

SITE

Name: Saunton to Baggy Coast

Parish: Georgeham

Local Authority: North Devon

National Grid Ref: SS 445 407 to 446 378

OS Sheets: 1:50K, 180, 1:10K, SS43 NW, 44 SW

Locality Description: Approximately 6 miles north west of Barnstaple, on the north coast of Devon off of the A361.

Nature and Status of Site: Coastal Site, comprising the headland of Baggy Point with the northern and southern margins of Croyde Bay. The area is a [Site of Special Scientific Interest](#) (SSSI).

Summary of Geological / Geomorphological Interest: The geology from Saunton to Baggy Point comprises of a mixture of sandstones, shales / slates, siltstones and rare thin limestones of Devonian age deposited in marine, brackish and even non-marine environmental settings. Overlying the Devonian rocks are Quaternary raised beach and periglacial deposits. The area is also famous for a number of large glacial erratics, unique in south west England.

Safety Considerations: Tide timetables must be consulted and hard hats worn near the cliffs. Care should be taken when approaching cliff top exposures.

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

Parking and Access: Access at the northern end of Croyde Bay via the [South West Coast Path](#) from the National Trust car park at SS 434396 or from Woolacombe Bay where there are several car parks. Southern margin of Croyde Bay accessed from Saunton, with parking available at SS 448277. Access to Baggy Point exposures are very limited. Exposures at the southern margins of Croyde Bay are good. From Croyde Bay the site can be accessed from the. There are regular buses from Barnstaple to Saunton and there is also a main line train station at Barnstaple. For timetable details, visit www.traveline.org.uk.

References

Campbell, S, Hunt, C O, Scourse, J D, Keen, D H & Stephens, N (1998). *Quaternary of South-West England. Geological Conservation Review Series 14* (Joint Nature Conservation Committee, Peterborough, and Chapman and Hall)

Edmonds E. A., Williams B. J., and Taylor R. T. (1979) Geology of Bideford and Lundy Island. Geol. Surv. Great Brit. Memoir for 1:50 000 geological sheet 292.

Freshney, E C and Bennett, J A (2006) Report on the assessment of County Geological Sites in the North Devon Areas of Outstanding Natural Beauty: Phase 2 -

Area from Saunton-Morte Point-Ilfracombe and Ilfracombe- Combe Martin (Report for North Devon Coast and Countryside Service) (Devon RIGS Group)

Goldring, R. 1971. Shallow water sedimentation as illustrated by the Upper Devonian Baggy Beds. Mem. Geol. Soc. Lond. 5, 80pp.

Keene, P.L and Cornford C. (1995) The Cliffs of Saunton, Thematic Trail Guides, oxford, 44pp.

Madgett P.A. and Inglis E.A. 1987. A re-appraisal of the erratic suite of the Saunton and Croyde areas, North Devon. Rept. Trans. Dev. Asso. Adv Sci, Lit., Art. 119, 135-144.

Scrutton, C.T. 1978 (ed.). Palaeontological Association International Symposium on the Devonian System (P.A.D.S. 78): A field guide to selected areas of the Devonian of South-West England. Palaeontological Association: 73pp.

Stephens N. (1966) Some Pleistocene Deposits in north Devon. Biuletyn Peryglacjalny, 15, 103-114.

Whidborne, G.F. 1888-1907 A monograph of the Devonian fauna of the south of England. *Monograph of the Palaeontographical Society, London*, Part 1 344pp; Part 2: 122pp; Part 3: 247pp.

For further sources on the Devonian rocks see Edmonds et al. (1979) and on Quaternary features see Campbell et al. (1998) (latter also available via: www.incc.gov.uk)

Detailed Geology: *Devonian:* Baggy Point is the type section for the Upper Devonian Baggy Sandstones and exposes good sections of the Upcott Slates and Lower Pilton Shales. The Upcott Slates comprise grey-green and purple slates and siltstones with scattered thin fine-grained sandstones and are interpreted as muddy shoreline deposits. Some 450m of shallow-marine Baggy Sandstones overlie these beds and include some shales with a few scattered thin limestones. These sandstones form Baggy Point itself, along with a greater part of the headland. The bulk of the succession comprises dark coloured, shallow water mudstones and fine-grained sandstones. Groups of sandstones form the smaller headlands in the area and whilst dominated by marine deposition also include, non-marine and brackish units. The fauna, includes *Echinocaris* sp., *Lingula* sp. and *Cucullaea* indicate of Famennian age (Upper Devonian). Beds slightly higher in this sequence show a gradual return to offshore sedimentation with several crinoidal seams and lenses.

