MAYO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Finny and Kilbride**
Other names used for site	Kilbride Peninsula, South Mayo Trough
IGH THEME	**IGH4 Cambrian to Silurian**
TOWNLAND(S)	**Finny, Kilmore, Cummer, Kilbride, Glenbeg West, Glenbeg East**
NEAREST TOWN	**Clonbur**
SIX INCH MAP NUMBER	**120a**
ITM CO-ORDINATES	**501170E 758820N (centre of feature)**
1:50,000 O.S. SHEET NO. 38	**GSI BEDROCK 1:100,000 SHEET NO. 11**
GIS Code MO055	

Outline Site Description
The site extends over 7km, E-W along the Kilbride peninsula, between Lough Nafooey and Lough Mask (including Bencorragh, Galway). Key sites Doon Rock, Finny Bridlepath, Finny Road Section and Kilbride Farm Quarry lie within it. The site comprises low-lying lakeshore boggy and hummocky terrain, hilly grazing land (sheep) and hilltops up to 370m in height.

Geological System/Age and Primary Rock Type
Lower-Middle Ordovician age (*c.* 485 to 470 million years ago) basalts, cherts and shales (Bencorragh Formation, Finny Formation, Knock Kilbride Formation of the Lough Nafooey Group); Lower Silurian (Llandovery, *c.* 436-428 million years ago) purple sandstones (Lough Mask Formation), fossiliferous grey coloured sandstones and siltstones (Kilbride Formation) and sandstones and conglomerates (Lettergesh Formation). The contact between the Ordovician and Silurian is marked by an unconformity (a break in the geological record).

Main Geological or Geomorphological Interest
This extensive site exhibits Early Ordovician submarine volcanic rocks, with excellent exposures of pillow lavas, all occurring at the west end of the site. Thick, vesicular pillow lava flows are overlain by spectacular andesitic (volcanic) breccias which are intercalated with pillow lava flows and minor layers of red-coloured chert. The site includes an important fossil (graptolite) locality, and excellent pillow lava flows and one of the oldest burial metamorphic sequences on record. East of the Ordovician rocks the younger Silurian marine lithologies trend SW-NE across the peninsula. The entire site gives a unique section through a primitive oceanic arc. The site is a very important location for observing the palaeontology of the Silurian rocks of South Mayo. The Silurian rocks of the Kilbride peninsula represent a classic sedimentary marine transgression (land to shallow marine to deep marine) of marine sandstones (Kilbride Formation) over purple terrestrial fluvial sediments (Lough Mask Formation) and lavas. Marine fossils include *Eocoelia* shell beds, *Skolithus* worm burrows (trace fossils), corals, brachiopods, trilobites, cephalopods, and crinoids in the 'Annelid Grits' of the Kilbride Formation. Dalradian rocks (Lough Kilbride Schist Formation) occur at the southeast end of the peninsula near Ferry Bridge.

Site Importance – County Geological Site; recommended for Geological NHA
This major Ordovician-Silurian succession is an excellent site for observing, mapping and understanding the renowned and classic Silurian geology and palaeontology of South Mayo along relatively accessible roadside, lakeside and hillside sections.

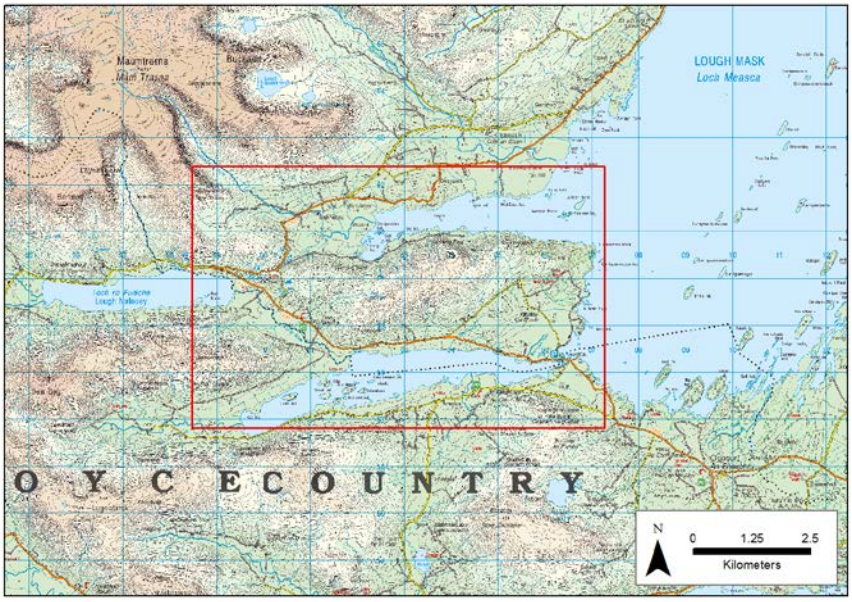
Management/promotion issues
The development of one off housing or farm buildings, or road widening in the area would seriously impact on classic geological outcrops. The entire peninsula is a superb location for studying fossiliferous marine sedimentary rocks from the Silurian Period, and for geology education and training. The area has long been used as a study and demonstration site for geology to students groups from Ireland, the UK and USA. The site has yielded very many fossils that are now held in museum collections, such as those held at NUI Galway.

