FISH IN FOCUS: KEEPING THE YUCATAN SAILFIN MOLLY (POECILIA VELIFERA)



Select Aquatics (selectaquatics.com), Erie, Colorado

Although its accepted common name is Yucatan Molly, and other variations are used, it should not be confused with the Sailfin Molly (*P. latipinna*) of the southeastern US. Everyone would like to keep this striking giant sailfin molly which hails from the Yucatan Peninsula. It is the iconic livebearer, the symbol of the American Livebearer Association, with a huge fan dorsal covered with fine, bright and crisp blue, red, and orange markings over its body (Figure 1). It is not easy to find in the hobby, and for those able to obtain it, they soon find out that this is no pet shop molly.



Male and Female (image provided by Konrad Schmidt

Photos by the author unless otherwise indicated.

Greg Sage MEd., has been keeping fishrooms of various sizes for 45 years, always with an emphasis on livebearers. As an IFGA Guppy breeder for a number of years, those clean and organized practices were well suited to the wild swordtails and goodeids that have come into the hobby over the past 25 years. Select Aquatics was begun in 2009 to study, maintain, and breed many of these rare species, help others to keep them, and distribute them out into the hobby.

Mexico is now restricting export, and many of these species are disappearing, both in the wild and in the hobby. Greg writes customers daily with fishkeeping issues, and has documented and posted much of what has been learned at the selectaquatics. com website. He resides in Colorado with his patient wife, Laura, and Ripley, the Cavalier King Charles spaniel. If you would like to contact Greg for any reason, simply email selectaquatics@gmail.com, and he will get right back to you. Nothing else looks like this fish, and a large male doing his high-energy display for a female, opening up that huge dorsal, where the first dorsal ray comes all the way forward so that is points straight ahead, will take your breath away (Figure 2). They are also fairly prolific, so that when you get their care dialed in, they generally do very well. They are also well behaved, non-aggressive to one another and other species, and generally do not eat their fry (see the basic care guide for this species at http://selectaquatics.com/care_ guide_P._velifera.htm)

Large bull males will sometimes reach 5.5 inches, and it is not necessary to grow these out in outdoor ponds or large tanks for them to develop their sail dorsal, as was once believed. A few can be kept fairly comfortably in a 40-gallon tank, but most are kept in 55-gallon tanks at Select Aquatics.

Nor do they require salt in their water. This line has never been kept with salt, and does fine without it. However, particularly when I have acclimated them here, I will use salt to ease their transition when coming from a different water source. They respond well to salt, and it does come in handy whenever they may not look their best. A quick medicinal dose will always perk them up. (e.g., one tablespoon per every five gallons of water).



Figure 1. Male Yucatan Sailfin Molly. (Photo provided by Konrad Schmidt)



Figure 2. Examples of male's full extension of dorsal fin (Photos by Greg Sage)

Continued selective breeding has kept this line large, with frequent, spectacularly colored, large males being produced.

However, this fish has a number of requirements that must be provided for them to do well. I will carefully explain how we keep them here so that if you wish to keep them they should be at their best for you. Their needs come down to a few specific physical characteristics that need to be understood, and these issues dictate the care they require.

Anyone can keep this fish, but it is not a "beginner fish". Their care is not difficult to provide, but some may still decide that this is not the fish for them. It is currently kept by few fishkeepers, so hopefully with the information here, more can keep this fish successfully and bring them back into the hobby. I understand that this information is not easy to find, so I will do my best to describe their care requirements here.

These are not a difficult fish to keep properly, you simply have to set out to create a tank that meets their needs. Nor are they fragile in any way—when kept correctly they are an active, hardy, prolific fish. The issue, as I will address, involves appropriate filtration, and their need to be fed more than once per day.



Female Yucatan Sailfin Molly. (Photo provided by Konrad Schmidt)

Like any fish with special needs, until you get their care dialed in, these should be kept in species-only tanks, this large and prolific fish should have the tank to themselves.

