

Seahorses and Pipefish

by Mark Webster

Many of the most attractive and appealing marine species are often some of the smallest and best camouflaged and as a result may get missed by divers who are frequently intent on a reef tour rather than a tour of its residents. Amongst these miniature attractions are the various species of seahorses and pipefish which are to be found in temperate and tropical seas around the globe. For photographers these often make spectacular subjects and also offer a technical challenge and so can be very satisfying to pursue and produce a pleasing image.

There are up to 35 species of seahorse and around 200 species of pipefish to be found worldwide but surprisingly few of them get seen by divers regularly. You really do need to specifically seek out these masters of camouflage to get close to them and to achieve this it helps to understand a little of their habits, habitat and distribution.

Seahorses are found around the globe and apparently are even making a come back to British waters (*Hippocampus guttulus* and *Hippocampus hippocampus*) particularly in the south west and along the south coast. In recognition of this slow return they have been made a protected species under the Wildlife and Countryside Act. I have seen them many years ago before I picked up a camera, and assumed they were common, but since then despite many hours searching I have never been able

to find one to photograph, but they are increasingly being spotted by divers and caught inadvertently by fishermen in crab pots. There is even a seahorse breeding centre in the south of the UK in Weymouth releasing them into the wild. However, if you want to be certain to spot and photograph seahorses then two of the hotspots would be the Caribbean and the Indo Pacific region which have comparatively dense populations.

The long snout seahorse (*Hippocampus reidi*) and the Northern seahorse (*Hippocampus erectus*) can be found throughout the Caribbean from the Bahamas to Cuba, Cayman, the Windward and Leeward islands, Mexico, the Dutch Antilles and Belize. However there are apparent concentrations of population and both the islands of St. Vincent and Bonaire offer almost guaranteed

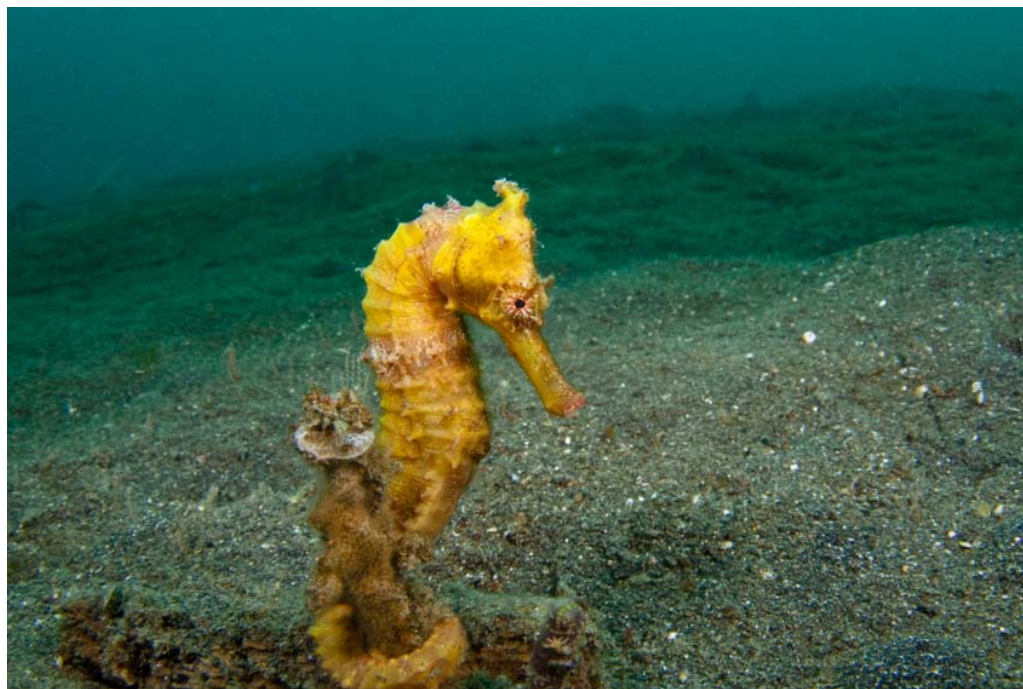
Orange Caribbean seahorse - Hippocampus reidi . Nikon F90X, Subal Housing, 105mm micro, Inon Quad flash, Fujichrome Velvia 50ASA f16 1/125.



sightings. These species can grow up to 225-300mm in length and come in various colourways from drab brown or black to yellow orange, purple or red. But this makes them no easier to spot, as their colour is designed to suit the habitat – perhaps a sponge, gorgonian coral or often amongst coral or man made debris on the sea floor.

