The Optimum Cichlid Aquarium

The group of fishes commonly referred to as Cichlids comprise a vast grouping of generally large and aggressive fishes from Africa, 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 diet that it becomes necessary to set up different groups of Cichlids in different tanks. Some of these include African Cichlids, American Cichlids, Dwarf Cichlids and Discus. We at Auburn Aquarium suggest that you keep these like minded fishes together and don’t mix them as a general rule. In this particular guide we will be focusing heavily on African Cichlids.

Selecting and Positioning your Aquarium

Always try to choose a tank with the largest possible surface area and volume as most cichlids grow quite large. Make sure you always have a glass cover to stop your fish jumping out. All of our Aquariums come standard with standard glass lids. Our Deluxe Aquariums come with sliding glass lids. A piece of foam is required under every aquarium to level and absorb the weight load and prevent the bottom glass shattering under stress. If you desire a background it should be installed on the back now. We also offer a range of latex 3D rock backings which look very realistic. Position your new aquarium so that you can avoid direct sunlight hitting the aquarium for too long as this can cause excessive algae problems.

Choosing Gravel and Setting Up

We advise a find blended gravel as too coarse a gravel size allows uneaten food and waste to accumulate in the pockets between the pebbles away from water flow that can break it down. We have several varieties to choose from. We recommend blending Coral Sand with Natural Gravel for natural pH and kH buffering benefits. Clean your gravel in small amounts, rinsing it under the tap until the water runs clear.

Place the clean gravel into your aquarium with a little bit of water. By making your gravel deeper at the back of the aquarium and shallow in the front will make your tank look larger. Next add your rocks and ornaments. We highly recommend Texas Holey Rock for African Cichlids as the rocks will help to buffer your Aquarium waters pH and kH while providing many hidey holes allowing the fish to establish their territories and hide or rest as needed. Triangulate your rocks and ornaments to create a greater depth of field by placing the largest items at the back and gradually stepping down to the smallest rocks at the front of the aquarium. By now the water in your aquarium will probably be looking a bit dirty, siphon out this dirty water into your bucket.

It is now time to fill the aquarium with water. Avoid disturbing the gravel by using a plate or newspaper on the bottom to direct the flow of water.

Preparing your Tap Water

Next we must treat our tap water to remove harmful chlorine and ammonia (chloramines) that will kill fish. Most tap water treatments only remove chlorine leaving behind the ammonia that often proves lethal. There are several products that will remove both, but the best value is our own START RIGHT A or the more concentrated SUPER A.

Add START RIGHT A at the rate of 5 ml / 20 litres to instantly make your water safe for your fish.

To recreate our natural stream system, it is also necessary to replace electrolytes like sodium, magnesium and potassium missing in tap water. The electrolytic (aquarium) salts are essential to your fish’s wellbeing.
Aquarium salt provides three important benefits:

- An anti-bacterial effect
- Produce body slime to protect themselves from infection
- Create an essential osmotic barrier so fish do not dehydrate

There are a number of aquarium salts on the market, but none as good as **START RIGHT B**, which not only contains these essential aquarium salts but importantly also uses a deioniser to remove heavy metals like Alum (aluminium sulphate) which is in our water.

**Add START RIGHT B at the rate of 1 teaspoon (5 g) / 10 litres of water. Dissolve before adding to your aquarium.**

You can't give your fish a better start than with **START RIGHT A** and **START RIGHT B**. They are many products we can use to produce specific water conditions but these should all be used after conditioning you tap water with A and B. Ask staff to help you identify these products.

**NOTE:** Only use **START RIGHT A** and **B** in proportion to the volume of water being exchanged. To calculate water volume; Length (cm) x Width (cm) x Height (cm) divided by 1000 = Volume (litres). Eg: Tank 60x30x40 Vol= 60x30x40/1000 = 72 litres

There are also several products we can use to produce specific water conditions to imitate the natural environments of African Cichlids and Discus. African Cichlids in general are from water with a high concentration of mineral salts in comparison to most other Freshwater Fish, with specific levels depending on which lake the particular species is from. Please ask our staff for more information.

