

## Poeciliid fishes on Romanian aquarium fish market

<sup>1</sup>Claudiu Gavriiloaie, <sup>2</sup>Sergiu C. Gavriiloaie, <sup>1,3,4</sup>I. Valentin Petrescu-Mag,  
<sup>1</sup>Miklos Botha

<sup>1</sup> SC Bioflux SRL, Cluj-Napoca, Romania; <sup>2</sup> Vertiqua Engineering SRL, Corunca, Mures, Romania; <sup>3</sup> University of Agricultural Sciences and Veterinary Medicine (USAMV), Faculty of Agriculture, Cluj-Napoca, Romania; <sup>4</sup> University of Oradea, Oradea, Romania.

Corresponding author: C. Gavriiloaie, claudiugavriiloaie@gmail.com

**Abstract.** Poeciliid fishes are among the most spread aquarium fish both in Romania and worldwide. They are hardy fish, very easy to breed, very colorful, have interesting behaviors and small size. For this study we visited 46 pet shops and few breeders in 8 Romanian cities, finding eight livebearer species on the market. The most frequent were 4 species, namely guppy (*Poecilia reticulata*), molly (*Poecilia sphenops*), platy (*Xiphophorus maculatus*) and swordtail (*Xiphophorus hellerii*). The other four species were *Poecilia latipinna*, *Poecilia velifera*, *Poecilia wingei* and *Xiphophorus variatus*. Some fish are imported, but a significant proportion is of Romanian origin.

**Key words:** livebearer, tropical fish trade, pet shop, retailer.

**Introduction.** Today there are recognized more than 250 species and more than 30 genera of poeciliid fishes worldwide (Stockwell & Henkanaththegedara 2011; Froese & Pauly 2016; Eschmeyer et al 2016), with frequent new recordings (Lucinda 2008; Stockwell & Henkanaththegedara 2011; Eschmeyer et al 2016). The Poeciliidae family occurs from the southeastern United States to northeastern Argentina (Rosen & Bailey 1963; Nelson 2006), which covers a wide range.

Many poeciliid species (also known as livebearers) are kept in aquariums over the world, because they are usually hardy fish, very easy to breed, very colorful, have interesting behaviors (mostly peaceful) and small size (Coletti 2007; Monks 2013). Four of the popular species of livebearers compose a large percentage of the tropical fish hobbyist market today, namely guppies, mollies, platies and swordtails ([www.fishnet.org](http://www.fishnet.org)). These four above mentioned fishes, which are sometimes called "the Big Four" (Hellweg 2014) are also the most well known poeciliid species in Romanian aquarium fish market (Kaszoni 1976; Bud et al 2005).

In the present paper we shortly discuss about the Romanian market trend related with the Poeciliid fishes.

**Material and Method.** We visited all the pet shops we knew and some private breeders in eight towns in Romania in the period of May-August 2016 in order to spot all the Poeciliid fishes available on the market. We also paid attention to the prices per fish (expressed in the Romanian currency - RON); sometimes we were allowed to take some photos, using a small digital camera (Technika SH-Z625 6MP). In the paper we do not provide any breeder or pet shop name.

**Results and Discussion.** During the study we spotted eight Poeciliid fishes which are subject of trade, namely: *Poecilia reticulata*, *Poecilia wingei*, *Poecilia sphenops*, *Poecilia latipinna*, *Poecilia velifera*, *Xiphophorus hellerii*, *Xiphophorus maculatus* and *Xiphophorus variatus* (Table 1).

