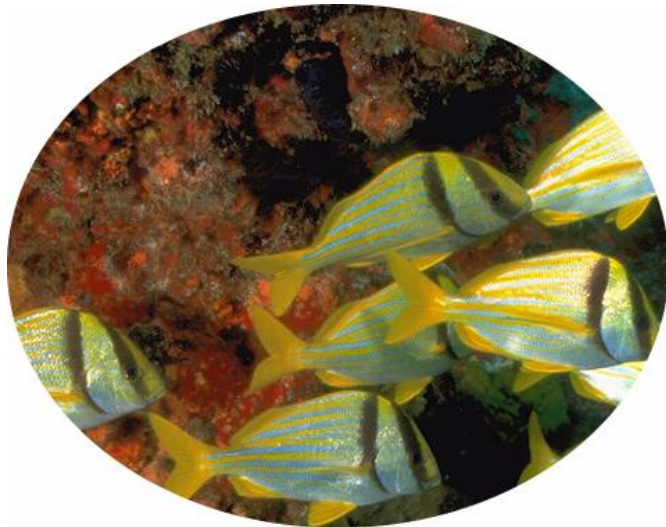


setting up an Aquarium



TROPICAL OR COLDWATER?

In most cases, your first decision will be between having a coldwater or a tropical set up. With modern fish keeping equipment it is as simple to keep tropical fish as it is to keep coldwater ones, so it comes down to a case of which fish you prefer. There are now a number of coldwater species available, many of which are equally suitable for a tank as the traditional goldfish.

However, a tropical tank will offer a far greater choice as there are literally hundreds of species to choose from, and as they tend to be less messy than coldwater fish, you can usually house more tropical fish in a given size of tank.

LOCATION



Before deciding on a tank you first have to find a suitable location for it. Ideally, this should be in a reasonably dark area of the room, away from sources of heat or cold, loud noise (e.g. by a door), or fumes. Avoiding sunlight will cut down on algae problems and, if possible, try to site it where you can access it easily for carrying out any maintenance.

Remember that once full, an aquarium will be very heavy. For example, the water in a 60cm x 30cm tank will weigh approximately 54kg, plus the weight of the glass and gravel.

Therefore it is pertinent to get the position right first time to avoid having to move it. Because of this weight it is also important that, unless otherwise stated, all aquariums are placed on a layer of polystyrene or cork to absorb vibrations and cushion them.

SIZE

Although it is tempting to purchase a small tank, you will be rewarded by going for something a little bigger. A larger aquarium will provide a more stable environment for the fish and enable you to have a better selection. It will also make for a much more impressive display. It is definitely worth going for the largest tank you can manage.

EQUIPMENT

Whether you decide to have a tropical or a coldwater tank, it is important to have the right equipment to keep the aquarium healthy. The only difference between a tropical and coldwater set-up is the need for a heater in the former. The easiest option is to opt for a thermostatically controlled unit, such as the Tetratec heaters, which maintain a constant temperature.

For tropical fish this should be between 24 - 27 All aquariums need to have a filter system to sieve out solid waste and biologically break down dissolved toxins. Fish constantly produce ammonia that is directly toxic to them, and it must be removed if they are to remain healthy. Bacteria that colonise the filter convert ammonia into less toxic nitrite, and finally into harmless nitrate.

Internal filters, such as the Tetratec IN range, consist of a motor unit that draws water through a foam sponge where solids are removed and bacteria break down ammonia. They are easy to remove, clean and maintain, and are an absolutely essential piece of equipment.



Lighting is not essential unless you want live plants, but without it you will not bring out the best in your fishes' colours. There are specific lights for plant growth and colour enhancement, but if you are new to fishkeeping then a general broad spectrum fluorescent bulb is most suitable.

It is important that you get one that is specifically for fish tanks, rather than an ordinary household light, as the latter may produce the wrong spectrum of light and get too hot. If you intend to have plants then your light will need to be on for 10hrs a day, to simulate the hours of daylight in tropical regions. The amount of light produced by the bulb can be increased by up to one half through the use of a reflector which is simply mounted into the lid of the aquarium.



