

Site Name: Llangranog – Traeth yr Ynys Lochtyn

Grid Reference: SN 310542 – SN 317550

RIGS Category: Aesthetic, Educational & Scientific

Earth Science Category: Ordovician (Ashgill) and Silurian (Llandovery) Stratigraphy;
Structural Geology

1:50,000 Geological: BGS Sheet 194, Llangranog

RIGS Statement of Interest:

This coastal section is a regionally important site for several reasons. The Lower Palaeozoic sedimentary rocks exposed here, namely the Llangranog Formation and overlying Gaerglwyd Formation, span the late Ordovician - early Silurian boundary, a major time break in the stratigraphic column. Excellent exposure provides opportunities to obtain detailed information about these formations that can be used when following them and the Ordovician-Silurian boundary inland where exposure is generally poor. The Traeth Bach Member, the upper part of the Llangranog Formation, shows spectacular examples of folds and faults produced by slumping and other gravity-driven movements of the sediment before lithification. Dark mudstones in the sequence commonly contain well preserved graptolites that may be used to date the rocks. In parts of the Gaerglwyd Formation there are particularly clear examples of septarian concretions, unusual pillow-sized carbonate-rich bodies produced by chemical processes during lithification of the sediment. The rugged cliff line is a major scenic attraction of the Cardigan Bay coast, as recognized by the National Trust which owns parts of the RIGS.

Surveyed by: W. R Fitches