

THE SEAHORSE CHRONICLES

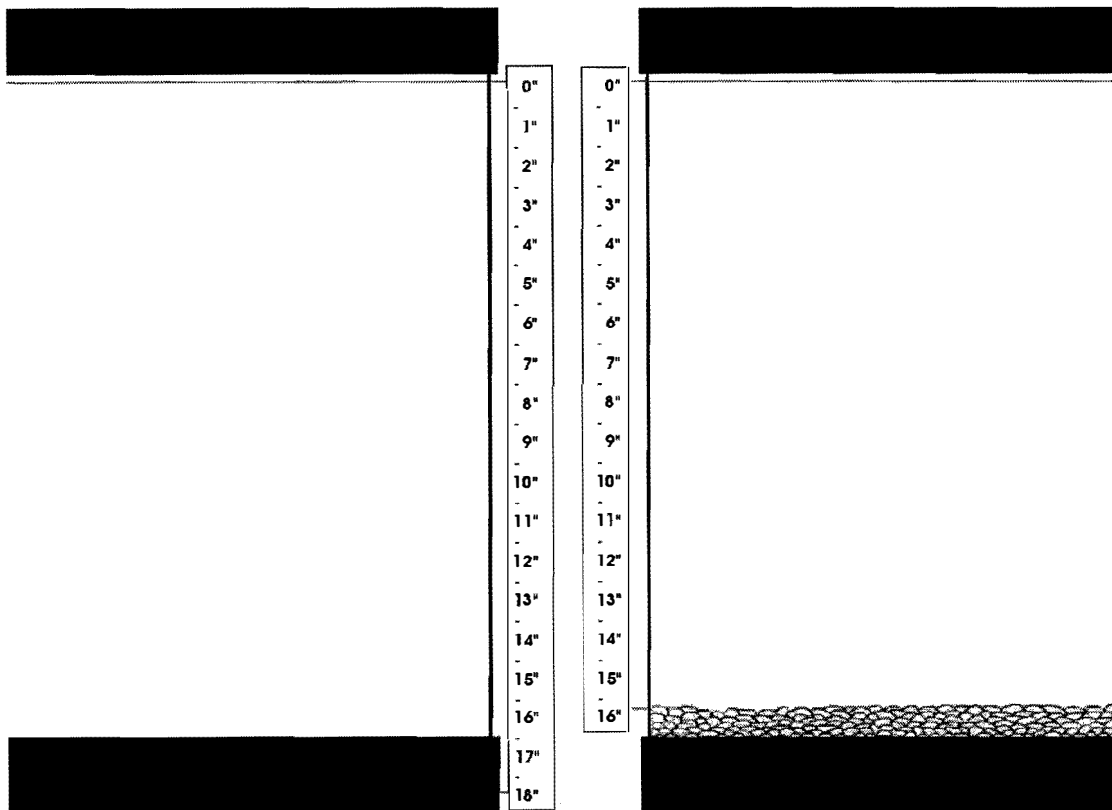
BREEDING SEAHORSES - PART 1: SETTING UP THE TANK

by BERNARD HARRIGAN

Saying that seahorses are unique in the animal kingdom is like saying that the surface of the sun is hot. They look as if they've been put together from parts of over half a dozen unrelated animals. They have a suction pistol for a mouth, and they swim erect, so it should come as no surprise that these nonconformists breed in a very unique way. They're the only animals where the male gets pregnant and gives birth.

Seahorses breed easily in an aquarium, but if you're not ready for it, or don't have things set up right, both you and your seahorses can end up being frustrated. All seahorses basically breed the same way, with some minor variations depending on the species. In this, Part One, I'll go over an average breeding setup. Part Two will go into the actual breeding itself, and some of the common pitfalls you could run into. The last part will cover raising the fry, which is the hardest part. Before you give this a try, research the needs of your particular species, and read all three parts of this series at least once.

When it comes to seahorses, a tall tank is a good tank. "How tall?" you ask. That depends on the species of seahorse. Seahorses do a kind of courtship dance. Unlike us, the "dance" isn't just horizontal movements, but includes more vertical movements. At one point they will face one another and swim upwardly. In the end the female will be belly to belly with the male, passing her eggs to him. If the seahorses don't have enough vertical room to swim up together, breeding will be next to impossible. The taller the tank, the easier it will be for them. The least amount of vertical swimming room that the tank should have is twice the maximum height that your species of seahorse can grow. Notice that I didn't say the minimum tank height you should have. That's because seahorses don't care if the tank is 15 inches tall, if they can only swim 13 inches, and they need 14 inches. Gravel and airspace take up vertical swimming room. The drawing below should clarify this point.