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**Biological Supplementation**

The best way to get crystal clear water is to pro-actively provide bacteria cultures as biological filter supplements. In our opinion **Nutrafin Cycle** or **API QuickStart** 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 (fish poo and uneaten food) to ammonia then further to nitrite and finally to nitrate. To establish your tanks bacteria cultures can take several weeks but is accelerated greatly by adding supplements. You still need to be careful not to overstock your new aquarium during this run in period. As an indication 4 or 6 fish would be ideal to start with, the next addition would need to be at least a week later with still not more than 4 or 6 fish to be added.

When your Ammonia and Nitrite read 0 on a test kit, the biological cycle is complete and you can add more delicate fish safely.

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**Filtration**

Good water movement allows the oxygen entering at the surface to be distributed around the tank. All good filters provide ample filter media surface area for the colonisation 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 larger the population of bacteria which keeps your tank clean by breaking down the waste.

All good filters should also provide:

- **Mechanical filtration**, collecting particulate matter through layers of foam and fine pads.
- **Biological filtration**, media such as **Seachem Matrix** or **Eheim Substrate Pro** are the engine of your filter and are best placed between your foam and fine layer. Good quality media is very porous and will harbour large amounts of good bacteria.
- **Chemical filtration** media such as **Seachem DeNitrate** will help keep Nitrate low. **Carbon** is always popular however **Seachem Purigen** is a better choice and is rechargeable.
Filter Types

You should select a filter that will turn over your water volume at least 4 times per hour. For example, in a 60 litre aquarium you would want a filter that does 240L/PH as a minimum.

- **External Canister Filters**
  Such as Eheim or 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. Best of all, they run almost silently.

- **Hang-on**
  Style filters like the Aquaclear or Elite Hush are also very good. They provide the best value if your budget does not permit an external canister. To prime, simply fill the filter box with water and turn on. Water is pumped through the filter and gravity flows back into your tank. Sometimes you may need us to cut your top glass to suit.

- **Internal Filters**
  Like the Eheim Pick Up, Elite Jet Flo or Aquatopia ranges are popular for smaller tanks or as a secondary filter for extra circulation in a large tank. Internals usually do not interfere with top glass or hoods.

- **Air Operated Filtration**
  Is simply not sufficient for African Cichlids.

Water Change Regularly

This cannot be stressed strongly enough. **Nitrate** is the residual by product of any filtration process. Although nitrate is relatively harmless, the levels will accumulate and become dangerous if regular partial water changes are not performed to dilute nitrates. **pH** is also pulled dangerously lower by organic waste accumulation. Therefore, no matter how good your filtration is, you still must water change regularly.

We recommend a 1/3 to 1/2 water change fortnightly to monthly to keep pH high (8-8.4 for most African Cichlids) and nitrates low.

Always use a gravel vacuum when you change water so that you are not just removing old water but are also removing solid waste accumulating at the bottom of your aquarium. Remember a fine blended gravel will minimize this. The dirtiest water is then removed and new water which has been conditioned with **Start Right A and B** and your cichlid conditioners of choice is returned to the aquarium.

Your fish should remain in the aquarium while you do this. Do not make the mistake of removing the fish and washing everything in the tank as this will kill all of the good bacteria and you would have to treat your aquarium as if it were brand new again, with the misfortune of having too many fish.

**Remember:** Even when your tank appears clean, dangerous nitrates which are the end by-product of all organic breakdown continue to build up.

Heating

If you want to keep Cichlids you will need to heat their water. A good guide is 1 watt of heating per 1 litre of water. A higher wattage heater than required is a good choice as a safe guard. Position your heater near your filters water flow to spread the heated water around the aquarium quickly. Position the heater at a 45 degree angle to stop the heat rising directly onto the thermostat. Set the thermostat to 24-26C and turn it on. Feel around the heater to ensure that the element is heating. We believe it is necessary to also install a thermometer to ensure the heater is functioning as required. The stick on thermometers are the best in our opinion as the suction cup style soon lose their suction and require replacement.

Large Cichlids can be quite boisterous and destructive, as such we recommend fitting your heater with a heater guard to stop it being broken by rock shifting and other destructive cichlid behaviours.
The African Cichlid Aquarium

The African Rift Lake Cichlids from Lake Malawi, Lake Tanganyika and Lake Victoria have become a popular variety of fish for people who desire dramatic colour, size and movement in their aquariums. African Cichlids are also quite aggressive, fast moving and require specific water conditions making them unsuitable for mixing with most normal Tropical fish.

