

Subfamily Serrasalminae

(Pacus and piranhas)

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Serrasalminae have a deep, laterally compressed body with a series of mid-ventral abdominal spines and, except in *Colossoma*, *Piaractus*, and *Mylossoma*, an anteriorly-directed spine just before the dorsal fin. Some species possess only one row of teeth on each jaw. These teeth are interlocking, sharp and pointed; tricuspid in *Pygocentrus*, *Pristobrycon* and *Serrasalmus*, pentacuspoid in *Pygopristis*. Teeth are mammiliform and pointed out of the mouth in *Catoprion*. All other species have two rows of teeth on the upper jaw and often a pair of conical teeth just behind the main row of the lower jaw. In *Acnodon*, *Colossoma*, *Piaractus*, *Metynnis*, *Myleus*, *Mylossoma*, and *Utiaritchthys*, teeth are molariform, heavily attached to the jaw, and mainly used to grind fruits and seeds. In *Mylesinus*, *Ossubtus* and *Tometes*, teeth are incisiform and tricuspid, weakly attached to the jaw and mainly used to cut leaves. During breeding period, *Acnodon*, *Metynnis*, *Myleus*, *Mylesinus*, *Ossubtus*, *Tometes*, and *Utiaritchthys* exhibit sexual dimorphism in the form of a supplementary lobe of the anal fin, dorsal fin rays elongated into long filaments or a red pattern on the body.

During the two last decades, several works were devoted to species or generic revisions (Géry, 1986, Machado-Allison & Fink, 1991, Machado-Allison & Castillo, 1992, Fink, 1993, Fink & Zelditch, 1997, Zarske & Géry, 1999), to regional revisions (Géry, 1972, Jégu & Santos, 1988a, Machado-Allison & Fink, 1996, Géry, Manhart & Dlouhy, 1987, Britski, Silomon & Lopes, 1999) and to the description of new taxon (Fink & Machado-Allison, 1992, 2001, Jégu 1992, Jégu & Santos 1988b, 1990, Machado-Allison, Fink, Lopez Rojas & Rodenas, 1993, Merckx, Jégu & Santos, 2000). Recent works on anatomy, morphology and biological development (Machado-Allison 1982, 1986, Machado-Allison, Fink & Antonio, 1989, Fink & Zelditch, 1996) made very important progress in Serrasalminae systematics (Machado-Allison, 1983, 1985, Machado-Allison, Fink & Antonio, 1989). New data from cytotaxonomy (Porto et al., 1989, 1992), host-parasites relationships (Van Every & Kritsky, 1992), shape analysis (Fink & Zelditch, 1996) and molecular data (Orti et al., 1996) have been applied to the study of the phylogenetic relationships within Serrasalminae.

Serrasalminae include 80 valid species, (of which 8 are Incertae Sedis), and 15 genera. *Serrasalmus* (28 species), *Myleus* (15 species) and *Metynnis* (11 species) are the largest genera, whereas *Catoprion*, *Colossoma*, *Ossubtus*, *Pygopristis*, and *Tometes* are each monotypic. The longest species of Serrasalminae, reaching about 70 to 80 cm in standard length, belong to *Colossoma* and *Piaractus* and the shortest species reach about 18 to 20 cm SL. The primary body-shape variability concerns body depth, which varies from one-third to greater than 100 % standard length.

The distribution of Serrasalminae is strictly Neotropical and their presence everywhere else in the world is the result of introduction. The Amazon basin harbors all the serrasalmin genera but only six occur in Paraguay-Paraná basin and three in São Francisco basin. Distribution areas of *Acnodon*, *Colossoma*, *Mylesinus*, *Ossubtus*, *Pristobrycon*, *Pygopristis*, *Utiaritchthys*, and *Tometes* are limited to Amazon basin, Orinoco basin and coastal drainages of the Guianas. Serrasalmine species occur in all freshwater biotopes, except in very narrow forest brooks and benthic areas of deep rivers.

The development of commercial fisheries and farming of serrasalmines has resulted in an increase of knowledge on biology of commercial species (Araujo Lima & Goulding, 1997), on growth biology (Loubens & Panfili, 1997, 2001, Le Comte et al., 1993), on respiratory metabolism (Almeida-Val et al., 1992), on foods habits (Boujard et al., 1990, Santos et al., 1997, Leite & Araujo Lima, 2000), on reproduction biology (Le Bail et al., 1989, Lamas & Godinho, 1996, Viera et al., 1999), on parasitology (Kritsky et al., 1996, 1997, Thatcher, 1991, 1993) and on cytogenetic (Cestari & Galetti Jr., 1992, Nakayama et al., 2000, 2001).

This subfamily has been well studied in the floodplains and easily accessible areas along the main rivers. During the past thirty years, surveys in more difficult areas, such as rapids of the headwater streams, have broadened the known distribution of poorly known species or genera and led to the discovery of additional species. Several undescribed species of Guiana and the Central Brazilian shields can be found in museum collections and additional ones are likely to be captured. New techniques, such as cytogenetics or population genetics, may reveal new data on species distinctiveness and distribution limits in supposedly well-known areas.

Colossoma, *Piaractus* and *Mylossoma* species are widely regarded as a high-quality food fish in South America. These are the most important species of the subfamily in commercial fishing and in farming.

Tometes, *Mylesinus* and some *Myleus* species are among the most important fishes for Amerindian people of the Guianian

Shield. *Metynnis* species are recognized as aquarium fishes. Victims of their bad reputation, piranhas, mainly *Serrasalmus* and *Pygocentrus* species, are caught and dried to be sold as souvenirs.

ACNODON

Acnodon Eigenmann, 1903: 147. Type species: *Myleus oligacanthus* Müller & Troschel, 1844. Type by original designation. Gender: masculine.

Acnodon normani Gosline, 1951

Acnodon normani Gosline, 1951: 43, pl. 3; fig. 5b. Type locality: Rio Santa Teresa, a western tributary of the upper Rio Tocantins, State of Goiás, Brazil. Holotype: CAS 20223.

Maximum length: 13.5 cm SL

Distribution: South America: Amazon, Xingu and Tocantins River basins.

Countries: Brazil

Remarks and references: See Leite & Jégu (1990) for food habits.

Common names: Pacu (Brazil)

Acnodon oligacanthus (Müller & Troschel, 1844)

Myleus oligacanthus Müller & Troschel, 1844: 98. Type locality: Surinam. Holotype: ZMB 3635. Appeared with more details in Müller & Troschel (1845: 40, pl. 8, fig. 4).

Maximum length: 20 cm TL

Distribution: South America: North Guiana Shield rivers.

Countries: French Guiana, Guyana, Suriname

Remarks and references: See Géry (1972: 197-203, figs. 30-33) for detailed description on allometry. See Planquette et al. (1996) and Ouboter & Mol (1993) for detail distribution.

Common names: Agouéti (French Guiana), Apinipélé (French Guiana), Laku (French Guiana), Pakusin (French Guiana), Stone fisi (French Guiana)

Acnodon senai Jégu & Santos, 1990

Acnodon senai Jégu & Santos, 1990: 195, fig. 6D. Type locality: Plage à la pointe de l'île de Carapatinho, rio Jari, Amapá, Brésil (0°35'45"S, 52°38'20"W) [= Beach at downstream Carapatinho Island, Jari River, Amapá, Brazil]. Holotype: INPA 2680.

Maximum length: 13.2 cm SL

Distribution: South America: Jari River basin.

Countries: Brazil

Remarks and references: See Leite & Jégu (1990) for food habits.

CATOPRION

Catoprion Müller & Troschel, 1844: 96. Type species: *Serrasalmus mento* Cuvier, 1819. Type by monotypy. Gender: masculine.

Catoprion mento (Cuvier, 1819)

Serrasalmus mento Cuvier, 1819: 369, pl. 28 (fig. 3). Type locality: Venu de Lisbonne, probablement du Brésil. Holotype: MNHN A.9869 (poor condition).

Mylesinus macropterus Ulrey, 1894: 611. Type locality: Brazil. CU 3267 Originally described on a single specimen as above, later described as new based on two specimens in Ulrey (1895: 296).

Maximum length: 15 cm SL

Distribution: South America: Amazon, Orinoco, Essequibo, and upper Paraguay River basins.

Countries: Bolivia, Brazil, Colombia, Guyana, Venezuela

Remarks and references: See Nelson (1961: 610) for swim bladder morphology. See Viera & Géry (1979) and Sazima (1983) for scale-eating.

Common names: Catirina (Brazil), Pacu-piranha (Brazil), Palometa caribe (Venezuela)

COLOSSOMA

Colossoma Eigenmann & Kennedy, 1903: 530. Type species: *Myletes oculus* Cope, 1872. Type by original designation (in

footnote) Gender: neuter. Also appeared in Eigenmann (1903: 148).

Waiteina Fowler, 1907: 473. Type species: *Myletes nigripinnis* Cope, 1878. Type by original designation. Gender: feminine. See Machado-Allison (1982: 42) and (Géry 1986: 99) for synonymy.

Melloina Campos, 1946: 219. Type species: *Melloina tambaqui* Campos, 1946. Type by original designation. Gender: feminine.

Colossoma macropomum (Cuvier, 1818)

Myletes macropomus Cuvier, 1818: 453, pl. 21 (fig. 3). Type locality: très probablement originaire des rivières du Brésil. Holotype: MNHN A.8626 (dry).

Salmo tambaqui Kner, 1860: 21. Not available, mentioned in passing under *Myletes macropomus* Cuvier.

Myletes oculus Cope, 1872: 268, pl. 12 (fig. 2). Type locality: Río Ambyiacu, Peru. Lectotype: ANSP 7991, designated by Fowler (1907: 472).

Myletes nigripinnis Cope, 1878: 693. Type locality: probably from Nauta, Peruvian Amazon, Peru. Lectotype: ANSP 21124, designated by Fowler (1907: 473, fig. 55).