They are also able to change colour or grow skin filaments and attachments to blend in with their surroundings and can even attract a healthy growth of algae which breaks up their outline. So the problem is that often they will resemble nothing more than a piece of reef debris. Their favoured habitats are amongst eel grass beds, branching gorgonian corals and often on dead or dying branching corals. They will frequently be found close the seabed holding onto the coral with their prehensile tail and just gently swaying in the current or swell and may appear to be totally lifeless initially.

They are very territorial however and once you have discovered a habitat you will know that you can return and find the same subject repeatedly and also that there likely to be a mate in the same area. The Caribbean species live for several years and will remain faithful to their favourite anchor point within their territory unless physically disturbed.



YellowLembeh seahorse - *Hippocampus kuda* – *Although this species are often seen free swimming across the seabed in the Lembeh Strait this one is striking more of a classic pose whilst resting. Nikon D300, Subal ND2 housing, 10-17mm FE zoom and 2 x teleconverter, Subtronic Mini flash guns, ISO 250 f13 1/30.*

Seahorses do move about their territory but only patient watching will enable you to witness the slow and precise way in which they navigate across the reef by using their dorsal fins for propulsion and their ear-like pectoral fins for stabilisation and steering.

These movements are generally to gain better access for feeding or to rendezvous with a mate. If you watch a seahorse you will realise that he or she is very much aware of

your presence but they appear not to be alarmed. However, they are notoriously shy of the camera and will irritatingly turn their back to the lens when a camera is raised having until then held a steady pose!

The Indonesian archipelago is another area for reliable seahorse sightings. Here you will find examples of the larger species (*Hippocampus kuda*) and also the smallest species, the Pigmy seahorses (*Hippocampus bargibanti*, *Denise* and *Pontohi*) which



Pygmy seahorse – *Hippocampus bargibanti* – *This is the now classic image of the Bargibanti pygmy which was the Holy Grail for macro enthusiasts for some time. They are a lovely subject and technically very challenging to get a good image. Nikon D200, Subal ND20, 105mm micro, Inon wet lens, Inon Quad flash, ISO100 f16 1/125.*

is definitely much more difficult to both find and see clearly, let alone photograph. Again, many species are found in their usual habitat of eel grass, corals and sponges, but in classic muck areas like the Lembeh

Strait some follow a quite different lifestyle. Lembeh Strait, like other areas in the region, comprises mostly of dark volcanic sands and has sparse coral formations, but does have high concentrations of debris and detritus both natural and man made. Most of the fish species in the strait are benthic or bottom dwelling and the seahorses have adopted the same lifestyle. So here you will witness large seahorses in various colours marching across the seabed in search of food. Some of the darker coloured examples will be found clinging to tree debris, coconut shells and even old training shoes and paint tins!

Conversely the pygmy seahorses will mostly be found on particular species of sea fan, or gorgonian, which they mimic perfectly. An adult pygmy seahorse will only grow to less than 2cm in length, but most are much smaller, and even when there are several in residence finding one of these little beasts is a real challenge. Fortunately, local dive guides are adept at finding pygmy seahorses and are always keen to take divers to see them. But even when the subject is pointed out they are incredibly difficult to see and even more of a chore to focus and to photograph. The sea fans are often in deeper water and exposed to currents, so limited bottom time and subject movement all make accurate focussing on these



(Left) Pygmy seahorse – Hippocampus pontohi - this is a difficult species to both find and photograph. They prefer shallow locations where there is often swell to contend with in addition to high magnification. Nikon D100, Light & Motion Titan housing, 105mm micro, Inon wet lens, Inon Quad flash, ISO200 f18 1/125.



