

"Gillii", Molly (*Poecilia gillii*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical/ Brackish Water- Livebearer

Origin / Distribution: Central and South America: Atlantic drainage from Guatemala to the Río Térraba, Costa Rica. Río Grande, Coclé Province to the Río Bayano, Panama.

Description: "Gillii", *Poecilia gillii* (Kner & Steindachner, 1863), a small algae- and detritus-feeding fish, inhabiting sixteen isolated, residual pools of a high-gradient, intermittent stream in Costa Rica following floods which severely reduced the number of fish in the stream. Immediately after the floods, population sizes averaged 20% and pool surface areas 130% of their pre-flood values, periphyton production was relatively low and dissolved oxygen was relatively high.

Physical Characteristics:

Size / Weight / Age: Max length : 6.0 cm TL male/unsexed; 10.5 cm TL (female)

Color Form:

Sexual dimorphism: Spatial variation in environmental characteristics which control periphyton, detritus and oxygen availability may produce characteristic population densities in different pools. An increase in the proportion of males and a decrease in their size after the floods suggest social inhibition of sexual maturation during the late dry season. Male has a gonopodium , smaller but larger fins.

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior: In the past they have been exposed in many areas of the world to combat malaria.

Like all of Molly's, they are very productive under favorable conditions and can easily be multiplied.

Because of the constant bustle, one should keep groups of one male to three females together. Several males are kept together, developed the most dominant males, the most intense colors. Breeding season, individually fluctuating, on average 35-40 days.

(The picture at left shows a dominant male.)

These animals are in terms of water levels extremely adaptable, but feel most comfortable in harder water. In nature, they are frequently found even in brackish water areas.

Habitat: Found in waters of all current velocities, but are more abundant in slack waters. Very large individuals (up to 105 cm) are found in brackish water, while smaller individuals occur in brooks to an elevation of 1220 m. Inhabit swamps, brooks and in shallow waters of large rivers, generally found near the substratum browsing on detritus, ooze and filamentous algae, reproduces throughout the year, but with a peak in juvenile abundance in August.

Diet: Live and dry food

Breeding: Viviparous; (gestation period 35-40 days)

Aquarium Setup: freshwater tank

Minimum Tank Size: min 80 cm (approx. 112 l)

Care Level:

Water Conditions:

- **Temperature:** 24°C - 28°C
- **pH:** 6,5 - 7,5
- **Hardness:** 15 - 30 °dKH

Swimming Level: No depth range available.

Compatibility / Temperament:





Adaptable Molly (*Poecilia vandepolli*) Van Lidth de Jeude, 1887

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical/ Brackish Water- Livebearer

Origin / Distribution: Curacao, Caribbean Islands

Description: *Poecilia vandepolli* Van Lidth de Jeude, 1887.

Physical Characteristics: Corposlanciato, slightly flattened on the sides. Dorsal fin with 8-11raggi. Caudal fin with convex trailing edge.

"*Poecilia vandepolli* seems to be adaptable. I legally collected 22 fry in Curacao in a nonpermanent rooi on a Saturday morning. I kept them at the hotel until the following Tuesday evening. I had them in a plastic ice pail in the room without air conditioning at daytime and on the balcony at night. The temperature was 79 to 82 degrees Fahrenheit all the time. I changed half a liter of the water twice a day; I took the water from the hotel pond where they kept red platies. I had brought an American air pump, but I could not use it, as they had changed to European standard as to voltage and plugs. I had to act as an air pump myself by blowing through plastic tubing with an airstone at the end. I kept the fish in two plastic bottles containing 2 cups each during the flight to Europe in the cabin. I suppose that the temperature dropped some during the night, but the fish did not seem to suffer. I put them in a planted tank that I had prepared before leaving that had Anubias and some sea salt. The fish grew rapidly at a temperature of 80 degrees Fahrenheit. I have fed them with Artemia and vegetable-based dried food flakes."

Size / Weight / Age: Maximum length and 8cm male, female 12 cm.

Color Form: The wild specimens usually have a color condorso oil and silver sides, with blue tones. This species, like most other diogni Poecilia, lends itself to the rearing of black varieties ovariegate. Commercially very popular are the Black Molly (completamenteneri), the Black Molly varied and so-called Liberty Molly (moltocoloration).

Sexual dimorphism: with belly visibly rounded. Male with gonopodium.

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior:

Habitat:

Diet: Omnivore. Any dry food needed to feed the plant administration, which largely determine not only the coloring, but also on sviluppodi this fish.

Breeding: Keep in mind that a continuous reproduction only exemplary blacks almost always results in degeneration of the phenomena of Della specie. And 'so essential to breed with females colorationed normal.

Aquarium Setup:

Minimum Tank Size:

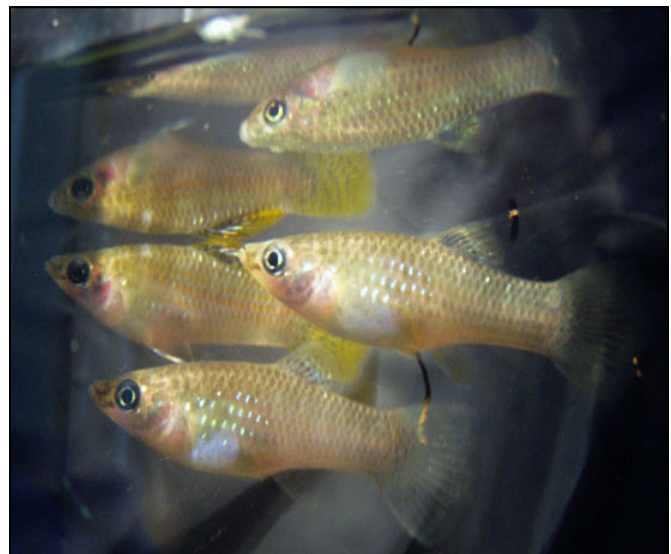
Care Level:

Water Conditions:

- **Temperature:** 24-28 ° C, ;
- **pH:** 7.5-8.2
- **Hardness:** dH: 11-30; dGH: 10 °

Swimming Level:

Compatibility / Temperament: Adult males sometimes aggressive to each other.



Steffen Born



Amazon Molly (*Poecilia formosa*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical/ Freshwater; brackish; benthopelagic; non-migratory- Livebearer

Origin: They are native to warm, fresh waters of northeastern Mexico and to the extreme southern parts of the U.S. state of Texas on the Rio Grande and the Nueces River.

Description: The Amazon Molly, *Poecilia formosa*, is a freshwater fish which reproduces through gynogenesis. This means although females must mate with a male, genetic material from the male is not incorporated into the already diploid egg cells the mother is carrying (except in extraordinary circumstances), resulting in clones of the mother being produced en masse. This characteristic has led to the Amazon molly becoming an all-female species. The common name acknowledges this trait as a reference to the Amazon warriors, a female-run society in Greek mythology.

Physical Characteristics: Dorsal fin rays 10 to 12; dorsal fin base more than one-half predorsal length, dark spots on scales do not obscure diamond-shaped color pattern; exists only as females. Origin of dorsal fin anterior to origin of anal fin (Hubbs et al 1991). Additional info from Hubbs key: Intestinal canal long with many convulsions; teeth not moveable. Additional info from Page and Burr 1991: The Amazon Molly is an all-female species thought to have originated as a result of hybridization between Sailfin and Shortfin mollies, and is intermediate between these two species in its characteristics. Eggs develop in Amazon Mollies following stimulation by sperm of males from either parental species.

Size: 4 - 7 inches; Maximum size: 9.6 cm

Color Form: Rows of brown spots on side (may have rows of dusky black spots)

Sexual dimorphism: Females only no males of the species! This is an all-female species thought to have originated as a result of hybridization between *P. latipinna* and *P. sphenops*. Parthenogenesis reproduction is triggered by copulation and stimulation by sperm from either parental species.

Lifespan: may live for up to 3 years under optimal laboratory conditions.

Behavior: Unfortunately there is very little information about life history from natural habitats. Most of the knowledge about *P. formosa* comes from extensive aquarium cultures. In captivity the Amazon molly reaches maturity between 4 and 6 months, produces more offspring at larger body sizes. Here we report that females caught in the wild contain a mean of 28 embryos (sd \pm 16; n = 20; observed maximum in the wild = 70 embryos, slightly less than the maximum of 90 observed in the lab). Females will probably produce this number of newborn fish about every 28 days, depending on water temperature. They stop reproduction about 3 to 6 months before death in the lab. The number of surviving newborn fish can be reduced considerably by predation or disease.

Habitat: The Amazon molly is a small fish (3 – 7 cm) that lives in a rather limited range from the Nueces River in south-east Texas southward to the mouth of the Rio Tuxpan, north of the Sierra del Abra in Mexico. All these river systems flow from west to east and have no connection other than the sea. The population on such a large scale may have some structure, as populations from south Texas, for example, have no reasonable connection with those in the Río Purificación. However, as the Amazon molly tolerates marine conditions, migration cannot be entirely excluded. A study of FST in subpopulations that span a distance of about 100 km in the same river system did not find significant population subdivision. Some simple models of population subdivision do not affect the effective population size N_e and probabilities of the fixation [such as some island models. However, more realistic models of population structure that allow for extinctions and recolonization can have a substantial impact on deleterious mutation accumulation. To simplify our theoretical treatment, we will assume that the whole species has no substructure that is not already accounted for by our assumed N_e .

Diet: Prefers Live foods and Veggies, will eat flakes though

Breeding: In nature, the Amazon molly typically mates with a male from one of four different species, either *P. latipinna*, *P. mexicana*, *P. latipunctata*, or occasionally *P. sphenops*. One other male that could possibly exist in the Amazon molly's natural range that could induce parthenogenesis in Amazon molly females is the triploid Amazon molly males. These triploid males are very rare in nature and are not necessary in the reproduction of the species, which is why the species is considered to be all female. The Amazon molly reaches sexual maturity anywhere from one to six months after birth, and typically has a brood (batch of young) between 60 and 100 fry (young) being delivered every 30–40 days. This lends itself to a large potential for population growth as long as host males are present. The wide variability in maturity dates and brood sizes is a result of genetic heritage, varying temperatures, and food availability. They will become sexually mature faster and produce larger broods in warm (approximately 80°F) water that provides an overabundance of food.

Aquarium Setup:

Minimum School Size:

Minimum Tank Size: 20 gallon

Care Level: Easy OK for careful beginners

Water Conditions:

- **Temperature:** 73 - 82 Fahrenheit
- **pH:** 7.2 - 7.8
- **Hardness:** hard water (100/150 mg/l).

Swimming Level: They swim together during the breeding season.

Compatibility / Temperament: Bold individuals take higher risks for gains in resources, so shyer individuals should be less competitive.

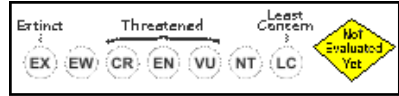


Thomas, Bonner, and Whitehead 2007



Balsas Molly (*Poecilia maylandi*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical/ Brackish Water- Livebearer

Origin / Distribution: Central America: Rio Balsas system in Guerrero, Mexico.

Description: Balsas Molly (*Poecilia maylandi*) Close relatives of the popular Mollis, in fact, could also be called so, only that these are not found in the slope of the Gulf or the Caribbean, but the Pacific Ocean, in fact, these two species are very similar, both morphologically and in their feeding and reproductive habits. *P. butleri* is distributed over a wide area, although it has a few records ranging from Panama, the most abundant distribution occurs from the central part of the coast of Guatemala to the northern state of Sinaloa. Meanwhile, *P. maylandi*, is a fish endemic to the Balsas River and some of its main tributaries, distributed in parts of the states of Morelos, Guerrero and Michoacan. These Poeciliidae or "Pacific Mollies" are not attractive as ornamental fish because they generally lack brightly colored, which is one of the characteristics sought in ornamental fish, but we believe that with the implementation of the husbandry techniques interesting varieties can be developed for the aquarium market, always eager for new species and varieties. The continued captivity of these species poses no difficulty because they are perfectly adaptable to a wide range of water qualities such as hardness and pH of the same. Just as their relatives, mollies, can be easily adapted to relatively high salinities.

Physical Characteristics: *Poecilia maylandi* looks like other *Poecilia mexicana* type mollies. It has an elongated body with a pointed head. There is reported to be a blue iridescence to the body; however, I have not seen that with adults that I had gotten. Males grow up to 3.5 inches and females can grow up to 4.5 inches.

Size / Weight / Age: Max length : 9.5 cm TL male/unsexed; (Ref. 26130); 11 cm (female)

Color Form:

Sexual dimorphism:

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior: I had picked up some fry at the 2000 ALA convention auction and put them in a 20-gallon tank along with *Xiphophorus montezumae* fry of about the same size. I fed the fish a variety of live daphnia, baby brine shrimp, frozen brine shrimp and flake foods. In the meantime I set up a 100-gallon tub outside. I seeded the tub with green water and fertilized the water. Within 3-weeks the water was pea green. I then seeded the water with daphnia. By the second week of June the tub was teeming with daphnia and outside temperatures were quite pleasant so it was time for the move outside. I also put some floating plants and potted herbs and cattails in the tub. (I put concrete blocks on the bottom of the tub to hold up the pots so "only their feet were wet".) Although it was difficult to differentiate the mollies from the swords by the top view, some of the fry were seen constantly picking at the hair algae growing in the tub. Soon it was quite obvious that some of the fry were growing much faster than the rest. During my periodic feedings of baby brine or frozen shrimp where I could get a good look at the fish in the tub, I could tell that the mollies growth had really taken off. When I had brought the fish in at the end of summer I had found that the mollies had grown tremendously to the detriment of the Montezuma swords. Since that time I have tried keeping these mollies inside in a 2 species tank sharing with a *Xiphophorus*. Again, I have gotten the same result with the mollies doing great and the *Xiphophorus* suffering. These fish are quite prolific and soon fill the tank with lots of fry.

Habitat: Prefers dense algal growth. According to Wischnath, Arroyo Chacambero is a slow flowing brook (around 3 to 4 yards wide) that turns into residual pools during the dry season. *Poecilia maylandi* could be found in the dense strands of algae. Other livebearers found in this same arroyo are *Poeciliopsis balsas* and *Ilyodon lennoni*.

Diet:

Breeding: Produces 20 to 60 young after a gestation period of 28 to 42 days.

Aquarium Setup:

Minimum Tank Size:

Care Level:

Water Conditions: Freshwater; benthopelagic;

- **Temperature:**
- **pH range:** 7.0 - 7.8
- **Hardness dH range:** 5 - 30

Swimming Level:

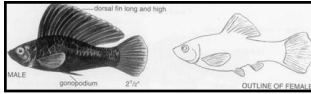
Compatibility / Temperament:





Black Sailfin Molly (*Poecilia latipinna*) Variety

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical/ Brackish Water- Liverbearer

Origin: Yucatan, Mexico

Description: The Black Sailfin Molly, is also called the Mexican Sailfin Molly, Giant Sailfin Molly, and sometimes simply the Sailfin Molly, is a very hardy black color variation of the *Poecilia latipinna*, Sailfin Molly.

Physical Characteristics:

Size: Max. Size In Aquarium: Up to 6½"

Color Form: Black

Sexual dimorphism:

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior:

Habitat:

Diet: The Black Sailfin Molly is omnivorous and requires both meaty foods as well as algae. Provide these fish with an algae-based flake food, as well as freeze-dried bloodworms, tubifex, and brine shrimp.

Breeding: The pointed anal fin and much larger dorsal fin on the male, and the rounded anal fin and pregnancy spot on the female differentiate the two. The Black Sailfin Molly is a livebearer that requires a spawning box in a large 25 gallon, or larger breeding tank. The aquarium should be planted as densely as possible or have a thick algae mat. Having a group of floating plants in the corner of the aquarium will promote rearing outside of the breeding tank. Every 60-70 days the female will give birth to 10-60 young that are already approximately one-half inch long.

Aquarium Setup: The Black Sailfin Molly requires a tank of at least 30 gallons with algae and plenty of room to swim. The tall dorsal fin of the male will not develop if adequate room is not provided for him to swim. This species should only share a tank with other peaceful fish that prefer hard water with elevated salt levels. **Mollies have the ability to adapt to a variety of salt levels in the aquarium. With a gradual acclimation, these fish may be maintained in either a freshwater or saltwater aquarium. In the freshwater aquarium, a minimum of a teaspoon of aquarium salt per gallon is recommended for optimum health.**

Minimum Tank Size: 30 Gallon

Care Level: Difficult

Water Conditions:

- Temperature: 75-82°F; ;
- pH: pH 7.5-8.5
- Hardness: KH 10-25

Swimming Level:

Compatibility / Temperament: They are a peaceful fish and prefer hard water.





Boseman Molly (*Poecilia boesemani*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical / Benthopelagic; freshwater - Livebearer

Origin: Central America: Trinidad and Tobago.

Description: "Little Information"

Physical Characteristics:

Size:

Color Form:

Sexual dimorphism:

Lifespan:

Behavior:

Habitat:

Diet:

Breeding:

Aquarium Setup:

Minimum School Size:

Minimum Tank Size:

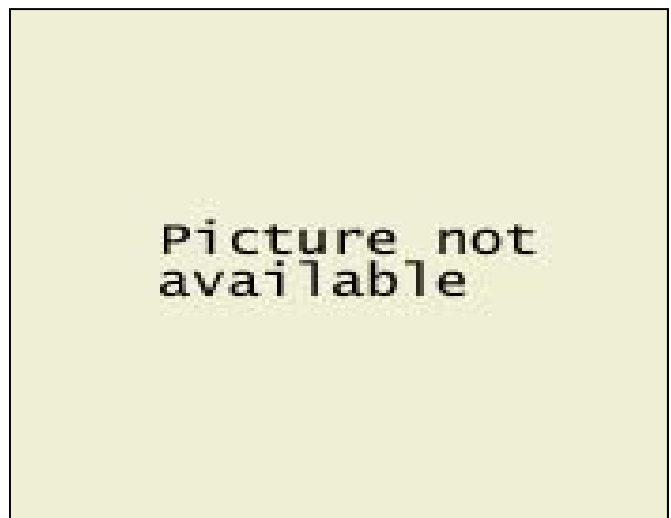
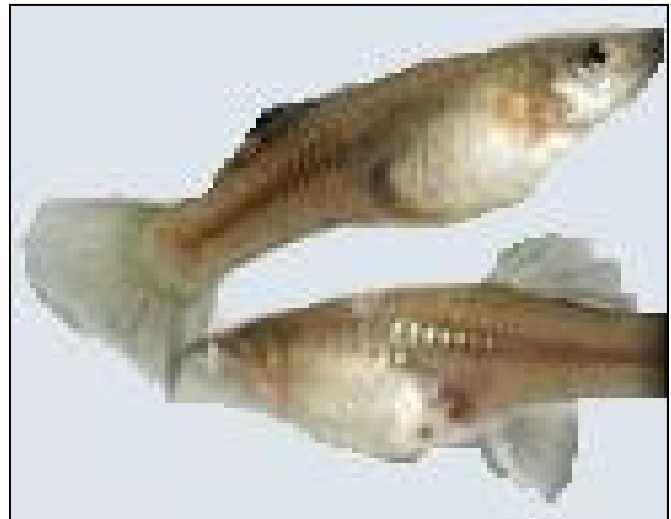
Care Level: Easy

Water Conditions:

- Temperature:
- pH:
- Hardness:

Swimming Level:

Compatibility / Temperament:





Broadspotted Molly (*Poecilia latipunctata*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as: Tamesi molly

Type: Tropical/ Brackish Water- Liverbearer

Origin: It is endemic to Mexico.North and Central America: Rio Panuco basin in Tamaulipas, Mexico.

