From the Amazonriver to the Amazon molly and back again

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A catalogue of genera considered closely related or synonymous with *Poecilia*.

The introduction to this thesis recorded several named taxa that have been identified as *Poecilia*, more or less related to *Poecilia*, or merely misidentified as *Poecilia*, causing considerable confusion in taxonomic treatments. In this section, based on Eschmeyer (1990), these taxa are recorded and those relevant for the present study are designated.

*Acanthophacelus* Eigenmann, 1907. Type species by original designation: *Poecilia reticulata* Peters, 1859. With the allocation of this well known species to its own genus, based on a detailed description of the gonopodium, Eigenmann rejected the generic allocations of Peters (1859), De Filippi (1861) and Günther (1866). The genus *Lebistes* de Filippi (1861), to which taxon the guppy was traditionally assigned (cf. Regan, 1913), was known from an inaccurate description only (cf. Günther, 1866; Poeser and Isbrücker, 2002). Eigenmann (1912) regarded *Lebistes* synonymous with *Poecilia*, following Garman (1895). However, Eigenmann (1920) recognized *L. reticulatus* as valid.

*Acropoecilia* Hilgendorf, 1889. Type species by monotypy: *Poecilia tridens* Hilgendorf, 1889. This taxon is considered a junior synonym of *Limia* Poey, 1854. Its recognition as a valid subgenus (Breden et al, 1999) is herein considered as a misinterpretation of Rodríguez' paper (Rodríguez, 1997: 671).

*Alazon* Gistel, 1848 is an unneeded replacement name for *Poecilia*, not preoccupied by *Poecilus* in Coleoptera.

*Alfaro* Meek, 1912. Type species, by original designation, *Petalosoma cultrata* Regan, 1908, from Costa Rica. *Alfaro* was considered part of the Poeciliini (cf. Rosen and Bailey [1963]) and is, therefore, included in the present study.

*Allopoecilia* Hubbs, 1924. Type species by original designation: *Girardinus caucanus* Steindachner, 1880, from Colombia. *Allopoecilia* was considered a synonym of *Poecilia* (cf. Rosen and Bailey [1963]) and is, therefore, included in the present study.

*Aulophallus* Hubbs, 1926 (= *Poecilia elongata* Günther, 1866) is a synonym of *Poeciliopsis* Regan, 1913. This genus is not closely related to *Poecilia* and is, therefore, not considered in the present study.

*Cnesterodon* Garman, 1895 (= *Poecilia decemmaculata* Jenyns, 1842) is a valid genus, not closely related to *Poecilia* and is, therefore, not considered in the present study.

*Ctenocharax* Regan, 1907 (*Ctenocharax bogotensis* Regan, 1907 might be a secondary homonym of *Poecilia bogotensis* Humboldt, 1821) is a member of the Characidae, not closely related to *Poecilia* and is, therefore, not considered in the present study.

*Curtipenis* Rivas and Myers, 1950, type species by original designation: *Mollienisia elegans* Trewavas, 1948, from Hispaniola. It was considered as a junior synonym of *Poecilia* by Rosen and Bailey (1963) and is, therefore, considered in the present study.

*Furcipenis* Hubbs, 1931. Type species, by original designation, *Priapichthys huberi* Fowler, 1923, from Nicaragua. *Furcipenis* was allocated to *Alfaro* (cf. Rosen, 1952), sharing all diagnostic characters (cf. Rodríguez, 1997).
Grundulus Cuvier and Valenciennes, 1846 (= Poecilia bogotensis Humboldt, 1821) is a member of the Characidae, not closely related to Poecilia and is, therefore, not considered in the present study.

Gulapinnus Langer, 1913 (= Poecilia decemmaculata Jenyns, 1842) is a member of the Cnesterodontini, not closely related to Poecilia and is, therefore, not considered in the present study.

Hubbsichthys Schultz, 1949. Type species, by monotypy: H. laurae from Venezuela. This genus was created to describe H. laurae, a new species from Venezuela. The figured specimen (Schultz, 1949) shows, among other characters, 12 dorsal fin rays, which number is very unusual for Poecilia, especially in South American species. It was allocated to Poecilia by Parenti (1981), without comparisons or mentioning any material examined, so the genus Hubbsichthys must still be considered as valid. It is not considered herein.

Lebistes De Filippi, 1861. Type species, by monotypy, L. poecilioides, official type locality: Barbados. Regan (1913) synonymized Poecilia reticulata Peters, 1859 from Venezuela, L. poecilioides and Girardinus guppyi (sic) Günther, 1866 from Venezuela and Trinidad. This taxon is replaced by Acanthophacelus Eigenmann, 1907 in the present study, based on the inconclusive description of Lebistes (cf. De Filippi, 1861; Poeser and Isbrücker, 2002).

Lembesseia Fowler, 1949. Type species, by original designation, L. parvianalis, from Africa, Congo system, Oka. The description of L. parvianalis was probably based on a specimen of P. gillii (cf. Poeser, in press), therefore, the name is available for the P. sphenops species group if this species group is separated from both Poecilia and Mollienesia.