Melloina tambaqui Campos, 1946: 220, fig. 3. Type locality: Rio Tapajós, Taperinha, Pará, Brazil. Holotype: MPEG unnumbered. Maximum length: 99.5 cm TL

Distribution: South America: Amazon and Orinoco basins as wild form; pisciculture form largely distributed in South America.

Countries: Bolivia, Brazil, Colombia, Cuba (introduced), Dominican Republic (introduced), Honduras (introduced), Jamaica (introduced), Panama (introduced), Peru, Venezuela

Remarks and references: See Machado-Allison (1982: 42), Géry (1986: 97) and Machado-Allison (1986: 2) for detailed description. See Goulding & Carvalho (1982) and Araujo Lima & Goulding (1997) for general biology and management. See Loubens & Panfili (1997) for growth biology.

Common names: Bocó (Brazil), Cachama (Venezuela), Cachama negra (Colombia, Venezuela), Gamitana (Colombia), Pacu (Bolivia), Ruelo (Brazil), Tambaqui (Brazil)

METYNNIS

Metynnis Cope, 1878: 692. Type species: *Metynnis luna* Cope, 1878. Type by monotypy. Gender: .

Myleocollops Eigenmann, 1903: 147. Type species: *Metynnis goeldii* Eigenmann, 1903. Type by original designation. Gender: masculine. Proposed as subgenus of *Metynnis*.

Sealeina Fowler, 1907: 478. Type species: *Myletes lippincottianus* Cope, 1870. Type by original designation. Gender: feminine.

Metynnis altidorsalis Ahl, 1923

Metynnis altidorsalis Ahl, 1923a: 22. Type locality: Paramaribo, Suriname. Holotype: ZMB 19626.

Maximum length: 11.2 cm SL

Distribution: South America: North and eastern Guiana Shield rivers.

Countries: French Guiana, Guyana, Suriname

Metynnis argenteus Ahl, 1923

Metynnis argenteus Ahl, 1923a: 24. Type locality: Rio Tapajós, b. Borin [= b. Borim, Amazon system, Brazil]. Holotype: ZMB 20676. Holotype figured in Zarske & Géry 1999: fig. 25. See Zarske & Géry (1999: 200) for detailed description.

Metynnis eigenmanni Ahl, 1923a: 25. Type locality: Rio Tapajós, b. Borin [= near by Borim, Amazon system, Brazil]. Holotype: ZMB 20677. Holotype figured in Zarske & Géry (1999: fig. 26). See Zarske & Géry (1999: 201, 213) for detailed description and synonymy.

Maximum length: 14 cm TL

Distribution: South America: Tapajós River basin.
Countries: Brazil
Common names: Pacu (Brazil), Pacu-marreca (Brazil)

***Metynnis fasciatus* Ahl, 1931**

Metynnis fasciatus Ahl, 1931: 407, fig. p. 409. Type locality: Rio Capiuru, Amazon system, Brazil. Holotype: ZMB lost.
Maximum length: 5.8 cm SL
Distribution: South America: Capiuru River basin in middle Amazon River drainage.
Countries: Brazil
Remarks and references: See Zarske & Géry (1999: 211) for detailed description.
Common names: Pacu (Brazil), Pacu-marreca (Brazil)

***Metynnis guaporensis* Eigenmann, 1915**

Metynnis guaporensis Eigenmann, 1915: 267, pl. 54. Type locality: Rio Guaporé at Maciél, Brazil. Holotype: FMNH 56913 [ex CM 5729].
Maximum length: 15.4 cm SL
Distribution: South America: Guaporé River basin.
Countries: Bolivia (?), Brazil
Remarks and references: See Zarske & Géry (1999: 192) for detailed description.
Common names: Pacu (Brazil), Pacu-marreca (Brazil), Pacupeba (Bolivia)

***Metynnis hypsauchen* (Müller & Troschel, 1844)**

Myletes hypsauchen Müller & Troschel, 1844: 97. Type locality: Guiana. Lectotype: ZMH H 2865, designated by Géry (1972: 190). Appeared in more detail in Müller & Troschel (1845: 38, pl. 10 (fig. 1)). Lectotype figured in Zarske & Géry (1999: fig. 1).

Metynnis calichromus schreitmülleri Ahl, in Schreitmüller & Ahl, 1923: 265, fig. 1. Type locality: Amazon R., South America. Holotype: ZMB 20664. Holotype figured in Zarske & Géry (1999: fig. 21).

Metynnis calichromus Ahl, 1923a: 18, fig. 1. Type locality: Lago de Faro, Jamunda, lower Amazon, Brazil. Holotype: ZMB 20674. Holotype figured in Zarske & Géry (1999: fig. 22).

Metynnis ehrhardti Ahl, 1927: 273. Type locality: Mundurucú, Rio Manacapuru, Solimões, Amazonas, Brazil. Lectotype: ZMB 23685, designated by Zarske & Géry (1999: 210). Paralectotype figured in Zarske & Géry (1999: fig. 33).

Maximum length: 15 cm TL
Distribution: South America: Amazon and Paraguay River basins, north Guiana Shield rivers.
Countries: Bolivia, Brazil, Guyana, Peru
Remarks and references: See in Zarske & Géry (1999) for detailed description and synonymy.
Common names: Paçu (Brazil), Pacu-marreca (Brazil), Pacupeba (Bolivia), Palometa (Peru, Venezuela)

***Metynnis lippincottianus* (Cope, 1870)**

Myletes lippincottianus Cope, 1870: 561, fig. on p. 561. Type locality: Pará, Brazil. Syntypes: ANSP 8024. Fowler (1907: 478) redescribed the species as *Sealina lippincottianus* Fowler, 1907, from one specimen designed as cotype. Mentioned as syntype in Böhlke (1984: 49) and Zarske & Géry (1999: 179). Syntype figured in Zarske & Géry (1999: fig. 8).

Myletes (Myleus) orbicularis Steindachner, 1908b: 364. Type locality: Santarem, Amazon basin, Brazil. Lectotype: NMW 56428, designated and figured in Zarske & Géry (1999: 188, fig. 16). Paralectotypes are from Parnaíba River at Victoria and Santa Filomena, Lake on Medonho River, Brazil.

Metynnis goeldii Eigenmann, 1903: 147. Type locality: Brazil. No types known. Based on *Myletes lippincottianus* of Ulrey (1895: 299).

Metynnis roosevelti Eigenmann, 1915: 268, pl. 55. Type locality:

Manaus, Brazil. Holotype: FMNH 56925 [ex CM 5740, smallest of 3].

Metynnis snethlageae Ahl, 1923a: 30. Type locality: don Aquarium, Zoo, Berlin, probably from Amazon basin. Holotype: ZMB 19722. Holotype figured in Zarske & Géry (1999: fig. 31).

Metynnis anisurus Ahl, 1923a: 27, fig. 2. Type locality: Rio Tapajós, b. Borin [= near by Borim, Tapajós River, Amazon system, Brazil]. Holotype: ZMB 20678. Holotype figured in Zarske & Géry (1999: fig. 28).

Metynnis heinrothi Ahl, 1923a: 29, fig. 3. Type locality: don Aquarium, Zoo, Berlin, probably from Amazon basin. Holotype: ZMB 20662. Holotype figured in Zarske & Géry 1999: fig. 30.

Metynnis seitzii Ahl, 1923a: 28. Type locality: don Aquarium, Zoo, Berlin, probably from Amazon basin. Holotype: ZMB 20663. Holotype figured in Zarske & Géry (1999: fig. 29).

Metynnis dungerni Ahl, 1923b: 108. Type locality: Amazon R. at Pará, Brazil. Holotype: ZMB 23683. Holotype figured in Zarske & Géry (1999: fig. 31).

Maximum length: 13 cm TL

Distribution: South America: Amazon River basin, northeastern Guiana Shield rivers.

Countries: Brazil, French Guiana

Remarks and references: See Zarske & Géry (1999) for detailed description and synonymy.

Common names: Lime (French Guiana), Pacu (Brazil), Pacu-marreca (Brazil), San sou (French Guiana), Yaya kumarou (French Guiana), Yaya soley (French Guiana)

***Metynnis luna* Cope, 1878**

Metynnis luna Cope, 1878: 692. Type locality: Amazon R, basin, Peru. Holotype: ANSP 21443. Type illustrated by Fowler (1907: 479, fig. 58.)

Maximum length: 7.9 cm SL

Distribution: South America: Amazon River basin.

Countries: Bolivia, Peru

Common names: Palometa (Peru)

***Metynnis maculatus* (Kner, 1858)**

Serrasalmus maculatus Kner, 1858: 164. Type locality: Rio Guaporé [Mato Grosso, Brazil]. Lectotype: NMW 56396, designated and figured in Zarske & Géry (1999: 176, fig. 5). BMNH 1928.1.24.10, listed as syntype in Eschmeyer (1998) but not mentioned by Zarske & Géry (1999: 176). Appeared in more detail in Kner (1860: 26, pl. 2, fig. 5).

Maximum length: 18 cm TL

Distribution: South America: Amazon and Paraguay River basins.

Countries: Bolivia (?), Brazil, Paraguay (?), Peru (?)

Remarks and references: See Zarske & Géry (1999: 176) for detailed description.

Common names: *Metynnis manchada* (Peru), Pacu peva (Brazil), Palometa (Peru), Palometa moteada (Peru)

***Metynnis mola* Eigenmann & Kennedy, 1903**

Metynnis mola Eigenmann & Kennedy, 1903: 528. Type locality: Arroyo Trementina, Paraguay. Holotype: CAS 60784 [ex IU 10049]. Zarske & Géry (1999: 187) mentioned ZMB 16978 (1), ZMB 16979 (1) and FMNH 52575 without type status. Holotype figured in Zarske & Géry (1999: fig. 14).

Maximum length: 15 cm TL

Distribution: South America: Paraguay-Paraná River basin.

Countries: Brazil, Paraguay

Remarks and references: See Zarske & Géry (1999: 186) for detailed description.

Common names: Pacu peva (Brazil)

***Metynnis orinocensis* (Steindachner, 1908)**

Myletes (Myleus) orinocensis Steindachner, 1908b: 365. Type locality: Río Orinoco at Ciudad Bolívar, Venezuela. Types probably lost.

