectotype
   USNM 86820 (1, 165 mm). Peru, Iquitos; W.R. Allen, Sep 1920.
   Remarks: Isbrücker and Nijssen (1978:71) designated a lectotype after presenting evidence that two specimens were designated as the “type” in the original description; received from UKEN, through W.R. Allen; formerly IU 15380, in part; taken with lectotype.

**Harttia nijsseni** Boeseman, 1976:170, pl. 8.
Paratype
   USNM 216482 (1, 226 mm). Surinam, left tributary of the Nickerie River, a few km upstream from the Stondansi Falls; M. Boeseman, 30 Jan 1971.
   Remarks: Received from RMNH; formerly RMNH 26920, in part.

**Lasiancistrus brevispinis** Heitmans et al., 1983:38, figs. 4–7.
Paralectotype
   USNM 276368 (2, 60.9–117 mm). Surinam, Nickerie District, Stondansie Fall in Nickerie River; H. Nijssen, 5 Apr 1967.

**Lasiancistrus maracaiboensis** Schultz, 1944a:314, pl. 11a, b.
Holotype
   USNM 121038 (1, 118 mm). Venezuela, Maracaibo basin, Rio Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.
Paratypes
   USNM 121039 (17, 22.9–72.4 mm). Venezuela, Maracaibo basin, Rio Palmar near Totuma, about 100 km SW of Maracaibo; L.P. Schultz, 24 Feb 1942.
Paratypes
   USNM 121040 (50, 14.1–72.6 mm). Venezuela, Maracaibo basin, Rio Jimelles, 12 km E of Motatan, Motatan system; L.P. Schultz, 24 Mar 1942.
Remarks: 49 specimens cited in original description.
Paratypes
   USNM 121041 (2, 27.2–67.1 mm). Venezuela, Maracaibo basin, Rio Palmar at bridge, 70 km SW of Maracaibo; L.P. Schultz, 6 Mar 1942.

**Lasiancistrus stibaros** Isbrücker and Nijssen, 1976:66, figs. 8, 9.
Holotype
   USNM 167914 (1, 242 mm). Ecuador, Pastaza, Río Bobonaza at Chicherota (2°25'S, 76°38'W), upper Río Pastaza; R. Olalla, Jan 1954.
Paratypes
   USNM 217423 (1, 213 mm). Ecuador, Pastaza, Río Bobonaza at Chicherota (2°25'S, 76°38'W), upper Río Pastaza; R. Olalla, Jan 1954.

**Lasiancistrus maracaiboensis** Schultz, 1944a:317, pl. 10c.
Holotype
   USNM 121012 (1, 284 mm). Venezuela, Lago Maracaibo, near mouth of Río Concha; L.P. Schultz, 2 May 1942.
Paratypes
   USNM 121013 (2, 84.6–212 mm). Venezuela, cano ½ mi W of Sinamaica; L.P. Schultz, 11 Mar 1942.
Paratype
   USNM 121014 (EXCHANGED). Venezuela, Maracaibo basin, Río San Ignacio, 25 km S of Rosario; L.P. Schultz, 26 Feb 1942.
Remarks: 1 specimen cited in original description; exchanged to MCZ Jul 1951.

**Hypoptopoma guianense** Boeseman, 1974:259, fig. 1; pl. 1.
Paratypes
   USNM 213484 (2, 49.2–50.8 mm). Surinam, left tributary of the Nickerie River, a few km upstream from the Stondansi Falls; M. Boeseman, 30 Jan 1971.
Remarks: Received from RMNH; formerly RMNH 26920, in part.

**Hemiancistrus maracaiboensis** Schultz, 1944a:317, pl. 10c.
Holotype
   USNM 121012 (1, 284 mm). Venezuela, Lago Maracaibo, near mouth of Río Concha; L.P. Schultz, 2 May 1942.
caibo basin, Río San Juan near bridge S of Mene Grande, Río Motatán system; L.P. Schultz, 17-20 Mar 1942.

Paratypes
USNM 121043 (2, 37.1–45.8 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.

Paratypes
USNM 121044 (3, 29.9–40.7 mm). Venezuela, Maracaibo basin, Río Machango 20 km above bridge S of Lagunillas; L.P. Schultz, 21 Mar 1942.

Paratypes
USNM 121045 (71, 14.4–70.3 mm). Venezuela, Maracaibo basin, Río Motatan at bridge, 22 km N of Motatán; L.P. Schultz, 17 Mar 1942.

Remarks: 91 specimens cited in original description; 5 specimens exchanged to ZMA Mar 1958, 9 specimens exchanged to MCZ Jul 1951, 6 specimens exchanged to G. Dahl Aug 1955.

Paratype
USNM 121046 (1, 19.9 mm). Venezuela, Maracaibo basin, tributary to Río Machango near hot spring, 20 km above bridge S of Lagunillas; L.P. Schultz, 21 Mar 1942.

Paratypes
USNM 121047 (76, 14.3–48.2 mm). Venezuela, Maracaibo basin, Río Motatán 8 km below Motatán; L.P. Schultz, 24 Mar 1942.

Remarks: 85 specimens cited in original description; 9 specimens exchanged to UMMZ May 1944.

Paratypes
USNM 121048 (34, 26.3–91.4 mm). Venezuela, Maracaibo basin, Río Motatán, 4 km above Motatán; L.P. Schultz, 25 Mar 1942.

Paratypes
USNM 121049 (8, 64.9–110 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.

Remarks: Taken with holotype.

Paratypes
USNM 121050 (11, 24.2–90.3 mm). Venezuela, Maracaibo basin, Río San Pedro at bridge S of Mene Grande, Motatán system; L.P. Schultz, 20 Mar 1942.

Lithoxus lithoides Eigenmann, 1912a:242, pl. XXIX: figs. 1–4.

Paratypes
USNM 66223 (3, 29.7–44.8 mm). British Guiana [= Guyana], Amatuk; C.H. Eigenmann, 1908.

Remarks: Taken with holotype; received from CM, presumably formerly CM 1528a-j, in part.

Loricaria bransfordi Gill, 1877:338.

Holotype
USNM 16673 (1, ? mm). Panama, Empire Station; Dr. Bransford.

Remarks: Snout and jaws lost before original description.

Loricaria capetensis Meek and Hildebrand, 1913:80.

Paratype
USNM 78340 (1, 142 mm). Panama, Río Capeti; S.E. Meek and S.F. Hildebrand.

Remarks: Probable paratypes; original description specifically cited only type (= holotype) but is based on more than one specimen; these specimens collected at type locality; USNM ledger cites collection date as 5 Mar 1912.


Syntype
USNM 79219 (1, 207 mm). Colombia, Boca de Ceretegai; C.H. Eigenmann, Jan–Apr 1912.

Remarks: Received from CM, presumably formerly CM 3806, in part.

Loricaria griseus Eigenmann, 1909:8.

Paratype
USNM 66224 (1, 62.0 mm). British Guiana [= Guyana], Bartica sand bank; C.H. Eigenmann, 1908.

Remarks: Received from CM, presumably formerly CM 1506a-e, in part.

Loricaria gymnogaster Eigenmann and Vance in Eigenmann, 1912b:12.

Paratypes
USNM 79218 (2, 66.6–80.8 mm). Colombia, Giardot; C.H. Eigenmann, Jan–Apr 1912.

Remarks: Received from CM, presumably formerly CM 3839a-j, in part.

Loricaria gymnogaster lagoichthys Schultz, 1944a:331, pl. 13.

Holotype
USNM 121092 (1, 302 mm). Venezuela, Maracaibo basin, Río Palmar near Totuma, about 100 km SW of Maracaibo; L.P. Schultz, 21 Feb 1942.

Paratypes
USNM 121093 (3, 72.8–122 mm). Venezuela, Maracaibo basin, caño ½ mile W of Sinamaica; L.P. Schultz, 11 Mar 1942.

Paratypes
USNM 121094 (15, 56.8–101 mm). Venezuela, Maracaibo basin, Río Jimelles, 12 km E of Motatán, Río Motatán system; L.P. Schultz, 24 Mar 1942.

Paratypes
USNM 121095 (30, 18.8–91.2 mm). Venezuela, Maracaibo basin, Río Motatán, 8 km below Motatán; L.P. Schultz, 24 Mar 1942.
Remarks: 41 specimens cited in original description; 1 specimen exchanged to MBUCV Jun 1982, 10 specimens exchanged to MCZ Jul 1951.

Paratypes
USNM 121096 (19, 51.9-269 mm). Venezuela, Maracaibo basin, Río Palmar near Totuma, about 100 km SW of Maracaibo; L.P. Schultz, 21 Feb 1942.
Remarks: 18 specimens cited in original description; taken with holotype.

Paratypes
USNM 121097 (43, 52.4-259 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.

Paratypes
USNM 121098 (399, 21.0-138 mm). Venezuela, Maracaibo basin, Río Motatán at bridge, 22 km N of Motatán; L.P. Schultz, 17 Mar 1942.
Remarks: 433 specimens cited in original description; 6 specimens exchanged to ZMA Mar 1958, 15 specimens exchanged to UMMZ May 1944, 2 specimens exchanged to ZMUL Mar 1947, 5 specimens exchanged to FMNH Nov 1946, 6 specimens exchanged to G. Dahl Aug 1955.

Paratypes
USNM 121099 (4, 66.2-104 mm). Venezuela, Zulia, Maracaibo basin, Río Apón, about 35 km S of Rosario; L.P. Schultz, 26 Feb 1942.

