

Geological Society of Glasgow
Field Excursion to the Island of Raasay, Inner Hebrides
Friday 27 April – Monday 30 April 2018
Leader – Dr Brian Bell

The island of Raasay comprises a wide range of well-exposed rocks within the Hebridean Terrane, ranging from Archaean gneisses of the Lewisian Complex and the unconformably overlying Proterozoic clastic sedimentary rocks of the so-called Torridonian Supergroup, through to glacial deposits of the Pleistocene epoch. Mesozoic strata include various continental clastic sedimentary rocks of the Triassic Stornoway Formation, deposited during the early stages of development of the Inner Hebrides Basin, overlain by marine and estuarine deposits of the Lower and Middle Jurassic Period. At the top of the Lower Jurassic sequence is the Raasay Ironstone Formation, which was mined during the early part of the 20th Century. Palaeogene igneous activity resulted in both intrusive and extrusive units: the various sedimentary rocks of the southern part of the island have been intruded by a thick sill of granite and are overlain in the vicinity of the summit of Dun Caan by a remnant of the Skye Lava Field. Elsewhere on the island, there are various dykes and sills. Pleistocene glacial activity resulted in the deposition of various materials, including diamictites and erratics, and the formation of striae on the surfaces of certain of the harder rocks. Since the end of the last glaciation, at around 10,000 years BP, uplift has resulted in the preservation of various raised beach deposits. Active landslips are a feature of the south-eastern part of the island, with significant movement of thick sequences of Jurassic strata on shales towards the base of the sequence.

This excursion aims to examine the entire range of rocks, approximately in the order they formed. The industrial archaeology of the Raasay ironstone mine will also be addressed. Given the size of the island, approximately 20 km from north-to-south and less than 6km from east-to-west, a remarkable range of rock-types is present and provides a spectacular outdoor laboratory for geologists. The terrain is not particularly difficult, with the highest point being the summit of Dun Caan, at 444m.



Raasay, looking north from the Isle of Skye. The prominent flat-topped summit is Dun Caan.

Photo: Brian Bell