UK Biodiversity Action Plan
Priority Habitat Descriptions

Coastal Vegetated Shingle

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The definition of this habitat remains unchanged from the pre-existing Habitat Action Plan (https://webarchive.nationalarchives.gov.uk/20110303150148/http://www.ukbap.org.uk/UKPlans.aspx?ID=29), a summary of which appears below.

Shingle is defined as sediment with particle sizes in the range 2–200mm. It is a globally restricted coastal sediment type with few occurrences outside north-west Europe, Japan and New Zealand. Shingle beaches are widely distributed round the coast of the UK, where they develop in high energy environments. In England and Wales it is estimated that 30% of the coastline is fringed by shingle. However most of this length consists of simple fringing beaches within the reach of storm waves, where the shingle remains mobile and vegetation is restricted to temporary and mobile strandline communities.

Shingle structures take the form either of spits, barriers or barrier islands formed by longshore drift, or of cuspate forelands where a series of parallel ridges piles up against the coastline. Some shingle bars formed in early post-glacial times are now partly covered by sand dunes as a result of rising sea levels leading to increased deposition of sand.

The origin of coastal shingle varies according to location. In southern England, much of it is composed of flint eroded out of chalk cliffs. Shingle deposits of Ice Age origin lying on the sea bed may be reworked by wave action and re-deposited or moved by longshore drift along the coast. In northern and western Britain, shingle may derive from deposits transported to the coast by rivers or glacial outwash. Shingle structures are of geomorphological interest.

The vegetation communities of shingle features depend on the amount of finer materials mixed in with the shingle, and on the hydrological regime. Classic pioneer species on the seaward edge include sea kale *Crambe maritima*, sea pea *Lathyrus japonicus*, Babington's orache *Atriplex glabriuscula*, sea beet *Beta vulgaris*, and sea campion *Silene uniflora*; which can withstand exposure to salt spray and some degree of burial or erosion. Further from the shore, where conditions are more stable, mixed communities develop, leading to mature grassland, lowland heath, moss and lichen communities, or even scrub. Some of these communities appear to be specific to shingle, and some are only known from Dungeness. On the parallel ridges of cuspate forelands, patterned vegetation develops, due to the differing particle size and hydrology. Some shingle sites contain natural hollows which develop wetland communities, and similar vegetation may develop as a result of gravel extraction.

Shingle structures may support breeding birds including gulls, waders and terns. Diverse invertebrate communities are found on coastal shingle, with some species restricted to shingle habitats.

Shingle structures sufficiently stable to support perennial vegetation are a comparatively rare feature even in the UK. The major vegetated shingle structures surveyed in 1987–1991 by Sneddon and Randall totalled some 5,000ha in England, 700ha in Scotland, and 100ha in Wales. Dungeness, in southern England, is by far the largest site, with over 2,000ha of shingle, and there are only five other structures over 100ha in extent in the UK. The main concentrations of vegetated shingle occur in East Anglia and on the English Channel coast, in north-east Scotland, and in north-west England and south-west Scotland. The Welsh coast has a number of small sites. This habitat is poorly represented in Northern Ireland, where the key site is Ballyquintin in County Down.