

The Cichlid Aquarium

The group of fishes commonly referred to as Cichlids, comprise a vast grouping of, in general, larger and more aggressive fishes from Africa and South and Central America with a few species being found in Asia. They offer such a large variety of bright colours, shapes and habits that they have become one of the most popular fishes kept by hobbyists world wide.

Such is the diversity of species, breeding habits and feeding that it becomes necessary to set up different groups of Cichlids in different tanks. Let us first deal with the common aspects of setting up tanks for cichlids. Later we shall conclude this discussion by clustering groups of cichlids with similar natural habitats, breeding habits and foods. For example; African Cichlids, American Cichlids, Dwarf Cichlids or Discus. We at *Pet City* suggest that you keep these like minded fishes together and in general don't mix them.

Selecting and Positioning your Tank

Always try to choose a tank with the largest possible surface area and volume as most cichlids grow quite large. *Pet City* has Brisbane's largest selection of quality furniture. Make sure you always have a glass cover to stop your fish jumping out. You **must** place a piece of coolite foam under all glass aquariums. If you desire a backing scene on the back of the aquarium it is best positioned now and taped onto the back of the aquarium with masking tape. Position your new aquarium so that you avoid direct sunlight hitting the aquarium for too long as this can cause excessive algae problems.

Choosing Gravel and Setting Up

We advise a fine blended gravel of which we have several varieties. Too coarse a gravel size allows uneaten food and waste to accumulate in the pockets between pebbles away from water flow that would break it down. Clean your gravel in small quantities in the yard. Three or four rinses in a bucket should be sufficient. Place the cleaned gravel into your tank along with a little water. Next add rocks and position them. Triangulate your decorations to create a greater depth of field and provide an amphitheatre where the fish can congregate. Try to slope your gravel slightly towards the rear and sides using rocks and logs to create tiers and depth. Do not worry if there is some water getting muddy while you do this. When you have the major decorations in place, add a little water, then syphon this dirty water out again into your bucket. Next fill your tank. Avoid disturbing the gravel by using plastic bags or newspaper onto which you can direct the water flow. Some coral sand is a good addition to an African tank, while white Rift Lake Sand looks great for Africans also but can show up detritus badly. These aspects will be discussed further later.

Preparing your Tap Water

Next we must treat our tap water to remove harmful chlorine and ammonia. There are several products that will remove both, but the best value is *AquaStart A* or *Prime*. It is also necessary to replace electrolytes like sodium, magnesium and potassium missing in tap water.

AquaStart B is a unique product which not only contains these essential aquarium salts but importantly also uses a deioniser to remove heavy metals like Alum (aluminum sulphate) which is added by the Water Board. The electrolytic aquarium salts are essential to your fishes well being. They not only provide an anti-bacterial effect, but help fishes produce body slime to protect themselves from infection and create an essential osmotic barrier so they do not dehydrate. Make sure it is dissolved before adding to your aquarium. Remember after setting up, you only use *AquaStart A* and *B* in proportion to the volume of water being exchanged.

There are also several products we can use to produce specific water conditions for African cichlids and Discus. To calculate water volume; consider 10cm x 10 cm x 10cm = 1 litre. So Length (cm) x Width (cm) x Height (cm) divided by 1000 = Volume (litres)

Filtration

All good filters provide ample filter media surface areas for the colonization of aerobic (oxygen breathing) denitrifying bacteria which break down fishes waste. The greater the volume of the filter and the greater the flow rate, the bigger the population of bacteria which keeps your tank clean. This is biological filtration. All good filters should also provide foam and progressively finer mechanical filtration. Chemical filtration is also important. In cichlid aquariums we always use ammonia remover (Zeolite) as a safeguard in addition to carbon. Unlike our planted systems, carbon is beneficial. Remember to rinse any loose dust particles out before adding to your filter.

Filter Types;

- **External Canister** filters like the *EHEIM* and *FLUVAL* are the best of all filters. They offer the highest flow rates through the largest volume of media and can be concealed from view. Both these brands have a simple priming system and excellent taps to isolate water in the tubing while the filter is cleaned.
- **Hang On** styles like the *AQUACLEAR* and *AQUA ONE* are also very good. They possibly provide the best value if your budget does not permit an external canister. Simply fill the filter box with water and turn on. Water is pumped through the filter and gravity flows back into your tank. We cut topglass to suit.
- **Internal** motorised filters like the *EHEIM* and *FLUVAL* are popular for smaller tanks or as a secondary filter for extra circulation in a large tank. Internals usually do not interfere with topglass or hoods.
- **Air Operated** filtration is often not sufficient for cichlids that are going to grow substantially, but we do highly recommend air bubbling in Cichlid tanks. Be sure to use a Check Valve so that water cannot flow back into your pump if power goes off. When using T-pieces to divide your air flow use an inline valve for end device, as air will always flow to the ending of least resistance.
- **Freshwater Trickle** filters offer the most filtration for large seriously stocked tanks.

Biological Filter Supplementation

The best way to get crystal clear water is to pro-actively provide bacteria cultures as biological filter supplements.