The Pilton Shales, or 'Formation', are a transition group, reflecting a change from deltaic conditions to those of a shallow sea, and span the Devonian - Carboniferous boundary. The exposures at Baggy represent the lower Pilton Shales and are of Devonian age. They comprise grey shales with bands and lenses of fossiliferous limestone. Sporadic thin sandstones and calcareous sandstones show ripple lamination and other sedimentary features. As a whole, the Devonian Pilton Shales yield a varied fauna in which brachiopods are numerous, especially *Chonetes*, as well as bivalves, including *Palaeoneilo* and *Prothyris*. Due to the competency of the Pilton Shales, folding and faulting is common.

A detailed locality description of the Devonian rocks can be found in Scrutton (1978).

Quaternary: The Saunton-Croyde coast is one of the most important Pleistocene sites in Southern England. Large erratic boulders sit on wave-cut platforms and are overlain by raised beach deposits. These erratics are thought to be Scottish in origin, the most famous being the Saunton Pink Granite (SS 44013787), a gneissose granitic boulder, weighing some 12 tonnes that might have come from similar outcrops in Gruinard Bay, Wester Ross. The overlying raised beach deposits consist mainly of sands with pebble layers and some shingle. Molluscan fauna obtained from the sands indicates warm or temperate depositional conditions. Overlying these raised beach deposits are sands of variable thickness which are considered to have been deposited either in an aqueous environment or to be wind blown aeolian sand. Stephens (1966) suggests that fossil dune sands were present, whereas Edmonds et. al. (1979), suggests that marine deposits have been overlain with beach sands that pass upwards into blown sands containing terrestrial shells. The chronology of these deposits is disputed, as absolute dating is difficult due to the lack of organic remains. As the erratics are of presumed Anglian or Wolstonian age (i.e. pre-Ipswichian glaciation) and the shore platform on which they rest is likely to be of earlier Pleistocene age. The raised beach deposits are considered to be of Ipswichian age due to their temperate molluscan fauna.

