

## PRIORITY HABITAT FACTSHEET



*Sand Dunes, Benacre (Paul Mitchell), Sea-aster Colletes Bee, 5-Banded Tailed Digger Wasp (both Paul Kitchener)*

# Coastal Sand Dunes

Hills or ridges made from sand blown inland and deposited above the high-water mark, creating dynamic systems parallel to the beach. Becoming taller and more chaotic the further they are from the sea.

Vegetation zones change as the distance inland increases. The zones are influenced by time; dune stability; and local hydrological conditions.

Dunes can shrink due to storms, rising sea levels or a lack of sand.

## IMPORTANCE FOR WILDLIFE

Sand dune systems provide a variety of habitat zones. Calcareous fixed dunes have a range of plant species including legumes. Acidic dune systems are dominated by heather. Creeping Willow and Mosses grow in the wet dune slacks. The more mobile sand areas provide open vegetation and bare ground which warms up quickly and areas of tussocky Marram Grass provide shelter. Solitary bees and wasps use stable sand dunes to make burrows for their larvae. Leaf-hoppers, plant-hoppers and ground beetles use the sparse vegetation between Marram Grass and Sand Couch.



## IMPORTANT ASSOCIATED SPECIES

### Reptiles and Amphibians

Natterjack Toad *Bufo calamita*

### Bees and Wasps

Brown-Banded Carder Bee *Bombus humilis*  
Large Garden Bumblebee *Bombus ruderatus*  
Sea-aster Colletes Bee *Colletes halophilus*  
Weevil Hunting Wasp *Cerceris quadricincta*  
5-Banded Tailed Digger Wasp  
*Cerceris quinquefasciata*

### Moths

Rest Harrow *Aplasta ononaria*

### Spiders

Silky Gallows-spider *Diplocephalus inornatus*  
Heath Grasper *Haplodrassus dalmatensis*  
Sand Running Spider *Philodromus fallax*

### Antlion

Antlion *Euroleon nostras*\*

### Plants

Prickly Saltwort *Salsola kali*  
Field Scabious *Knautia arvensis*  
*Campylium polygamum* moss  
Viper's Bugloss *Echium vulgare*

\*Suffolk Priority species



Images: Top – Rest Harrow (Neil Sherman). Bottom, left to right – Natterjack Toad (Steven Falk), Brown Banded Carder Bee (Suffolk Naturalist), Antlion (Brian Evesham), Antlion (Pete Etheridge).

## FACTORS AFFECTING HABITAT IN SUFFOLK

- Sea level rise due to climate change. In addition to this, the south eastern area of the UK is gradually sinking due to the isostatic tilt of the mainland. This is also known as 'post-glacial rebound' and is the rise of land masses previously pushed downwards by the weight of the ice sheet during the last ice age approximately 10,000 years ago.
- Excessive pedestrian use may cause or exacerbate erosion. Sand dunes are usually easily accessible to the public.
- Sea defence structures and artificial stabilisation measures such as fencing can change sediment deposition and affect the dynamic nature of dune systems.



## HABITAT MANAGEMENT ADVICE

- Maintain a full range of successional stages with mobile fore-dunes, more established dunes with varied vegetation, stable sandy grassland or dune heath and dune slacks.
- Maintain undisturbed sparsely vegetated sand for ground-nesting insects as well as a variety of other habitats for feeding.
- Maintain flower-rich areas which will provide good quality foraging sites for bees and other insects. Legumes are particularly important.
- Maintain any transition areas with adjacent saltmarsh, fen or woodland. The mosaic of habitats will support a wide variety of invertebrates such as ground beetles and bees.
- Prevent damage by human disturbance, such as trampling e.g. by erecting fences and boardwalks where appropriate.
- Control dog-walking in particularly sensitive areas to prevent damage through fouling and trampling.
- Ensure continuity of scrub and woodland to provide shelter and nectar, but prevent the spread of scrub.
- Maintain dune slacks and natural fluctuation of water levels.
- Maintain any natural water features such as streams and seepages.
- Retain biodegradable tidal debris, such as seaweed and driftwood. These provide important habitat for invertebrates.
- Avoid over-stabilisation of dune systems.

*Rock Samphire (Charles Cuthbert).*



## VISION FOR SUFFOLK

1. Improve knowledge of extent and quality of coastal sand dunes.
2. Maintain the existing extent of coastal sand dunes to ensure no net loss.
3. Re-create coastal sand dunes as opportunities arise.
4. Encourage the restoration and improvement of degraded coastal sand dunes.



## WHERE TO FIND FURTHER INFORMATION

Buglife – advice on managing BAP habitats

- <https://www.buglife.org.uk/resources/habitat-management/coastal-sand-dunes>

Buglife – Notable invertebrates associated with coastal sand dunes (pdf)

- <https://cdn.buglife.org.uk/2019/07/0820Notable20invertebrates20associated20with20coastal20sand20dunes.pdf>

Dynamic Dunescape – *Sand Dune Managers Handbook* • [https://dynamicdunescape.co.uk/get-involved/site-managers/JNCC-Habitat-Description-\(pdf\)](https://dynamicdunescape.co.uk/get-involved/site-managers/JNCC-Habitat-Description-(pdf))

- <https://data.jncc.gov.uk/data/4b9e595b-c337-48c7-9880-b1611d02acbb/UKBAP-BAPHabitats-09-CoastSandDunes.pdf>

MAGIC website – interactive mapping information including designations • <https://magic.defra.gov.uk/>

*Making Space for Nature, a Review of England's Wildlife Sites and Ecological Network* 16 Sep 2010.

- Chaired by Professor Sir John Lawton CBE FRS. Defra website (pdf) • <https://webarchive.nationalarchives.gov.uk/ukgwa/20130402151656/http://archive.defra.gov.uk/environment/biodiversity/documents/201009space-for-nature.pdf>

Natural Environment White Paper June 2011 – *The Natural Choice: securing the value of nature* (pdf)

- [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/228842/8082.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/228842/8082.pdf)

Radley, G.P., *Sand Dunes - Part 1. England*, 1994 ISBN 1 873701 19 5

Suffolk Wildlife Trust Habitats Explorer • <https://www.suffolkwildlifetrust.org/habitats/coastal/sand-dunes>

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