

Annex 1 Nationally and more than nationally important communities

Marine intertidal communities which are considered by the MNCR to be of national or more than national importance are listed below. It is likely that changes or additions to the list will be made as further information on the extent of these and other communities becomes available.

For these communities, it is expected that all highly rated examples as assessed by the MNCR in an AOS should be included in SSSIs.

Community or habitat type	Community & habitat	MNCR biotope code	Comments
Chalk (upper shore caves & cliffs)	Chrysophyceae on upper littoral fringe and supralittoral vertical chalk	LRK.CHR	These communities are restricted to the coastal chalk exposures between Flamborough Head, Yorkshire and Dorset. They often occur together at the same site. Some (particularly on chalk cliffs - a rare habitat in Europe) hold rare species of filamentous green algae. Examples with rare species are relevant here and all locations which are not degraded by coastal defences should be notified.
	Red and green velvety algal bands on upper littoral fringe of chalk caves	LRK.APP	
	Mats of <i>Blidingia</i> spp. on littoral fringe vertical chalk	LRK.BLID	
	Filamentous algae <i>Ulothrix flacca</i> and <i>Urospora</i> spp. on littoral fringe chalk	LRK.UU	
Soft piddock-bored rock	<i>Fucus serratus</i> , piddocks and red algae on lower-eulittoral soft rock	LRK.FSE.PID	Present on chalk shores in south-east England and on limestone shores elsewhere.
	<i>Laminaria digitata</i> and piddocks on sublittoral fringe soft rock	LRK.LDIG.PID	
	Piddocks and <i>Mytilus edulis</i> on eulittoral firm clay	LRK.PID.CLY	Known from the Irish Sea and East Anglian coastlines.
	Piddocks and a dense algal mat on fossilised peat outcrops	LRK.PID.PEAT	Known from north Norfolk.
Extremely exposed fucoid algae	<i>Fucus distichus</i> subsp. <i>anceps</i> and <i>Fucus spiralis</i> f. <i>nana</i> on extremely exposed littoral fringe bedrock	LRK.FDIS	Restricted to north and west Scotland, particularly Shetland and offshore islands. In some areas, the community is particularly well developed and has been especially studied in Fair Isle. Also occurs in Norway.
Tide-swept algae	<i>Ascophyllum nodosum</i> , sponges and ascidians on tide-swept mid-eulittoral rock	LRK.ASC.T	Found in the tide-swept narrows of sealochs in western Scotland. Communities much richer than non tide-swept fucoid communities.
	<i>Fucus serratus</i> , sponges and ascidians on tide-swept lower-eulittoral rock	LRK.FSE.T	
	<i>Laminaria digitata</i> , ascidians & bryozoans on tide-swept sublittoral fringe rock	LRK.LDIG.T	

(Continued)

Annex 1 continued

	Sponges, ascidians and red algae on tide-swept lower-shore mixed substrata	LMXD.SAR	Found in estuaries and other inlets where currents are enhanced over low-shore stony sediments.
Variable or low salinity	<i>Balanus improvisus</i> and sphaeromid isopods on eulittoral rock	-	Status to be confirmed.
Sand-scoured rocks	<i>Sabellaria alveolata</i> reefs on mid- and lower-shore sand-abraded mixed substrata	LMXD.SAB	Occurs on wave-exposed boulder scar grounds between the Solway and Cornwall.
Extreme shelter (sealochs)	<i>Ascophyllum nodosum</i> ecad <i>mackaii</i> beds on extremely sheltered, variable salinity, mixed substrata	LMXD.AMAC	Restricted to Scottish sealochs, often covering extensive areas of shingle or muddy shore. This distinctive growth form of <i>Ascophyllum nodosum</i> is not recorded extensively elsewhere in the north-east Atlantic.
Muddy gravels	Carpet shell <i>Venerupis senegalensis</i> and blunt gaper <i>Mya truncata</i> in muddy gravel shores	LMGR.VEN	Found in sealochs and rias.
	Gaper <i>Mya arenaria</i> and polychaetes in reduced-salinity muds and muddy gravels	LMGR.MYA	

Annex 2 Nationally rare and scarce species - intertidal areas and lagoons

Rarity assessment for marine benthic species is currently underway and requires the examination and assessment of large quantities of data as well as consultation with many taxonomic experts. This process is currently incomplete. As such, the species list below is provisional and, although these species will invariably be of biological interest, they should not be regarded as definitively rare or scarce. Some species listed below are known to occur in the very shallow sublittoral and are included because it is conceivable that they may yet be found in the sublittoral fringe.

Nationally rare = recorded in 8 or fewer 10 km x 10 km squares of the Ordnance Survey National Grid.

Nationally scarce = recorded in 9 to 55 10 km x 10 km squares of the Ordnance Survey National Grid.

For further details and a discussion of assessment criteria see Sanderson (in prep.). Codes are from the Marine Conservation Society's *Species directory* (Howson 1987). Species scheduled under the Wildlife and Countryside Act 1981 and those included in British Red Data Books are indicated.

