

GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	An Cnapach
Other names used for site	<i>An Chnapach, Crappagh, Leitir Mealláin</i>
IGH THEME	IGH11 Igneous intrusions
TOWNLAND(S)	An Cnapach (Crappagh)
NEAREST TOWN/VILLAGE	Leitir Mealláin
SIX INCH MAP NUMBER	89
ITM CO-ORDINATES	483490E 722625N
1:50,000 O.S. SHEET No. 44	GSI BEDROCK 1:100,000 SHEET NOs. 10, 14

Outline Site Description

Exposed low-lying island terrain, coastal outcrops and a small quarry.

Geological System/Age and Primary Rock Type

Middle Ordovician South Connemara Group (Gorumna Formation) basalts are in contact with late-Caledonian Galway Granite batholith rocks. The granites were emplaced around 400 million years ago.

Main Geological or Geomorphological Interest

The quarry face at An Cnapach clearly shows the contact between Errisbeg Townland Granite and South Connemara Group (SCG). On Leitir Mealláin and Gorumna an east-west trending band of Murvey Granite separates the Errisbeg Townland Granite (north) and South Connemara Group (south). Murvey Granite (dated in this part of Ceantar na nÓileán at c. 407 Ma) is a pink-coloured, non-porphyritic granite (syenogranite). Carna Granite, an equigranular pink granite, occurs along the northern part of An Fornáis (Furnace) and on Daighinis (Dinish) nearby, where the contact with Errisbeg Townland Granite is gradational. Errisbeg Townland Granite is a pink-grey coloured coarse-grained granite (monzogranite). The granites are all part of the late-Caledonian Galway Granite batholith that was emplaced around 400 Ma.

The Gorumna Formation comprises mafic volcanic rocks (basalt), and is the basal (oldest) formation within the SCG. Angular blocks (xenoliths) of dark-coloured Gorumna Formation rocks are visibly enveloped in pale-coloured Errisbeg Townland Granite at the small quarry on An Cnapach. The SCG stratigraphy was assembled by the accumulation of seamounts piled up into an accretionary wedge in the volcanic-arc trench along which the Iapetus Ocean floor was subducting as the ocean was closing.

Site Importance – County Geological Site

This site contains excellent exposures of the contact between igneous and sedimentary rocks in this region of Ceantar na nÓileán. The site and much of the surrounding area is within the Kilkieran Bay and Islands SAC (site code 002111). The Gorumna Formation basalts are part of the SCG stratigraphy sequence that supports the correlation of the SCG with the Northern Belt of the Southern Uplands-Longford Down, and strengthens the idea of a westwards continuation of the Southern Uplands Fault along the north shores of Galway Bay.

Management/promotion issues

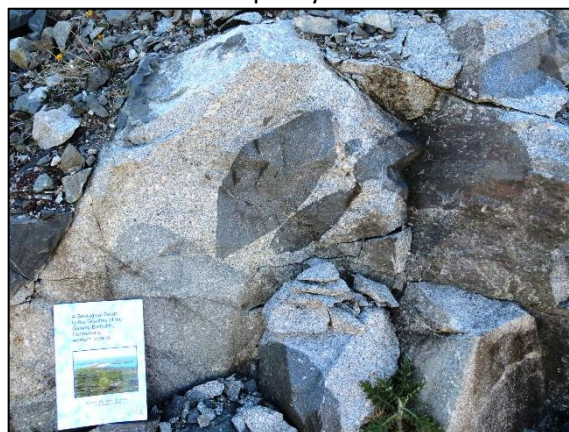
The quarry is accessed on foot through a stile at the gate leading to the causeway from Leitir Mealláin to An Cnapach. This quarry on the north side of the road on An Cnapach is an excellent teaching site, where the SCG-Galway Granite contact zone is clearly visible and easily accessible. Other sections of interest are accessible along the shoreline. Shoreline visits should only be taken in suitably calm weather and sea condition.



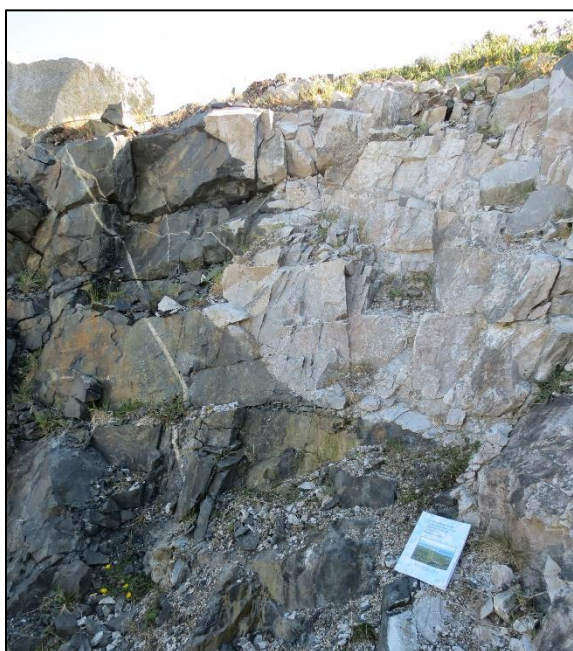
Quarry on An Cnapach, accessed across the causeway. Errisbeg Townland Granite (pale) at north corner of quarry. Dark basalts in shadow on southwest quarry face.



Errisbeg Townland Granite (pale)—Gorumna Formation (dark) contact in quarry face.



Blocks (xenolith) of Gorumna Formation enveloped in Errisbeg Townland Granite.



Errisbeg Townland Granite (pale)—Gorumna Formation (dark) contact in quarry face.



Causeway from Lettermullen to An Cnapach. Quarry on right at end of causeway.

