

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 NW 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. It is a Site of Special Scientific Interest (SSSI).

Summary of Geological / Geomorphological Interest: The geology from Saunton to Baggy Point comprises a mixture of sandstones, shales / slates, siltstones and thin limestones, of Devonian age deposited in either a marine dominated environment to brackish and even non-marine depositional setting. Fossils are sparse. The varying facies suggest a changing deltaic succession. 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 coastal footpath 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. Accesses to Baggy Point exposures are very limited. Exposures at the southern margins of Croyde Bay are good.

References

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.

Keene, P.L (1977) **The Cliffs of Saunton, Thematic Trail Guides**. GCR volume: Campbell et. al.

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

Detailed Geology: 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. Shallow-water, marine Baggy Sandstones overlie these beds interpreted as muddy shoreline deposits. Some 450m of sandstones and shales with a few scattered thin limestones 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 deposition. Fossiliferous fauna, including *Echinocaris* sp., *Lingula* sp., and *Cucullaea* indicate a Famennian age (Upper Devonian). Beds slightly higher in this sequence show a gradual return to offshore sedimentation with several crinoidal seams and lenses.

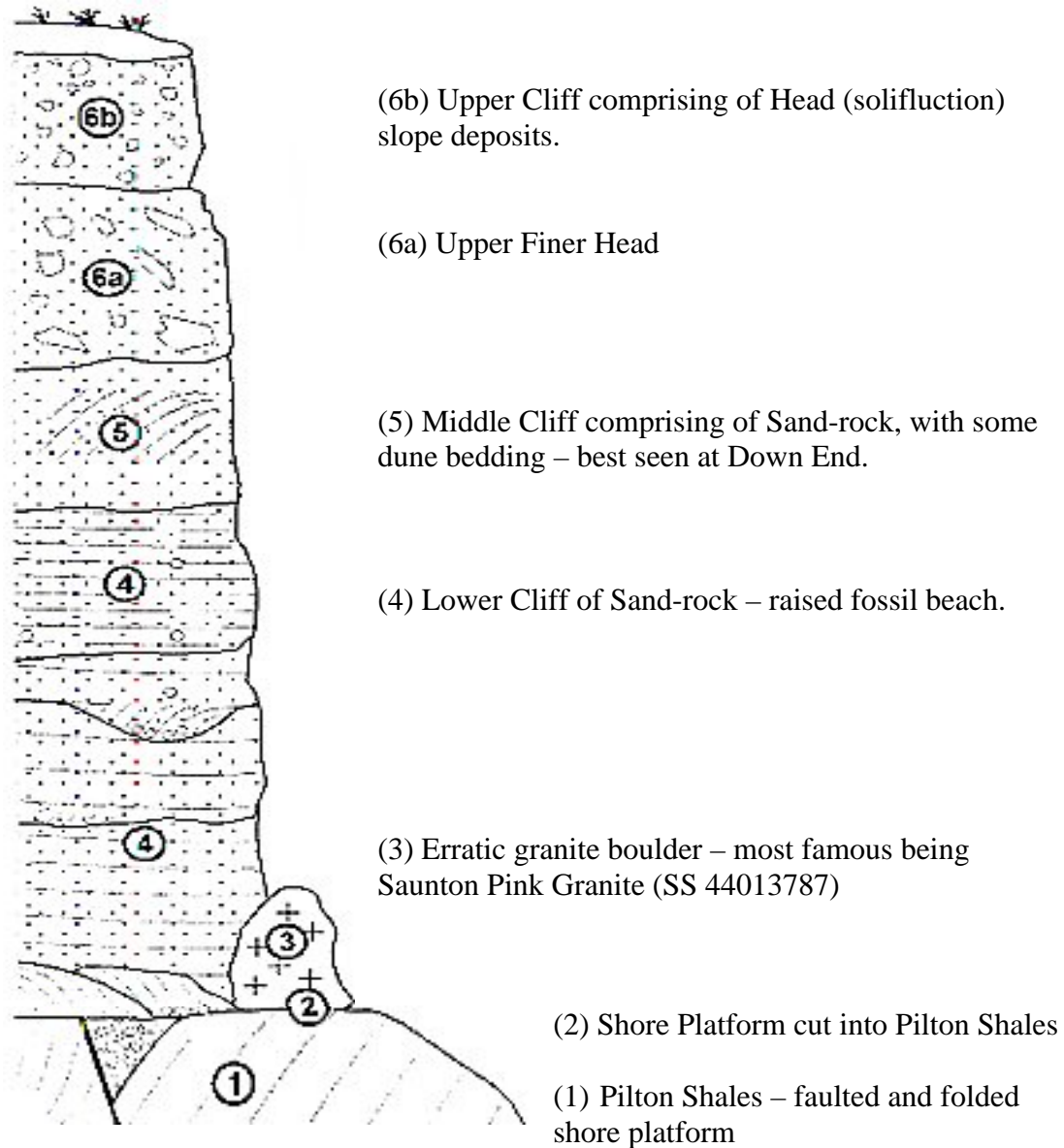
The Pilton Shales are a transitory set of sediments, reflecting the change from deltaic conditions to those of a shallow sea as spanning the Devonian - Carboniferous boundary. The exposures at Baggy represent the lower Pilton Shales and are all Devonian. They comprise grey shales with bands and lenses of fossiliferous limestone. Sporadic thin sandstones and calcareous sandstones show ripple lineations and other sedimentary features. As a whole, the Devonian Pilton Shales yield a varied fauna in which brachiopods are numerous, especially *Chonetes sauntonensis* as well as bivalves, including *Palaeoneilo* and *Prothyris*. Due to the competency of the Pilton Shales, folding and faulting is common. 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 erratic is the Saunton Pint Granite (SS 44013787), a gneissose granite 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 Wolstonian age the shore platform on which they rest is estimated to be from earlier Pleistocene times. The raised beach deposits are considered to be of Ipswichian age because of their warm to 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?