Paratypes
USNM 121100 (3, 60.9-138 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.

Paratypes
USNM 121101 (13, 21.1-138 mm). Venezuela, Maracaibo basin, Río Palmar at bridge, 70 km SW of Maracaibo; L.P. Schultz, 6 Mar 1942.

Loricaria tucumanensis Isbrücker, 1979:98, fig. 14.
Holotype
USNM 88669 (1, 122 mm). Argentina, Tucuman, San Miguel de Tucuman (26°47'S, 65°15'W); Mr. and Mrs. R.C. Shannon.

Paratype
USNM 217426 (1, 113 mm). Argentina, Tucuman, San Miguel de Tucuman (26°47'S, 65°15'W); Mr. and Mrs. R.C. Shannon.
Remarks: Taken with holotype.

Loricaria tuyrensis Meek and Hildebrand, 1913:81.
Paratypes
USNM 78341 (3, 255-259 mm). Panama, Tuyra River basin; S.E. Meek and S.F. Hildebrand.
Remarks: Probable paratypes; original description specifically cited only type (= holotype) but is based on more than one specimen; these specimens collected near type locality. USNM ledger cites collection data as Darién, Río Tuyra at mouth of Yape; 28 Feb 1912.

Paratype
USNM 78342 (1, 285 mm). Panama, Tuyra River basin; S.E. Meek and S.F. Hildebrand.
Remarks: See comments under USNM 78341 concerning type status; USNM ledger cites collection data as Darién, Río Tuyra at mouth of Yape; 6 Mar 1912.

Paratypes
USNM 78343 (5, 242-275 mm). Panama, Tuyra River basin; S.E. Meek and S.F. Hildebrand.
Remarks: See comments under USNM 78341 concerning type status; USNM ledger cites collection data as Darién, Río Tuyra at mouth of Yape; 6 Mar 1912.

Loricaria uracantha rupestre Schultz, 1944a:325, pl. 12a,b.
Holotype
USNM 121102 (1, 78.6 mm). Venezuela, Maracaibo basin, Río San Pedro at bridge S of Mene Grande, Río Motatán system; L.P. Schultz, 25 Mar 1942.

Paratypes
USNM 121103 (4, 19.8-77.4 mm). Venezuela, Maracaibo basin, Río Motatán, 4 km above Motatán; L.P. Schultz, 25 Mar 1942.

Paratypes
USNM 121104 (34, 47.5-86.2 mm). Venezuela, Maracaibo basin, Río San Pedro at bridge S of Mene Grande, Río Motatán system; L.P. Schultz, 20 Mar 1942.
Remarks: Taken with holotype; 39 specimens cited in original description; 5 specimens exchanged to MCZ Jul 1951.

Paratypes
USNM 121105 (50, 28.5-90.2 mm). Venezuela, Maracaibo basin, Río San Juan above bridge S of Mene Grande, Río Motatán system; L.P. Schultz, 17 Mar 1942.
Remarks: 67 specimens cited in original description; 4 specimens exchanged to G. Dahl Aug 1955, 6 specimens exchanged to UMMZ May 1944, 5 specimens exchanged to FMNH Nov 1946; 2 specimens unaccounted for.

Paratypes
USNM 121106 (3, 38.2-89.7 mm). Venezuela, Maracaibo basin, Río Táchira, 7 km N of San Antonio, Catatumbo system; L.P. Schultz, 1 Apr 1942.

Paratypes
USNM 121107 (2, 24.3-27.9 mm). Venezuela, Maracaibo basin, Río Motatán, 8 km below Motatán; L.P. Schultz, 24 Mar 1942.

Loricaria variegata venezuelae Schultz, 1944a:329, pl. 12c.
Holotype
USNM 121108 (1, 162 mm). Venezuela, Maracaibo basin, Río Palmar at bridge, 70 km SW of Maracaibo; L.P.
Schultz, 6 Mar 1942.

Paratypes
USNM 121109 (45, 33.7-169 mm). Venezuela, Maracaibo basin, Río Palmar at bridge, 70 km SW of Maracaibo; L.P. Schultz, 6 Mar 1942.
Remarks: Taken with holotype; 50 specimens cited in original description; 5 specimens exchanged to MCZ Jul 1951.

Paratypes
USNM 121110 (58, 46.0-171 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.
Remarks: 73 specimens cited in original description; 4 specimens exchanged to UMMZ May 1944, 5 specimens exchanged to FMNH.

Paratypes
USNM 121111 (8, 6.9-151 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.
Remarks: Incorrectly cited in the original description as USNM 121108, the catalog number of the holotype.

Paratypes
USNM 121112 (25, 25.6-141 mm). Venezuela, Maracaibo basin, Río Apón, about 35 km S of Rosario; L.P. Schultz, 26 Feb 1942.
Remarks: 27 specimens cited in original description; 2 specimens exchanged to University of Rajasthan 26 Sep 1962.

Loricariichthys platymetopon Isbrücker and Nijssen, 1979:203, figs. 7, 8.
Holotype
USNM 181580 (1, 222 mm). Paraguay, Lago Ypacarai, San Bernardino (25°16'S, 57°16'W), Río Paraguay system; C.J.D. Brown, 16 Aug 1956.
Paratype
USNM 181437 (1, 142 mm).
Remarks: Not cited in material examined and no locality data given, but included as a paratype in Table 4 of Isbrücker and Nijssen (1979). USNM ledger cites collection data as Paraguay, Río Paraguay, near Asuncion Bay; C.J.D. Brown, 8 Jan 1957.

Paratypes
USNM 181755 (2, 271-296 mm). Paraguay, Río Paraguay, Asuncion Bay near Asuncion; C.J.D. Brown, 8 Jan 1957.
Remarks: USNM ledger cites collection data as 31 Jan 1957.

Paratype
USNM 181768 (1, 286 mm). Paraguay, Asuncion Bay, Río Paraguay near Asuncion (25°15’S, 57°40’W); C.J.D. Brown, 20 Dec 1956.

Neblinichthys pilosus Ferraris et al., 1986:70, figs. 1, 4, 5.
Paratypes
USNM 274486 (2, 50.1-57.7 mm). Venezuela, Territorio Federal Amazonas, Departamento Río Negro, Río Baria drainage, Río Mawariuma, at Neblina base camp (00°55’N, 66°10’W); C.J. Ferraris et al., 1 Feb 1984.

Otothyris canaliferus Myers, 1927:128.
Syntypes
USNM 92974 (3, 21.3-23.2 mm). Brazil, hills in vicinity Río de Janeiro; R. Brocca, 1924.
Remarks: Received from G.S. Myers.

Oxyloricaria citurensis Meek and Hildebrand, 1913:82.
Paratypes
USNM 78363 (2, 188-206 mm). Panama, Río Cupe, Cituro; S.E. Meek and S.F. Hildebrand.
Remarks: Probable paratypes; original description specifically cited only type (= holotype) but is based on more than one specimen; these specimens collected at type locality; USNM ledger cites collection date as 25 Feb 1912.

Panaque albomaculatus Kanazawa, 1958:327, fig. 1.
Holotype
USNM 167909 (1, 90.5 mm). Ecuador, Río Pucuno (0°47’S, 77°16’W), tributary of Río Suno, upper Río Napo; J. Olalla, Nov 1950.
Paratypes
USNM 167908 (4, 48-77.5 mm). Ecuador, Napo-Pastaza, Chicherota, Río Bobonaza (2°22’S, 76°36’W), upper Río Pastaza; R. Olalla, Jan 1954.
Paratype
USNM 167910 (1, 58 mm). Ecuador, Río Cotapino, tributary of Río Pucuno (0°40’S to 0°45’S, 77°17’W to 77°22’W).

Panaque suttoni Schultz, 1944a:308, pl. 10b.
Holotype
USNM 121033 (1, 280 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.
Paratype
USNM 121034 (1, 224 mm). Venezuela, Maracaibo basin, Río Motatán at bridge, 22 km N of Motatán; L.P. Schultz, 17 Mar 1942.
Paratypes
USNM 121035 (2, 31.0-265 mm). Venezuela, Maracaibo basin, Río Motatán at bridge, 22 km N of Motatán; L.P. Schultz, 17 Mar 1942.
Remarks: 3 specimens cited in original description; 1 specimen exchanged to MCZ Jul 1951.
Paratype
USNM 121075 (1, 53.0 mm). Venezuela, Maracaibo
basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.
Remarks: Taken with holotype.

*Parotocinclus collinsae* Schmidt and Ferraris, 1985:341, figs. 1-3.
Paratypes
USNM 265091 (2, 18.5-22.0 mm). Guyana, Essequibo, Essequibo River drainage, tributary to Takutu River, about 2 mi from Mazarahally Takutu lumber camp (6°15'N, 59°5'W); R.E. Schmidt and A. Pappantoniou, 17 Aug 1983.
Remarks: Taken with holotype.

*Parotocinclus* collinsae Schmidt and Ferraris, 1985:341, figs. 1-3.

*Paratocinclus* affinis Steindachner, 1877b:685.
Syntype
USNM 120428 (1, 190 mm). Brazil, Rio Mucury; Thayer Expedition, Hartt and Copeland.
Remarks: Received from MCZ, formerly MCZ 7893; complete collection information: Bahia, Rio Mucuri at Santa Clara; F.C. Hartt and E. Copeland, Dec 1865.

