

On the erroneous records of *Poecilia vivipara* from Argentina.

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Abstract

Poecilia vivipara has been reported as being found in the freshwaters of Argentina since 1913. After analysis of the respective literature these accounts are considered erroneous as in no contribution a specimen from Argentina was listed.

Resumen

Poecilia vivipara ha sido registrada como existente en las aguas dulces de Argentina desde el 1913. Luego de un análisis de la literatura correspondiente se considera a estos registros erróneos ya que ninguna contribución indicó un ejemplar de Argentina.

Synonyms of *Poecilia vivipara* Bloch & Schneider, 1801 and their type localities

Poecilia vivipara was described based on a single specimen from Suriname. In the same paper the authors erected *Poecilia* as a new genus and assigned *P. vivipara* as the type species. During the following decades numerous nomina have been described which are currently considered synonyms (Eschmeyer 2014). The type localities of the valid species and the synonyms are found in affluents to the Atlantic Ocean between Suriname and Brazilian Rio de Janeiro, as well as from a population introduced to the Caribbean island of Puerto Rico:

- Poecilia vivipara* Bloch & Schneider, 1801
Suriname
- Poecilia schneideri* Valenciennes, 1821
Suriname
- Poecilia surinamensis* Valenciennes, 1821
Suriname
- Poecilia unimaculata* Valenciennes, 1821
Rio de Janeiro
- Poecilia unipunctata* Guérin-Méneville, 1829-38
Rio de Janeiro
- Molinesia fasciata* Müller & Troschel, 1844
Suriname [not Mexico]
- Neopoecilia holacanthus* Hubbs, 1924
Puerto Rico [an introduced stock]

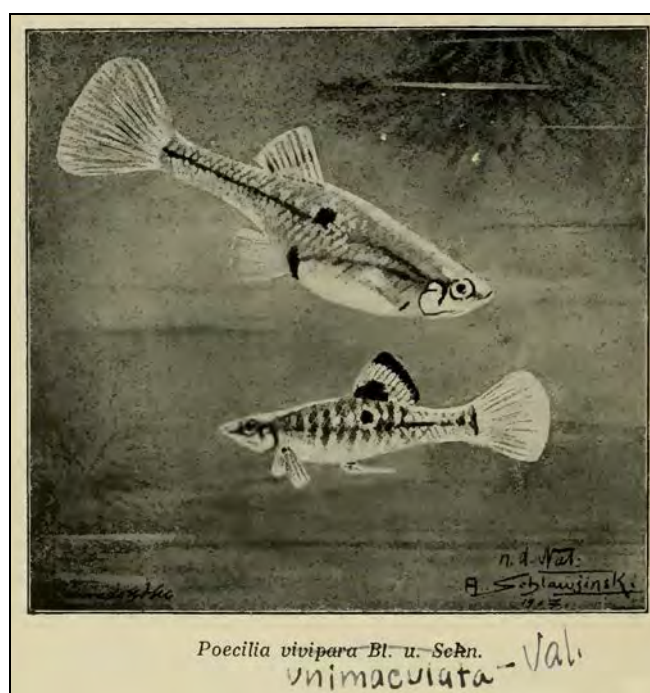


Figure of *Poecilia vivipara* from Stansch (1914) with a remark of George S. Myers in his personal copy.

***Poecilia vivipara* in Argentina**

Regan (1913) listed 'La Plata' as part of the distribution of *Poecilia vivipara*, being this paper considered the first record for Argentina (Ringuelet et al. 1967, López et al. 2003). Regan did not specify if he referred to the city of La Plata, the Río de la Plata itself or to the complete basin of the Río de la Plata.

The first author who mentioned an unambiguous locality for this species from the territory of Argentina was Pozzi (1945) when listing the Argentinean province of Jujuy and, in addition, the rivers Paraná, Paraguay and Uruguay. In their species account of *Poecilia vivipara* Ringuelet et al. (1967) provided Regan and Pozzi as the so far only two direct sources for the assumption that this species is distributed in Argentinean freshwaters. López et al. (1987) mentioned the species as 'limitrofe', from neighbouring countries, whereas López et al. (2003) included it again in their list of freshwater fishes of Argentina.

