



UHI | SHETLAND

Maerl

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**GUIDE TO IDENTIFYING AND
REPORTING IMPORTANT MARINE LIFE
IN SHETLAND**

**FOR SWIMMERS, SNORKELLERS AND
DIVERS**



Made possible with

**Heritage
Fund**

The Shetland Community Wildlife Group is a project administered by UHI Shetland with support from the National Lottery Heritage Fund.

Find out more about how to get involved with the group on our website or send us an email:

www.shetlandcommunitywildlife.org

shetlandcommunitywildlife@outlook.com

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WHAT ARE IMPORTANT MARINE SPECIES?

Government agencies in Scotland have produced a list of important marine species most in need of protection. This ranges from seagrass to minke whales. These species are called Priority Marine Features (PMFs) and are considered to be marine nature conservation priorities.

More information can be found on NatureScots website:

www.nature.scot

WHY ARE THEY IMPORTANT?

The species in this guide have been included as they are either rare, provide a vital habitat for other marine species or provide an important function such as storing carbon, stabilising sediments or maintaining water quality.

HOW WILL THE RECORDS BE USED?

To be able to monitor and protect the species in this guide we need to have accurate and up-to-date information on their distribution around Shetland. This information is used to create maps which are used by developers, policy makers and local decision makers. More information about how we map species and habitats can be found on the Marine Spatial Planning pages of UHI Shetland's website:

www.shetland.uhi.ac.uk/research/marine-spatial-planning/habitats-and-species/

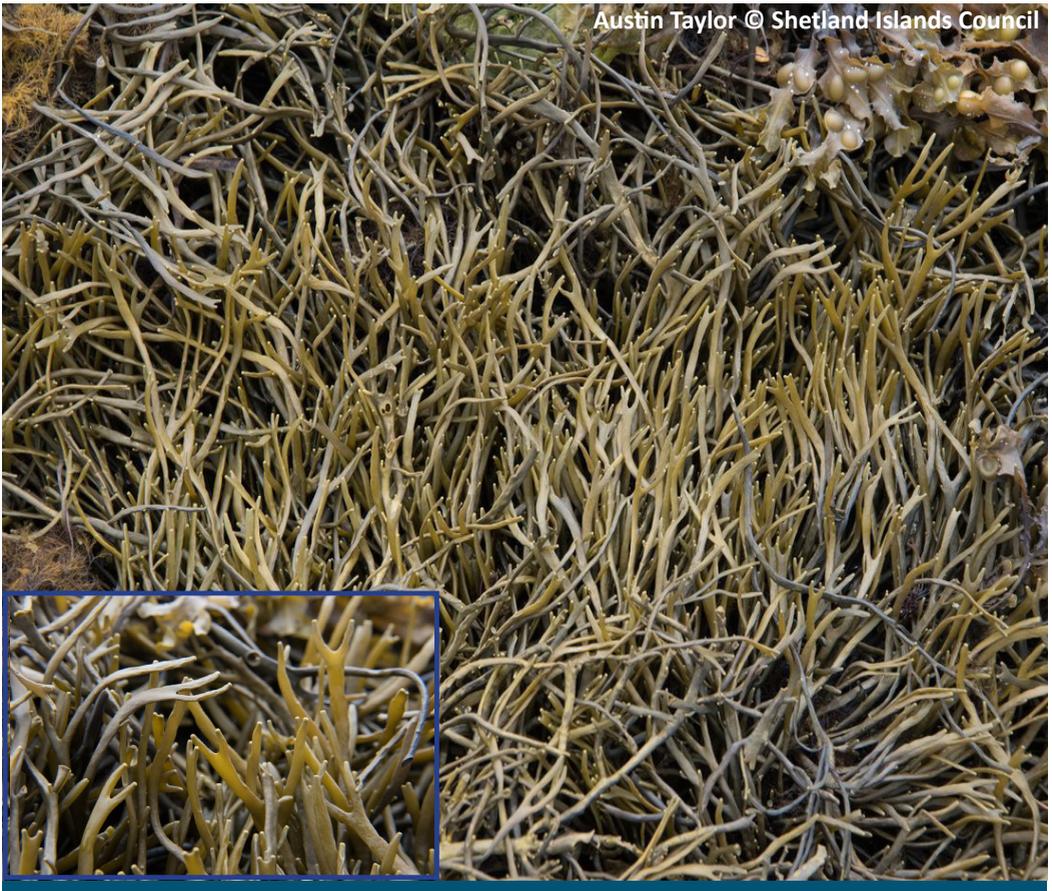
BLUE MUSSEL BEDS (*Mytilus edulis*)