*Paratocinclus* bolivianus Pearson, 1924:21, pl. IV: figs. 1-3.
Paratype
USNM 117586 (1, 125 mm). Brazil, Rio Parahyba; Thayer Expedition, Hartt and Copeland.
Remarks: Received from UMMZ, formerly UMMZ 8179; complete collection information: Rio de Janeiro, Rio Paraiba do Sul between Barra do Pirai and Três Rios (Dom Pedro II Railroad); F.C. Hartt and E. Copeland, 1865.

*Paratocinclus* Johnii Steindachner, 1877b:691.
Syntypes
USNM 123009 (2, 87.9-129 mm). Brazil; Thayer Expedition, St. John.
Remarks: Received from MCZ, formerly MCZ 7831 or 7864, in part; 3 specimens cited in ledger; 1 specimen unaccounted for; complete collection information: Brazil, Bahia, Rio Poti (tributary of Rio Parnaiba), at Teresina; O. St. John, Dec 1865.

*Paratocinclus* vermicularis Eigenmann and Eigenmann, 1888:171.
Syntypes
USNM 123010 (3, 97.0-109 mm). Rio Parahyba.
Remarks: Received from MCZ, formerly MCZ 7850, in part; complete collection information: Brazil, Rio de Janeiro, Rio Paraiba do Sul between Barra do Pirai and Três Rios (Dom Pedro II Railroad); F.C. Hartt and E. Copeland, 1865.

*Pseudancistrus* pediculatus cobrensis Schultz, 1944a:299, pl. 9a,b.
Holotype
USNM 121036 (1, 78.7 mm). Venezuela, Rio Catatumbo system, Rio Cobre below La Grita, tributary to Rio Quinta; L.P. Schultz, 31 Mar 1942.
Paratypes
Remarks: 4820 specimens cited in original description; 30 specimens exchanged to ZMA Mar 1958, 60 specimens exchanged to UMMZ May 1944, 50 specimens exchanged to MCZ Jul 1951, 10 specimens exchanged to MBUCV Jul 1988; specimen count verified 1988; measurements taken from Schultz (1944a:299); taken with holotype.

*Pseudancistrus* torbesensis Schultz, 1944a:296 pl. 8C,D.
Holotype
USNM 121001 (1, 64.8 mm). Venezuela, Rio Orinoco system, Rio Torbes, 1 km above Tariba; L.P. Schultz, 31 Mar 1942.
Paratypes
USNM 121002 (160, 15.4-64.2 mm). Venezuela, Rio Orinoco system, Rio Torbes, 1 km above Tariba; L.P. Schultz, 31 Mar 1942.
Remarks: 174 specimens cited in original description; 2 specimens exchanged to MCZ Jul 1944, 3 specimens exchanged to UMMZ Oct 1944, 4 specimens exchanged to G. Dahl Aug 1955, 5 specimens exchanged to MBUCV Jul 1988; 2 specimens cleared and stained.

*Spatuloricaria* atratoensis Schultz, 1944b:155.
Holotype
USNM 93810 (1, 338 mm). Colombia, Rio Truando, tributary of Rio Atrato; N. Michler and A. Schott, 1857-1858.

*Spatuloricaria* phelpsi Schultz, 1944a:335, pl. 14.
Holotype
USNM 121121 (1, 338 mm). Venezuela, Maracaibo basin, Rio Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.

*Sturisoma festivum* Myers, 1942:100, figs. 8-10.
Paratypes
USNM 130637 (2, 146-162 mm). Venezuela, Maracaibo basin, Rio Motatán system, Rio Monay, 35 km N of Trujillo; F.F. Bond, 14 Mar 1938.
Remarks: Received from SU, formerly SU 36506, in part; taken with holotype.

MOCHOKIDAE

*Chiloglanis carnosus* Roberts and Stewart, 1976:282, fig. 5c, pl. 8b-d.

Paratypes
USNM 216372 (3, 39.3-47.4 mm). Zaire River, near Bulu, about 15 km downstream from Luozi (5°01'S, 14°01'E); T.R. Roberts and D.J. Stewart, 15 Jul and 18-19 Aug 1973.

Remarks: Received from MCZ, formerly MCZ 50241, in part.

*Chiloglanis sanagaensis* Roberts 1989a:169, figs. 1c, 2c, 3e,f, 6c,d, 9.

Paratypes
USNM 301202 (2, 20.5-33.9 mm). Cameroun, Sanaga basin, R. Nana, 23 km N of Bafia on route from Bafia to Bafoussam; T.R. Roberts, 1 Jan 1988.

Remarks: Received from MNHN, formerly MNHN 1988-1165.

PANGASIIDAE

*Pangasius beani* Smith, 1931:26.

Holotype
USNM 90308 (1, 150 mm). Siam [= Thailand], Klong Ban Poh, off Lopburi River, near Ayuthia; 26 Nov 1923.

*Pangasius cultratus* Smith, 1931:25.

Holotype
USNM 90306 (1, 215 mm). Siam [= Thailand], Tapi River, near Bandon; 30 Sep 1923.

Remarks: Cited as 225 mm SL in original description.

Paratype
USNM 90307 (1, 133 mm).

Remarks: No locality data in original description; USNM ledger cites collection data as Menam Chao Phya Bang Sai; H.M. Smith, 11 Nov 1923.

*Pangasius fowleri* Smith, 1931:28.

Holotype
USNM 90309 (1, 158 mm). Siam [= Thailand], Lopburi River at Lopburi; 22 Oct 1926.


Paratype
USNM 230299 (1, 197 mm). Borneo, Sintang market.


PARAKYSIDAE


Paratypes
USNM 230307 (5, 18.5-23.0 mm). Borneo, Kapuas River basin, small forest stream flowing into Kapuas River mainstream, 00°24'N, 111°51'E, NE of Gunung Setung-gul, 53 km NW of Sintang; T.R. Roberts, 16 Aug 1976.

PIMELODIDAE

*Brachyglanis melas* Eigenmann, 1912a:157, pl. XI: fig. 2.

Paratype
USNM 66124 (1, 35.1 mm). British Guiana [= Guyana], Crab Falls; C.H. Eigenmann, 1908.

Remarks: Received from CM, presumably formerly CM 1673-a, in part; taken with holotype.

*Brachyplatystoma goeldii* Eigenmann and Bean, 1907:661, fig. 1.

Holotype
USNM 52561 (1, 208 mm). Brazil, Amazon River, between Para and Manaos [= Manaus]; J.B. Steere, 1901.

*Cetopsorhamdia orinoco* Schultz, 1944a:225, pl. 3a.

Holotype
USNM 121214 (1, 53.5 mm). Venezuela, Río Orinoco system, Río Tárabo, 1 km above Tárabo; L.P. Schultz, 31 Mar 1942.

Paratypes
USNM 121215 (3, 32.8-50.9 mm). Venezuela, Río Orinoco system, Río Torbes, 1 km above Tárabo; L.P. Schultz, 31 Mar 1942.

Remarks: 4 specimens cited in original description; 1 exchanged to MCZ Jul 1951; taken with holotype.

*Cetopsorhamdia picklei* Schultz, 1944a:222, pl. 2d.

Holotype
USNM 121217 (1, 87.6 mm). Venezuela, Maracaibo basin, Río Motatán, 4 km above Motatán; L.P. Schultz, 25 Mar 1942.

Paratypes
USNM 121218 (3, 45.2-118 mm). Venezuela, Maracaibo basin, Río Motatán, 4 km above Motatán; L.P. Schultz, 25 Mar 1942.

Remarks: 37 specimens cited in original description; 3 specimens exchanged to MCZ Jul 1951, 4 specimens exchanged to ZMA Mar 1958; taken with holotype.

Paratypes
USNM 121219 (22, 36.8-77.5 mm). Venezuela, Maracaibo basin, Río San Juan near bridge S of Mene Grande, Motatán system; L.P. Schultz, 17 and 20 Mar 1942.


Paratypes
USNM 121220 (7, 53.2-95.4 mm). Venezuela, Maracaibo basin, Río Motatán, 8 km below Motatán; L.P. Schultz, 24 Mar 1942.
caibo basin, Río Palmar near Totuma, about 100 km SW of Maracaibo; L.P. Schultz, 21 Feb 1942.

Paratypes
USNM 121222 (24, 45.1–95.8 mm). Venezuela, Maracaibo basin, Río Jimelles, 12 km E of Motatán, Motatán system; L.P. Schultz, 24 Mar 1942.
Remarks: 29 specimens cited in original description; 5 specimens exchanged to UMMZ May 1944.

*Cetopsorhamdia shermani* Schultz, 1944a:220, pl. 2c.
Holotype
USNM 121216 (1, 29.9 mm). Venezuela, Estado de Aragua, Río Orinoco system, Río Guarico and tributaries between San Sebastián and San Casimiro; L.P. Schultz et al., 12 May 1942.

*Chasmocranus longior* Eigenmann, 1912a: 160, fig. 33; pi. XIV: fig. 2.
Paratype
USNM 66133 (1, 30.8 mm). British Guiana [= Guyana], Amatuk; C.H. Eigenmann, 1908.
Remarks: Received from CM, presumably formerly CM 1656a-c, in part; taken with holotype.