Air-pumps, such as the Tetratrac AP series, are another piece of equipment worth considering, although if you have an internal filter they are not necessarily essential. There are a number of potential uses for air-pumps; they may be used to operate air-stones or "diffusers" that bubble extra oxygen into the aquarium, they may be used to run certain types of filter, or they may simply be needed to run an air-powered ornament. When using an air-pump, always install a "check-valve" in the airline, as this stops water back-siphoning down it and damaging the motor.

DECOR

Having correctly equipped the aquarium it is then important to make sure you create a home that your fish will feel comfortable in. This will help them to relax into their new environment and behave more naturally.



The base of the tank should be covered in a layer of well washed gravel or sand. There is plenty of choice but make sure you only use substrate that has been bought from your club retailer, as some materials are unsuitable. This applies to all objects that are used in the tank, including rocks, wood and ornaments. If you want to have live plants then you will need a layer of gravel approximately 5 - 7cm deep, and it is worth asking about special planting substrates. If you don't want plants then it is better to have a thinner layer, around 2 - 3cm deep, as this will be easier to keep clean.

The rest of the tank can be decorated how you like, taking care to create plenty of hiding places as well as open swimming spaces. If you are going to add live plants, then use taller ones at the back and sides of the tank, with smaller ones at the front. Floating plants are ideal for creating areas of shade under which the fish can feel safe.

SETTING UP

Once you have all of the equipment and decor that you need, you can then set your aquarium up. It is important to do this at least a few days before the first fish are purchased, so plan in advance. The first step is to put the aquarium into position and add all of the equipment. Once this is wired in you can then decorate the tank, adding the substrate and any rocks and ornaments. If you have bogwood, then this will need soaking for a number of days in hot water before use to prevent it colouring the water.



Place a dish on the base of the aquarium and begin filling it with tap water, the dish helping to prevent disturbances to the substrate.

If you want to cut down on the amount of work your heater will have to do, add some boiled tap water to warm the aquarium.

If it is a coldwater tank then you simply need to leave the water to heat to room temperature. Once full, it is important to condition the water with TetraFin WaterSafe or Tetra AquaSafe, to neutralise the harmful chlorine and heavy metal content in tap water. If this is not done it will prevent the development of the filter and damage the fish. Any new water that is put into the tank must always be conditioned prior to using it.

You can now turn on the equipment and leave it to settle for a few days. It is a good idea to add a thermometer in order to check the temperature and to make sure it remains stable. At first, the tank may be a little cloudy where the substrate has been disturbed, but this should clear within a few days. Now is the time to start adding any live plants.

Once you are happy that all of the equipment is working correctly, you can then buy your first fish. A day or so before this, you should add Tetra Bactozym to the filter in order to improve the development of the ammonia and nitrite removing bacteria. This will help avoid any dangerous rises in ammonia after the addition of new fish.

STOCKING

It is important to be patient and stock the tank slowly, adding only a few fish at a time. Adding too many will cause a rise in either ammonia or nitrite and subsequent health problems. The easiest way to stock the tank is to invest in some test kits for ammonia and nitrite. After adding a fish, these will rise slightly indicating that the filter is struggling to accommodate the extra waste. Test the water every other day until these levels drop to zero, at which point you know it is safe to add more fish. If you do not do this then you should wait at least a week or two between each purchase.

CHOOSING FISH



When deciding on a purchase, it is important to select fish that are both healthy and suitable for the pond or aquarium you have. Try to find out a bit about the fish you like through asking your club retailer, reading a book or using the Tetra Club Help Desk. This will prevent the introduction of a species that might be aggressive, grow too large or have specific care requirements.

