Quadrant II – Notes

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Notes

General Aquarium Maintenance Part II

Aquarium Maintenance Routine

A complete aquarium maintenance schedule includes daily, weekly, biweekly, Monthly and Six monthly or Yearly tasks.

Daily Maintenance

Count the fish and check if they appear healthy. A good time to do this is when you feed them, as they will be out and easy to observe.

Do a quick visual check of the aquarium to ensure the filter is running at full strength, the lights are functioning properly, and make sure any other equipment you have are running properly.

Check the temperature to ensure it's in the proper range.

The fishes are fed one or two times a day, maximum three times. At the time of feeding, air pumps and power filters to be switched off.

Watch fish during feeding. Behavioural changes are a good indicator of a potential problem.

Once they have finished eating, examine the tank to see if there is uneaten food remaining on the bottom. If you notice that there is often uneaten food left after ten minutes, cut back on the volume of food you give your fish at each feeding.

Use a siphon to remove uneaten feed. If the water level has dropped, top it off with treated or aged water as needed.

Daily switch off aerator, heater, power filter etc. for half an hour to avoid overheating.

Monitor the tank regularly during winter season especially the heater.

Weekly Maintenance

Perform light cleaning

Gently shake plants, whether they are live or artificial , to dislodge debris.

Scrape the inside glass to remove any algae, then take a break for ten or fifteen minutes and let everything settle a bit. Gently siphon the substrate to remove debris. Lastly, perform a partial water change (20-25%). Use water that is treated (dechlorinated), and if possible, aged.

Check your fish for signs of distress, usually if they are breathing heavier than normal or are scratching themselves on objects. Check for any spots, marks, red blemishes or fungus. Also check that all the fishes are present. Sick or dead fish may be hiding. Take the appropriate action.

Test the water's pH, ammonia, nitrite, nitrate, hardness, alkalinity and chlorine by using test kit.

Water Parameter	Normal range	Water Parameter	Normal range
Temperature	23 to 28 ^{0}C	Nitrite	0.0 ppm (mg/L)
pH	6.5 to 8.2	Nitrate	0 to 30 mg/L
Chlorine and Chloramine	0.0 mg/L	General Hardness (GH)	100 to 250 mg/L
Ammonia	0.0 ppm (mg/L)	Carbonate Hardness (KH)	120 to 300 mg/L

General cleaning should be the priority task for every week. Damp a clean cloth in an aquarium-safe cleanser and wipe off the outside dirt and grime from the aquarium's glass. It will prevent the tank from getting overly dirt every day.

Biweekly Maintenance

Test water for vital parameters: pH, carbonate hardness, nitrite, and nitrate.

Clean the glass inside and outside. Take an aquarium friendly scrubber and scrape off the algae from the inside of the glass. This will eliminate any algae, and ensure full viewing pleasure.

Gently disturb gravel. Allow dirt / debris to settle. Gently siphon the substrate to remove debris. Change 25-30% of the water by using dechlorinated water.

Rinse filter inserts with the extracted water.

Check state of growth of live plants,

Take out unwanted plants or plants part.

Filter cleaning

you should regularly clean off the filter so that water flow does not get obstructed. Clean the filter without losing all of the helpful bacteria.

Using the water saved from the water change, rinse the mechanical media. If the mechanical media is very clogged, replace it. Mechanical filter media (such as foam) generally only has to be replaced once or twice a year.

Removing sponge filter and rinsing it in the same water you use in your tank is the best way to remove unwanted particles without harming the bacteria on the sponge. It is better to schedule filter cleaning several days apart from your tank cleaning so that there are enough beneficial bacteria present to keep your fish happy in the process.

Perform filter maintenance and replace filter media as per manufacturer's recommendations and in accordance with the results of water test.

Water testing should be performed monthly to ensure nothing unseen is brewing. Test the following parameters: pH, ammonia, nitrite, and nitrate. If you have algae problems, you may also test for phosphates to see if that may be part of the root cause. Perform water tests first before water changes and any other maintenance.

Plant pruning. Any aquarium that features live plants will eventually end up with dead leaves and plant matter decaying inside the tank. This waste can quickly build up and stress the environment for fish, so your plants should be pruned at least once a month and dead plants removed as soon as they are discovered.

Controlling algae as part of a long-term aquarium maintenance routine is important. One of the best ways to control algae growth is to use a specialized algae scraper along the interior of the tank and Or better still reduce the wattage of your lighting.

