

All about Seahorses



Introduction

Seahorses are a small unusual shaped fish that can be found in shallow seas and oceans throughout the world. Their un-fish like shape has led to them being treated, quite rightly, very differently to other fish and they are sort after by divers and fishermen the world over, for very differing needs.

Fishermen, fish for them mainly for the Traditional Medicine Trade which takes in excess of 150 million animals per year (**source: Kealan Doyle, SOS 2012**), because of this they are protected internationally and under European environmental laws. Malta has its own environmental protections laws, under which both seahorse species have been fully protected since 2003.

Divers seek out seahorses mainly to photograph (although in some countries they are collected for sale to the aquarium and curio trades) as a memory of these amazing fish but inadvertently through their actions they can cause stress and ultimately death.

Malta has two species of seahorse, the Spiny (*Hippocampus guttulatus*) and the Short Snouted (*Hippocampus hippocampus*) both are recognised as Data Deficient (DD) under CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and so responsible, sustainable, research is vital to further our knowledge and separate fact from fiction; securing the long term future for these fragile animals.

Why do we need Seahorse guidelines?

Interference

Diving to spot and take pictures of seahorses in the wild has become a very popular hobby with divers around the world but the very practise of going to see seahorses is causing them to suffer from interference and could be harming them; the diving community needs guidelines to advise them on best practise if they see a seahorse.

Stress

Seahorses are an unusual fish in that they suffer from stress but unless you know what to look for you would not know it is happening.

One of the first signs when approaching a seahorse is it turns its back to you and lowers its head to its chest and in worse case scenarios it changes to a darker colour. These are the

signs that show a diver they need to stop what they are doing and back off to let the seahorse relax.

The seahorse is trying to present as small a profile as possible to make itself invisible to any potential predator.

Seahorses naturally carry a number of diseases dormant in their bodies such as TB or vibrio and if they get stressed, one or other of these diseases could come out and over a number of days or weeks they could die as a result of the infection, a factor caused by stress.

Flash and lighted photography induces a great deal of stress in seahorses and so this is why so many countries and public aquariums around the world ban it. Malta and the UK have banned the use of flash and lighting when working under license.

Protection

Seahorses are protected under a lot of laws around the world for a very good reason; they are under threat in the wild from disturbance, fishing and being taken for the curio and aquarium trade. Without these laws, seahorses will be extinct in the wild within the next 20 to 30 years. A MEPA licence is required to seek out and photograph seahorses in Malta, however divers do regularly encounter them and so guidelines are important to help protect the seahorses.

Research

If you come across a seahorse do not waste the opportunity, participate in the data recording scheme, and send your sighting into The Seahorse Trust by filling in the online reporting form on their website. This will help us to build up a greater understanding of seahorses and the marine world they live in so that they can advise the authorities on the best ways to protect them for generations to come.

Education

Education about seahorses and the marine environment is vital to their long term future, it is important that people know the effect they have on them in the wild and what their actions will do to the seahorses without the right knowledge.

Maltese Environmental Law

To actively seek out seahorses and photograph them, a licence issued by MEPA is required. Both species of seahorse found in Malta, the Spiny (*Hippocampus guttulatus*) and the Short Snouted (*Hippocampus hippocampus*) have been protected in Maltese environmental law

since 2003 - FLORA, FAUNA AND NATURAL HABITATS PROTECTION REGULATIONS, 2006
PART IV, PROTECTION OF SPECIES.



PDSA Seahorse Guidelines



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What do I do if I see a seahorse?

- Stop, be still and just watch, you will understand more about these amazing animals by just sitting and watching.
- Approach very slowly and cautiously and if the seahorses starts to look stressed then stop and/or back away.
- If there are a group of you, make sure you are in a semicircle and leave an opening to allow the seahorse to swim off if it wants to.
- Do not try to stop it swimming away and certainly do not chase it, this will cause it undue stress.

How can I tell if a seahorse is stressed?

- One of the first things a seahorse does when you approach is to turn its back to you; this is a defensive and natural reaction. It hopes you can't see it, by providing the narrowest profile.
- If you sit quietly it will settle and turn back again but a lot of divers are impatient and will try to turn the seahorse by hand, which only causes it immense stress and is against the law. It is against the law to touch a seahorse without a license.
- As a seahorse gets stressed, its colour starts to darken and it bends its head downwards to present less of a profile. If this is continuous then it could in the long term lead to the death of the animal.
- If a seahorse is so stressed it swims off, do not follow it, it wants to get away from you, so let it.

What is the best way to react to them?

- Very slowly and carefully, compared with you, seahorses are small animals and any dark shadow cast over them will make them feel as though a predator is in the area.
- Seahorses rely on camouflage and stealth to avoid predators, so sitting still is crucial to its natural behaviour. If a seahorse starts to swim away it has reached a

stage where it no longer feels safe and is in 'flight' mode, hoping that by taking flight it will outrun its predator.

- Careful slow movements are crucial and do not crowd them, hover over them or get too close.

What to do when photographing a seahorse

- Never use lights, flash or strobes, all three can induce stress which could lead to the death of the seahorses.
- Approach very slowly and cautiously.
- Never try to move the seahorse or handle it for a better picture.

How does stress affect seahorses?

- Seahorses naturally carry diseases dormant in their bodies, such as Vibrio or TB.
- Under normal conditions these diseases do no harm and the seahorse can live out its life without ever having been affected by them.
- However if a seahorse becomes stressed, one of these diseases could take hold of the weakened seahorses with long term disastrous results, that could lead to death.