Paratype
USNM 308421 (1, 188 mm). Venezuela, N side of Isla Tres Caños near mouth of Caño Araguaito, 130 n mi from sea buoy (8°40'N, 61°59'W); 19 Feb 1978.
Paratype
USNM 308422 (1, 93 mm). Venezuela, near Los Castilllos, 161 n mi from sea buoy (8°31'N, 62°25'W); 10 Nov 1979.
Paratypes
USNM 308423 (7, 74–115 mm). Venezuela near mouth of Caño Guine downstream from El Consejo, 133 n mi from sea buoy (8°35'N, 62°02'W); 11 Nov 1979.
Paratype
USNM 320097 (1, 124 mm). Venezuela, near Puerto Cabrian, 151 n mi from sea buoy (8°35'N, 62°16'W); 11 Nov 1979.

*Gladioglanis conquistador* Lundberg et al., 1991:192, figs. 1–11.
Paratypes
USNM 306595 (2, 25.5–28.8 mm). Ecuador, Napo Province, Río Napo basin, Río Yasuni, tributary of Río Jatuncocha, est. 2 km upstream from Laguna Jatuncocha (1°0.1'S, 75°31.6'W); 26 Oct 1981.

*Gladioglanis machadoi* Ferraris and Mago-Leccia, 1989:167, figs. 1, 2.
Paratypes
USNM 268648 (8, 19.0–29.0 mm). Venezuela, Territorio Federal Amazonas, Departamento Río Negro, Caño Manu, tributary of Río Casiquiare, approximately 250 m upstream of Solano (02°00'N, 66°57'W); R.P. Vari et al., 7 Dec 1984.
Remarks: Taken with holotype; 2 specimens cleared and stained.

Paratypes
USNM 268647 (10, 19.0–31.5 mm). Venezuela, Territorio Federal Amazonas, Departamento Río Negro, small caño off Caño Urapi, just upriver of Santa Lucia (1°17'N, 66°51'W); R.P. Vari et al., 6 Dec 1984.
Remarks: 3 specimens cleared and stained.

*Imparales mariai* Schultz, 1944c:94, fig. 1.
Holotype
USNM 121251 (1, 38.5 mm). Colombia, Río Meta at Villavicencio; N. Maria.

Holotype
USNM 204692 (1, 62.3 mm). Panama, Veraguas, creek crossing road on S side of Santa Fe; H. Loftin and E.L. Tyson, 9 Feb 1962.
Paratypes
USNM 204693 (40, 23.4–71.5 mm). Panama, Veraguas, creek crossing road on S side of Santa Fe; H. Loftin and E.L. Tyson, 9 Feb 1962.

*Leptoglanis essequibensis* Eigenmann, 1912a:158, pl. XIII: fig. 2.
Paratype
USNM 66221 (1, 145 mm). British Guiana [= Guyana], Warraputa; C.H. Eigenmann, 1908.
Remarks: Received from CM, presumably formerly CM 1653a, in part.

*Megalonema platycalum psammium* Schultz, 1944a:216, pl. 2b.
Holotype
USNM 121175 (1, 133 mm). Venezuela, Río Palmar at bridge, 70 km SW of Maracaibo; L.P. Schultz, 6 Mar 1942.

Paratypes
USNM 121176 (10, 63.7–99.8 mm). Venezuela, Maracaibo basin, Río Apón, about 35 km S of Rosario; L.P. Schultz, 26 Feb 1942.

Paratypes
USNM 121177 (41, 34.5–118 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.
Remarks: 46 specimens cited in original description; 2 specimens exchanged to MBUCV Apr 1979, 3 speci-
mens exchanged to UMMZ 1944.

Paratypes:
USNM 121178 (15, 73.8–104 mm). Venezuela, Río Palmar at bridge, 70 km SW of Maracaibo; L.P. Schultz, 6 Mar 1942.
Remarks: Taken with holotype.

**Megalonema punctatum** Meek and Hildebrand, 1913:77.

Paratypes:
USNM 78279 (2, 220–236 mm). Panama, Río Tuyra basin.
Remarks: Probable paratypes; original description specifically cited only type (= holotype) but is based on more than one specimen; USNM ledger cites collection data as: Río Tuyra, Marrigante; Meek and Hildebrand, 6 Mar 1912.

**Megalonema robustum** Meek and Hildebrand, 1913:78.

Paratype:
USNM 78278 (1, ? mm). Panama, Tuyra River basin.
Remarks: Probable paratype; original description specifically cited only type (= holotype) but is based on more than one specimen; this specimen collected near type locality; tail missing; USNM ledger cites collection data as: Río Tuyra, Boca de Yape; Meek and Hildebrand, 6 Mar 1912.

**Megalonema xanthum** Eigenmann, 1912b:16.

Paratypes:
USNM 76930 (24, 47.5–121 mm). Colombia, Apulo; C.H. Eigenmann, Jan-Apr 1912.
Remarks: Received from IU, presumably formerly IU 12682a-z, in part.
Paratypes:
USNM 79222 (5, 59.1–103 mm). Colombia, Giardot; C.H. Eigenmann, Jan-Apr 1912.
Remarks: Received from CM, presumably formerly CM 4822a-j, in part.
Paratypes:
USNM 167852 (5, 87.5–113 mm). Colombia, Apulo; C.H. Eigenmann, Jan-Apr 1912.
Remarks: Received from UKEN through W.R. Allen, presumably formerly IU 12682a-z, in part.

**Microglanis iheringi** Gomes, 1946:9, pl. 1.

Paratypes:
USNM 121985 (2, 30.5–30.6 mm). Venezuela, Aragua, Río Turmero, near Turmero; V. Barnes, Jr., 24 Sep 1937.
Remarks: Taken with holotype; smaller specimen cited as 26 mm SL in original description.

**Microglanis poecilus** Eigenmann, 1912a:155, pl.XII: fig. 2.

Paratype:
USNM 66123 (1, 23.4 mm). British Guiana [= Guyana], below Packeeo Falls; C.H. Eigenmann, 1908.
Remarks: Received from CM, presumably formerly CM 1676a-b, in part; taken with holotype.

**Microglanis variegatus** Eigenmann and Henn in Eigenmann et al., 1914:14.

Paratype:
USNM 83653 (1, 28.4 mm). Ecuador, forest pool near Vinces; A. Henn, 1913.
Remarks: Received from IU.

**Myoglanis potaroensis** Eigenmann, 1912a:159, pl. XIV: fig. 1.

Paratype:
USNM 66225 (1, 28.4 mm). British Guiana [= Guyana], Tukeit; C.H. Eigenmann, 1908.
Remarks: Received from CM, presumably formerly CM 1665a-d, in part; taken with holotype.

**Nannorhamdia lineata** Bussing, 1970:1, fig. 1.

Paratype:
USNM 194230 (1, 57.0 mm). Costa Rica, Río Salamá Nuevo (?) at Interamerican Highway; A. Greenberg, 21 Jan 1963.

Paratypes:
USNM 204694 (2, 58.4–69.5 mm). Costa Rica, Puntarenas Province, Quebrada 36, 12 km W of Pueblo Río Claro at Interamerican Highway; W. Bussing and O. Blanco B., 5 Jan 1967.

**Nannorhamdia macrocephala** Miles, 1943:25.

Paratypes:
USNM 120157 (3, 13.9–26.0 mm). Colombia, Upper Río Cauca.
Remarks: Additional collection data from USNM ledger: Juanchito, Cali; C. Miles, 14 Dec 1942; received from C. Miles.

**Nemuroglanis pauciradiatus** Ferraris, 1988:510, fig. 1.

Paratype:
USNM 268645 (1, 19.5 mm). Venezuela, Territorio Federal Amazonas, Departamento Río Negro, rocky pools on island in center of Río Negro (01°57'N, 67°03'W); R.P. Vari et al., 4 Dec 1984.

Paratype:
USNM 268646 (1, 24.5 mm). Venezuela, Territorio Federal Amazonas, Departamento Ature, caño about 15 km S of El Burro, on road from Puerto Ayacucho to El Burro (06°02'S, 67°23'W); R.P. Vari et al., 9 Dec 1984.

**Perrunichthys perruno** Schultz, 1944a:230, fig. 3d; pl. 3b.

Holotype:
USNM 121189 (1, 270 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.
Paratype
USNM 121200 (1, ~620 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.
Remarks: Taken with holotype.

*Pimelodella chagresi odynea* Schultz, 1944a:213, pl. 2a.