Distribution: South America: Orinoco River basin.
Remarks and references: See Zarske & Géry (1999: 192) for detailed description of topotype specimens
Countries: Venezuela

***Metynnis otuquensis* Ahl, 1923**

Metynnis otuquensis Ahl, 1923a: 26. Type locality: Bahia Negra, Río Otuquis, Bolivia or Paraguay. Holotype: ZMB 16980. Holotype figured in Zarske & Géry (1999, fig. 27).
Maximum length: 8.7 cm SL
Distribution: South America: Otuquis River in Paraguay River basin.
Countries: Bolivia, Paraguay
Remarks and references: See Zarske & Géry (1999: 202) for detailed description.

MYLESINUS

Mylesinus Valenciennes, in Cuvier & Valenciennes, 1850: 234. Type species: *Mylesinus schomburgkii* Valenciennes, 1850. Type by monotypy. Gender: masculine.

***Mylesinus paraschomburgkii* Jégu, Santos & Ferreira, 1989**

Mylesinus paraschomburgkii Jégu, Santos & Ferreira, 1989: 53, pl. 1 (fig. a). Type locality: Rio Trombetas, en aval de Cachoeira Vira-Mundo, PA [Pará, Brazil]. Holotype: INPA 1226.
Maximum length: 35 cm SL
Distribution: South America: Left tributaries of the lower Amazon River, Araguari River.
Countries: Brazil
Remarks and references: See Thatcher & Jégu (1996) for intestinal parasitology. See Santos, Pinto & Jégu (1997) for food habits. See Jégu, Belmont-Jégu & Zuanon (1992) for distribution pattern.
Common names: Pacu (Brazil), Pacu cana (Brazil)

***Mylesinus paucisquamatus* Jégu & Santos, 1988**

Mylesinus paucisquamatus Jégu & Santos, 1988b: 332, pl. 1 (fig. a). Type locality: Jatobal, Rio Tocantins [Pará, Brazil]. Holotype: INPA 1808.
Maximum length: 22 cm SL
Distribution: South America: Tocantins River basin.
Countries: Brazil
Common names: Curupeté (Brazil)

***Mylesinus schomburgkii* Valenciennes, 1850**

Mylesinus schomburgkii Valenciennes, in Cuvier & Valenciennes, 1850: 235, pl. 644. Type locality: not mentioned in the original description [Essequibo River, Guyana following Bertin (1948)]. Holotype: MNHN A.9855 (head).
Distribution: South America: Essequibo and Orinoco River basins.
Countries: Guyana, Venezuela
Remarks and references: Species only known from Essequibo river by the type specimen.
Common names: Surapira (Venezuela)

MYLEUS

Myleus Müller & Troschel, 1844: 98. Type species: *Myleus setiger* Müller & Troschel, 1844. Type by subsequent designation by Eigenmann 1910: 443. Gender: masculine.
Mylopius Gill, 1896: 214. Type species: *Myletes asterias* Müller & Troschel, 1844. Type by subsequent designation by Jordan (1920: 467). Gender: masculine. Proposed as a subgenus of *Myletes*. Treated by Müller & Troschel 1844, not *Myletes* Cuvier, type species *Salmo niloticus*.
Orthomyleus Eigenmann, 1903: 148. Type species: *Myletes ellipticus* Günther, 1864. Type by original designation. Gender: masculine.

Paramyloplus Norman, 1929: 828. Type species: *Paramyloplus ternetzi* Norman, 1929. Type by monotypy. Gender: masculine.
Prosomyleus Géry, 1972: 182. Type species: *Myletes rhomboidalis* Cuvier, 1818. Type by original designation. Gender: masculine.

***Myleus altipinnis* (Valenciennes, 1850)**

Tometes altipinnis Valenciennes in Cuvier & Valenciennes, 1850: 230, p. 643. Type locality: Rio São Francisco, Brazil. Holotype: MNHN A.8652 (dry).
Distribution: South America: São Francisco River basin.
Countries: Brazil

***Myleus arnoldi* (Ahl, 1936)**

Myloplus arnoldi Ahl, 1936: 25. Type locality: Amazon R. Syntypes: ZMB 20812 (1).
Maximum length: 15.7 cm SL
Distribution: South America: Amazon, Xingu, and Tocantins River basins.
Countries: Brazil
Common names: Pacu branco (Brazil)

***Myleus asterias* (Müller & Troschel, 1844)**

Myletes asterias Müller & Troschel, 1844: 98. Type locality: Essequibo R., Guyana. Syntypes: ZMB 3646 (1), ZMB 3645 (1), BMNH 1971.5.10.61-62 (2). Appeared in more detail in Müller & Troschel (1845: 36, pl. 10, fig. 2).
Myletes ellipticus Günther, 1864: 375. Type locality: Essequibo River, Guyana. Syntypes: BMNH 1971.5.10.63 (1), BMNH 1864.1.21.33 (1).
Myleus gurupyensis Steindachner, 1911: 342. Type locality: Rio Gurupi at Chatão, Brazil. Syntypes: (2) NMW 10589 (1). Only one syntype found at NMW in August 1999.
Myloplus schulzei Ahl, 1938: 191. Type locality: South America. Holotype: ZMB 20814.

Tomete maculatus Campos, 1944: 211, fig. p. 214. Type locality: Amazon R., Brazil. Holotype: MZUSP 3356.
Maximum length: 25 cm TL
Distribution: South America: Amazon River basin, north and eastern Guiana Shield rivers.
Countries: Brazil, Guyana
Common names: Pacu (Brazil), Pacu branco (Brazil)

***Myleus knerii* (Steindachner, 1881)**

Myletes knerii Steindachner, 1881: 127, pl. 7 (fig. 2). Type locality: Maroni R., Guiana. Holotype: NMW 56394.
Maximum length: 12.1 cm SL
Distribution: South America: Maroni River basin.
Countries: French Guiana
Remarks and references: Species only known by type specimen.

***Myleus levis* Eigenmann & McAtee, 1907**

Myleus levis Eigenmann & McAtee, in Eigenmann, McAtee & Ward, 1907: 142, pl. 42 (fig. 2). Type locality: Bahia Negra, Paraguay. Holotype: CAS 62107 [ex IU 10156].
Distribution: South America: Paraguay-Paraná River basin.
Countries: Brazil, Paraguay
Remarks and references: Synonymy with *Myleus tiete* (Eigenmann & Norris, 1900) is mentioned by Gosline (1951: 42).
Common names: Coxa de negro (Brazil), Pacu peva (Brazil), Palometa (Peru)

***Myleus lobatus* (Valenciennes, 1850)**

Myletes lobatus Valenciennes, in Cuvier & Valenciennes, 1850: 212. Type locality: Fleuve Amazone, Brésil. Syntypes: MNHN 5244 (the two other syntypes are lost).
Myletes discoideus Kner, 1860: 30. Type locality: Bananeira, Rio Branco, Mato Grosso, Brazil. Syntypes: NMW 16407 (1, dry).
Erroneous Syntype designation of NMW 92799 by Eschmeyer (1998). Name first used in Kner (1858: 165).
Myletes parma Günther, 1864: 374. Type locality: Rio Capin, Para

state, Brazil. Syntypes: BMNH 1869.11.8.32-33 (2).
Maximum length: 24.5 cm SL
Distribution: South America: Amazon and Orinoco River basins.
Countries: Brazil, Peru, Venezuela
Remarks and references: Synonymy above is based on personal observation and examination of types.

***Myles micans* (Lütken, 1875)**

Myles (Tometes) micans Lütken, 1875a: 137. Type locality: Rio das Velhas and Rio Taquaruçu, Rio São Francisco basin, Brazil. Syntypes: ZMUC 260 (1), ZMUC 261 (1). Also described in Lütken (1875c: 241; XVIII and figured p. 243).
Maximum length: 27.6 cm SL
Distribution: South America: São Francisco River basin.
Countries: Brazil
Common names: Pacu (Brazil)

***Myles rhomboidalis* (Cuvier, 1818)**

Myles rhomboidalis Cuvier, 1818: 449, pl. 22 (fig. 3). Type locality: ...du Brésil ou de Lisbonne à notre Muséum. Holotype: lost.
Myles latus Müller & Troschel, 1844: 97. Type locality: Essequibo Riv., Guyana. Specimens mentioned: ZMB 3643 (1), ZMB 3644 (1). Described as synonym of *Tetragonopterus latus* Jardine & Schomburgk, in Schomburgk, 1841.
Salmo pacupeba Kner, 1860: 23. Not available, name mentioned in passing under *Myles rhomboidalis* Cuvier; from Maribitanos, Paraná River, Brazil.
Maximum length: 37 cm SL
Distribution: South America: Amazon River basin; north and eastern Guiana Shield rivers.
Countries: Brazil, French Guiana, Guyana, Suriname, Venezuela
Remarks and references: Specimens mentioned by Valenciennes, (in Cuvier & Valenciennes, 1850: 211) and Bertin (1948: 26) are not types, all collected after original description by Cuvier (1818). See Boujard et al. (1990) for details on foods habits. See Le Comte et al. (1993) for details on growth biology. Synonymy above is based on personal observation and examination of types.
Common names: Asitau (French Guiana), Beagba (French Guiana), Kambai (French Guiana), Koumarou (French Guiana), Kumalu (French Guiana), Pacu (Brazil), Palometa (Venezuela), Pampano (Venezuela), Weti koemaloe (French Guiana)

***Myles rubripinnis* (Müller & Troschel, 1844)**

Myles rubripinnis Müller & Troschel, 1844: 97. Type locality: Essequibo River, Guyana. Syntypes: ZMB 3636 (1), ZMB 3637 (1), ZMB 23686 (1), BMNH 1971.1.5.10.64 (1). Appeared in more detail in Müller & Troschel (1845: 38, pl. 9, fig. 3).
Myles luna Valenciennes, in Cuvier & Valenciennes, 1850: 221. Type locality: Cayenne, French Guiana; Indies. Lectotype: MNHN A 9870, designated by Géry (1972: 163).
Maximum length: 30 cm SL
Distribution: South America: Amazon and Orinoco River basins; north and eastern Guiana Shield rivers.
Countries: Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, Venezuela
Common names: Gancho rojo (Colombia), Garopa (Colombia), Mabé (French Guiana), Pacu (Brazil), Pacu branco (Brazil), Pakoesi (French Guiana), Pakousi (French Guiana), Palometa (Venezuela), Pampano (Venezuela), Pasina tanakem (French Guiana), Pasina tikolokem (French Guiana), Poukoupitane (French Guiana), Yapinan (French Guiana)

***Myles schomburgkii* (Jardine & Schomburgk, 1841)**

Tetragonopterus schomburgkii Jardine & Schomburgk, in Schomburgk, 1841: 243, pl. 22. Type locality: Rio Negro, Brazil. No type preserved.
Myles schomburgkii Valenciennes, in Cuvier & Valenciennes, 1850: 212. Type locality: Surinam. No type known.