Unfortunately, none of these authors in their papers has provided any information about existing specimens from 'La Plata' or Argentina. In the ichthyology collection of BMHN, Regan's working place, no material is existing from any such Southern locality (James Maclaine, pers.comm.) By a missing 'a' in the first column of his accounts' Pozzi even indicated clearly that he had no material available. Also, Ringuelet et al. did not provide any information about existing material, a practice they otherwise followed throughout their extensive work. In 1910 Eigenmann mentioned *Poecilia vivipara* to be distributed in Paraguay, also without providing a literature source or specimens. This is surprising as not even in his own numerous previous works on the Southern ichthyofauna any information on *Poecilia vivipara* was mentioned from localities in the La Plata basin. A list of the checked literature with the therein mentioned distributions is provided in table 1.

Subsequently the distribution of *Poecilia vivipara* was enlarged by modifying 'La Plata' to 'Río de la Plata' and then to 'Argentina' in several lists and papers. Liotta (2005) made the observation that the species penetrates the Río de la Plata estuary without mentioning a source either.

Neither a source for the mentioned localities nor a single specimen from Argentina were provided by any of the above discussed authors and despite intensive search we could not find any paper which could have served as a justifying source. We assume that with his listing of 'La Plata' Regan (1913) referred to the La Plata basin after learning about Eigenmann's account from Paraguay. Currently the most reliable information for a Southern distributional limit seems to be the one of Garcia & Vieira (2001) who mentioned findings of *Poecilia vivipara* from the Laguna dos Patos basin in Brazil. Despite the lack of any proof for an occurrence of this species in Argentina, *Poecilia vivipara* was even listed in a work on endangered species from Argentina (Chebez et al. 2009). Some recent authors refrain from listing the species from e.g. Paraguay (Ramlow 1989) or other Southern localities (Poeser 2003).

We consider *Poecilia vivipara* not to be distributed in Argentina and recommend that this species shall not be included in faunal lists for Argentina, the La Plata basin or any Atlantic area South of the Laguna dos Patos basin in Brazil until future findings may prove us wrong.

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Table 1: Literature accounts of *Poecilia vivipara*. 'X' show explicitly mentioned distributions, 'x' herefrom derived

	not included	no distribution	Caribbean Islands	Venezuela	Suriname	Guyanas	Brazil	coastal Brazil	Rio de Janeiro	Rio Grande do Sul	Los Patos basin	La Plata	Río de la Plata	Argentina	Paraguay	Uruguay
Bloch & Schneider (1801)					X											
Valenciennes (1821)					X				X							
Müller & Troschel (1844)					X											
Cuvier & Valenciennes (1846)						X		X	X							
Günther (1866)			X			X	X		X							
Garman (1895)			X	x	x	x		x	X							
Eigenmann (1907)	X															
Eigenmann et al. (1907)	X															
Eigenmann (1909)								X								
Eigenmann (1910)			X			X				X					X	
Regan (1913)			X	X	x	x		x				X				
Garcia & Vieira (2001)											X					
Poeciliidae																
Henn (1916)							x									
Ihering (1931)				X	x	x	x	x					X			
Rosen & Bailey (1963)			X	X	X	X	X	X					X	X		X
Parenti (1981)									X							
Lucinda (2003)			X	X	X	X	X	X					X	X		X
Poeser (2003)			X		X	X		X	X							
Argentina																
Pozzi (1945)														X		
Ringuelet & Arámburu (1961)														X		
Ringuelet et al. (1967)			X	X	x	x		x				X		X		
López et al. (1987)	X															
López et al. (2003)					X							X		X		
Liotta (2005)													X	X		
Paraguay																
Bertoni (1914)															X	
Bertoni (1939)															X	
Ramlow (1989)	X															
Uruguay																
Devincenzi (1920)	X															
De Buen (1950)	X															
Nion et al. (2002)	X															
Litz & Koerber (2014)	X															