

The World of Pink Sea Fans

The Pink Sea Fan (*Eunicella verrucosa*) is one of the few species of coral found in the UK and is one of the largest most beautiful invertebrates that can be seen in our waters. If you look closely there are many species associated with this fascinating coral.

GENERAL FACTS

Pink sea fans are in a group called the **gorgonian** or horny corals this is because they are supported by a firm, flexible **central skeleton** made of a protein called **gorgonin**. Covering this skeleton is a soft tissue called **coenenchyme**. Protruding out of this tissue are the **polyps**. Sea fans are anchored to hard substrate by a strong base at the bottom of the main branch.

CONSERVATION

Unfortunately **Sea Fans** are an endangered species and are considered to be **nationally rare**. Threats to sea fans are numerous and mostly caused by **humans**. Pink sea fans are protected by law from killing, injury, collection and sale under the **1981 Wildlife and Countryside act**. They are also one of the species in the **UK Biodiversity Action Plan** which has been set up to help conserve, protect and enhance biological diversity in the UK.

ASSOCIATED SPECIES



ANEMONE
This **ANEMONE** only grows to 10mm and is so rare that it is not often seen. It wraps its base around a sea fan branch, and using its 80 **TENTACLES** catches any food particles that flow past.



POACHED EGG SHELL
SEA FANS may be damaged by a species of **MOLLUSC** called the **POACHED EGG SHELL**. These tiny snails strip the **SEAFAN** of its outer fleshy tissue, and also lay their eggs on the sea fan branches.



BARNACLE
This barnacle is usually found in warm water but, due to global warming, it is becoming more abundant in the UK. The barnacle settles on areas of damaged sea fan. This prevents recovery and encourages other species to colonise.



SEA SLUG
This tiny **SEA SLUG** or **NUDIBRANCH** is perfectly camouflaged with small projections called rhinophores that mimic the colour and shape of the sea fan polyps. Sea slugs feed on the sea fan polyps.



DOG FISH EGG CASE
Dogfish lay egg cases called 'mermaid purses' which can often be found attached to pink sea fans. Long tendrils hold the egg capsule to the sea fan and after 9-12 months a tiny dogfish will hatch out of the egg case.

HABITAT

Pink sea fans are found on upward facing rocky areas from depths as shallow as **6m** and as deep as **200m**. They are often found in **large numbers on ship wrecks**. They live in areas of **high water movement** as this carries food and also helps remove sediment that builds up on their outer tissue.



DISTRIBUTION

In the UK **pink sea fans** are common around the coasts of **Devon & Cornwall**, some of the highest numbers can be found in the waters off **Plymouth**. They are also found in **South Wales** and the **West & South Coast of Ireland**. Their distribution spreads to Africa and the Western Mediterranean



DIVERS & ANCHORS
Sea fans are flexible but fragile, careless divers and misplaced boat anchors can easily break a sea fan from its base. Destroying years of growth. Diver fishing and taking extra care with fish traps and nets can help stop potential damage from anchors.

THREATS



GLOBAL WARMING
Due to global warming sea temperatures are rising and this is likely to change the distribution of pink sea fans. Sea fans are very sensitive to temperature changes and a rise in temperature may be the cue for reproduction events, however a few degrees higher could be lethal.



TRAWLERS
Populations of not only sea fans but other sea bed organisms can be decimated by trawlers and dredgers. Beam trawlers and shellfish dredgers drag heavy equipment along the sea floor which can easily damage and destroy sea fans.



DISEASE
Fungal and bacterial infection have caused significant damage in some sea fan populations. Disease causes the loss of the fleshy tissue called coenenchyme, this exposes the black internal skeleton and allows colonising species to attach to the sea fan.



NETS & FISHING LINES
Discarded fishing equipment can easily tangle around sea fans. If this occurs the abrasion is likely to kill and remove the living tissue, called coenenchyme, leaving the internal skeleton exposed. This allows other species to colonise leading to a decline in the health of the sea fan.



FEEDING
Pink sea fans are suspension feeders, using their polyps to capture tiny particles of animal and plant matter that can be found in the water column. Each polyp has tiny tentacles that detect food, capture it and pass it to the "mouth". They are totally dependent on water currents for feeding and can often be seen with all their polyps extended in the current, waiting for lunch to float by!