

# Seahorses

## TEACHER'S NOTES

### What this topic is about

The seahorse is an endangered animal. Millions are killed each year for medicines and curios. Sea Life Centres are committed to protecting them, through conservation and breeding programmes. Sea Life's biological services at Weymouth Sea Life Park is home to the world renowned and highly acclaimed seahorse captive breeding programme. Experts at the park have bred several species of these creatures, including the rare spiny seahorse and the big bellied seahorse from Australia. In working with other conservation groups, the programme contributes to re-populating wild populations.

### What will pupils learn?

- About the life cycle of an unusual and engaging animal
- About the unique reproduction habits of the seahorse
- That people can have a positive effect on the protection of the environment and the conservation of species

### Essential information

There are 35 different kinds of seahorse. Two of them - the long-snouted *Hippocampus hippocampus* and the short-snouted *Hippocampus gutturalis* - live in the warm English channel. Seahorses are related to the pipefish, a long, bootlace-like fish that is quite common in rock pools. *Hippocampus* is a Greek word meaning "bent horse." Depending on the species, seahorses reach lengths from about 5 to 36 cm (2-14 in.).

Seahorses are found in both temperate and tropical waters. The long-snout seahorse *Hippocampus reidi* and the Northern seahorse *Hippocampus erectus* live in the Caribbean region of the Western Atlantic. The common seahorse *Hippocampus gutturalis* lives in the Mediterranean Sea and warm areas of the Atlantic. The yellow seahorse *Hippocampus kuda* lives in the Indo-Pacific. The Pacific seahorse *Hippocampus ingens* is the only seahorse on the eastern Pacific coast (found from California to Peru).

Seahorses are well camouflaged among the eelgrasses and seaweeds in which they make their homes. A seahorse often moors itself in the water by curling its prehensile tail around seagrasses and coral branches. The seahorse's small mouth, located at the end of its narrow tube-like snout, sucks up tiny plankton and fish larvae.

Seahorses swim upright. Pectoral fins on the sides and a small dorsal fin on the back of a seahorse's body wave rapidly to move the seahorse through the water.

A female seahorse deposits 100-200 eggs into the pouch on the male's abdomen. The male releases sperm into the pouch, fertilizing the eggs. The embryos develop within the male's pouch, nourished by their individual yolk sacs. Incubation may last two to six weeks, depending on the seahorse species. After the embryos have developed, the male gives birth to tiny seahorses, some as small as 1 cm (0.4 in.) long.

Seahorses mate for life, and if one dies, the health of the remaining partner declines. They are fish, but they do not have scales. Instead their bodies are covered in small, bony plates.

The seahorse is under threat from loss of habitat, pollution and harvesting – especially for use as a component of some Chinese medicines. Twenty tonnes of seahorses – about six million – were fished in 1992. As many as ten million a year are probably taken now.

### Things your pupils can do:

#### ● Before their visit

Use books, CD-ROMs and the internet to find out all they can about seahorses and their extraordinary life cycle.

#### ● During their visit

Look carefully for male seahorses with full breeding pouches – or even for baby seahorses. Seahorses are remarkably well camouflaged. Some have tendrils of skin that look like seaweed or coral. They can change colour to match their surroundings. Look at the ways seahorses are camouflaged.

Sea Life staff will be happy to give advice about how to support seahorse research and conservation.

# Seahorses (continued 1)

## TEACHER'S NOTES

- *After their visit*

### Key Stage 1

Write a diary of your life as a male seahorse at breeding time.

### Key Stage 2

Seahorses are under threat due to unsustainable fishing practices, loss of habitat and demand in Asian markets for medicinal purposes. Each year, several thousand seahorses are captured for souvenirs. They are dried and made into key rings, earrings and brooches. Ask pupils to devise kinder ways to bring back a souvenir from their holiday (eg, paint or draw any unusual plants, seashells and rockpools that they see – or make a scrapbook combining wildlife postcards and their own photos).