

MAYO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Doogort (Achill)
Other names used for site	Pollawaddy, Dooagh
IGH THEME	IGH5 Precambrian
TOWNLAND(S)	Doogort East
NEAREST TOWN/VILLAGE	Achill Sound
SIX INCH MAP NUMBER	42
ITM CO-ORDINATES	467880E 809310N
1:50,000 O.S. SHEET NO. 30	GSI BEDROCK 1:100,000 SHEET NO. 6
GIS Code MO047	

Outline Site Description

The site is located at the coastal cliffs and rocky foreshore at the east side of an embayment (Pollawaddy) on the northern coast of Achill Island.

Geological System/Age and Primary Rock Type

The Doogort Boulder Bed Formation comprises pelite schists with granitoid clasts. This marine tillite (boulder bed) marks the base of the Mid-Dalradian (Neoproterozoic age) Argyll Group.

Main Geological or Geomorphological Interest

The site exhibits one of the few outcrops of the Port Askaig Boulder Bed (Neoproterozoic tillite) in Co. Mayo. Granite boulders up to 1 metre have been identified in the tillites of the boulder bed. The Doogort Boulder Bed has been correlated with the Port Askaig Tillite of Islay, Scotland. In Ireland, the tillite unit is correlated with Briska Boulder Bed Formation in NW Mayo, the Cleggan Boulder Bed Formation in Connemara, and the Glencolumbkille Boulder Bed Formation in SW Donegal. Within the Dalradian Supergroup, three distinct units of glacial origin have been correlated with ice ages (glaciations) that occurred in the Neoproterozoic. The Port Askaig Formation, marking the Appin-Argyll Group boundary is the oldest and thickest glacial unit. The bed has been correlated with the Middle Cryogenian (Sturtian) glaciation (c. 720 million years ago).

The Portaskaig Formation and stratigraphic equivalent units form a key marker horizon in the Dalradian rocks of Ireland and Britain. The Port Askaig-related rock units comprise fossilised glacial deposits (ice rafted) that were deposited in a marine environment by melting ice sheets. The rocks are important because they indicate that a major global glacial event occurred c. 720 million years ago on the continent of Rodinia, one of several glacial events throughout Earth's history that are helping geologists, glaciologists and climatologists to understand the processes of global climate change.

Site Importance – County Geological Site

An important County Geological Site because it is one of the few locations where outcrops of the Portaskaig Boulder Bed (Neoproterozoic tillite) occur in Co. Mayo. The site is located in the very eastern part of the Croaghan/Slievemore SAC (001955). This is a key site within the larger North coast of Achill Island site (IGH13) site, which is recommended for designation as a geological NHA.

Management/promotion issues

Access to the coastal cliff and rocky foreshore exposures is only possible at low tide. The site should be protected from any future coastal development. The site is not deemed suitable for public promotion, owing to the difficulty in accessing the outcrops. However, the significance of the site in terms of its role in providing evidence for understanding past glacial episodes that occurred over 700 million years ago should be acknowledged in any literature that promotes the geological heritage of County Mayo.



Coastal section at east end of Pollawaddy, looking NE into Blacksod Bay.



Doogort Boulder Bed outcrop at Pollawaddy.



Doogort Boulder Bed exposure at Pollawaddy.



View SW along coastal exposures of Doogort Boulder Bed, towards Pollawaddy beach and cloud covered Slievemore (672m).

