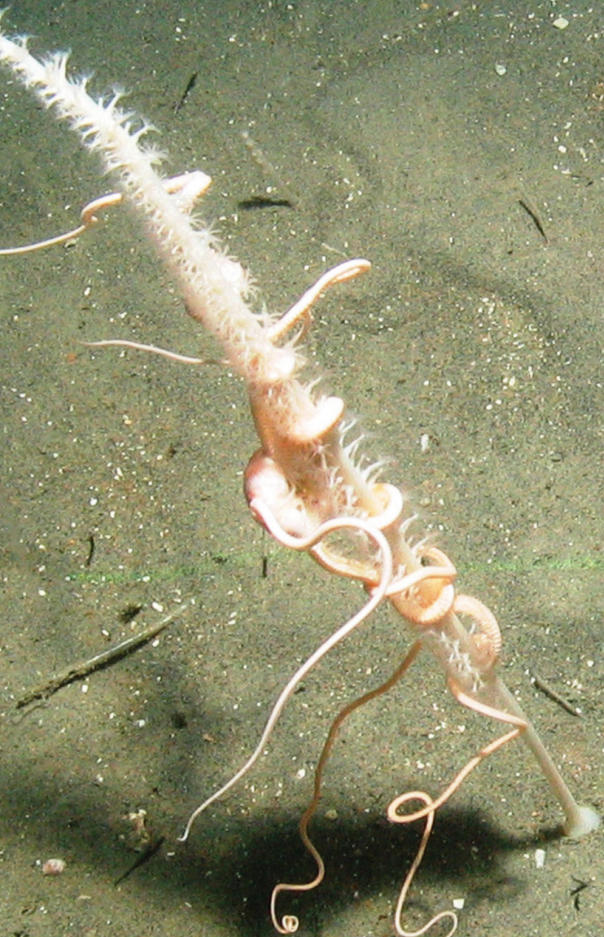


Central Fladen

Marine Protected Area



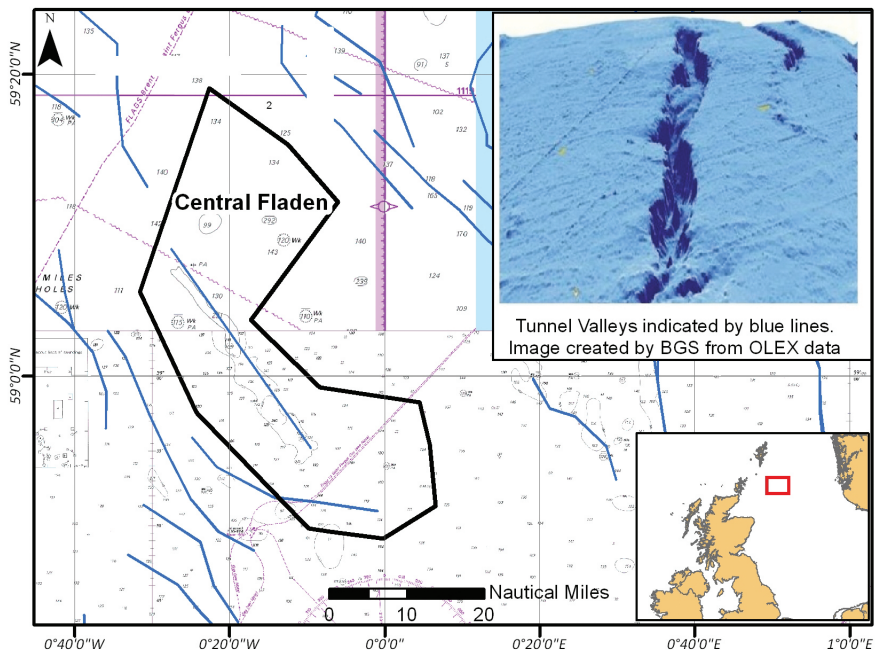
Brittlestars use tall sea pens
as an elevated perch

Central Fladen

Marine Protected Area (MPA)

The Central Fladen MPA lies within the Fladen Grounds, a large area of mud in the northern North Sea named after the German word “fladen” meaning “flat cake”. This MPA includes a particular type of mud habitat that is characterised by feather-like soft corals called sea pens, and the burrows made by crustaceans such as mud shrimp and the Norway lobster (or langoustine).

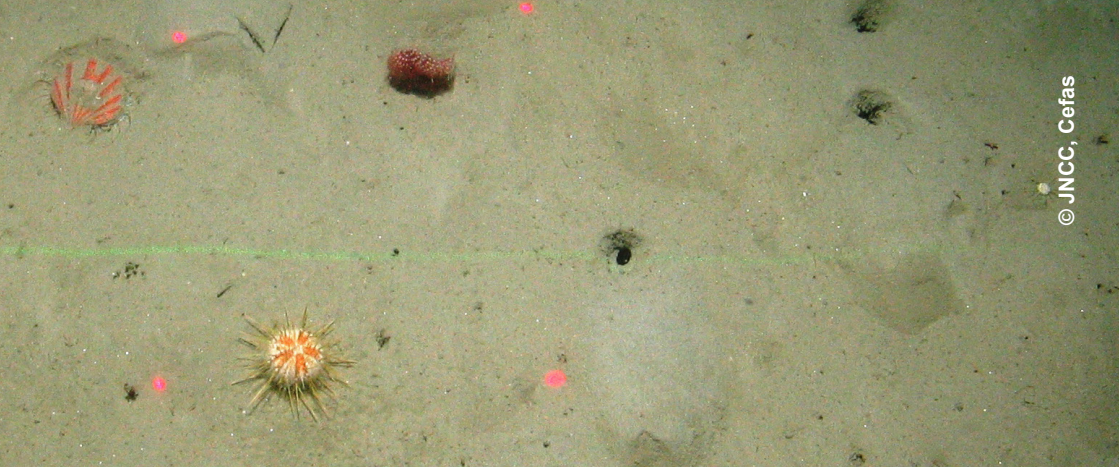
The MPA includes an unusual geological tunnel valley known as the Fladen Deep or ‘The Holes’. It is thought these valleys were created by erosion from melt water under an ice sheet in former ice ages. In places, the depressions in the sea floor can stretch for 40km and be 4km wide, reaching depths of 150m.



Map showing the boundary of the Central Fladen MPA, location of the tunnel valley features (blue lines on map), with the inset image showing the tunnel valley.

Location: 59° 02.547' N 0° 14.411' W

Area: 925 km²



Prawn burrow complexes and burrows made by other species are found throughout the area

Protected Features & Conservation Objectives

The aim is to **conserve** the **burrowed mud** habitat within the Central Fladen MPA, as well as the unusual seabed forms of the Quaternary of Scotland which are considered of geological importance.

Burrowed mud is an interesting and important marine habitat that supports a rich community of animals. Burrowing species can be found living within the mud itself, including the Norway lobster and mud shrimp. Their burrowing activity plays an important role in supporting life in the area; the constant churning of the mud releases nutrients and helps to mix oxygen into the mud. Longer lasting burrows also provide shelter to other marine life from the starfish and sea urchins that patrol the muddy surface looking for food.

Several different types of seapen can be found anchored in the muddy seabed. The southern part of the Central Fladen MPA includes examples of the nationally uncommon tall seapen, which can grow up to 2m in height. Brittlestars use the tall seapen as an elevated perch to filter food from passing currents.

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 information about the fascinating range of marine life found in Scotland's seas, please visit

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

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



marine scotland



Burrowed mud is home to a range of marine life