(Right) Pygmy pipe horse - Acentronura breviperula - this species appears to be the bridge between the seahorse and pipefish and is extremely small and thin. Nikon D7100, Subal ND7100 housing, 105mm micro, SubSea +10 wet lens, Inon Z240 flash guns, ISO200 f25 1/60.

small creatures extremely difficult, but worthwhile when you get it right!

Another species of pygmy that has relatively recently been highlighted is the Pontohi which tends to favour shallow water habitats amongst ascidians (sea squirts) and seaweeds. These are equally small and incredibly thin when viewed head on and are yellow/orange and white in colour. In common with their cousins they also pirouette at the sight of a

looming lens and also hop about quite a lot.

The species which connects, at least visually, the true seahorses and the pipefish is perhaps the short-pouch pygmy pipehorse (Acentronura breviperula). I saw one of these for the first time a few years ago in the Philippines amongst halimeda algae on a sandy seabed. This species is also very small, thin and well camouflaged and it certainly not something I would

have spotted without a guide!

The two hundred or more species of pipe fish to be found world-wide belong to the same Sygnathidae (fused jaw) family as seahorses. The pipe fish group includes several species in temperate waters, the ghost pipe fish found in tropical seas and the antipodean sea dragons and leafy sea dragons. There are many similarities in the shape of the head and the structure of the body between pipe



The Greater pipefish - Syngnathus acus - is the most common species in the UK and will most often be found in shallow water amongst weeds on the seabed moving slowly or lying in wait for prey. Nikon D200, Subal ND2 housing, 12-24mm zoom, Subtronic Mini flash guns, ISO100 f10 1/60.

fish and seahorses and some also use the end of their tails to anchor themselves on the reef.

In the UK we are lucky to have no less than six species – the greater pipefish, Nilsson's pipefish, deep snout or broad snout pipefish, snake pipefish, worm pipefish and the straight-nosed pipefish. They are most commonly seen in the summer months in shallow water hunting amongst the seaweeds which are then growing prolifically. However, you will need

to move slowly and look carefully as they have very good camouflage and move very slowly amongst the weeds emerging occasionally to strike at small fish or crustaceans. The greater pipefish and snake pipefish are most commonly seen and can grow up to 50-60cm in length, which makes them quite large critters.

One of the most fascinating tropical species are the various ghost pipefish which have the most amazing camouflage systems. The



Ornate ghost pipefish- Solenostomus paradoxus - this is perhaps the prettiest of the ghost pipefish species with spectacular colouring and detail. It can be very hard to spot even when directly in front of you and can be a challenge to capture against a clear background. Nikon D300, Subal ND2 housing, 10-17mm FE zoom and 2 x teleconverter, Subtronic Mini flash guns, ISO320 f14 1/10.

ornate ghost pipefish (Solenostomus paradoxus) is probably the most attractive species in the family. Others include the harlequin, robust, banded and flag-tailed ghost pipefish. These remarkable looking creatures can grow up to 15cm but many are no bigger 5cm and are incredibly hard to find with their perfect camouflage. The ornate and harlequin ghost pipefish are normally associated with crinoids or feather stars, branching

gorgonians and sea fans and black coral bushes. Their camouflage, complex colour patterns and elaborate body shape add to the difficulty in spotting one of these – again, good guides are invaluable as they can lead you straight to the local residents.

The robust ghost pipefish (Solenostomus cyanopterus) are more often associated with muck or eel grass areas where they live closer to the seabed. This species mostly

(Left) Pygmy seahorses – Hippocampus bargibanti – Shooting at high magnification means working with a very narrow depth of field, so having two pygmy seahorses in the image means only one will be fully sharp. Introducing a little natural light into the background make the second one stand out a little more albeit in soft focus. Nikon D100, Light & Motion Titan housing, 105mm micro, Inon wet lens, Inon Quad flash, ISO200 f11 1/15.