Myles palometa Valenciennes, in Cuvier & Valenciennes, 1850: 214. Type locality: "Haut Orénoque... confluent du rio Jao" [Venezuela]. No type. Described from Humboldt (in Humboldt & Valenciennes 1821: 177) and Jardine & Schomburgk (in Schomburgk 1841: pl. 22).

Maximum length: 42 cm SL
Distribution: South America: Middle and lower Amazon River basin, Nanay River, upper Orinoco River basin, Suriname (?).
Countries: Brazil, Peru, Suriname (?), Venezuela
Remarks and references: The locality "Surinam" mentioned by Valenciennes in Cuvier & Valenciennes (1850: 214) for *Myles schomburgkii* is doubtful. No specimen from Guianas was seen in collections.
Common names: Pacu (Brazil), Pacu cadete (Brazil), Pacu ferrado (Brazil), Pacu jumento (Brazil), Palometa (Venezuela), Pampano (Venezuela)

***Myles setiger* Müller & Troschel, 1844**

Myles setiger Müller & Troschel, 1844: 98. Type locality: Essequibo R., Guyana. Syntypes: ZMB 3634 (1), BMNH 1971-5-10.65 (1). Appeared in more detail in Müller & Troschel (1845: 39, pl. 11, fig. 1).
Myles divaricatus Valenciennes, in Cuvier & Valenciennes, 1850: 215. Type locality: Essequibo River, Guyana. Holotype: MNHN A 8629 (dry).
Myles didyoxodon Valenciennes, in Cuvier & Valenciennes, 1850: 222. Type locality: Amazon R. Holotype: MNHN A 9868.
Myles filus Kner, 1860: 27. Not available, name mentioned in synonymy of *Myles setiger* Müller & Troschel, 1844; from Mato Grosso, Brazil.
Maximum length: 27 cm SL
Distribution: South America: Tributaries of low and middle Amazon River, Orinoco basin, upper Orinoco River and tributaries, north and eastern Guiana Shield rivers.
Countries: Brazil, Guyana, Suriname, Venezuela
Remarks and references: Recent observations indicate that *Myles setiger* Müller & Troschel, 1844, differs from *Myles pacu* Jardine & Schomburgk, 1841 by the number of anal rays. Synonymy above is based on personal observation and examination of types.
Common names: Pacu (Brazil), Pacu dente-seco (Brazil), Palometa (Peru)

***Myles ternetzi* (Norman, 1929)**

Paramyloplus ternetzi Norman, 1929: 828, pl. 1. Type locality: Mapará Rapids, Approuague R., French Guiana. Syntypes: BMNH 1926.3.2.551-552 (2).
Myles (Paramyloplus) ternetzi goslinei Géry, 1972: 171, pl. 4 (figs. 1-2). Type locality: Brokopondo, Suriname R., Suriname. Holotype: RMNH 26467. See Géry, Planquette & Le Bail (1991: 36) for synonymy.
Maximum length: 23.1 cm SL
Distribution: South America: East and northeast Guiana Shield rivers.
Countries: Brazil, French Guiana, Suriname
Remarks and references: See Le Bail et al. (1989) for reproductive biology.
Common names: Mabé (French Guiana), Mambe (French Guiana), Pakoesi (French Guiana), Pakousi (French Guiana), Pasina taliliman (French Guiana), Pasina tetakloyem (French Guiana)

***Myles tiete* (Eigenmann & Norris, 1900)**

Myles tiete Eigenmann & Norris, 1900: 359. Type locality: Piracicaba, São Paulo, Brazil. Holotype: not found.
Maximum length: 15.2 cm SL
Distribution: South America: Paraguay-Paraná River basin.
Countries: Argentina (?), Brazil, Paraguay
Common names: Pacu peva (Brazil)

***Myleus torquatus* (Kner, 1858)**

Myletes torquatus Kner, 1858: 164. Type locality: Rio Branco, Marabitanos [Negro River basin, Amazonas, Brazil]. Syntypes: (3) NMW 5640 (1), NMW 56449 (1). Appeared in more detail in Kner (1860: 24, pl. 1, fig. 4). Only two syntypes found at the NMW on August 1999.

Distribution: South America: Amazon, Negro and Orinoco River basins.

Countries: Brazil, Venezuela

Common names: Pacu branco (Brazil), Palometa (Venezuela), Pampano (Venezuela)

Species inquirenda

Myletes pacu Jardine & Schomburgk, in Schomburgk, 1841: 236, pl. 20. Type locality: Essequibo R., Guyana. No types known.

MYLOSSOMA

Mylossoma Eigenmann & Kennedy, 1903: 530. Type species: *Myletes albiscopus* Cope, 1872. Type by original designation (in footnote). Gender: neuter. Revised by Machado-Allison & Castillo (1992).

Starksina Fowler, 1907: 476. Type species: *Myletes herniarius* Cope, 1872. Type by original designation. Gender: feminine. See Machado-Allison & Castillo (1992: 4) for synonymy.

***Mylossoma acanthogaster* (Valenciennes, 1850)**

Myletes acanthogaster Valenciennes, in Cuvier & Valenciennes, 1850: 209. Type locality: Lagune de Maracaibo, Venezuela. Holotype: MNHN A.1065 (dry).

Maximum length: 28.5 cm SL

Distribution: South America: Lake Maracaibo basin.

Countries: Venezuela

Remarks and references: See Machado-Allison & Castillo (1992: 17) for detailed morphology.

Common names: Palometa (Venezuela)

***Mylossoma aureum* (Agassiz, 1829)**

Myletes aureus Agassiz, in Spix & Agassiz, 1829: 74, pl. 31. Type locality: Equatorial rivers of Brazil. Potential syntypes: MHNN 787 (1), MHNN 788 (2) according to Kottelat (1984: 146; 1988: 84). Named as *Tetragonopterus aureus* Spix on plate. See Kottelat (1988: 79) for detail on authorship.

Myletes herniarius Cope, 1872: 268, pl. 12 (fig. 3). Type locality: Río Ambyiacu, Peru. Lectotype: ANSP 8025, designated by Fowler (1907: 476). Figured as holotype and paratype in Böhlke (1984: 48). Lectotype illustrated by Fowler (1907: fig. 58) according to Böhlke (1984: 48). See Machado-Allison & Castillo (1992: 17) for synonymy.

Mylossoma ventriosum Norman, 1929: 815, fig. 20. Type locality: Solimoes, Amazon R. Holotype: BMNH 1923.10.28.263. See Machado-Allison & Castillo (1992: 17) for synonymy.

Maximum length: 20 cm TL

Distribution: South America: Amazon and Orinoco River basins.

Countries: Bolivia, Brazil, Colombia, Ecuador, Peru, Venezuela

Remarks and references: See Nelson (1961: 609) for swim bladder morphology. See Machado-Allison & Castillo (1992: 17) for detailed morphology. See Leite & Araujo Lima (2000) for larval diet.

Common names: Garopita (Colombia), Pacu comum (Brazil), Pacu manteiga (Brazil), Pacupeba (Bolivia), Palometa (Peru), Palometa de rio (Venezuela)

***Mylossoma duriventris* (Cuvier, 1818)**

Myletes duriventris Cuvier, 1818: 451, pl. 22 (fig. 2). Type locality: Brazil. Holotype: MNHN A.9891. Valenciennes in Cuvier & Valenciennes (1850: 206) specifies that "M. Cuvier a fait connaître, d'après un animal empaillé, une espèce" MNHN A.9864 and MNHN A.9780 (captured in 1847 by Castelnau), are incorrectly considered as paratypes by Bertin (1948: 28).

Myletes orbignyanus Valenciennes in Cuvier & Valenciennes, 1850: 220. Type locality: Corrientes, Rio Paraná, Brazil. Lectotype: MNHN A.9863, designated by Géry et al. (1987: 444). See Machado-Allison & Castillo (1992: 19) for synonymy.

Myletes albiscopus Cope, 1872: 267, pl. 12 (fig. 1). Type locality: Río Ambyiacu, Peru. Lectotype: ANSP 8021, designated by Fowler (1907: 475). Appeared first as name only in Cope (1871: 55). See Machado-Allison & Castillo (1992: 19) for synonymy.

Metynnis unimaculatus Steindachner, 1908a: 326. Type locality: Lake at Rio Medonho, trib. of Rio Parnahyba north of Santa Filomena, Brazil. Syntypes: NMW 56451 (3). See Zarske & Géry (1999: 188) for synonymy.

Mylosoma ocellatum Eigenmann, 1915: 265. Type locality: Villa Hays, Paraguay. Holotype: FMNH 56816 [ex CM 5629]. See Géry et al., (1987: 443) and Machado-Allison & Castillo (1992: 19) for synonymy.

Salmo 30-radiatus Larrañaga, 1923: 388. Type locality: Uruguay. No type known.

Mylossoma argenteum Ahl, 1928: 192. Type locality: Amazon R. Syntypes: ZMB 20854 (2). Appeared first in Ahl (1928) as above, then in Ahl (1929: 273).