Table 1

## Poeciliid fish species found on the market in 8 Romanian cities

City	Pet shop	Fish species (price in RON*)								Observations
		<i>Poecilia latipinna</i>	<i>Poecilia reticulata</i>	<i>Poecilia sphenops</i>	<i>Poecilia velifera</i>	<i>Poecilia wingei</i>	<i>Xiphophorus hellerii</i>	<i>Xiphophorus maculatus</i>	<i>Xiphophorus variatus</i>	
Bucharest	1. A		6	5			5	7		retailer; scientific names on the labels
	2. A		6	5			5	7		retailer; scientific names on the labels
	3. A		6	5			5	7		retailer; scientific names on the labels
	4. A		6	5			5	7		retailer; scientific names on the labels
	5. B			9-10	11		10	10		retailer; scientific names on the labels
	6. B			9-10	11		10	10		retailer; scientific names on the labels
	7. B			9-10	11		10	10		retailer; scientific names on the labels
	8. C		6.5-10.5	5.5-8.5			6-9.5	6-8.5		retailer; scientific names on the labels
	9. C		6.5-10.5	5.5-8.5			6-9.5	6-8.5		retailer; scientific names on the labels
	10. D	7	5.5-6	5-14	18		5.5	5.3		retailer; scientific names on the labels
	11. D	7	5.5-6	5-14	18		5.5	5.3		retailer; scientific names on the labels
	12.		3-5	3-5			2-8	3-5		breeder
	13.	7.5	3-5	3.5-15	7.5	4.5	5-25	5.5-10		retailer; imported fish only
	14.		2.5-5	2.5-6			5		3	retailer
	15.		2-3	2.3			2-5	2.5		retailer
	16.		4	8-10			5	4		retailer
	17.		3.5-4	7			3.5			retailer
	18.		5	5			5	5		breeder
	19.		3-6	3-10			3-7	3-5		retailer
	20.		3-6	3-10			3-7	3-5		retailer

Ploiesti	1. E	7	10	10	6-10	8	retailer; scientific names on the labels	
	2. B		9-10	11	10	10	retailer; scientific names on the labels	
	3. B		9-10	11	10	10	retailer; scientific names on the labels	
	4.	3-5	3-5		3-5	3-5	breeder	
	5.	3	5		3	3	breeder	
Brasov	1. A	6	5		5	7	retailer; scientific names on the labels	
	2. E	7	10	10	6-10	8	retailer; scientific names on the labels	
	3. D	7	5.5-6	5-14	18	5.5	5.3	retailer; scientific names on the labels
Sighisoara	1.	5	5		5	5	retailer	
Targu-Mures	1. A	6	5		5	7	retailer; scientific names on the labels	
	2.	4-5	4-5		4-5		retailer	
	3.	5	7		6		retailer	
	4.	4-5	5		4-5	4-5	breeder	
Reghin	1.	5	5		5	5	retailer	
	2.	3-4	3-4		3-4	3-4	retailer; breeder	
Bistrita	1.	5	5-8	15-18	5-20	4-8	8	retailer
	2.	5	5		5	5	retailer	
	3.	3	3		3	3	retailer	
	4.	4-8	4		4-6	4	breeder; retailer	
Cluj-Napoca	1. A	6	5		5	7	retailer; scientific names on the labels	
	2. A	6	5		5	7	retailer; scientific names on the labels	
	3. B		9-10	11	10	10	retailer; scientific names on the labels	
	4.	3-5	3-5		3-5	3-5	breeder	
	5.	3-5	3-5		3-5	3-5	breeder; retailer	
	6.	3-6	3-8		3-12	3-10	breeder; retailer	
	7.	3-4	3-6		3-5	3-6	retailer	

\* We used the exchange rate of Romanian National Bank: 1 USD = 4.00 RON; A-E - different pet shop brands (brand A - 8 pet shops visited; B - 6; C - 2; D - 3; E - 2).

As we can see from Table 1, 46 pet shops were visited. The most frequent were 4 species, namely molly (*P. sphenops*) found in all the 46 pet shops, swordtail (*X. hellerii*) also found in all the 46 pet shops, platy (*X. maculatus*) found in 42 pet shops, and guppy (*P. reticulata*) found in 40 pet shops. The less frequent are the other four species: *P. velifera* - 13 pet shops, *P. latipinna* - 4 pet shops, *X. variatus* - 2 pet shops, and *P. wingei* - only one pet shop. Generally speaking, there are affordable prices for the fishes. You can have *P. reticulata* for prices starting with 2 RON, up to 10.5 RON per specimen; *P. sphenops* between 2.3-15 RON; *X. hellerii* between 2-25 RON; *X. maculatus* between 2.5-10 RON; *P. latipinna* for 7-7.5 RON; *P. velifera* between 7.5-18 RON; *P. wingei* for 4.5 RON, and *X. variatus* for 3-8 RON.

In the pet shops of the brand A there are the some mistakes: platies, which are *X. maculatus* have labels with the name *X. variatus*; mollies have labels with the only name *Poecilia*. In the pet shops of the brand B, golden mollies are labeled as *P. latipinna*. In the pet shops of the brand C, some platy strains are labeled as *X. hellerii*, one strain of swordtail is labeled as *P. reticulata* (Figure 1), one strain of guppy is labeled as *Pterophyllum scalare* (Figure 2), golden mollies are labeled as *P. latipinna*.