Choose your fish from a tank where all inhabitants look fit and healthy, but don't be too fussy about getting individual fish as this always results in a prolonged game of cat and mouse as they are being caught. Excessive chasing will stress the fish and make them less resilient to the journey that lies ahead. The number of fish you choose at any one time is also important. Whilst some fish need to be bought in shoals, stocking the tank too quickly will result in water quality problems. Therefore it is important to discuss the purchase with your club retailer, particularly if it is your first tank or pond.

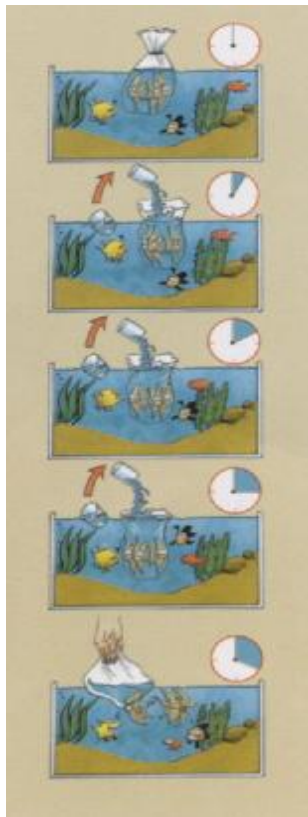
THE JOURNEY HOME

After the fish have been "bagged up" properly, they immediately become your responsibility. Ideally, set aside a polystyrene box to use for transporting fish, as this will insulate the bag and keep them in the dark. If this is not possible, make sure they are covered to reduce the stress they experience and get them home as quickly as possible. The longer they are in the bag, the weaker they will become, so you should always make sure that you are heading straight home after you have bought any fish.

INTRODUCING NEW FISH

Once at home, it is important to introduce your new fish in the correct way so as to help them settle in quickly. If they are to go in an aquarium, then the lights should be turned out for the rest of the day. The bag should be floated on the surface of the aquarium or pond for around twenty minutes.

This allows the temperature in the bag to equalise to that of the water. Unless you are confident that the water quality in your tank or pond (in particular pH, hardness and nitrate) will be similar to that of the shop where the fish was bought, you should then start to slowly add some water to the bag. If you roll down the sides of the bag, it will remain afloat on the surface allowing you to slowly top it up.



Try and double the volume of water in the bag over a period of about twenty to thirty minutes, before releasing the fish. Doing this will help to avoid any sudden shocks in temperature or water quality that might harm the fish. Always use a net to transfer any fish from the bag, as you do not want to pour the polluted water from the bag into the aquarium or pond.

As adding new fish to the tank or pond can put an extra strain on the filter, it is wise to stop feeding your fish a day or so before buying any new fish, and to resume a couple of days after adding them. This helps the filter to cope with the extra waste that is produced, and helps to minimise the amount of stress placed on any new arrivals. It is also wise to give the tank or pond a partial water change, and if possible clean the substrate, before introducing fish.

If you have the facilities then it can be a good idea to quarantine new fish, to allow them some time to adapt to the water conditions in your area and also to reduce the chance of introducing diseases to the other fish.

Although the risk is low in most cases, a quarantine period of a few weeks can really help new fish to settle down. At the very least, it is often a good idea to add a general remedy such as MediFin or ContraSpot to the pond or aquarium when new fish are added. This helps to prevent them picking up infections due to the stress of being transported to their new home.

ENJOY

The first few weeks of setting up an aquarium but, require the most work, but once the filter has properly developed you can really begin to relax and enjoy your fish. Taking the time to get the right balance early on will pay dividends in the long run, as you will be left with a trouble-free aquarium full of healthy fish.

TIP1: WaterSafe and AquaSafe contain colloids that coat the fish's skin to protect it and vitamins that help to reduce stress. Adding either of these to the pond or tank after introducing new fish will help to repair any physical damage caused during capture and transport, and reduces the stress that is associated with it.

TIP2: Perhaps the best advice when purchasing an aquarium is to develop a good relationship with your local club retailer. They will be able to offer practical advice on setting the tank up and will have some personal knowledge of what fish you have, enabling them to offer you specific advice regarding your tank.