Holotype
USNM 121133 (1, 88.6 mm). Venezuela, Maracaibo basin, Río San Juan above bridge S of Mene Grande, Río Motatán system; L.P. Schultz, 17 or 20 Mar 1942.
Paratype
USNM 82618 (1, 42.3 mm). Venezuela, Sierra de Perija; T. de Booy.
Paratype
USNM 101610 (1, 83.9 mm). Colombia, Santander del Norte, Maracaibo basin, Río Pamplonita, near Cúcuta; N. María.
Remarks: USNM ledger cites collection date as “probably 1935.”
Paratypes
USNM 121134 (47, 43.8–80.3 mm). Venezuela, Maracaibo basin, Río Motatán, 22 km N of Motatán; L.P. Schultz, 17 Mar 1942.
Remarks: 50 specimens cited in original description; 3 specimens exchanged to G. Dahl Aug 1955.
Paratypes
USNM 121135 (2, 52.1–61.0 mm). Venezuela, Maracaibo basin, Río Apón, about 35 km S of Rosario; L.P. Schultz, 26 Feb 1942.
Paratypes
USNM 121136 (103, 23.2–71.8 mm). Venezuela, Maracaibo basin, Río Motatán, 8 km below Motatán; L.P. Schultz, 24 Mar 1942.
Paratypes
USNM 121137 (3, 70.1–77.3 mm). Venezuela, Río Motatán system, Río San Pedro at bridge; L.P. Schultz, 20 Mar 1942.
Paratypes
USNM 121138 (3, 51.1–80.5 mm). Venezuela, Maracaibo basin, Río Machango at bridge S of Lagunillas; L.P. Schultz, 16 Mar 1942.
Paratype
USNM 121139 (1, 74.2 mm). Venezuela, Maracaibo basin, Río Catatumbo system, Río Táchira, 7 km N of San Antonio; L.P. Schultz, 1 Apr 1972.
Paratypes
USNM 121140 (86, 28.6–90.4 mm). Venezuela, Maracaibo basin, Río Motatán, 4 km above Motatán; L.P. Schultz, 25 Mar 1942.
Remarks: 88 specimens cited in original description; 2 specimens exchanged to MBUCV Apr 1979.
Paratypes
USNM 121141 (24, 49.0–92.1 mm). Venezuela, Maracaibo basin, Río Motatán system, Río San Juan above bridge S of Mene Grande; L.P. Schultz, 17 and 20 Mar 1942.
Remarks: 26 specimens cited in original description; 2 specimens exchanged to UMMZ Oct 1944.
Pimelodus clarias coprophagus Schultz, 1944a:203, fig. 2.

Holotype
USNM 121150 (1, 163 mm). Venezuela, Río Agua Caliente, 2 to 3 km above SW corner of Lago Maracaibo; L.P. Schultz, 1 May 1942.

Paratypes
USNM 121145 (6, 120–157 mm). Venezuela, Río de Los Pajaros, 3 km above Lago Maracaibo; L.P. Schultz, 30 Apr 1942.

Paratype
USNM 121146 (1, 127 mm). Venezuela, Maracaibo basin, Río Motatán, 8 km below Motatán; L.P. Schultz, 24 Mar 1942.

Paratypes
USNM 121147 (19, 116–153 mm). Venezuela, Maracaibo basin, Río Palmar near Totuma, about 100 km SW of Maracaibo; L.P. Schultz, 21 Feb 1942.

Remarks: 25 specimens cited in original description; 4 specimens exchanged to FMNH 1983, 2 specimens exchanged to UMMZ Oct 1944.

Paratypes
USNM 121148 (31, 117–192 mm). Venezuela, Maracaibo basin, Río Apón, about 35 km S of Rosario; L.P. Schultz, 26 Feb 1942.

Paratypes
USNM 121149 (5, 163–175 mm). Venezuela, Maracaibo basin, caño ½ mi W of Sinamaica; L.P. Schultz, 26 Feb 1942.

Paratypes
USNM 121151 (9, 115–169 mm). Venezuela, Maracaibo basin, Río Motatán at bridge, 22 km N Motatán; L.P. Schultz, 17 Mar 1942.


Paratype
USNM 121152 (1, 196 mm). Venezuela, Ciénaga del Guanavana, about 10 km N of Sinamaica; L.P. Schultz, 11 Mar 1942.

Paratypes
USNM 121153 (6, 127–194 mm). Venezuela, Río Agua Caliente, 2–3 km above the SW corner of Lago Maracaibo; L.P. Schultz, 1 May 1942.

Remarks: Taken with holotype.

Paratypes
USNM 121154 (8, 133–173 mm). Venezuela, Lago Maracaibo, 7 km S of Maracaibo; L.P. Schultz, 6 Mar 1942.

Remarks: 10 specimens cited in original description; 2 specimens exchanged to ZMA Mar 1958.

Paratypes
USNM 121155 (7, 118–192 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.

Paratypes
USNM 121156 (9, 124–217 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.

Remarks: Tag written by Schultz indicates 9 specimens in jar, but 15 specimens listed in USNM ledgers and cited in original description.

Paratypes
USNM 121157 (5, 108–160 mm). Venezuela, Río Palmar at bridge, 70 km SW of Maracaibo; L.P. Schultz, 6 Mar 1942.

Paratypes
USNM 121158 (2, 229–240 mm). Venezuela, Lago Maracaibo, 1 km off Pueblo Viejo; L.P. Schultz, 7–9 Apr 1942.

Paratypes
USNM 121159 (2, 121–146 mm). Venezuela, Lago Maracaibo at Yacht Club, Maracaibo; L.P. Schultz, 5 Mar 1942.

Pimelodus grosskopfii navarroii Schultz, 1944a:207, pl. 1c.

Holotype
USNM 121174 (1, 251 mm). Venezuela, Río Palmar at bridge, 70 km SW of Maracaibo; L.P. Schultz, 6 Mar 1942.

Paratype
USNM 101614 (1, 175 mm). Colombia, Río Pamplonita, near Cúcuta, Río Catatumbo system; N. María.

Paratypes
USNM 121172 (16, 60.6–193 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.

Remarks: 17 specimens cited in original description; 1 specimen exchanged to MBUCV Apr 1979.

Paratypes
USNM 121173 (3, 75.3–146 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.

Remarks: 4 specimens cited in original description; 1 specimen exchanged to MCZ Jul 1951.

Platysilurus malarmo Schultz, 1944a:234, fig. 3g, pl. 3c.

Holotype
USNM 121179 (1, 318 mm). Venezuela, Lago Maracaibo, near mouth of Río Concho; L.P. Schultz, 2 May 1942.

Paratypes
USNM 121180 (2, 225–322 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 6 Mar 1942.

Remarks: 4 specimens cited in original description; 2 specimens exchanged to MCZ Jul 1951.
Schultz, 26 Feb 1942.
Remarks: 4 specimens cited in original description; 1 specimen exchanged to UMMZ Oct 1944.

Paratypes
USNM 121182 (3, 280–324 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.
Remarks: 4 specimens cited in original description; 1 specimen exchanged to MBUCV Apr 1979.

Paratype
USNM 121201 (1, 555 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.

*Pseudariodes pantherinus* Lütken, 1875:192.
Syntype
USNM 44970 (1, 141 mm). Venezuela, Caracas.
Remarks: Received from C. Lütken; original description did not indicate number of syntypes; other syntypes at ZMUC (Nielsen, 1974:50).

*Pseudopimelodus albomarginatus* Eigenmann, 1912a:153, pl. XI: fig. 1.
Paratype
USNM 66266 (1, 25.4 mm). British Guiana [= Guyana], Tukeit; C.H. Eigenmann, 1908.
Remarks: Received from CM, presumably formerly CM 1681a-d, in part; taken with holotype.

*Pseudopimelodus villosus butcheri* Schultz, 1944a:199, pl. 1b.
Holotype
USNM 121270 (1, 108 mm). Venezuela, Maracaibo basin, Río San Juan near bridge S of Mene Grande, tributary to Río Motatán; L.P. Schultz, 17 and 20 March 1942.
Paratypes
USNM 121271 (22, 29.3–68.7 mm). Venezuela, Maracaibo basin, Río San Pedro near bridge S of Mene Grande, Río Motatán system; L.P. Schultz, 20 March 1942.
Remarks: 25 specimens previously cited in ledger; 3 specimens exchanged to ZMA Mar 1958.

Paratypes
USNM 121272 (2, 39.3–43.7 mm). Venezuela, Maracaibo basin, Río Motatán, at bridge, 22 km N of Motatán; L.P. Schultz, 17 and 20 Mar 1942.

Paratypes
USNM 121273 (46, 29.8–174 mm). Venezuela, Maracaibo basin, Río San Juan near bridge S of Mene Grande, tributary to Río Motatán; L.P. Schultz, 17 March 1942.
Remarks: 58 cited in original description; 1 specimen exchanged to MBUCV Apr 1979, 5 specimens exchanged to MCZ Aug 1944, 3 specimens exchanged to G. Dahl Aug 1955, 3 specimens exchanged to UMMZ.

*Paratypes*
USNM 121274 (6, 15.8–62.6 mm). Venezuela, Maracaibo basin, Río Socuy, 3 km above mouth; L.P. Schultz, 24 Feb 1942.

Paratype
USNM 121275 (1, 37.8 mm). Venezuela, Maracaibo basin, Río Palmar, near Totuma, about 100 km SW of Maracaibo; L.P. Schultz, 21 Feb 1942.

Paratypes
USNM 121276 (11, 34.4–60.9 mm). Venezuela, Maracaibo basin, Río Machango, 20 km above bridge, S of Lagunillas; L.P. Schultz, 21 March 1942.

Paratype
USNM 121277 (1, 94.8 mm). Venezuela, Maracaibo basin, Río Palmar, at bridge, 70 km SW of Maracaibo; L.P. Schultz, 6 Mar 1942.

Paratype
USNM 121278 (1, 27.2 mm). Venezuela, Maracaibo basin, Río Jimelles 12 km E of Motatán, tributary of Río Motatán; L.P. Schultz, 24 Mar 1942.

Paratypes
USNM 121279 (5, 19.8–75.9 mm). Venezuela, Río Catatumbo system, Río Táchira, 7 km N of San Antonio; L.P. Schultz, 1 Apr 1942.

Paratypes
USNM 121280 (2, 33.8–185 mm). Venezuela, Maracaibo basin, Río Motatán, 8 km below Motatán; L.P. Schultz, 24 Mar 1942.

