

# Discus, "The King of the Aquarium"

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## Background

The Discus is a large, flat "Discus-like" cichlid that is native to the Rio Negro, surrounding tributaries and streams of the Amazon Basin in South America. The Discus and its variants were first described in 1840 by Dr. Heckel as *Symphysodon discus*. This name is used for the Heckel Discus variant.

Discus live in soft and acidic waters (ph 5.0-6.5) with minimum current and warm temperature, at approximately 29 degrees Celcius. The water the discus comes from looks like a well brewed cup of tea from the large amount of wood and leaves releasing tanins into the water. There is a greater concentration of wood and rock to plant life in the native Discus habitat, most of the plant life being lillies, other floating plants and Amazon swords.

### Tropical Waters of the Rio Negro

### Discus and Catfish in their Natural Habitat

The Discus is a social animal. They live in large groups in their native waters, and have a very advanced social behavior. They are one of the few real schooling cichlids. It is worth to keep this in mind when starting with Discus yourself, - always purchase a group of Discus, never one alone. They need the social interaction to develop their character and behavior to the fullest. Discus Variants

At this time, it is rather hard to find wild Discus in Aquarium stores, only the Heckel is sometimes imported by Sydney Discus World. Most of the Discus you encounter today are captive bred colour variants. At this time, the list of described colour variants is endless. Some of the discus colour variants have lost their "trademark" black bars and therefore their natural ability to communicate in the school and currently some Asian breeders are working on a Discus variant in the shape of a boomerang. But as always these new variants are finding their way to the aquarium hobbyist quickly for exceptional high prices and this will stimulate the breeders to try to find a new one.

The three "original" colour variants received their own name, the Green Discus, *Symphysodon aequifasciata*, the brown discus *Symphysodon aequifasciata axelrodi*, and the blue variant *Symphysodon aequifasciata haraldi*. Wild Discus Varieties

### Brown Discus

### Blue Discus

*Symphysodon Aequifasciatus Axelrodi*

*Symphysodon Aequifasciatus Haraldi*

### Green Discus

### Heckel Discus

*Symphysodon Aequifasciatus Aequifasciatus*

*Symphysodon Discus*

## Captive Bred Discus Strains

Discus strains that have been developed in captive breeding programs in recent years is increasing at a steady rate. They have exotic names like, Red Turquoise, Red Melon" Snakeskin, White Diamond, Blue Diamond etc. New strains such as the Albino and Leopard strains have been developed through selective breeding programs which makes them not only beautiful, but more resistant to disease.

### Orange and Yellow Albinos

### Leopard

## The Aquarium

The very first question you should ask yourself is, "What size aquarium do I need?" This depends on your budget and the room you have in your home. If you are having a display tank I would recommend you host them in a tank no smaller than 120cm X 40cm X 50cm. About 50 liters ( 13 gallons ) for one mature fish is a good guideline. Because the Discus is a schooling fish, it should be kept in small groups with a minimum of 5. If we calculate a little further we come to the conclusion that a tank of 250 liters ( 66 gallons) is a minimum size to start with. The discus is a high shaped fish and when selecting an aquarium a higher tank is recommended. Discus Aquarium Fish do better in

deep tanks and the more water the tank holds the more stable the water conditions tend to be. For a breeding tank a 48cm X 30cm X 30cm tank may be used which is adequate for its purpose.

**Position** Keep the aquarium away from direct sunlight and radiators as sunlight will cause algae and excess heat. The only other factor to take into consideration is the height of the tank, the higher up the better as Discus are phased by movement above and this may cause them undue stress.

**Substrate** This depends on whether you are breeding your Discus Fish or displaying them.

In our store, we have a large range of various gravel, stones and aquarium sand. It is really up to your personal preference as all are suitable for display tanks.

