## EFFICIENT MANUAL WATER CHANGES



Hose, coupler, and water mixing faucet

Changing water is the \#1 task of aquarists who want to keep healthy fish. I am truly impressed with a number of fishrooms that have drilled tanks, enclosed systems, and automatic water changers. It seems that they save time and effort for more enjoyable tasks with our fish. When I set up my fishroom in the early 1980's, that was not an option for me, so I tried to design it for efficient manual water changes. First of all, it was critical to have a sink and sump pump as close as possible to my fish tanks. This allows quick and close access to draining and filling water. Our laundry sink and sump well are less than 10 feet away from my fishroom, and I installed a $5 / 8$ inch garden hose that reaches all tanks in it. The other end of the hose will drop down into the sump well about 3 feet below the basement floor for quicker siphoning. Also on that end is a removable hose coupler that attaches to the sink mixing faucet so I can fill up the tanks with the same hose.

## SIPHONING

Place the siphon in the first tank under water. It can be secured there with a piece of coat hanger wire around the hose with a hook in it. The end should be covered with a piece of plastic screening to prevent fish from going down the drain. My tanks are close together, so I can quickly jump from tank to tank while siphoning and not break the siphon, but if tanks are farther apart, one could kink the hose or use an in-hose valve when going from tank to tank. A 5/8 inch garden hose is the largest readily available, but if one wanted to try a 1
inch hose, it would go faster. Valves and couplers can reduce the diameter of the water flow through the hose, so I remove the coupler on the siphon end before I start the siphon by sucking and placing it into the sump well (don't suck for too long!!). If the tanks have no gravel and there is loose detritus, the siphon can be directed around to pick it up. The higher the tanks, the faster the siphoning, but even my lowest tanks get 3 feet of drop. Once the siphon is started, I go into the fishroom to jump the siphon from tank to tank. There are 28 20-gallon tanks on my main rack, and I can drain them $40 \%$ in about an hour.

## REFILLING

To refill the tanks with tapwater, I put the coupler on the end of the hose and attach it to the mixing faucet on the sink. In the fishroom, I place that end of the hose in the first tank and secure it. I have a gallon milk jug with the top cut off ready to collect water coming out as I move from tank to tank or around posts. All tank tops should be open and ready to receive water. The mixing faucet has both hot and cold water going together. It is metal and I can feel the temperature of the mixed water with my hand. I start with the hot water and as it gets warmer, turn on more cold. When it feels about right, I rush to the fishroom to check the temperature of the water in relation to tank water and adjust that if needed. From there I just jump the running water flow from tank to tank until finished. For the last tank, I watch it fill up, then turn off the water at the sink. Fill up takes less time than siphoning my 28 tanks, about $3 / 4$ hour. I usually don't have to add dechlor if I only change $30-40 \%$ of the water and the temperature is close.

I realize that each situation is different. Hopefully, people can grab a few tips on water changing from this article to make their efforts more efficient. For more articles on fishrooms, go to my "Breeding Tropical Fish" website at: www.chasesfishes.net.

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