Figure 1. Strain of swordtail labeled as *Poecilia reticulata*.



Figure 2. Guppies labeled as *Pterophyllum scalare* instead *Poecilia reticulata*.

Apart from the stores and pet shops mentioned in Table 1, there are also many breeders who do not own a store or pet shop, which produce only few species in small quantities, usually sold locally to some small pet shops or private persons, or breeders who produce more or less numerous species to be sold over a whole region or the country, in large quantities (thousands of individuals or more), supplying numerous pet shops and stores or retailers. In the whole country there are maybe hundreds of breeders, but we personally know only few: in Reghin (1); Tg. Mures (2); Bucharest (2); one major breeder near Cluj-Napoca, who owns more than 100 species stocked in more than 200,000 L water (but also owns imported fish from Asian countries); another one near Oradea (more than 40 species in 55,000 L water); and another one in Sibiu. There was another great and well known breeder in Bucharest, who recently passed away. All of the mentioned breeders in this paragraph own at least the following poeciliid fishes: *P. reticulata*, *P. sphenops*, *X. hellerii* and *X. maculatus*.

There is also another category of fish sellers (not included in Table 1), namely major importers who bring tens of thousands of fishes every month, including Poeciliid species, from Asian countries (especially Singapore, Thailand and Malaysia). We personally know one such retailer in Bucharest, another one in Brasov city, and one near Cluj-Napoca city. These retailers supply most of the pet shops all over the country.

Concerning the strains of Poeciliid fishes available on the market, there is a great diversity. For *X. maculatus* and *X. hellerii* we observed more than 20 breeds for each species. Only one pet shop in Bucharest had the hi-fin swordtail strain (or the so-called Simpson breed), which is available on the American aquarium fish market since late 1960 (Ellermann 2015). We also must say that is possible a part of the swordtails and platies

strains to be hybrids between *X. hellerii* x *X. maculatus*, *X. hellerii* x *X. variatus*, or *X. variatus* x *X. maculatus*.

There are many *P. reticulata* strains available in the visited pet shops (around 15 strains). For the pure breeds you can buy males only. This is available only for the guppies from retailers. All the private breeders can provide both sexes for pure breeds.

As for the mollies (*P. sphenops*), there were few available breeds on the market: black, golden and balloons, with normal or long fins.

Regarding the fishes obtained from retailers, a part of them are imported from some Asian countries, as we mentioned before. Based on our personal experience and also based on many discussions with fish owners, the imported specimens have a shorter life span than the ones of Romanian origin. They also get sick more often, and have only few offsprings. So, it is much better before buying a fish to ask for its origin and then to choose the fish from Romanian breeders.

**Conclusions.** We have visited 46 pet shops and few breeders in eight Romanian towns, finding eight Poeciliid species available on the market. The most frequent were 4 species: *P. sphenops*, *X. hellerii*, *X. maculatus*, and *P. reticulata*. The less frequent are other four species: *P. velifera*, *P. latipinna*, *X. variatus*, and *P. wingei*. The fish originate from local breeders or are imported from Asian countries by few retailers. The prices for the fish specimens are generally affordable. Only few species of some rare breeds have higher prices.

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Authors:

Claudiu Gavriiloaie, SC Bioflux SRL, Cluj-Napoca, Romania, 54 Ceahlau Street, Cluj-Napoca 400488, Romania, e-mail: claudiugavriiloaie@gmail.com

Sergiu Cristian Gavriiloaie, Vertiquel Engineering SRL, 547367 Corunca, no. 397G, Mures county, Romania, e-mail: csgavriiloaie@gmail.com

Ioan Valentin Petrescu-Mag, SC Bioflux SRL, Cluj-Napoca, Romania, 54 Ceahlau Street, Cluj-Napoca 400488, Romania; Department of Environment and Plant Protection, Faculty of Agriculture, University of Agricultural Sciences and Veterinary Medicine, Romania, Cluj-Napoca, 400372, 3-5 Calea Mănăştur Street; University of Oradea, Romania, Oradea, 410087, 1 Universitatii Street, e-mail: zoobiomag2004@yahoo.com

Miklos Botha, SC Bioflux SRL, Cluj-Napoca, Romania, 54 Ceahlau Street, Cluj-Napoca 400488, Romania, e-mail: miklosbotha@yahoo.com

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