

MAYO - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Crucknaree (King's Hill)
Other names used for site	Windy Gap
IGH THEME	IGH10 Devonian, IGH8 Carboniferous
TOWNLAND(S)	Ballyknock, Cuilmullagh
NEAREST TOWN	Foxford
IGH THEME(S)	IGH10 Devonian, IGH8 Lower Carboniferous
SIX INCH MAP NUMBER	59
ITM CO-ORDINATES	513970E 802010N
1:50,000 O.S. SHEET NO. 31	GSi BEDROCK 1:100,000 SHEET NO. 6
GIS Code MO039	

Outline Site Description

A northeast-southwest trending hill (297m), with a sheer escarpment on the northwest side, that drops and levels out to low-lying farmlands.

Geological System/Age and Primary Rock Type

Middle Devonian (Eifelian) conglomerates, with lesser sandstones, part of the King's Hill Formation and Birreen Formation (Beltra Group). The rocks are associated with an alluvial fan depositional environment, and are dated to Middle Devonian using plant spores. Carboniferous limestone occurs in the low-lying farmlands c. 500m west of the main hill.

Main Geological or Geomorphological Interest

At around 980m thick, this group comprises mainly conglomerates, with some coarse sandstone. The conglomerates of the King's Hill Formation (chronologically correlated with the Croaghmoyle Formation) contain chiefly of schist fragments that are interpreted to have been derived from the metamorphic Ox Mountains region to the east, with the sediments deposited rapidly on a plain bordering a mountainous area to the northwest and east. The rocks of the overlying (younger) Birreen Formation are interpreted to have originated from the south. The Birreen Formation consists of bedded conglomerates (with igneous pebbles) and red sandstones. Plant spores identified within the formation have been dated and indicate a Middle Devonian age for the formation. The conglomerates show interesting transitions in texture with different degrees of size, sorting and rounding of their constituent pebbles. The Middle Devonian conglomerates are in faulted contact at an unconformity (North Ox Mountains Fault) with Carboniferous limestone and shale to the north. No Carboniferous-Devonian unconformity was identified in the cliff section.

Site Importance – County Geological Site, may be recommended for Geological NHA

This County Geological Site is important as it is one of the few locations of Devonian rocks north of the 'Galway-Dublin line'. The site exhibits interesting exposures of Devonian conglomerates and agglomerates.

Management/promotion issues

Some of the best exposures are found to the north of the car park at Windy Gap. The absence of access paths to the site helps to preserve and protect the location. The site is on private land. The site is deemed to be secure from development however forestry planting could affect the integrity of the site. The nearby viewing point at the Windy Gap represents an ideal location for any promotion/visitor information panels.



Looking north towards Levally Lough from the upper road to the west of Crucknaree.



The east facing escarpment on Crucknaree.



Agglomerate exposed in cliffs on Crucknaree.



Roadside viewing and parking area at the Windy Gap. Crucknaree summit partly cloud-covered.



NW dipping limestones at Cuilmullagh.



Water solution (karst) features on the NW dipping limestones at Cuilmullagh. Crucknaree in the distance to the SE.