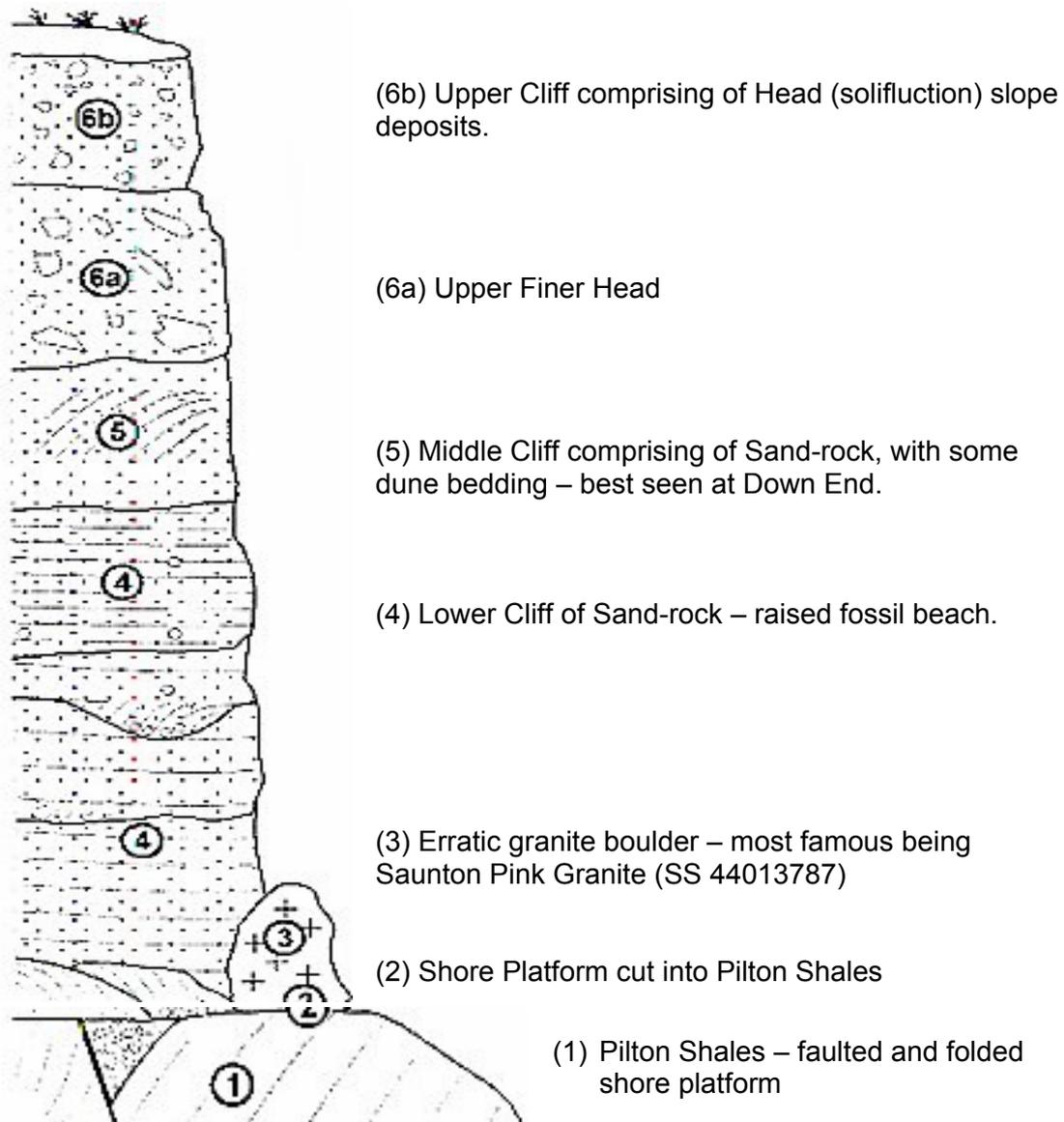
Suggested Questions

1. What type of rock dominates the larger and smaller headlands in this area? Why is this the case?
2. What periglacial features are evident that this area was affected by the last glacial period?
3. Which beds show the most structural alteration (folding etc) and why?

For further exercises and descriptions, see the excellent Thematic Trial written by Peter Keene and Chis Cornford (1995).

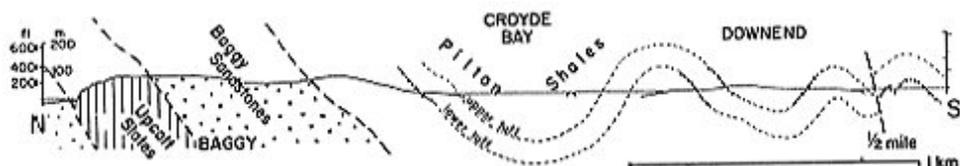
Saunton to Baggy Point Coast SSSI

Diagram showing a cross section of the geology along the coastline of Saunton to Baggy Point and a cliff profile of the main geological sections to be found in the cliff face



Adapted from Keene (1977), Thematic Trail Guides, *The Cliffs of Saunton* (1st edition)

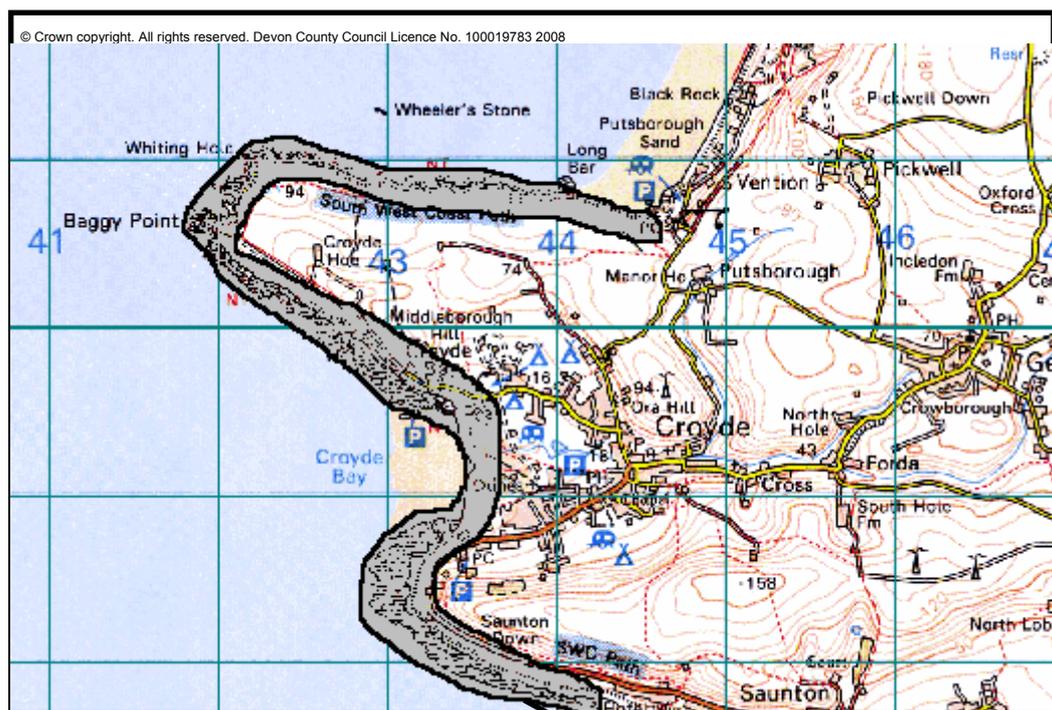
Cross-section showing relationship of formations with structure



