

GALWAY - COUNTY GEOLOGICAL SITE REPORT

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| NAME OF SITE | An Chaladh Mór |
| Other names used for site | <i>Bóithrín na nAille</i> , Callowmore |
| IGH THEME | IGH11 Igneous intrusions |
| TOWNLAND(S) | na hAille (Aille) |
| NEAREST TOWN/VILLAGE | Indreabhán |
| SIX INCH MAP NUMBER | 92 |
| ITM CO-ORDINATES | 507890E 721630N |
| 1:50,000 O.S. SHEET No. 45 | GSI BEDROCK 1:100,000 SHEET NO. 14 |

Outline Site Description

Coastal site with granite outcrops and granite cobble beach on the north shore of Galway Bay.

Geological System/Age and Primary Rock Type

Bedrock is Knock Granite, Magma Mixing-Mingling Zone Granite and Lough Lurgan Granite; three lithologies occupying the Central Block of the Late-Caledonian Galway Granite batholith.

Main Geological or Geomorphological Interest

Some 100 m to the east of the car parking area, Knock Granite outcrops on a high knoll. Knock Granite is a pink-white coloured, medium- to coarse-grained granite. Lough Lurgan Granite (medium- to coarse-grained, grey-pink coloured granite) is exposed on the shoreline some 300 m west of the car parking area. Magma Mixing-Mingling Zone (MMZ) Granite outcrops on the shoreline near the car parking area.

An eroded face of glacial till with angular granite clasts rests on the Knock Granite knoll outcrop. The till is capped with an organic soil layer hosting rounded (beach) to angular granite clasts. Glacial striae are seen on smooth sections of bedrock below the knoll, indicating north-south ice-movement.

Site Importance – County Geological Site

This site contains good, accessible exposures of igneous rocks and glacial deposits in this region of Cois Fharraige, west of An Spidéal. It is an important County Geological Site as it hosts three types of granite, of variable age and mineral composition. Additionally, the glacial deposits contribute to an understanding of ice movement during the last Ice Age.

Management/promotion issues

To access the site, it is advisable to park at the Knock Church, and to walk to the site, signposted *Bóithrín na nAille* from the R336. Careful attention should be exercised considering tides and weather conditions on this exposed coastal site.



Shoreline at An Chaladh Mór viewed looking east. Magma Mixing-Mingling Zone granite outcrops in foreground. Knock Granite knoll and outcrops in middle background.



Knoll of Knock Granite c.100 m east of parking. Glacial striations on smooth bedrock in right foreground. Glacial till above knoll.



Storm beach at An Chaladh Mór, looking east.



Fresh (2019) Knock Granite exposures on field boundary.



Knock Granite outcrop on bóithrín leading to An Chaladh Mór.