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 and aufwuchs from the rocky outcrops. The bottom of the lakes is sandy. Innumerable caves have formed between the boulders offering protection to young fish and brooding females. Most species from Lake Malawi are mouthbrooders (they raise their babies in their mouth) 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 together while some species mouthbrood instead.

Rift Lake Water Conditioning

To recreate the hard alkaline water required by these fish, coral sand should be added to your gravel or used exclusively for the bottom. A very white sand is similar in nature to a white tile floor. Dirt and waste will show very easily. A blend of gravel and sand will make waste much more discreet. Black sand is also a good choice as it will produce a strong contrast of colours, highlighting the brightly coloured Cichlids. Texas Holey Rock and other calcium carbonate based rock will also help to raise and maintain a high pH and kH.

A good quality African Cichlid water conditioner like Seachem Cichlid Lake Salt and appropriate Buffer or our own African Cichlid Conditioner are a real advantage in creating the ideal water conditions as they will buffer your pH and kH while adding the naturally occurring mineral salts such as magnesium, calcium, sodium and potassium and more.

Remember when treating your tap water that you must always use START RIGHT A or similar product to remove toxic chlorine and chloramine.

Decorating for African Cichlids

As African Cichlids come from the rocky shorelines of the lakes we suggest that intricate rockwork form the basis of your aquarium and arranged to form numerous caves and territories. The rockwork should be predominately built up around the back and sides to leave a communal amphitheatre where all the interaction and displays take place.

Plants are not essential for your aquarium as African Cichlids are omnivorous, they will eat most plants. If they are not eaten, they are likely to be dug up from the gravel by normal Cichlid behaviours. If you desire plants, plastic plants can be placed into the gravel or super glued onto rock to provide some greenery.

Lighting

Lighting is necessary to view your fish at night time. To achieve this we find it best to illuminate your tank from afternoon until night when most people are at home to enjoy their aquarium. We recommend your lights are on for no more than 8 to 10 hours as longer than this will encourage algae growth. Lighting can dramatically effect the colours of your fish, we believe that a combination of ‘cool white’ and blue lighting produces some of the nicest colours. Fluorescent lighting remains the most popular and budget friendly option but LED are proving to provide nicer colours, a lovely shimmering effect in the water and are the most energy efficient option.
**Lighting**

If you want to enjoy viewing your Happy Goldfish at night time then you will need a suitable aquarium light. If you want to grow plants lighting is essential as plants will not grow without sufficient light. To grow your plants well, fluorescent lighting at about 2 watts per 5 litres of water is a good guide. Ideally 8-10 hours of light per day is sufficient for well planted tanks and less if you do not have live plants.

We find it best 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.** We have a wide variety of light tubes available. Our favourites for planted tanks are **Aquastars** or **Power Glo**. If you do not intend to grow plants then **Aqua Glo** tubes are a little cheaper. We sell a number of lighting fixtures from singles to double fluorescent, high and low wattage LEDs. All light fixtures are sold without tubes.

**Selecting African Cichlids**

Try to crowd your African Cichlids without taxing your filtration and water change management. Overcrowding aids in stopping individuals from becoming too dominant and harassing others. We find it best to start with small to medium size fishes of mixed species, adding them in groups of 4-6. This will allow the fish to grow up together and can help prevent aggression.

Of the Lake Malawi Cichlids (Mbuna) the most common species are Zebras (Metriaclima), Electric Yellow (Labidochromis), Saulosi (Pseudotropheus) and many others. People often start with these species as they are inexpensive, brightly coloured even when young and very hardy. Many hobbyists advance to the slightly more expensive and slower maturing species such as Peacocks (Aulonocara) and Protomelas, with species like these only the males exhibit the amazing colour as they mature.

In general Lake Tanganyika Cichlids are a bit more expensive, aggressive and they comprise some of the most sought after species such as Frontosa, Lamprologus and Tropheus.