Mylosoma paraguayensis Norman, 1929: 814, fig. 19. Type locality: Río Paraguay. Syntypes: BMNH 1895.5.17.254-255 (2), BMNH 1910.5.26.47-48 (2), BMNH 1910.5.26.46 (1). See Géry et al., (1987: 443) for synonymy with *Mylossoma duriventris orbignyanum* and Machado-Allison & Castillo (1992: 19) for synonymy with *Mylossoma duriventris* Cuvier, 1818.

Maximum length: 25 cm SL

Distribution: South America: Amazon, Orinoco, and Paraguay-Paraná River basins.

Countries: Argentina, Bolivia, Brazil, Colombia, Ecuador, Paraguay, Peru, Venezuela

Remarks and references: See Machado-Allison & Castillo (1992: 19) for detailed morphology. See Leite & Araujo Lima (2000) for larval diet.

Common names: Garopa (Colombia), Pacu comum (Brazil), Pacu manteiga (Brazil), Pacu peva (Brazil), Pacupeba (Bolivia), Palometa (Peru, Venezuela)

OSSUBTUS

Ossubtus Jégu, 1992: 240. Type species: *Ossubtus xinguense* Jégu, 1992. Type by original designation. Gender: neuter.

***Ossubtus xinguense* Jégu, 1992**

Ossubtus xinguense Jégu, 1992: 240, fig. 4a. Type locality: Altamira, Rio Xingu, Pará, Brasil. Holotype: INPA 6535.

Maximum length: 17.6 cm SL

Distribution: South America: Xingu River basin.

Countries: Brazil

PIARACTUS

Piaractus Eigenmann, 1903: 148. Type species: *Myletes brachypomus* Cuvier, 1818. Type by original designation. Gender: masculine.

Reganina Fowler, 1907: 475. Type species: *Myletes bidens* Spix & Agassiz, 1829. Type by original designation. Gender: feminine. See Machado-Allison (1982: 46) for synonymy.

***Piaractus brachypomus* (Cuvier, 1818)**

Myletes brachypomus Cuvier, 1818: 452, pl. 22 (fig. 1). Type locality: Brésil. Holotype: MNHN A.8627 (dry).

Myletes paco Humboldt & Valenciennes, 1821: 175, pl. 47 (fig. 2). Type locality: Upper Río Marañón, Amazon R. basin. No types known. See Machado-Allison (1982: 47) for synonymy.

Myletes bidens Spix & Agassiz, 1829: 75, pl. 32. Type locality: Rivers of equatorial Brazil. Lectotype: MHNN 789, designated by Géry (1986: 98). See Kottelat (1988: 79) for detail on author-

ship.

Wateina fowleri Campos, 1946: 219, fig. 2. Type locality: Rio Tapajós, Amazon basin, Pará, Brazil. Holotype: MZUSP 3572. See Machado-Allison (1982: 48) for synonymy.

Maximum length: 71 cm TL

Distribution: South America: Amazon and Orinoco River basins.

Countries: Bolivia, Brazil, Colombia, Peru, Venezuela

Remarks and references: See Loubens & Panfili (2001: 51) for growth biology.

Common names: Caranha (Brazil), Morocoto (Venezuela), Paco (Colombia, Peru), Pirapitinga (Brazil), Tambaqui (Bolivia, Brazil)

Piaractus mesopotamicus (Holmberg, 1887)

Myletes edulis Castelnau, 1855: 68. Type locality: Paraguay. No types known. Nomen nudum according to Géry 1986: 102.

Myletes (Myleus) mesopotamicus Holmberg, 1887: 387. Type locality: Rio Parana, Uruguay. No type known. Appeared in more detail in Holmberg (1891: 193). Holmberg (1882) citation listed as name only by Fowler, not investigated.

Myletes mitrei Berg, 1895: 149. Type locality: San Pedro, Río Paraná, Buenos Aires, Argentina. Syntypes: BMNH 1928.1.25.6-7 (2). See Géry (1986: 102) for synonymy based on principle of priority.

Colosoma canterai Devincenzi, in Devincenzi & Teague, 1942: 74, text-fig. Type locality: Río Uruguay, Uruguay. Holotype: whereabouts unknown.

Maximum length: 40.5 cm SL

Distribution: South America: Paraguay-Paraná River basin.

Countries: Argentina, Bolivia, Brazil, Paraguay, Uruguay

Remarks and references: See Géry (1986: 102) for more detail.

Common names: Caranha (Brazil), Pacu (Brazil), Pacu caranha (Brazil)

PRISTOBRYCON

Pristobrycon Eigenmann, 1915: 245. Type species: *Serrasalmo (Pygocentrus) calmoni* Steindachner, 1908. Type by original designation. Gender: masculine. See Machado-Allison (1985) for generic status and phylogenetic relationships.

Pristobrycon aureus (Spix & Agassiz, 1829)

Serrasalmo aureus Spix & Agassiz, 1829: 72, pl. 29. Type locality: Equatorial lakes and rivers of Brazil. No types known according to Kottelat (1988). See Kottelat (1988: 79) for details on authorship.

Salmo erythrophthalmus Kner, 1860: 43. Not available, name mentioned in passing under *Serrasalmo aureus* Spix, from Vaupés River, Mato Grosso, Brazil.

Serrasalmo gymnogonys Günther, 1864: 371. Type locality: Guyana and River Capim, Brazil. Syntypes: (3) BMNH 1849.11.3.33 (1), BMNH 1971.5.10.59 (1).

Distribution: South America: Lower portion of tributaries of lower Amazon River, Guyana rivers.

Countries: Brazil, Guyana

Common names: Piranha (Brazil)

Pristobrycon calmoni (Steindachner, 1908)

Serrasalmo (Pygocentrus) calmoni Steindachner, 1908b: 361. Type locality: Rio Pará, Brazil. Syntypes: lost

Pygocentrus bilineatus Eigenmann, 1909: 47. Type locality: Aruka R., Guyana. Holotype: FMNH 58075 [ex CM 1072]. See Machado-Allison & Fink (1996: 20) for synonymy.

Serrasalmus coccogenis Fowler, 1911: 428, fig. 4. Type locality: La Pedrita, Caño Uracoa, Venezuela. Holotype: ANSP 37870. See Machado-Allison & Fink (1996: 20) for current synonymy.

Pygopristis gibbosus Starks, 1913: 17, pl. 3. Type locality: Market at Pará, Brazil. Holotype: SU 22226. See Jégu & Santos (1988a: 243) for synonymy.

Maximum length: 15 cm TL

Distribution: South America: Lower and middle Amazon and Orinoco River basins; coastal rivers of Guyana.

Countries: Brazil, Guyana, Venezuela

Remarks and references: See Jégu & Santos (1988a: 243) and Machado-Allison & Fink (1996: 20) for detailed description. See Machado-Allison & Fink (1996: 21) for distribution in Venezuela.

Common names: Caribito (Venezuela), Piranha (Brazil), Piranha branca (Brazil)

Pristobrycon careospinus Fink & Machado-Allison, 1992

Pristobrycon careospinus Fink & Machado-Allison, 1992: 69, fig. 20. Type locality: El Loro lagoon, Atabapo Riv., 1 km from San Fernando de Atabapo, Venezuela, 4°00'N, 67°50'W. Holotype: MBUCV 8145.

Maximum length: 11.05 cm SL

Distribution: South America: Atabapo River in Orinoco River basin.

Countries: Venezuela

Common names: Caribe (Venezuela)

Pristobrycon maculipinnis Fink & Machado-Allison, 1992

Pristobrycon maculipinnis Fink & Machado-Allison, 1992: 66, fig. 19. Type locality: Caño Doyotomoni, trib. of Pamoni Riv., 4 km south of the confluence with Casiquiare Riv., Venezuela, 2°48'N, 64°54'W. Holotype: MBUCV 16421.

Maximum length: 24.8 cm SL

Distribution: South America: Blackwater areas in a tributary of the Casiquiare River and a tributary of the Atabapo River.

Countries: Venezuela

Remarks and references: See Machado-Allison & Fink (1996: 31) for distribution in Venezuela.

Common names: Caribe (Venezuela)

Pristobrycon striolatus (Steindachner, 1908)

Serrasalmo scapularis Günther, 1864: 368. Type locality: Essequibo R., Guyana. Syntypes: BMNH 1971.5.10.58 (1), BMNH 1964.1.21.34-36 (3). Norman (1929: 793) reduced the syntypes at BMNH 1964.1.21.34-36 (3). See Géry (1976: 53) for synonymy.

Serrasalmo (Pygocentrus) striolatus Steindachner, 1908b: 360. Type locality: Rio Pará, Brazil. Syntypes: NMW 10583 (1), NMW 10584 (1)

Pristobrycon baratai Campos, 1946: 218, fig. 1. Type locality: Rio Tapajós, Santarém, Pará, Brazil. Holotype: MZUSP [ex DZASP] 3630. See Géry (1976: 53) for synonymy.

Pygopristis antoni Fernández-Yépez, 1965b: [1], fig. 1. Type locality: Río San José, Estado Guárico, Venezuela. Holotype: MACLPI 65635-A. See Machado-Allison et al. (1989: 146) for synonymy.

Maximum length: 15 cm TL

Distribution: South America: Amazon and Orinoco River basins; north and eastern Guiana Shield rivers.

Countries: Brazil, French Guiana, Guyana, Suriname, Venezuela

Remarks and references: See Machado-Allison et al. (1989: 146), Fink (1993: 671) and Machado-Allison & Fink (1996: 27) for further detail on genus status. See Machado-Allison & Fink (1996: 26) for distribution in Venezuela. See Nico & Taphorn (1988: 317) for food habits.

