

A WaterZoo guide to...

# Maintaining your freshwater aquarium

Most fish keeping problems can be traced back to poor water quality or inadequate maintenance. These problems can include cloudy water, excessive algae growth, & sick fish or plants. Even those aquariums with the most efficient or high tech filtration system will need frequent attention. Don't worry though, all but the largest aquariums need just a few minutes maintenance every week.

## Twice a day

Feed your fish as much food as they will eat in a few minutes. If all the food is not eaten within this time remove the excess and feed a little less next time. Flake food is a good staple diet, but we also recommend feeding a frozen Bloodworm several times a week. In the wild, fish would eat small worms & shrimps, frozen foods replicate this natural food & all fish eagerly take it. Check the aquarium temperature in the morning and evening with an aquarium thermometer. Fluctuating temperatures of more than 2°C may indicate a malfunctioning heater & can contribute to disease outbreaks, such as Whitespot. For most non specialist tropical fish the temperature should be between 21°C & 27°C (70°F - 79°F), with 25°C (77°F) being the optimum, and between 16°C & 22°C (60°F - 72°F) for cold water fish.

## Daily

Check all your fish are healthy and feeding, this will help you notice any problems sooner. Reluctance to feed is one of the first signs that something is not right. This gives you longer to take any necessary action and improves the chances of avoiding a major problem. Ensure that your filter is functioning correctly and water output is visible.

## Weekly

Cleaning the aquarium glass with either an algae magnet or one of the many types of scraper available, this stops unsightly algae building up. In tropical freshwater aquariums adding some algae eaters such as Flying Fox or Bristlenose can significantly reduce the algae build up. For cold water aquariums we would suggest Chinese Plecos, a type of algae eating Loach. You should purchase a water test kit and check the aquarium water weekly, especially if your aquarium is newly established. Your fish are dependent on good water quality, therefore testing the water and ensuring it stays within safe limits is a vital part of successful fish keeping.

## Fortnightly

If your aquarium has an internal filtration system this is likely to need cleaning on a fortnightly basis, although frequency of cleaning is dependent on the stocking level. If it has just a sponge insert this should be cleaned in waste aquarium water, not tap water, this prevents the loss of vital filtration bacteria. If you have Juwel internal filter you should follow the filter maintenance instructions supplied with your aquarium.

No matter how good the filter in your aquarium water changes should be done frequently. A water change dilutes potentially harmful nitrate that can cause fish health & algae problems. Remove no more than 25% at one time using a gravel cleaner; this removes accumulated detritus from the gravel. Tap water is safe to use to replace the water, provided a water conditioner is used, e.g. Seachem Prime or Tetra AquaSafe. This makes the water safe for the aquarium inhabitants by neutralising poisonous chloramines and toxic metals such as copper. Reverse Osmosis (R.O.) water is better, as this is free from impurities sometimes present in tap water. This needs minerals adding to it when changing water, although a water conditioner is

not needed. We do not advise changing more than 25% of the water at any one time. This can cause large environmental changes that some fish may find difficult to cope with.

### **Monthly**

External filters have a much larger filtering area than most internal versions and therefore only require cleaning about once month. All the media should be cleaned in waste aquarium water; this prevents the loss of vital filtration bacteria. If Carbon or filter floss is present in the filter this should be replaced monthly to maintain efficiency.

Most types of filter, both internal and external have an impeller, this looks like a small fan and spins to pump the water. Over time this gets covered with bacterial flock, this coating can drastically impair the flow rate, and can even cause it to stop. Switch off the power, turn the pump upside down, remove the impeller cover, remove and clean the impeller with a small brush. This is easily done when cleaning or replacing the filter media.

### **Every three months**

The water in Peterborough is very hard; this causes air stones to clog with lime scale very quickly. This in turn can put backpressure on the air pump if air stones not replaced frequently this will cause premature splitting of the diaphragm.

Air pumps are fitted with a small felt or carbon filter pad, if these are not replaced periodically then dust and other pollutants can be drawn in. If this happens it can harm your fish as these pollutants are pumped directly into your aquarium. In addition dust can build up in the inner workings of the pump causing a reduction in airflow and inevitable repair or replacement. If your aquarium has an external filter the pipes should be cleaned using a special flexible pipe cleaner. Dirty pipes can reduce the flow rate by approximately 25%.

### **Every six months**

Overtime sponges used in filter systems lose their elasticity, resulting in rapid clogging and poor water flow, once this happens they require replacing. As most of the bacteria that mineralise toxic fish waste lives upon this sponge it is important to use a suspended bacteria product. This helps replace the millions of beneficial bacteria that are lost when the old media is discarded. Seachem Stability is an effective bacterial additive that will quickly re-establish bacteria numbers.

### **Yearly**

Fluorescent tubes lose their intensity with age, in fact after twelve months some may have lost up to 50% of their output and much of the original spectrum. You will not notice this loss of brightness as it is so gradual, but when you replace old fluorescents, the aquarium will look considerably brighter. It is always worth replacing the FSU, if fitted at the same time as these wear too. This will help ensure that you get the maximum life & efficiency out of your new light. New T5 lighting with 16mm diameter lamps, do not have an FSU, but lamps still require annual replacement. If your lighting has waterproof end caps, e.g. Juwel then these should be replaced along with your lamp to ensure moisture does not penetrate into the electrics and shorten the unit's life. If your aquarium is illuminated by LED's these are maintenance free and just require an occasional wipe over to maximise light output.

*The advice given in this leaflet is based on an average aquarium and is for guidance only. The frequency of maintenance can be affected by stocking level, type of fish, filtration system, & many other factors. For more detailed information about aquarium maintenance and fish health we would recommend reading either, *The Interpet Mini Encyclopaedia for the Tropical Aquarium**

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Jason Scott, a contributor to Practical Fishkeeping magazine, who has over 25 years experience in the aquatics trade and over 35 years keeping fish, wrote this WaterZoo guide and others in the series