

Cherry Shrimp Step by Step Photos and story by Jack Rowland



So you want to raise red cherry shrimp (*Neocaridina denticulata sinensis*)? Be careful, because once you get the shrimp bug it may be impossible to stop! Here are the basics I've learned the hard way and at the expense of some poor little shrimp.

Setting up the tank: The first thing to have is a tank of at LEAST 10 gallons. Smaller tanks can get water quality problems very quickly; a larger tank gives you more cushion. 10-gallon tanks are the least expensive—even cheaper than 5 gallon tanks, go figure! Bigger tanks are better, within reason. When getting a larger tank, opt for the L version, meaning long or breeder tanks. Shrimps do not require a lot of depth, so you can get more shrimp in an L tank than a deep tank.



Get an under-gravel filter and any cheap over-the-side filter (like a Whisper size) for your tank. Throw out the bubbler parts and simply put it together with the two halves open underneath and use a single up tube. Connect the filter so that the intake tube for the Whisper filter sticks into the bubbler tube of the filter. Now you have a nice powered under-gravel setup with the ability to use special filtration should you need it. The reason for this is that shrimp will get sucked into a normal filter. They normally survive this, but not always. Keep the water level below the top of the bubbler tube if you don't seal it with a rubber o-ring.

I get my gravel from any of the local home centers. I use the small aggregate used for making concrete or just plain old white sandbox sand. Check to be sure that it is a quartz-based or granite-based rock and not limestone or marble. Carbonate rocks will make water chemistry VERY difficult. You want 1 to 1.5" of fine gravel. Too small and it will fall through the slats in the filter.

Too large and the shrimp will go down into the filter. You don't want either to happen. To use play sand you must get some plastic screening as is used in windows. Cover your filter with this so the sand can't fall through.

You need to test your tap water and see if it is hard, soft or someplace in between. Red cherry shrimp like hard water that is basic with a pH of around 7.5. They can tolerate a much wider range of pH from the mid 6's to the mid 8's but the mid 7's are the best in my experience. They also like medium hard water but do fine in very hard water. My town water is about 200 ppm (parts per million)

total hardness and most of that is carbonate hardness. My shrimp thrive in that water. You need to remove any chlorine or chloramines in the water. I use Amquel+. SeaChem Prime is also very good but has a bad smell.

Controlling pH: Be VERY careful if you are tempted to use buffers to control your pH. Never Never Never use a phosphate-based buffer! Phosphate levels > 5 ppm will prevent your shrimp from breeding and will also cause them to lose color. The same goes for plant fertilizers. Read the label and be sure you do not increase phosphates to a level >5 ppm. SeaChem Acid Buffer and Alkaline Buffer do not contain phosphates, but things like Neutral Regulator or Proper pH do. If a buffer does not say it is phosphate-free it is LOADED with phosphates. In general, if you have the right hardness levels your pH will be fine and stay there. A SMALL amount of coral put in the filter will help. Using coral or marble substrate will result in a pH too high for cherries.

You should set up your tank several weeks in advance to get the bacteria established. Water quality issues are the biggest reason people fail to be able to keep shrimp. The easiest way to get the bacteria is to squeeze out the foam filter from a tank that has been running a while. Robbing water from a running tank also speeds thing up, but don't push the 2-week setup time. Plan ahead. You can also "rent" a fat feeder goldfish for a while until the shrimp come. These cost about 25 cents each and are no huge loss if they go belly up. Their fate is sealed anyway. The fish waste will fuel the bacteria and get things going. Just feed him well and then take him back to the store before the shrimps come. Even better, evict all the fish from an established tank.

Water temperature: I maintain a constant 78 degrees. 70-80 degrees Fahrenheit is their "comfort zone" but they will survive temperature down to the 40's. Try never to go higher. A note about heaters: Get one that is calibrated in degrees and has a temperature sensor separate from the heater. The +/- types do not maintain a constant temperature and are prone to run-away failures. I use a ViaAqua stainless steel heater. These are really reliable heaters. I went to these after a heater run-away cooked a tank of shrimp—very sad.

Plants: The best choices for shrimp are java fern (*Microsorium pteropus*), javal moss (*Vesicularia dubyana*) and guppy grass (*Najas guadalupensis*). Crystalwort (*Riccia fluitans*) is also a good choice but be careful not to mix it with java moss or guppy grass as it will get all tangled up. You also need to shield the flow from the filter so the Riccia isn't blasted all over the tank. These are all easy to grow and the shrimp love them. Be sure your aquarium hood will support a couple of daylight fluorescent bulbs. The aquarium grow lights give the shrimp a funky color. The bright light will stimulate plant growth. Cherries also get better color when they have good light. I use a hood that is designed for the screw-in type bulbs and replace them with compact daylight fluorescents from the pet section of Wal-Mart. A 12-hour day works well with shrimp, so set your timer accordingly.