How to protect their habitat

- Maintain good buoyancy control - by swimming just above the sea grass and the seabed and avoiding trailing yourselves and your gear in the substrate.
- Keep diving gear tidy; attach loose hoses, survey equipment and other dive gear securely. This will also avoid damage to the habitat as well as preventing equipment loss which adds to the marine litter.
- Avoid sharp, sudden changes in direction when in the sea grass; fins and the wash created by them can stir up the sediment and potentially damage the sea grass. When in the habitat, change direction slowly and kick gently. Moving with care will also help maintain the visibility.
- Do not pull at or hold onto sea grass or other natural objects, even if you are drifting. If you need to slow down or stop, brace yourself gently on the seabed and settle carefully.

Disclaimer

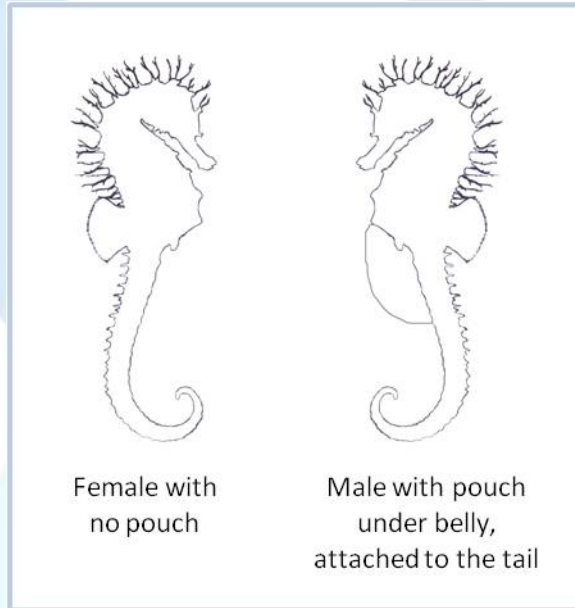
The PDSA encourage cautious and respectful diving to others and the environment. To safely conduct any dive, participants must rely on their own abilities, training and knowledge of local conditions, including tide, weather and boating activities. The PDSA in conjunction with The Seahorse Trust provide the above information to help advise and encourage the safe conduct of any dive but accepts no responsibility for anyone who disregards their training or any safety advice, or takes unnecessary risks.

PDSA Seahorse Identification

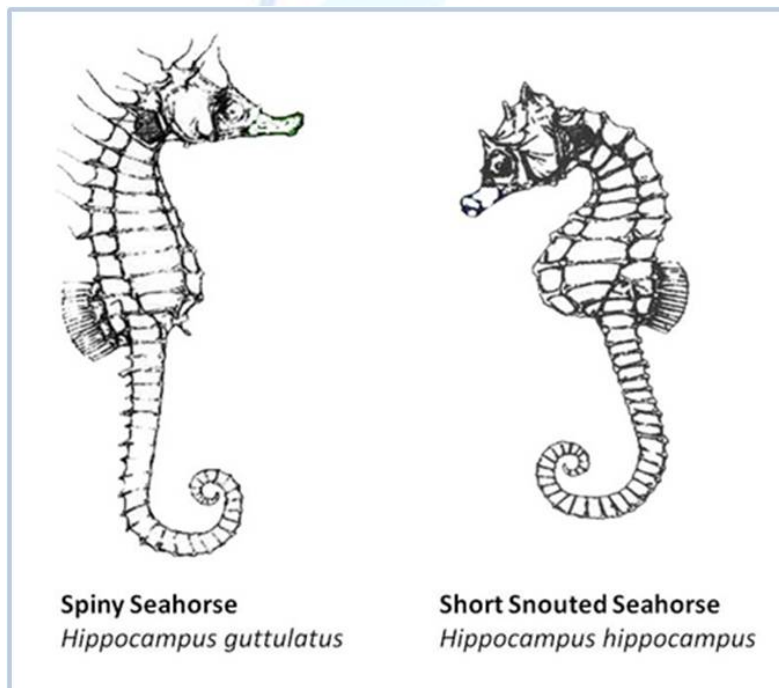


How to tell the sex of a seahorse

Male seahorses have a pouch to keep the fry in during pregnancy below the belly attached to the tail female seahorses do not, even when the pouch is empty of fry it forms a diagonal line from the belly to the tail.



How to identify the seahorse species



PDSA Seahorse Research



Both species of seahorse found in Maltese waters, the Spiny (*Hippocampus guttulatus*) and the Short Snouted (*Hippocampus hippocampus*) are recognised as Data Deficient (DD) under CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and so responsible, sustainable, research is vital to further our knowledge and separate fact from fiction; securing the long term future for these fragile animals.

Divers can play an important role in the conservation of seahorses by reporting sightings to The Seahorse Trust at info@theseahorsetrust.org. Reporting seahorse sightings as often as you see them (even if you see the same seahorses each time) is really important to build up a better picture of their behaviour, movements and welfare.

What you do with the information

- When diving if you come across a seahorse, you can make difference by reporting your sightings to The Seahorse Trust via their website at <http://www.theseahorsetrust.org/divers.aspx> or by e-mailing them at info@theseahorsetrust.org
- When watching your seahorse make a note of the following:
 - Colour
 - Species
 - Description
 - Size
 - Sex
 - Behaviour
 - Habitat it is living in
 - Exact location
 - If possible the GPS
 - Depth of water it is in
 - Weather
 - If you do take a photograph follow the guidelines above and send The Seahorse Trust a copy so they can confirm identification

For further information please contact:

- The Seahorse Trust - www.theseahorsetrust.org – info@theseahorsetrust.org
- PDSA contact persons Donna Hayler-Montague (Gozo) or Neville McLellan (Malta)
- seahorse@pdsa.org.mt

