

# A Swimming Dragon

by BERNARD HARRIGAN

Creatures from mythology (e.g., ogres, fairies, and goblins) are derived from our reverence, our fear, and our imagination. Some are combinations of animals that our forefathers dreamed up into fabulous beasts. Some examples of such creatures are Pegasus (with the body of a horse and the wings of a bird), the chimera (with the head of a lion, the body of a goat, and a serpent's tail), and even the mermaid (which was half woman, half fish). There were even mythical places, such as Brigadoon, Olympus, and the River Styx.

Even with all the fanciful folklore of bizarre beasts contrived from the corners of our minds, we can't come close to what God has placed upon this planet. There's a creature that seems to be straight from Atlantis; an animal that can be looked at as a sea monster if it wasn't for its diminutive size. It is a gastrerosteiform that seems to be a combination of the fish world and the plant world. It is a fish that looks so mythical that it's called a "dragon" — the Leafy Seadragon.

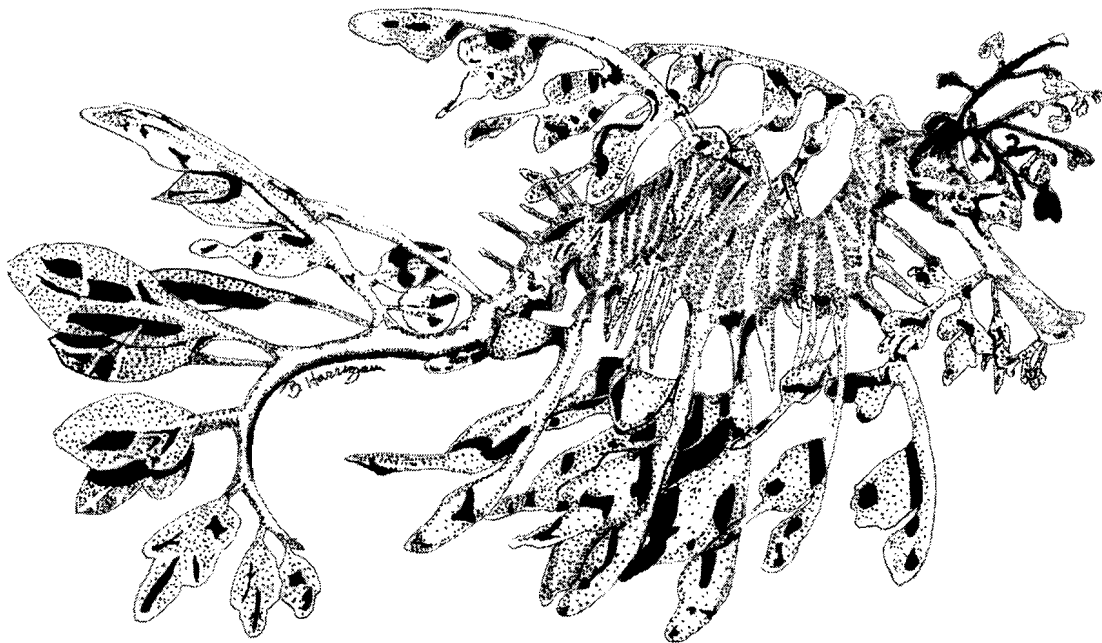
Leafy Seadragons, *Phycodurus equus*, is only one of two species of seadragons that exist in the world. The other is the Weedy Seadragon, *Phyllopteryx taeniolatus*. Both are found off the southern and western coasts of Australia, from Kangaroo Island to Rottnest Island. They hang out among kelp-covered rocks along sandy areas at depths of from 3 to 50 meters below the low tide line. They are part of the Sygnathidae (Greek

meaning fused jaw) family along with pipefish and seahorses.

I say "hang out" because they do that more than they swim. Ultrasound has been used to track their movements in the wild. It has been observed that they can spend up to 68 hours without moving. When they do move, it is in short spurts, traveling at from 5.5 to 46 feet per hour. The saying "a snail's pace" could easily be changed to "a seadragon's pace." Its slow movements generally mimic the seaweed around it, helping it to blend in with its surroundings.

Propulsion is provided by its dorsal fin. Steering is achieved by using the pectoral fins. Both types of fins are nearly invisible. Elaborate green leaf-like cirri extend from its head, body, and tail, making it virtually indistinguishable from the seaweed. Its body is covered with armor-like boney plates for protection, but this limits its mobility. The body is yellow with white stripes, and sharp spines run along its back. Seadragons curl up into a ball of spikes as a defensive posture. It's no wonder that the adults have no known predators.

Its head is seahorse-like with a long snout, and eyes that move independently in turret-style sockets. Its body is flat with an oscillating curve running down it. There is no prehensile tail. It moves with its body horizontal, as opposed to a seahorse, which moves with its body vertical.



Like seahorses, during mating the female transfers her eggs to the male, and he fertilizes them. Unlike seahorses, the eggs are held on a brood patch, not in a pouch. The brood patch is comprised of a couple of hundred little cups. Each egg gets its own cup. The female can transfer anywhere from 100 to 250 eggs. Each egg adheres to a cup, and receives oxygen through it. The brood patch is located along the underside of the male's tail. That's where the eggs will stay for about a month to a month and a half. The brood patch develops only during the breeding season, which runs from August until March of the following year. The only time the sex of the fish can be determined is during breeding season. Seadragons can breed twice in one season.

Upon hatching, the fry look just like little seadragons. They're totally independent at this point, receiving no help from either parent. They will feed off their yolk sac for about the first 30 hours. After that, they start hunting for zooplankton. At two years of age, they become adults. Although the adults don't have any natural predators, the fry do. Only about five percent of them survive to adulthood.

Mythical creatures like the dragon still remain alive in our imaginations, but dinosaurs were long extinct before man ever appeared. The Leafy Seadragon is faced with extinction too. Its habitat is under increasing threat from pollution, both of the water and of the land (excessive fertilizer usage leaches out into the ocean). But, an even greater threat are the profiteers who poach Leafy Seadragons without a care as to the impact their actions will have on the species. Australia's Department of Fisheries became aware of the rapid decline in population of Leafy Seadragons. Legislation was passed making them a protected species due to the danger of extinction.

To find out more about the Leafy Seadragon, and ways you might be able to help, check out the website of the Department of Fisheries, Western Australian at: <http://www.fish.wa.gov.au/>

We are all in this hobby because we care about fish.