- Blue mussels are a species of bivalve often seen growing together in clumps.
- They can be attached to rocks or gravelly substrates in the intertidal zone.
- They are blue to purple in colour and grow to around 15cm.
- When found in dense clumps covering an area of 20m² they are known as 'beds'.
- These beds are important for providing a habitat for many other marine species, stabilising sediments and maintaining good water quality.



CROFTER'S WIG (*Ascophyllum nodosum ecad makii*)

- Crofter's Wig is a form of free living egg wrack, it does not attach to rocks or substrate.
- It is known as Crofter's wig due to the wig-shaped masses it forms.
- It is found in the mid-upper tidal zone but only in very sheltered areas such as the head of voes where it is not at risk of being washed away.
- Records in Shetland are limited to small areas on the west side. It is considered globally rare with Shetland records representing it's northern most extent.



DWARF EELGRASS (*Zostera noltei*)

- Dwarf eelgrass is related to a *Zostera marina* but with smaller leaves growing between 6-22cm.
- In Shetland, it is found completely submerged and favours brackish water areas such as Strom Loch.
- The leaves are bright green in comparison to the dark leaves of *Zostera marina*
- The plants themselves are important for oxygenating the water and stabilising sediments and the wider beds provide a habitat for species of algae and invertebrates.



BEAKED TASSELWEED (*Ruppia maritima*)

- Beaked tasselweed is a species of seagrass favouring brackish water areas such as Strom Loch.
- The leaves are bright green and grow between 2-11cm.
- The plants themselves are important for oxygenating the water and stabilising sediments and the wider beds provide a habitat for species of algae and invertebrates.
- In Shetland, they are known to grow completely submerged in extremely sheltered brackish waters such as Strom Loch.



COMMON EELGRASS (*Zostera marina*)

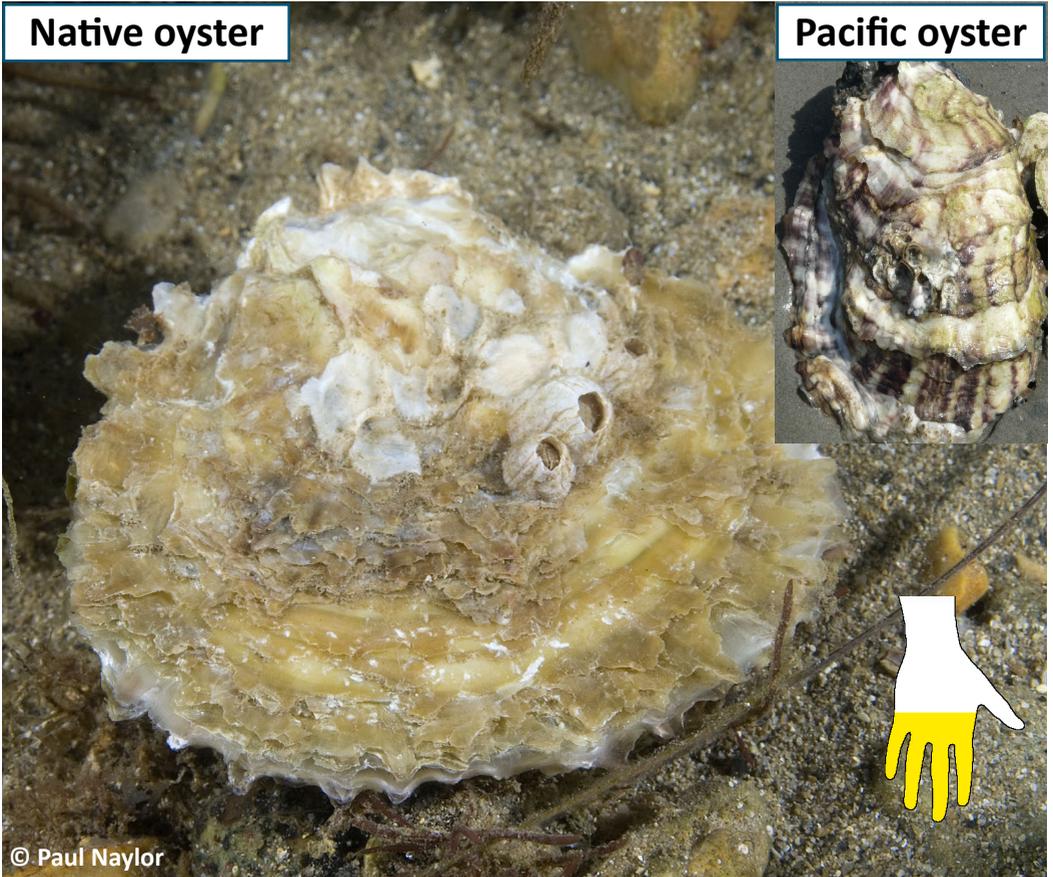
- Common eelgrass is a species of seagrass found in sheltered areas to a depth of 4m.
- Dark green leaves, 20-50cm in length.
- Dense beds of eelgrass provide a habitat for a diverse range of species and acts as an important nursery area for many fish species.
- It is capable of capturing and storing large amounts of carbon making it an important natural resource in the fight against climate change.
- More information on mapping and restoring Common eelgrass can be found at www.projectseagrass.org



