

GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Altnagalghera-Benchoona-Salrock-Rosroe
Other names used for site	
IGH THEME	IGH4 Cambrian-Silurian, IGH11 Igneous intrusions
TOWNLAND(S)	Lettergesh West, Lettergesh East, Culfin, Glassillaun, Salrock, Rosroe, Foher, Letterettrin, Lecknavarna
NEAREST TOWN/VILLAGE	Leenaun, Tully Cross, Letterfrack
SIX INCH MAP NUMBER	10, 11
ITM CO-ORDINATES	467000E 760000N (centre of area)
1:50,000 O.S. SHEET No. 37	GS1 BEDROCK 1:100,000 SHEET NO. 10

Outline Site Description

A large area of mountain and coast, south of Killary Harbour.

Geological System/Age and Primary Rock Type

The site includes a near complete section through the entire Silurian sequence of North Galway and contrasts with that represented in the sites to the east in Joyce Country. It also includes the Ordovician Rosroe Formation faulted onto the youngest Silurian unit. A series of volcanic intrusions of diorite are exemplified by Benchoona, and these are of Devonian age.

Main Geological or Geomorphological Interest

Silurian rocks across north Galway and South Mayo are classed broadly as the Killary Harbour-Joyces Country Silurian succession to distinguish them from the Croagh Patrick and Louisburg-Clare Island successions which are distinctly different and assembled in close proximity to each, but originally formed in disparate basins or 'terranes'. However, there are significant differences in the Silurian succession east and west of the Maam valley fault zone which separates them. This site exemplifies the western succession with a full sequence from Altnagalghera younging northward to Killary Bay Little, where there are older Ordovician rocks thrust up and over the Silurian.

The Lettergesh Formation, as boulder conglomerates, downcuts and eliminates the Lough Mask and Kilbride formations of the eastern succession. This facies relationship is found on the eastern slopes of Garraun, south of Lough Fee. The thick formation of turbiditic sandstones is intruded by two sills, the largest of which now forms Benchoona. The lower ground north of Benchoona is characterised by the Glencraff, Lough Muck and Salrock Formations, each with their own distinctive characteristics and environmental story. As a whole the Silurian sequence records sea level changes from terrestrial lavas to shallow marine to deep marine environments and then shallowing up to lagoonal environments in the Salrock Formation.

The Salrock Fault at Killary Bay Little provides an excellent example of a steep thrust fault emplacing older rocks on top of younger rocks. The Ordovician Rosroe Formation is well exposed along the peninsula, including several thick volcanic tuff bands within the conglomerates and sandstones. There also occasional exotic limestone blocks with a complex geological history.

Site Importance – County Geological Site; recommended for Geological NHA

The sedimentary succession is excellent and well exposed with great diversity and with the additional importance of the large Devonian intrusions.

Management/promotion issues

The area is private farmland or commonage and visitors should seek landowner permission. It has traditionally been well-visited by geological groups for educational value and active research projects in a superb outdoor classroom for geology.



Exposures of the red mudstones and siltstones of the Salrock Formation.



Left: The Salrock Fault, with Ordovician Rosroe Formation to the left of cliff, Silurian Salrock Formation to the right. Tuff band exposed in road cut on left.

Right: View from Benchoona northward over Lough Muck, with Silurian rocks as far as the Rosroe Peninsula. Killary Harbour and Mweelrea in the distance.



Left: Conglomerates in the Lettergesh Formation on Altnagalghera.

Right: Massive diorite exposures of the Benchoona sill.

