

THE SEAHORSE CHRONICLES

TEN STEPS TO SETTING UP A SUCCESSFUL SEAHORSE AQUARIUM — PART ONE

by BERNARD HARRIGAN

There are probably as many ways to set up an aquarium as there are people keeping fish. Even though the main focus of this article is to provide instruction on how to create an environment where seahorses could thrive, and maybe even breed, in the home aquarium, the information here isn't just limited to seahorse keeping. What it encompasses could be applied to a reef tank, a standard saltwater tank, or even a freshwater aquarium. My hope is that this article will open your mind to things that you might not think of when you set up your next aquarium, no matter what type it is.

Step One: Have a thorough understanding of marine aquarium management

Seahorses are marine creatures. A saltwater aquarium is more complex than a freshwater aquarium. It might seem like I'm stating the obvious, but I feel it needs to be said. If you have never kept saltwater before, learn how to do it before you even think about keeping seahorses.

Talk to other marine hobbyists. Go check out their tanks. A mentor is great. You can learn from their costly mistakes, instead of making your own. I had three friends to help me get my feet wet with saltwater: Todd, Seth, and Jason (as in Jason Kerner). I would have been lost without these guys.

The first thing they told me was to read everything I could on the subject. A few books I would recommend are The Marine Aquarium Reference by Martin Moe, The New Marine Aquarium by Michael Paletta, Successful Saltwater Aquariums by John Tullock, and Marine Reef Aquarium Handbook by Robert Goldstein. There are hundreds of other titles, but this list is a good cross section of what's out there. If you were to only read one book, make it Martin Moe's.

The Net is another great place to get information. Ask your friends or your mentor which sites are the best for good solid information. Not everything on the Net is good or true. Certain

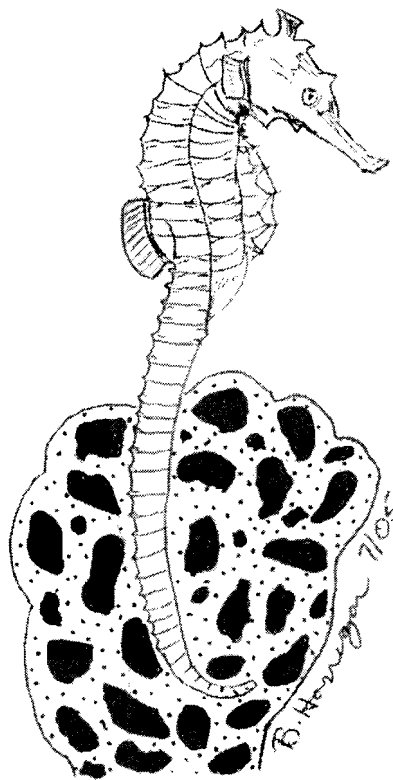
manufacturers have been known to pose as hobbyists just to push their own products.

Lastly, magazines are great, both for up-to-date information on aquatic animals, as well as the latest equipment and technology on the market. One of those friends I mentioned before, Todd, would read all the advertisements in Freshwater and Marine Aquarium Magazine before he started to read a single article.

Step Two: Research and decide on the species of the seahorse you want to keep

Yes, there's more than one species of seahorse. Project Seahorse recognizes 33 different species, so far. Seahorses come from both temperate and tropical waters. They range in size from as large as 13¾ inches (350 mm) for the Potbelly Seahorse, *Hippocampus abdominalis*, to as little as 5/8ths of an inch (16 mm) for the typical Denise's Pygmy Seahorse, *Hippocampus denise*.

Each species of seahorse has its own set of requirements, including tank size, stocking density, and feeding. You wouldn't expect the Potbelly Seahorse to fit in a tank that's meant to hold a pair of Denise's Pygmy Seahorses, or believe that a shrimp meant for the Potbelly could even fit in the mouth of Denise's Pygmy, would you? Before you buy your seahorse, learn what it needs. Find out what behavior you can look forward to seeing when conditions are right.



