

time, the nitrifying bacteria in the biological filter will need to multiply to consume the additional fish waste. By adding more fish gradually you will have a healthy, fully stocked aquarium.

### **Proper feeding of your fish**

Saltwater fish require a good diet to develop beautiful colors and stay healthy. The fish food should be a well-balanced food fortified with vitamins and minerals providing fish with the proper nutrition needed for maximum growth and vibrant color. Overfeeding is one of the major causes of fish loss. Overfeeding promotes fish waste to build up to a harmful level. During the first few weeks, feed only once a day. It is best to feed the fish only enough food that they can eat in five minutes. If food is seen sitting on the bottom of the aquarium, the fish have been overfed.

### **How to handle cloudy water and algae**

A few days after fish are added to the aquarium, the water may turn cloudy. This is normal and happens to many new aquariums. In a few days, the cloud will disappear as the aquarium becomes established.

Eventually you may begin to see algae grow on the glass or gravel. It may appear brown or green. First, make sure the aquarium light is on no longer than 12 hours each day. Then use an algae scraper to remove algae from the glass. Certain fish and snails may be selected that prefer algae as their primary food source and help keep algae under control. Products are also available that can be used to control algae growth and reduce maintenance.

### **A clean aquarium is a healthy aquarium**

Dirty aquariums not only look bad, they are unhealthy for the fish. By following a few simple maintenance steps the aquarium will always look beautiful. The following steps are an ideal regiment for keeping a great looking aquarium.

**Monthly:** Clean the filter and add new activated carbon. Change about 20% of the water. Partial water changes remove excess pollutants and algae-promoting nutrients (phosphate and nitrate). The easiest way to make a partial water change is with a gravel siphon. Gravel siphons remove debris from the gravel while removing unwanted pollutants from the aquarium. Be sure to use a water conditioner to treat the tap water and protect the fish and add the correct amount of salt to reestablish the correct salt level. If necessary, add a pH product to stabilize the pH. Clean the inside of the aquarium with an algae scraper.

**Weekly:** Weekly test the pH, ammonia, nitrite and salt levels. Regular water testing is the only way to monitor water quality in the aquarium. The pH level may shift over time and require an adjustment. If the ammonia and nitrite levels are always zero, it means you are properly caring for the aquarium.

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## **CARING FOR SALTWATER AQUARIUM FISH**

The first decision we need to make is, are we keeping a fish aquarium or reef aquarium? A fish aquarium is primarily setup for the fish with modest decorations. A reef aquarium is setup for invertebrates (corals, anemones and crustaceans) with fish used more to balance the aquarium. Each can be beautiful and successful. However, the focus is slightly different. This pamphlet will primarily refer to the care of fish for a saltwater aquarium. If you desire to keep a reef aquarium please ask for a copy of the "Care For Your Reef."

### **Determining the correct size aquarium and decorations**

Choosing the right size aquarium is your first decision. The larger the aquarium the greater number of fish and a more diverse variety of animals you can have. The larger volume of water keeps the water chemistry more stable and less likely to have sudden changes. So select the size that works best for you, but remember larger is better. Decorations are beneficial for our fish by providing an area for them to go during times of stress or to get away from other tank mates. Only buy decorations that are safe for saltwater fish aquariums.

## **The Equipment**

The major pieces of equipment are the heater, filter, air pump, protein skimmer and hood (cover & light fixture).

**The heater...** Tropical saltwater fish require a steady water temperature of 76° to 78°F.

Fluctuating water temperature stresses fish, making them more vulnerable to disease. High quality aquarium heaters minimize water temperature fluctuations. The heater wattage required will vary depending on the size of your aquarium. Ask our pet shop staff for assistance in selecting the correct size heater.

**The filter...** Another important component of any aquarium is the filter. Filters remove debris and harmful pollution. The larger the filter the less often you will need to perform maintenance. Whenever possible it is always best to select a filter that has a good flow rate and a large area to hold filter media.

**The protein skimmer...** improves water quality by removing organic compounds before bacteria decompose them. Protein Skimmers work through contact of air bubbles and organic material floating in the water. It is important to obtain the correct size skimmer for your aquarium. Ask the pet shop for assistance when selecting a skimmer

**The air pump...** is used for bubbling ornaments, protein skimmers, and air stones. When the bubbles agitate the surface of the water, oxygen is added to the water. The addition of an air pump is a great way to assure the aquarium has adequate oxygen.

**The hood...** An aquarium hood should consist of a cover and a light fixture. The hood helps reduce evaporation of the water. It also reduces the chance of losing fish since it keeps them from jumping out. It is advised to select a hood with a light fixture, to illuminate the aquarium for viewing the fish.

## **Filling an aquarium with water**

Don't ever add fish to any aquarium filled with plain tap water. It could be full of dangerous chemicals that can harm the fish. It is important to be aware that municipal tap water is treated with disinfectants (chlorine and chloramines) that are poisonous to tropical fish. Using a water conditioner instantly neutralizes these chemicals, making tap water safe for fish. In the future when you add water lost do to evaporation you must always use a water conditioner to make tap water safe for your fish.

Tap water will not have the correct salt content and pH for saltwater fish. Synthetic sea salts are readily available and easy to mix. A device called a hydrometer is used for measuring the salt level of the water in the aquarium. The desired salt level (specific gravity) for saltwater aquariums is 1.020 to 1.025. Without the correct salt level fish cannot properly breathe making them more vulnerable to disease. Most saltwater fish thrive at a pH of 8.2. Products are available to help set the proper pH fish need.

## **Choosing fish for your aquarium**

Once your aquarium is ready you will want to add fish. But remember only a few fish at first! It takes time for the aquarium to develop the natural balance required to handle a full tank of fish.

Adding fish to your aquarium...The new fish will be stressed from netting and bagging. The best method to add new fish is to float the unopened bag of fish in

the filled aquarium for 10 minutes to allow the fish to adjust to the water temperature. Then, open the bag and gently release the fish into the aquarium. The bag water may contain fish waste, so try to avoid adding the bag water to the aquarium. Whenever fish are netted and handled their protective slime coat is rubbed off. When adding fish be sure to add a water conditioner to help relieve stress.

## **Establishing biological filtration**

Biological filtration is simply the action of beneficial bacteria in the aquarium consuming fish waste. Fish release urine, ammonia, and solid waste into the aquarium water. This fish waste can build up, especially during the first few weeks of starting a new aquarium. Fortunately, beneficial bacteria, called nitrifying bacteria, convert fish waste (ammonia and nitrite) into harmless nitrate. This process, is called the nitrogen cycle. Nitrifying bacteria need time to grow and develop. If too many fish are added all at once or if too much food is added, ammonia and nitrite levels will reach poisonous levels. To start up the biological filter add a beneficial bacteria product to help the biological filter get started.

Ammonia and nitrite levels should be tested twice a week after the first fish are added. The levels will rise and fall as the biological filter develops. As the biological filter grows it will convert the ammonia to nitrite (also poisonous), then to nitrate. Once the biological filter is established, ammonia and nitrite will remain at zero levels. It usually takes about four weeks for the biological filter to become established.

As soon as the biological filter is established more fish can be added. Only add a few fish at a