NATIVE OYSTER (*Ostrea edulis*)

- Once common, native oysters are now rare across the UK including in Shetland.
- They grow to approximately 11cm and have a rough, layered shell one side of which is flat and the other rounded.
- They can be found in shallow water attached to rocks on muddy substrate.
- There are recent records from the west side of Shetland.
- They can be displaced by the non-native Pacific oyster (*Magallana gigas*) and we would welcome records of these also.

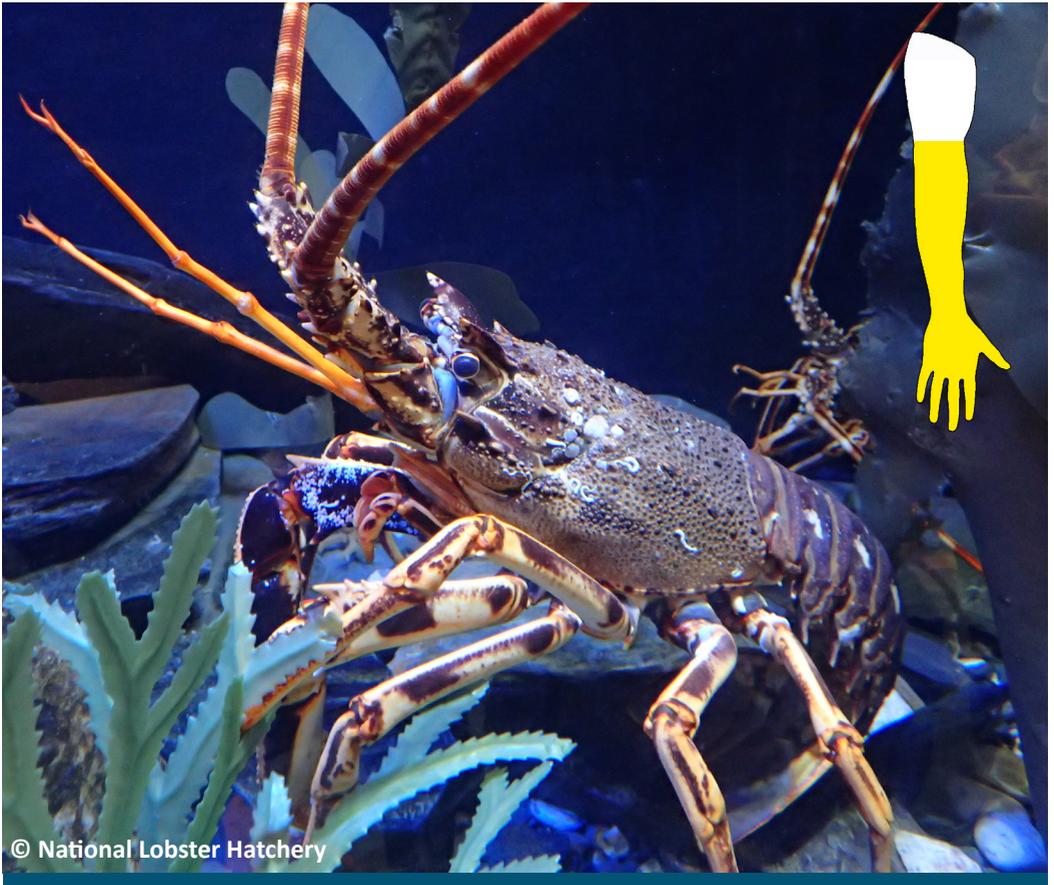
Native oyster



Pacific oyster

EUROPEAN SPINY LOBSTER (*Palinurus elphas*)

