

Predictions of global warming consequences vary from droughts to rising sea levels, to flooding and desertification. It might mean the migration of more exotic species into our waters as the waters become warmer. We are already used to hearing stories of magnificent creatures like Great White Sharks being seen off Cornwall but you don't have to go far to find a very tropical looking fish just off the shores of North and South Devon.

Wrapped in legend and fantasy, the seahorse is one of our most tropical-looking species and one still believed by many to be just a creature of myth. It is indeed real and doing well in the waters around the Devon coastline.

We have two types of Seahorse in Devon (and the rest of the UK), the spiny seahorse (*Hippocampus guttulatus*) and the short snouted seahorse (*Hippocampus hippocampus*), although almost identical there are enough differences between the two species to tell them apart.

As their name suggests, the spiny seahorse has a mane of spines across the top of the head and down the upper back, and the short snouted seahorse has a shorter snout. Spiny seahorses are generally found in seagrass meadows and short snouted seahorses in just about any other type of habitat. With the subtle differences in the diameter of the snout allowing them to target different species of crustacean, both seahorses are superbly adapted to their aquatic homes. But both species can be found in the each others preferred type of habitat.

They are hard to see, because they are camouflaged with 'appendages' and can change colour in seconds. They seem to disappear before your eyes, perfect for hiding from

predators but a nightmare for researchers trying to understand more about them.

We are lucky to have both species living locally, but why are they here? In short it is the Gulf Stream—that amazing 'river' of warmer water that comes across the Atlantic from the Gulf of Mexico, from which it gets its name. The Gulf Stream allows the British Isles to have the climate it has, if we didn't have this warm water heating up our island we would have the short hot summers and cold frozen winters like Canada.

The Gulf Stream generates huge quantities of plankton which is food for many marine creatures. In fact seahorses are totally reliant on plankton being eaten by their food which includes shrimps and other small crustacea. Each seahorse will eat 65 to 70 full grown shrimp per day which is a phenomenal amount of food for quite a small animal. They



SEAHORSE around DEVON

FIGURE 1

have to eat this amount of food because they do not have a true stomach. Instead they have a digestive tube that runs from the mouth to the anus through which the shrimps pass after being sucked in the incredible snout. It is such a poor digestive system that sometimes you can see live shrimp come out of the anus and just swimming away.

Adult seahorses have very few predators with the exception of lumpsuckers, bass and seagulls but as young fry everything wants to eat them—they are a handy bite-sized piece of food. The fry eat up to 3,000 pieces of plankton per day but out of the 3 to 5 hundred fry that are born every 21 to 28 days (depending on the species) only one or two will survive to maturity. A lot of effort to keep going but a typical survival strategy of a fish species where it is normal to produce so many fry so that just a few will be successful.

The Seahorse Trust has been running The British Seahorse Survey since 1994 and through their work and the hard work of almost 5,000 volunteers they have learnt a great deal about our native seahorses.

The British Seahorse Survey is the longest running survey of its type and has directly led to the protection of both of our seahorse species. We have learnt so much about these incredible animals but if we stand a chance of enforcing the protection which the Seahorse Trust has gained for them under the Wildlife and Countryside Act, then we need to know more.

Contact the trust through our websites or give us a call and report in your sighting. We need to know as much as we can about them so if you spot one, make a note of what it looks like, does it have spines, what colour is it, where did you see it what was the weather like—as much as you can remember. If you have a camera with you please take a photo, as they say a picture says a thousand words! Don't forget the all important contact details so we can ask you more about your seahorse sighting.

Check out our website to learn more about these amazing enigmatic fish so that together we can protect them for future generations and ensure a safer future for these little horses of the sea.



FIGURE 2



FIGURE 3

ORSES

ALSO PUBLISHED IN JMBA:

Garrick-Maidment, N., 1998, A note on the status of indigenous species of seahorse. *JMBA*, **78(2)**, 691–692

Storero, L.P. & González, R.A., 2008, Feeding habits of the seahorse *Hippocampus patagonicus* in San Antonio Bay (Patagonia, Argentina). *JMBA*, **88(7)**, 1503–1508

FIGURES

FIGURE 1—A short snouted seahorse *Hippocampus hippocampus*, photo by Steve Trewhellas

FIGURE 2—A spiny seahorse *Hippocampus guttulatus*, photo by Neil Garrick-Maidment.

Figure 3—A pregnant make spiny seahorse, photo by Neil Garrick-Maidment.

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