

DORSET LOCAL GEOLOGICAL SITE SURVEY

Site number GSZ08/11

Site name Agglestone Rock, Studland

Summary description

Tertiary, Eocene, Poole Formation, Agglestone Grits.

The type locality for the Agglestone Grits, the block consists of ferruginous sandstones with individual bedding units of varying grain size from coarse (grits) to fine sands. Current bedding is much in evidence. The block originally showed essentially horizontal bedding but in recent times it has tilted due to the erosion of the soft sandstones beneath.

Site description

Tertiary, Eocene, Poole Formation, Agglestone Grits.

Studland Heath is underlain by the sands and clays of the Poole Formation. These have been given names that refer to their area of outcrop on the northern side of Poole Harbour, thus, from the oldest, Creekmoor Clay and sand, Oakdale clay and sand, Broadstone clay and sand and Parkstone clay and sand. The sands outcropping on Studland Heath are the Broadstone and Parkstone couplets. The Agglestone Grits were described in 20th century geological studies as the uppermost of the sands, but they are no longer identified by recent British Geological Survey mapping. There are also a few small areas mapped as Branksome Sands.

However, the ferruginous sandstones of which the Agglestone Rock is a prominent example, occur on all the higher points of the heath. They form when sand lies above clay and the groundwater containing iron is slowed down and deposits the iron. These iron-cemented sandstones have given strength to the hilltops, and in many places small 'delves' can be seen cut into the tops of the hills. The sandstones were used for building rough walls.

The Agglestone Rock, which is the type section, consists of ferruginous sandstones with individual bedding units of varying grain size from coarse (grits) to fine sands. Current bedding is much in evidence. The block originally showed essentially horizontal bedding but in the 1970's it was tilted in very wet weather due to the erosion of the soft sandstones beneath.