- Can grow to a total length of 50cm but commonly not more than 40cm.
- Reddish brown in colour with long thick antennae and small claws. Their bodies are covered in numerous forward facing spines.
- Can be found in rocky exposed areas.
- This species is recovering from intensive fishing in the 1960s and 1970s. The main population in Scotland is along the west coast.
- Uncommon in Shetland.



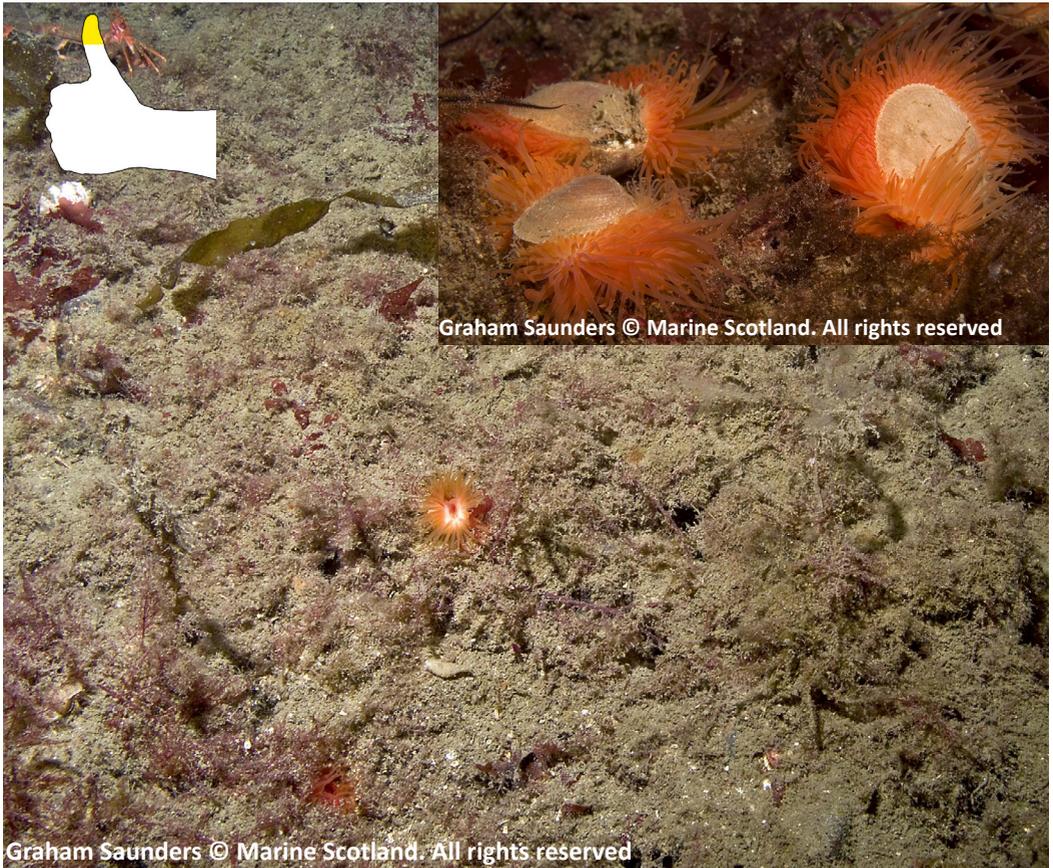
MAERL BEDS

- Maerl is a type of unattached corraline algae which can form large dense beds.
- Beds can be found along open coastlines where there is good tidal flow.
- These beds form important habitats and nursery areas supporting a wide variety of other marine species.
- Maerl is extremely slow growing, some of the extensive beds may be over 1000 years old.
- Beds can consist of living, pink maerl and white, dead maerl which all form a complex 3D structure which is favoured by burrowing marine fauna.