Description: The Broadspotted molly (*Poecilia latipunctata*), locally known as molly del tamesi, is a species of fish in the Poeciliidae family.

Physical Characteristics:

Size: 5.0 cm TL (male/unsexed; Maximum size: 50 mm TL)

Color Form:

Sexual dimorphism:

Lifespan:

Behavior: The Tamesi Molly is an unusual molly species because it has features of both shortfin and sailfin mollies. Morphologically, it is classified as a shortfin species, yet phylogenetic evidence and observations of male courtship behaviour indicate that it should be classified as a sailfin molly. We characterized the mating behavioral profiles of dark and silver male *P. latipunctata* by varying the competitive environment (presence or absence of male competitors) and the degree of female receptivity (unreceptive versus receptive females), both factors known to increase rates of courtship displays in sailfin species. We measured rates of three mating behaviours: courtship displays, gonoporal nibbles and gonopodial thrusts (forced insemination attempts) under both types of competitive and female receptivity conditions. Rates of courtship displays were strongly influenced by female receptive state; both dark and silver males elevated their rates of courtship displays in the presence of receptive females in either competitive environment. In addition, the influence of competition for mates (presence of a competitor) had a stronger effect on the courtship display rates of dark males, but only in the presence of receptive females; courtship display rates were almost eight times higher for dark males when at least one female in the social group was receptive (<=24 h postpartum). These results suggest that dark males actively compete for receptive females by increasing their reliance on courtship, a behavioural response clearly characteristic of other sailfin molly species.

Habitat: Benthopelagic; non-migratory; freshwater Inhabits warm, calm and vegetated waters.

Diet:

Breeding: The endangered Tamesi molly (*Poecilia latipunctata*), an unusual live-bearing fish, shows both sailfin and shortfin molly mating behaviours. Produces 10 to 30 young after a gestation period of 28 days. Although genetically a sailfin molly, *P. latipunctata* lacks the enlarged dorsal fin. *P. latipunctata* males perform courtship displays to females to elicit cooperation similar to sailfin males. However, males also establish dominance hierarchies through agonistic acts and changes in colour like shortfin mollies. We found that both female receptivity and presence of other males influence type and intensity of male mating behaviours. These context-dependent male mating strategies may have been important in the divergence of *P. latipunctata* from their sailfin molly ancestors.

Aquarium Setup:

Minimum School Size:

Minimum Tank Size:

Care Level: Easy

Water Conditions:

- Temperature:
- pH:
- Hardness:

Swimming Level:

Compatibility / Temperament: .





Catemaco Molly (*Poecilia catemacensis*) Miller, 1975

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as: Catemaco Molly; Bicolor Molly; Lemon Molly

Type: Tropical; Freshwater; benthopelagic; pH range: 7.2 - 8.2; dH range: 6 - 30; non-migratory

Origin / Distribution: Central America: Veracruz, Mexico, Lake Catemaco,

Description:

Physical Characteristics:

Size / Weight / Age: Max length : 8.0 cm TL male/unsexed; 10.5 cm TL (female)

Color Form:

Sexual dimorphism: Males are smaller and have a gonopodium.

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior:

Habitat: Demersal

Diet:

Breeding:

Aquarium Setup:

Minimum Tank Size: A species tank is recommended for this rarer species. House this species in tanks of at least 200 L. Dense vegetation and a partial cover of floating plants should be included. A section of the tank preferably in the foreground, should have an open swimming area. It is not necessary to add salt.

Care Level:

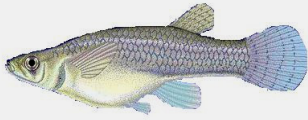
Water Conditions:

- **Temperature:**
- **pH:** 7.2
- **Hardness:** 6-30°dGH

Swimming Level:

Compatibility / Temperament: Relatively peaceful, if kept in community tank.





Cauca-Molly (*Poecilia caucana*)

Order: Cyprinodontiformes - Family: Poeciliidae - Subfamily:



Also known as: South American Molly *Mollieniesia caucana*; *Allopoecilia caucana*; *Girardinus caucanus*

Overview: The colorful fins make the Cauca Molly very appealing, which is why this species has always had at least a limited distribution among hobbyists. This fish comes from Panama, Venezuela and Colombia, where it lives in shallow waters. *Poecilia caucana* eats mosquito larvae and algae. The species prefers a water temperature around 22 to 25°C and a pH of 6.5 to 7.2.

Origin: Central and South America: Panama, Colombia and Venezuela. Imported in 1906 by STOVE to Germany.

Description: The cauca molly, *Poecilia caucana*, is a fish in the Poeciliidae family, also called South American molly and *Mollieniesia caucana*.

Physical Characteristics: Identified by the black spot found on the base of the dorsal fin; some specimens with thin transverse bands along the body but this may be attributed to the coloration before or after the reproductive period

Color Form:

Sexual dimorphism: Males are more colorful and have a gonopodium. Females larger than males.

Lifespan:

Habitat:

Behavior:

Diet: Omnivore - Dry foods and small frozen and live food. Feeds on algae and insects end up in the water, algae, vegetable flakes; tablets, and small live foods such as *Anemia nauplii* and *Cyclops*.

Breeding: Internal live bearers—Produces 10 to 25 young after a gestation period of about 28 days. Young cared for by the male. Breeding has been accomplished in aquaria with algae blooms. One female gives birth about every 4 to 8 weeks; 25 young that are 7 mm long. The fry are sexually mature at 4 to 5 months of age if well fed. The parents do not pursue the newborns as long as they receive an adequate equal diet and the tank offers ample vegetation (floating plants). The young must swim in food. If enough algae are not available; MicroMin; Liquify Green, or Preis Microplan have to be fed. These foods are kept in suspension longer if the tank is well aerated. Snails help maintain water quality when commercial diets are fed, but they also eat the available algae.

Aquarium Setup:

Water Conditions: Like many small Poeciliidae. Snail helps keep specimens healthy (1 teaspoon per 10 l). Vegetable foodstuffs such as algae are preferred. Water Changes and good filtration are necessary. Since plant growth is normally aborted or suppressed in saline water.

- **Min. Size in cm:** 60 cm
- **Min. size in liters:** 60 Litres
- **Temperature:** 24-30 ° C *Poecilia caucana* demands temperatures of 27" to 29 °C.
- **PH in the water:** 7.0 to 7.5
- **GH (Hardness):** 10 to 20 ° dH
- **Minimum Tank Size:**

Care Level:

Max. Size: 6.0 cm

Swimming Level:

Compatibility / Temperament: Peaceful. Appropriate for small aquaria containing other delicate species. Keep in groups in the aquarium with more females than males. Well planted.



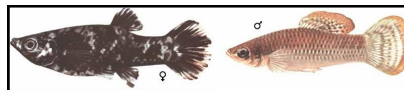
www.aquadigital.net





Common (Black) Molly (*Poecilia sphenops*)

Order: Cyprinodontiformes - Family: Poeciliidae - Subfamily:



Type: Tropical; Livebearer

Origin: In general, mollies are native to areas of North and Central America along coastal salt, brackish and fresh water regions. This goes for the "wild-type" mollies, not the industry bred variations including the black molly. Wild mollies reside in the shallow surface waters of ponds, marshes, streams, swamps and estuaries. Populations were transported to New Zealand, Western United States and Hawaii because they are so highly adaptable. With the ability to live in salt and freshwater, this thriving species is an easy one to start with for new aquarium hobbyists.

Overview: The generic name *Poecilia* derives from the Greek ποικίλος (variegated), in reference to the fishes' coloration IUCN list two of the species, the sulphur molly, *P. sulphuraria*, and the broadspotted molly, *P. latipunctata*, as Critically Endangered.

Description: Common Molly (*Poecilia sphenops*) is a species of fish, of the genus *Poecilia*, known under the common name molly; to distinguish it from its congeners, it is sometimes called short-finned molly or common molly. They inhabit fresh water streams and coastal brackish and marine waters of Mexico. The wild-type fish are a dull silvery color, often sprinkled black all over. Contrary to popular belief, this species of fish is actually a freshwater species, spending little time in brackish water before swimming back to their freshwater biotope. However, fish of the same species have been found in coastal sea waters, brackish swamps and freshwater streams, living and breeding. Mollies appear to be a hardy and highly adaptable species (this has been diluted over years of interbreeding in tank-bred specimens). This species is one of the ancestors of the black mollies, a number of melanistic breeds which are black all over. It is one of the most well-known aquarium fishes and nearly as easy to keep and prolific as guppies (for optimal health and breeding success, they demand fresh vegetable food like algae). There are several other popular breeds, like the golden molly, nicknamed "24 karat", or the balloon molly, which has a deformed spine and a decreased lifespan due to the associated health problems. Also, breeds with altered caudal fin structures such as lyretails exist. The wild form is in fact quite rarely kept, as it has a rather plain silvery coloration suffused with brown and green hues. If given good care with ample sunlight, high water temperatures and fresh vegetables, they will, however, prove charming fish who make up for their somewhat plain coloration with their lively behavior. The common molly can produce fertile hybrids with many *Poecilia* species, most importantly the sailfin molly. In the case of black a bit more attention and have a somewhat decreased lifespan - though certainly not as much as the deformed breeds. The male black mollies generally tend to be mildly aggressive. Although they are compatible tank mates with fish such as tiger barbs, they will chase them. Mollies rank as one of the most popular feeder fish due to high growth rate, birth size, and brood number.

Sexing / Sexual Dimorphism: Females have a much rounder body and can grow larger. The sexing of mollies are fairly easy as it is with most live bearers. Internal fertilization is possible by the gonopodium on the males. The gonopodium is a modified anal fin that is used to inseminate females in the mating process.

Genetics: Several subspecies and color varieties are known. The best known is the "classic" Black Molly where the back is usually Olive Brown and the sides may be silvery with a Green or Blue luster marked with a series of brown or Orange dots. The Popular Lyretail varieties also belong to this species. The black molly, also known as the midnight molly, is a hybrid species between *Poecilia*

latipina and *Poecilia sphenops*. This live bearer is named for its very dark, all over black coloration. At times this fish can be found with a yellow streak on the dorsal fin or minor silvering on the flanks, but for the most part this fish lives up to its common name: black molly. The black pigmentation of this fish is a result of a melanistic condition. Melanism, the opposite of albinism; it is a condition in which the full potential of melanin or skin pigment is represented. The result is a really dark black pigment which is the opposite condition of albinism; the lack of color pigmentation.

This strain of molly is not one that occurs naturally in the wild. The black molly is bred to display certain desirable traits in the aquarium industry. The lyretail black balloon molly is one hybrid commonly sold for its fine display of unique finnage and its cute, puffy physique. But not all black mollies are born with fancy fins or the balloon shaped bodies, and many times they are not completely black. It just depends on the combinations of dominant and recessive genes and just plain luck. Some aquarists do not see these traits as a good thing because of the consequences that come with the mutated varieties. The balloon characteristic is a type of deformity that happens to be coveted in the aquarium industry. But along with all the desirable traits come the unforeseen weakness of shorter life expectancy and susceptibility to disease. Because of all the selective breeding these fish are not as hearty as the wild-type specimens they were hybridized from.

Physical Characteristics: As the male matures the Anal fin develops into a structure for reproduction called the Gonopodium. The Gonopodium can be moved in almost any direction and stores the sperm in packs called spermatophores. Once the sperm is inserted into the female it fertilizes her eggs and the rest is stored in the Oviduct walls for later use. The eggs are very rich in yolk and the young develop by consuming their yolk stores. In light colored females pregnancy can be recognized by the growing dark body marking in front of the Anal fin. Young Live-bearers are fairly large at birth and their development is very advanced. They can swim right away, which is needed to avoid their enemies including their parents who give no natal care whatsoever. The fry grow very rapidly and will eagerly accept fine flake food. The number of fry is variable due to the size differences in the species, but in larger females can number well over one hundred.

Color Form: Black

Temperament: Peaceful and inquisitive fish!

Diet: Omnivores – ensure vegetable matter provided, will graze. Fresh spinach, zucchini, peas and lettuce. Live blood worms, glass worms, brine shrimp and tubifex worms. Frozen vegetable diet, daphnia, plankton, beef heart, brine shrimp, glass worms and blood worms. Flake and freeze dried foods also accepted.

Breeding: A Molly is like other live bearing fish in that they will carry the eggs after spawning and give birth to live fry. To breed a Black Molly there isn't much required of the aquarium owner. A male and female will readily spawn when placed together in a tank that has good water conditions. The male has a longer pointed dorsal fin, called a gonopodium. The males gonopodium lies underneath the body, it is one fin that hangs down and looks like a fin folded up against his body. The females is smaller and rounded, and has two fins that hang down). Male will hound females into breeding, when the female is fertilized, she then gives birth after around 45-60 days. After the gestation period the female will then give birth to as many

as 80 fry depending on the size of the mother. A typical brood is usually closer to 40-50 fry. One trait of Mollies and other live bearing fish is their tendency to eat the fry right after they are born. It is up to the aquarium owner to separate the fry from the mother to protect them from being eaten. This can be done by using a commercial breeding trap or by providing plenty of plants that will offer hiding places for the fry when they are born. Molly fry can be fed brine shrimp and pulverized flakes. Can store sperm and produce multiple broods from one mating. If stressed, they can re-absorb the fry or may result in a still birth. Fry are free swimming and grow rapidly. Feed crushed flake food.

Because of the nature of Mollies to eat their fry soon after they are born it is important that something is done to protect them from mother after being born. There are a few options available to an aquarium owner to protect the fry.

Commercial breeding traps can be purchased at local pet stores. These are plastic containers that float inside the aquarium. They have multiple compartments with a divider that has a small space to allow fry to pass through but not the mother. After the fry have been born the mother can then be removed and the trap can be used to hold the fry till they are big enough to not get eaten.

Special plants can also be bought at local pet stores. These plants are often called baby hides. They are plants that have small enough spaces that the fry can swim into but the mother cannot. Using plants like this is better because it puts less stress on the mother. However there is greater chance that some fry may not make it to the cover provided by the plant.

Mollies are livebearers which mean that they give birth to live young (instead of laying eggs). All mollies are easy to sex and can be sexed by looking at their reproductive organs as well as in many species very visible attributes such as large fins on males. Most species are easy to breed if their demands are met. Pregnant females can easily be stressed and stress often causes miscarriages that kills the fry and can threaten the life of the female. Placing a pregnant molly in a regular breeding trap is a common cause for stress and can have dire consequence. If a breeding trap is used it must be much larger than a normal breeding trap. Another common source of stress in pregnant female mollies is males that try to mate with them. It is therefore important to give the females enough hiding places. If they are kept in a small aquarium it is best to remove the males once a female is fertilized. Poor water quality, other fish etc can also be causes of stress.

If you give your mollies a good stress free environment they will usually spawn and give you fry in due time. The fry is large and can be fed newly hatched brine shrimp as well as crushed flake food. Some fry usually survive in the holding tank unless it is too populated, but for more effective breeding the females need to be moved to birthing tanks from which they are removed as soon as they are finished giving birth. The birthing process can stretch over several days. The numbers of fry per birthing depends on the size of the female but is usually quite low.

Life Span: 4 years

Adult Max. Size: 3-4 Inches

Care Level: BW preferred, min 10g, although can tolerate FW however more prone to illness. Hardish water, lots of plants and swimming areas.

Minimum Tank Size: 10 Gallon; An aquarium in which you keep mollies should be at least 20 gallon (90L) and decorated to reduced stress.

Water Conditions: Ideal water conditions to keep mollies of all species are around pH 7.5 to 8.0, and 25-28°C (77-82°F). Mollies need to live in water that is:

- **Temp:** 25-28°C-76-84f
- **pH:** pH 6.8-8.0,

- **Hardness:** 15-30°dH

Aquarium Setup: Moderately decorated with rocks, live plants and driftwood. Although not an actual shoaling species, they are happy in a large group but can also be kept as a small group of same or mixed sex. Many people try to keep them as single sex groups, however if the fish are young enough then you could have a few instances of changing sex! Mollies are closely related to guppies and can be kept in much the same way. In the wild, each species is found in a wide variety of different biotopes but the majority of the habitats are slow moving streams with warm hard alkaline water. They accept a much wider variety of water conditions and a considerably lower water temperature but they seem to do best in the abovementioned conditions. Wild populations of mollies are only sparsely found in brackish water. There are areas where mollies have been introduced to brackish and even marine water and are thriving.

Mollies are sensitive to stress and should not be kept in aquariums with aggressive or very active fish that stress them. Less suitable fish include many popular barb species that just like the mollies are commonly recommended for beginners. I do not recommend keeping mollies with barbs (cherry barb is an exception), cichlids or large/aggressive fish species. This means planted with areas of dense vegetation as well as with open areas where the fish can swim. Males can stress females by pursuing them too aggressively as they try to mate with them and it is therefore important that the females can hide from the males. Dense vegetation also increases the chances of fry surviving in the holding tank. Change about 20% of the water each week and try to keep the water quality as high as possible.

