



# UK Biodiversity Action Plan Priority Habitat Descriptions

## Fragile sponge and Anthozoan Communities on Rocky Habitats

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# Fragile Sponge and Anthozoan Communities on Rocky Habitats

The Welsh BAP Habitat Atlas (2008) contains a description of this habitat which has been modified for use at a UK level. This habitat refers to both shallow subtidal communities and deepwater communities (e.g. CR.HCR.DpSp.PhaAxi) found at 3–50m deep. This habitat is still out to consultation.

## Correspondence with existing habitats

Habitats Directive Annex I: Reefs

## Habitat description

These communities are found on bedrock which is locally sheltered but close to tide-swept or wave exposed areas. They are dominated by large, slow growing species such as branching sponges and sea fans. The branching sponges include species such as *Axinella dissimilis*, *Axinella damicornis*, *Axinella infundibuliformis*, *Homaxinella subdola* and to a lesser extent *Raspailia* and *Stelligera* species. Other sponge species which may be present include *Dysidea fragilis*, *Pachymatisma johnstonia*, *Esperiopsis fucorum*, *Hemimycale columella*, *Cliona celata*, *Stelligera rigida*, *Polymastia boletiformis*, *Polymastia mamillaris*, *Stelligera stuposa*, *Raspailia ramosa* and *Tethya aurantium*. A silty hydroid/bryozoan turf may develop in the understorey of this rich sponge assemblage, with species such as *Aglaophenia pluma*, *Cellaria sinuosa*, *Bugula flabellata*, *Bugula plumosa* and *Bugula turbinata*, and crisiids. Larger species of hydroids such as *Nemertesia antennina* and *Nemertesia ramosa* may be present prominent surfaces together with the bryozoans *Pentapora foliacea* and *Alcyonidium diaphanum*. Other fauna includes aggregations of the colonial ascidians *Clavelina lepadiformis* and *Stolonica socialis*, together with the yellow cluster anemone *Parazoanthus axinellae*.

## UK & Wales distribution

In Wales, this community is primarily found where there is steeply sloping bedrock with local shelter. Sites include north and west Anglesey, the Llyn peninsula, and in Pembrokeshire from Strumble Head in the north to Stackpole in the south, excluding St Brides Bay. Elsewhere, this community is present around England's south-west peninsula from west Dorset to Lundy, and also off the south-east coast of Ireland.

## Environmental preferences

Salinity: Fully marine

Wave exposure: Exposed to moderately exposed (though with local shelter)

Tidal streams: Moderately strong (though with local shelter) to weak

Substratum: Steeply sloping and inclined bedrock or large boulders

Zone/depth: Upper circalittoral and lower circalittoral



Photograph by Dr Rohan Holt, showing a large specimen of the sponge *Axinella dissimilis*.

### **Illustrative biotopes**

CR.HCR.XFa.ByErSp.Eun – *Eunicella verrucosa* and *Pentapora foliacea* on wave-exposed circalittoral rock

CR.HCR.XFa.ByErSp.DysAct – Mixed turf of bryozoans and erect sponges with *Dysidea fragilis* and *Actinothoe sphyrodeta* on tide-swept wave exposed circalittoral rock

CR.MCR.EcCr.CarSwi – *Caryophyllia smithii* and *Swiftia pallida* on circalittoral rock

CR.MCR.EcCr.CarSwi.LgAs – *Caryophyllia smithii*, *Swiftia pallida* and large solitary ascidians on exposed or moderately exposed circalittoral rock

CR.HCR.XFa.SwiLgAs – Mixed turf of hydroids and large ascidians with *Swiftia pallida* and *Caryophyllia smithii* on weakly tide-swept circalittoral rock

CR.HCR.DpSp.PhaAxi – *Phakellia ventilabrum* and Axinellid sponges on deep, wave-exposed circalittoral rock

### **Current and potential threats**

- *Fisheries*: Physical damage from fisheries that deploy bottom gear on rocky seabed areas, such as potting, some fixed nets, trawling and dredging.
- *Suspended sediments*: Increased levels from fishing activity, dredge disposal or nearby dredging/construction.
- *Divers*: Physical damage resulting from careless fining and inadequate buoyancy control.
- *Angling*: Physical damage from entanglement of branching sponges and corals in fishing line.
- *Climate change*: Potential for a wide range of possible effects, but significance is not known.

### **Reference**

Northen, K.O. & Irving, R.A. (2008) An Atlas of selected marine habitats and species listed on Section 42 of the NERC Act 2006. CCW Contract Science Report No: 833, 72pp. + appendices

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