

SITE

Name: Braunton Burrows

Parish: Braunton

Local Authority: North Devon

National Grid Ref: SS 450 350

OS Sheets: 1:50K, 180, 1:10K, SS43 NE, NW, SE, SW

Locality Description: The site lies on the North Devon coastline, 10km to the west of Barnstaple, at the mouth of the Taw-Torridge Estuary

Nature and Status of Site: Extensive coastal dune system. The site is designated as a [Site of Special Scientific Interest](#) (SSSI) and conservation site of international importance. It also lies within a [UNESCO Biosphere reserve](#).

Summary of Geological / Geomorphological Interest: Braunton Burrows is one of the largest dune systems in Britain, about 5km long (north south) and 1½km wide, with lime-rich dunes up to 30m high. It is a key site for coastal geomorphology, being less affected by underlying geology and afforestation than any other dune system in Britain. The sand dune system is also recognised as being of European importance for its wildlife habitats and is home to a large number of rare plants and invertebrates.

Safety Considerations: The southern area of the Burrows includes a MOD training area and any access restrictions must be observed as well as any other guidance (including all Warning Signs). The training area is closed during live firing and demolition training. For times of firing see local press or call MoD switchboard (Tel: 01271 – 375101) and ask for Fremington Training Camp, Barnstaple.

Educational age Groups: Primary, Secondary, College/6th Form, University.

Parking and Access: The Sandy Lane Car Park (at SS 463 351) provides excellent access to the central part of the Burrows. Alternatively, parking is also available at Saunton to the north or on the estuary fringe close to Crow Point to the south (which is reached via a Toll Road across Braunton Marsh). The [South West Coast Path](#) runs just inland of the dunes and links with the [Tarka Trail Cycleway](#) (which runs from Barnstaple to Braunton along the Taw Torridge Estuary) and therefore the site can be accessed both on foot and via bicycle. Additionally, there are bus links to Barnstaple and nearby Braunton. Barnstaple also has a main line train station. For timetable details, visit www.traveline.org.uk.

As the area includes delicate sand dune and slack plant communities, care should be taken not to trample flowers, plants or promote erosion.

Reference:

Edmonds, E.A., Williams, B.J. and Taylor, R.T. (1985). Geology of Bideford and Lundy Island. Memoirs of the Geological Survey of Great Britain.

Keene, J (1997). Braunton Burrows; Ecology Trail (2nd edition). Thematic Trails, School of Social Sciences, Oxford Brookes University.

May, V J & Hansom, J D (2003). Coastal Geomorphology of Great Britain. *Geological Conservation Review Series 28*, Joint Nature Conservation Committee, Peterborough.

Online References

North Devon Biosphere, (online) available at www.northdevonbiosphere.org.uk

Detailed Geology: Braunton Burrows are one of the largest dune systems on the west coast of Britain and one of the least influenced by bedrock geology or damaged by afforestation. Despite this, there has been relatively little data published concerning the geological or geomorphological features of the dune system. The central area of the Burrows consists of three ridges, separated by slacks. The ridges lie parallel to the shore with an overall width of 1.3km. The highest dunes and ridges occur in this region. Throughout the system, but especially in the south, there are a number of ridges perpendicular to the main ridge alignment and the coast. They appear to be the legacy of major blowouts in the main structural lineaments and may form the north and south boundaries of the slacks. At the rear of the system there is an extensive area of low dunes and slacks. The central area of the dunes was subjected to heavy military use during the Second World War, and subsequently. Mine clearance in 1946-47, used high pressure water hoses, which further and severely damaged the dunes leading to a complete regrowth of the foredunes. Some 5-6% of the dune system was replanted between 1952 and 1963. In some cases the dunes may have become over-stabilised, so that characteristic contrast between dynamic growth of both foredunes and major ridges compared with slacks and grey dunes, has been substantially diminished. The surveys from 1885 to 1960 have shown that there has been a 35-fold increase in the size of the area containing the high dunes now over 100 feet. A borehole in a slack in the central area recorded approximately 5m of sand below which there were some 4m of sand, silt and/or clay, and a 1m thick band of soft calcareous sandstone, underlain by 2.5m of marine clay. Pebbles and sand and then coarse gravel and shale underlay this in turn, being less than 2m thick. Bedrock was recorded at -3m OD.