Common names: Caribito (Venezuela), Ipilay (French Guiana), Jetudo (Venezuela), Pène nipima (French Guiana), Pilay (French Guiana), Pilin (French Guiana), Piranha (Brazil), Piranha mafura (Brazil), Piray (French Guiana), Pireng (French Guiana), Poson cizo (French Guiana)

PYGOCENTRUS

Pygocentrus Müller & Troschel, 1844: 94. Type species: *Serrasalmo piraya* Cuvier, 1819. Type by subsequent designation by Eigenmann (1910: 442). Gender: masculine. See Machado-Allison (1985) for generic status and phylogenetic relationships. Genus revised by Machado-Allison and Fink (1991) and Fink (1993).

Gastroprius Eigenmann, 1915: 238. Type species: *Serrasalmo (Pygocentrus) ternetzi* Steindachner, 1908. Type by original designation. Gender: feminine.

Rooseveltiella Eigenmann, 1915: 240. Type species: *Pygocentrus nattereri* Kner, 1858. Type by original designation. Gender: feminine. Preoccupied by *Rooseveltiella* Fox, in Siphonoptera; replaced by *Taddyella* Ihering, 1928.

Taddyella Ihering, 1928: 45. Type species: *Pygocentrus nattereri* Kner, 1858. Type by being a replacement name. Gender: feminine. Replacement for *Rooseveltiella* Eigenmann, 1915, preoccupied by *Rooseveltiella* Fox, 1914, in Siphonoptera.

***Pygocentrus cariba* (Humboldt & Valenciennes, 1821)**

Serrasalmo albus, dorso Humboldt & Valenciennes, 1821: 173. Not available; should have been *Serrasalmo Cariba, albus...* according to Fink (1993: 669).

Serrasalmo cariba Humboldt & Valenciennes, 1821: 216, pl. 47 (fig. 1). Type locality: Apuré and Orinoco rivers, South America. No types known. Name available from plate and caption on p. 216. Description is on p. 173, as *Serrasalmo albus, dorso*; if *albus* is regarded as an available name, Fink (1993: 669) serves as first reviser selecting *cariba*.

Serrasalmus caribe Valenciennes in Cuvier & Valenciennes, 1850: 279. Type locality: Orinoco [Venezuela]. ZMUC 517 (1) Appeared first as *Serrasalmo cariba* Humboldt (in Humboldt & Valenciennes 1821: pl. 27, fig. 1). See Fink (1993: 684) for synonymy.

Serrasalmo (Pygocentrus) notatus Lütken, 1875b: 238. Type locality: Caracas, Venezuela. Syntypes: ZMUC 517 (1) Puerto Cabello.

Pygocentrus stigmaterythraeus Fowler, 1911: 424, fig. 3. Type locality: La Pedrita, Caño Uracoa, Venezuela. Holotype: ANSP 37868. Types figured as *Serrasalmus coccogenis* in Machado-Allison & Fink 1996: 148. See Fink (1993: 684) and Machado-Allison & Fink (1996: 20) for synonymy.

Maximum length: 27.9 cm TL

Distribution: South America: Widely distributed in the Orinoco River basin lowlands and tributaries.

Countries: Colombia, Venezuela

Remarks and references: Valid as *Pygocentrus caribe* in Machado-Allison & Fink (1991: 122). Synonymy of *Pygocentrus cariba* (Humboldt & Valenciennes 1821) in Fink (1993: 684). See Nico & Taphorn (1988: 314) for food habits. See Machado-Allison & Fink (1996: 39) for distribution in Venezuela.

Common names: Capaburro (Venezuela), Caribe colorado (Venezuela), Piraña (Colombia)

***Pygocentrus nattereri* Kner, 1858**

Pygocentrus nattereri Kner, 1858: 166. Type locality: Cuiabá and Mato Grosso, Brazil. Syntypes: NMW 10585 (1), NMW 105587 (1), MNW 16167 (1, dry). Appeared in more detail in Kner (1860: 28, pl. 3, fig. 8). See Fink (1993: 672) for type locality comments.

Pygocentrus altus Gill, 1870: 93. Type locality: Río Marañon or Río Napo, Amazon system, Peru or Ecuador. Holotype: USNM 21432. See Fink (1993: 679) for synonymy.

Serrasalmo (Pygocentrus) ternetzi Steindachner, 1908b: 359. Type locality: Río Paraguay at Descalvados, Mato Grosso, Brazil. Holotype: lost according to Fink (1993: 671). See Fink (1993: 679) for synonymy.

Maximum length: 33.3 cm SL

Distribution: South America: Amazon River basin, Paraguay-Paraná River basin, northeastern Brazilian coastal rivers, Essequibo River basin.

Countries: Argentina, Bolivia, Brazil, Colombia, Ecuador, Guyana, Paraguay, Peru, Uruguay

Remarks and references: Recent observation reveal NMW 16167 dry specimen as possible syntype. See Fink & Zelditch (1997: 179) for taxonomic status. See Zbinden (1973) and Sazima and Machado (1990) for details on behaviour.

Common names: Palometa (Bolivia), Paña (Peru), Piraña (Colombia), Piranha caju (Brazil), Piranha vermelha (Brazil)

***Pygocentrus palometa* Valenciennes, 1850**

Pygocentrus palometa Valenciennes, in Cuvier & Valenciennes, 1850: 296. Type locality: Río Apuré, Río Guarico, Lower Río Orinoco, Venezuela. No types mentioned. Nomen dubium.

Distribution: South America: Orinoco River basin.

Countries: Venezuela

Remarks and references: Doubtful species because too brief description, no specimen mentioned and no drawn representation.

***Pygocentrus piraya* (Cuvier, 1819)**

Serrasalmus piraya Cuvier, 1819: 368, pl. 28 (fig. 4). Type locality: Brazil. Holotype: MNHN A.8630 (dry, missing from 1988).

Serrasalmo piranha Agassiz, in Spix & Agassiz, 1829: 71, pl. 28. Type locality: Rio São Francisco lakes, Brazil. No type known. See Fink (1993: 670) for synonymy.

Serrasalmo ferox Swainson, 1838: 254. Type locality: No type locality known. Based on *Serrasalmo piranha* Agassiz, 1829, pl. 28.

Pygocentrus bidorsalis Kner, 1860: 36. Not available, name mentioned in text under *Pygocentrus piraya* Müller and Troschel, 1848.

Maximum length: 34 cm SL

Distribution: South America: São Francisco River basin.

Countries: Brazil

Remarks and references: See Fink (1993) for detailed description.

Common names: Piranha (Brazil)

PYGOPRISTIS

Pygoprists Müller & Troschel, 1844: 95. Type species: *Pygoprists fumarius* Müller & Troschel, 1844. Type by subsequent designation. Gender: feminine. See Machado-Allison (1985) for generic status and phylogenetic relationships.

***Pygoprists denticulata* (Cuvier, 1819)**

Serrasalmus denticulatus Cuvier, 1819: 371. Type locality: unknown. Type lost. Described from a small skeleton.

Serrasalmus punctatus Jardine & Schomburgk in Schomburgk, 1841: 223, pl. 17. Type locality: Guyana. No types known. See Machado-Allison & Fink (1996: 13) for synonymy.

Pygoprists fumarius Müller & Troschel, 1844: 95. Type locality: Guiana. Syntypes: ZMB 3622 (2), ZMB 6252 (2). Appeared with more details in Müller & Troschel 1845: 35, pl. 9 (fig. 2). See Machado-Allison & Fink (1996: 13) for synonymy.

Maximum length: 20 cm TL

Distribution: South America: Orinoco River basin, north and eastern Guiana Shield rivers; tributaries of the lower Amazon River.

Countries: Brazil, French Guiana, Guyana, Suriname, Venezuela

Remarks and references: See Géry (1972: 209), Jégu & Santos (1988a: 242) and Machado-Allison & Fink (1996: 13) for detailed morphology. See Machado-Allison & Fink (1996: 14) for distribution in Venezuela.

Common names: Palometa caribe (Venezuela), Pilin (French Guiana), Piranha (Brazil), Piray (French Guiana), Pireng (French Guiana), Poson sizo (French Guiana)

SERRASALMUS

Serrasalmus La Cèpède, 1803: 283. Type species: *Salmo rhombeus* Linnaeus, 1766. Type by monotypy. Gender: masculine. See Machado-Allison (1985) for generic status and phylogenetic relationships.

Serrasalmus Duméril, 1806: 342. Type species: *Salmo rhombeus* Linnaeus, 1766. Type by subsequent designation by Fowler (1950: 279). Gender: masculine. Perhaps not intended as a new name -- *Serrasalmus* La Cèpède in parentheses; apparently can be regarded as an incorrect subsequent spelling.

***Serrasalmus altispinis* Merckx, Jégu & Santos, 2000**

Serrasalmus altispinis Merckx, Jégu & Santos, 2000: 191, fig. 4b. Type locality: Rapides Quarenta Ilhas, Fl. Pitinga, Bassin de l'Uatumã, Amazonas, Brésil. Holotype: INPA 14434.

Maximum length: 19 cm SL

Distribution: South America: Amazon River basin, Uatumã River.

Countries: Brazil

Common names: Piranha (Brazil)

***Serrasalmus altuvei* Ramírez, 1965**

Serrasalmus altuvei Ramírez, 1965a: 1, fig. (p. 3). Type locality: El Polvero, Río San José, Edo. Guárico, Venezuela. Holotype: MAC 65639. Holotype missing according to Jégu & Santos (1987: 408).

Maximum length: 17.3 cm SL

Distribution: South America: Orinoco River basin.

Countries: Venezuela

Remarks and references: See Machado-Allison & Fink (1996: 55) and Fink & Machado-Allison (2001: 11) for distribution. See Nico & Taphorn (1988: 317) for food habits.

Common names: Caribe azul (Venezuela)

***Serrasalmus brandti* (Lütken, 1875)**

Serrasalmus brandtii Lütken, 1875a: 137. Type locality: Lagoa Santa, Minas Gerais, Brazil. Syntypes: NMW 5708 (2), ZMB 9195 (2), USNM 44964 (1), ZMUC 268 (1), ZMUC 269 (1), ZMUC 273 (1), ZMUC 276a (1), ZMUC 279 (1), ZMUC 280 (1), ZMUC 290 (1), ZMUC 295 (1), ZMUC 297 (1), ZMUC 278 (1, skel). Also described in Lütken (1875c: 237), Lütken (1875c: XVIII and figured p. 238).