FLAME SHELLS (*Limaria hians*)

- Flame shells get their name from their very conspicuous red and orange tentacles.
- They are a bivalve mollusc growing to around 2.5cm in length. The shell is oval shaped and a whitish-brown colour and gapes on both sides.
- They make nests of byssus threads which bind sediment.
- Nests are covered in gravel, broken shells and maerl making them difficult to spot.
- In Shetland, individuals have been recorded from low water mark down to 20m.
- No nests have yet been recorded in Shetland but this may be due to them being easily overlooked. In Orkney, nests have recently been recorded in Scapa Flow.



HORSE MUSSEL BEDS (*Modiolus modiolus*)

- Individual horse mussels can be found all around the British coastline but dense beds are less common. Scotland accounts for around 85% of known horse mussel beds.
- These dense beds form a stable, solid substrate which provides a habitat for a diverse range of species.
- Adult horse mussels are yellow to dark brown in colour while juveniles may be dark blue to purple.
- Adults generally grow to around 15cm in length



FLAPPER SKATE & EGGSCASES (*Dipturus intermedius*)

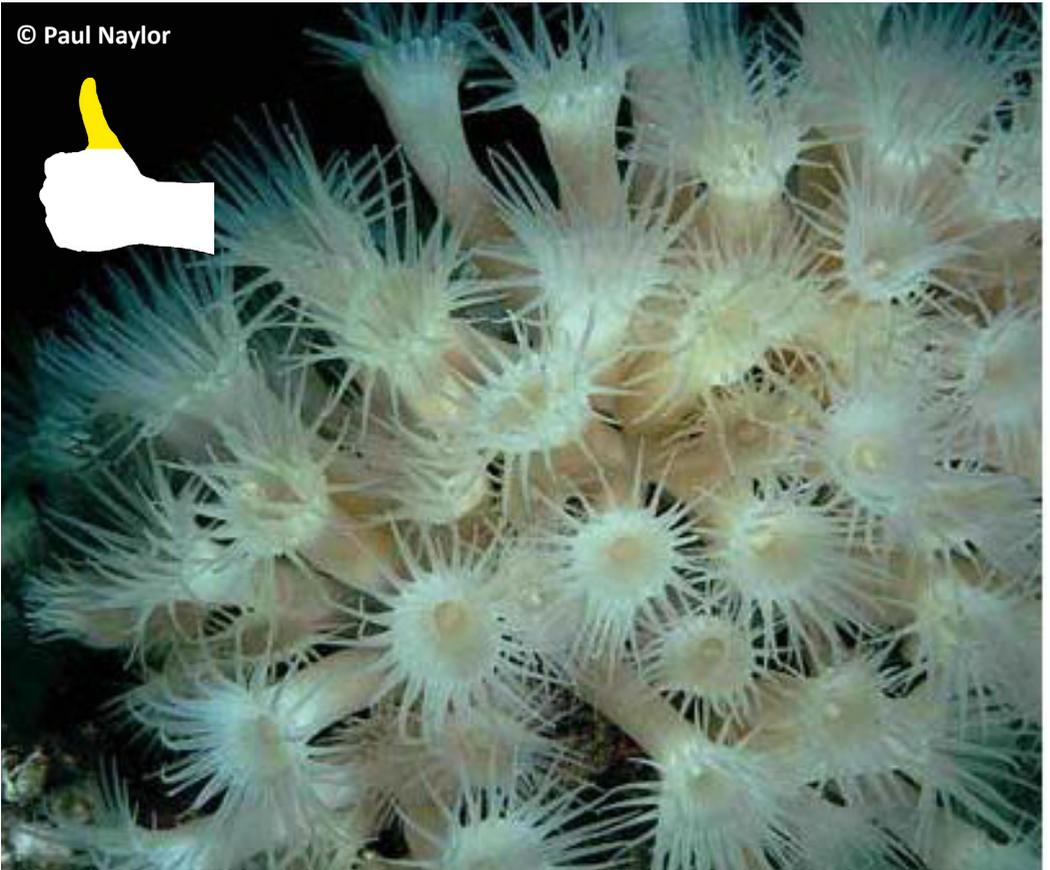
- A large skate growing to around 230cm.
- They have a sharply pointed snout and three rows of thorns down their tail.
- In Shetland they are dark olive-green, marked heavily with spots and/or squiggles.
- Flapper Skate eggcases are very large (13-24cm long) with a distinct lateral keel and a bark like appearance.