It is often recommended to add salt to the water in aquariums containing mollies and although this isn't necessary it has several benefits. One is that salt reduces the toxicity of nitrate and nitrite; another is that many aquarium diseases and freshwater parasites do not tolerate salt and won't infect your fish if there is salt in the water. If you use marine salt it also contains salts that increase water hardness and pH-value which might make the water more suitable for mollies if you live in an area where the water is a bit too soft/acidic to make mollies thrive. Salt is however not necessary and will offer little to no benefit if you give the mollies the environment they want.

Compatibility: Peaceful fish that will sometimes school with their own kind. Females should outnumber males two to one.

Common (Black) Molly (*Poecilia sphenops*)





Cumana Guppy (*Poecilia wingei cumana*) Variety

Order: Cyprinodontiformes - Family: Poeciliidae



Extinct	Threatened			Lower Risk			
EX	EW	CR	EN	VU	cd	nt	lc

Also known as:

Type: Tropical/ Brackish Water- Livebearer

Origin: Heather J. Alexander - Graduate - PhD Department of Biological Sciences on the Canadian Simon Fraser University 2007 graduated on the thesis: Population differentiation and sexual isolation among *Poecilia reticulata* populations. She concluded that there was "no evidence of genetic incompatibility" between ELB (Endler's Live Bearer) and *Poecilia reticulata* (Guppy). Also was found that the population in Cumana has had DNA introgressed ("hybridized") from regular guppies. However the differences between the physical appearance of the males of both variations are that big that it looks that this could be a different species and/or subspecies, and although the latest thesis (2007) of Alexander e.a. seems to confirm this, basically the suggestion is made that this fish is a geographical race of guppy, and so named according to the geographic location as Cumana guppy. Its not been thought of as a species by Alexander and Breden. For her PhD-thesis she made a thorough survey of an approximately 100 km radius around Cumana, Venezuela, in more than 20 rivers and canals including all adjacent drainages in 2000 and 2001, together with (among others..) her promoter Felix Breden. Only in three locations West of the City of Cumana she could find the typical Endler-variant. The original location where Prof. Endler did his discovery is not mentioned in her thesis..

Description: The populations of Campoma-like guppies collected in a coastal area of Venezuela, in Cumana, Laguna de los Patos (Endler, pers. comm.), might very well be an established local population of *P. wingei*. How guppies were distributed there is unknown; they might be remains of an earlier, wider range of the Campoma guppy, but most likely they are released aquarium specimens originating from the Cariaco- Carupano region. The Endler's live-bearer is renamed as "Cumana guppy" by Alexander and Breden (2004). This vernacular name is misleading because not all guppies from Cumana that they collected are named as such (Alexander and Breden, 2004: 3), only those from the west part of Cumana. The paper of Alexander and Breden (2004) adds a lot of quantitative data to our findings, confirming *P. wingei* as a valid species. They quantified sexual isolation, adding sexual selection and different male display traits to our findings of behavioral differences. They also added clear morphological differences to the description of the two guppy species (Alexander and Breden, 2004: , as well as a full examination of the differences in colour patterns also mentioned in the present paper. Finally, they recorded only common guppies in a radius of 100 km outside Cumana, confirming the presence of exclusively *P. reticulata* populations between Cumana and the Paria Peninsula. Alexander and Breden (2004) recorded a total lack of reproductive (postzygotic) isolation between their Cumana guppies and other guppy populations, although they did mention the initial incompatibility of Endler's guppies with *P. reticulata*. This makes sense in the light of our hypothesis of human introduction: the initial isolation, existing in the late 1970's, is now broken down, possibly by introduction of *P. reticulata* genes into the Cumana population of *P. wingei* by sneak copulations.

Physical Characteristics: Wild Endler's Livebearers males are described as polychromatic, so they can throw many different colour combinations. In addition to metallic polychromatic patterns, they usually exhibit a characteristic black band on the flanks. These particularities demark them from common wild Guppy features. The holotype is a male, 14.3 mm SL, with a black band at the most anterior part of the caudal peduncle (cf. Fig. 3a, b). On the right side of the caudal peduncle are two elongate and interconnected metallic spots. Body scales contain many melanophores, darkening the body and forming a vague spot between the ventral and pectoral fins. The pigmentation on the left side is like the right side, but with the vague spot elongate as a band, bordering a metallic body colour. This male has a definite caudal fin pattern, with a slightly enlarged and dark upper margin. The upper and central section shows small black spots, whereas the lower margin is pigmented at the base, i.e., a thin black line on the lower margin of the fin and a white area around a black spot just above this margin. The gonopodium contains remarkably many melanophores, also extending to the gonopodial palp.

Size:

Color Form: Metallic body colour.

Sexual dimorphism: The males get their coloration in about 3-5 weeks, the females stay looking nearly the same.

Lifespan: Endler's will live for up to 2-3 years if well cared for.

Behavior: Just watching the results of a large breeding population can be a fascinating lesson in genetic probability. During the observation period, males were continuously found in the proximity of the females. With every all-female subgroup, we observed how two or three males remained proximate, i.e., the males seemed less promiscuous compared to *P. reticulata*. In one case, such group was accompanied by a single male. In groups with more fishes, i.e., more than 40 adults, the males court more intensive. In relatively small groups, e.g., one to three males and one to seven females, the males show less intensive courtship behavior compared to bigger groups. Males in smaller groups apparently need not show their fitness so often, because the females probably recognize individual males. When a male not already belonging to the subgroup started to show courtship behavior to one of the females, the male already present showed the strange male his sigmoid display, after which the intruder stopped his courtship attempt. Males that initiate courtship approach the female from behind, preferably while she is busy searching food. As noted above, females are mostly stationary during foraging.

Habitat: *Poecilia wingei* (Endler's Livebearer) first described habitat consists in a group of several shallow mangrove estuarine type environment, west of Cumana City. During raining season, all this water bodies interconnect, but after the showers they turns in to a motionless or very slow moving group of lakes and lagoons. Than some salinity variations take place according to rain seasonal calendar or ocean openings. It goes from fresh to brackish water. It is also largely surrounded by Black Mangroves.

Diet: Endler's will accept regular tropical flake foods, but only really like livebearer foods, all live and once-live foods.

Breeding: They will breed like mad as long as there are males and females present, and usually do not eat their fry. Many variations in color and pattern may show up, if a large, phenotypically varied sample is bred; acquiring a fairly narrow selection will end up with near uniform color patterns after several generations.

Aquarium Setup: The Cumana Guppy is a very easy to care for fish. Their care is almost identical to that of the guppy.

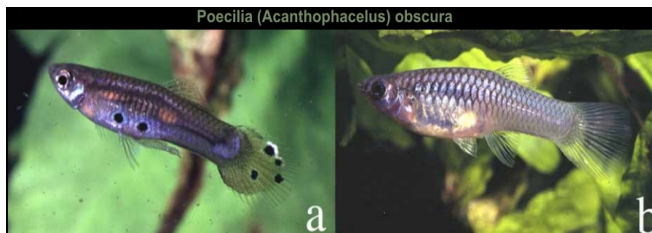
Minimum Tank Size: 5 Gallon

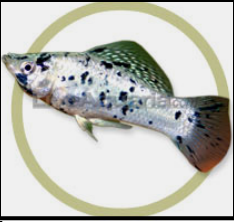
Care Level: Easy

Water Conditions: Endler's Livebearers are very adaptable to the water conditions provided to them. Most of these will be very much like those required for other tropical aquarium fish. .

- **Temperature:**
- **pH:**
- **Hardness:** They like quite hard (high KH and/or dH) water, as well as slightly basic water, which works well in high-KH conditions.

Compatibility / Temperament: Tankmates - Corydoras species: Cory catfish (any of the species) Otocinclus of affinis: Oto; Dwarf Algae Eater (any of the small 'affinis-type' species); Kryptopterus Bicirrhis: Glass Catfish; Heterandria formosa: Dwarf Topminnow; Dwarf Mosquito Fish; Aplocheilichthys Normani: Norman's lampeye Hemigrammus Erythrozonus: Glowlight Tetra (any small Hemigrammus species) Paracheirodon species: Neon Tetra, Cardinal Tetra (all Paracheirodon species) Hyphessobrycon Herbertaxelrodi: Black Neon Tetra; Carnegiella Strigata: Marble tetra; Carnegiella: Blackwing Hatchetfish; Gasteropelecus Levis: Common Hatchetfish; Gasteropelecus Sternica: Silver Hatchetfish; Pangio (Acanthopthalmus) kuhlii: Kuhli Loach *Poecilia reticulata*: Common guppy, *Poecilia obscura*: Oropuche guppy, (but remember) *P. reticulata* and *P. obscura* are from the same subgenus: Acanthophaelus, so they will cross-breed, if brought together, you will get a "Hybrid" Guppy)





Dalmatian Molly (*Poecilia latipinna*) Variety

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical/ Brackish Water- Livebearer

Origin: East coast of Florida, Gulf of Mexico, North Carolina

Description: The Dalmatian Molly is a hybrid color variation of *Poecilia latipinna*, the Sailfin Molly.

Physical Characteristics: The Dalmatian Molly has a black and white body, and is sometimes referred to as the Marbled Molly or Marbled Sailfin Molly.

Size: Max. Size In Aquarium: Up to 4¾"

Color Form: Black and White, Mottled

Sexual dimorphism:

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior:

Habitat:

Diet: Omnivore; The Dalmatian is omnivorous and requires algae. Provide these fish with an algae-based flake food, as well as freeze-dried bloodworms, tubifex, and brine shrimp.

Breeding: The pointed anal fin and much larger dorsal fin on the male, and the rounded anal fin and pregnancy spot on the female differentiate the two. The Dalmatian Molly is a livebearer that requires a spawning box in a large 25 gallon, or larger breeding tank. The aquarium should be planted as densely as possible or have a thick algae mat. Having a group of floating plants in the corner of the aquarium will promote rearing outside of the breeding tank. Every 60-70 days the female will give birth to 10-60 young that are already approximately one-half inch long.

Aquarium Setup: The Dalmatian Molly prefers a tank of at least 30 gallons, densely planted with plenty of strong plants such as Java fern, Sagittaria, Vallisneria and Anubias. They require a good filtration system because of their hearty appetites. The Dalmatian Molly is well suited for the community tank because of its peaceful nature, and is compatible with other peaceful, large fish that can withstand hard water. They may pursue their young and the young of the other fish. Mollies have the ability to adapt to a variety of salt levels in the aquarium. With a gradual acclimation, these fish may be maintained in either a freshwater aquarium or a saltwater aquarium. In the freshwater aquarium, a teaspoon of aquarium salt per gallon is recommended for optimum health.

Minimum Tank Size: Minimum Tank Size: 30 gallons

Care Level: Moderate

Water Conditions:

- **Temperature:** 68-82°F
- **pH:** 7.0-7.8
- **Hardness:** KH 10-25

Swimming Level:

Compatibility / Temperament: Peaceful





Dwarf Molly (*Poecilia chica*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical/ Brackish Water- Livebearer

Origin / Distribution: Ríos Cuetzmala, Purificación and Cihualtán in Jalisco, Mexico, Rio Maravasco, Central America. First Introduced: 1979 into Germany; in the Río Purificación near the town of La Huerta

Description: Dwarf molly, *Poecilia chica* Miller, 1975.

Physical Characteristics: It doesn't have super bright colors, but it has that turquoise iridescence on its flanks as well as patches of metallic gold. The breeding males develop more vibrant turquoise coloration as well as dark black on their fin margins.

Size / Weight / Age: males around 3 cm (1.2 inches) and females 5 cm.

Color Form:

Sexual dimorphism: Females are basically a grey fish with a faint horizontal line on the back half of their body. They show a gravid spot. Several areas of metallic coloured scales are also on the body. There are a few black spots in the dorsal. Males are more colourful (more metallic scales) and has the characteristic gonopodium of most livebearing fish. The dominant male can be almost black.

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior:

Habitat:

Diet: They are fed basic flake as a general diet and spirulina flake. I never fed the fry any special food. The parents are fed basic flake as a general diet and spirulina flake as an occasional treat. The fry ate the small pieces of flake.

Breeding: Breeding: Is a livebearing fish. After 30 days gestation, female gives birth to 30-50 young. Sexual maturity is reached after four months. The female can produce 30-50 fry every 4-5 weeks

Aquarium Setup: Requirements: Neutral to slightly alkaline water is recommended (pH 6.5-7.5). Can take a wide range of temperatures. 70-90°F (21-32°C). The recommended temp should not be over 80°F however. They seem to prefer tanks with some plant cover. This fish is mainly herbivorous.

Minimum Tank Size: They were placed into a 20 gallon tank. This tank was a bare bottomed tank with a lot of Hornwort in it. It's filtered by a sponge filter.

"Within days I had a few fry swimming around in the tank. I was slightly worried that the parents would try to eat the fry. However the fry seemed to be ignored completely. Once I saw that the parents would not become cannibalistic I left the fry in with them. Within a few more weeks I had a lot of fry in that tank. They seem to produce a lot of fry fairly quickly. It could be become very easy to be overrun with these fish, at least in a species tank.

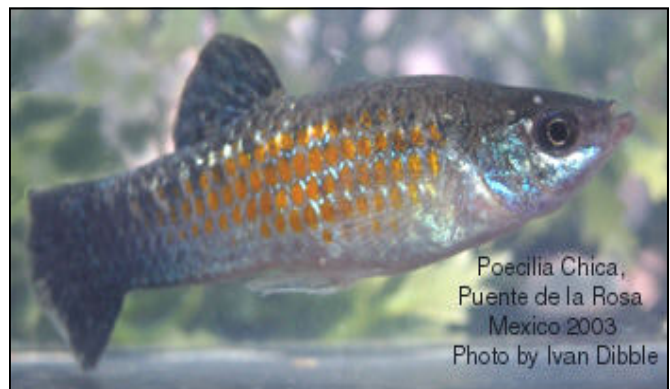
Care Level: This is an extremely easy fish to raise. "

Water Conditions:

- **Temperature:** approximately 78°F.
- **pH:** range: 6.5 - 7.5
- **Hardness:** dH range: 10 - 20; non-migratory

Swimming Level:

Compatibility / Temperament:





Elegant Molly (*Poecilia elegans*) (Trewavas, 1948)

Order: Cyprinodontiformes - Family: Poeciliidae



Dominican Republic,
Haiti and Puerto Rico



CENTRAL
AMERICA

Also known as: Elegant poeciliid, Tiger Teddy, *Neoheterandria elegans* (Henn; 1916)

Type: Tropical / Freshwater; benthopelagic; pH range: 7.0 - 7.5; dH range: 10 - 20; non-migratory- Livebearer

Origin / Distribution: Central America: Dominican Republic.

Description: *Poecilia elegans* is very rare in nature.

Physical Characteristics: Both males and females are a deep olive brown with six to nine vertical bands of varying width. The band under the dorsal fin widens into a wedge-shaped to round spot, which is bordered by an elegant metallic gold to amber ring, hence the name. In some specimens, this ring can even be orange or red. Unpaired fins are often dark gold to dark brown, outlined in a deep blue color. Their eyes are ringed in gold.

Size / Weight / Age: Max length : 3.6 cm SL male/unsexed; 4 - 5 cm SL (female)

Color Form:

Sexual dimorphism:

Lifespan: 3 years.

Behavior: Non-migratory

Habitat: Inhabits swift headwater streams.

Diet: Omnivorous; small live foods - primarily *Artemia* nauplii - and finely ground flake foods.

Breeding: Males have a gonopodium, more intense colors, and a smaller, slimmer body. Provided the breeders receive good care and a superior diet, reproduction is unproblematic. Males perform a short little dance for the female, showing their spot and spreading their fins to the utmost in front of the female. If the female is receptive, she allows the male to mate with her, if not, she swims away. Rather than dropping her whole brood at once, during a 3-4 week period, the female births 1-4 young every 3-4 days. The offspring are very small - approximately 2-3 mm - and must be fed infusoria for the first few days. Parents rarely prey on their young.

Aquarium Setup: Aquarium keeping is relatively easy, but the temperature needs to remain above 24 °C. Tiger Teddy tolerates soft water well. The best way to display them is in a small planted, species-only tank. They will spend most of their time out in the open, as long as they feel secure and have many places to hide if they feel threatened.

Minimum Tank Size: Minimum 20 litres

Care Level: Easy

Population: 2 pairs for 30 litres

Water Conditions:

- **Temperature:**
- **pH: 7.0 - 7.5**
- **Hardness: 10 - 20;**

Swimming Level:

Compatibility / Temperament: It is peaceful and shy, so it should be maintained in a species aquarium.



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Endler's Guppy or Livebearer (*Poecilia wingei*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Freshwater - Egglayer

Origin: *Poecilia wingei* is a very colorful fish, similar to (and closely related to) the guppy. The species was first collected from Laguna de Patos in Venezuela by Franklyn F. Bond in 1937, and rediscovered by Dr. John Endler in 1975. The latter were the first examples of this fish to make it to the aquarium trade. More have been collected since then, notably by Armando Pou, to expand the captive breeding stock. The original Laguna de Patos population is threatened by runoff from a municipal garbage dump. Though it is rare in pet shops, this species is seen occasionally in the aquaria of enthusiasts. Endler's Livebearer was actually discovered in 1937 by Franklyn F. Bond before being rediscovered by John Endler in 1975 in Laguna de Patos, Cumana, north-eastern Venezuela. It was found coexisting, but not interbreeding with, a wild form of *P. reticulata*. Both species are native to this area of Venezuela, but *P. reticulata* was much less common in areas where *Poecilia wingei* was thriving. This is thought to be partially related to habitat type, as guppies are usually found in colder, running water. Although not yet taken up into the IUCN Red List of endangered species, they are in danger of extinction in the wild, as humans enter their natural habitat, polluting and destroying it. According to Stan Shubel, the author of "Aquarium Care for Fancy Guppies", the Endler guppy is, in fact, not a separate species; it has the same genetic makeup as the guppy, yet is given its own name, *Poecilia wingei*, for conservation purposes.

Description: *Poecilia wingei*, known to aquarists as Endler's guppy or Endler's livebearer, is a species of fish in the genus *Poecilia*, native to the Paria Peninsula, Venezuela.