If you are breeding, it is recommended to have a bare bottom tank as it is easier to clean and fry will not get stuck between stones. **Plants** You may use artificial plants, but to simulate their native environment and reduce stress, it is best to decorate the tank as natural as possible. An aquarium with large plants, some rocks, driftwood and a few floating plants is the ideal setup for the Discus. Plants provides hiding places, filter the light from above and contribute to healthy water conditions. You can purchase either bunch plants, which are planted in your substrate, floating plants, which float above the surface or driftwood plants, which grow on a piece of driftwood. Driftwood plants are much hardier than most bunch plants, as they derive most of their nutrients straight from the water. They are also very attractive, as they can form interesting shapes as they grow towards the light.

Some plants that you could have in a Discus aquarium are:

- Amazon Sword Plants
- Anubias plants
- Anubias and other Driftwood plants
- Java Moss
- Rotala
- Tiger lotus

All these plants, and many more are available in our store. **Décor** You may wish to decorate the tank with rocks and driftwood. Driftwood is suitable for discus as their native waters often have roots and driftwood where they take shelter. Rocks should be checked for any metal ore and contaminants. Also try and keep rocks of a similar colour and texture, preferably from the same source, though a different piece adds nice contrast.

Sunken ships, "No-fishing" signs and plastic mermaid ornaments do not belong in a discus tank. The reason being that when uneaten food gets trapped inside the ornament, fungus and bacteria multiply and emit deadly toxins into the water. Try and keep décor to a minimum, it will serve the tank both functionally and aesthetically. A large range of various rock and driftwood is available in our store. **Filtration**

It is a well known fact that Discus require excellent water quality, and a good filter is at the heart of this.

If you have a Discus Fish display aquarium, we recommend you use an external Canister Filter, as they will keep the water crystal clear and clean as it will have one of the largest surface areas for biological filtration. It will sit outside the tank.

You may, however use a good quality Hang-on filter, internal filter or sponge filter for breeding tanks for breeding pairs.

We recommend the full range of German-made EHEIM External Canister filters at competitive prices. The beauty of the EHEIM Classic range, is that they have a "Backwash" facility which allows you to use the filter for a much longer amount of time than other internal or hang on filters, since you can backwash any built up residue.

EHEIM Canister Filter Range

Backwash utility of the EHEIM Canister Filter range

About Biological Filtration

A biological filter, such as an external Canister Filter is basically a mini tank. Water goes through several compartments with filtering substrate, where large colonies of cleaning bacteria will develop.

These bacteria convert fish waste (Ammonia) to Nitrite and finally Nitrate, thus creating a safe environment for your Discus. Most canister filters contains porous materials such as ceramic noodles and chips. They have millions of pores in which beneficial bacteria crucial to the removal of ammonia and nitrite, reside and establish colonies.

**NOTE:** It is recommended never to open a Canister filter. But if it is necessary, never clean the filter media in tap water, as you will dispose and kill all of the beneficial bacteria. Instead, rinse the media in tank water. **Water Condition**

The quality of water in a Discus Aquarium is very important. Some even say it is the most important factor in keeping your Discus healthy and happy. Discus will thrive in the right water so it is essential to get it right.

It is a misconception that looking after Discus is difficult because of their need for good water conditions. They are not

difficult to look after at all! Once a new tank is established through biological cycling and the addition of a chemical pH buffer, peat or driftwood, all that is required is fortnightly water changes to stabilise the pH, hardness and to ensure that Nitrite and Ammonia levels stay at zero.

The main water parameters that must be maintained in a Discus aquarium are: Temperature: 28-31 degrees CelciuspH: 5.0-6.5Hardness: 3 to 10° dGH. Zero level of Nitrate  
pHDiscus require slightly acidic water to remain stress-free and to be able to produce the slime coat on their bodies which protects them from parasites and disease.In the wild, Discus live in waters which have a pH of 5.5 to 6.0. For the aquarium,however it is not necessary to imitate these values exactly, except for wildcaught animals that have been recently imported. They are very fragile when it comes to water quality and the hardness of the water, captive bred fish are much more tolerant. We recommend keeping Discus within the pH range of 5.5 to 6.5 and the tanks in our store also have these values. It is therefore necessary to prepare your tank by cycling it and lowering the pH so that the transition from our tank to yours is stress-free.

