MAYO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Doon Rock**
Other names used for site	
IGH THEME	**IGH2 Precambrian to Devonian Palaeontology, IGH4 Cambrian to Silurian**
TOWNLAND(S)	**Kilbride**
NEAREST TOWN	**Clonbur**
SIX INCH MAP NUMBER	**120**
ITM CO-ORDINATES	**504710E 759570N**
1:50,000 O.S. SHEET NO. 38	**GSI BEDROCK 1:100,000 SHEET NO. 11**

GIS Code MO049

Outline Site Description
Sparse rock exposures on hillside pasture near the prominent landmark of Doon Rock, at the southeast end of the Kilbride peninsula. This is a key site within the much larger 'Finny and Kilbride' Site.

Geological System/Age and Primary Rock Type
Silurian age (Llandovery–Telychian stage; *c.* 436 to 428 million years ago) fossil bearing mudstones, siltstones, and sandstones. Fossils include diverse graptolite and brachiopod fauna identified in the 'Benbeg Mudstones'.

Main Geological or Geomorphological Interest
This site is an excellent representative section through the upper part of the Silurian rock succession in South Mayo. Fossiliferous siltstones are overlain by younger red mudstones, dark grey mudstones and then thick sandstones (deposited by submarine flows). These varying rock units record sediment deposition during a time of sea deepening. The fossils and rock sequence can be correlated with global events, and most importantly they include rare graptolite- and brachiopod-bearing fine grained, dark coloured mudstones (Benbeg Mudstone). The age of these sediments is most interesting as they indicate a clear Silurian (late Llandovery – Telychian) age. The Benbeg Mudstone unit is variably classed as a part of the Kilbride, or Tonalee, or Lettergesh Formations. The Benbeg Mudstones and their graptolite fossils mark the transition from fossiliferous shelf sediments of the Kilbride and Tonalee Formations, into the deeper water turbiditic environment of the Lettergesh Formation.

Site Importance – County Geological Site; recommended for Geological NHA
Because of the unusual and fascinating richness of graptolitic fauna within a shelly fossil sedimentary sequence that has been identified at this site, this site is deemed a definite candidate NHA and is unequivocally recommended for geological NHA designation. The site serves as a representative section of the full sequence through the South Mayo Silurian rock succession. Doon Rock forms a key site of interest within the larger 'Finny and Kilbride' area (IGH4) and should be designated as part of the larger site.

Management/promotion issues
The entire area is very widely used for training of geological students from Ireland, the UK and the USA. The rock exposures and diverse geology in the Kilbride area are widely renowned as a 'classic' geological area. This site is important for providing biostratigraphical and environmental data for the South Mayo Silurian rocks. No significant agricultural land use changes are likely at the site, as it is traditionally managed for sheep grazing. However, any move to afforest the site, or to build a dwelling or other structure on the site should be discouraged.

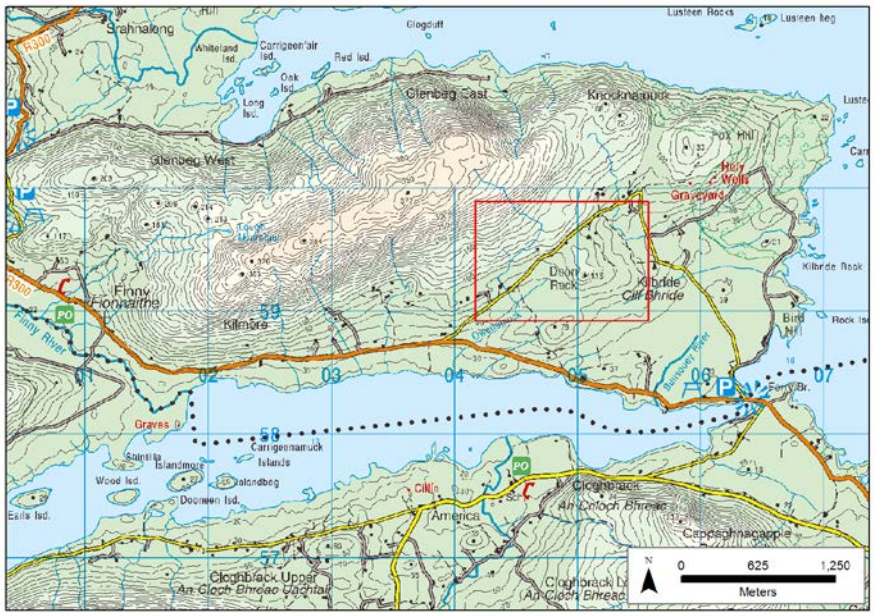
View from Doon Rock looking west towards Bohaun and Joyce Country from the igneous sill (foreground).