Drawing by Bernard Harrigan

Know what to look for when a seahorse is having trouble. Some seahorses have more demanding requirements than others. It's best to know these requirements beforehand. If you'll have difficulty meeting these needs, why would you want to buy that species? To paraphrase a commercial, "an educated consumer makes the best hobbyist."

Step Three: Getting the Right Tank and Situating it Correctly

Unlike most fish, seahorses swim in a horizontal position. Their heads are up and their tails are down. Because of this, they need taller tanks. Look for a tank that gives the seahorse a vertical swimming range that's at least twice their height. I'm not talking about the tank being twice as tall as the fish. I'm talking about "vertical swimming range." Let me explain.

Take a 20 High with a height of 20 inches. Let's say that you have three inches of substrate. Subtract 3 from 20, and you have 17 inches. Take another inch away because the water doesn't reach the tippy-top of the tank, so you subtract another inch for airspace. You're now left with 16 inches of vertical swimming range. That's not enough swimming range for the Lined Seahorse, *Hippocampus erectus*. They need a minimum of 18 inches, so a tank that's 20 inches high is too low.

The number of gallons a tank should hold also depends on the type, as well as the number, of seahorses you plan on keeping. This is very important. I've used a 40 High to house four *H. erectus*, and kept six Dwarf Seahorses, *H. zosterae*, in a 20 Hex. I've created a chart that lists some commonly kept seahorses, just to make it easier. The chart lists the minimum height of the tank for each species, the minimum number of gallons needed for one pair and for each additional pair. I've also included the temperature ranges for each species.

	Minimum Tank Height	Min. Gallons for one pair	Min. gallons for each additional pair	Temperature range
<i>Hippocampus abdominalis</i> "Potbelly Seahorse"	30"	15	+60	65° - 70° F
<i>Hippocampus barbouri</i> "Barbour's Seahorse"	15"	10	+15	70° - 80° F
<i>Hippocampus breviceps</i> "Short-snouted Seahorse"	10"	5	+10	65° - 70° F
<i>Hippocampus capensis</i> "Knysna Seahorse"	12"	5	+10	65° - 70° F
<i>Hippocampus comes</i> "The Tiger Tail Seahorse"	18"	10	+15	75° - 80° F
<i>Hippocampus erectus</i> "Lined Seahorse"	18"	10	+15	75° - 80° F
<i>Hippocampus fuscus</i> "Sea Pony"	15"	5	+10	75° - 80° F
<i>Hippocampus ingens</i> "California Seahorse"	28"	15	+45	70° - 75° F
<i>Hippocampus kuda</i> "Yellow Seahorse"	17"	10	+15	75° - 80° F
<i>Hippocampus reidi</i> "Brazilian Seahorse"	18"	10	+15	75° - 80° F
<i>Hippocampus trimaculatus</i> "Three Spot Seahorse"	17"	10	+15	75° - 80° F
<i>Hippocampus whitei</i> "White's Seahorse"	15"	10	+15	70° - 75° F
<i>Hippocampus zosterae</i> "Dwarf Seahorse"	5"	2.5	+5	75° - 80° F

You will see the word "minimum" used a lot. In the wild a single seahorse could have a territory of 350 square feet or more. I don't know

of any hobbyist with a tank that big. You should never worry about providing a tank that's too big for your seahorses, only too small. The larger the

tank, the more natural the setting and the more stable your aquarium parameters will be. The smallest tank I would use is a 20 gallon.

Now that you have your tank, where will you put it? I suggest a place where you spend a lot of time, somewhere you can appreciate and carefully watch your seahorse aquarium. You will get more enjoyment from it, and quickly spot trouble in case it arises. Nearby sources of water and electricity would make it ideal. Two of my favorite locations are in the livingroom next to my favorite chair, and in the kitchen near the breakfast nook.