*Rhamdella rusbyi* Pearson, 1924:12, pl. II: fig. 4.
Syntypes
USNM 86829 (3, 135–183 mm). Bolivia, Río Colorado, Lower Bopi; N.E. Pearson, Sep 1921.
Remarks: Received through C.H. Eigenmann, presumably formerly IU 17275, in part. Pearson cited a “type” (= holotype) and “paratypes,” but “type” was not identified. Thus, all specimens in lot are treated as syntypes.

Syntype
USNM 117603 (1, 169 mm). Bolivia, Río Colorado, Lower Bopi; N.E. Pearson, Sep 1921.
Remarks: Received from UMMZ, formerly UMMZ 66321, in part; originally from IU, presumably formerly IU 17275, in part. See comments under USNM 86829 concerning type status.

*Rhamdia bransfordii* Gill, 1877:337.
Holotype
USNM 16674 (1, 183 mm). Panama, Camp Marie Caretta; J.F. Bransford, Jan 1875.

Syntype
USNM 120433 (1, 167 mm). Mexico, Yucatan, Ikil
Cenote, near Chichen-Itza; L.J. Cole, 1904.
Remarks: Received from MCZ, formerly MCZ 29072, in part.

**Rhamdia dorsalis** Gill, 1870:94.
Holotype
USNM 35334 (1, 172 mm). Rio Marafion or Rio Napo; J. Orton.

**Rhamdia gilli** Starks, 1906:769, pl. LXV: fig. 1.
Holotype
USNM 53472 (1, 125 mm). Peru, Rio Eten, Eten; P.O. Simons, 1898–1899.
Remarks: Status of this specimen somewhat ambiguous. Starks (1906:770) stated “The type is 155 mm in entire length and the cotype 110. The latter is deposited in the U.S. National Museum, Cat No. 53472; the cotype in Stanford University Museum.” USNM 53472 is 152 mm total length. Thus, it appears that Starks erroneously associated this catalog number with 110 mm total length paratype.

**Rhamdia guatemalensis decolor** Hubbs, 1936:201, pl. 1: fig. 3.
Paratypes
USNM 117602 (2, 97–114 mm). Mexico, Yucatan, San Bulha Cave, Motul; 1932.
Remarks: Received from UMMZ, formerly UMMZ 102125, in part.

**Rhamdia guatemalensis muriei** Hubbs, 1935:7, pl. IV: fig. 1.
Holotype
USNM 117598 (2, 108–129 mm). Guatemala, Department of Petén, Uaxactun, Rio Hondo system; J. Van Tyne and A. Murie, 20–21 Apr 1931.
Remarks: Received from UMMZ, formerly UMMZ 97882, in part.

**Rhamdia guatemalensis stygaea** Hubbs, 1936:203, pl. 1: fig. 2.
Paratype
USNM 117599 (1, 81.3 mm). Mexico, Yucatan, San Isidro Cave in Salar Colony, near Merida; 1932.
Remarks: Received from UMMZ, formerly UMMZ 102112, in part.

**Rhamdia luigiana** Villa, 1977:133, figs. 1–3.
Holotype
USNM 217535 (1, 152 mm). Nicaragua, Departamento de Granada, Lake Nicaragua, between Ometepe and Zapatera islands; J. Villa et al., 6 Nov 1976.
Paratype
USNM 217549 (1, 130 mm). Nicaragua, Departamento de Granada, Lake Nicaragua, between Ometepe and Zapatera islands; J. Villa et al., 6 Nov 1976.
Remarks: Taken with holotype.

**Sciades mormoratus** Gill, 1870:95.
Possible Holotype
USNM 8447 (1, ?). Rio Marafion or Rio Napo; J. Orton.
Remarks: Head and attached skin.

**Sorubimichthys Ortoni** Gill, 1870:94.
Holotype
USNM 8238 (1, ~470 mm). Rio Marafion or Rio Napo; J. Orton.

**Sovichthys abuelo** Schultz, 1944a:191, pl. 1a.
Holotype
USNM 121183 (1, 214 mm). Venezuela, Rio de Los Pajeros, 3 km above Lago Maracaibo; L.P. Schultz, 30 Apr 1942.
Paratypes
Remarks: 4 specimens cited in original description; 2 specimens exchanged to ZMA Mar 1958.

**S. abuelo**
Paratypes
USNM 121185 (3, 170–179 mm). Venezuela, Rio Palmar at bridge, 70 km SW of Maracaibo; L.P. Schultz, 6 Mar 1942.

**Sovichthys abuelo**
Paratypes
USNM 121186 (2, 140–156 mm). Venezuela, caño ½ mi [=0.8 km] W of Sinamaica; L.P. Schultz, 11 Mar 1942.

**S. abuelo**
Paratypes
USNM 121187 (3, 31.8–147 mm). Venezuela, Ciénaga del Guanavana, about 10 km N of Sinamaica; L.P. Schultz, 11 Mar 1942.

**S. abuelo**
Paratypes
USNM 121188 (3, 169–185 mm). Venezuela, Río Agua Caliente, 2 to 3 km above Lago Maracaibo; L.P. Schultz, 1 May 1942.

**S. abuelo**
Paratypes
USNM 121198 (4, 118–189 mm). Venezuela, Río de Los Pajeros, 3 km above Lago Maracaibo; L.P. Schultz, 30 Apr 1942.
Remarks: Taken with holotype.

**S. abuelo**
Paratypes
USNM 122111 (14, 124–174 mm). Venezuela, Maracaibo basin, Río Apón, about 35 km S of Rosario; L.P. Schultz, 26 Feb 1942.
Remarks: 17 specimens cited in original description; 2 specimens exchanged to MCZ Jul 1951, 1 specimen exchanged to UMMZ Oct 1944.
Taenionema steerei Eigenmann and Bean, 1907:662, fig. 2.
Holotype
USNM 52571 (1, 238 mm). Brazil, Amazon River between Para and Manaos [= Manaus]; J.B. Steere, 1901.

PLOTOSIDAE

Oloplotosus luteus Gomon and Roberts in Roberts, 1978:47, fig. 25.
Holotype
USNM 217107 (EXCHANGED). Papua New Guinea, shallow turbid backwater of Ok Tedi and lowermost half km of small tributary about 16 km NE of Ningerum, 915 km upriver from Toro Pass (5°34.1’S, 141°15.0’E); T.R. Roberts, 2 Nov 1975.
Remarks: Exchanged to AMS in trust for Government of Papua New Guinea; originally cited as 122.8 mm.
Paratype
USNM 217108 (1, 140 mm). Papua New Guinea, side channel of Ok Tedi, 3 km above confluence with Ok Menga, 39 km NNE of Ningerum, 943 km upriver from Toro Pass (5°21.2’S, 141°16.9’E); T.R. Roberts, 5 Nov 1975.
Remarks: 2 specimens originally in lot, a 123 mm specimen exchanged to Kanudi Fisheries Station, Papua New Guinea.

Plotosus nkunga Gomon and Taylor, 1982:3, pl. 1.
Paratype
USNM 219606 (1, 171 mm). South Africa, Xora.
Paratypes
USNM 226490 (3, 443–510 mm). South Africa, Kasouga, eastern Cape (33°39’S, 26°44’E).
Remarks: USNM ledger cites collector as G.P. Bezuidenhout, Feb 1980; largest specimen is a dry skeleton.

SCHILBIIDAE

Eutropius eclipsis Fowler, 1919:270, fig. 12.
Holotype
USNM 42342 (1, 150 mm). Africa, Angola, Quanza River at Cunga; W.H. Brown, 29 Dec 1889.
Paratypes

Scoloplacidae

Scoloplax dolichophila Schaefer et al., 1989:196, figs. 9, 10.
Paratypes
USNM 300628 (7, 9.5–11.6 mm). Brazil, Amazonas, an igarapé, tributary of Rio Tarumazinho, ~45 km N of Manaus (2°42’S, 60°03’W); Expedição Permanente da Amazônia; H.A. Britski, 18 Nov 1967.
Remarks: Taken with holotype; 2 specimens cleared and stained.
Paratypes
USNM 300630 (1, 11.2 mm). Brazil, Amazonas, an igarapé, tributary of Rio Tarumazinho, ~45 km N of Manaus (2°42’S, 60°03’W); Expedição Permanente da Amazônia; H.A. Britski, 18 Nov 1967.
Remarks: Taken with holotype; specimen cleared and stained.

Scoloplax empousa Schaefer et al., 1989:194, figs. 7, 8.
Paratypes
USNM 300625 (5, 13.9–16.8 mm). Brazil, Mato Grosso, Rio Ivinheima, 70 km upstream from its confluence with the Rio Paraná and Rio dos Bandeirantes (22°35’S, 53°30’W); O. Schindler, 8 May 1938.
Remarks: Taken with holotype.
Paratypes
USNM 300626 (2, 13.1–14.2 mm). Brazil, Mato Grosso, Rio Ivinheima, 70 km upstream from its confluence with the Rio Paraná and Rio dos Bandeirantes (22°35’S, 53°30’W); O. Schindler, 8 May 1938.
Remarks: Taken with holotype; specimens cleared and stained.
Paratypes
USNM 300627 (2, 15.1–16.4 mm). Brazil, Mato Grosso, Rio Ivinheima, 70 km upstream from its confluence with the Rio Paraná and Rio dos Bandeirantes (22°35’S, 53°30’W); O. Schindler, 8 May 1938.
Remarks: Taken with holotype; specimens cleared and stained.
SILURIDAE

Glanis aristotelis Agassiz, 1856:333.