Maximum length: 21.2 cm SL

Distribution: South America: São Francisco River basin.

Countries: Brazil

Common names: Pirambebe (Brazil)

***Serrasalmus compressus* Jégu, Leão & Santos, 1991**

Serrasalmus compressus Jégu, Leão & Santos, 1991: 102, fig. 2b. Type locality: Laguna Mocovi, río Mocovi, affluent Mamoré, province du Béni, Bolivie. Holotype: MNHN 1986-615.

Maximum length: 19 cm SL

Distribution: South America: Middle Amazon River basin.

Countries: Bolivia, Brazil, Peru

Remarks and references: See Jégu et al. (1991: 107) for fertility rate.

Common names: Piraña (Bolivia), Piranha (Brazil)

***Serrasalmus eigenmanni* Norman, 1929**

Serrasalmus eigenmanni Norman, 1929: 804, fig. 16. Type locality: Rockstone, Guyana. Holotype: BMNH 1911.10.31.496.

Maximum length: 18 cm SL

Distribution: South America: Amazon River basin, north and eastern Guiana Shield rivers.

Countries: Brazil, French Guiana, Guyana, Suriname, Venezuela

Remarks and references: See Machado-Allison & Fink (1996: 86) for distribution in Venezuela.

Common names: Ipilay (French Guiana), Pène nipima (French Guiana), Piranha (Brazil), Piranha branca (Brazil), Piray coupeur (French Guiana), Pireng (French Guiana), Poson sizo (French

Guiana), Umayka kaigwa (French Guiana)

***Serrasalmus elongatus* Kner, 1858**

Serrasalmus elongatus Kner, 1858: 167. Type locality: Rio Guapore, Mato Grosso, Brazil. Possible syntypes: NMW 18903 (1), NMW 904 (1), NMW 57016 (1), NMW 16343 (1, dry), NMW 163 45 (1, dry), NMW 16240 (1, dry). More detailed description in Kner (1860: 44, pl. 5, fig. 12).

Serrasalmus pingke Fernández-Yépez, 1951: [1], fig. on third unnumbered page. Type locality: Río Apure, La Defensa, suroeste de San Fernando de Apure, Estado Apure, Venezuela. Holotype: MHNLS 1903 [ex AFY 51060]. According to Machado-Allison & Fink (1996: 67), current holotype number is MCNLS 1021. See Machado-Allison & Fink (1996: 67) for synonymy.

Maximum length: 30 cm TL

Distribution: South America: Amazon and Orinoco River basins.

Countries: Bolivia, Brazil, Ecuador, Peru, Venezuela

Remarks and references: See Machado-Allison & Fink (1996: 70) for distribution in Venezuela. See Nico & Taphorn (1988: 316) for food habits.

Common names: Caribe pinche (Venezuela), Paña (Peru), Piraña (Bolivia), Piranha comprida (Brazil), Piranha mucura (Brazil)

***Serrasalmus geryi* Jégu & Santos, 1988**

Serrasalmus geryi Jégu & Santos, 1988a: 248, pl. 8 (fig. 2). Type locality: Araguacema, Rio Araguaia [Brazil]. Holotype: INPA 999.

Maximum length: 18.1 cm SL

Distribution: South America: Tocantins River basin.

Countries: Brazil

***Serrasalmus gibbus* Castelnau, 1855**

Serrasalmus gibbus Castelnau, 1855: 71, pl. 38 (fig. 1). Type locality: Rio Araguay, Brazil. Holotype: MNHN A.8648 (dry).

Maximum length: 21 cm SL

Distribution: South America: Tocantins River basin.

Countries: Brazil

Remarks and references: See Jégu & Santos (1988a: 253) for detailed description.

Common names: Piranha (Brazil)

***Serrasalmus gouldingi* Fink & Machado-Allison, 1992**

Serrasalmus gouldingi Fink & Machado-Allison, 1992: 58, fig. 13. Type locality: Anavilhanas, R. Negro, Brazil, 2°50'S, 61°00'W. Holotype: MZUSP 42363.

Maximum length: 27.94 cm SL

Distribution: South America: Amazon and Orinoco River basins.

Countries: Brazil, Venezuela

Remarks and references: See Machado-Allison & Fink (1996: 77) for distribution in Venezuela.

Common names: Caribe negro (Venezuela), Fula preto (Brazil), Piranha (Brazil)

***Serrasalmus hastatus* Fink & Machado-Allison, 2001**

Serrasalmus hastatus Fink & Machado-Allison, 2001: 4, fig. 2. Type locality: Beach, Marara, Rio Branco, Brazil. Holotype: MZUSP 66893.

Maximum length: 15.45 cm SL

Distribution: South America: Negro River basin.

Countries: Brazil

Remarks and references: See Jégu et al. (1991: 107) for fertility rate under *Serrasalmus altuvei*.

Common names: Piranha (Brazil)

***Serrasalmus hollandi* Eigenmann, 1915**

Serrasalmus hollandi Eigenmann, 1915: 251, pl. 48. Type locality: Rio Guaporé at Maciel, Brazil. Holotype: FMNH 56978 [ex CM

5792].

Maximum length: 18.5 cm SL.

Distribution: South America: Madeira River basin, and ? Guyana rivers.

Countries: Bolivia, Guyana (?)

Common names: Piraña (Bolivia)

Serrasalmus humeralis* Valenciennes, 1850Serrasalmus humeralis* Valenciennes in Cuvier & Valenciennes, 1850: 279. Type locality: Amazone [Brazil]. (erroneous locality; according to Castelnau (1855: 71, pl. 37 fig. 2), from Araguay [= Araguaia riv. Tocantins basin]). Holotype: MNHN A.9735.*Salmo tizoura* Kner, 1860: 40. Not available, name mentioned in passing under *Serrasalmus humeralis* Valenciennes; from Paraguay River. Also mentioned in Kner (1860: 41) in passing under *Serrasalmus marginatus* Valenciennes, 1837 in d'Orbigny (1847).*Serrasalmus iridopsis* Cope, 1872: 268, pl. 9 (fig. 2). Type locality: Río Ambyacu, Peru. Holotype: ANSP 7913. Questionably a synonym of *Serrasalmus humeralis* (Valenciennes, 1850) in Géry (1977: 283).

Maximum length: 20 cm SL

Distribution: South America: Amazon River basin.

Countries: Bolivia, Brazil, Peru

Remarks and references: See Jégu & Santos 1988a: 246 for detailed description and validation.

Common names: Piranha (Brazil)

Serrasalmus irritans* Peters, 1877Serrasalmus irritans* Peters, 1877: 472. Type locality: San Fernando Apure, Venezuela. Holotype: ZMB 10045.*Serrasalmus fernandesi* Fernández-Yépez, 1965a: [1], fig. Type locality: El Polvero, Río San José, Estado Guárico, Venezuela. Holotype: MACLPI 65637. See Machado-Allison & Fink (1996: 78) for synonymy.

Maximum length: 13.8 cm SL

Distribution: South America: Orinoco River basin.

Countries: Venezuela

Remarks and references: See Machado-Allison & Fink (1996: 82) for distribution in Venezuela. See Nico & Taphorn (1988: 314) for food habits.

Common names: Caribe pinche (Venezuela)

Serrasalmus maculatus* Kner, 1858Serrasalmus maculatus* Kner, 1858: 166. Type locality: Mato Grosso, Brazil. Lectotype: NMW 17995 (1), designated and figured by Jégu & Santos (2001: 125). More detailed description in Kner (1860: 41, pl. 4, fig. 10). See Jégu & Santos (2001: 129) for detailed morphology.*Pygocentrus melanurus* Kner, 1860: 42. Not available, name mentioned in passing under *Serrasalmus maculatus* Kner.*Serrasalmus aesopus* Cope, 1872: 269. Type locality: Marañon between mouths of Río Negro, Brazil and Río Huallaga, Peru. Holotype: ANSP 7914.

Maximum length: 20.2 cm SL

Distribution: South America: Amazon and Paraguay-Paraná River basins.

Countries: Argentina, Bolivia, Brazil, Colombia, Paraguay, Peru, Uruguay

Remarks and references: Eschmeyer's (1998: 994) syntype report of BMNH 1928.1.24.10 for *Myletes maculatus* Kner 1858 currently placed under *Metynnis*, is erroneous. Syntype reports of NMW 57058 collected from the Negro River, Brazil are erroneous. See Jégu & Santos (2001) for detailed morphology and distribution. See Santos et al. (1994) and Nakayama et al. (2000) for cytogenetic study.

Common names: Catirina (Brazil), Paña (Peru), Pirambebe (Brazil), Piraña (Colombia), Piranha (Brazil), Piranha amarela (Brazil), Piranha mafura (Brazil)

Serrasalmus manueli* (Fernández-Yépez & Ramírez, 1967)Pygocentrus manueli* Fernández-Yépez & Ramírez, 1967: 11, fig. 4. Type locality: Río Paraguaza, afluente de la Margen Derecha del Orinoco medio [Venezuela]. Holotype: MACLPI 57247.

Maximum length: 36 cm SL

Distribution: South America: Amazon and Orinoco River basins.

Countries: Brazil, Venezuela

Remarks and references: See Machado-Allison & Fink (1996: 71) for detailed morphology. See Machado-Allison & Fink (1996: 74) for distribution in Venezuela.

Common names: Caribe cachamero (Venezuela), Caribe paraguasero (Venezuela), Piranha (Brazil)

Serrasalmus marginatus* Valenciennes, 1837Serrasalmus marginatus* Valenciennes, 1837 in d'Orbigny, 1847: 10. Type locality: Río Paraná, Brazil. Syntypes: MNHN A.9734 (3). Name available from plate, description by Valenciennes in d'Orbigny (1847: 10).

Maximum length: 22.1 cm SL

Distribution: South America: Paraguay-Paraná River basin.