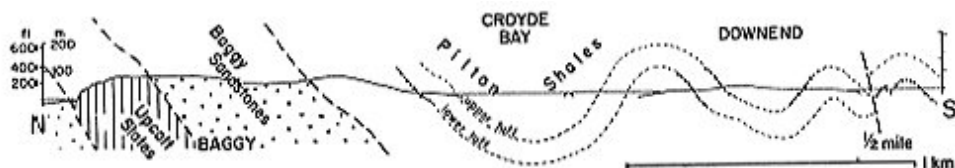
Saunton to Baggy Point Coast SSSI

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



Taken and adapted from P. Keene, Thematic Trail Guides, The Cliffs of Saunton

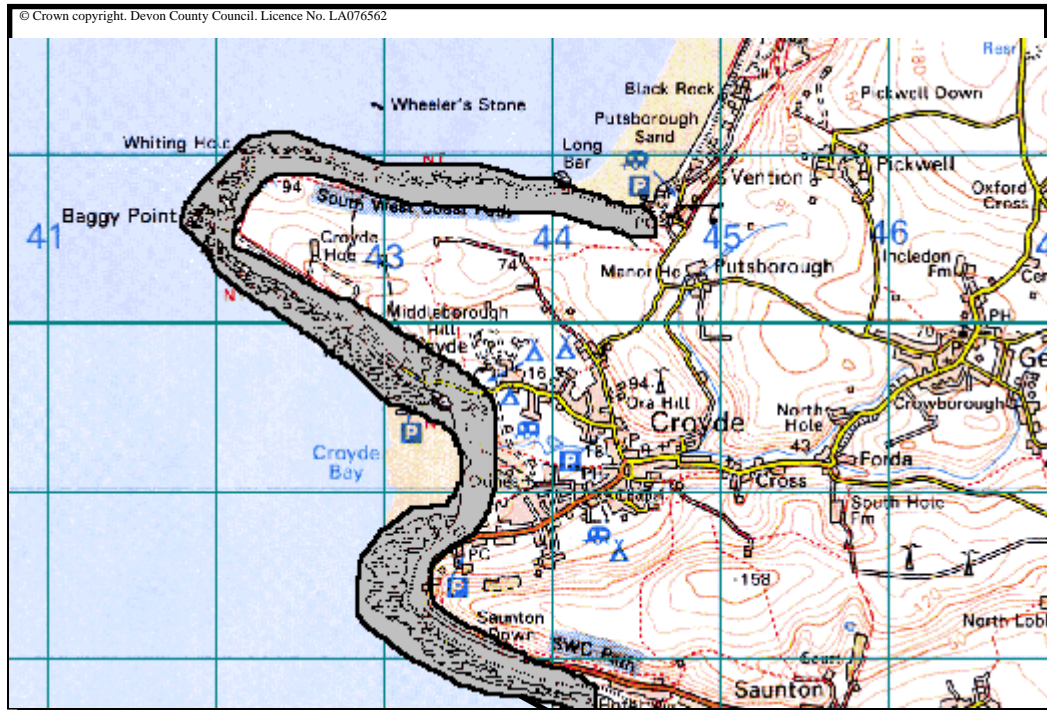
Cross-section showing relationship of formations with structure



