Seahorses

Drs. Foster & Smith Educational Staff

Seahorses have been one of the species in focus at recent CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) meetings. Wild seahorses are highlighted due to their declining numbers in their natural habitats. There are about 50 known species of seahorses, and they all fall into the genus *Hippocampus*. It was voted to place all seahorses of the genus *Hippocampus*, on the endangered species list, Appendix II, which makes the importation of any wild seahorse illegal.

Reasons for the decline of wild seahorses
It has been a common misconception by the public that the decline in wild seahorse numbers is due to their collection for the aquarium trade, and for Asian medicinal purposes, which are both untrue. In fact, the greatest impact on their population is the destruction of their habitat.

A typical seahorse habitat includes the shallow estuaries and algal reefs that are common to ocean shorelines in tropical and subtropical areas around the globe. These areas are being overdeveloped, which has increased the amount of pollution and freshwater run-off into their habitat.

To complicate this matter even further, the range of each species of seahorse is limited to ecosystems specific for that species, which means each species is only found in fixed geographical locations. This increases the threat of extinction for a species located in an area of overdevelopment. For example, *Hippocampus capenis*, also known as the Knysna seahorse, is only found in a few limited areas off the southern tip of Africa. This area, known as the Garden Coast, is famous for its tourism and seaside resorts. Along with the resorts, the area has been developed for residential and industrial purposes, making it one of the busiest waterways in southern Africa. The development and boat traffic in this area has led to water conditions that fluctuate both in salinity and purity. These water conditions have been responsible for very large reductions in the seahorse population, which placed the Knysna seahorse at the top of the endangered seahorse species list by CITES in 2001.

Tank-Bred Seahorses
Recently, a number of aquaculture facilities around the world, mainly in Hawaii and New Zealand, have begun the captive breeding and raising of different species of seahorses. These facilities have not only served as an alternate source for seahorses for the aquarium trade, they have provided an increased knowledge of the requirements needed by these fish. In fact, one Hawaiian facility is breeding the species *H. capenis*, which was the first species that was added to the endangered species list. These aquaculture facilities will no doubt help in keeping many species of seahorse from becoming extinct in the future.

There are many advantages to buying tank-bred seahorses, including:

- **Feeding:** A seahorse that is tank raised will accept frozen food much more readily than a wild harvested specimen. The inability to get wild seahorses to feed is the main reason for their poor success rate in aquariums. It takes a great deal of time and training to teach a wild harvested specimen to accept frozen food, if it ever does.
- **Breeding:** The aquacultured seahorses that have been reared and lived their entire life under aquarium conditions will breed in the home aquarium more frequently and successfully than their wild harvested counterparts.
- **Health:** Aquacultured seahorses have less of a chance of carrying disease and parasites that are often common with wild harvested fish. Wild harvested seahorses have been notorious for introducing diseases into the home aquarium that at times result in system wide losses.

The main disadvantage to aquacultured seahorses is the price. Typically, the price for a tank raised seahorse will be about twice that for a wild harvested specimen. This is due, in part, to the amount of labor that breeding and raising seahorses involves. Also, when the baby seahorses are born, their mouths are very tiny and they require special live foods. These live foods need to be fed to the young until they are large enough to begin feeding on frozen foods.

The protection of wild-born seahorses by CITES will prove to be in the best interest for everyone involved. The demand for seahorses for the aquarium trade will bring forth new aquaculture facilities, which will in turn reduce the price for tank raised specimens. Also, aquatic enthusiasts will receive healthier animals that will prove to be longer lived and will breed more readily in the home aquarium. The aquaculture of seahorses may be the only way some species will be able to avoid extinction. Finally, because of the new status of these fish, it will raise the awareness of the effects that coastal development has on our oceans and reefs, and will hopefully make conservation a part of future design.

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