COASTAL VEGETATED SHINGLE (UK BAP PRIORITY HABITAT)

Summary

This habitat forms a zone of shingle, mostly no more than a few metres wide, just above the high water mark, but in places extending well inland. It is made up of stones or rock particles varying in size from 2 mm to 20 cm across, and has a discontinuous cover of pioneer and weedy species.

This priority habitat is widespread and common along most parts of the Scottish coast. It has a limited range of plant species but does include some of special interest, and is also important for insects, reptiles and as a breeding ground for terns. It is little affected by deliberate management because it is relatively unstable and mobile, and is only just above the high tide line.

What is it?

This habitat forms a zone of shingle above the high water mark. This zone is usually no more than a few metres wide, grading into stony or sandy beaches in a seaward direction, and into dunes or cliffs further inland. Elsewhere it may extend further inland, often forming parallel ridges.

The ground within this priority habitat is made up of stones or rock particles varying in size from 2 mm to 20 cm across. The smallest particles are larger than those of sand and are too large and heavy to be blown by wind into dune formations, but the habitat as a whole is subject to the action of storm waves and is often unstable and rather mobile. In such conditions the vegetation is generally made up of a discontinuous cover of pioneer and weedy species. Where shingle extends further landward conditions may be more stable,

leading to the establishment of a range of perennial vegetation types including grassland, heath, scrub or even woodland. Transitions to saltmarsh with distinctive shingle forms occur frequently.

Typical plants of the strandline on Coastal vegetated shingle are sea sandwort *Honkenya peploides,* sea campion *Silene uniflora,* curled dock *Rumex crispus,* sea mayweed *Tripleurospermum maritimum,* silverweed *Potentilla anserina,* Babington's orache *Atriplex glabriuscula,* early orache *A. praecox,* cleavers *Galium aparine,* common chickweed *Stellaria media* and skullcap *Scutellaria galericulata*. Inland there may be a zone of open grassland with *Arrhenatherum elatius* and/or *Festuca rubra* depending in part on grazing, with species such as stonecrops *Sedum* spp, sheep's sorrel *Rumex acetosella, Silene uniflora, Aira* spp and herb Robert *Geranium robertianum.* Sea radish *Rhaphanus maritimus* is a distinctive shingle species in the south-west Scotland.

Dry heathland and open shingle areas with a rich flora of lichens and/or bryophytes occur at a few sites. Scrub with common gorse *Ulex europaeus* and other species including blackthorn *Prunus spinosa,* hawthorn *Crataegus monogyna* and bramble *Rubus fruticosus* is more widespread, as are stands of bracken *Pteridium aquilinum*.

How do I recognise it?

Differentiation from other Priority Habitats

The most commonly associated priority habitats are Coastal sand dunes and Coastal saltmarsh. Coastal saltmarsh has a completely different set of NVC types. Coastal sand dunes share one NVC type (SD2) with Coastal vegetated shingle: examples on sand belong in Coastal sand dunes, and those on shingle are in this priority habitat. Other NVC types are shared with various other habitats.

Definition in relation to other habitat classifications

Classification	Habitat types belonging to this UK BAP priority habitat
NVC	MC6 (examples on shingle/strandline; not on cliffs), MG11 (strandline examples), SD1 (all examples), SD2 (examples on shingle/strandline; not on dunes), SD3 (all examples), U1, U4, MG1, W23, W24, W25, U20, H10, H12 (all examples on shingle only), and SDz *Catabrosa aquatica* strandline community (provisional NVC community described by Dargie (2000)). MC6, MG11 and S1-3 are included in the Scottish Biodiversity List.
Phase 1	This priority habitat includes all examples of one Phase 1 habitat types: H3.
UK BAP broad habitat	All examples of Coastal vegetated shingle priority habitat in Britain belongs in the UK BAP broad habitat - Supralittoral sediment.