Physical Characteristics: The body form of Endler's Livebearer is elongated and typical of the Guppy family. The males of this species are brightly colored with red, green, and black lines running over the body. Females are plainer with a silvery color. Males are smaller in size and have a larger caudal fin compared to the females. Tail extensions similar to that seen in a swordtail are not uncommon, but are much shorter. Most often, what appears to be a sword extension can be seen as intense coloring along the edge of an otherwise transparent tail. While giving the impression of a sword it turns out to just be good coloring.

Size: The ornamental fish are small in size and are preferably kept as single species. Male 1" (2.5cm). Female 1.8" (4.5cm).

Color Form: The colors of Endler's livebearer males are very intense, especially the black, orange, and metallic green colors. Their natural patterns are highly variable, though many display a double sword tail. Breeders have developed numerous lines displaying specific patterns and colors, such as red chest, black bar, peacock, yellow sword, etc. Females will spend their entire lives with rather unexciting coloring. Depending on their environments, females will range from a pale silver to a dull, dark gold, but have the ability to change their coloring somewhat if they are moved from a light environment to a dark one (or vice versa). The males will start to show color in three to four weeks, but it can be several months before they develop the full depth and richness of color that characterizes Endlers. The colors of a male Endler will gradually intensify over the first six months of their lives.

Sexual dimorphism: When full-grown, adult females can be as much as twice the size of males. Females are also much plumper being almost perpetually gravid!

Lifespan: 3 - 5 years .

Behavior: Endler's are very responsive to light and movement. After they learn that humans equate to food, human movement will trigger frantic "begging", regardless of whether the fish are actually hungry or not. Darkness will signal it is time to sleep. Most Endler's will sink to the bottom of the tank and lie there until the light returns, although in community tanks with larger fish that inhabit the depths, some Endler's will "sleep" near the top.

Habitat: Laguna de Patos (the type locality for the species) was originally a brackish lake which was formed by being cut off from the ocean by a sandbar. Over time the water has been altered by runoff and is now freshwater. When *Poecilia wingei* was rediscovered the lake contained very warm, hard water which was very green due to high concentrations of algae. The fish are now thought to be extinct here as a garbage dump has been built adjacent to the lake and the water has since become polluted.

Diet: Endler's may be fed any of a variety of dried, frozen, or freeze-dried foods, as long as the food will fit into their relatively small mouths. They are particularly fond of frozen bloodworms, and will often attempt to consume worms nearly as long as they are. The fry can be fed powdered fry food, baby brine shrimp, and crushed flake food. They will also nibble on the layer of algae and microorganisms that forms on aquatic plants. Even adult brine shrimp are not beyond their capability, as several fry will gang up on a brine shrimp their own size and tear it apart.

Breeding: They are prolific breeders like their guppy relatives. They give birth to live young approximately every 23 days. Fry "drops" can range in size from one to 30 babies (or possibly more, depending on several variables, including the age and size of the mother). Their first few hours of life will primarily be spent on the bottom of the tank, where they consume their yolk sacs. At this time they are most vulnerable to predators, including their own mothers and other Endler females (males seem less interested in cannibalism). The birth process can be stressful for the females, and some will not survive long after large births. The ones that do not do well will often turn grey and will start to "wither away" until they eventually die.

Hybrids: Endler's can be crossed with guppies, and the hybrid offspring are fertile. This is considered to dilute the gene pool and therefore is avoided by fish breeders who wish to maintain pure strains. Many fish sold in pet stores as Endler's livebearers are actually these hybrids. Some breeders are intentionally hybridizing Endler's with fancy guppies to create fish with the characteristics of both. In addition, as *P. reticulata* has been found in the same bodies of water as *P. wingei*, natural hybridization may also occur in the wild.

Aquarium Setup: Endler's livebearers are hardy and undemanding in the aquarium, though they prefer hard, warm water. The warmer the water, the faster they will grow; however, this also seems to shorten their life-spans. They do best if kept in tanks with plants (preferably live plants, but fake will do) to give them hiding places and (although they may be less likely than guppies to eat their own young) give the fry a better chance at survival. Some of them are determinedly suicidal jumpers, so a cover on the tank is a must.

Minimum School Size:

Minimum Tank Size: A tank measuring 18" x 12" x 12" (45cm x 30cm x 30cm) - 40.5 litres is big enough to house quite a substantial colony of these.

Care Level: Easy

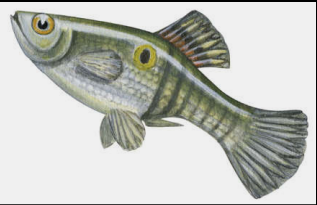
Water Conditions: They can be kept at 18–29°C (64–84°F), but their optimum temperature seems to be 24–27°C (75–81°F). This is slightly higher than their guppy cousins, which prefer 23–25°C (73–77°F).

- **Temperature:** 18–29°C (64–84°F),
- **pH:** 7.0 - 8.5
- **Hardness:** 15 - 35°H

Swimming Level: Top levels.

Compatibility / Temperament: Peaceful, though females can be territorial and should thus be kept in groups. Given its small size, other small peaceful fish that prefer basic hard water can be combined in larger aquaria (15+ gallons). Should not be kept with guppies as they will cross-breed.





Eyespot Molly / One spot live bearer (*Poecilia vivipara*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical/ Brackish Water- Livebearer

Origin / Distribution: South America, Venezuela to Argentina; *Poecilia vivipara* (Bloch & Schneider, 1801) is a species that lives in the Rodrigo de Freitas lagoon, a coastal lagoon in the city of Rio de Janeiro.

Description:

Physical Characteristics:

Size / Weight / Age: Males to 4.0 cm TL; females to 5.0 cm TL

Color Form:

Sexual dimorphism:

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior: The largest components of morphological variation among females were between different habitats in the same lagoon, whereas for males there were larger differences between lagoons than between habitats. The shape differences were mostly localized in the head region and mid-body, which indicated different patterns of locomotion and foraging behaviour optimized for the habitat experienced by each population. The pattern of size variation was similar to that of size-independent shape variation.

Habitat: Occurs in brackish to fresh water canals, drainage ditches, upland stream, and swamps.

Diet: Omnivorous; This note is the first report of predation of black flies by *P. vivipara* in the Ceará Mirim River, municipal district of Poço Branco, state of Rio Grande do Norte, Brazil. 28.7% of the fish examined contained larvae and/or pupae of *Hemicnetha brachyclada* [*Simulium* (H.) *brachycladum*].

Breeding: Livebearer; Fecundity: 150 fry; Incubation Period: 4 - 6 weeks. Sexual maturity is attained at 6-7 months of age. The results show that *P. vivipara* reproduces throughout the whole year with its first maturation occurring at 29 mm. The proportion found of females to males was 3:1. Embryos showed four developmental stages until birth with sexual differentiation occurring after 15mm. Mean female size was directly related to salinity. Fecundity (number of offspring) was directly related to female size both within and among sites. The female size fecundity relationship, however, was not constant among sites. Offspring size was partially and directly associated with female size and salinity. The relationship between fecundity and female size was positively related with fecundity, suggesting a non-linear relationship of these variables when the total sample was considered. The results suggest that life-history differences among sites were more related to different predation regimes than to simple effects of plasticity caused by increased growth in saltwater environments.

Aquarium Setup:

Aquarium Lighting: Bright

Minimum Tank Size:

Care Level: Easy—Water chemistry is of secondary importance.

Water Conditions:

- **Temperature:** 26Co 79Fo
- **pH:** 6,7 Very Slightly Acidic
- **Hardness:** Slightly hard 10dH 179ppm

Swimming Level:

Compatibility / Temperament: Peaceful; Community





Golden Panda Molly (*Poecilia sphenops*) Variety

Order: Cyprinodontiformes - Family: Poeciliidae - Author: Bloch & Schneider, 1801



Also known as: "Gold Dust" Mollies, or simply Gold Mollies, or even Marbled in some places.

Type: Tropical— Livebearer

Origin: This fish has no natural range since it is a hybrid among species that range from the Carolinas to Central America.

Description: The Black Gold Dust Molly, is an aquarium strain of hybrid mollies. Parental species include *Poecilia latipinna* (click here for information about this species), *Poecilia sphenops* and possibly other molly species (click here for information about mollies). The lack of a species name here indicates that this fish is a hybrid of unknown origin within the genus *Poecilia* and not a natural species. This molly is primarily of *P. sphenops* or *P. mexicana* heritage and, therefore, has males with relatively small dorsal fins and small body size relative to the females. The top photo is a mature male with a larger than normal dorsal. The bottom picture is a mature female. She is about twice as large as the male pictured.

Physical Characteristics: The increasingly popular "gold dust" molly occurs as a result of interbreeding between black and gold mollies. Because the two alleles are codominant--they both express themselves on the same individual-- the fish are usually black with golden patches.

Size: Males reach 5cm (2 in.). Females grow much larger, 12.5cm (5 in.) and much heavier. Up to 4 in (10 cm)
Smaller for the common variety

Color Form: Black & Gold (Black X Gold)

Sexual dimorphism: Males have a gonopodium; Females are larger and more square also there anal fin is rounded. The females grow to 1 inch bigger than the male.

Lifespan: Mollies have a lifespan of between 3 and 5 years

Behavior: Mollies will not form schools, but they do develop a strict hierarchy among themselves. The male Molly sporting the most striking colors and largest fins is the alpha Molly. If you keep only one male Molly and several females you will avoid a lot of fighting.

Habitat: Mollies like a little salt in their water are easier to keep in a species tank of their own. They seem to be prone to a variety of diseases when their requirements for warmth, salinity and higher pH are not met. Mollies are in fact a marine fish, I have caught many wild specimens in the Panama City Beach, Florida area, in full strength salt water. But they are highly adaptable and can live in fresh, brackish and marine conditions. Mollies are often used to break-in a new marine tank. Sail-fin Mollies need plenty of room to grow to achieve the high Sail-fin and it will not usually developed in a tank smaller than 20 gallons and only then when there is only one or two fish. There is a multitude of varieties of Mollies, and all are easily interbred. If you want to maintain a pure variety they will have to be kept separate. Mollies are especially prone to "shimmies", this can be cured with the addition of 2 teaspoons of salt per gallon and an increase in temperature to about 80°F.

Diet: Feeding is simple with the fish taking prepared foods as well as live and frozen foods. Periodic feedings of Daphnia or other live foods are helpful in color maintenance, general health and breeding. This species also requires vegetable material in its diet that can be supplied by feeding a commercial food or by providing algae, lettuce, cucumbers or fine leaved aquatic plants (Lemna, duckweed, is a good food).

Breeding: This livebearer breeds like other members of its genus. At 30°C (85°F), broods are delivered about every 28 days. Broods can be as large as 200 fry for large females. Like other Poeciliidae, the females of this species can store sperm and have as many as 8 broods from a single mating. The fry are large and can eat commercial food, Daphnia, brine shrimp nauplii, etc. immediately. The adults tend to be fry eaters, so the fry should be removed from the adults as soon as possible.

Aquarium Setup: These fishes are livebearers, and like most livebearers, they do well with a little salt in the aquarium. About a tablespoon of salt for every 5 gallons should suffice. There are records that these mollies can survive and do well in salt water environment under certain conditions.

Minimum School Size: 2 FM 1 M

Minimum Tank Size: 10 Gal

Care Level: Nonaggressive, one of the least likely Livebearers to eat it's own fry.

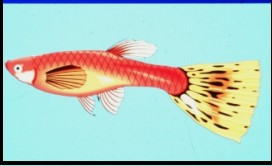
Water Conditions: This fish tolerates pHs from 6.5 to 8.0 while preferring the higher end (basic) of this range. Water hardness is not critical, but it prefers hard water. Optimum temperature ranges from 20-30°C (68-85°F).

Swimming Level: Mid-level

Compatibility / Temperament: This fish is not aggressive (although males can be quarrelsome among themselves) and is active. It can be kept either in a large single species aquarium or in active community aquaria with rainbowfish, other livebearers or other fish with similar behavior and requirements.

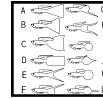
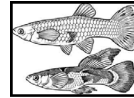


Guppie



Guppy (*Poecilia reticulata*)

Order: Cyprinodontiformes - Family: Cichlidae - Subfamily:



Type: Tropical Livebearer

Also known as: the Millionfish,

Overview: As already mentioned there are many varieties (strains) of guppies, and guppy breeders in many countries are very dedicated and organized, forming clubs, holding events, competitions and auctions. While "mutt" guppies are so cheap they're often used as feeder fish, well-developed strains can reach some pretty impressive price tags.

Origin: Guppies are native to Antigua and Barbuda, Barbados, Brazil, Guyana, the Netherlands Antilles, Trinidad and Tobago, the U.S. Virgin Islands and Venezuela. However, guppies have been introduced to many different countries on all continents, except Antarctica. Sometimes this has occurred accidentally, but most often as a means of mosquito control, the hope being that the guppies would eat the mosquito larvae, slowing the spread of malaria. In many cases, these guppies have had a negative impact on native fish faunas.

Description: The Guppy (*Poecilia reticulata*), is one of the most popular freshwater aquarium fish species in the world. It is a small member of the Poeciliidae family and like all other members of the family, is live-bearing.

Taxonomy: Robert John Lechmere Guppy discovered this tiny fish in Trinidad in 1866, and the fish was named *Girardinus guppii* in his honor by Albert Günther later that year. However, the fish had previously been described in America. Although *Girardinus guppii* is now considered a junior synonym of *Poecilia reticulata*, the common name "guppy" still remains. Over time, guppies have been given a variety of taxonomic names, although *Poecilia reticulata* is the name currently considered to be valid.

Genetics: Guppies have 23 pairs of chromosomes, including one pair of sex chromosomes, the same amount as humans. Selective breeding has produced many different strains, such as the snakeskin and grass varieties. A strain is defined as a population of guppies that show the same characteristics.

Physical Characteristics:

Sexing / Sexual Dimorphism: Males are nicely coloured, have large fins. Females are larger than males.

Color Form:

Temperament:

Diet: Guppies will accept almost all fish food. Even though they look hungry all the time, you should feed them once or twice a day.

Breeding: Guppies are highly prolific livebearers. The gestation period of a guppy is 21–30 days, with an average of 28 days, varying according to water temperature. Males possess a modified tubular anal fin, the gonopodium, located directly behind the ventral fin, which is flexed forward and used as a delivery mechanism for one or more balls of spermatozoa. The male will approach a female and will flex his gonopodium forward before thrusting it into her and ejecting these balls. After the female guppy is inseminated, a dark area near the anus, known as the gravid spot, will enlarge and darken. Just before birth, the eyes of fry may be seen through the translucent skin in this area of the female's body. When birth occurs, individual offspring are dropped in sequence over the course of an hour or so. Guppies prefer water temperatures of about 26 °C (79 °F) for reproduction. The female guppy has drops of between 2 and 50 fry at a time, typically ranging between 5 and 30. After giving birth, the female is ready for conception again within only a few hours. Guppies have the ability to store sperm up to a year, so the fe-

males can give birth many times without depending on the presence of a male. From the moment of birth, each fry is fully capable of swimming, eating, and avoiding danger. If not kept separate, the older, mature guppies will eat the fry, so the use of a breeder box, net breeder, or a separate 20–40 litres (4–9 imp gal; 5–11 US gal) tank is recommended. Live plants may be used as hiding places for the fry. Young fry take roughly three or four months to reach maturity. In the aquarium, they are usually fed finely ground flake foods, baby brine shrimp or, unless they are put in a separate tank, uneaten food from the adults. In addition, they nibble on algae. Guppies have been selectively bred to produce a variety of colors and patterns. In the wild, male guppies are dull black or brown in colour, with some coloured spots, while females are fully dull grey. The wild guppies that showed the most colours in each generation were bred to produce the "fancy guppies" seen in pet stores and guppy shows today. The guppy has been successfully hybridized with various species of molly (*Poecilia latipinna* or *velifera*), e.g., male guppy and female molly. However, the hybrids are always males and appear to be infertile. The guppy has also been hybridised with the Endler's livebearer (*Poecilia wingei*) to produce fertile offspring.

Life Span: Guppies usually live 2 years. In my experience, some specimens can live 3 or more years. On the other hand, such lifespan is rare; about 5% of guppies live so long.

Max. Size: [females 4–6 centimetres (1.6–2.4 in) long, males 2.5–3.5 centimetres (1.0–1.4 in) long]

Care Level: The guppy is the ideal beginners fish, although in my experience it does not seem to be quite as hardy as it used to be, possibly through excessive inbreeding. An easy livebearer to breed, it is a good idea to obtain male and female from different sources to prevent the problem of inbreeding since fish from the same source are probably related.

Minimum Tank Size:

Water Conditions: The guppy prefers a hard water aquarium with a temperature between 25.5 and 27.8 °C (78 and 82 °F) and salt levels equivalent to one tablespoon per 5 US gallons (19 l; 4.2 imp gal). They can withstand levels of salinity up to 150% that of normal seawater, which has led to them being occasionally included in marine tropical community tanks, as well as in freshwater tropical tanks.

Aquarium Setup: Guppies are generally peaceful, though nipping behavior is sometimes exhibited between male guppies or towards other top swimmers like platys and swordtails, and occasionally other fish with prominent fins, such as angelfish. Its most famous characteristic is its propensity for breeding, and it can breed in both fresh water and marine aquariums. Guppies bred by aquarists produced variations in appearance ranging from colour consistency to various tail forms. Well-fed adults do not often eat their own young, although sometimes safe zones are required for the fry. Specially designed livebearer birthing tanks, which can be suspended inside the aquarium, are available from aquatic retailers. These also serve to shield the pregnant female from further attention from the males, which is important, because the males will sometimes attack the females while they are giving birth. It also provides a separate area for the newborn young as protection from being eaten by their mother. However, if a female is put in the breeder box too early, it may cause her to have a miscarriage. Well-planted tanks that offer a lot of barriers to adult guppies will shelter the young quite well. Java moss, duckweed (*Lemna minor* and other *Lemna* species), and water wisteria are all excellent choices. A continuous supply of live food, such as Daphnia, will keep adult fish full and may spare the fry when they are born.

Compatibility: Best kept with fish of similar size such as tetras, platys, Mollies, Swordtails & Corydoras catfish. Unless you want your guppies to become dinner, do not mix them with Cichlids.