Suggested Questions

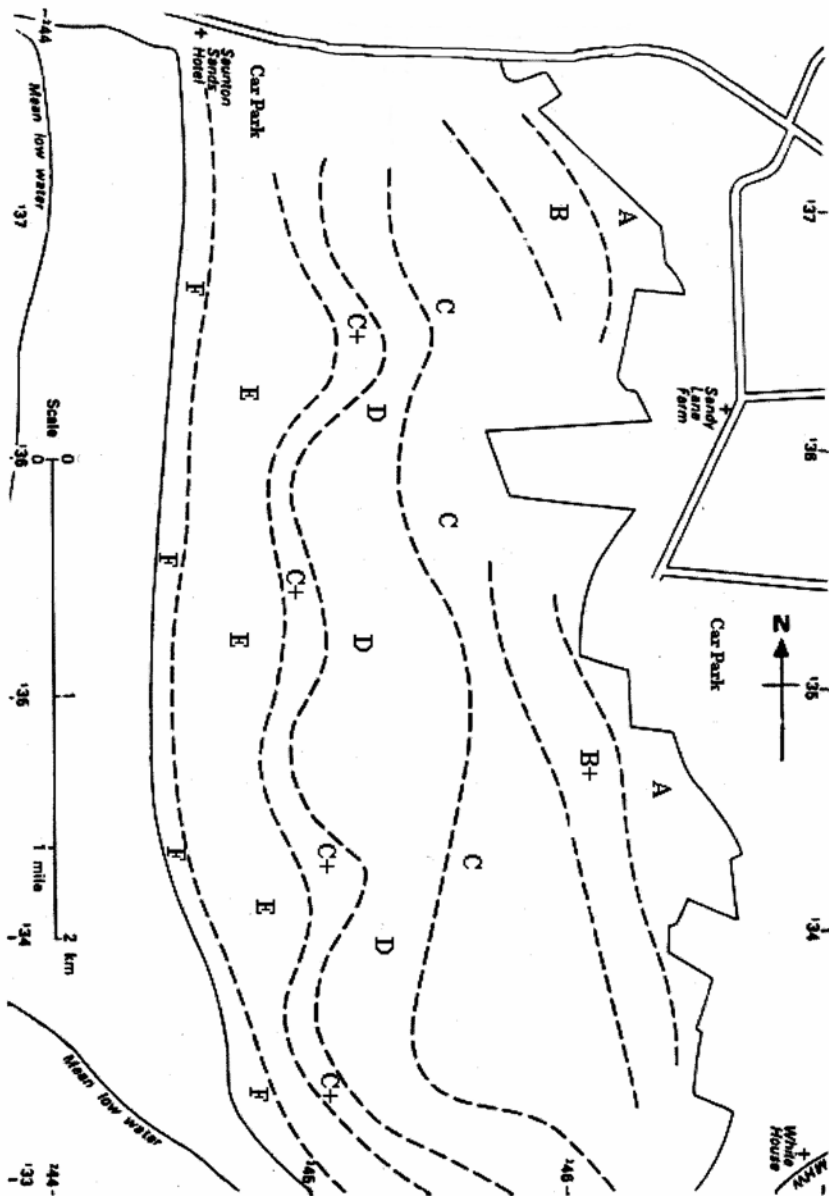
1. Using the attached diagram, divide the area of Braunton Burrows into foredunes, central dunes, slacks, lesser dunes and flat sands.
2. What differences in the vegetation can you distinguish on the different dunes? Is there any relationship between vegetation and the size of the dunes and aspect of dune slopes?

Additional activities are included within the excellent Thematic Trail written by Janet Keene (1997).

Braunton Burrows SSSI

Location Map showing location and features of dune system at Braunton Burrows

- A. Flat sands.
- B. Lesser dunes
- B+ Lesser dunes with marram and mixed scrub.
- C. Well vegetated slacks with temporary fresh water lakes and 24 small freshwater ponds which have been created throughout the system.
- C+ Well vegetated slacks with temporary fresh water pools and patchy thyme sward.
- D. Main sand hills rising to 38 metres, marram common. Mixed scrub on landward slopes.
- E. Sand hills with marram and some mixed scrub on landward slopes.
- F. Low foredunes with marram. foredunes can be ephemeral in appearance and are not found along the complete length of the beach. Erosion cuts into medium height dunes, especially south of Airy Point (the last 'F' to the south of the map).

