

Rocky seabed

1. A Definition

The South West BAP has the following definition of rocky seabed: areas of sublittoral¹ hard substrates typically consisting of bedrock reefs and boulder plains, out to 6 nautical miles from baselines, or to the 50m depth contour, whichever is the greater.

Within Devon's waters this habitat supports some of the richest marine communities in the country. It is home to some rare and beautiful sea creatures, such as the pink sea fan, and cup corals, of which Devon boasts five species. The waters around Devon are in a zone where colder waters of the north Atlantic meet warmer southern waters, and indeed several species here are found at their very northern-most geographical limit.

The County's bedrock geology is very varied, but of particular note are the limestone reefs of the Jurassic 'Lias' at the east of the County in Lyme Bay. In addition the presence of rocky seabed extending far into some marine inlets and rias is of considerable importance.

2. Why an Action Plan?

Unlike most other environments in Devon, the seabed remains poorly understood in terms of the natural and man-induced processes that determine the abundance, distribution and diversity of its sea life. What is known is that man can and does have a role in the well-being of the sea bed. Factors such as oil and chemical pollution, and damage to sensitive animal and plant communities by scallop dredging, beam trawling and sediment dredging are some of the impacts of man on the wildlife of the seabed.

This Action Plan aims to establish a way forward for the sensible use of this important habitat by exploring the ways in which commercial and recreational uses of the seabed can provide for a rich and varied wildlife.

3. Characteristic wildlife

Examples of species distinctive to the rocky seabed environment in Devon:

¹ A zone which extends from the lower part of the shore to the edge of the continental shelf.

- **Fish:** rock cook, *Centrolabrus exoletus*; cuckoo wrasse, *Labrus mixtus*; pollack, *Pollachius pollachius*; bass, *Dicentrachus labrax*; leopard-spotted goby, *Thorogobius ephippiatus*
- **Corals:** Devonshire cup coral, *Caryophyllia smithii*
- **Crustaceans:** common lobster, *Homarus gammarus*; common spider crab, *Maja squinado*
- **Sponges:** *Axinella* spp., *Raspailia* spp., *Stelligera* spp.
- **Bryozoans:** Ross 'coral' *Pentapora foliacea*
- **Piddocks:** boring bivalve molluscs, *Pholas dactylas*, *Barnea candida*
- **Sea urchins:** *Echinus esculentus*
- **Algae:** seaweed, *Laminaria ochroleuca*

4. Special species

The following species of conservation concern are associated with rocky seabed in Devon. Species marked (p) are 'Species of Principal Importance in England' (NERC Act, S.41).

- Pink sea fan (a gorgonian, or horny, coral), *Eunicella verrucosa* (p)
- Sunset coral, *Leptopsammia pruvoti* (p)
- Sea fan anemone, *Amphianthus dohrnii* (p)
- Native oyster, *Ostrea edulis* (p)
- Red sea fingers (a soft coral), *Alcyonium glomeratum*
- Gold and scarlet star coral, *Balanopyllia regia*
- Weymouth carpet coral, *Hoplangia durotrix*
- Trumpet anemone, *Aiptasia mutabilis*
- An anemone, *Parazoanthus axinellae*

5. Current extent (1998)

There is currently no accurate analysis of the composition of marine substrates around Devon, although available information suggests that approximately 20% of the sub-tidal environment is dominated by rocky substrates.

Important areas for this habitat in Devon are Lyme Bay, Torbay, Bigbury Bay, Berry Head, Tamar/Plymouth sound.

6. Current problems for rocky seabed in Devon (1998)

A wide range of factors have potential to cause damage to rocky seabed communities. Those of most concern in Devon's waters are:

Mobile fishing gear (towed beam trawlers/dredges) can cause damage to the sea bed, especially in areas of softer bedrock and in boulder fields.

Static fishing gear (crab, lobster, whelk pots) may cause localised damage to some organisms, as the line to which the pots are attached drags over them. Lost or discarded pots or nets may result in so-called "ghost fishing" in which the equipment continues to trap fish once it has been abandoned by man.

Spoil dumping from dredging operations may smother communities of the sea bed at the dumping site as well as affecting the surrounding area as fine sediment is carried along in the water column.

Sediment dredging (including aggregate extraction) degrades habitats at the operation site, and also results in smothering of adjacent sites. Some kinds of "dredging" operations that drag or pump sediment rather than extracting it are potentially harmful to wildlife but do not require a licence.

Pollution from a range of contaminants can cause acute and chronic effects to sub-tidal communities.

Recreational use of the sea, such as diving, angling and boating may cause damage to the sea bed where these activities are concentrated into a small area.

Lack of understanding of the threats to the life of the seabed by people who use the sea commercially or for recreation.

7. Recent changes in extent

The rocky seabed is physically rather immutable, although local areas may become covered or uncovered by sediments, according to storms and sediment movements, or eroded over very long time periods. Changes to the quality of the seabed have undoubtedly occurred, although there is little information currently available.

8. Current site protection (1998)

Lundy Marine Nature Reserve, one of only three in the UK, affords statutory protection to subtidal (and intertidal) marine environments.