Guppy (*Poecilia reticulata*)





Hispaniola Molly (*Poecilia hispaniolana*) (Rivas, 1978)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Livebearer; benthopelagic; non-migratory; fresh-water

Origin / Distribution: Central America: Haiti and Dominican Republic.

Description: Hispaniola Molly, *Poecilia hispaniolana* Rivas, 1978.

Physical Characteristics: Adult males have redder unpaired fins and are more colorful overall. They are similar to *Limia dominicensis*, but with a fuller and larger body type; the differences are slight.

Size / Weight / Age: Maximum size: 36 mm SL
3.6 cm SL (male/unsexed; (Ref. 13498)); 5.9 cm SL (female)

Color Form:

Sexual dimorphism: Males have a gonopodium and more intense colors.

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior: In its natural state it schools in 10-30 individuals.

Habitat: Inhabits streams over shallow riffles.

Diet: Live foods of all kinds, frozen foods and vegetable-based flakes.

Breeding:

Aquarium Setup: Hardy fish; uncommon species tank recommended.

Minimum Tank Size:

Care Level:

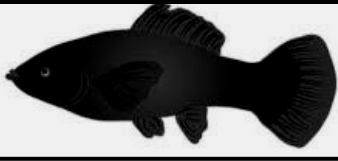
Water Conditions:

- Temperature: Tropical; 22°C - 25°C
- pH:
- Hardness:

Swimming Level:

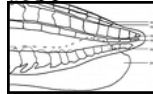
Compatibility / Temperament:





Honduras Molly (*Poecilia hondurensis*) NEW SPECIES

Order: Cyprinodontiformes - Family: Poeciliidae - Poeser, 2011



Also known as:

Type: Freshwater; pelagic - Livebearer

Origin / Distribution: This new species of fish Poeciliidae *Poecilia hondurensis* was described in June 2011. This molly of freshwater is a new species of Poecilia Atlantic coasts of Honduras and is attributed to the sub-genre Mollienesia. Central America: Honduras. Known only from the Caribbean drainage basins of Honduras.

Description: Fred Poeser recently described a new molly species from Honduras: *Poecilia hondurensis*. It occurs exclusively in the Caribbean drainages of Honduras. The new species is most similar to *P. marcellinoi* (a species occurring in Pacific drainages of Central America): both species exhibit a dark spot on the caudal fin (the spot in *P. marcellinoi* is located more anterior than in *P. honduras*) and have similar dentition. The new species, however, can be distinguished by unique characteristics of the gonopodium. Poeser notes that the late Robert Rush Miller was already working on a description of this species in collaboration with the Honduran ichthyologist Gustavo Cruz. They suggested the name *P. hondurensis* in an unpublished manuscript, and Poeser retained this name in honor of the two scientists. The species is available in hobby. Rusty Wessel imported the species a few years ago, and stocks are still maintained by members of the American Livebearer Association.

Physical Characteristics: *Poecilia hondurensis* differs from all congeners by the characters as having distinctive tricuspid teeth on the inside of both jaws and missing a vertebra and a hook on the gonopodium. Eleven geographically close congeners are discussed in detail, and a key is provided to identify all species present in southern Mexico in the latest survey by Fred N. Poeser. *Poecilia hondurensis* is distinguished from all other species of Poecilia that have an inner row of tricuspid teeth in each jaw by the absence of a spinal hook on gonopodial ray 5 and an extremely reduced membranous hook on gonopodial ray 3

Size / Weight / Age: Size: 4-5 cm; Max length : 4.3 cm SL male/unsexed; 6.2800002098083 cm SL (female); Max. Length (cm) 6.28 SL

Color Form:

Sexual Dimorphism: always different morphology between mature adults and always different colors between mature adults.

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior:

Habitat:

Diet:

Breeding:

Aquarium Setup:

Minimum Tank Size:

Care Level:

Water Conditions: Probably quite tolerant of water parameters, it is possible that this new species tolerate even the water brackish .

- Temperature:
- pH:
- Hardness:

Swimming Level:

Compatibility / Temperament:





Jamaican Molly (*Poecilia caudofasciata*) (Regan, 1913)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical/ Brackish Water- Livebearer

Origin / Distribution: Jamaica, Haiti, Cuba; Under natural conditions prevalent in Jamaica, Cuba, Haiti

Description: Jamaican Limiya (Molly) (*Poecilia caudofasciata*)

Physical Characteristics: Has the body elongated, slightly laterally compressed. Sides are painted in gray-yellow color, the back is dark brown with greenish sparkles, throat and abdomen yellowish. By the middle of the body is a dark longitudinal stripe.

Size / Weight / Age: The female is slightly larger male and grows in length and 6.5 cm, the male - 4 - 5 cm.

Color Form:

Sexual dimorphism: The female is slightly larger than the male.

Lifespan: Livebearing fish such as Mollies, Platys, and Sword-tails, generally live less than 5 years.

Behavior:

Habitat:

Diet: Live food, dry food, herbal supplements (lettuce, spinach, seaweed, etc.). The lack of plant food will be reflected primarily in the males, which grow small and sluggish.

Breeding: Jamaican limiya reaches sexual maturity at 5-7 months. Pregnancy lasts 38-42 days. Fertility of 20 - 50 fry. Feed to egg yolk, Cyclops nauplii, nematodes, etc. mikrominom

Aquarium Setup: Aquarium - 15 - 20 liters, in some places overgrown with plants. It is desirable to add water to the cooking-or sea salt (1.3 grams per liter of water). Requires weekly water changes of at least one quarter of the water.

Minimum Tank Size:

Care Level:

Water Conditions:

- **Temperature:** (16) 20-25 (30) ° C,
- **pH:** pH 6.5 - 8.5.
- **Hardness:** hardness 6-25 °

Swimming Level:

Compatibility / Temperament: In the aquarium environment is peaceful, active, livable small fish, but they can bite off fins slow fish.





Liberty Molly (*Poecilia salvatoris*)

Order: Cyprinodontiformes - Family: Poeciliidae



Central
America



Also known as: Gets its common name, Liberty Molly, from the red, white & blue bands in the dorsal fin.

Type: Tropical/ Brackish Water- Liverbearer

Origin: Central America: El Salvador.

Description:

Physical Characteristics:

Size:

Color Form:

Sexual dimorphism: male's anal fin modified into a gonopodium; females much larger

Lifespan:

Behavior:

Habitat: Neotropical; Benthopelagic; freshwater

Diet: live, frozen & dried food

Breeding: Breed readily, livebearers which will predate their own young

Aquarium Setup:

Minimum School Size:

Minimum Tank Size: 60cm or longer

Care Level: Easy

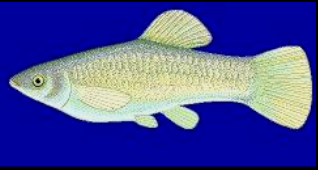
Water Conditions:

- **Temperature:** 21-27°C
- **pH:** pH 6.5-7.5
- **Hardness:**

Swimming Level:

Compatibility / Temperament: Inoffensive; good community fish





Mangrove Molly (*Poecilia orri*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical/ Freshwater; brackish; benthopelagic; non-migratory - Livebearer

Origin: Central America: southern Mexico (Quintana Roo) to northern Honduras and Colombia (Islas de Providencia).

Description:

Physical Characteristics:

Size: Max length : 5.6 cm SL male/unsexed;

Color Form:

Sexual dimorphism:

Lifespan: Livebearing fish such as Mollies, Platys, and Sword-tails, generally live less than 5 years.

Behavior:

Habitat:

Diet:

Breeding:

Aquarium Setup: Along with their platy cousins, the mollies are part of a pivotal aquaculture group of livebearers, which can live in water from fresh to fully marine, and a wide range of other conditions. They feed on smaller insects, animals, and vegetation.

IUCN list two of the species, the sulphur molly, *P. sulphuraria*, and the broadspotted molly, *P. latipunctata*, as Critically Endangered.

The generic name *Poecilia* derives from the Greek ποικίλος (variegated), in reference to the fishes' coloration. Mollies need to live in water that is 25 to 28 °C (77 to 82 °F).

Mollies come in several different colors and spot patterns, such as black, white, black and white spots, orange, Orange and white spots.

Minimum Tank Size:

Care Level:

Water Conditions:

- Temperature:
- pH:
- Hardness:

Swimming Level:

Compatibility / Temperament:



The Cichlid Room Companion <http://cichlidae.com> © Ross Socolof



© Sam Borstein





Marble Molly (*Poecilia sphenops*) Variety

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical - Livebearer

Origin: This species is one of the ancestors of the black mollies, a number of melanistic breeds which are black all over. It is one of the most well-known aquarium fishes and nearly as easy to keep and prolific as guppies (for optimal health and breeding success, they demand fresh vegetable food like algae). There are several other popular breeds, like the golden molly, nicknamed "24 karat", or the balloon molly, which has a deformed spine and a decreased lifespan due to the associated health problems. Also, breeds with altered caudal fin structures such as lyre-tails exist.

Description: *The* Marble Molly (*Poecilia sphenops*) is a Variety of the common molly, not to be confused with the variety Dalmatian Molly.

Physical Characteristics: Marble mollies have attractive coloration with a mottled, marbled pattern with black and white colors.

Size: 2 1/4-2 1/2 inches

Color Form: White / Black /Orange

Sexual dimorphism:

Lifespan: 3 - 5 years.

Behavior:

Habitat: Columbia: Moderately decorated with rocks, live plants and driftwood.

Diet: Fresh spinach, zucchini, peas and lettuce. Live blood worms, glass worms, brine shrimp and tubifex worms. Frozen vegetable diet, daphnia, plankton, beef heart, brine shrimp, glass worms and blood worms. Flake and freeze dried foods also accepted.

Breeding: The male has a longer pointed dorsal fin, while the females is smaller and rounded. Males also have a gonopodium (underneath the body of the male is one fin that hangs down and what looks like a fin folded up against his body, this is a gonopodium. Where as the female has two fins that hang down). They are livebearers that will produce 20-40 babies at one time and they will eat their young. Mollies will rear their fish in the suspended roots of floating plants in the aquarium. Healthy females can give birth to as many as 60 young every 60 to 70 days.

Aquarium Setup: Marble mollies are easy to care for in home aquariums and readily feed on a variety of foods. Healthy populations will even breed in home aquariums and give birth to live young.

Minimum School Size: Ensure you keep two females for every male to prevent fighting between the fish. Mollies are generally peaceful fish that will school together in home aquariums.

Minimum Tank Size: 10 Gallon

Care Level: Easy

Water Conditions:

- **Temperature:** 78°F-82°F
- **pH:** 7.0-7.5
- **Hardness dH:** 15

Swimming Level: Top-Middle-Bottom

Compatibility / Temperament: Peaceful fish that will sometimes school with their own kind. Females should outnumber males two to one.





Mayland's Molly (*Poecilia maylandi*) NEW SPECIES

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as: Balsas Molly, Mayland's Molly

Type: Tropical/ Brackish Water- Livebearer

Origin: Mexico

Description: *Poecilia maylandi*, is a fish endemic to the Balsas River and some of its main tributaries, distributed in parts of the states of Morelos, Guerrero and Michoacan.

Physical Characteristics: Similar shape to the more common *Poecilia sphenops*, elongated and a pointed head. The Mayland's is an olive-brown fish with iridescent blue highlights and a yellow-brown caudal. Males possess a higher and more colourful dorsal fin. Alpha males can possess an orangey dorsal fin, sometimes with black dots. In older males, the rounded caudal fin may be orange or banded with black and yellow. Females have little colour.

Size: 7.6-10.2cm (3-4 ")

Color Form:

Sexual dimorphism: Males have stronger colouration and possess a gonopodium. Females have less colour and are substantially larger than the males.

Lifespan: 3-5 years

Behavior: An active sociable typical livebearer, constantly moving around the tank looking for food and mating prospects. Male Mayland's will spar with each other for mates.

Habitat:

Diet: Omnivorous, will take live food, and prepared foods. Will graze on algae around the tank. Best kept on a mostly-vegetarian diet supplemented with occasional meaty foods. Feed once or twice a day.

Breeding: Livebearer ?

Aquarium Setup: Likes a spacious tank, minimum of 30" in length, with live plants and not too strong a current.

Availability: Rare

Minimum School Size:

Minimum Tank Size: 56.8 Litres (15 US G.)

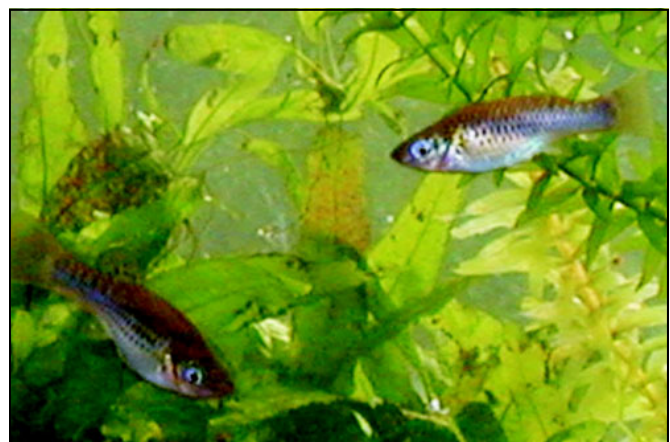
Care Level: Moderate

Water Conditions:

- **Temperature:** 26 -28 °C (78.8-82.4°F)
- **pH:** 7.0 - 7.8
- **Hardness:** 5-30 °d

Swimming Level / Stocking Ratio: 1:3 M:F

Compatibility / Temperament: A social livebearer, due to these fish being unusual in the pet trade, they're best kept in breeding groups in species tanks.





Molly, Wild Type, Mexican (*Poecilia sphenops*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as: Common Molly; Mexican Molly

Type: Tropical - Livebearer

Origin: Central America; Their natural range extends from Mexico to Columbia. This fish is an American native with its origin in the brackish waters of the Gulf of Mexico, East Coast Florida, and East Coast Carolinas

History: This species is one of the ancestors of the black mollies, a number of melanistic breeds which are black all over. It is one of the most well-known aquarium fishes and nearly as easy to keep and prolific as guppies (for optimal health and breeding success, they demand fresh vegetable food like algae). There are several other popular breeds, like the golden molly, nicknamed "24 karat", or the balloon molly, which has a deformed spine and a decreased lifespan due to the associated health problems. Also, breeds with altered caudal fin structures such as lyretails exist.

Description: *Poecilia sphenops* is a species of fish, of the genus *Poecilia*, known under the common name molly; to distinguish it from its congeners, it is sometimes called short-finned molly or common molly.

Physical Characteristics: The wild form is in fact quite rarely kept, as it has a rather plain silvery coloration suffused with brown and green hues.

Size: Adult Length 2 1/4-2 1/2 inches

Color Form: Plain silvery coloration suffused with brown and green hues.

Sexual dimorphism: Males Have a gonopodium; female have rounded anal fins.

Lifespan: 3-5 Years

Behavior: The Molly is a beautiful, hardy little fish that can make a great beginner's pet. With their impressive shapes, these Mollies can add interest to many freshwater aquariums! Mollies are usually non-aggressive and can be nice additions to community tanks. They tend to swim in all levels of an aquarium and do well in groups, particularly in groups of their own species. In the wild, they live in both fresh and brackish waters. In captivity, Mollies should be kept in aquariums with lots of live plants and lots of open space to swim in. Although some driftwood is acceptable in their tanks, too much can make the water more acidic than is preferable for Mollies, and it should be used sparingly.

Habitat: They inhabit fresh water streams and coastal brackish and marine waters of Mexico. The wild-type fish are a dull silvery color, often sprinkled black all over. Contrary to popular belief, this species of fish is actually a freshwater species, spending little time in brackish water before swimming back to their freshwater biotope. However, fish of the same species have been found in coastal sea waters, brackish swamps and freshwater streams, living and breeding. Mollies appear to be a hardy and highly adaptable species (this has been diluted over years of interbreeding in tank-bred specimens).

Diet: Omnivore - fresh vegetables, Feeding Habits Fresh spinach, zucchini, peas and lettuce. Live blood worms, glass worms, brine shrimp and tubifex worms. Frozen vegetable diet, daphnia, plankton, beef heart, brine shrimp, glass worms and blood worms. Flake and freeze dried foods also accepted.

Breeding: The common molly can produce fertile hybrids with many (*Poecilia species*), most importantly the Sailfin molly. In the case of black a bit more attention and have a somewhat decreased lifespan - though certainly not as much as the deformed breeds. The male has a longer pointed dorsal fin, while the females is smaller and rounded. Males also have a gonopodium (underneath the body of the male is one fin that hangs down and what looks like a fin folded up against his body, this is a gonopodium. Where as the female has two fins that hang down). They are livebearers that will produce 20-40 babies at one time and they will eat their young.

Aquarium Setup: Moderately decorated with rocks, live plants and driftwood. If given good care with ample sunlight, high water temperatures and fresh vegetables, they will, however, prove charming fish who make up for their somewhat plain coloration with their lively behavior. Mollies usually do well when kept in temperatures between 68 and 77 degrees Fahrenheit. They may prefer slightly saline waters. Hiding places like rocks, a few pieces of driftwood, or plenty of live plants should be offered. Lyretail Mollies are usually quite peaceful. They normally get along well with their own species and usually do well when kept in a ratio of two females for each male.

Minimum School Size: Mollies rank as one of the most popular feeder fish due to high growth rate, birth size, and brood number.

Minimum Tank Size: 10 Gallon

Care Level: Easy to Moderate

Water Conditions:

- **Temperature:** 78°F-82°F
- **pH:** 7.0-7.5
- **Hardness dH:** 15

Swimming Level:

Compatibility / Temperament: Peaceful; The male mollies generally tend to be mildly aggressive. Although they are compatible tank mates with fish such as tiger barbs, they will chase them.



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Mountain Molly (*Poecilia teresae*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as: "Teresa's Molly" ; Topote Santa Teresa

Type: Tropical/ Brackish Water- Liverbearer

Origin: Occurs in the Mountain Pine Ridge of Nayan Mountain ranger, in Central America.

Description:

Physical Characteristics: Very little information available!