WHITE CLUSTER ANEMONE (*Parazoanthus anguicomus*)

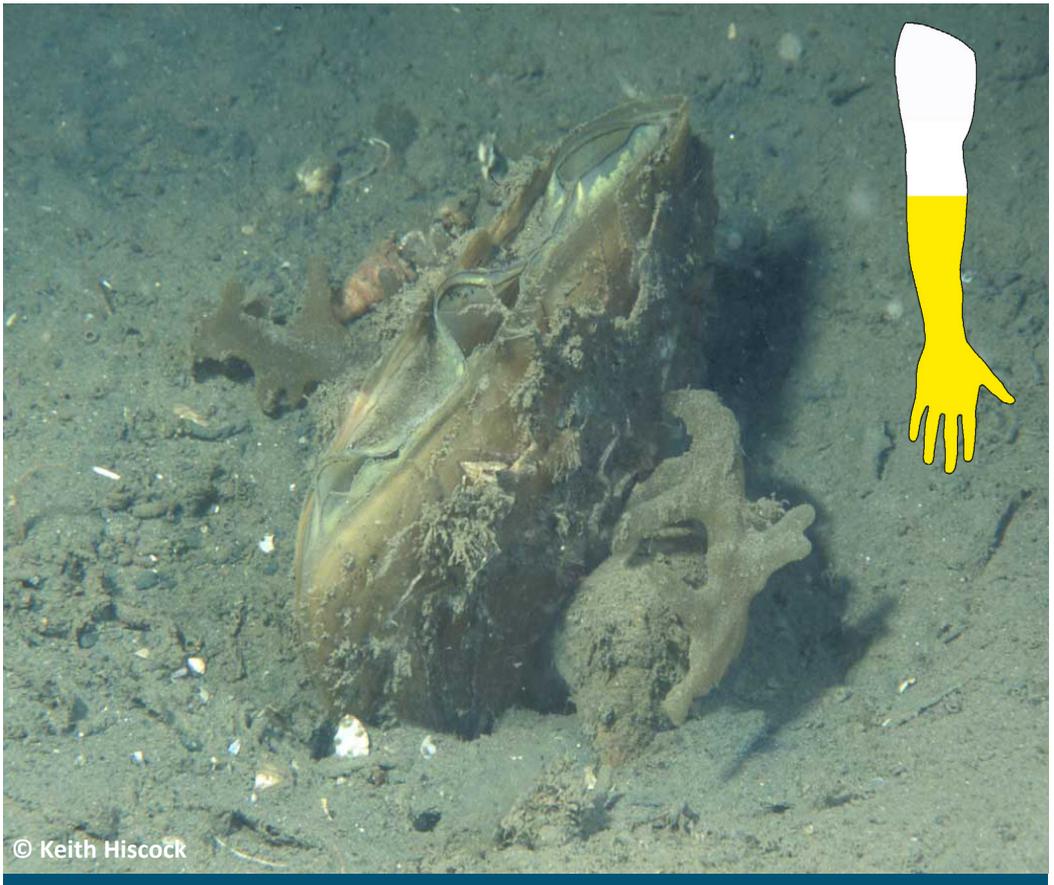
- A colonial anemone consisting of many individual polyps. Each polyp is up to 2mm tall and 8mm in diameter.
- They are white in colour sometimes tinted buff or pink.
- They favour rocky overhangs generally in deep water but have been found in coastal waters around Papa Stour and Green Holm.
- Nationally scarce.

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FAN MUSSEL (*Atrina fragilis*)

- A large mussel growing up to 37cm in length although generally one-two thirds of the shell is embedded in mud or sand.
- Usually found as individuals or in small groups.
- Nationally scarce and one of the most endangered molluscs in the UK.
- Historic offshore records from around Shetland.