Lundy is a SSSI and Salcombe/Kingsbridge Estuary is designated as a SSSI, including its sub-littoral interests.

Lundy and Plymouth Sound and Estuaries are Special Areas of Conservation (SAC). under EC Habitats Directive, and Plymouth Sound is also classified as a Specially Protected Area (SPA) under the EC Birds Directive.

Wembury is a Voluntary Marine Conservation Area (VMCA).

EC Urban Waste Water Directive defines legal standards for waste water effluent from towns and cities.

Management of fishing grounds in Devon waters is administered by the Devon Sea Fisheries Committee. Regulations which restrict the places and times that may be fished include seasonal and area closures, and controls on scallop dredging.

2004 update: Two voluntary closures exist in Lyme Bay that protect reefs from scallop dredging.

2008 update: Closure of 60 sqm of [Lyme Bay](#) to damaging forms of fishing.

2008 update: [Finding Sanctuary](#): a four-year project to design a network of Marine Protected Areas (MPAs) in the seas around South West England.

9. Biodiversity planning context

National Plan Context

Habitat of Principal Importance in England (NERC Act, S.41):

- Estuarine rocky habitats
- Fragile sponge and anthozoan communities on subtidal rocky habitats
- *Sabellaria spinulosa* reefs

Regional Plan Context

Regional targets for priority BAP habitats can be found on the website of [Biodiversity South West](#).

Associated Action Plans within the Devon BAP:

- Rocky foreshore
- Dynamic coastal landforms and habitats
- Estuaries
- Pink sea fan

10. Biodiversity objectives and targets for rocky seabed in Devon

Objective 1

Seek to improve understanding of the rocky seabed environment around Devon in terms of its distribution, the ecology of its fauna and flora, and the processes, man-induced and natural, that affect it.

Target:

- Ongoing.

Objective 2

Seek to prevent or limit man-induced change to the rocky seabed environment.

Target:

- Ongoing.

Objective 3

Foster increased understanding and awareness by all users of the marine environment of the importance of the habitat, the threats it faces and the ways in which damage to it can be ameliorated.

Target:

- Ongoing.

11. Wider benefits from pursuing these objectives

The pursuit of the Objectives and Targets set out above will not only benefit the rocky seabed. Conservation has wider benefits and advantages for society, by providing a resource which is the basis of many aspects of the local economy, and by adding to the quality of life of the people of Devon in ways which are beyond financial measure. Thus enhancing the interests of

biodiversity will also enhance the interests of society as a whole. Some of these wider benefits are as follows.

Enhanced attractiveness of the marine environment for recreation and tourism benefits local economies.

Sustainable management of fisheries, which includes considerations of the ecosystems which support commercial species, benefits local and national economies.

12. Priority or indicative actions for rocky seabed in Devon

Action	Key Partners
1. Ensure that all sediment dredging/dumping operations (including those that drag or pump sediment) take due regard of rocky seabed communities and where possible take ameliorating measures to reduce impact.	DEFRA; HrAs; Dredging Operators; EN; DWT
2. Ensure Statutory Water Quality Objectives are maintained for coastal waters.	EA; Defra
3. Ensure that oil and gas license conditions are influenced by the requirement of conservation during normal operations and in emergencies.	DTI; O&GCs
4. Continue to manage the use of scallop dredgers and beam trawlers within the 6nm fisheries limit in a way that limits potential damage to marine wildlife.	DSFC; EA
5. Continue to support zoning of fisheries (e.g. static gear reserves) and other appropriate management of fisheries, particularly in relation to populations of key species of cup corals and of pink sea fan.	DSFC; EA
6. Continue to produce and promote information and interpretation facilities for key user groups (e.g. fisheries, recreation) in order to foster understanding of the threats to and proper management of the rocky seabed. To include events such as the annual Marine Week.	DWT; EN; DSFC; HCS; LAs; HrA; NMA; LEMPS
7. Continue to survey, monitor and identify key sites for conservation particularly in relation to populations of pink sea fan and cup corals. Contribute data to the Devon Biodiversity Records Centre.	DWT; EN; LAs; Dive Clubs; DBRC; NMA
8. Contribute to research programmes which strive for a better understanding of the natural and human processes that impact on the marine environment.	EN; Universities; DEFRA; LAs; DSFC; EA

Rock Seabed Action Plan Champion - Devon Wildlife Trust

Abbreviations used in text and table

BAP	Biodiversity Action Plan
DBRC	Devon Biodiversity Records Centre
DEFRA	Department of Environment Food and Rural Affairs
DSFC	Devon Sea Fisheries Committee

DTI	Department of Trade and Industry
DWT	Devon Wildlife Trust
EA	Environment Agency
EN	English Nature (now Natural England)
HCS	Heritage Coast Service
HrA	Harbour Authority
LA	Local Authority
LEMPS	Local Estuary Management Partnerships
NMA	National Marine Aquarium
O&GC	Oil and Gas Company
SAC	Special Area of Conservation
SPA	Specially Protected Area
SSSI	Site of Special Scientific Interest
VMCA	Voluntary Marine Conservation Area
WCTB	West-Country Tourist Board