<i>Species directory code</i>		Nationally rare	Nationally scarce	Scheduled in W&C Act 1981 (as amended)	Included in British Red Data Books
	Porifera (sponges)				
C0207	<i>Thymosia guernei</i>	●			
C0224	<i>Suberites massa</i>	●			
C0413	<i>Adreus fascicularis</i>		●		
	Cnidaria (sea fans, sea anemones, soft and hard corals, sea fans, sea pens)				
D0715	<i>Hartlaubella gelatinosa</i>		●		
D0720	<i>Laomedea angulata</i>		●		
D0729	<i>Obelia bidentata</i>	●			
D1121	<i>Isozoanthus sulcatus</i>		●		
D1203	<i>Aiptasia mutabilis</i>				
D1253	<i>Phellia gausapata</i>	●			
D1331	<i>Nematostella vectensis</i>		●	●	●
D1342	<i>Edwardsia ivelli</i>	●		●	●
D1344	<i>Edwardsia timida</i>		●		
D1350	<i>Scolanthus callimorphus</i>	●			
D1386	<i>Hoplangia durotrix</i>	●			
D1404	<i>Balanophyllia regia</i>		●		

<i>Species directory code</i>		Nationally rare	Nationally scarce	Scheduled in W&C Act 1981 (as amended)	Included in British Red Data Books
Annelida (segmented worms)					
P1524	<i>Sternaspis scutata</i>	●			
P1689	<i>Ophelia bicornis</i>	●			
P1712	<i>Armandia cirrhosa</i>	●		●	
P1892	<i>Alkmaria romijni</i>		●	●	
Crustacea (amphipods, isopods, crabs)					
S0647	<i>Pereionotus testudo</i>	●			
S0773	<i>Gammarus insensibilis</i>		●	●	●
S0783	<i>Pectenogammarus planicrurus</i>	●			
S1573	<i>Synisoma lancifer</i>		●		
Mollusca (chitons, snails, sea slugs, bivalves)					
W0057	<i>Leptochiton scabridus</i>		?●		
No code	<i>Caecum armoricum</i>	●		●	●
W0375	<i>Truncatella subcylindrica</i>	●			●
W0379	<i>Paludinella littorina</i>	●		●	●
W1482	<i>Tenellia adspersa</i>	●		●	●
W1557	<i>Aeolidiella sanguinea</i>	●			
W1853	<i>Thyasira gouldi</i>	●		●	
Bryozoa (sea mats)					
Y0176	<i>Victorella pavida</i>	●		●	●
Y0334	<i>Watersipora complanata</i>	●			
Y0382	<i>Porella alba</i>	●			
Y0566	<i>Plesiothoa gigerium</i>	●			
Y0624	<i>Turbicellepora magnicostata</i>	●			
Y0876	<i>Bugula purpurotincta</i>	●			
Echinodermata (starfish, urchins)					
ZB0369	<i>Paracentrotus lividus</i>		●		
Ascidiacea (sea squirts)					
ZD0159	<i>Phallusia mammillata</i>		●		
ZD0258	<i>Molgula oculata</i>		●		

<i>Species directory code</i>		Nationally rare	Nationally scarce	Scheduled in W&C Act 1981 (as amended)	Included in British Red Data Books
Pisces (fish)					
ZG0719	<i>Gobius cobitis</i>		•		
Rhodophyta (red algae)					
ZM0218	<i>Gelidium sesquipedale</i>	•			
ZM0322	<i>Callophyllis cristata</i>		•		
ZM0546	<i>Gracilaria bursa-pastoris</i>		•		
ZM0547	<i>Gracilaria multipartita</i>		•		
ZM0760	<i>Anotrichium barbatum</i>	•			
ZM0780	<i>Bornetia secundiflora</i>	•			
ZM1091	<i>Lophosiphona reptobunda</i>	•			
No code	<i>Polysiphonia ceraniformis</i>	•			
ZM1138	<i>Pterosiphonia pennata</i>		•		
Phaeophyta (brown algae)					
ZR0159	<i>Pseudolithoderma roscoffensis</i>		•		
ZR0258	<i>Halothrix lumbricalis</i>	•			
ZR0513	<i>Leblondiella densa</i>	•			
ZR0549	<i>Asperococcus compressus</i>		•		
ZR0551	<i>Asperococcus scaber</i>	•			
ZR0671	<i>Fucus distichus</i>		•		
Chlorophyta (green algae)					
ZS0341	<i>Cladophora battersii</i>	•			
ZS0398	<i>Derbesia tenuissima</i>	•			
Charophyceae (stoneworts)					
No code	<i>Lamprothamnium papulosum</i>		•	•	•
No code	<i>Tolypella nidifica</i>	•			•

Annex 3 Marine species protected under schedules 5 and 8 of the 1981 Wildlife and Countryside Act.

All cetaceans

Odobenus rosmarus (walrus)

Lutra lutra (otter)

All marine turtles (Dermochelyidae and Cheloniidae)

Alosa alosa (allis shad)

Acipenser sturio (sturgeon)

Gammarus insensibilis (lagoon sand shrimp)

Victorella pavida (trembling sea mat)

Caecum armoricum (De Folin's lagoon snail)

Paludinella littorina (lagoon snail)

Tenellia adpersa (lagoon sea slug)

Thyasira gouldi (northern hatchet-shell)

Alkmaria romijni (tentacled lagoon worm)

Armandia cirrhosa (lagoon sand worm)

Edwardsia ivelli (Ivell's sea anemone)

Eunicella verrucosa (pink sea fan)

Nematostella vectensis (starlet sea anemone)

Lamprothamnium papulosum (foxtail stonewort)