Limia Poey, 1854. Type species, first designated by Henn (1916), Limia cubensis. This genus was considered a subgenus of Poecilia by Rosen and Bailey (1963) and is, therefore, considered in the present study.

Lycocyprinus Peters, 1868 (= Poecilia sexfasciata Peters, 1864) is a member of the Aplocheilidae, not closely related to Poecilia and is, therefore, not considered in the present study.

Micropoecilia Hubbs, 1926. Type species, by original designation, Poecilia vivipara parae Eigenmann, 1894, from Brazil. Micropoecilia was synonymized with Lebistes (Rosen and Bailey, 1963) in the subgenus Lebistes and is, therefore, considered in the present study.

Mollienesia LeSueur, 1821. Type species, by monotypy, Mollienesia latipinna, from New Orleans, USA. Mollienesia is presently considered a subgenus of Poecilia (cf. Miller, 1975) and is, therefore, considered in the present study.

Neopoecilia Hubbs, 1924. Type species, by original designation, is N. holacanthus, from Puerto Rico (= misidentification of P. vivipara). Hubbs (1926) recognized his misidentification in 1924. In the present paper it is regarded as P. vivipara.

Odonlolimia Rivas, 1980. Type species, by original designation, Limia grossidens Rivas, 1980, from Hispaniola. Its status as subgenus is not considered in the present study. It is considered as a synonym of Limia. However, a list of species is included in Chapter 11.

Oryzias Jordan and Snyder, 1906 (= Poecilia latipes Temminck and Schlegel, 1846) is a member of the Adrianichthyidae, not closely related to Poecilia and is, therefore, not considered in the present study.
Appendix I

Pamphoria Regan, 1913. Type species, by monotypy, Cnestodon scalpridens Garman, 1895, from Santarem, Amazon Basin. It is considered a synonym of Pamphorichthys Regan, 1913 in the present paper, following Costa (1991).

Pamphorichthys Regan, 1913. Type species, by monotypy, Heterandria minor Garman, 1895, from Villa Bella, Brazil. Pamphorichthys was considered a subgenus of Poecilia (Rosen and Bailey, 1963) and is, therefore, considered in the present study.

Parapoecilia Hubbs, 1924. Type species, by original designation, Limia hollandi Henn, 1916, from Penedo, Brazil. I follow Costa (1991), who considered it part of Pamphorichthys.

Platypoecilus Günther, 1866. Type species, by original designation, P. maculatus Günther, 1866, from Mexico. Platypoecilus is a well-known synonym of Xiphophorus (cf. Marcus and McCune, 1999).

Poecilia Bloch and Schneider, 1801. Type species, by subsequent designation (Bleeker, 1863), P. vivipara, from Surinam. This is the type genus of the Poeciliidae.

Poeciliopsis Regan, 1913 (= Poecilia presidionis Jordan and Culver, 1895) is a member of the Heterandriini (sensu Rosen and Bailey, 1963), not closely related to Poecilia and is, therefore, not considered in the present study.

Priapella Regan, 1913. Type species, by monotypy, Gambusia bonita Meek, 1904, from Mexico. Priapella was considered part of the Poeciliini (cf. Rosen and Bailey [1963]) and is, therefore, included in the present study.

Pseudopoecilia Regan, 1913 (= Poecilia festae Boulenger, 1898) is a member of the Heterandriini (sensu Rosen and Bailey, 1963), not closely related to Poecilia and is, therefore, not considered in the present study.

Pseudolimia Poeser, 2002. Type species, by original designation, Limia heterandria Regan, 1913 from Venezuela. This species was removed from Limia (cf. Rosen and Bailey, 1963) and subsequently removed from Poecilia, subgenus Pamphorichthys (cf. Costa, 1991). It is considered sufficiently related to Poecilia to be included in the present study (Poeser, 2002).

Psychropoecilia Myers, 1935. Type species, by original designation, Platypoecilus dominicensis Evermann and Clark, 1906, from Hispaniola. This taxon was considered a synonym of Poecilia by Rosen and Bailey (1963).

Recepoecilia Whitley, 1951 is an unneeded replacement name for Micropoecilia, not preoccupied by Micropoecilia in Coleoptera.

Xenisma Jordan and Copeland, 1877 (= Poecilia catenata Storer, 1846) is a member of the Fundulidae, not closely related to Poecilia and is, therefore, not considered in the present study.

Xiphophorus Heckel, 1848. Type species, by original designation, X. helleri Heckel, 1848, from Mexico. Xiphophorus was considered part of the Poeciliini (cf. Rosen and Bailey [1963]) and is, therefore, included in the present study.
Zygonectes Agassiz, 1854 (= Poecilia olivacea Storer, 1845) is a member of the Fundulidae, not closely related to Poecilia and is, therefore, not considered in the present study.

References


Eigenmann 1920


