



SEAHORSES

Long Island's Fish Oddities

By Christopher Paparo
Photos by author, unless noted



While flounder-fishing from shore under the Robert Moses Bridge with my dad some 20 years ago, I hooked what I thought was a monster flounder. Excitement quickly turned to

disappointment as my record flounder turned out to be a big pile of “sea salad.” However, picking through the pile, my curiosity got the better of me as I discovered that under the

numerous hooks and sinkers (testaments to the fact that other anglers had also succumbed to this same seaweed glob) this weed mass was teeming with life. All thoughts of

flounder vanished as I watched small lady and rock crabs scurry to take cover. Newly settled mussels clung to the weeds in hopes of drifting to a new suitable home. Mixed in among the mussels were dime-sized sea stars having their first feast of mussels.

After thoroughly exploring the pile, I tossed it back into the bay and ran off to re-bait my hooks. It was then that I noticed what looked like a piece of seaweed flopping around on the beach. Bending down to take a better look, I was totally surprised to see it was a seahorse—I had never seen one before and had no idea that they lived in my backyard. I gently picked it up and placed it in a bucket of water. I was awestruck as I watched it swim around. A short time later, I released it at the water's edge and watched it swim to another piece of seaweed where it drifted off in the current. While I can't recall if we caught any flounder that day, I'll never forget this first encounter with a seahorse—it was the beginning of what has become a lifelong

fascination with these unique, delicate-looking marine fish.

Seahorses are amazing creatures. They have long snouts, armor-plated skin, and a grasping tail that looks more typical of a monkey than a fish. Combine that with their characteristic vertical posture, and it's hard to believe that seahorses are true fish (aquatic vertebrates having gills and fins).

Seahorses belong to the family Syngnathidae, which include pipefishes and sea dragons. Of the approximately 32 known species of seahorses found around the world, most prefer shallow tropical and temperate waters. Some seahorses, such as the dwarf species, only reach less than one-half inch in length, while the largest species, the pot-belly seahorse, can grow to be 12.5 inches.

The lined seahorse (*Hippocampus erectus*), is the only species regularly found in New York's waters. It inhabits eel grass beds, and can reach eight inches long. Many people mistakenly believe that *erectus* is one of

the many tropical strays that only visit us during the summer months. However, the lined seahorse prefers cooler waters and is found in New York's marine waters a majority of the year. I have encountered them as early as April and as late as December.

Because seahorses lack a caudal (tail) fin, they can't swim very fast, and so travel distances by attaching themselves to plants and float with the current. However, seahorses are very maneuverable and can hover very accurately. They use their dorsal fin to propel themselves, and their pectoral fins to hover and steer.

Seahorses are masters of disguise—a characteristic that serves them well when finding food. Like fluke, seahorses can change the texture and color of their skin to match and blend in with their surroundings. They will then hold onto a piece of seaweed with their prehensile (grasping) tail, and remain still to ambush small prey as it swims by. When unsuspecting small shrimp or larval fish swim within range of



Seahorse Facts

- Their common name is derived from the genus *Hippocampus*, which translates as "horse sea monster."
- Seahorses range in size from less than one-half inch to 12.5 inches in length.
- The lined seahorse (*Hippocampus erectus*) is the only species regularly found in New York's waters. It inhabits eel grass beds, and can reach eight inches long.
- Male seahorses are the ones that get pregnant and give birth. They will often go through several pregnancies in a season.
- Most seahorses mate for life.

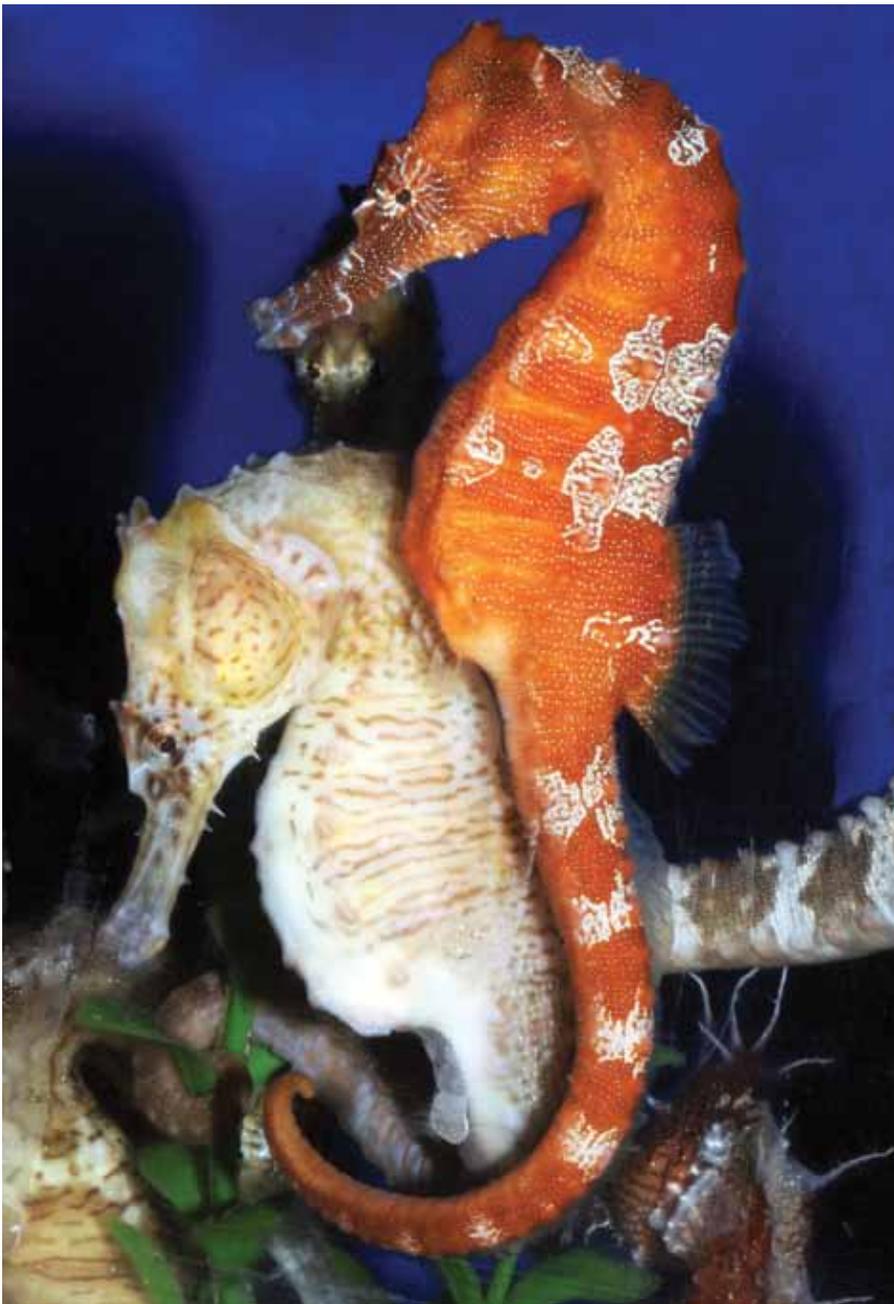
The Atlantis Marine World in Riverhead raises seahorses for aquariums all over the world. Here, 6-month-old lined seahorses huddle together in a tank.

