

More Tips for Beginners **Reprinted from the March, 1993 Goldfish Report**

Lately, I've had quite a few friends who have set up aquariums (maybe I can get them to join the Society). Being new to the hobby, they invariably want to know what to do when first starting out. The center article in the November 1992 issue of the Goldfish Report entitled "Tips for Goldfish Keeping" was very handy – I passed it out to some of my friends. Here then, are some more hints.

1. Read. Get a book about goldfish. There are several good guides published for beginners. The Goldfish Society book, GFSA Handbook is ideal for new hobbyists. Robert Mertlich's book Goldfish: A Complete Introduction is very well written, and should be read by every new hobbyist.
2. Decide on what size aquarium you will want (and then get what you can afford). Most literature recommends a minimum size for goldfish of 10 gallons. If you can, get a 20 gallon tank; your fish will quickly outgrow a 10 gallon tank.
3. Properly equip the aquarium. Filtration is essential. It is essential that you get a biological filter (under gravel, Penguin Biowheel, Supreme Power Filter, Second Nature Power filter, etc.) to remove ammonia build-up, nitrates, etc. An aquarium cover and light are also necessary. Don't forget to have some method of aerating the aquarium to provide for the exchange of gases at the water's surface (author's note: over the years, I'm convinced the adequate aeration is responsible for maintaining good color and skin quality in goldfish and koi).
4. Once the aquarium is set-up, don't rush out and fill it with fish. Allow the aquarium to cycle (i.e. the Nitrogen cycle). The process of establishing a biological filter and converting ammonia to nitrate and then nitrites is known as cycling. The process of starting the biological filter to cycle and convert ammonia to nitrate can take from 6 – 8 weeks, and can be aided by bacteria cultures. The cultures can be taken from existing biological filters or from bacteria starter cultures. If you are unable to get the filter cycled through use of a starter culture, daily partial water changes and/or use of ammonia detoxification products may be called-for.
5. Don't overcrowd the aquarium. Most new hobbyists have a tendency to buy too many fish for their aquarium. Over crowding leads to poor environmental conditions, which in turn, leads to stress, which leads to disease, and ultimately, dead fish. Populate the aquarium in moderation.

For a 10-gallon aquarium, start with 1 – 2 small fish, maximum. For a 20 gallon, 2- 3 small fish are ideal. When in doubt, err on the safe side, i.e. less fish (author's note: my stocking densities have changed over the years, I currently stock 2 fish per 30 gallon aquarium).

6. Be prepared to spend 1-1/2 to 2 hours per week on aquarium maintenance. If you can't afford the time, don't bother getting started. Poor environmental conditions lead to dead fish. Good housekeeping includes regular changing of the filter medium, cleansing of gravel and sides of the aquarium, partial water changes of between 10 – 20% per week, and cleaning of the filter containers (in the case of power filters) every few months.

Most new hobbyists wonder why water changes are necessary. Perhaps the easiest way is to show them. Lift up the aquarium cover just before performing weekly maintenance. It will be coated with a white film across the surface of the plastic. This white film is an accumulation of mineral salts which have leached out of the water (through evaporation) and onto the plastic of the aquarium cover. Minerals tend to become more concentrated as water evaporates. In addition to minerals concentrating, ammonia and nitrates tend to build up over time (even with biological filtration). The addition of fresh water dilutes these minerals and removes trace concentrations of ammonia and nitrates.

7. Feed your fish a varied diet. An assortment of high quality foods is available for your goldfish, and range from floating to sinking food types. Avoid feeding your fish the same food day after day, at a bargain price. This is a dubious savings, and your fish will eventually die. Feed several different food types, and mix in an occasional treat of live earthworms (size these to match the sizes of your fish); live or frozen brine shrimp, small insects, boiled shrimp or fish, etc.
8. Be patient. Most new hobbyists want their fish to look the same as the ones they saw in the pet shop, or at a fish show. Another equally common occurrence (I did it myself when I first started raising goldfish) is to invent diseases which your fish have succumbed-to. If you have maintained good water quality, proper filtration, good nutrition and effective quarantine methods, your fish WON'T GET SICK. Leave them alone, they'll be fine.

If unusual behavior develops or persists, then maybe something's wrong. Usually, new hobbyists are not sure how fish react, so every time the fish does something different, the new hobbyist assumes something is wrong with the fish (I wonder how many fish I killed when I first got started by

treating them for diseases they never had). When in doubt, do a partial water change – this usually helps with most problems. Perhaps the easiest way to tell if a fish is healthy is by observing the dorsal fin (sorry for you new hobbyists with Ranchus, Lionheads, and Bubbleeyes). If the dorsal fin is erect while the fish is swimming and resting, chances are, the fish is healthy. If the dorsal fin is droopy or ragged, it is a good bet that the fish is diseased.

9. Don't wait for the perfect fish – generally you won't find it. Of the nine goldfish I currently have, only 2 were bought as show quality fish. The rest are fish somebody else didn't want (usually my daughters, who decide they don't want fish every other day, it seems). The other 7 fish I have ranged in price from \$0.79 to \$2.49, yet they look very nice and have caused my friends to start fish keeping. Why? I'm convinced that true show quality fish are the result of selective breeding and bloodlines. If a fish doesn't have the genes to be a show fish, well, it never will be a show fish. On the other hand, good care can transform an ordinary fish into a beautiful fish. It may never win a show, but it can be quite nice in a home aquarium.
10. When you think you've mastered the art of aquarium keeping, read some more. Subscribe to aquarium magazines, purchase more advanced books, read about wetlands, natural filtration, etc. The more you read, the more ideas you get, and the better a hobbyist you become.