Size:

Color Form:

Sexual dimorphism:

Lifespan:

Behavior:

Habitat:

Diet:

Breeding:

Aquarium Setup:

Minimum School Size:

Minimum Tank Size:

Care Level:

Water Conditions:

- Temperature:
- pH:
- Hardness:

Swimming Level:

Compatibility / Temperament:



RYBICKY.NET (C) RNDr. Roman Slaboch



Orange-tailed Marble Molly (*Poecilia sphenops*) Variety

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as: Marble Molly

Type: Tropical - livebearer

Origin: This fish is an American native with its origin in the brackish waters of the Gulf of Mexico, East Coast Florida, and East Coast Carolinas. The Molly is found throughout the Southern U.S. in quiet pools, canal ways, and ponds.

Description: The Orange-tailed Marble Molly (*Poecilia sphenops*), is a variety of the common Molly.

Physical Characteristics: Color consists of Dark black Marbling with a orange highlight around the tail. Brown or orange dots may also be present on the sides of these fish. Marble Mollies have a beautiful silvery background color, which is marbled, dotted, or splotched with black.

Size: 4 inches

Color Form: Dark black Marbling; Orange highlight; Brown or Orange dots.

Sexual dimorphism: Breeding Male Mollies have more pointed dorsal fins than females, and they have gonopodiums, which are mating structures. These organs have the appearance of fins folded against the bottoms of their bodies. It is thought that they develop from anal fins. Females also tend to have rounder bellies than males.

Lifespan: 3 - 5 Years

Behavior: The Molly is a beautiful, hardy little fish that can make a great beginner's pet. With their impressive shapes, these Mollies can add interest to many freshwater aquariums! Mollies are usually non-aggressive and can be nice additions to community tanks. They tend to swim in all levels of an aquarium and do well in groups, particularly in groups of their own species. In the wild, they live in both fresh and brackish waters. In captivity, Mollies should be kept in aquariums with lots of live plants and lots of open space to swim in. Although some driftwood is acceptable in their tanks, too much can make the water more acidic than is preferable for Mollies, and it should be used sparingly.

Habitat: Fresh water fish - they live in both fresh and brackish waters.

Diet: Omnivore - Many people maintain their Mollies nicely on flake or freeze-dried foods. Fresh spinach, lettuce, peas, and zucchini bits are also offered. Fresh or frozen bloodworms, glass worms, and brine shrimp can be offered, along with live tubifex worms. Frozen daphnia, plankton, and vegetable diet are all commonly fed.

Breeding: Usually, Mollies are ready breeders. Mollies bear live young. However, they may show tendencies to eat their fry. Normally, 20 to 40 young will be born, though much larger numbers are possible. The fry can usually be raised on fine flake food.

Aquarium Setup: Hiding places like rocks, a few pieces of driftwood, or plenty of live plants should be offered. As a brackish water fish, it is always good to keep some aquarium salt in the water. They may prefer slightly saline waters. This amount can vary between a teaspoon per five gallons to a teaspoon per gallon, depending on the preferences of the aquarium's other inhabitants.

Minimum School Size: They normally get along well with their own species and usually do well when kept in a ratio of two females for each male.

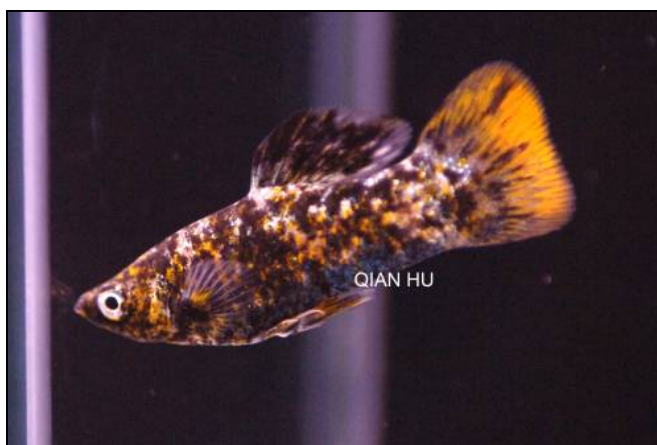
Minimum Tank Size: 10 Gallon

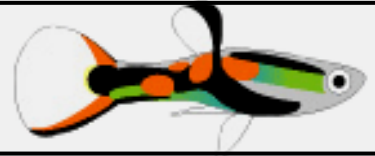
Care Level: Easy

Water Conditions: Mollies usually do well when kept in temperatures between 68 and 77 degrees Fahrenheit.

Swimming Level: Mid to Moderate

Compatibility / Temperament: Peaceful - Mollies are usually quite peaceful.





Oropuche Guppy (*Poecilia obscura*) New Species

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as: Why is it called, Oropuche guppy "P. obscura"
The name of the new species is derived from the latin word obscurus (hidden) because of its status as a cryptic species. For the common name we propose to call P. obscura the Oropuche guppy due to its main area of distribution.

Type: Tropical/ Brackish Water- Liverbearer

Origin: Location

The species was found (which was confirmed by DNA sequencing) in the headwaters and upper regions of the northern tributaries to the Oropuche River including the Quare River and La Seiva River. It was also found in the Matura River, the Salybia /Rio Seco Rivers and the L'Ebranche River, which are not tributaries to the Oropuche River but flow independently next north and south into the Atlantic Ocean at the West Coast of Trinidad. The southern and northern boarder of the range of the new species have not been determined exactly, but there are guppies in the Tompire River that flows north of the Matura River and in the Mission River, which flows into the Caribbean Sea. Further west on the northern coastline all the rivers that flow into the Caribbean Sea have no guppies until the Madamas River is reached. This river belongs to the northwestern province, the guppies of which - according to the molecular phylogeny - clearly are P. reticulata. The situation south of the L'Ebranche, wasn't observed yet.

To make clear where they do occur:

- P. obscura (OR) Oropuche river (N 10° 43.052'; W 61° 8.871') Road to Cumaca caves, locus typicus
- P. obscura (O2) Oropuche, headwaters Laboratory strain "Oropuche 2", established by D. Reznick
- P. obscura (RS) Rio Seco River Below Rio Seco waterfall, at junction with Salybia River
- P. obscura (Q6) Quare, below Hollis Reservoir Laboratory strain "Quare 6", established by D. Reznick
- P. obscura (Ma) Matura River tributary (N 10° 40.523'; W 61° 4.407') 1 km north of road from Sangre Grande to Matura
- P. obscura (LE) L'Ebranche tributary (N 10° 30.528'; W 61° 4.204') 3 km south of Upper Manzanilla, road to Plum Milan

Description: *Poecilia (Acanthophaecelus) obscura* or Oropuche guppy, is a new guppy species found in freshwaters of the Oropuche River system, North-eastern Trinidad.. The fish is most related to Common guppy (*P. reticulata*) and *P. wingel* (Endler's guppy). *P. obscura* can cross with Common guppy *P. reticulata*, which is observed at the laboratoria

Physical Characteristics: Males and females with sex specific coloration (Picture Below, Fig. a-c). Body color of adult females grayish brown to yellow, fins hyaline. Body sides of adult males with red, blue, orange and yellow bright pigment spots, some reflecting iridescent, usually with 1 to 3 rounded black spots, sometimes with a series of irregularly thin and short or long brown or light black horizontal lines or with very short brown vertical lines sometimes crossing the horizontal bars. The caudal fin base often shows a lower or upper black spot surrounded by small dark and short dashes and yellow pigment, dorsal or ventral caudal fin rays sometimes pigmented and rarely elongated over the caudal margin of the fin, forming a short "sword"; dorsal fin often whitish, dark or polychromatic colored, sometimes flag-like elongated, all other fins hyaline.

Male body coloration extremely polymorphic: in natural habitats no two males being alike.

Size:

Color Form:

Sexual dimorphism:

Lifespan:

Behavior:

Habitat: The Oropuche guppy "P. obscura" was collected from fast flowing small rivers and ditches with generally clear waters. The species also occurs in downstream habitats. Thus it inhabits both so-called low and high predation sites described in the guppy literature (see Magurran, 2005). The locus typicus (Picture below) is a site in the headwaters of the Oropuche River. The river is here about 5 meters wide and fast flowing with a maximum depth of 1 meter. The riverbed is gravel and sand with some larger rocks in the middle. Submerse plants are absent, but the vegetation on the river banks focally reaches into the water and provides shaded sections throughout most of the day.

Diet:

Breeding:

Aquarium Setup:

Minimum School Size:

Minimum Tank Size:

Care Level:

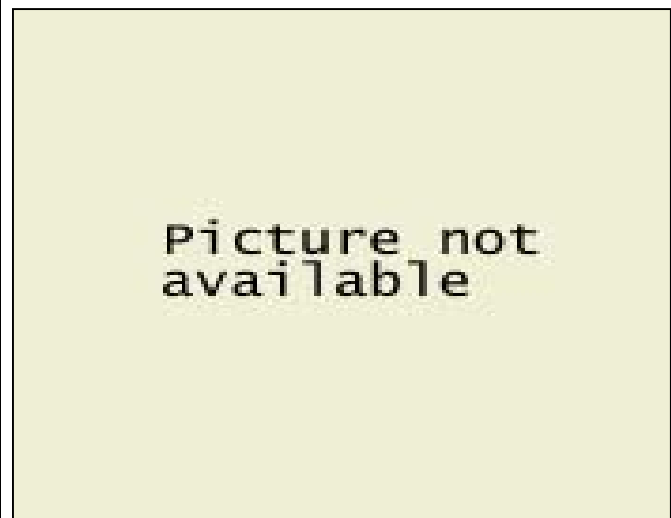
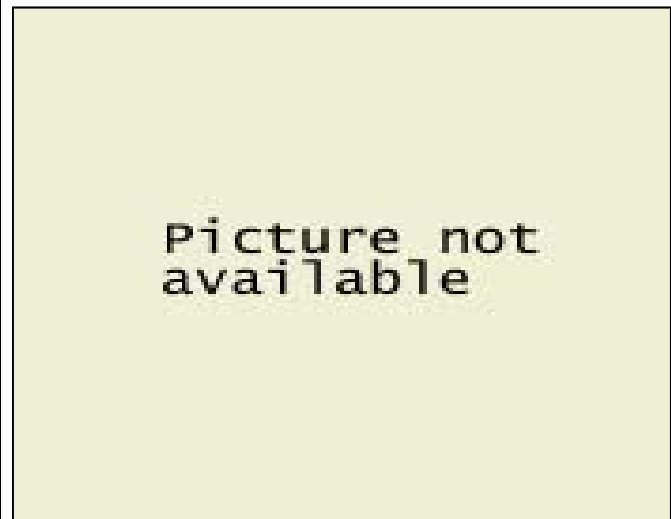
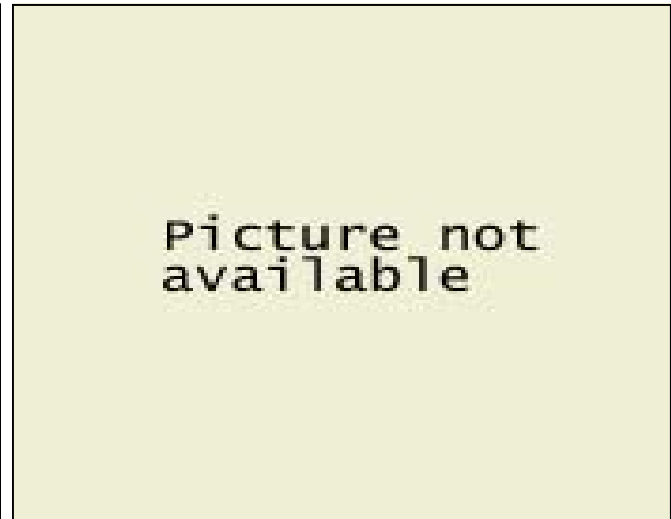
Water Conditions: Researchers noted that on 13-2-2008 (1 p.m., air temperature 25.5°C) the following parameters were recorded: clear water, water temperature 22.5°C, hardness 5-10, conductivity 51 mS, pH 7, nitrate 0, nitrite 0. Accompanying fishes were *Rivulus hartii*, *Astyanax spec.*, *Ancistrus spec.* and small cichlids. The inclusion of cichlids and characins defines the habitat as high predation site.

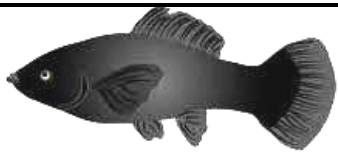
top

- Temperature:
- pH:
- Hardness:

Swimming Level:

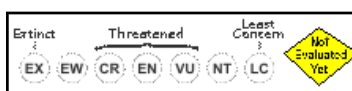
Compatibility / Temperament:





Pacific Molly (*Poecilia butleri*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as: Mexican Molly, Pacific Molly

Type: Tropical/ Brackish Water- Livebearer

Origin: Mexico, North America; Pacific slope of Mexico to Panama, Central America

Description: The **Pacific Molly (*Poecilia butleri*)**, is a Molly from the Poeciliidae family of livebearers.

Physical Characteristics: Typical molly shape. A silver body with 5 thin vertical dark bands on its body starting from its dorsal fin. With a large black spot on the side of its body in front of the dorsal. Dark gray colored anal with distal light gray stripes; caudal with multiple distal rows dark gray stripes; flanks light blue, dorso-lateral anteriorly brown golden, posteriorly yellowish in males

Size: max. TL 70 mm in males; max. TL 80 mm in females

Color Form: Silver

Sexual Dimorphism: Males have a gonopodium & more colourful; females usually plumper with a black area visible through the rear of the abdomen when gravid; blue yellowish coloration in males, females pale; gonopodium in males

Lifespan: 2-3 years

Behavior: Top feeders (see mouth shape) but will take food at any level of the tank. Known for their ability to clean the water surface of tanks. Quickly becomes used to the aquarist and will feed out of your hand.

Habitat: freshwater rivers, streams & ponds; In small groups; coexists with *Anableps dowei* Gill, 1861, *Cichlasoma trimaculatum* (Günther, 1867) and *Dormitator maculatus* (Bloch, 1792) in E-MEX 03-09, brack water channel apparently without permanent connection to the sea, channel L-shaped 500 x 300 m, max. 5 m broad, 80 cm deep, no aquatic vegetation visible, Mangroves; bottom: mud, sand; highly turbid water(28 °C, 8.1 pH, >1990 µS/cm)

Diet: small live foods and sinking commercial foodsFlake, dried fish food. Mollys will eat a small amount of meat. Raw cockles, Bloodworm, etc. It will even eat a small amount of soft algae if not over fed. They also like to eat some blanched vegetables like courgette, cucumber or lettuce.

Breeding:In the wild Mollys shoal in their hundreds and the ratio of males to females is one third males to two thirds females. Indeed a female molly would typical give birth to 70% females. In pet shops they will often sell Mollys in pairs. Whilst this will not cause the female any long term harm, it will tire the female as she is constantly pestered by the male's advances. It is far better for the fish if you have a male to every 2 females and then the females will be less stressed. Every 30-40 days you'll have 50-100 live fry. The female has the ability to store sperm for several months if the male should disappear. Adults will prey on young fry, so dense planting in the form of Java Moss can be used to ensure fry survival, or the young fry can be put into a breeding trap until they are larger. Pregnant females should never be placed into a breeding trap as this will cause undue stress and possibly cause them to abort the fry

Aquarium Setup: Typical molly setup, include salt in the water as usual.

Stocking Rati / Minimum School Size: 1:2 M:F

Minimum Tank Size: 30cm or longer

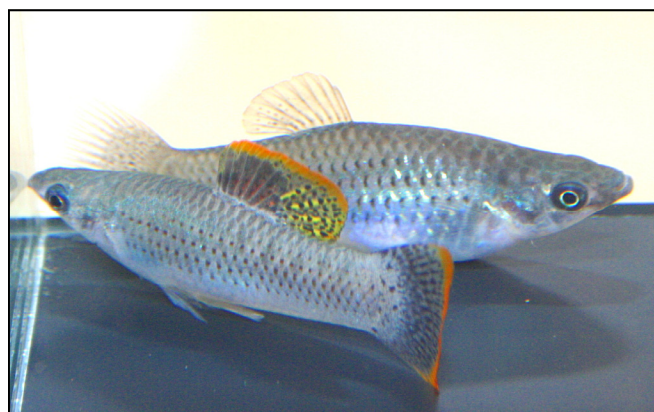
Care Level: Easy

Water Conditions:

- **Temperature:** 24-28°C
- **pH:** 7.0-8.0
- **Hardness:** 6-20 °d

Availability: Rare

Compatibility / Temperament: .inoffensive; good community fishA popular choice for a beginners aquarium, the molly is a good community fish that will generally not bother other inhabitants, they may harass other livebearers, including Platies, however. It is known for Mollys to be a little nippy, however, so any tankmates should be fast swimming and not be long-finned.





Paramolly Molly (*Poecilia parae*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as: *Micropoecilia parae*

Type: Tropical/ Freshwater; brackish; benthopelagic; ; non-migratory - Livebearer

Origin / Distribution: They are in South America , from Guiana to the delta of the Amazon River.

Description: Paramolly Molly (*Poecilia parae*) is a species of fish of the family of peccilidos in the order of ciprinodontiformes .

Physical Characteristics:

Size / Weight / Age: Max length : 3.0 cm TL male/unsexed;

Color Form: Like guppies, *Poecilia Parea* reproduces sexually. Unlike those in which none of the males has the same color pattern, the *Poecilia* are genetically determined five colors (red, yellow, blue, striped and a kind of gray that mimics the color of the immature females).

Sexual dimorphism:

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior:

Habitat: Fresh and brackish waters of estuaries. Occurs in small swamps and shallow slow-flowing creeks located inland where the water is really fresh, along riverine vegetation with clear water and sandy-muddy substrate. Three color forms of males are recognized, the frequency of which may depend upon predation pressure

Diet:

Breeding: Internal live bearers; Produces 5 to 15 young after about 24 days of gestation. Females are promiscuous and mate with several males. The grays have also developed long testicles, which produce more sperm, giving them an advantage in postcopulatory race to fertilize the eggs.

The interesting story of love affairs and betrayals does not end there. In another study published in *Evolutionary Biology*, Hurtado-Gonzales found that a common predator *parae* *Poecilia* prefer a dinner with red and yellow, perhaps because their colors are easier to distinguish. This disadvantage contributes to the low number of red and yellow in the general population.