LOCATION PLAN

SAUNTON TO BAGGY COAST, SSSI GEORGEHAM, NORTH DEVON

National Grid Ref: SS 445 407 to 446 378



Scale 1: 45,000



Site locality

Site covers cliff line and foreshore between Saunton and Woolacombe Sands

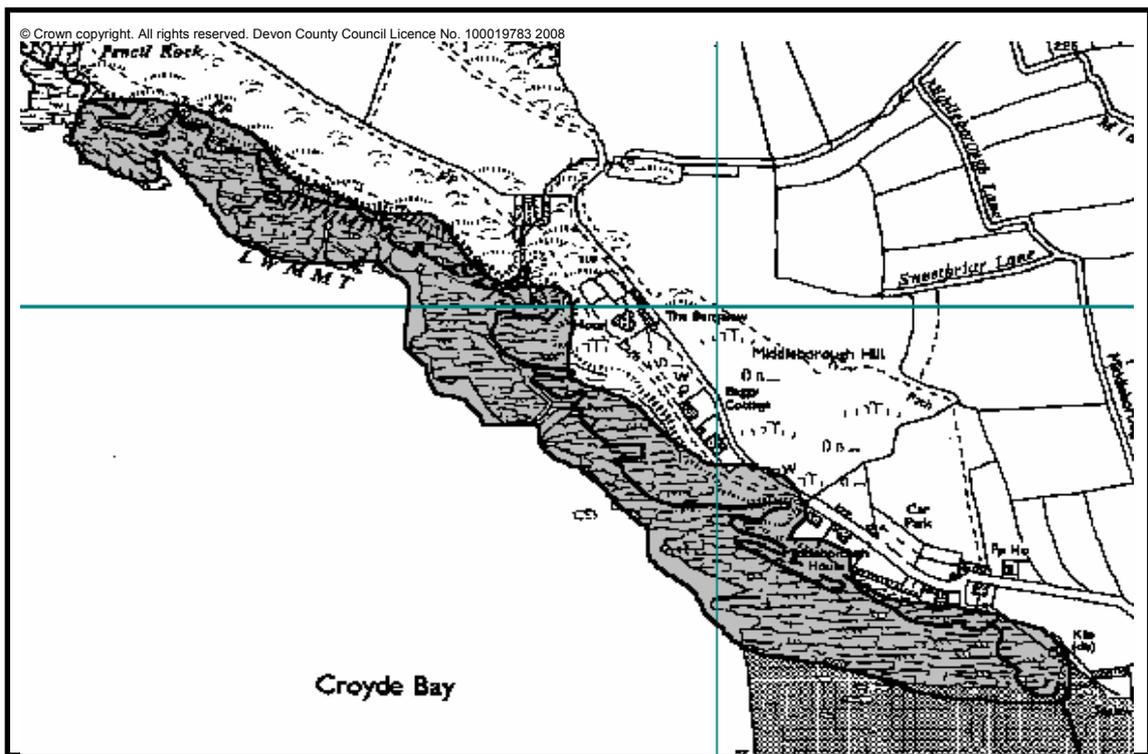
Parking and Access

- Various public car parks which are easily accessible. For access to Baggly Point use National Trust car park at Croyde Bay, then follow South West Coast Path.
- There are regular buses from Barnstaple to Saunton and there is also a main line train station at Barnstaple. For timetable details, visit the [traveline](http://www.traveline.co.uk) website.

SITE PLAN

SAUNTON TO BAGGY COAST (Croyde to Baggy Point) GEORGEHAM, NORTH DEVON

National Grid Ref: SS 429 398



Key focal point

Scale 1: 9,000

Main Points of Interest:

- The coast between Croyde Bay and Baggy Point is one of the most important localities for illustrating key features of coastal geomorphology.
- Key features include: shore platforms, large erratic boulders and a succession of raised beach, blown sand and head deposits.
- These features provide one of the most comprehensive records in SW England of the evidence for former changes in sea level and fluctuations in climate.

BAGGY POINT



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View south-eastwards from Baggy Point towards Croyde Bay, showing wind blown sands of the Pleistocene raised beach overlying steeply dipping Upper Devonian Pilton Beds



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View of beach platform of steeply dipping Upper Devonian Pilton Beds on the S side of Baggy Head, overlain by raised beach and periglacial head deposits

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General views of the cliffs on the south side of Saunton Down showing raised beach deposits, including 'sandrock' (Quaternary, Ipswichian - interglacial), overlying slaty Upper Devonian Pilton Formation. Top of cliff capped by periglacial head deposits (Quaternary, Devensian – glacial)

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Detail of cliffs on the south side of Saunton Down showing raised beach 'sandrock' deposits overlying wave-cut platform of Upper Devonian bedrock (with glacial erratic (centre of lower photograph))