
Shipload Bay

Highlights

Shipload Bay shows a well exposed sequence of the Bude Formation, and includes a variety of sedimentary structures indicating that sedimentation occurred in relatively shallow water.

Introduction

Coastal exposures about 2 km east of Hartland Point, Devon [SS 248 276] have exposures of the Bude Formation showing well developed sedimentary structures. The strata occur in a series of asymmetrical flexures formed on the northern limb of a syncline extending from Hartland Point to Beckland Bay. The geology is described by Edmonds *et al.* (1979).

Description

The lithologies exposed here are dominated by thin- and medium-bedded sandstones with siltstones and shales. However, there is also a thicker sandstone unit exposed high in the cliff, more typical of Bude Formation sequences seen elsewhere. A prominent slumped interval of sandstone slabs in a dark, homogeneous mudstone matrix can be traced along strike for c.3 km, and probably represents a flow of liquefied mud coursing down underwater slopes, incorporating semi-consolidated sediment as it progressed. Sedimentary structures are particularly well exposed here, including flute and load casts, ripple marks, flame structures, mudflakes, and occasional fine-grained sandstones with cross- and wedge-bedding.

Interpretation

The sedimentary structures preserved here indicate strongly that sedimentation of the Bude Formation was in relatively shallow water, in a deltaic or lacustrine setting.

Conclusions

Shipload Bay shows particularly well exposed examples of sedimentary structures in rocks known as the Bude Formation, about 312 million years old. They provide evidence that these beds were formed in a shallow marine setting, and represent the last phases of the infilling of the area of sea known as the Culm Trough, that extended from Ireland and southwest Britain to northern Germany.

[References](#)