
Mynydd Bodafon RIGS Site

NRW RIGS no. 376 [SH 47290 85388]

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RIGS Statement of Interest:

Mynydd Bodafon RIGS Site, on its SE flank, exposes the basal conglomerate and breccia of the Bodafon Formation in its type area. These strata form the unconformable lower division of the folded and cleaved Anglesey Old Red Sandstone succession which, sited over 100 km north-west of the nearest comparable outcrop in the Welsh Borderland, provides an important constraint on late Silurian to early Devonian palaeogeographical reconstruction, and on the timing and nature of late Caledonian orogenic events. The Bodafon Formation forms part of the sequence described and interpreted by J. R. L. Allen (1965) in his seminal paper on Old Red Sandstone sedimentology. The ill-sorted conglomerate and breccia visible at the site are composed of rounded to angular pebbles and blocks derived from the adjacent mass of Precambrian quartzite that forms Mynydd Bodafon. From the site, it is clear that the nearby edifice forms part of an exhumed Old Red Sandstone landscape. Allen (1965) viewed the Bodafon Formation as a highly diachronous sequence of alluvial fanglomerates and breccias deposited at the margin of the Anglesey Old Red Sandstone basin and which interfingered with both the Traeth Bach and Porth y Mor formations (see RIGS JRD 1 and JRD 2).

Geological setting/context: Allen (1965) viewed the Anglesey Old Red Sandstone succession as lying at the margin of a broad depositional tract connected to the main Old Red Sandstone basin to the south, supplied with sediment sourced some distance to the north-west by south-easterly flowing rivers. This remains the favoured palaeogeographical interpretation (Allen, 1974; Allen and Crowley, 1983; Bluck et al., 1992). However, the Bodafon Formation comprises material derived exclusively from the local basin margin in contrast with the far traveled detritus of the Traeth Bach and Porth y Mor formations with which it interfingers. As with these other divisions, the age of the Bodafon Formation remains unproved. Allen (1965) attributed the deformation displayed by the Anglesey Old Red Sandstone succession to the widely recognised mid Devonian (late Caledonian-Acadian) tectonic event implying a late Silurian to early Devonian age of deposition.

Network context of the site: The Mynydd Bodafon site is one of a network of four RIGS selected to represent the Anglesey Old Red Sandstone succession.

References:

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