If you are thinking of establishing a new aquarium, ensure that during your period of cycling the water, add some driftwood to the aquarium to naturally lower the pH. Optionally, you can add a pH buffer, such as Sera pH Down (available at our store) to bring down the pH. Advantage of Driftwood over Chemical Buffers

The advantage of adding driftwood over a chemical buffer is that even after doing a water change, the pH will not change dramatically. Please note that the pH scale is logarithmic, so a drop from 7 to 6 is actually reducing the pH by a factor of 10 and from 7 to 5 by 100.Temperature

Discus generally require higher temperatures than other tropical fish, and you should think about this when selecting plants and tank mates for them.

It is recommended to have a temperature of 28-31 degrees Celcius for a Discus display tank.

To change temperature simply, adjust the heater's dial in your aquarium. You may require two heaters in large tanks, just in case one does not function.

Keep an eye on the temperature at least twice daily as part of your routine by using an Aquarium Thermometer or Digital Thermometer. A conventional thermometer is not recommended as they may vary slightly, and are not precise. One should always ensure that the incoming water during a water change is approximately equal to the water in the tank, a slight variance within 1.5 degrees, as the discus can suffer temperature shock and this would bring on undue stress which could eventually lead to an outbreak of disease.

#### Hardness

In order to achieve slightly soft water, which has a range of 3 to 10° dGH, use a large piece of driftwood or a chemical buffer. Again, it is recommended to use a large piece of driftwood instead of a chemical softener, as it will keep the hardness stable, even after water changes.

#### Nitrite and Nitrate

Besides the hardness of the water it is very important to keep the Nitrate and Nitrite levels within an acceptable range.

Do not let the nitrate value get over 20 and the Nitrite level should always be 0. This is achievable by using a good filtering method, the right amount of fish and a regular change of 20% of the water. Selecting Discus Aquarium Fish

Buying Discus shouldn't really be any different to buying any other fish but it seems to cause most people worry and sleepless nights. I suppose it's the money involved as not many other fish have the price tags Discus Fish carry.

Before buying Discus, you should have done your homework and know about the fish, water chemistry and how to care for it. This may seem like common sense but some people don't even know what water the Discus Fish prefer. Most Discus Aquarium Fish keepers have this knowledge and the experience with other fish as they tend to keep other types of tropical fish before progressing on to the Discus Aquarium Fish.

I know of many hobbyists who started out with Discus simply because they were mystified by them. Needless to say, some have had bad experiences, their entire stocks wiped out within a week.

When it comes to choosing stock there are three sources of stock, these are firstly importers and specialise in Discus Fish, such as Sydney Discus World Aquariums. They tend to know a lot about the fish and have a good selection of different strains. Then there are Pet shops and other Aquarium Shops which will normally only have a little selection of Discus and at most times aren't very good quality and have poor health.What to Look out for when Selecting

## Quality Discus

Some people will tell you to look for perfectly round bodies with small bright eyes and even though this is true there is simply more to it than that.

First you have to decide what colours you want, don't worry too much about the names of these as they vary from source to source. Wherever you buy your fish from spends time watching them, and never buy on impulse.

Only select Discus Aquarium Fish that are alert, bold and come to the front of the tank. Avoid fish that hang at the back and hide. Also avoid those that breathe heavily or out of one gill. Check for twisted mouths short gill covers, poorly shaped tails, odd or big eyes and any other genetic defects that might be down to poor breeding.

Talk to the dealer and ask him these questions:

- How long they have had the fish, if less than 2 weeks be careful as they haven't been quarantined long enough.
- Did he breed the fish or did he import them, if the latter where from?
- Have the fish been medicated or de-wormed?

Take a look at the bottom of the tank, healthy Discus pass faeces regularly and their waste should be black. If you see signs of white or clear feces it is reasonable to consider that some of the fish have an internal problem such as intestinal worms, and so should best be left alone. Always ask what sort of water conditions the fish are in. If they aren't the same as yours go home and get them right.

It is recommended to purchase medium sized (6-7 cm) fish. They are easier to adapt to new water conditions than smaller fish, and don't require frequent feeds which young discus require. It is not recommended to buy very young discus (under 5 cm), as they are still very fragile.