

GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Gorumna Island
Other names used for site	<i>Garmna</i>
IGH THEME	IGH4 Cambrian-Silurian, IGH11 Igneous intrusions
TOWNLAND(S)	An Máimin, Tír an Fhia
NEAREST TOWN/VILLAGE	Leitir Móir
SIX INCH MAP NUMBER	89, 90
ITM CO-ORDINATES	489780E 721635N (Cashel Quay)
1:50,000 O.S. SHEET No. 44	GSI BEDROCK 1:100,000 SHEET NO. 10, 14

Outline Site Description

Coastal and inland outcrops along the southern part of the island.

Geological System/Age and Primary Rock Type

Bedrock comprises a complex sequence of basic volcanic rocks, amphibolite sills and deep-water sedimentary rocks. Collectively, these rocks are the South Connemara Group (Middle Ordovician). Late Caledonian Galway Granites (Murvey Granite and Callowfinish Granite) cross cut South Connemara Group rocks in places.

Main Geological or Geomorphological Interest

The South Connemara Group (SCG) occupies an area of about 10 km² in the region of the islands of Gorumna, Lettermullen and Crappagh (and on smaller offshore islands to the west). The SCG rocks are well-preserved in spite of contact metamorphism. The SCG rocks strata dip to the south, yet are overturned and get younger to the north. The SCG stratigraphy comprises a lower volcanic and sedimentary unit (Lough Faoilean Formation) passing upwards to thick clastic sedimentary rocks/tectonic mélangé (Ryan's Farm, Golam and Lettermullen Formations), succeeded by another volcanic unit (Gorumna Formation).

A sparse microfossil assemblage identified in cherts in the Golam Formation yielded an Arenig-Llanvirn age (c. 478–458 Ma). This age allowed the SCG to be correlated with rocks of the Northern belt of the Longford Down Inlier. The coarse clastics (Lettermullen Formation) are interpreted as infill deposits in a volcanic-arc trench.

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; recommended for Geological NHA

A County Geological Site of international importance, there are good, accessible exposures of igneous and sedimentary rocks in this region of Ceantar na nÓilean. The coastal sections of the site are within the Kilkieran Bay and Islands SAC (site code 002111). The site hosts a stratigraphical 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

Exposure is abundant on Gorumna and access is easily afforded. Care should be exercised when visiting coastal sites.



View south (on granite plateau) from Tir an Fhia towards SCG coast. The Burren in background to south.



Murvey Granite (pale) cross cutting Gorumna Formation (green).



Golam Formation strata south of Cashel Quay.



Roadside Golam Formation outcrops at SE of island.