Syntype
USNM 55895 (1, 180 mm). Greece, Acheloüs [= Aspro] River, Acamania; Dr. Roesser.
Remarks: Garman (1890) claimed that this name was unavailable as it was not accompanied by a description; he proposed the name Silurus aristotelis for the same specimens; see also under that account; received from MCZ, 1906.


Paratype

Kryptopterus minor Roberts, 1989b:149, fig. 115.

Paratypes
USNM 230288 (7, 55.5–60.0 mm). Borneo, Sungai Landak at Ngabang, 83 km ENE of Pontianak (0°23.5'N, 109°53'E); T.R. Roberts, 15 Jul 1976.
Remarks: Only 4 specimens reported in original description, but 7 received at USNM; 1 specimen cleared and stained.

Kryptopterus moorei Smith, 1945:342, fig. 78.

Holotype
USNM 109787 (1, 195 mm). Siam [= Thailand], a small klong off Menam Chao Phya, near Paknampo; 26 Nov 1923.
Paratype
USNM 109671 (MISSING).
Remarks: 1 specimen cited in original description; not found during 1980 inventory or this study; locality not cited in description; USNM ledger cites collection data as Siam [= Thailand], C. Klong Ban Poh, off Menam Chao Phya, Paknampo; H.M. Smith, 25 Nov 1923.

Paratype
USNM 109672 (MISSING).
Remarks: 1 specimen cited in original description; not found during 1980 inventory or this study; see comments under USNM 109671 with respect to locality.

Paratype
USNM 109786 (1, 136 mm).
Remarks: Locality not cited in description; USNM ledger cites collection data as Siam [= Thailand], Klong Ban Poh, off Menam Chao Phya, Paknampo; H.M. Smith, 26 Nov 1923.

Silurus aristotelis Garman, 1890:56.

Syntype
USNM 55895 (1, 180 mm). Greece, Acheloüs [= Aspro] River, Acamania; Dr. Roesser.
Remarks: See comments under Glanis aristotelis.

SISORIDAE

Exostoma Feae Vinciguerra, 1890:256 (125 in reprint), pl. VIII: fig. 6.

Syntypes
USNM 44743 (3, 59.6–92.3 mm). Birmania [= Burma, = Myanmar], Ta motivational Ladd; L. Fea, 1885.
Remarks: Received from L. Fea, locality on tag with specimens reads Mü Carin.

Exostoma macropterus Vinciguerra, 1890:253 (125 in reprint), pl. VIII: fig. 5.

Syntype
USNM 44805 (1, 54.1 mm). Birmania [= Burma, = Myanmar], Mü Catcin; L. Fea, 1885.
Remarks: Cited as syntype in USNM ledger; received from L. Fea.

Glyptothorax buchanani Smith, 1945:402, fig. 89.
Holotype
USNM 117754 (1, 52.8 mm). Siam [= Thailand], Metum, tributary of the Mechem, tributary of the Meping; A.R. Buchanan, 20 Jun 1935.
Paratypes
USNM 119824 (1, 35.1 mm). Siam [= Thailand], Metum, tributary of the Mechem, tributary of the Meping; H.G. Deignan.
Remarks: 2 specimens cited in original description; 1 specimen exchanged to MCZ Jul 1951.

Glyptothorax callopterus Smith, 1945:400, fig. 87.
Holotype
USNM 109820 (1, 50.3 mm). Siam [= Thailand], waterfall stream on Kao Chong, near Trang; 2 Sep 1933.
Paratypes
USNM 109819 (2, 46.2–46.8 mm).
Remarks: No collection data in original description; USNM ledger cites collection data as Siam [= Thailand], waterfall stream on Kao Chong near Trang; H.M. Smith, 2 Sep 1933.

Glyptothorax coheni Ganguly et al., 1972:342, figs. 3, 4.
Holotype
USNM 205612 (1, 66.0 mm). India, Subarnarekha River, Bihar, 200 m below Getalsud Dam; N.C. Datta, 24 Jun 1968.
Paratypes
USNM 205613 (1, 69.8 mm). India, Subarnarekha River, Bihar, 200 m below Getalsud Dam; N.C. Datta, 24 Jun 1968.
Remarks: Taken with holotype; 2 specimens cited in original description, but only 1 received at NMNH.
Glyptothorax nelsoni Ganguly et al., 1972:341, figs. 1, 2.
Holotype
USNM 205611 (1, 60.7 mm). India, Subarnarekha River, Bihar, 200 m downstream from Namkum railway station; N.C. Datta, 23 Oct 1967.

TRICHOMECTERIDAE

Branchioica magdalenae Miles, 1943:33 (footnote).
Paratype
USNM 120142 (1, 7 mm). Colombia, Río Magdalena.
Remarks: Specimen received dehydrated; USNM ledger includes additional collection data as: Honda; C. Miles, Feb 1943; received from C. Miles.

Branchioica phaneronema Miles, 1943:32, fig. 8.
Paratype
USNM 120141 (1, 26.2 mm). Colombia, Upper Río Cauca.
Remarks: USNM ledger includes additional collection data as: Virginia; C. Miles, 14 Oct 1942.

Hatcheria maldonadoi Eigenmann, 1927:39, pl. VIII: figs. 2–2b.
Paratypes
USNM 84344 (2, 45.4–50.0 mm). Chile, Río Nonguen, Concepción; 20 Mar 1919.
Remarks: Received from IU, presumably formerly IU 15058, in part.

Paratypes
USNM 167872 (9, 29.9–57.0 mm). Chile, Río Nonguen, Concepción; 20 Mar 1919.
Remarks: Received from UKEN, through W.R. Allen; presumably formerly IU 15058, in part.

Homodiaetus haemomyzon Myers, 1942:98, fig. 4.
Paratype
USNM 130638 (1, 49.5 mm). Venezuela, lagoon 10 km S of San Fernando de Apuré; F.F. Bond, 17 Feb 1938.
Remarks: Taken with holotype; presumably a paratype, no catalog numbers given in original description; received from SU, formerly SU 36503, in part.

Paratype
USNM 130632 (1, 26.5 mm). Venezuela, Río Guarico at Calabozo; F.F. Bond, 12 Feb 1938.
Remarks: Presumably a paratype, no catalog numbers given in original description; received from SU, formerly SU 36501, in part.

Megalecintor echthrus de Pinna and Britski, 1991:116, figs. 3, 4a,b.
Paratype
USNM 316024 (1, 46.1 mm). Brazil, Río Purus, Caitai; M. Goulding, Jul 1980.

Syntypes
USNM 167864 (83, 25.3–77.9 mm). Bolivia, Río de Atocha, Atocha; W.R. Allen, Feb 1919.
Remarks: Received from UKEN, through W.R. Allen; presumably formerly IU 17819, in part. Allen cited a "type and paratypes" as IU 17819, but did not identify the type (= holotype). His illustrations of the species list three different "types," so we treat this series as syntypes.

Pygidium banneaui Eigenmann, 1912b:19.
Paratypes
USNM 79234 (3, 25.3–26.2 mm). Colombia, Bernal Creek, near Honda; C.H. Eigenmann, Jan–Apr 1912.
Remarks: Received from CM, presumably formerly CM 4816a–z, in part.

Pygidium banneaui maracaiboensis Schultz, 1944a:262, pl. 6b.
Holotype
USNM 121227 (1, 43.7 mm). Venezuela, Maracaibo basin, Río Motatán system, Río San Juan at bridge, S of Mene Grande; L.P. Schultz, 17 and 20 Mar 1942.

Paratypes
USNM 121228 (5, 29.8–55.7 mm). Venezuela, Maracaibo basin, Río Motatán system, Río San Juan at bridge S of Mene Grande; L.P. Schultz, 17 and 20 Mar 1942.
Remarks: Taken with holotype.

Paratypes
USNM 121230 (MISSING). Venezuela, Maracaibo basin, Río Palmar near Totuma, about 100 km SW of Maracaibo; L.P. Schultz, 21 Feb 1942.
Remarks: 1 specimen cited in original description.

Paratypes
USNM 121231 (2, 33.2–65.4 mm). Venezuela, Maracaibo basin, Río Machango, 20 km above bridge, S of Lagunillas; L.P. Schultz, 25 Mar 1942.
Remarks: 16 specimens cited in original description; 3 specimens exchanged to MCZ Jul 1951, 1 specimen exchanged to UMMZ Oct 1944.

Pygidium barbouri Eigenmann, 1911:214, pl. XXXII.
Paratypes
USNM 120289 (4, 29.9–31.0 mm). Bolivia, upper reaches of Beni River at La Paz; T. Barbour.
Remarks: Received from MCZ, formerly MCZ 29314, in part.
Pygidium bogotense Eigenmann, 1912b:18.
Paratypes
USNM 79232 (10, 47–63 mm). Colombia, Chapinero; C.H. Eigenmann, Jan–Apr 1912.
Remarks: Received from CM, presumably formerly CM 4821a–z, in part.

Pygidium chapmani Eigenmann, 1912b:18.
Paratypes
USNM 79233 (3, 52.5–87.9 mm). Colombia, Boquia; C.H. Eigenmann, Jan–Apr 1912.
Remarks: Received from CM, presumably formerly CM 4818a–i, in part.

