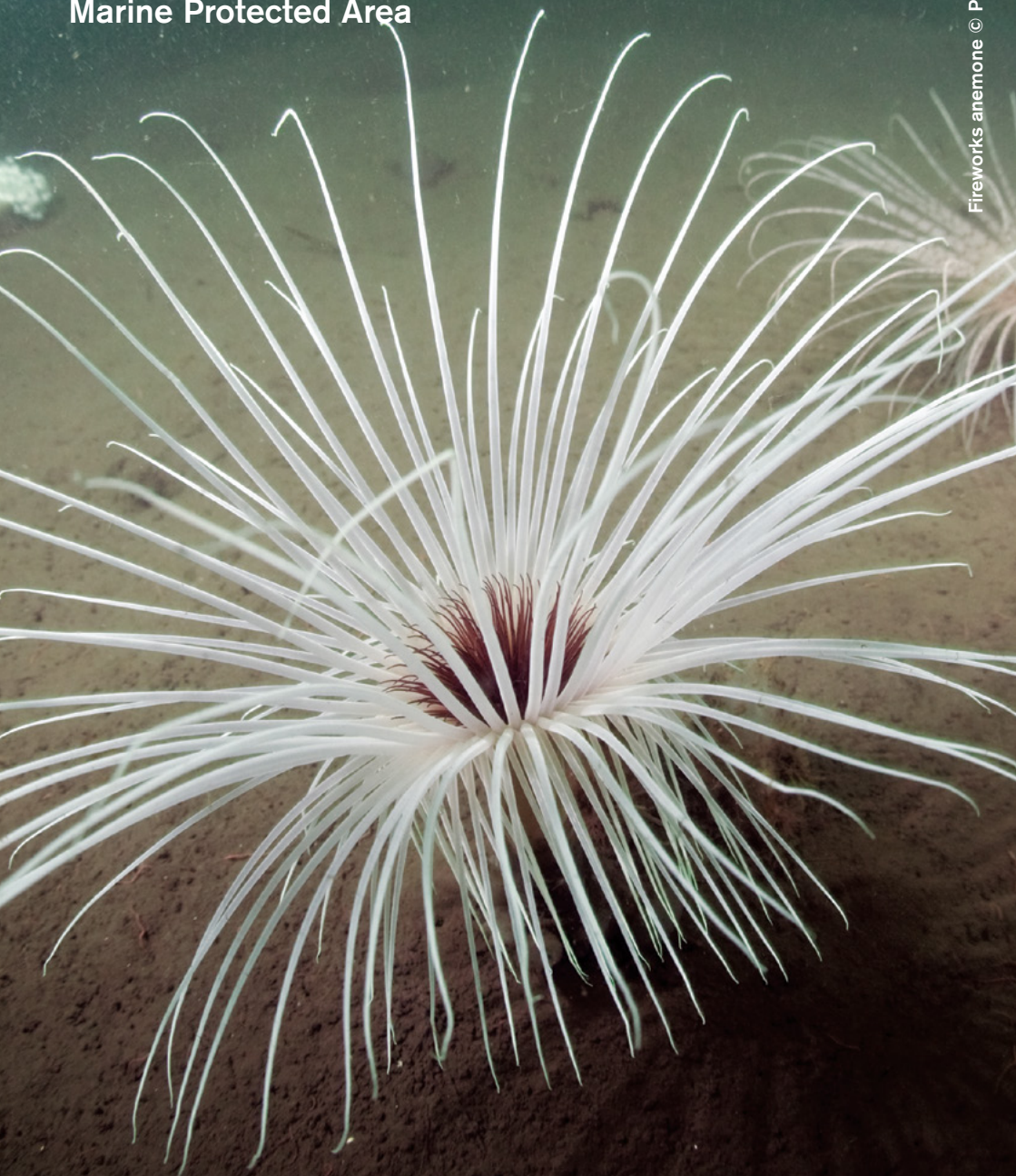


Upper Loch Fyne and Loch Goil

Marine Protected Area



Fireworks anemone © Paul Kay

Well kept secrets within the mud

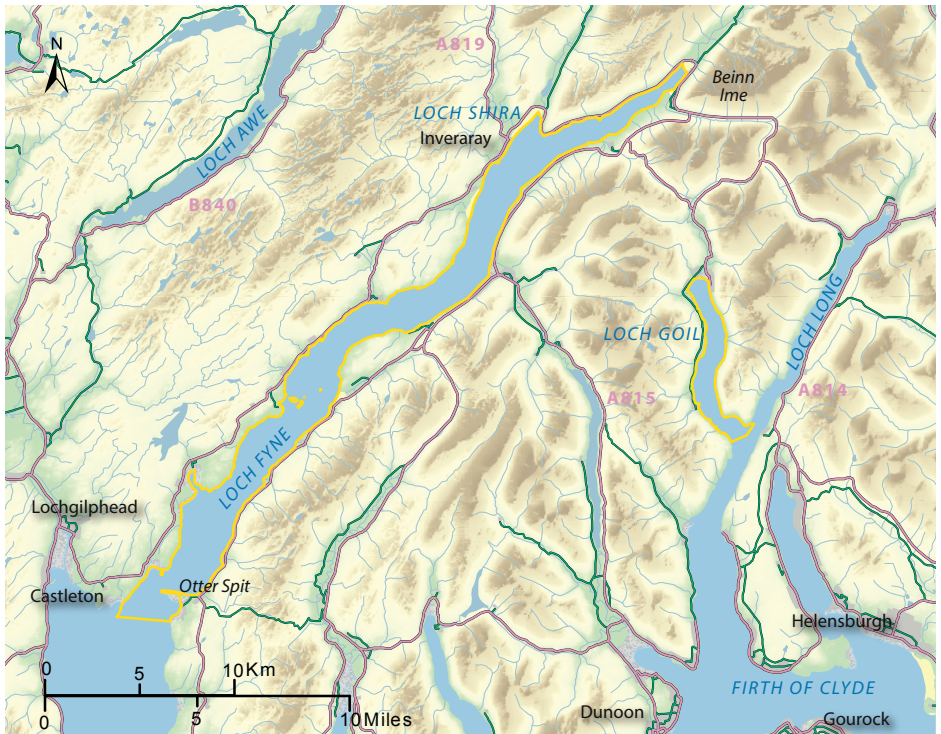
Upper Loch Fyne and Loch Goil

Marine Protected Area

The sea lochs of the Clyde are long and narrow. The differences in water movement and salinity from the entrance to the head of the lochs results in a range of habitats where an amazing diversity of plants and animals thrive.



The quiet waters of these sea lochs are the ideal environment for a range of muddy seabed habitats to develop. Loch Shira is home to spectacular fireworks anemones that seem to explode from the mud. They extend their crown of long, white, pink and green striped tentacles up into the water to capture particles of food as they fall down from the surface layers. In places volcano worms ingest the mud of the sea bed and excrete it into large mounds which are interspersed amongst the burrow entrances of Norway lobsters creating a lunar landscape in miniature.



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Upper Loch Fyne: 56° 07.529' N 005° 11.459' W Combined area: 88 km²
Loch Goil: 56° 07.682' N 004° 53.632' W



Flame shell bed with brittlestars and sea squirts

Protected Features & Conservation Objectives

Biodiversity: burrowed mud; flame shell beds; horse mussel beds; ocean quahog aggregations; sublittoral mud and specific mixed sediment communities.

The aim is to **recover the flame shell bed** and **conserve all other features** in order to make a long lasting contribution to the MPA network.