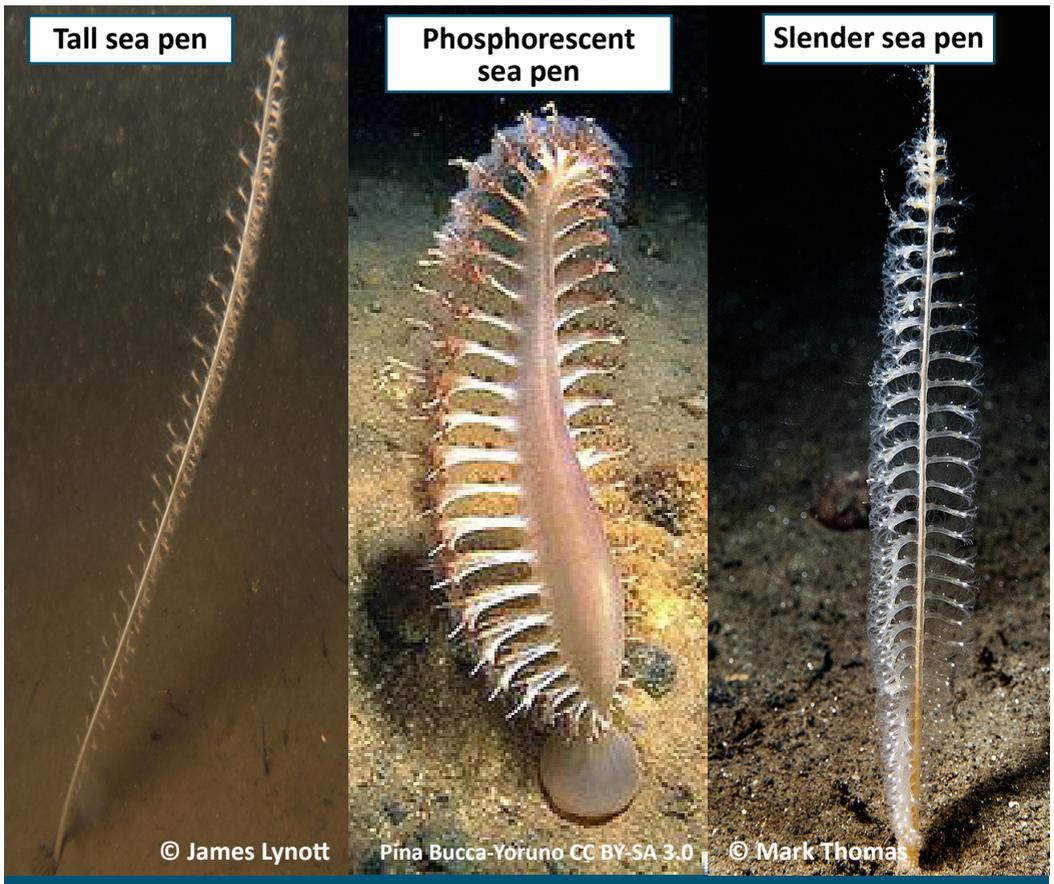
BURROWING ANEMONE (*Arachnanthus sarsi*)

- A large tube dwelling anemone which can grow up to 20cm tall.
- Lives buried in mud, sand or shelly mud at depths of around 10-36m and may be partly nocturnal.
- White to grey/ pink in colour with faint brown bands on the tentacles.
- Nationally rare with Scottish records being of international importance. One historical Shetland record off Lunna Kirk.
- Not to be confused with the tube anemone *Cerianthus lloydii*. The cone of inner tentacles on the burrowing anemone is distinctive to this species and distinguishes it from *Cerianthus lloydii*.



SEA PENS

- The **Slender sea pen** (*Virgularia mirabilis*) is common around Shetland waters having been recorded in Basta Voe, Dury Voe and Dales Voe.
- There are historical records from the 1980s of the **Phosphorescent sea pen** (*Pennatula phosphorea*) in Shetland. It is stout and fleshy up to 40cm long, yellow-pale pink in colour with white polyps.
- The **Tall sea pen** (*Funiculina quadrangularis*) is not currently recorded in Shetland but have the potential to be present here.
- Tall sea pens are narrow and tall sometimes exceeding 2m in height and are white to pale pink. They prefer a muddy substrate with good water flow.



WHAT DO WE NEED TO KNOW?

If you think you have spotted a one of the species in this guide, please send us the following information:

WHAT species you found

HOW many (if individuals) or how large (if a bed)

WHEN you found it

WHERE you found it (including coordinates if you have them) and at what depth

Any **PHOTOGRAPHS** you may have

CONTACT US

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