Clean water is important, so have good biological filtration and a protein skimmer. Just make sure you don't turn your aquarium into a Jacuzzi. Seahorses are poor swimmers. Strong pumps or badly directed outlets can cause undesired turbulence. This is not good when you're trying to breed any *Hippocampus* species. As I mentioned earlier, seahorses will do a dance, getting belly to belly in order to breed. They will do this dance over and over, until the female's ovipositor and the male's pouch are not only touching, but are lined up precisely and at the correct angle.

Pete Giwojna, a world-renowned expert on seahorses, gave the best analogy of seahorse copulation I have ever read. It was in an article he wrote which was called "Seahorse Breeding Secrets." Here is a quote from the article: "If you have never had the privilege of watching your seahorses mate, imagine newlywed skydivers attempting to consummate their marriage in freefall... The last thing they'd want to contend with at the moment of truth are swirling air currents, or a little wind shear!" If your seahorses are trying to breed, the last thing they want is strong currents making for a tricky docking.

Having the right lighting will help set the right mood. No, I'm not taking about installing a dimmer switch or using candlelight. A normal fluorescent strip is fine. What signals seahorses to make whoopie is the length of photoperiod. For many seahorse species, once the sun stays out for over 12 hours, it's time to dance. This is especially true of the dwarf seahorse, *Hippocampus zosterae*, but for others as well. Plug your tank light into a timer, and have the time set so that the lights stay on for at least 13 hours, and then watch the romance flow.

To furnish this aquatic boudoir, you first need to remember that the lovers need room to dance, so keep the center of the aquarium clear and unobstructed. They also need to feel comfortable and relaxed in the tank. Since they are shy by

nature, and rely on not being seen in order to catch a meal, as well as not becoming someone else's meal, they need a hideout. For a hideout, all they need are a few hitching posts to hold on to. In nature, they'd use seagrass, coral, or any anchored item they can get their tail around. In the aquarium, you can use artificial coral, plastic plants, or even that "Little Mermaid" tank decoration that you have stashed on the side. It doesn't matter that much to the seahorses. Put a few on both sides of the tank. This way, they have an option of where they want to go and relax. Without a place to relax, your seahorses will be stressed out, and the last thing on the mind of a stressed out seahorse is hooking up to mate.

If you noticed, I said artificial coral and plastic plants. This is not a "show tank," so your esthetic sense takes a backseat to what you are trying to accomplish, which is breeding seahorses. Form follows function. Some manufacturers make very realistic reproductions of marine plants and coral, but your seahorses won't really care how they look.

Real coral and marine plants have their own set of needs and requirements. Some can be quite demanding, and completely opposite of the needs of your seahorses. The only other livestock I would put in the tank, besides the betrothed seahorses, are a few turbo snails.

Every living organism adds to the bioload of the tank and contributes to the deterioration of its water quality. Other fish could harass, or out-compete the seahorses for food. Crustaceans are aggressive and could eat baby seahorses. Corals need stronger water movement, and could sting them. Even *Caulerpa*, and other marine plants, need special lighting. The bottom line is, if it's not a major plus for what you're trying to do, then don't add it.

In the next installment, I will talk about the actual courtship, and the mating itself. I'll also go over some common problems which you might run into.



**Minimum Vertical Swimming Room
For Common Seahorse Species**

<i>H. abdominalis</i> (Potbellied Seahorse)	28"
<i>H. angustus</i> (Narrow Bellied Seahorse)	7"
<i>H. barbouri</i> (Barbour's Seahorse)	12"
<i>H. barboniensis</i> (Réunion Seahorse)	12"
<i>H. breviceps</i> (Knobby Seahorse)	8"
<i>H. camelopardalis</i> (Giraffe Seahorse)	8"
<i>H. capensis</i> (Cape Seahorse)	12"
<i>H. comes</i> (Tigertail Seahorse)	15"
<i>H. erectus</i> (Lined Seahorse)	15"
<i>H. fuscus</i> (Sea Pony)	12"
<i>H. guttulatus</i> (Long-Snouted Seahorse)	15"
<i>H. hippocampus</i> (Short-Snouted Seahorse)	12"
<i>H. hirtix</i> (Thorny Seahorse)	14"
<i>H. ingens</i> (Pacific Seahorse)	25"
<i>H. kelloggi</i> (Kellogg's Seahorse)	13"
<i>H. kuda</i> (Yellow Seahorse)	14"
<i>H. reidi</i> (Slender Seahorse)	15"
<i>H. spinosissimus</i> (Hedgehog Seahorse)	15"
<i>H. subelongatus</i> (Tiger-Snout Seahorse)	16"
<i>H. whitei</i> (Sydney Seahorse)	11"
<i>H. zosterae</i> (Dwarf Seahorse)	3"