



Betta Fish or Siamese Fighting Fish

Scientific name: *Betta splendens*

Written by Dr. Lizzy Arnett

Background

Betta fish – otherwise known as Siamese fighting fish - are a popular aquarium fish that originate from Southeast Asia. They are found in the warm freshwater of Thailand, Cambodia, Laos, and Vietnam. As a part of the suborder Anabantoidei, bettas, have a labyrinth organ that allows them to take in air at the surface of the water, as well as gills for pulling oxygen from the water.

Enclosure

Many bettas are sold in small cups or bowls and these are too small to keep your betta in. While some bettas can survive in 2.5 gallon tanks, it is recommended to have at least a 5 gallon tank with a low flow filtration system. This can be counter-intuitive, but the larger the tank the easier it is to maintain. Bettas are also jumpers so you will need to have a secure lid on top of the tank, leaving space between the top of the water and the lid as bettas can get air from surface breathing as a normal behavior.

Bettas are a tropical fish and prefer temperatures between 76 and 81°F. A digital aquarium-safe thermometer to monitor temperatures are a must. It is recommended to keep a heater on your tank as most of us keep our houses cooler than that. The best heaters have a thermostat built in.

Substrate

Substrate should be larger than a betta's mouth. Sand can be used as a substrate, however it can be difficult to clean and lead to an increase in water quality issues so in general it is recommended against. The best substrate are large glass stones or large (cleaned) smooth rocks. Any rough or sharp edges on rocks or décor can cause abrasions and ulcers on our fish.

Water Quality

As fish spend their entire lives in water, water quality is the most important component to your fish's overall health. If the any one of the water quality values are off they can lead to health issues. Just like living in heavily polluted air is bad for us and our lungs and can lead to long term chronic health problems.

Test for ammonia, nitrite, nitrate, temperature, and pH once weekly until stabilized, then it's ok to go to once a month.

The first step to good water quality is treating the water prior to any fish coming in contact with it. Tap water is the best and easiest source of water for your fish, however you need to keep in mind that city water is always treated with Chlorine and/or chloramine. Chloramine is a more



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stable form of chlorine and both forms are toxic to fish, amphibians and invertebrates. Therefore you need to first treat the water with an over the counter chlorine binder that you will follow the instructions for. This means treating the water prior to setting up the tank the first time and any water that you add to the tank during water changes afterward.

After your betta fish is added the amount of ammonia, which is the normal waste product from fish and food, will start to accumulate. This is when your water will start to “cycle.” The water cycle involves bacteria that are naturally occurring transforming ammonia into nitrite and then nitrite into nitrate. Ammonia and nitrite can be acutely deadly to fish if they are at levels that are too high and nitrate has been known to cause more chronic issues if levels are left too high. The easiest way to decrease your nitrate levels are water changes (see below).

| Parameter | Level |
|-----------|---------|
| Ammonia | 0 ppm |
| Nitrite | 0 ppm |
| Nitrate | <20 ppm |
| pH | 6.5-7.0 |

ppm = parts per million

Water changes

25-30% water changes should be performed weekly. If there are spikes in ammonia, nitrite and/or nitrate you can increase the percentage of the water change, but it should never be a 100% water change. If a 100% water change is performed than you will be restarting the cycle over again.

Diet

Most commercially made betta food pellets are acceptable. They do however vary greatly in size. You should feed them only the amount that would fit in their stomach, so a good way to judge that amount is to whatever amount would “fit” into one of their eyes. Due to their small size and warm temperatures they have a relatively faster metabolism than larger colder fish and should be feed twice daily.

It is very important not to over feed your betta for two reasons 1) obesity in any species comes with a host of other issues and 2) the more you feed them the more waste products are left in the water and the higher your ammonia will be. A high ammonia can then lead to water quality related illnesses.

Bettas love treats like bloodworms and brine shrimp. Just remember that these are treats and should be given sparingly with the pelleted diet as the majority of the food they get.