Site Name: Craig y Delyn (Harp Rock) Grid Ref: SN 5955 8755

RIGS Category: Educational & Scientific

Earth Science Category: Silurian (Llandovery) Stratigraphy

1:50,000 Geological: BGS Sheet 163, Aberystwyth

RIGS Statement of Interest:

Craig y Delyn (Harp Rock) is of regional significance because it provides the basal stratotype of the newly-defined Aberystwyth Grits Group (formerly referred to as the Aberystwyth Grits Formation). This group, which is of late Llandovery (Telychian Stage) age, has been divided into the Trefechan and Mynydd Bach formations, although both units are intergradational and interdigitate in a complex fashion. However, as at Craig y Delyn, the basal beds of the group, wherever exposed, form part of the Mynydd Bach Formation. At Craig y Delyn the base of the Aberystwyth Grits Group is defined at the base of the lowest of three prominent sandstone turbidites referred to as Harp Rock Type 2 deposits; the sandstones were deposited from turbulent submarine sediment-laden currents. The latter occur in the westward-dipping limb of a synclinal fold exposed on the foreshore and in the coastal cliffs and conformably overlie the dominantly fine-grained deposits of the Borth Mudstones Formation. Deposition of the Aberystwyth Grits Group represented a major change both in the type and dispersal of sediment reaching this part of the Welsh Basin. First, sediment derivation was from the south to south-west quadrant as opposed to the eastern source of underlying formations; second, the turbidites are coarser and thicker than those in the rest of the Llandovery Series. These changes are believed to be a response to initial collision between the Avalonian and Laurentian plates during the early Silurian.

Surveyed by: R. Mathews