**Feeding African Cichlids**

The importance of feeding African Cichlids the right kinds of foods cannot be stressed enough. African Cichlids have extremely long intestinal tracts like other omnivores which means that goods will take a long time to digest. Inappropriate foods (particularly those high in protein such as meat and worms) can rot in their stomachs and cause ‘Malawi Bloat’, sickness and sometimes death.

For this reason foods with a large proportion of spirulina and vegetables are best. Our favourite foods are HBH8 Veg flake, HBH African Cichlid Attack pellet, and the New Life Spectrum range. TetraColour Granules will enhance colours but it should be fed sparingly. Frozen bloodworm and brineshrimp 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 staff.

**American Cichlids**

American Cichlids is a broad term to describe Cichlids from Central, South and North America, as such they will all have their own water parameter requirements. South Americans are typically from soft and acidic water. Central and North American Cichlids can vary greatly with pH ranges anywhere from 6.5-8+. As such it’s best to go for species that are very adaptable or all from the same location.

Common South American species are Angelfish, Discus, Oscars, Green Terror and Severums. Common Central and North Americans are Texas, Convict, Jack Dempsey, and Firemouths.

When it comes to American Cichlids we find it is best to add them in good sized groups of 4 or more at a young age and allow the fish to grow up together to reduce aggression. When adult Americans Cichlids (e.g. Oscars) are added to an established tank with other adult Americans it will often be disastrous.

**Mixing American Cichlids with African Cichlids?**

As the names suggest these two fish are from different locations with very different water parameters, diets and environments. As such we would advise against mixing the two.
The Best Advice
Achieving good results in your aquarium can be easy if you follow our advice and principles. The biological balances and feeding are the keys to good water quality which means happy fish. We know that by using the best blend of equipment and products along with the right advice and service from our staff you can have a beautiful and problem free tank.

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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 with passive, slow moving tank mates. The major requirement to keeping Discus well is good water management and only the best foods. Discus metabolise quickly and need to be fed often with high quality prepared and frozen foods. The best are TetraColour Granules with daily frozen food like Beef Heart and Liver and Bloodworms. Once Discus are feeding well they are very competitive and hardy.

Discus are happy in low nitrate with soft and acidic water with a temperature range of 26-30C. For breeding Discus the fish need to be well conditioned on the best foods and only the cleanest of water (low nitrate). Seachem Discus Buffer is a fantastic additive to condition your water for Discus (although not to be used with plants as it contains Phosphate). The major problem with Discus is in their susceptibility to parasites like gill flukes, intestinal worms and flagellates. We advise regular treatments for parasites with Waterlife Sterazin especially after introducing or moving Discus to a new aquarium.

Discus should not be mixed with African Cichlids under any circumstances. They can mix with the calmer, less aggressive American Cichlids although this would require a very large aquarium with a powerful filter and is best left to the experts. Pelvachromis, Microgeophagus and Apistogrammas will all mix well with Discus.

Dwarf Cichlids
The most popular dwarf cichlids are the Apistogrammas, Microgeophagus (Rams) and the Pelvichromis (Kribensis).

Apistogrammas and Microgeophagus are both South American fish that love soft and slightly acidic (6.5-7pH) water at 24-26C. The Microgeophagus are the harder of the two species, they adapt well to a community environment and will readily accept prepared foods. Apistogrammas are intolerant of poor water quality and sudden changes in water parameters. Some Apistogrammas are also quite finicky and may not accept a prepared diet, be ready with a supply of frozen and/or live foods. Small Apistogrammas do well in ‘Nano’ aquaria kept in pairs and some species will do even better in a harem. Some species will breed easily in a community setting but do best kept on their own.

Pelvachromis (Kribensis) are an African Cichlid found in a range of locations. As such as they adapt very well to different water parameters and are very hardy. They will feel most comfortable at pH ranging from 6.5-7.5, a temperature of 24-28C and water hardness can be considered irrelevant. They will readily accept prepared and frozen foods and can breed with ease in a community setting.

Feeding American Cichlids
American cichlids will consume a large variety of foods. Tetra and Hikari make good quality cichlid pellets. Advance the size of the pellets as your young fish grow. A wide variety of frozen foods are recommended in conjunction with the occasional live food treat.

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