Every healthy aquarium will feature algae inside of it. Algae grows incredibly rapidly and can overwhelm your tank and decorative items if left unchecked. Use a scraper or sponge to clean off any decorative items that are in the tank and use aquarium vacuum to give the gravel a good clean and remove any dirt and debris. For acrylic aquariums, make sure that you won't scratch the acrylic with material you are using to clean the sides.

Gravel churning. If you use a gravel substrate to line the bottom of aquarium, you should use an aquarium vacuum to clean up the rot and waste that can easily collect underneath the gravel at least once a month. You need to really dig up and disturb the gravel so that the vacuum can suck up accumulated waste.

Next perform the weekly/bi-weekly cleaning tasks, followed by the partial water change. Save a bucket of the water removed from the tank to use for performing filter maintenance. If you use exhaustible media, such as carbon or zeolite, replace it.

One of the most critical elements of long-term aquarium maintenance is frequent water changing. Generally, a 30-40% water change monthly will help maintain the proper water quality for a tank, but 20-25% weekly can sometimes be even more effective. Do not remove more than 50% of the tank water at a time.

Water changes should be accompanied by a test of the water quality in order to make sure that you have not upset the necessary balance of nutrients that fish need to survive.

Six monthly or Yearly maintenance

The following list of tasks should be exercised at least once a year, although many experienced aquarists suggest that a bi-annual check once every six months is even better for effective long term aquarium maintenance, depending on the complexity of tank and its bio-load.

Change light bulbs although lighting setup is working perfectly fine at least once a year. Even if the lamps appear to be working just as well as the first day you bought them, they may not be providing the same ultraviolet frequencies as before, hindering your aquarium's reproduction of natural daylight.

Check pumps and filter mechanisms. Some pumps may require annual lubrication in order to work properly. If you discover that any of these parts are cracked, damaged, or otherwise working improperly, they should be replaced as soon as possible.

Examine fish with a close visual inspection at least once a year, though preferably even more frequently especially for signs of sickness. Always have small tank to quarantine fish if required.

Dead fish should be immediately removed as soon as they are discovered. The decaying or rotting material in tank can seriously affect the water quality if left in the tank, and lead to sick or dying fish, as well as greater long term aquarium maintenance complications later on.

Unwanted residents(fishes) of your tank can be sold off and replaced with different, more interesting fish that can give you a new appreciation for your aquarium.

Most aquarium filters utilize carbon filters which absorbs any harmful nutrients in aquarium water that could harm fish. Once activated, carbon only lasts for 30 days, so it needs to be changed every month. Some aquarium filtration systems come with separate

cartridges for foam (which filters out solid debris) and carbon. Foam filters should never be changed on the same day as carbon. Changing both foam and carbon filter cartridges on the same day may remove too much beneficial bacteria from the biological filter. It is better to change the foam 2 weeks after the carbon.

Disinfecting / sterilising /cleaning Aquarium

Depending on the reason for disinfecting tank, one can use one of two methods. To give a dirty tank a good clean. Vinegar and water is a quick and efficient solution. However, if the tank has had sick fish, you need to use a stronger solution like bleach. Always remove fish when using vinegar or bleach to clean tank as it is harmful to fishes.

Carefully transfer fishes with 10% water from the aquarium to small bucket and make the aquarium empty for disinfecting/ cleaning.

Vinegar Solution-Vinegar can be used to clean tank, filter, heater, gravel and all decorations using a 1:1 vinegar/water solution. All items can be left to soak for several hours. Once the items are finished soaking, be sure to rinse everything off really well. Now your aquarium and equipment are ready for use.

Bleach Solution- Use regular household bleach. Do not use a bleach mixed with other detergents. Put the bleach in a spray bottle and spray the inside of the aquarium. Leave it to sit for 10-15 minutes before rinsing thoroughly. Do not let it sit for longer. The bleach is corrosive and can cause damage to the aquarium. The tank must be allowed to air dry for 24 hours before being used.

Or Use a 8:1 water/bleach ratio to fill the aquarium. Allow it to sit for 10-15 minutes. Rinse the tank thoroughly and allow it to air dry for 24 hours. Rinse it thoroughly with dechlorinated water and dry again.

Decorative items, filters, gravel and heaters can also be cleaned using the same 8:1 water to bleach ratio. You can either soak them or spray them. The same rule applies as with the tanks.

Reset the aquarium and fill it with dechlorinated water and carefully transfer the fishes from the small bucket along with water in the newly setup aquarium.

Proper maintenance of aquarium will result in the longevity of fishes and ultimately aquarium.