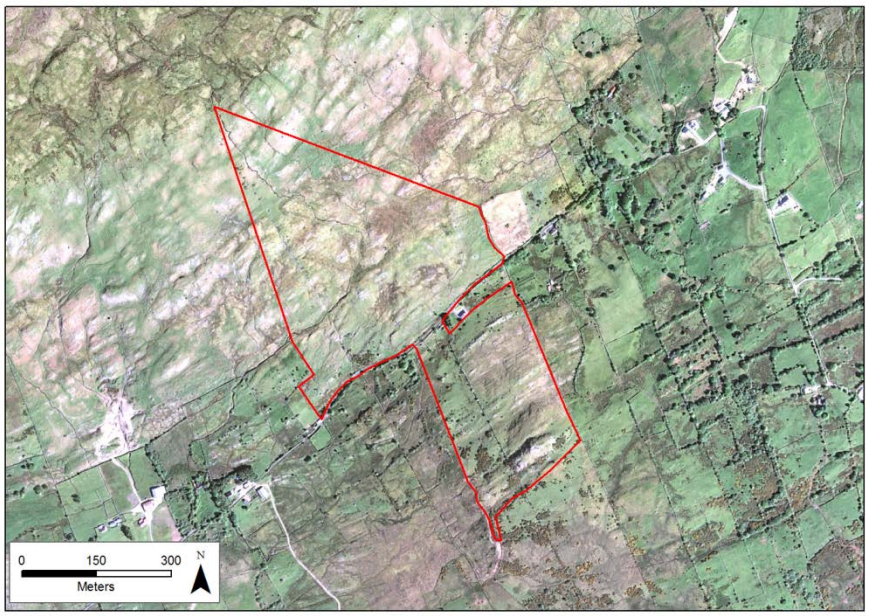
Roadside exposures of fossiliferous mudstones, looking west.

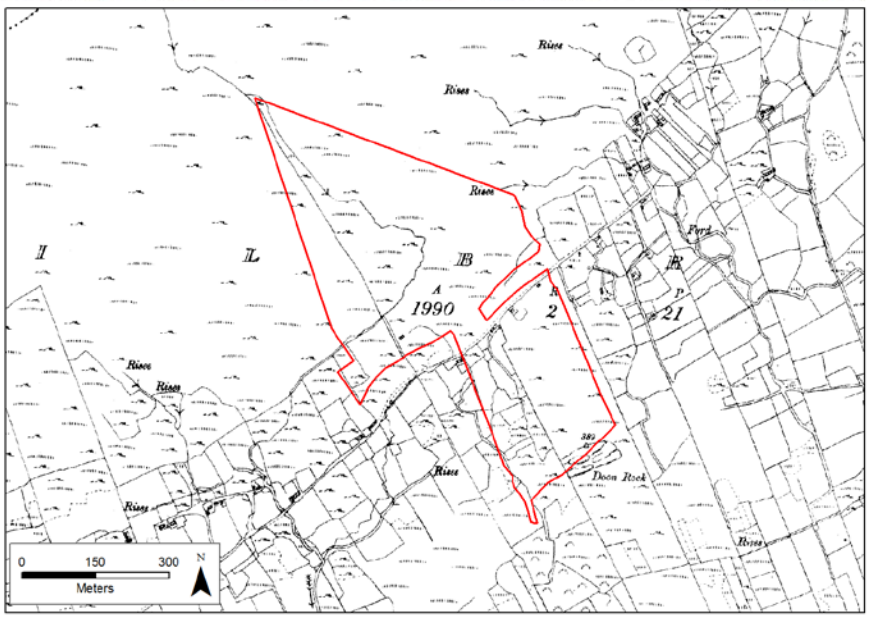
Rugose coral (*Schlotheimophyllum patellatum*) fossil in mudstones by the roadside.

Brachiopod fossils in mudstones by the roadside.

A view of Doon Rock from the access road near Kilbride.







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