

# **CARE SHEET:**

# TIPS FOR SETTING UP A FRESH WATER TROPICAL FISH AQUARIUM

It's exciting to set up your aquarium, however, it can become quickly disappointing if you are unwilling to take the necessary steps for success! Freshwater aquariums start out as simple tanks of water into which aquatic life is placed with the goal of creating the ultimate aquatic environment. A successfully balanced, healthy aquarium takes time to achieve; a little extra care and patience in the beginning will go a long way toward creating a healthy and problem-free aquarium for years to come.

Before any work is done with the tank itself, determine the best location for the aquarium. It should be placed away from windows, outside doors, heat vents and air conditioners. Rapid changes in temperature are extremely stressful to fish and direct sunlight will quickly turn your beautiful tank into a murky green algae farm.

Also, keep in mind that water weighs about 8 pounds per gallon. That means that a 20 gallon aquarium will weight almost 170 pounds and a 75 gallon will weigh close to 630 pounds! Be sure your aquarium stand, and the floor, will support this amount of weight.

Decide on the size tank you wish to purchase and research the types of fish to purchase suitable for your tank. Make sure the filtration system is adequate, preferably purchase a filter(s) that is made for a tank twice the size you are purchasing. You can rarely over-filter a tank!

# Set up the tank:

- 1. Rinse out the tank with clear water to get rid of any dust or debris inside.
- 2. Set the tank stand into place, making sure it is level and adjust accordingly. An unbalanced aquarium can be extremely hazardous. Also, placing a tank on an uneven or tilted surface increases the risk that the tank will crack or leak. Make sure there is enough space between the wall and the back of the aquarium to adequately fit filters and to allow easy access for maintenance.
- 3. Affix your background to the tank.
- 4. Fill the tank approximately 1/3 full. Carefully dry off the bottom edge of the tank and the stand. Now check for leaks. Look for water beading up on the bottom edge or running down the sides of the stand. If the tank leaks, empty it and return it to the store for a replacement. You can attempt to fix it, but repairing a leaky tank is difficult, with no guarantee of success.

#### The filter:

Install the filter according to the manufacturers' directions. Do not plug your filter in at this time. Make sure the filter you chose is adequate to maintain your tank; preferably select one that is made to filter a tank twice the size!

### Add substrate:

Rinse the new substrate (a kitchen colander works well, but be sure to disinfect it before using it for food preparation) and decorations. Place the substrate and all decorations into the tank.

Add live nitrifying bacteria. You can use a commercial bacteria additive or you can use 1 to 2 cupfuls of substrate from an existing, established aquarium — the existing substrate contains beneficial bacteria.

**Install the air stone:** If you want bubbles, now is the time to hook up the air stone or action ornament, air-line tubing, gang valve, check valve and air pump.

Fill the tank: If no leaks have been noted, fill the tank the rest of the way with water. To protect the decorations and aqua-shaping, place a small saucer or bowl into the tank and pour the water directly onto that. Check the tank for leaks.

Add the appropriate amount of water conditioner and other additives to the tank.

Add aquarium salt or non-iodized table salt (approximately 1 tablespoon for every 5 gallons of water).

**The heater:** Place the heater into the tank. Do not plug it in at this time. The best place for the heater depends on the type of heater. Submersible heaters should be placed as close as possible to the inflow of the filter. This placement allows the heated water to be better dispersed throughout the tank. Be sure the heater is installed appropriately to avoid overheating. In the Bahamas it is doubtful that you will need a heater except during the winter months or unless the aquarium is kept in airconditioning year round, keeping in mind that the temperature needs to be around 72 to 78 degrees F.

Wait at least 20 minutes to plug in the heater. This allows the internal thermometer to adjust to the water temperature and assures the heater doesn't overheat. Follow the instructions included with the heater and adjust your tank to the appropriate temperature. Thermometer: Install the thermometer according to the manufacturer's instructions. The thermometer should be on the opposite end of the tank from the heater in a position that is easy to check. Place the hood and light onto the tank. Plug in the filter, light, air pump and heater. Make sure the cords running from the tank touch the ground before looping back up to the plug. This is called a "drip loop" and prevents water from running down the cord into your electrical socket. You may find that the tank's water level drops slightly when the filter starts. Add as much de-chlorinated water as necessary to bring the water level to the correct level. Remember chlorine is lethal to fish so you must add a chemical to remove it.