(Right) Robust ghost pipefish (Solenostomus cyanopterus) these ghost pipefish have terrific camouflage and mimic anything from sponge growth to leaf debris, but once found are a very patient subject allowing you to find the best angle for your image. Nikon D300, Subal ND2 housing, 105mm micro, Inon Z240 flash guns, ISO100 f20 1/30.

mimic the eel grass blades, halimeda seaweeds or seabed debris such as leaves or twigs and have much drabber colouration and markings as a result. They are sometimes found in pairs and, as with many species in nature, the male will be the smaller of the two. They vary in colour from grey and almost black, to brown and various shades of green dependant on habitat and are able to adjust their colour to suit.

Reproduction

Another feature which both seahorses and some pipefish have in common is an unusual approach to parenthood. The female produces and ripens her eggs to the point where they are ready for fertilisation and at this point she joins the male to begin a courtship ritual. The two then join together whilst the female passes her eggs to the male's



brood pouch, which is almost totally enclosed in seahorses and more of a groove in pipefish. Once the eggs are secure the male will fertilise them and then he broods them for between 7 and 30 days dependant on the species. When the young hatch they are miniature replicas of their parents and are fully independent immediately, although they will often remain with the father for several days. The exception to this rule are the ghost pipefish. In this species the female does the brooding.



Photography

In most circumstances these creatures would be considered a macro subject and, in the case of the pigmy seahorses, a super macro subject. For the larger species of seahorse for both FX and DX sensor format a macro lens in the 50-60mm range will be a perfect tool. This will also be a good choice for the ghost pipefish, although you may be lucky enough to encounter a large individual or a small group together and wish to include more



Spiny Lemberh seahorse - Hippocampus histrix – This species is much smaller than the seabed cruisers and is often found amongst branching sponges. Nikon D200, Subal ND20, 105mm micro, Inon Quad flash, ISO100 f16 1/80.

important and manual or locked focus is often best.

Small 'macro' flash guns or dedicated tools like ring flash can be used in most circumstances. When working in super macro you may need more power dependant on your distance from the subject, or you can move your flash guns well forward or even attach them to the end of your port. Flash positioning can be very important, particularly when working close to sea fans or branching corals, in order to avoid touching the habitat or illuminating branches which may cast harsh shadows over your subject.

Another consideration when photographing seahorses in particular is disturbing them in their habitat. Seahorses, particularly pygmies, often turn away from the camera at the vital moment, which can be very irritating, but we should not be tempted into manipulating the subject to capture the perfect shot. Dive guides often cajole a subject into a photogenic position and if you do not approve or want to see this then it should be pointed out to the guide before the dive.

There has also been some scientific research into the detrimental effect of strobes on seahorses and you may find some locations where the number of flash shots allowed will be limited. But I am not sure that I buy into this theory as I know of several sea fans in Lembbeh and Bali for example that I have visited many times over the years and I know that the guides take photographers to them on

a daily basis, yet there are still, apparently healthy, seahorses there? Some guides are certain that the same seahorses are there for a number of years and I can remember a guide at Captain Don's in Bonaire claiming a particular orange seahorse had been on the same piece of coral for more than five years and so must have seen dozens if not hundreds of strobe flashes a day. So for me the real world experience does not support the theoretical one, so it is a bit like global warming, you are a believer or not!

For a photographer these species are ones that we never tire of and, for me at least, are an irresistible attraction on any dive site that is host to them. The pygmy seahorse was of course the 'holy grail' for many macro photographers for a while and, whilst there are now plenty of images of these beasts, they are still immensely satisfying to photograph well. Non divers relate to the 'cute' beauty of the sea with species like seahorses and so images of them will always have an enduring value. So if you need a theme or a purpose for your next trip you won't go wrong if you choose to chase these sometimes elusive denizens of the marine world.



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of the habitat when a medium wide or very close focussing wide angle lens can be used.

For the super macro subjects there are various options which include teleconverters, extension tubes, internal 'dry' dioptres and external wet dioptres or combinations of one or more. You should be aiming in general for 2:1 reproduction although many photographers work with 3:1 and higher. Depth of field becomes a real issue at these high magnifications and so focussing accuracy is all