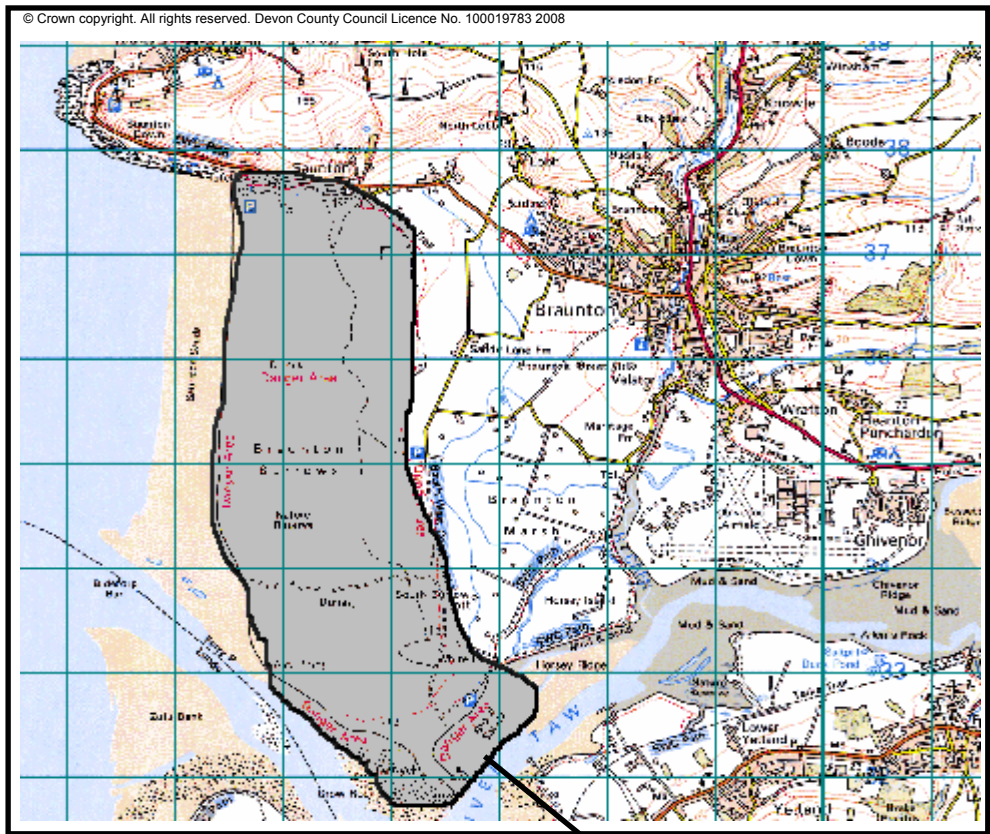


From Keene (1997)

LOCATION PLAN

BRAUNTON BURROWS BRAUNTON, NORTH DEVON

National Grid Ref: SS 450 350



Scale 1: 70,000



Site locality

Access via car parks
off B3231 or minor
lanes to south west
of Branton.

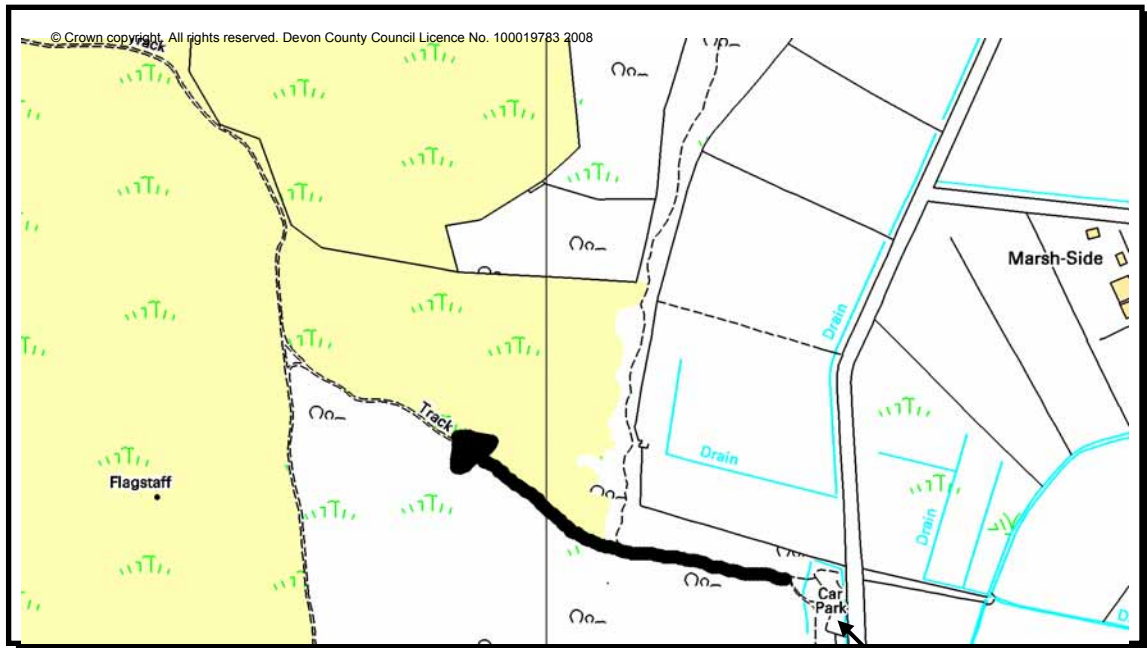
Parking and Access

- Car parks at Saunton (to north), Sandy Lane (central) and Crow Point (to south) provide easy and direct access to the site. Designated paths and tracks allow open access to the sand dune system.

SITE PLAN

BRAUNTON BURROWS BRAUNTON, NORTH DEVON

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Not to Scale

Recommended route onto
Braunton Burrows

Sandy Lane
Car Park

Main Points of Interest:

- One of the largest sand dune systems on the west coast of Britain and a key site for coastal geomorphology.
- Extensive system of variably flooded slacks, grassland and scrub, inland of a wide sandy foreshore.
- Variety of habitats for many flowering and lower plants, and for birds and invertebrates.

BRAUNTON BURROWS

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General views of stabilised sand dunes on Braunton Burrows

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General view of Braunton Burrows from Saunton Down

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Vegetated dunes showing blow-out and consequent reactivation