Before I go further, some customers have asked about putting these into a standard, reasonably well-kept community tank, and how well will they do? Assuming we are talking about a moderate stocking level with one to two feedings per day of a quality vegetable-based dry food, with good filtration and aeration, and a pH of about 8.0, they should do OK for a while, and may even reach adulthood when kept in reasonably clean conditions. But if you want the glory these fish are capable of, it is best to start off giving them the conditions they require to do their best. Today, these have become a rare fish in the hobby, yet are possibly the most spectacular fish you can keep. Learn to keep them so they do well, and here will always be hobbyists looking for them!

Their tanks are set up as described throughout my website, bottom with a thin layer of pea gravel over a minimum of one-third to one-half of the tank bottom (Table 1). However, they do need to be at a pH of about 8.0, so instead of pea gravel, about one-half of the tank bottom is covered with crushed oyster shell to bring up the hardness and pH (my pH is about 7.4). They are also a slightly warmer-water fish, and do best here at 77 to 80°, though some keep these routinely as warm as 82 to 83°. To keep oxygen and filtration as high as possible, I do not go higher than 78/79°. Cooler water holds more oxygen.

The problem with this fish, the reason it is not more widely kept, is that it has two aspects to its care required for its survival, and they conflict with one another. Before you get this fish, you must provide a setup that solves this problem, and getting on top of it will guarantee that they will do well for you.

TANK SIZE: 29 gallons or larger	BEHAVIOR: Peaceful but active
pH: 7.6–8.4	jumpers: No
HARDNESS: Moderately hard +	covered tank: Yes
FILTRATION: Heavy	SUBSTRATE: Minimal
AERATION: Moderate to heavy	live plants: Yes
water movement: Yes	GESTATION: 30-40 days
NITRATE TOLERANCE: Low	BROOD SIZE: 10–30+ young
FEED: 80% vegetable, 20% protein	predate young: No
FEEDING FREQUENCY: 2–5x/day	RAISE YOUNG SEPARATELY: Yes
LIVE FOOD: Not essential	RAISING FRY: Easy
size: 4–5 inches+	DIFFICULTY on scale of 1 (easi-
community fish: Yes	est) to 5 (hardest): 2

Table 1. Basic Stats of the Yucatan Sailfin Molly

HERE IS THE ISSUE

This fish is a "grazer," eating fairly constantly in the wild. While preferring a vegetable-heavy diet, they possess a relatively short digestive tract. Normally, an animal with a vegetarian diet has a longer digestive system as plant material is more difficult to process and takes longer to digest. With a short digestive tract, they digest what they take in inefficiently, releasing more waste than most fish we keep. Because of this, they must be fed smaller amounts throughout the day. With a schedule where you must be gone during the day, they will survive with a feeding in the morning, and then two more times before nightfall. Ideally, the tank should be located where they can be fed a small amount each time someone walks past. Here, they are fed five to six times per day. And with each feeding they act as if they are starving, yet may be stuffing themselves with their bodies already well rounded! Because I am in the fish room all day, I am able to feed each time I walk past the tank, but obtaining a quality automatic feeder would be a consideration.

The conflicting issue is that they are also somewhat nitrate intolerant, and their health will decline when water quality is inconsistent or is allowed to deteriorate. And of course, with all that feeding, water quality will deteriorate quickly. This is not a deal breaker, appropriate filtration and water changes will take care of that, but you need to first set up a tank of at least 29 gallons with heavy filtration and water changes at least two times per week of at least 30% each time to maintain them, depending on the number of fish in the aquarium. The more fish, the greater the need for extra filtration. Full-sized adult fish will need to be moved to at least a 40-gallon aquarium.

At Select Aquatics, two breeder groups are maintained, about 25 of the largest fish are in a 100-gallon tank, and a second group of 10–12 large, but not the biggest fish, are in another 55-gallon tank. Early maturing males are removed. The tanks are filtered with three and four box filters, and each tank also has a 250 HOT Magnum Hang-On-Back (HOB) filter with the micro cartridge to keep water quality up. An automatic water change system changes the water 15% per day. You



should be able to maintain them with weekly 50–75% water changes. If stocking levels get high, occasionally doing a 20– 30% change whenever the water appears the least bit cloudy is advised. You must provide filtration that removes the majority of waste from the water. Because they are nitrate intolerant, a sponge filter that is cleaned regularly (weekly) can be used in conjunction with box or HOB filters, but are never to be used as the sole source of filtration (as any sponge-based filter leaves the organic debris and decaying matter in the tank).