the seahorse, they are sucked up and swallowed whole in the blink of an eye.

One of the most remarkable features of seahorses is that it's the males that get pregnant and give birth! Mating occurs between May and August, and involves an elaborate courtship ritual. Male seahorses change color and swim around the females, "showing off" in an effort to entice them. Once a female feels a particular male is right for her,

the two will hold tails and perform an elaborate dance. This courtship can last hours. When it is time to mate, the pair will turn, facing each other and rise in the water column. The female then transfers a long string of eggs into the males pouch. Once he catches the eggs, the pair separates and the male fertilizes the eggs and becomes pregnant. For the lined seahorse, pregnancy lasts about two weeks

David Harasti



Lined seahorses are truly masters of camouflage, and their colors can range from yellow, gray, pink, brown, orange, and red to black, and more! White bands down their back allude to their name, "lined seahorse."



The Pipefish

A close cousin of the lined seahorse, the northern pipefish (*Syngnathus fuscus*) is another member of the Syngnathidae family found in New York's waters. In fact, in many places it's actually extremely abundant. At a quick glance, one might think that a pipefish is actually an eel. Upon closer inspection, however, you can see they have all the features of a seahorse: long snout, small fins and armor plating. The only exception is that they appear to be straightened. This straightened body allows northern pipefish to weave between blades of seaweed to hunt down their preferred food: small shrimp and fish. If you catch a pipefish, take a moment to look and see if there is a bloated pouch along the abdomen—a sign it's a pregnant male. The pouch of a male pipefish is more translucent than that of a seahorse. If the pregnancy is early in its term, you will see an orange color in the pouch, which are the newly acquired eggs still in the early stages of development. If the pregnancy is far enough along, you may see a bunch of small silver dots: the eyes of his offspring.

New York State Conservationist, August 2011



In the case of seahorses, this calls for the monitoring of their international trade to ensure they are coming from sustainable populations.

Aquaculture (fish farming) is helping supply the demand of seahorses for public and private aquariums. While many marine species are difficult to farm, the seahorses' relatively large size at birth and lack of a larval stage make them easier to raise. Atlantis Marine World in Riverhead where I work, currently raises seahorses for the aquarium demand, and trades seahorses with aquariums around the world. Each seahorse raised in captivity is one less seahorse collected from the wild.

To me, seahorses are some of the most fascinating fish found in our waters. Next time you tangle with that "sea monster," or see a mass of seaweed washed up on shore, take a closer look—you might just find a treasure: a live seahorse.

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The long snout, tiny appendages (cirri) that aid in camouflaging, and vertical posture make the lined seahorse easy to recognize.

before the male gives birth to as many as 1,000 young. Measuring 5-10 millimeters in length (approximately $\frac{1}{4}$ to less than $\frac{1}{2}$ inch), the young seahorses look just like the adults and are fully independent. They will drift among the plankton for approximately one month before settling on a patch of eelgrass. During this time, they are exceedingly vulnerable to predation.

You may be surprised to learn that seahorse populations are being over-fished. Collection of seahorses for traditional Chinese medicine, trinkets,

and the aquarium trade are threatening many species worldwide. In recent years, there has been a lot of work done to help protect seahorse populations. In May 2004, seahorses were added to the list of species afforded different levels or types of protection from overexploitation by the Convention on International Trade in Endangered Species (CITES). CITES is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.



If you'd like to visit Atlantis Marine World (soon to be renamed the Long Island Aquarium) check out their website at www.atlantismarineworld.com. Atlantis Marine World is the only public aquarium on Long Island. In addition to seeing seahorses, visitors can take a shark dive, snorkel with tropical fish, feed a stingray, watch a sea lion show, and much more. The aquarium is open year-round from 10 a.m. to 5 p.m. (Closed December 25.) For more information, call 631-208-9200.