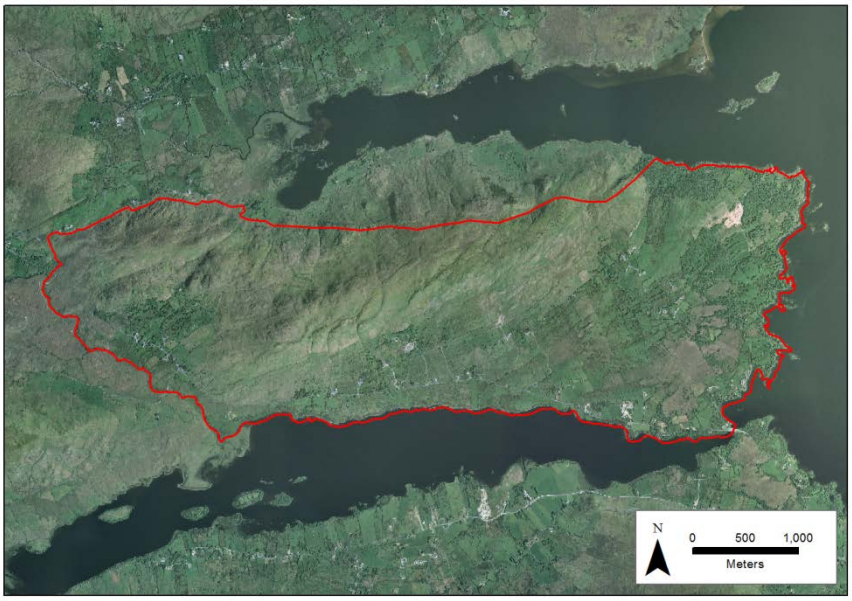
Hennessy et al. 2014 (revised 2019). Geological Survey Ireland.

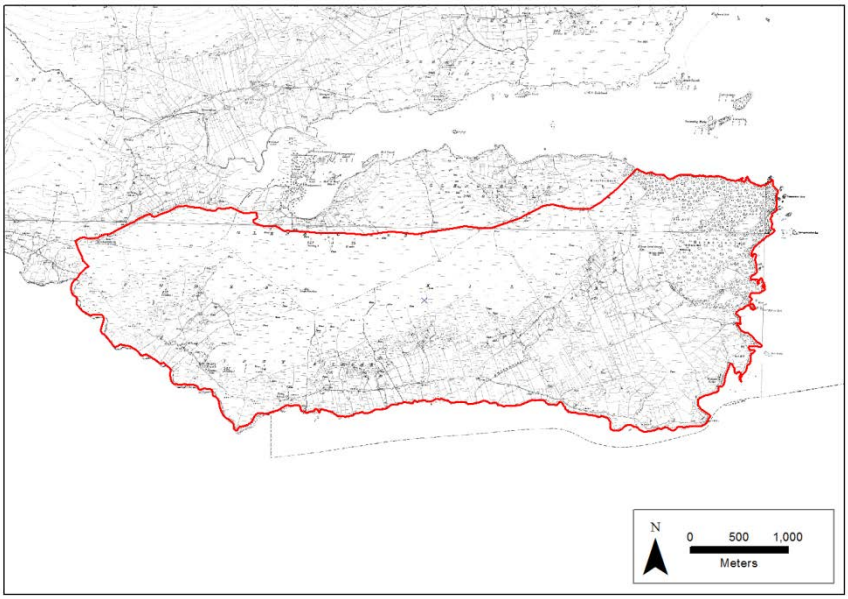
Kilbride Peninsula viewed from hilltop, looking SE towards Lough Mask and Clonbur.

Looking west from Finny towards Lough Nafooey and Mauntrasna to the right (NW).

View of Finny River flowing (right to left) into Lough Mask, looking south towards Bohaun (Co. Galway).







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