

AQUARIUM CARE AND MAINTENANCE

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The guidelines for keeping aquariums vary with each individual's interest and objectives. Nevertheless, everyone should be able to develop a simple, customized routine, and still have a clean and healthy aquarium, providing a few basic essentials are followed. The information presented here is only a summary and directed toward those who do not have a great deal of time to spend on aquarium care and maintenance. Additional information and assistance should be found at any pet store specializing in tropical fish.

Types of Aquariums

Aquariums can be broadly grouped into three categories which consist of native, tropical, and marine. Different sets of guidelines are required for each category. Generally, Native fish are the hardest and easiest to keep, and no aquarium heater is required. Tropical fish require a fairly constant temperature between 70 and 85 degrees, which is usually controlled by a submersible heater. Most tropicals also remain healthier when one teaspoon of non-iodized salt is added per gallon of water (10 teaspoons for a 10 gallon aquarium). With few exceptions, both natives and tropicals can be kept in the same community aquarium providing all fishes are selected on the basis of size and disposition. Finally, marine aquariums, by far, offer the greatest diversity and the brightest colors of all three categories. Unfortunately, at least in the initial steps of aquarium preparation, they require the most

amount of time and effort. The guidelines are not difficult to follow, however, anyone considering a marine aquarium for the first time should contact a pet store where instructions and assistance are available on an as needed basis.

Aquarium Preparation

No soaps or detergents should ever be used in cleaning the inside surfaces of aquariums. If the glass is dirty or has an algae film, use only cool or luke-warm water and a dish scrub pad (3M products are a personal favorite). Place the under gravel filter in aquarium and attach air hose to filter stems and air pump. Rinse the gravel using a noodle strainer until water is clear. One pound per gallon (10 pounds for a 10 gallon aquarium) is the minimum needed to provide the proper depth. Place the gravel in aquarium, and though landscaping is not required, a few rocks or drift wood provides aesthetics and cover. Fill the aquarium with water. If fish are to be added on the same day and the water supply is chlorinated, a neutralizer must be used. Otherwise, chlorine will evaporate in 24-48 hours and fish can be added then. Aquatic plants are also not required, but provide the same benefits as landscaping. Normally, the water will remain cloudy for the first three or four days before clearing. For tropical fish, add non-iodized salt and adjust the temperature. Some tropicals such as tetras should also have the pH adjusted to around neutral (7.0). This can be done with a pH test

kit and reagents available at most pet stores. Fish should be gradually acclimated to the new aquarium. Place fish with the water they came with in a plastic bag and roll the top down far enough to form an "inner tube." Float bag for twenty to thirty minutes, then add water from the aquarium, and float for another five minutes before releasing the fish. A full hood should be used to prevent fish from jumping. Most hoods come equipped with either a fluorescent or incandescent light. Both work well on aquariums, but low wattage bulbs should be used with incandescent fixtures to minimize the increase in water temperature.

Aquarium Care and Maintenance

Ideally, an aquarium can safely support about one inch of fish per gallon (10 inches in a 10 gallon aquarium). This can easily be doubled, but losses may occur in the event of a power failure. There are several types of food available and most fish will eagerly accept flake foods such as Tetra-Min, but others will require frozen such as brine shrimp or live such as glass worms. The fish should only be fed once per day. It is better to feed too little than too much. Shortly after feeding, there should be no accumulation of food remaining on the

bottom of aquarium. Feeding fish on weekends is not necessary and most can actually go without food for extended holidays, however, when possible, a "maintenance meal" once a week is recommended. There are many diseases

which afflict both native and tropical fishes, but probably the two most common are fungus and Ich. Fungus occurs after an injury or loss of the protective mucous coating and appears as white, cotton-like patches. If treated early, Fungus Cure tablets are very effective. Ich usually occurs after a period of stress such as fluctuating water temperatures and looks like small grains of salt. Natives are rarely seriously afflicted, but tropicals should be treated with Nox-Ich or other medications containing malachite green. Aquariums which are not over-crowded or over-fed should only require a complete cleaning once every year, however, about twenty-five percent (2.5 gallons in a 10 gallon aquarium) of the water should be removed with a siphon tube and replaced with fresh (chlorine-free) tap water. The non-iodized salt should also be replaced in tropical fish aquariums. This is probably the most time consuming part of aquarium maintenance, but if it is not done, the water will gradually acidify killing the plants and making the fish prone to pH shock. Species vary in their tolerance to this condition, and losses may occur when adding new fish to an acid aquarium or after cleaning, returning acid acclimated fish to basic (pH > 7.0) water.

Additional Information Sources

There are several books and magazines available for tropical fishes and an impressive assortment on almost any

topic can be found at many pet stores. A major publisher is *Tropical Fish Hobbyist* (T.F.H.) Which also has a monthly magazine. Information on native fishes is more difficult to find, but a few sources are listed below.

Fishes of the Minnesota Region by Gary Phillips, William Schmid, and James Underhill University of Minnesota press, Mpls, MN 55414

Fishes of Wisconsin by George Becker
University of Wisconsin Press Madison,
WI 53715

NANFA Publication: American Currents
123 W. Mt. Airy Ave., Philadelphia, PA
19119