

GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Ardmore
Other names used for site	<i>An Mhaoileann, Ard Mhóir</i>
IGH THEME	IGH11 Igneous Intrusions
TOWNLAND(S)	Caladh Mhainse (Callowfinish)
NEAREST TOWN/VILLAGE	Carna
SIX INCH MAP NUMBER	77
ITM CO-ORDINATES	482160E 731590N
1:50,000 O.S. SHEET No. 44	GSI BEDROCK 1:100,000 SHEET NO. 10

Outline Site Description

Large flat outcrops on moorland hillside with thin soil and grass cover used for rough grazing.

Geological System/Age and Primary Rock Type

Late Caledonian (400 Ma) composite dacite dyke intruding the Galway Granite.

Main Geological or Geomorphological Interest

The Ard Mhóir – Gabhla – An Gharmain (AGG) dyke set is one of the most extensive Late Caledonian dyke systems in Connemara. It strikes approximately north–south for at least 20 km between Galway Bay and Recess in a zone up to 600 m wide. It comprises up to six individual dykes of maximum width of 50 m. The near-vertical dacite dykes of the AGG intrude the Galway granite and the Metagabbro and Gneiss Complex to the north.

The dykes are notable for some unique lithologies along their margin in contact with the host granite, exposed at several places north of Ard Mhóir village. Marginal dyke lithologies include (i) a breccia with coarse clasts of granite cemented by dacite and (ii) pulverite, formed of pulverized crystals from the host granite. The exposures at An Mhaoileann include outcrops of both these marginal lithologies and this locality is therefore selected to represent the dyke set.

Site Importance – County Geological Site

Ardmore includes excellent exposures of one of the most extensive Late Caledonian dyke sets in Connemara, with some unique marginal lithologies, including breccia and pulverite. Dyke sets are a feature of Late Caledonian granites in Ireland but silicic dykes such as dacites typically have simple margins, in contrast to the relatively complex lithological relationships observed at this site.

Management/promotion issues

The site is not within any designated heritage or conservation area. It is on commonage and readily accessible via a minor road that runs north from Ard Mhóir crossroads and transects the site. There appears to be no threat to the site and no requirement for specific management. Promotion is not required as the site is likely to be of interest mainly to research scientists.



General view southwards of outcrop area of dacite dyke(s) and host granite, showing essentially two-dimensional nature of outcrop.



Coarse breccia on eastern margin of dacite dyke with abundant small ovoid cobbles (below hammer) and a large irregularly-shaped cobble (right of hammer).



Coarse breccia margin to dacite dyke, view to northeast. Dyke strikes north-south (top-left – bottom-right of photo). Hammer is in same position as in photo to left.



Coarse breccia on eastern margin of dacite dyke, north of road, same outcrop as above photos, view northwest toward Lough Larann.

