

Marine habitat (Biotope) mapping

In order to properly manage and understand the wider marine environment and ecosystem as a whole, it is first necessary to have some knowledge of what constitutes the seabed and what habitats and species are present in a given area. This project aims to map the intertidal and subtidal habitats of the coast of Cornwall. Initially the project will create a digital marine habitat map covering the North coast of Cornwall from mean high water to 6 nautical miles offshore with the hope that this can be extended at a later date.

The mapping project will bring together a number of organisations interested in gathering seabed habitat data in Cornwall. The project will allow them to pool resources to make the most of survey data already collected by converting existing texture maps into useable habitat maps by overlaying detailed species and habitat data. Further habitat data where needed or where gaps are identified, particularly for intertidal areas, will be collected to enable a continuous habitat map to be produced from mean high water mark to the 6 nautical mile limit.

Benthic (seabed) habitat mapping has become the principle method for defining the distribution of seabed habitats, and indicating or predicting the distribution of marine organisms that are closely associated with these marine habitats. Rather than mapping the distribution of the species themselves, benthic habitat mapping uses remote sensing data to characterise wide regions of the seafloor primarily based on the substrate and geomorphology. This combined this with visual and sample ground truthing surveys undertaken by divers match species and biological communities with habitat characteristics. In the intertidal zone there is no need for remotely sensed data as habitats can be directly surveyed. Standard methodology for such surveys has been developed by the Countryside Council for Wales and is widely used in Wales and in parts of England (Marine Monitoring Handbook, JNCC).

The project aims to combine expert identification and survey skills and the latest in internet-based mapping technologies to undertake and disseminate a comprehensive map of the benthic marine biotopes (seashore and sea bed habitats and their associated communities) on the key intertidal areas of North Cornwall.

Lead organisations: Cornwall Wildlife Trust and the Marine Management Organisation. Other partners are identified as the Marine Coastal Agency, Channel Coastal Observatory, Exeter University, Environmental Records Centre for Cornwall and Isles of Scilly, Natural England, the Cornwall Inshore Fisheries and Conservation Authority and KSARS LTD (marine survey specialists).

Key BAP habitats:

- Sabellaria Alveolata Reefs
- Intertidal Mudflats
- Intertidal Underboulder Communities
- Sabellaria spinulosa Reefs
- Seagrass Beds
- Fragile Sponge and Anthozoan Communities on Subtidal Rocky Habitats
- Blue Mussel Beds
- Maerl Beds

Key BAP species:

- Timid burrowing anemone
- Pink sea fan
- Sea-fan anemone
- Native oyster
- Fan mussel



Eelgrass. Photo by Paul Kay