Pygidium chiltoni Eigenmann, 1927:40, pi. VIII: figs. 1–la; pi XIII: figs. 5, 6.
Paratypes
USNM 84350 (2, 72.5–81.0 mm). Chile, Estero Nonguen, Concepcion; 20 Mar 1919.
Remarks: Received from IU, presumably formerly IU 15039, in part.

Pygidium emanueli emanueli Schultz, 1944a:259, pl. 5c.
Holotype
USNM 121223 (1, 173 mm). Venezuela, Maracaibo basin, Estado de Mérida, Río Chama at Estanquies; L.P. Schultz, 3 Apr 1942.
Paratypes
USNM 121224 (33, 52.0–169 mm). Venezuela, Maracaibo basin, Estado de Mérida, Río Chama at Estanquies; L.P. Schultz, 3 Apr 1942.
Remarks: Taken with holotype; 51 specimens cited in original description; 5 specimens exchanged to MCZ July 1951, 1 specimen exchanged to S. Hora, 2 specimens exchanged to ZMA Mar 1958, 5 specimens exchanged to UMMZ May 1944, 2 specimens exchanged G. Dahl Aug 1955, 3 specimens unaccounted for.

Pygidium emanueli motatanensis Schultz, 1944a:260, pl. 6a.
Holotype
USNM 121232 (1, 71.2 mm). Venezuela, Maracaibo basin, Río Motatán system, Río San Juan at bridge, S of Mene Grande; L.P. Schultz, 17 and 20 Mar 1942.
Paratypes
USNM 121233 (4, 42.5–55.8 mm). Venezuela, Maracaibo basin, Río Motatán system, Río San Juan at bridge S of Mene Grande; L.P. Schultz, 17 and 20 Mar 1942.
Remarks: Taken with holotype; 5 specimens cited in original description; 1 specimen exchanged to MCZ.

Pygidium mondolfi Schultz, 1945:29, fig. 1.
Holotype
USNM 120377 (1, 60.5 mm). Venezuela, Estado de Miranda, Río Tuy system, Quebrada Chacaito near Caracas; E. Mondolfi and Sr. Vivas, 16 Jul 1939.
Paratypes
USNM 120378 (2, 33.0–45.5 mm). Venezuela, Estado de Miranda, Río Tuy system, Quebrada Chacaito near Caracas; E. Mondolfi and Sr. Vivas, 16 Jul 1939.

Pygidium striatum Meek and Hildebrand, 1913:78.
Paratypes
USNM 78374 (4, 35.5–61.6 mm). Panama, Río Cana, Cana; S.E. Meek and S.F. Hildebrand.
Remarks: Probable paratypes; original description specifically cited only type (= holotype) but is based on more than one specimen; these specimens collected at type locality. USNM ledger cites collection date as 29 Feb 1912.

Stenolicmus sarmientoi Pinna and Starnes, 1990:77, figs. 1, 2.
Holotype
USNM 301664 (1, 29.5 mm). Bolivia, Departamento Beni, Ballivian Province, Río Matos, below road crossing, 48 km E San Borja (14°55'S, 66°17'W); M. Brun et al., 28 Aug 1987.
Paratypes
USNM 301663 (2, 21.1–21.3 mm). Bolivia, Departamento Beni, Ballivian Province, Río Matos, below road crossing, 48 km E San Borja (14°55'S, 66°17'W); M. Brun et al., 28 Aug 1987.
Remarks: One specimen cleared and stained.

Trichomycterus macraei Girard, 1855:245.
Syntype
USNM 1546 (1, ?). Near Uspallata [Argentina]; Lieutenant MacRae.
Remarks: 3 specimens cited in original description and USNM ledger; 2 specimens unaccounted for; specimen twisted, unmeasurable.

*Trichomycterus meridae* Regan, 1903b:624.
Syntype
USNM 133136 (1, 60.0 mm). Venezuela, Río Albiregga, above Merida; S. Briceño.
Remarks: Received from BMNH Sep 1946; formerly BMNH 1903.6.30:77-80, in part.

*Tridens melanops* Eigenmann and Eigenmann, 1889:53.
Syntype
USNM 41522 (1, ~17 mm). Içá; James.
Remarks: Received from MCZ, formerly MCZ 8137, in part; complete collection information: Brazil, Amazonas, Río Ica (tributary of Río Solimões) near Brazilian-Colombian border; W. James and “Talisman,” Nov 1865.
Syntypes
USNM 120296 (3, ~17-26 mm). Içá; James.

Remarks: See comments under USNM 41522 concerning origin of specimens and complete collection information; 4 specimens cited in USNM ledger; 1 specimen unaccounted for; 1 specimen incomplete.

*Tridens similis venezuelae* Schultz, 1944a:267, pl. 6c.
Holotype
USNM 121290 (1, 19.5 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.
Paratypes
USNM 121291 (22, 13.9-20.4 mm). Venezuela, Maracaibo basin, Río Negro below mouth of Río Yasa; L.P. Schultz, 2 Mar 1942.
Remarks: 28 specimens cited in original description; 1 specimen exchanged to UMMZ Oct 1944, 3 specimens exchanged to MCZ Jul 1951, 2 specimens unaccounted for; 3 specimens stained with alizarin red, 2 of which also are cleared; taken with holotype.
Literature Cited

Agassiz, L.

Axelrod, H.R.

Bailey, R.M., and D.J. Stewart

Bailey, R.M., and W.R. Taylor

Baird, F.S., and C. Girard

Barbour, T., and L.J. Cole

Bean, T.H.


Boeseman, M.


Böhlke, J.E.


Bornbusch, A.H., and J.G. Lundberg

Boulenger, G.A.


Burgess, W.E.
1982. Corydoras adolfi, a New Species of Catfish (Siluriformes, Callichthyidae) from the Upper Rio Negro, Brazil, Near Sao Gabriel da Cachoeira. Tropical Fish Hobbyist, 30(7):15–16.


Busking, W.A.

Carranza, J.

Collette, B.B.

Collette, B.B., N.V. Parin, and M.S. Nizinski
1992. Catalog of Type Specimens of Recent Fishes in the National Museum of Natural History, Smithsonian Institution, 3: Beloniformes (Teleostei), Smithsonian Contributions to Zoology, 525: 16 pages.

Cope, E.D.

Dean, B.

Douglas, N.H.

Eisenmann, C.H.


1912b. Some Results of an Ichthyological Reconnaissance of Colombia, South America. Indiana University Studies, 10(8):1–27.


Eigenmann, C.H., and W.R. Allen
1942. Fishes of Western South America; 1: The Intercoastal and Amazonic Lowlands of Peru; II: The High Pampas, Bolivia, and Northern Chile; With a Revision of the Peruvian Gymnodiidae, and of the Genus Orestias. 494 pages, plates 1-22. Lexington: University of Kentucky.

Eigenmann, C.H., and B.A. Bean

Eigenmann, C.H., and R.S. Eigenmann

Eigenmann, C.H., and W.R. Allen

Eigenmann, C.H., and R.E. Jenkins

Ferraris, C.J., Jr.

Ferraris, C.J., Jr., and B.A. Brown

Ferraris, C.J., Jr., and M. Failla

Ferraris, C.J., Jr., and F. Mago-Leccia

Ferraris, C.J., Jr., I.J.H. Ishbäcker, and H. Nijssen

Ganguly, D.N., N.C. Datta, and S. Sen

Garmann, S.

Géry, J.

Gianferrari, L.

Gilbert, C.H.


Gilbert, C.H., and E.C. Starks

Gill, T.


Girard, C.


1859. United States and Mexican Boundary Survey under Order of Lt. Col.


Gomes, A.L.


Gomor, J.R., and W.R. Taylor


Goldline, W.A.


Greenwood, P.H., D.E. Rosen, S.W. Weitzman, and G.S. Myers


Heimans, W.R.B., H. Nijssen, and I.J.H. Isbrücker


Higuchi, H.

Ms. An Updated List of Ichthyological Collecting Stations of the Thayer Expedition to Brazil (1865–1866). [Manuscript deposited in Library, Museum of Comparative Zoology, Harvard University.]

Higuchi, H., E.G. Reis, and F.G. Araújo


Hildebrand, S.F.


Hildebrand, F.C.


Hubbs, C.L.


Hubbs, C.L., and R.R. Miller


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Lundberg, J.G., A.H. Bornbusch, and F. Mago-Leccia


Lundberg, J.G., and F. Mago-Leccia


Lundberg, J.G., F. Mago-Leccia, and P. Nuss


Lüden, C.

1875. Ichthyographische Beiträge, II: Nye eller mindre vel kjendte maller-

Mago-Leccia, F.

Mago-Leccia, F., J.G. Lundberg, and J.N. Baskin

Myers, G.S.

Meek, S.E., and S.F. Hildebrand
1913. New Species of Fishes from Panama. Field Museum of Natural History, Zoological Series, Publication 166, 10(8):77-91.


Miles, C.W.


Miranda Ribeiro, P. de

Muller, S.

Myers, G.S.


Nichols, J.T., and F.R. LaMonte

Nielsen, J.G.

Nijsen, H.


1989a. Systematic Revision and Description of New Species of Sucker-


1981. The Description and Ontology of a New Species of Gephyroglanis (Siluriformes, Bagridae) from the Olifants River, South West Cape, South Africa. Annals of the Cape Provincial Museums (Natural History), 13(15):217-250.


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