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

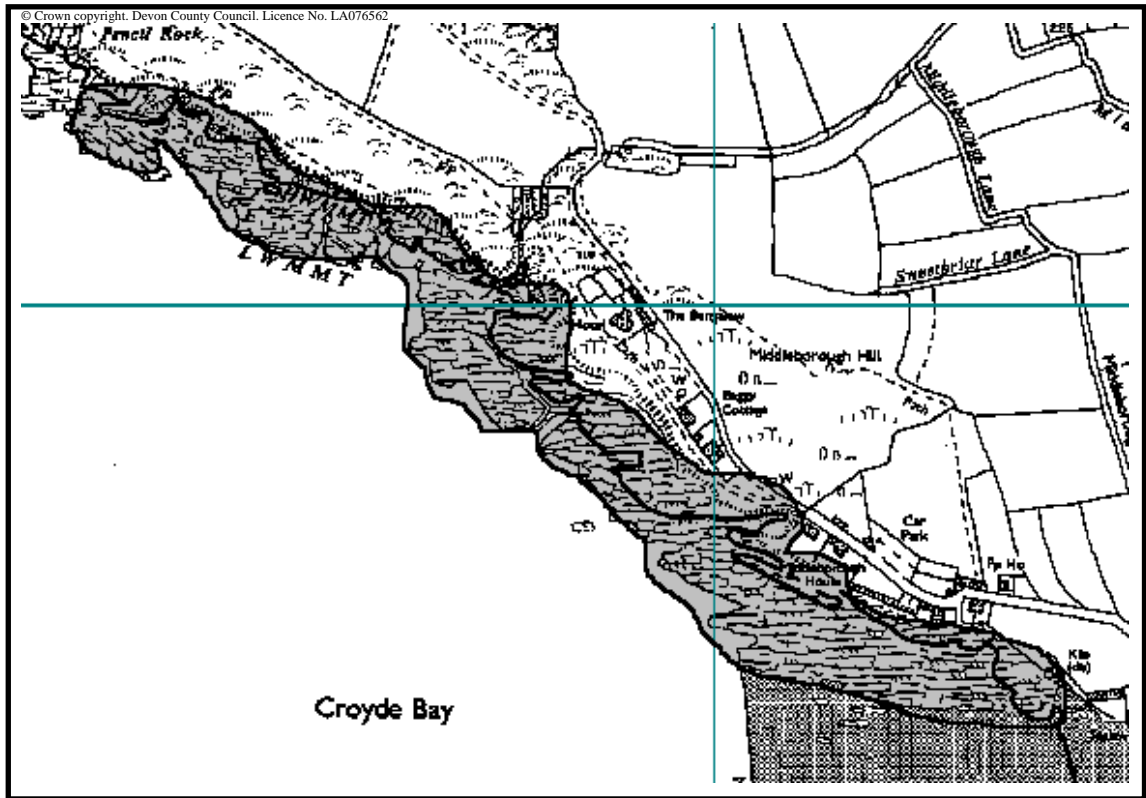
Parking and Access

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.

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



Kevin Page

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