Countries: Argentina, Brazil, Paraguay, Uruguay

Common names: Catirina (Brazil), Pirambebe (Brazil), Piranha (Brazil)

Serrasalmus medinai* Ramírez, 1965Serrasalmus medinai* Ramírez, 1965b: 1, fig. on p. 2. Type locality: El Polvero, Río San José, Guárico, Venezuela. Holotype: MAC 65622.

Maximum length: 14.8 cm SL

Distribution: South America: Orinoco River basin.

Countries: Venezuela

Remarks and references: See Machado-Allison et al. (1993: 50) and Machado-Allison & Fink (1996: 60) for detailed description. See Machado-Allison & Fink (1996: 62) for distribution in Venezuela.

Common names: Caribe morichalero (Venezuela)

Serrasalmus nalseni* Fernández-Yépez, 1969Serrasalmus nalseni* Fernández-Yépez, 1969: unnumbered p. 3. Type locality: Río Uracoa, entre Temblador y Barrancas [Venezuela]. Holotype: MACLPI 68697-A.

Maximum length: 12.6 cm SL

Distribution: South America: Orinoco River basin.

Countries: Venezuela

Remarks and references: See Machado-Allison & Fink (1996: 87) for detailed description.

Common names: Caribe pintado (Venezuela)

Serrasalmus neveriensis* Machado-Allison, Fink, López Rojas & Rodenas, 1993Serrasalmus neveriensis* Machado-Allison, Fink, López Rojas & Rodenas, 1993: 48, fig. 4. Type locality: Río Querechual, trib. Río Neveri, Querechual, Anzoátegui, Venezuela. Holotype: MBUCV 15439.

Maximum length: 18 cm SL

Distribution: South America: Coastal rivers of Venezuela.

Countries: Venezuela

Remarks and references: See Machado-Allison & Fink (1996: 42) for distribution in Venezuela.

Serrasalmus nigricans* (Agassiz, 1829)Serrasalmus nigricans* Agassiz, in Spix & Agassiz, 1829: 72, pl. 30. Type locality: Equatorial rivers of Brazil. No types known according to Kottelat (1988). See Kottelat (1988: 79) for details on authorship.

Distribution: South America: Amazon River basin.

Countries: Brazil

***Serrasalmus rhombeus* (Linnaeus, 1766)**

Salmo rhombeus Linnaeus, 1766: 514. Type locality: Suriname. Neotype: RMNH 26192, selected by Géry (1972: 228).

Serrasalmus niger Jardine & Schomburgk, in Schomburgk, 1841: 225, pl. 18. Type locality: Guyana. No type known. See Fink (1993: 679) for synonymy.

Serrasalmus immaculatus Cope, 1878: 692. Type locality: Peruvian Amazon. Lectotype: ANSP 21503, designated by Fowler (1907: 471, fig. 54).

?*Serrasalmus* (*Serrasalmus*) *paraense* Steindachner, 1908b: 362. Type locality: Rio Pará, Brazil. Syntypes: NMW 57067 (1), NMW 10587 (1).

Serrasalmus humeralis gracilior Eigenmann, 1915: 257, fig. 9. Type locality: Rio Guaporé at Maciel, Brazil. Syntypes: FMNH 56977 [ex CM 5791] (2 of 3 specimens). Henn (1928: 69) reports 2 syntypes in CM 5791, and Ibarra & Stewart (1987: 79) point out 3 specimens in FMNH 56977. See Norman (1929: 800) for synonymy.

Serrasalmus boekeri Ahl, 1931: 406, fig. p. 408. Type locality: Amazon R. Holotype: ZMB (not found).

Serrasalmus (*Taddyella*) *normani* Géry, 1963: 614, fig. 4. Type locality: Suriname, Paramaribo area. Holotype: ZMH H1601. See Géry (1972: 228) for synonymy.

Maximum length: 41.5 cm SL

Distribution: South America: Amazon and Orinoco River basins, north and eastern Guiana Shield rivers, northeastern Brazilian coastal rivers.

Countries: Bolivia, Brazil, Colombia, Ecuador, French Guiana, Guyana, Peru, Suriname, Venezuela

Remarks and references: See Géry (1972: 227) and Merckx et al. (2000: 185) for detailed description. See Jégu & Keith (1999) and Machado-Allison & Fink (1996: 58) for detailed distribution. See Nico & Taphorn (1988: 316) for food habits. See Cohen et al. (1999) for detailed pattern activity. Nakayama et al. (2001) for cytogenetic study.

Common names: Caribe pinche (Venezuela), Iba (French Guiana), Paña (Peru), Pène (French Guiana), Pilay (French Guiana), Pilin (French Guiana), Piraña negra (Colombia), Piranha preta (Brazil), Piray de nuit (French Guiana), Pireng (French Guiana), Poson sizo (French Guiana)

***Serrasalmus sanchezi* Géry, 1964**

Serrasalmus (*Serrasalmus*) *sanchezi* Géry, 1964: 27, fig. 22. Type locality: "Caño Yarina", on edge of Río Pacaya, trib. of Puinahua Canal, branch of lower Río Ucayali, Peru. Holotype: ZFMK 1216.

Maximum length: 11.4 cm SL

Distribution: South America: Ucayali River basin.

Countries: Peru

Common names: Paña (Peru)

***Serrasalmus serrulatus* (Valenciennes, 1850)**

Pygopristis serrulatus Valenciennes in Cuvier & Valenciennes, 1850: 300. Type locality: Amazon basin, Brazil in Castelnau 1855: 74, also Araguay [= Araguaia Riv., Tocantins Basin]. Holotype: MNHN A.9898.

Maximum length: 19 cm SL

Distribution: South America: Amazon River basin, ? Essequibo River basin.

Countries: Brazil, Guyana (?), Peru

Common names: Paña (Peru), Piranha (Brazil)

***Serrasalmus spilopleura* Kner, 1858**

Serrasalmus spilopleura Kner, 1858: 166. Type locality: Mato Grosso, Rio Guaporé, Bogota, Brazil. Lectotype: NMW 57085, designated and figured by Jégu & Santos (2001: 122). More detailed description in Kner (1860: 43, pl. 5, fig. 11).

Pygocentrus dulcis Kner, 1860: 44. Not available, name mentioned in passing under *Serrasalmus spilopleura* Kner.

Maximum length: 21 cm SL

Distribution: South America: Guaporé River basin.

Countries: Brazil

Remarks and references: See Jégu & Santos (2001: 133) for detailed morphology and distribution.

Species inquirendae

Serrasalmus emarginatus Jardine in Schomburgk, 1841: 231, pl. 19. Type locality: Essequibo River, Guyana. No type known.

Serrasalmus scotopterus Jardine in Schomburgk, 1841: 233. Type locality: Rio Branco, South America. No type known.

Serrasalmus stagnatilis Jardine & Schomburgk in Schomburgk, 1841: 222. Type locality: Upper Essequibo R., Guyana.

Serrasalmus undulatus Jardine & Schomburgk in Schomburgk, 1841: 232. Type locality: Rio Padauri.

TOMETES

Tometes Valenciennes, in Cuvier & Valenciennes, 1850: 226.

Type species: *Tometes trilobatus* Valenciennes, 1850. Type by subsequent designation by Jordan (1919: 242). Gender: masculine.

***Tometes makue* Jégu, Santos & Belmont-Jégu, 2002**

Tometes makue Jégu, Santos & Belmont-Jégu, 2002: 254, fig. 2a. Type locality: Brésil: Amazonas: Ile d'Acara, en aval de São Gabriel da Cachoeira, rio Negro. Holotype: INPA 7344.

Maximum length: 30.5 cm SL

Distribution: South America: Middle and upper Negro River and Orinoco River basins.

Countries: Brazil, Venezuela

***Tometes trilobatus* Valenciennes, 1850**

Tometes unilobatus Valenciennes, in Cuvier & Valenciennes, 1850: 228. Type locality: Cayenne, French Guiana. Holotype: MNHN A.8651 (dry).

Tometes trilobatus Valenciennes, in Cuvier & Valenciennes, 1850: 226. Type locality: Cayenne, French Guiana. Syntypes: MNHN A.8650 (1, dry) and MNHN A.8649 (1, dry) - holotype designation of MNHN A.8650 in Bertin (1948: 27) is erroneous.

Maximum length: 43 cm SL

Distribution: South America: Northeastern Guiana Shield rivers.

Countries: Brazil, French Guiana

Remarks and references: Synonymy above is based on personal* observation and types examination.

Common names: Baka kumalu (French Guiana), Kumaru (French Guiana), Pacu (Brazil), Pakou (French Guiana)

UTIARITICHTHYS

Utiaritchthys Miranda Ribeiro, 1937: 58. Type species: *Utiaritchthys sennaebregai* Miranda Ribeiro, 1937. Type by monotypy. Gender: masculine.

***Utiaritchthys longidorsalis* Jégu, Tito de Morais, & Santos, 1992**

Utiaritchthys longidorsalis Jégu, Tito de Morais & Santos, 1992: 114, fig. 7a. Type locality: Rio Aripuana, 3 km from above the Dardanillos Fall, Madeira basin, 60°40'W, 9°10'S, Brazil. Holotype: INPA 3638.

Maximum length: 20.3 cm SL

Distribution: South America: Madeira River basin.

Countries: Brazil

***Utiaritchthys sennaebregai* Miranda Ribeiro, 1937**

Utiaritchthys sennaebregai Miranda Ribeiro, 1937: 58. Type locality: Upstream of Salto Utiarity, 13°S, 58°15'W, Affluent of Rio Papagaio, Mato Grosso, Brazil. Lectotype: MNRJ 12154 [ex MNRJ 3407A], designated by Miranda Ribeiro (1953: 397).

Maximum length: 25 cm TL

Distribution: South America: Right tributaries of middle and lower Amazon River, Orinoco River basin.
Countries: Brazil, Venezuela
Common names: Pacu (Brazil)

SPECIES INQUIRENDA

Tetragonopterus latus Jardine in Schomburgk, 1841: 241. Type locality: Rivers of Guiana [Guyana]. No type known.

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