**Stabilizing period:** Phase one of your tank setup is now complete although it is not advisable to add any fish until the tank has stabilized. If you chose not to use Nitrifying Bacteria then you must wait to for the nitrogen cycle to naturally occur. The atmospheric gases in the water should dissipate within 24 to 48 hours time. The water may be cloudy. Wait until this cloudiness dissipates before adding fish and then only 1-2 hearty fish.

You may wish to add some water clarifier to tap water as there are particles in the water that cause cloudiness and are too minute for the filter to remove; the clarifier causes the particles to clump so the filter can remove them.

If the water temperature has remained stable for at least 24 to 48 hours and the white cloudiness has cleared up, you are ready to begin the cycling process of your new tank. There are additives that will speed up the nitrogen cycle.

The nitrogen cycle: The nitrogen cycle is a chain of biological reactions that produces chemical results. The nitrogen cycle begins with fish waste material produced by the 1-2 fish you have added, which produces ammonia. Ammonia is very toxic to fish and, in the small confines of an aquarium, could eventually kill them. Fortunately, ammonia is "food" for nitrifying bacteria which are always present in water. The nitrifying bacteria "eat" the ammonia producing nitrite. Other nitrifying bacteria "eat" the nitrite, producing nitrate. Since nitrate is relatively harmless to fish unless it accumulates in large quantities, the toxic effects of the ammonia and nitrite are canceled out by the biological food chain. You need to filter aquarium water and change a portion of the water (20-25%) regularly in order to keep the nitrate levels low, at least once or twice per week during the first few weeks. The nitrogen cycle is what keeps the chemical balance of water at life-sustainable levels for plants and fish.

Unaided by special products, the nitrogen cycle takes between six and seven weeks to complete and stabilize. After the first six to seven weeks of setting up an aquarium, the tank's nitrogen cycle should be stabilized. During those first few weeks, only a few hearty fish should be placed in the tank to initiate the nitrogen cycle. Once the tank has stabilized you can introduce more fish into the tank, gradually. If you stock your tank too quickly, or add too many fish at one time, the increase in waste can be too much for the existing population of Bactria to deal with and water quality soon deteriorates. Always add a few fish at a time leaving several days between each purchase. It is important to have your aquarium well-oxygenated. Without the oxygen, harmful ammonia and nitrites build up more quickly.

**New Tank Syndrome:** This is one of the most critical stages in setting up an aquarium and the most common area of failure for beginners. If you do not allow your tank to complete the nitrogen cycle before adding fish, they will get New Tank Syndrome. Common symptoms of New Tank Syndrome include loss of coloring, hiding in corners with clamped fins and lying near the bottom of the aquarium. Ultimately, New Tank Syndrome is lethal to your fish.

## Some points to remember:

- \* Change filter medium/cartridge at least once per month
- \* Do not overload your aquarium with fish. Rule of thumb is one inch of fish for every gallon of water, taking into consideration decorations/gravel, etc., will displace water.
- \* Add fish gradually, making sure to acclimatize them by floating in a plastic bag for 15-20 minutes.
- \* There are hundreds of fish you can purchase for your tank and they are all different. Some fish get big, some are aggressive, some fight with similar fish, some nip fins, some hold territories, some are predatory and the list goes on. Chose compatible fish.
- \* Do not overfeed fish. Twice per day and only as much as they will consume in one to two minutes. Do not simply add the food and leave, watch as they eat and add more within the one to two minute period if necessary.
- \* Do make partial water changes at least once monthly and more during the first few weeks. Remove 20-25% of the water in the aquarium and replenish. Water to replenish should be treated, however, when topping up tank due to normal evaporation it is not necessary to treat other than for removal of chlorine.
- \* Once your tank has settled in, you should only have to do partial water changes every one to two months. In the interim simply remove any algae buildup on the glass with a pad or magnet made specifically for the purpose. When doing partial water changes with an established tank, do use a gravel vacuum. Partial water changes should be adequate; you should never have to completely empty your aquarium. If for some reason it becomes necessary remember to save some of the existing water and substrate to add when refilling this will avoid having to repeat the nitrogen cycle.

Most important, enjoy your aquarium! Seeing your fish thriving in the miniature natural habitat you create for them is a huge reward, so take time to get it right!