Before you order your shrimp, be sure to test your water for ammonia and nitrites. You should not be able to detect any. Also check that your pH is in the 7-8 range. If you don't meet this, then the tank is not yet ready.

OK: you have your tank set, it has cycled enough and your shrimp arrive. Most likely they will be Juvies or juvenile shrimp. These are widely reported to transport better than adults. The likelihood of Juvies being tank-bred rather than caught from the wild is also much higher.

Tank-bred shrimp are adapted to the aquarium life and seem to survive better. The only downside to young shrimp is that you must wait a while for them to get to breeding age. Be sure to float the bag in the tank for 20 minutes or so to let the temperature equalize,



then drop them in. Don't be surprised if your shrimp don't have much color when you first get them. They lose their color if they are stressed. Once you have them they should color up in a couple of weeks. If they don't or if they lose their color they are probably stressed and you should suspect a water quality issue.

If you are tempted to keep fish with your shrimp be very careful about the selection. Most fish view shrimp as food and even gentle fish will take a baby shrimp if they get the chance. If your fish likes any sort of live food like brine shrimp, they will likely go after the babies. Fish that have modified mouths like plecos and ottos (*Otocinclus*) are safe, but few others are totally safe. If your tank is very well planted the shrimp will be able to hide enough that they will breed faster than they can be eaten. Endler's Livebearers are fairly safe as their mouths are very small and they can't even eat their own young. Bettas, Cichlids, regular guppies, and just about any other fish are out. Shrimp really need to have their own tank. It is often bad to even mix species of shrimp in the same tank. Snails

make great tank mates. I keep Malaysian Trumpet Snails (MTS), regular pond snails and Apple snails. The apple snail is moved in when the Java Moss gets out of control, and when he eats it back enough he goes back to another tank.

Feeding: The rule is to not overfeed. Let me repeat that: DO NOT OVERFEED!!! These animals are SMALL. They can't eat very much. I have a tank with about 150 cherry shrimp in it and they get 1 small pinch a day. That's it. If you overfeed your shrimp they will die, period. Make sure you are the only one feeding them too. It took me a while to figure out my son was putting in food every time he would look at the tank. He meant well, but the shrimp died. I use algae-based food like Nutrafin Spirulina Algae Flake food and ColorFin Sinking Granules (goldfish food). You can also put in a dried oak leaf and let them work on it until it is gone, then just replace it.

Water Changes: A 20% water change weekly is mandatory. Don't fool yourself into believing that the filter will take out all the bad stuff and all you do is need to add makeup water. Failing to do water changes will kill your shrimp slowly and painfully. The process



is quick and simple. In a 10-gallon tank, drain out 2 gallons and refill the tank using de-chlorinated water or reconstituted R/O water. Products like R/O Right or Electro-Right will convert your R/O water to the correct hardness. Pure R/O water is good for evaporation, but should not be used straight for water changes. Use a net over the siphon so you don't suck out shrimp.

What to expect: Juvenile shrimp don't have much color. When they become sexually mature you will notice some speckles of red on the females. The males never do color up. You should notice a golden saddle forming on the female's back. These are her ovaries.



After about a month she will molt, mate and then you will see the eggs on her swimmerlets. Don't worry about the shell. They like to eat it for the calcium and minerals. If the eggs are fertile they will stay there for around a month and then hatch. Otherwise they just drop off. The eggs start off a creamy yellow color and change to sort of a greenish color a day or so before hatching.

The ones pictured here are hatching eggs for the first time; you can see that it is not unusual for them not to be fully colored up their first time around.



Newly hatched cherries are fully formed shrimp and will eat the same things as adults. The one pictured here is about a day old and is about 1/8" long. No special care is required. In about two months the young will mature to reproductive age. Each time the females get ready to lay eggs they will color up intensely and may lose a little color once they hatch their eggs. A fertile female will already be showing a saddle before the eggs hatch and will often molt and be carrying eggs again within a week.

With proper care they will live for two years or more and the females can produce as many as 30 babies every two months. If you keep proper care of these shrimp you will have the problem of figuring out what to do with all the extras!

Once you get above about 30 adults in a 10-gallon tank it will be time to "thin the herd" and find suitable homes for the extras. Starting a 2nd or 3rd tank is always an option and will hedge your bet against some sort of disaster, like a run-away heater or a pH spike. Keep the ones with the best color to improve your stock.

Good luck & happy shrimping!