Obviously, you will not need the HOB filter with a few smaller fish in a 40-gallon aquarium, but you will need that extra filtration as they reach 3.5 inches plus. Through observation you can come to understand what they look like at their healthiest, and add filtration or make changes to the water quality as necessary.

The box filters provide robust aeration, and the Yucatan Mollies do not seem to bother the live Java and Bolbitis ferns provided in the tanks. They do not eat their fry, which hide in the plants and are easily caught and moved to grow out tanks where they are fed baby brine shrimp, and three to four times (or more) per day feedings of a fortified vegetable flake.

Though fed a vegetable-based dry flake throughout the day, they must also be fed one feeding a day of a higher protein food. Here we feed a carnivorous flake, or frozen bloodworms, white worms, or chopped earthworms. Frozen brine shrimp is also excellent for them.

Raising the fry is not entirely what you would expect. Fortunately, when well fed they generally do not bother their fry, born only slightly larger than a swordtail or guppy fry. It is best to put them into a net breeder, and for the first month or so of growth there are no real signs that they will grow into the large four- to five-inch fish we are hoping for. The growth is fairly slow, and they are only about the size of a swordtail or platy fry until about five to six weeks. At this point, with frequent feedings and good water quality, their growth begins to take off.

At about three-quarters of an inch in size, I move the fry into a 40-breeder tank, where their growth is encouraged, after they are old enough to be feeding confidently and swimming throughout the tank. At this point they all look like smaller females. It will take a good five to six months before you will start to see firm signs of males beginning to mature. The problem is that those maturing first are generally the "early maturing males" that will sex out at a very small size, and you want to separate those, so they do not breed with your stock, or the line will diminish in size. Eventually, the big bull males will begin to mature, and those are the fish you want to use as breeders. Keep in mind when raising these fry, if possible, feed small amounts of food throughout the day. Here they get baby brine shrimp once a day, and numerous smaller feedings of a spirulina-based flake. Until the males begin to develop color and their big sailfin, they are fairly indistinct, chunky silverish-white fish. Overall, it will take a male about 8 to 12 months to become full sized, and it will take 5 to 6 months before they can be sexed. Once secondary sexual characteristics start to develop, the males will grow quickly, with the sailfin growing daily. At this point the sexes should be separated, so that your largest fish are bred toward the next generation.

For the experienced fishkeeper looking for a modest challenge with a big payoff, and a show tank that people will not be able to look away from, this may be the fish for you! Though water quality can be tricky to get dialed in, once that is established, they are a very well-behaved, peaceful, and large colorful fish that do not eat their fry.

HOW OFTEN DO THE MALES FLARE, AND CAN YOU ENCOURAGE THEM TO SHOW OFF?

At Select Aquatics there are two tanks of adult fish, a 55-gal and a 100-gal. The 55-gal tank has approximately five males, two that are full adults, and eight to nine females. The dominant male will flare four to five times a day with casual observation, primarily after feedings and water changes (and that is when I am most often there to observe them). As the males mature, and are in the same tank together with females, the amount of flaring is frequent enough that it can be seen a few times per day.

The 100-gallon tank has a big bull male of about 5 inches with about 15 larger females. He rarely flares—in fact I have only seem him flare on a couple occasions—yet that tank consistently produces many fry. I think that flaring is for both the females and competing males, and having both together in the same tank will increase the amount of flaring going on.

They can also be encouraged to flare by separating the males from the females for a day or two, and reintroducing them followed by a water change and/or feeding.

Currently, breeder groups are producing fry that are sold at two to three months of age. Over time, sexed young adults will be offered as they become available. Availability of fry groups and sexed adults will be posted on the Select Aquatics homepage: http://selectaquatics.com/index.htm