In our opinion *WASTE CONTROL* and *CYCLE* used in conjunction with one another are the best way to enhance your filtration and stay ahead of the game. People using these products simply do not encounter the same problems as people who take a minimalist approach (don't use a filter supplement) and end up constantly reacting to problems. These bacteria cultures help convert all organic wastes to ammonia then further to nitrite and finally to nitrate. To establish your tanks bacteria populations can take several weeks but is accelerated greatly by adding supplements. **Do not overstock your new aquarium during this run in period.**

Water Changing

Although nitrate (residual waste) is relatively harmless, the levels will accumulate and become dangerous if regular partial water changes are not performed to dilute nitrates. Cichlids are large fish that eat a lot, so nitrates accumulate quickly. PH is also pulled dangerously lower by organic

The best tool to assist you with this is a *Gravel Siphon* which allows you to remove the dirtiest water from around the gravel and replace it with clean, treated tap water. We recommend you test pH and nitrate weekly to ensure your water change maintenance is sufficient to maintain this balance. pH can be maintained using PH UP, but the only easy way to *remove nitrate is by water changing*.

* **An important tip** when cleaning filters and water changing; Rinse your filter media in your old aquarium water rather than under the tap as the chlorine in tap water will kill off the precious filter bacteria living in the foam and other media. If you follow these procedures you should never have to completely break your tank down to clean it out.

Heating

If you want to keep Cichlids you will need to heat them. A good guide is approximately 1 watt of heating per litre of water. A higher wattage heater than necessary is often a good choice though because they can be used on larger aquariums. Position your heater in a back corner at a 45 degree angle so that heat does not rise directly onto the thermostat. Make sure that there is good water movement around the heater. Set the thermostat to around 26 C and turn it on. Feel around the heater to ensure that the element is heating at least initially. Large Cichlids can get quite boisterous, so a heater guard will stop your heater being broken. We believe it necessary to also install a thermometer to check the heater. The stick on types are the best in our opinion as the suction cup type soon do not stick and require replacement.

Lighting

Lighting is necessary to view your fish at night time. To achieve this we find it better to illuminate your tank from afternoon until bed time when people can more easily enjoy their tanks. Lighting left on all day will undoubtedly cause excessive algae problems.

For best results with plants we recommend high intensity full spectrum white lighting.

Arcadia tubes are the best, but should be used in conjunction with alternatives like *Aquastars* or *Power Glo's*. We sell a number of lighting fixtures from Singles, Doubles and Remote Ballast Fluorescents. All light fixtures are sold without fluorescent tubes.

We suggest not to position the light fixture until everything else including your plants are in place as you don't want to accidentally knock your light into the water before your lids are in place.

The African Cichlid Tank

The African Rift Lake Cichlids from lakes Malawi, Tanganyika and Victoria have become a popular variety of fish for people who desire dramatic colour, size and movement in their tanks. African cichlids are quite aggressive and fast moving and should be kept in tanks set up for a community of African Cichlids.

Natural Habitat

African Cichlids inhabit the rocky shorelines of the rift lakes of Africa. The water in these lakes is quite hard and alkaline. Large schools of fish graze algae from the rocky outcrop reefs. Amongst the algae live small crustaceans which also constitute part of the diet of African Cichlids. The bottom of the lakes is sandy. Innumerable caves formed between the boulders offer protection to young fish and brooding females. Most species from Lake Malawi are mouthbrooders and constitute a large proportion of the species available in the hobby.

A lot of the Tanganyikan species form lifetime pair bonds and protect their young, while others are also mouthbrooders. For more detailed information on particular species we can offer several inexpensive books. Our staff can also assist with your selections and our display tank of Africans also presents several options.

Rift Lake Water Conditioning

To recreate the hard alkaline water required by these fish, shellgrit or coral sand should be added to your gravel or used exclusively for the bottom. African Rift Lake Sand is also becoming popular, but can show up detritus badly. A good quality African Cichlid water conditioner like *Seachem Rift Lake Salt and Buffers* are a real advantage in creating the right water conditions also.

Remember, when treating tap water **AquaStart A** and a salt based general water conditioner like **AquaStart B** at the rate of a teaspoon per 10 litres.

Setting up for African Rift Lake Cichlids

As African cichlids come from rocky shoreline areas of the lakes, we suggest that intricate rockwork form the basis of your setup arranged to form reefs with numerous caves. The rockwork should be predominantly built up around the back and sides to leave a communal amphitheatre where all the interaction and displays take place. *Pet City* has a large range of rocks such as the Red Crevice Rock and Desert Sandstone which are extremely attractive and offer plenty of hiding places. Plants are not essential to your African community tank because African Cichlids, being omnivorous, will eat your plants. Plastic plants instead make a good addition. Take the base off plastic plants and tie the plant to a small red crevice rock with fishing line.

Adding African Rift Lake Cichlids

Try to crowd your African cichlids without taxing your filtration and water change management. This stops individuals from becoming too dominant and harassing others. We find it best to start with small to medium size fishes of several species in groups of four.