"It seems that in the evolutionary scale, the less attractive males remain on their more attractive exclusive mating strategies evolve but equally effective," said the author. Then, the existence of several colors in these fish is derived from the interaction between control depredadotes attractive male and the ability of males less attractive to exploit other areas of sexual selection, including the domain, the trap and sperm competition.

Aquarium Setup:

Minimum Tank Size:

Care Level:

Water Conditions:

- **Temperature:** Tropical; 24°C - 28°C
- **pH:** pH range: 7.0 - 7.5;
- **Hardness:** dH range: 5 - 10

Swimming Level:

Compatibility / Temperament:





Molly (*Poecilia koperi*) Poeser, 2003 NEW SPECIES

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical; Freshwater; benthopelagic - Live-bearer

Origin / Distribution: South America: Venezuela. This coastal species is found from Barcelona to Maracaibo in Venezuela.

Description: *Poecilia koperi* is a fish of the family of pecílids and the order of ciprinodontiformes .

Physical Characteristics:

Size / Weight / Age:

Color Form:

Sexual dimorphism:

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior:

Habitat: Freshwater; benthopelagic; *P. koperi* is a benthopelagic (ecological region at the lowest level of water body) species. It is euryhaline (able to live in waters of a wide range of salinities) and can survive in both fresh and brackish waters.

Diet:

Breeding:

Aquarium Setup:

Minimum Tank Size:

Care Level:

Water Conditions:

- Temperature:
- pH:
- Hardness:

Swimming Level:

Compatibility / Temperament:



Figure 3a. Holotype of *Poecilia koperi*

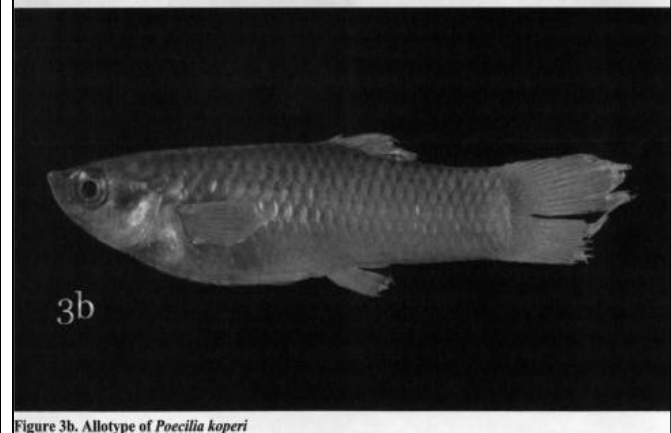
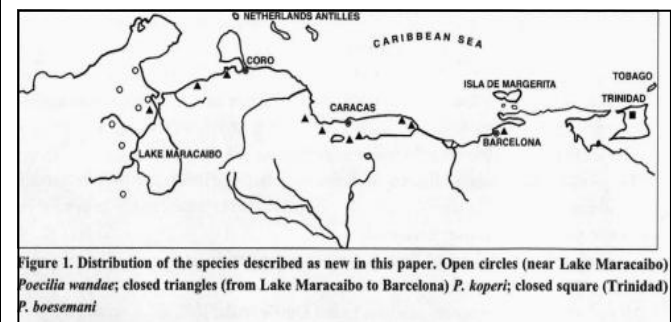


Figure 3b. Allotype of *Poecilia koperi*





Sail Finding Molly (*Poecilia kykesis*) Poeser, 2002

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as: *Poecilia petenensis*

Type: Tropical; Freshwater; benthopelagic - Livebearer

Origin / Distribution: Central America: Lake Peten in Guatemala.

Description: *Poecilia kykesis* is a fish of the family of peccilids in the order of ciprinodontiformes. They are the same fish as *Poecilia kykesis*, (From the Laguna catzajah Mexico)

Physical Characteristics: *Poecilia kykesis* got a more bluish coloration. The *P. kykesis* males wore dark marine blue, while the *P. velifera* was more or less yellow and lighter colored. *Poecilia kykesis* that of previous was called *Poecilia petenensis* is the largest type of the 3 species are called sail find Molly. Males are about 10 cm, while females can be 15-20 cm. The largest tribes are found in Frontera (Mexico). (Doc. by Juan M. Artigas and Pro. Dr. Manfred schartl). Color combinations can be possible, but rarely are found svartprikkede individuals in nature. The female may give charcoal on everything from 30 - 300 per litter. It differs from *P. velifera* in that it is more gray, while *P. velifera* other hand, has a more yellow color. The female is usually dark yellow, while *Poecilia kykesis* female natural gray (as they are in the pet shop). (One can therefore assume that the fish you buy at the store is a mixture of all three species, or at least 2 of the species since these are often gray and yellow). *Poecilia kykesis* has a lifespan of approx. 5-6 years. They grow throughout life, regardless of gender. The female grows more than the male after they have been sexually mature. They become sexually mature after about. 4-5 month life in the aquarium (Ref. T. Aarud 660 liters)

Size / Weight / Age: 20.0 cm

Color Form:

Sexual dimorphism: Male gonopodium and will develop sailing.

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior:

Habitat: *Poecilia kykesis* wore original found in brackish water they will not like living in pure freshwater our a long period.

Diet: Herbivore - Spinach - Tetra Vegetable; all kinds of frozen food (Cyclops, Daphnia, bloodworm, koretra, brine shrimp), live food (bloodworms, koretra, cyclops, daphnia, artemia), dry food (flakes, chips, small granules)

Breeding:

Aquarium Setup: *Poecilia kykesis* tend to look better with salt in the water, and travel well. Although they do also survive in freshwater most of them do if your hardness are high enough.

Minimum Tank Size:

Care Level: Medium

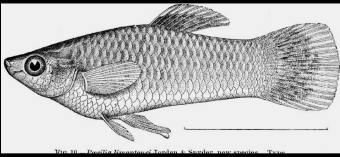
Water Conditions:

- Temperature:
- pH:
- Hardness: 30-50

Swimming Level: Top Layer

Compatibility / Temperament:





Molly (*Poecilia limantouri*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical/ Brackish Water- Livebearer

Origin / Distribution: Río Tamesoe near Tampico, Tamaulipas, Mexico.

Description: *Poecilia limantouri* Jordan [D. S.] & Snyder [J. O.] 1899:129

Physical Characteristics:

Size / Weight / Age:

Color Form:

Sexual dimorphism:

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior:

Habitat:

Diet:

Breeding:

Aquarium Setup:

Minimum Tank Size:

Care Level:

Water Conditions:

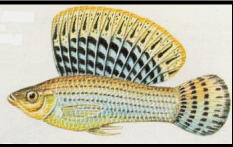
- Temperature:
- pH:
- Hardness:

Swimming Level:

Compatibility / Temperament:



Picture not available



Sailfin Molly (*Poecilia latipinna*)

Order: Cyprinodontiformes - Family: Cichlidae - Subfamily:



Type: Tropical

Also known As: Sailfin molly (English), Breitflossenkärpfling (German), seilfinnemolly (Norwegian), zeltvinkarper (Dutch), molinezja szerokopletwa (Polish), bubuntis (Tagalog), and moliénésie á voluire or simply "molly volie" (French). There is some confusion with the Yucatan molly, *P. velifera*. While most names that contain a "sail" element refer to the present species, the German Segelkärpfling, the Latin velifera and possibly others are used for the Yucatan molly. The French terms are used for both species indiscriminately.

Origin: Native to North America and have been introduced to many countries including Hawaii, Philippines, Canada, Singapore, New Zealand, Kenya, Columbia, Bahamas and Australia. They have been established in coastal drainages of South East Queensland in Hervey Bay, Burrum River and Brisbane River.

Taxonomy: The Sailfin molly was originally described in 1821 as *Mollienesia latipinna* by the naturalist Charles Alexandre Lesueur. Lesueur based his description upon specimens from freshwater ponds in the vicinity of New Orleans, Louisiana. However, Lesueur described other collections of the sailfin molly as *Mollienesia multiradiata* in 1821, the same year in which he described *M. latipinna*. This conflict created confusion and eventually necessitated a ruling by the International Commission on Zoological Nomenclature (ICZN). In 1959, the ICZN placed precedence on the name *Mollienesia latipinna* Lesueur 1821. In a landmark definitive work on Poeciliid fishes, Donn Rosen and Reeve Bailey (1959) noted the priority of *Poecilia* by Marcus Eleaser Bloch and Johann Gottlob Schneider (1801) with regards to *Mollienesia* by Lesueur (1821), thereby relegating *Mollienesia* to the synonymy of *Poecilia*.

Description: The Sailfin Molly (*Poecilia latipinna*), is a species of fish, of the genus *Poecilia*. They inhabit fresh, brackish, and coastal waters from North Carolina to Texas and the Yucatán Peninsula of Mexico.

Physical Characteristics: The body of the Sailfin molly is essentially oblong. The head is small and dorsally flattened, with a small, upturned mouth. The caudal peduncle is broad and the caudal fin is large, rounded, and sometimes tipped with black. The pelvic fins originate at a point anterior to the dorsal fin. In mature males, the dorsal fin is greatly enlarged and colorful (it is this feature that gives the species its common name) and the caudal fin is similarly colorful; these conspicuous secondary sexual features play a role in female mate choices. Females tend to be larger and more plainly coloured, a difference characteristic to the Poeciliidae. Male sailfin mollies grow to 15 cm while females grow to 10 cm. The large sail-like fin of the male is the most distinctive characteristic of this species and it is often tipped in black. The head is dorsally flattened with an upturned mouth. Colour is highly varied including green, grey and black. Speckled varieties are popular aquarium varieties. It is a smaller fish than the Yucatan molly (*P. velifera*), though that species often does not grow to full length if bred in an aquarium. The dorsal fins are the most distinctive character. Those of the sailfin molly have less than 15 fin rays, counting where the fin meets the back, whereas the Yucatan molly has 18-19 (intermediate numbers may indicate hybrids which should be avoided). If a male spreads his dorsal fins in display, in this species it forms a trapezoid, with the posterior edge being shortest. The height of the dorsal fin, measured at the posterior edge, is a bit less than the height of the tail.

Sexing / Sexual Dimorphism: The male is slender and has a gonopodium, the female is larger with a fuller body.

Color Form: The body is generally light grey, although breeding males may be greenish-blue. Several rows of spots occur along the sides, back, and dorsal fin. Often, these spots blend together, forming stripes. Aquarists have developed many colour variations in this species (variation occurs naturally in the wild), with melanistic, leucistic, albino, and speckled forms known.

Temperament: Mild

Diet: Sailfin mollies feed primarily upon algae and other plant materials, although they will consume a number of aquatic invertebrates, including the larvae of mosquitoes.

Breeding: Fertilization is internal, and is accomplished by means of highly modified fin elements within the anal fin of males that form a structure known as the gonopodium. Sailfin mollies produce broods of 10-140 live young, depending upon maturity and size, and females may store sperm long after the demise of their relatively short-lived mates. The gestation period for this species is about three to four weeks, depending upon temperature, and a single female may give birth on multiple occasions throughout the year. Although sex ratios of the broods are balanced, adult populations tend to be largely female, as males appear to suffer higher rates of mortality due to a greater susceptibility to predators and disease as a consequence of their brighter colors and a life devoted to frenzied breeding. There is no parental care exhibited by this species. A ratio of three females to one male is preferred, as with all live bearers, because the females are harassed by males to the point of exhaustion, and having more females gives the others a rest. Produce 10 to 100 live young after a gestation period of about 28 days. Able to breed in fresh or brackish water. When their populations are high, they are able to reach sexual maturity at smaller sizes, a phenomenon known as 'stunting'. Depending upon environmental conditions, sailfin mollies may become reproductive in less than a year. Sailfin mollies are small fish. At one year of age, males typically range in size from 15-68 mm SL, while mature females are likely to be 19-53 mm SL. The size of adult males is directly correlated with population density. The greater the population, the smaller the average size of males. The maximum recorded size for this species is 150 mm TL.

Life Span: The natural lifespan of sailfin mollies is short, particularly in the case of the males, which may live less than a year after achieving sexual maturity.

Max. Size: Sailfin Molly, *P. latipinna* grows between 4 - 6 inches (6 - 10 cm) in the aquarium, and up to 8 inches (20 cm) in nature. Their prominent natural color is a green body often with black dots and a large dorsal fin on the male.

Habitat: Able to live in freshwater and brackish environments. Prefer marshes, lowland streams, estuaries, ponds and lakes that are heavily vegetated. Commonly found under aquatic vegetation where they hide from predators. They are a hardy species able to withstand low oxygen levels and moderate salinities. The Sailfin molly is a tolerant species, as it can exploit the thin film of oxygen-rich surface water with its upturned mouth, so is able to survive oxygen-depleted habitats. A euryhaline species, the Sailfin molly may be found in a variety of saline environments, tolerating salinities as high as 87 ppt and breeding in brackish waters. Adults thrive best in isolated pools or organically enriched waterways where few other fish occur.

Care Level: Easy

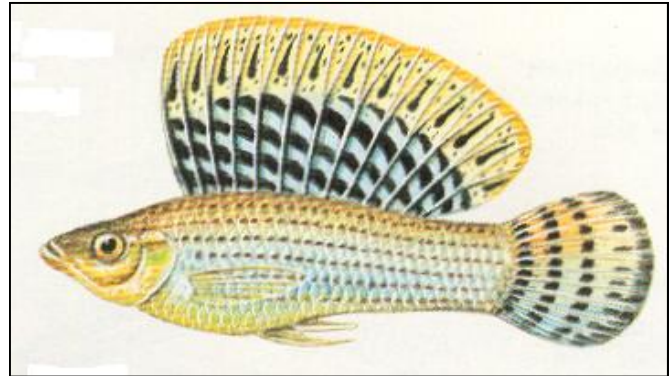
Minimum Tank Size: 10 Gallon

Water Conditions:

- **Hardness:** 20-30° dGH (absolute lowest is 11°)
- **Ph:** 6.5 to 8
- **Temp:** 75-82° F (24-28° C)

Aquarium Setup: Mollies are often found in saline waters and it is recommended that 1 to 1.25 teaspoons of non-iodized salt be added to the aquarium water. The common molly is a bit hardier and can be kept in a smaller aquarium, whereas the sailfin mollies are more delicate and need a larger aquarium with plenty of room. The sailfin mollies also do better when kept with other livebearers that can handle a saline environment. Mollies are prone to ich, fungus and other diseases if their environment is not comfortable for them. Provide plenty of plants and floating plant cover for munching on, and for hiding places for the fry.

Compatibility: They are a good community fish.





Shortfin Molly (*Poecilia mexicana*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as: Shortfin Molly, Mexican Molly, Atlantic Molly, Orangefin Molly

Type: Tropical/ Freshwater; brackish; benthopelagic - Liverbearer; non-migratory

Origin: North and Central America: Rio San Juan, Mexico to Guatemala. At least one country reports adverse ecological impact after introduction. The original range of *Poecilia mexicana* includes the Atlantic and Pacific slopes of southern Mexico and Central America, the Caribbean slope of Colombia, and the West Indies. An aquarium fish, the shortfin molly was first reported by St. Amant (1968a) who found it in a small pond and its tributary 5 miles north of the Salton Sea, Imperial County, directly below a tropical or ornamental fish farm in January 1964. The shortfin molly was found when St. Amant tried to eliminate a population of Mozambique tilapia which was in the pond. Whether or not this particular population was eliminated is unknown. The shortfin molly was included among several exotic species collected on 13 January 1967 from a small ditch below the Hot Mineral Spa adjacent to Del Rancho El Sargent, a tropical fish farm in Imperial County (St. Amant 1970). Other collections of the shortfin molly were made in 1968 from the Westminster flood control channel in Orange County (St. Amant and Hoover 1969), in 1969 and 1970 from the Avenue 82 drain ditch four miles east of Oasis in Riverside County (St. Amant and Sharp 1971), and in 1974 from the Johnson Avenue canal one mile south of Mecca in Riverside County (Mearns 1975). The specimens from the Westminster flood control channel were erroneously reported as *P. sphenops* according to unpublished notes of C.L. Hubbs and W.I. Follett. Populations of shortfin molly have persisted in scattered locations in the drains and natural watercourses entering the Salton Sea and in the Sea itself (Black 1980; Lau and Boehm 1991). As recently as 1994, A.A. Schoenherr (28 September 1994 pers. comm.) found them in three out of 21 collection localities. The shortfin molly is much less abundant and has a smaller distribution in the area than the sailfin molly. Swift et al. (1993) maintained, "This species is restricted to a small area south of Mecca near the Salton Sea, and to a few areas of the lower Colorado River (Schoenherr 1979; Lau and Boehm 1991)." However, Schoenherr's (1979) study was confined to a canal at the north end of the Salton Sea and the mollies were identified as *Poecilia sphenops* and *P. latipinna*; and Lau and Boehm (1991) did not sample the lower Colorado River and did not separate *P. mexicana* from *P. latipinna*. Nevertheless, the lower Colorado River in Imperial County supports *P. mexicana* which is widespread but much less abundant than *P. latipinna* and *Gambusia affinis* (Minkley 1979). When introduced outside of its native range, the shortfin molly can deplete populations of endemic fishes. Courtenay and Meffe (1989) summarized studies in southern Nevada that documented this phenomenon. Scopettone (1993) identified predation as the likely mechanism by which it caused the decline of Moapa dace (*Moapa coriacea*) in the upper Muddy River, Nevada. The shortfin molly has become a permanent member of the California fish fauna, but, as with the sailfin molly, its small size and requirement for warm water preclude a wide distribution in California.

Description: Shortfin Molly (*Poecilia mexicana*) is another common species of the mollies but smaller than the sailfin mollies as the shortfin doesn't have any sail-like dorsal fins. Although many traits vary from population to population, *P. mexicana* is generally a slender fish with broad caudal and dorsal fins. They do well in brackish water just like other mollies but can handle freshwater very well as long as you add the salt to the tank for their health. Aquarium strains of shortfins are already hybrids with Sailfin and Sphenops which that is why some male sailfins have small sail fins, other males doesn't have any of the sail fins.

Physical Characteristics: *Poecilia mexicana* in many ways resembles other poeciliid species, exhibiting many typical "molly-like" characteristics. *P. mexicana* can be distinguished in certain instances by its habitat- the cave species is the only poeciliid species in the sulfidic cave environments in which it lives. The cave species exhibits a reduced head size and less obvious lateral compression, in addition to reduced eyes. In all populations, the anal fin originates directly under the dorsal fin. The epigeal forms exhibits bright colors on the caudal and dorsal fins and a distinctive pattern of banded spots that span the entire body in multiple lines from the gill region to the caudal fin.