Where **not** to put it? Don't choose a heavy traffic area that people are always passing through but not spending time in, like the hallway, or near a window that gets too much direct sunlight. Sunlight can cause an explosion of algae, and heat your tank to stressful levels during the summer. Check the flooring for weak boards or warping. If your tank isn't in a strong, stable, and level location it could fracture or crack.

After your tank was made, it was probably stored in a warehouse and then remained as stock in the pet shop for a few months. During that time undesirable things may have accumulated inside (dirt, dust, and maybe even pesticides could be

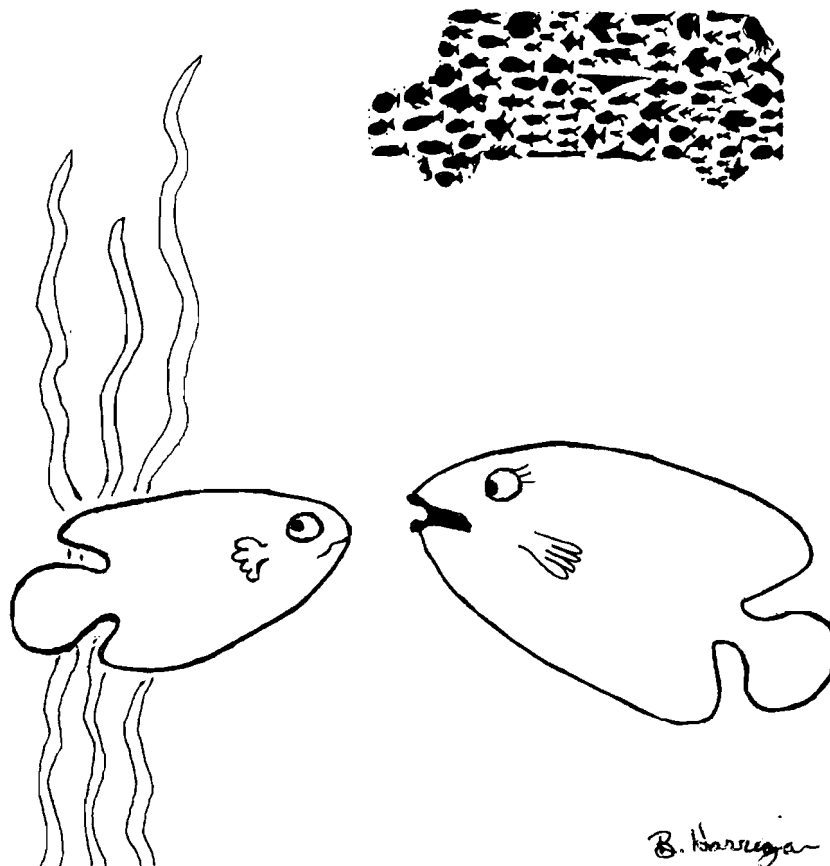
coating the inside of that tank). Wash the inside with a mild vinegar solution and then rinse it out. Old tee-shirts work great as a rag for this type of work. Just make sure it's the first time that the tee-shirt is being used as a rag. This way, there won't be any harsh chemicals on it. (Why do fishkeepers always have tons of tee-shirts?) Never use soap. Soap residue can poison your fish.

Cut a piece of one half inch thick Styrofoam Board that's used for home insulation slightly larger than the size of the bottom of your tank. Put this on the stand and put the tank on top of it. This cushions the tank, helps stabilize the tank's temperature, and cuts down on any vibration that might be felt. Water is a good conductor of sound and vibrations, and can actually amplify them. One of the ways fish communicate with one another is through a special organ that picks up vibration, much in the same way our ears pick up sound. Motors, pumps, speakers, filters, or air pumps can all make excess vibration. To have an aquarium with a constant strong vibration would be like living inside a loudspeaker. It could really stress your seahorses, or any fish for that matter.

Watch for Part Two next month on Filtration, Lighting, and Saltwater.



The Amusing Aquarium



"Hurry Algae, or you'll be late for your first day of school."