Definition in relation to legislative classifications

Classification	Habitat types belonging to this UK BAP priority habitat
Habitats Directive Annex I	This priority habitat includes Annex I types H1210 (examples on shingle only) and H1220 (all examples).
SNH SSSI habitat features	The Coastal vegetated shingle priority habitat includes one

	SSSI Habitat Feature: Shingle.

Where is it?

Coastal vegetated shingle occupies a zone just above the high water mark, extending a variable distance inland. It grades most commonly into stony or sandy beaches in a seaward direction, and into dunes or cliffs further inland.

This priority habitat is widespread and common along much of the Scottish coast. However, large areas of vegetated shingle occur at relatively few sites, mainly in south-west Scotland and the Moray Firth (Sneddon and Randall 1994). Notable sites include Rhunahaorine (Kintyre) and Kingston Shingles (Spey Bay). According to Ellis and Munro (2004) the extent of this priority habitat in Scotland has been estimated as about 670 hectares of Coastal vegetated shingle covering wide areas in which area measurement is realistic, and an additional 162.5 km length of examples which form narrower, more linear strips for which area measurement is not practicable. A new inventory of coastal vegetated shingle was compiled by SNH in 2014.

What is special about it?

Although this habitat has a limited range of plant species this does include some of special interest, such as *Mertensia maritima,* and the habitat is also important for insects (which can be notably abundant among and beneath stones), reptiles and as a breeding ground for terns. Some species of special conservation status recorded in this priority habitat in Scotland are listed below.

Group	Common name	Latin name	UK BAP priority list	EC Habitats Directive Annex II	Scottish Bio-diversity List	Red Data List	Wildlife and Country-side Act (1981)
birds	roseate tern	*Sterna dougallii*	y		y	y	y
birds	common tern	*Sterna hirundo*			y		
birds	Arctic tern	*Sterna paradisaea*			y		
birds	Sandwich tern	*Sterna sandvicensis*			y		
birds	little tern	*Sternula albifrons*			y		y
birds	purple sandpiper	*Calidris maritima*			y		y
birds	shore lark	*Eremophila alpestris*					y
birds	snow bunting	*Plectrophenax nivalis*			y		y
butterflies	dingy skipper	*Erynnis tages*	y				
butterflies	grayling	*Hipparchia semele*	y				
butterflies	wall	*Lasiommata megera*	y				
flowering plants	stinking goosefoot	*Chenopodium vulvaria*	y			y	y
flowering plants	oysterplant	*Mertensia maritima*				y	
flowering plants	prickly saltwort	*Salsola kali subsp. kali*	y		y	y	
moths	grass rivulet	*Perizoma albulata subsp. albulata*	y				
reptiles	slow-worm	*Anguis fragilis*	y				y
reptiles	common lizard	*Zootoca vivipara*	y				y

Although this habitat is a familiar sight along much of the Scottish coast it is interesting to note that on a global scale it is largely restricted to north-west Europe, Japan and New Zealand.

How do we manage it?

This priority habitat is little affected by deliberate management because it is relatively unstable and mobile, is only just above the high tide line, and can indeed be affected by larger waves at high tides.

It is not managed as deliberate or productive grazing land but some examples are within larger grazing units and are therefore visited by grazing stock such as sheep and cattle. However, most of the plant species in these shingle zones are rather unpalatable to large herbivores, so stock grazing may not have a major effect on the vegetation.

Beach cleaning, shingle removal and tipping or encroachment of development may damage vegetation in more stable areas and invasive non-native species are affecting some examples of this habitat.

References, links and further reading

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https://www.nature.scot/snh-commissioned-report-739-inventory-coastal-vegetated-shingle-scotland-field-validation

Countryside Survey: http://www.countrysidesurvey.org.uk

National Biodiversity Network (NBN) Gateway https://data.nbn.org.uk/

Scottish Government website – information about agricultural grants, subsidies and services: http://www.scotland.gov.uk/Topics/farmingrural/Agriculture/grants/A-Z/Intro

Scottish Natural Heritage website: http://www.nature.scot

UKBAP information on JNCC website: http://jncc.defra.gov.uk/default.aspx?page=5155