Size: *Poecilia mexicana* exhibits a large range of sizes that vary based on habitat- the standard length is 24-54 mm for females and slightly smaller for males, around 20-42mm; **Max length** : 11.0 cm SL male/unsexed;

Color Form: Coloration varies, but it is often intricate with beautiful markings on the fins

Sexual dimorphism: The size ranges based on population: females tend to be larger than males with a standard length of 24-54mm. Males are 20-42mm

Lifespan: Livebearing fish such as Mollies, Platys, and Swordtails, generally live less than 5 years.

Behavior: Occurs in warm springs and their effluents, canals and weedy ditches, and stream pools. s. Some populations in caves. Adult stream-dwelling fish generally live in large, mixed schools in the deeper regions of rivers and streams, while juvenile fish tend to reside in the calmer shallows where they can take cover in plant growth. Within populations of mature fish, hierarchies appear in both sexes: the females compete for food, and males compete for females. To maintain and establish these hierarchies, aggressive behavior occurs in both sexes, including chasing and biting

Habitat: Introduced - Recent, Naturalised; Recent, Naturalised. PLUS: ; Freshwater, ponds - streams The Mexican Molly (*Poecilia mexicana*) and the Liberty Molly (*Poecilia salvatoris*) were both introduced to Hawaii and have hybridised to form a *Poecilia* hybrid-complex. Mollies of the Cook Islands are probably in this complex. To simplify the name this database will use the name Mexican Molly (*Poecilia mexicana* hybrids). To further confuse matters, some fish of this complex have been mistakenly identified as *Poecilia sphenops*, which is another species.

Diet: Food is mainly detritu; *P. mexicana* eats an omnivorous diet. In a "typical molly habitat", a clear stream, the primary nutrition sources available are algae and small invertebrates. In cave environments, where food is thought to be plentiful, *P. mexicana* subsists on chironomid flies and larvae, chemoautotrophic sulfur bacteria, and bat guano.

Breeding: Internal live bearers; 28 days after fertilization female gives birth to 30-80 young. Sexual maturity is reached after 7-12 months. *P. mexicana* is a viviparous fish that undergoes internal fertilization and live birth with unique morphological adaptations. The female has fused ovaries and exhibits superfetation, the condition of supporting offspring that differ in age and resulted from different matings. The male has fused testes that form a tubular organ that transports cyst-like bundles of sperm. These sperm travel down the gonopodium, which is a specialized organ for transferring sperm into the female. This organ is actually a modified anal fin consisting of thickened fin rays and an elongated structure.

During copulation, the gonopodium is positioned at the entrance of a female's oviduct and transfers the bundles of sperm. Females can store sperm in the ovary and gonoduct for up to eight months and have short interbrood intervals

Aquarium Setup:

Minimum Tank Size: 30 gal for two trios.

Care Level: *Poecilia mexicana* seems to be growing in number as nonnative populations become established, especially in the United States. The release of aquarium specimens and escapes from fish farms is the likely cause of this (*Poecilia mexicana* (shortfin molly)). *Poecilia mexicana* is actually proving to be a threat to United States ecosystems as it begins to act as a harmful invasive species. It affects ecosystems by preying on native larval fish and decimating local populations of damselflies (*Poecilia mexicana* (shortfin molly))

Water Conditions:

- **Temperature:** 22°C - 28°C
- **pH:** 7.0-8.0
- **Hardness:** dH range: 20 - 30

Compatibility / Temperament: *Poecilia mexicana* is a very important research subject for investigating the effects of adaptations to extreme environments on a population's morphology and behavior. Many studies have been done to describe these effects, and the existence of cave-dwelling populations (the extremophile form, or the population dwelling in an environment of biological extremes such as low light and high hydrogen sulfide content) and more typical epigeal populations allow for comparison between the two forms and a thorough assessment of the evolutionary and behavioral implications of these adaptations (Tober and Plath, 2010)





Silver Molly (*Poecilia sphenops*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also Known As:

Type: Tropical—Livebearer

Overview: *Poecilia* is a genus of euryhaline brackish water fish in family Poeciliidae of order Cyprinodontiformes. The type species is *P. vivipara*. Live-bearers, the *Poecilia* species are collectively known as mollies, with the exception of Endler's livebearer (*P. wingei*) and the famous guppy (*P. reticulata*). Members of this genus are members of the family Poeciliidae, which includes the southern platyfish or "platy" (*Xiphophorus maculatus*), and the green swordtail (*X. hellerii*).

Description: *Silver Molly (Poecilia sphenops)*

Habitat: Captive bred variety

Origin: Columbia: artificially cultivated species

Physical Characteristics: **Silver** Mollies come in several different colors and spot patterns, such as black, white, black and white spots, orange, Orange and white spots.

Color Form: Silver / White

Temperament: Peaceful

Life span: 3 years

Diet: Fresh spinach, zucchini, peas and lettuce. Live blood worms, glass worms, brine shrimp and tubifex worms. Frozen vegetable diet, daphnia, plankton, beef heart, brine shrimp, glass worms and blood worms. Flake and freeze dried foods also accepted.

Breeding: The male has a longer pointed dorsal fin, while the females is smaller and rounded. Males also have a gonopodium (underneath the body of the male is one fin that hangs down and what looks like a fin folded up against his body, this is a gonopodium. Where as the female has two fins that hang down). They are livebearers that will produce 20-40 babies at one time and they will eat their young.

Max. Size: under 8 cm (3.15 inch)

Minimum Tank Size: Mollies need an aquarium with at least 15 gallons of water.

- **Tank type:** freshwater tank
- **Floor water column:** entire water column
-

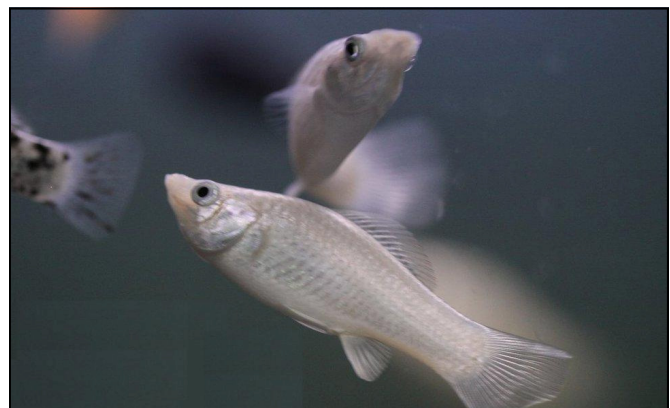
Care Level: Easy

Water Conditions:

- **Temperature:** 24 °C (75.2 °F) - 26 °C (78.8 °F)
- **pH tolerance:** 6 - 8.5
- **Water hardness tolerance:** 10 - 30 °dKH

Aquarium Setup: Moderately decorated with rocks, live plants and driftwood. Along with their platy cousins, the mollies are part of a pivotal aquaculture group of livebearers, which can live in water from fresh to fully marine, and a wide range of other conditions.

Compatibility: Peaceful fish that will sometimes school with their own kind. Females should outnumber males two to one.





Sulphur Molly (*Poecilia sulphuraria*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Tropical/ Brackish Water- Liverbearer

Origin: It is endemic to Mexico, specifically to the Baños del Azufre near Teapa, Tabasco. The Baños del Azufre are sulfidic springs that contain high concentrations of toxic hydrogen sulfide (H₂S). *Poecilia sulphuraria* has apparently evolved the ability to tolerate the toxic conditions. It is critically endangered for now.

Description: The Sulphur Molly (*Poecilia sulphuraria*), locally known as molly del teapa, is a species of fish in the Poeciliidae family.

Physical Characteristics:

Size:

Color Form:

Sexual dimorphism:

Lifespan:

Behavior:

Habitat:

Diet:

Breeding:

Aquarium Setup:

Minimum School Size:

Minimum Tank Size:

Care Level:

Water Conditions:

- Temperature:
- pH:
- Hardness:

Swimming Level:

Compatibility / Temperament:





Swordtail or Spiketail Molly (*Poecilia petenensis*)

Order: Cyprinodontiformes - Family: Poeciliidae



Also known as:

Type: Freshwater - Egglayer

Origin: Middle America from southeastern Mexico to Belize and Guatemala (Miller 1983; Greenfield and Thomerson 1997).

Taxonomy: Distinguishing characteristics and identification keys that includes this species were given by Miller (1983) and Greenfield and Thomerson (1997). This species is part of the *Poecilia latipinna* complex. Another name is *Mollienesia petenensis*. A photograph appeared of this species appeared in Wischnath (1993).

Description:

Physical Characteristics: Males of this species are characterized by a sail-like dorsal fin, similar to that of *P. latipinna*, and a short sword in the caudal fin. Male *P. petenensis* mollies have gray-turquoise to gray-green bodies. The caudal (tail) is orange in the center and sky blue or turquoise above and below. The caudal has a short black sword on the lower margin. The dorsal is immense and has rows of black bars and an orange border. Females have gray-green bodies. The top photo is a young male about six months old. He is just beginning to grow his sword. The bottom photo is of a female who is about four months old. Females don't have the large dorsal fin that is sported by the males and lack most of the brighter colors of the male. Females of this species lack the rows of orange spots sported by females of other Sailfin molly species.

Size: Females 10 cm; males 13 cm.

Color Form: Gray-turquoise to gray-green

Sexual dimorphism:

Lifespan:

Behavior:

Habitat:

Diet: Feeding is simple with the fish taking prepared foods as well as live and frozen foods. Periodic feedings of *Daphnia* or other live foods are helpful in color maintenance, general health and breeding. This species also requires vegetable material in its diet that can be supplied by feeding a commercial food or by providing algae, lettuce, cucumbers or fine leaved aquatic plants (*Lemna*, duckweed, is a good food).

Breeding: This livebearer breeds like other members of its genus, except that as one of the few temperate zone livebearers it often ceases breeding during Winter-time's short days. At 30°C (85°F), broods are delivered about every 28 days. Broods can be as large as 200 fry for large females. Like other Poeciliidae, the females of this species can store sperm and have as many as 8 broods from a single mating. The fry are large and can eat commercial food, *Daphnia*, brine shrimp nauplii, etc. immediately. The adults are not significant fry eaters, so the fry can be reared with the adults. The fry will, however, usually grow faster if removed from the adults. The male uses its immense dorsal fin during courtship.

Aquarium Setup:

Minimum School Size:

Minimum Tank Size:

Care Level: Easy

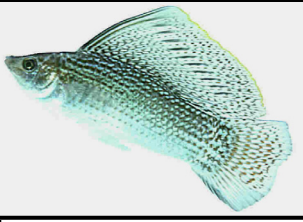
Water Conditions: This species tolerates pHs from 6.5 to 8.0 while preferring the higher end (basic) of this range. Water hardness is not critical, but it prefers hard water. Optimum temperature ranges from 20-30°C (68-85°F).

- **Temperature:** 20-30°C (68-85°F).
- **pH:** 6.5 to 8.0
- **Hardness:** not critical

Swimming Level:

Compatibility / Temperament: This species is not aggressive (although males can be quarrelsome among themselves) and is active. It can be kept either in a large single species aquarium or in active community aquaria with rainbowfish, other livebearers or other fish with similar behavior and requirements.





Yucatan or Lyretail Molly (*Poecilia velifera*)

Order: Cyprinodontiformes - Family: Poeciliidae



Extinct		Threatened			Lower Risk		
EX	EW	CR	EN	VU	cd	nt	lc

Also known as: Some names of the Yucatan molly - such as Segelkärpfling or the specific name *velifera* - contain an element signifying "sail", aggravating the confusion with the sailfin molly. The French terms are used for both species indiscriminately, as is the Japanese name (which is simply the Japanized form of "sailfin molly").

Type: Freshwater / Brackish water/ Marine Environment - Livebearer

Overview: Another popular molly in the hobby, and another that has been selectively bred to produce several different varieties, such as albino, black, red etc. Some of these are the result of cross breeding with *P. latipinna*.

Origin: Endemic to southeastern Mexico but has been introduced into several other countries, including Colombia, Israel, Singapore and Taiwan.

Description: *Poecilia velifera*, the Yucatan molly, lives in coastal waters of the Yucatan peninsula. These live-bearing (Poeciliidae) fish are particularly well known for both the extreme size variation among males, and the sexual dimorphism between males and females in both body shape and behavior. It is outwardly similar to the Sailfin molly, *P. latipinna*, though larger overall and with a higher and longer dorsal fin in males. Full-grown fish are usually larger than 10 cm (4 in), though especially captive-bred individuals grow only to the size of Sailfin mollies. The dorsal fins are the most distinctive character for telling the species apart: Those of the Yucatan molly have nearly 20 fin rays, counting where the fin meets the back, whereas the Sailfin molly has less than 15 (intermediate numbers may indicate hybrids). If the males spread their dorsal fins in display, these have a distinct fan or trapezoid shape, with the upper edge being distinctly longer than the lower. The height of the dorsal fin, measured at the posterior edge, is a bit larger than the height of the tail. There also exists a (in our opinion) grotesque 'balloon' variety of this fish in which the body is malformed and rounded, giving a balloon-like appearance. This condition can cause swimbladder and digestive problems and may bring about premature death. It is difficult to distinguish young fish from *P. latipinna* and the only reliable method is to count the dorsal fin rays. *P. velifera* has 18-19, while *P. latipinna* has only 14. This species is more difficult to maintain than others in the genus, and water quality must be maintained rigorously, particularly if the males are to develop their stunning dorsal finnage to its fullest extent.

Physical Characteristics: Male *P. velifera* mollies of this population have gray-lavender to gray-green bodies with many parallel dotted horizontal lines. Often, the head and front of the body are orange. The caudal (tail) is orange in the center and sky blue or turquoise above and below with a black stripe on the lower margin. The dorsal is immense and has rows of black bars and an orange border. Females have gray-green bodies with many parallel dotted horizontal lines. The top photo is a young male about five months old. As he matures, his body will deepen and his dorsal will enlarge. The bottom photo is of a female who is about four months old. Females don't have the large dorsal fin that is sported by the males and lack most of the brighter colors of the male. This female, as is typical of this population, has rows of orange spots on her white belly. She also has typical rows of black spotting on her dorsal fin and fainter rows of black spots along her sides.

Size: Male 6" (15cm). Female 7" (17.5cm).

Sexual dimorphism: The male is slightly smaller and possesses both a gonopodium and a large, long sail-like dorsal fin.

Lifespan: This fish lives to be about three years of age.

Behavior: The adults are not significant fry eaters, so the fry can be reared with the adults. The fry will, however, usually grow faster if removed from the adults. The male uses its immense dorsal fin during courtship.

Diet: Omnivorous by nature, feeding on a variety of zoobenthos and detritus in the wild. Most foods will be accepted whether live, frozen or dried. However some vegetable matter should be provided in the diet, such as blanched spinach, cucumber or vegetable flake. Feeding is simple with the fish taking prepared foods as well as live and frozen foods. Periodic feedings of Daphnia or other live foods are helpful in color maintenance, general health and breeding. This species also requires vegetable material in its diet that can be supplied by feeding a commercial food or by providing algae, lettuce, cucumbers or fine leaved aquatic plants (Lemna, duckweed, is a good food).

Breeding: Relatively difficult compared to some livebearers. It is recommended to maintain this species in trios of 2 females to a single male as males can be quite vigorous in their pursuit of mates. Reproduces in the usual livebearer fashion. Gestation can take between 4-8 weeks, with up to 200 young being produced. 20-60 is more common however. These are relatively large and will accept brine shrimp nauplii, microworm or powdered flake from birth. The breeding tank should be heavily planted if the fry are to survive predation by the parents and other fish. The best method is to remove gravid females to a separate tank until they give birth. Interestingly wild-type fish are much less likely to eat their offspring than the domestic forms. They are bred like other mollies; in line with their general requirements, this is somewhat more difficult than in related species. It is especially hard to get males to grow their spectacular fins. Professional breeders often separate males and females in winter, so that they are eager to breed in spring. Young can then, climate permitting, grow in spacious outdoor basins during summer. Like other Poecilia, they are prone to hybridization with their relatives. Not infrequently, crosses are attempted with the Sailfin molly to breed a hardier fish. This is generally not very successful, and should not be attempted, as purebred Yucatan mollies are often quite hard to find, and hybrids will not have as massive dorsal fins as these. Several color variants are also available; these usually do not attain the large size of wild-type fish and may have been crossbred with *P. latipinna*.

Aquarium Setup: Especially small strains are suitable for keeping in an aquarium. However, this fish is not as easy to keep as the Sailfin molly, let alone the *P. sphenops* (black molly). Ideally a heavily-planted setup with some floating cover and areas of open water. The aquarium should be as large as possible as in small aquariums the development of the males' dorsal may be impaired. This may also occur in overcrowded conditions so stock the tank sensibly. They need spacious tanks with well-aerated, slightly brackish water to thrive. Direct sunlight and an ample supply of plant food, such as lettuce, peas, or certain algae, are necessary for optimal health; in subtropical areas, they can be kept outside in unheated tanks in the summer; in temperate zones, backup heating may be necessary. This strain of molly can also be kept in saltwater reef tanks, and provide clean-up duties for the tank. To transition a molly to saltwater, adjustment time is needed; increase the salt content to match the reef tank over a period of three hours.

Minimum Tank Size: 36" x 15" x 12"

Water Conditions: They are able to withstand higher temperatures than most pet fish. Although they can survive over 30°C for prolonged periods of time if other conditions are good, temperatures should be kept between 25 and 30°C. It is absolutely essential that the water is hard and alkaline, although brackish conditions are equally favourable. This species can even be acclimatized to full marine conditions without too much trouble.

- **Temperature:** 72-82°F (22-28°C)
- **pH:** 7.0-8.5
- **Hardness:** 15-35 dH

Swimming Level: Harem, a male and female 4 or 5

Compatibility / Temperament: A peaceful fish in a community aquarium but should only be kept with other species that can tolerate hard water. Good choices include other livebearers such as swordtails or platies (not other mollies as they may crossbreed), some Gouramis and hardy corydoras or Loricarids. Some barbs and tetras are also suitable. Can also be kept in a brackish setup with Chromides, gobies etc.