At Castleton there is a flame shell bed which benefits from the increased currents caused by the tide being forced around the headland at Otter Spit. The flame shell bed helps stabilise the underlying sediment creating a habitat for a wide range of other plants and animals that would otherwise not be able to survive in the area. These include brittlestars that can occur in such high densities as to appear as a blur of swaying arms held aloft into the water column, together with elegant peacock worms, various sponges, starfish and sea squirts.

Large aggregations of brightly coloured sea cucumbers are scattered in mixed muddy sediments on the sill at the entrance to the mouth of Loch Goil, alongside clumps of horse mussels and sea squirts. Throughout the Marine Protected Area (MPA) the ocean quahog, a thick-shelled, very long-lived bivalve hides in the mud. The quahogs can live for more than 400 years - they are the longest living animal on the planet! On the surface of the mud, slender seapens stand guard while squat lobsters roam in search of food amongst tube dwelling sea anemones that snap quickly back into their tubes if disturbed.

Further Information

Further information on Nature Conservation MPAs, the wider network and protected areas management is available at www.scotland.gov.uk/Topics/marine/marine-environment/mpanetwork

For Nature Conservation MPA site documents and more on the fascinating range of marine life to be found in Scotland's seas, please visit

www.snh.gov.uk/mpas - for territorial waters

www.jncc.defra.gov.uk/scottishmpas - for offshore waters



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 **JNCC**
Joint Nature Conservation Committee

A burrowing sea cucumber in mixed muddy sediments

