MAYO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE Other names used for site IGH THEME TOWNLAND(S) NEAREST TOWN/VILLAGE SIX INCH MAP NUMBER ITM CO-ORDINATES 1:50,000 O.S. SHEET NO. 22 GIS Code MO082

NW Erris (Stags of Broadhaven southwards)

IGH5 Precambrian Numerous townlands Belmullet; Ballycastle 4 479870E 840300N (coordinates at Rinroe Point)

GSI BEDROCK 1:100,000 SHEET NO. 6

Outline Site Description

The site comprises coastal cliffs, embayments and islands (Stags of Broadhaven), where the Dalradian Supergroup of metamorphic rocks are seen.

Geological System/Age and Primary Rock Type

Dalradian age (Grampian-Appin Group) bedrock comprising metamorphic (originally marine sedimentary) rocks, such as schist, marble and quartzite. Some metamorphosed igneous rocks (metadolerite) occur within the Appin Group rocks.

Main Geological or Geomorphological Interest

The NW Erris (NW Mayo Inlier) Grampian and Appin Group rocks have been correlated with similar age rocks in the Dalradian Group rocks of Scotland, and provide an important insight into the shared geological history of the northwestern regions of Ireland and Scotland. The Grampian Group rocks are the oldest rocks in the Dalradian succession in Ireland and Scotland. Originally deposited in a marine environment between *c.* 750Ma and 600Ma (Neoproterozoic age), the Dalradian rocks were subsequently metamorphosed during later mountain building episodes (the Grampian and Caledonian orogenies). The marine mudstones, sandstones and limestones were metamorphosed to form schists, quartzites and marbles, respectively. Grampian and Appin Group rocks extend from the northwestern part of Erris across Broadhaven Bay to the northern part of the Mullet peninsula (except for an area of older rocks of the Inishkea Division and Annagh Gneiss Complex).

Site Importance – County Geological Site

This County Geological Site hosts a stratigraphic section of Dalradian rocks exposed in sea cliffs (up to 100m above sea level). Dalradian rocks are found in Mayo, Connemara, Donegal and Scotland and they provide an important insight into the geological history of these islands dating back over 600 million years ago. A significant extent of the site is located within the Broadhaven Bay SAC (000472). The Stags of Broadhaven are a designated SPA (004072).

Management/promotion issues

An information board at the parking area/trailhead at Rinroe Point would prove valuable in communicating aspects of the coastal landforms and geodiversity and associated biodiversity. Access to prominent viewing points is limited to specific locations such as beaches, headlands, piers and walking trails. Otherwise, access to cliff sites and tidal areas should be discouraged owing to safety issues. Outcrops of Grampian Group rocks are easily accessible at low tide on the beach to the north of Rinroe Point. In addition to the dramatic coastal features, and associated habitats/biodiversity, the coastline is rich in archaeological heritage.



Looking southeast at Rinroe Point (Dooncarton Tower in distance).



Beach on northwest side of Rinroe Point. Looking north at Grampian age bedrock exposed in cliffs.



South dipping quartzite strata in cliffs north of Rinroe Point.



View south, looking at Rinroe Point, and Broadhaven.



Looking north at Preesoon inlet, at west edge of Carrownaglogh.







Hennessy et al. 2014 (revised 2019). Geological Survey Ireland.