(4 Electric Blues, 4 Electric Yellows, 4 Venustus, 4 Red Empress)

Pet City always has special prices for groups of four young fish.

Of the *Lake Malawi* fishes, the genus *Pseudotropheus* which contains the most common species like Zebras, Pindani, Lombardoi, are quite aggressive. Often people start with these species and may progress to the larger growing but slightly more placid (and expensive) "Haplochromis" group. In general *Take Tanganyika* fishes are a bit more expensive and comprise some of the most sought after species like Frontosa, "Lamprologus" and *Tropheus*. Some of these can be quite aggressive also.

Feeding Africans

Feeding African Cichlids the right type of foods is very important. African Cichlids have extremely long intestinal tracts, like other omnivores, which means that foods (meats, worms etc) will take a long time to digest. Inappropriate foods will rot in their stomachs causing bloating, sickness and sometimes death. For this reason, foods with a large proportion of spirulina and vegetables are best. Our favourites, *OSI Spirulina* Flakes and Pellets are perfect. *Tetra Bits* are also eagerly taken but we do not like to feed Tetra Bits exclusively, but rather combined with Spirulina foods. Frozen bloodworm and brine shrimp are also good for most species, **but meats and live blackworm are definitely no-no's**. For more information regarding specific foods talk to our aquarium staff.

The American Cichlid Tank

American cichlids are larger growing and slower moving than their African cousins. They are also far more predatory and are happy with a higher protein diet than Africans. For these reasons we do not recommend keeping American and African cichlids together.

Natural Habitat

The natural habitat of Central and South American cichlids is quite different to that of Africans. Logs and branches in general replace rocky outcrops. We feel darker gravel such as the Red Gravel blend suits the reflective colours of Americans, compared to lighter substrates preferred in some African tanks. Nearly all Americans are substrate spawners who will form a pair bond. Spawns can produce hundreds of fry, while the parents will try to protect and nurture their babies. It is not uncommon for pairs of fish to spawn in the community tank, although it is unlikely that the parents will be able to protect babies from the hordes. Most American cichlids have also been in the hobby for a lot longer than Africans. Some species like Oscars and Red Devils have become household names.

Water Conditioning

American cichlids are quite tolerant of water conditions, but a pH close to neutral and low nitrates (regular water changes) provide a comfortable environment. Always treat new tap water well with *AquaStart A* or *Prime* to remove chlorine and ammonia and replace electrolyte salts etc with *AquaStart B* again as with all fish.

Setting Up for American Cichlids

Use plenty of rocks and logs. Submerge some rocks into the substrate and add more structure on top. This allows the fish to excavate to some degree leaving cave structures where fish can hide and court.

Do not be concerned by excessive colour from new logs as this will become less with regular water changing. Plastic plants attached to small crevice rock will provide a splash of colour.

Adding American Cichlids

Try to set up a large variety of young fish to grow up together. That way you will have far more compatible large fish when they grow up. Our favourite species are Oscars, Red Devils, Festae, Texas, Firemouths, Severums etc. Give them plenty of room to grow. Often people will ask, "What can I put with my large Oscar who has lived alone for a year?"

If you put another single fish in, there is every chance that the new inhabitant will be killed. We advise it is better to trade in large fish and start with a community of smaller Americans.

Feeding Americans

American cichlids will consume a large variety of foods. *HBH*, *OSI* and *Hikari* are our preferred general cichlid foods. Advance the size of the pellets as your young fish grow. A wide variety of frozen foods are recommended in conjunction with live foods including feeder fish. Only offer feeder fish as a treat, otherwise they will become fussy about accepting prepared foods.

Dwarf Cichlids

The most popular dwarf cichlids are the Apistogrammas and Papillichromis (*Rams*) from South America and the Pelvicachromis (*Kribensis*) from the Congo river system of Africa. These dwarf cichlids are popular community fish that may spawn in a community tank and exercise parental care over their young if there is enough cover. They prefer a good varied diet of prepared and frozen and live foods.

Discus

Discus are a popular group of cichlids kept by enthusiasts all over the world. Many claim Discus are the "King of Fishes". Discus are definitely a fish that require some experience, although they may be kept in a community tank. The major requirement to keeping Discus well is good water management and the best foods. Discus seem to metabolize quickly and need to be fed often with high quality prepared and frozen foods. The best are *Tetra Bits* with daily frozen food like *Beef Heart and Liver* and *Discus Dinner*. Once Discus are feeding well they are very competitive and hardy.

Discus are usually happy in low nitrate water with pH slightly acid and very warm 29-32 Deg.C. For breeding Discus, the fish need to be well conditioned on the best foods with low pH water that is very soft and hot. The best range of water conditioners for Discus are the *Seachem* range of *Discus Buffers*

The major problem with Discus is their susceptibility to parasites like gill flukes as well as intestinal worms. We advise regular treatments for parasites with *Worm rid*, especially after Discus being purchased or moved. For more information seek advice from our staff. An inexpensive, yet very good book is the *Barron's Discus Fishes* which contains a lot of invaluable information.