

# LOUTH - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Slieve Foy Slate Rock</b>
Other names used for site	
<b>IGH THEME</b>	<b>IGH8 Lower Carboniferous; IGH11 Igneous Intrusions</b>
<b>TOWNLAND(S)</b>	<b>Commons</b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Carlingford</b>
<b>SIX INCH MAP NUMBER</b>	<b>8</b>
<b>ITM CO-ORDINATES</b>	<b>717823E 811555N</b>
<b>1:50,000 O.S. SHEET NUMBER</b>	<b>36 GSI BEDROCK 1:100,000 SHEET NO. 8/9</b>

## Outline Site Description

The Slate Rock is a large, prominent sloping exposure at 220m O.D. on the southeastern flank of Slieve Foy, immediately beside the Táin Way path. Nearby are a small quarry as well as several small outcrops and boulders of interest.

## Geological System/Age and Primary Rock Type

The Slate Rock was originally considered to comprise volcanic agglomerate of the Palaeogene Carlingford Igneous Complex but is now regarded as metamorphosed Lower Carboniferous basal conglomerate. Other rocks in the vicinity include a porphyry of the Carlingford Igneous Complex and Silurian metasediments.

## Main Geological or Geomorphological Interest

The Slate Rock crops out near the contact between the Lower Carboniferous basal conglomerate and, to the north, the older Silurian metasediments of the Inniskeen Formation. Uphill to the west are the gabbro and microgranite of the Carlingford Igneous Complex. The Carboniferous–Silurian contact is not exposed but is an unconformity, i.e. the Carboniferous rocks were deposited on the older metasediments that had already undergone uplift and erosion. The sloping face of the outcrop is an inclined bedding plane, indicating up-doming of the Carboniferous strata in this area following igneous intrusion which was also responsible for thermal metamorphism of the conglomerate. The conglomerate comprises clasts of various lithologies in a fine-grained matrix. The clasts range up to 15cm in length and may have rounded or irregular shapes. A 0.5m-thick vertical dolerite dyke intrudes the conglomerate.

On top of the Slate Rock, immediately south of the path, several boulders of Silurian metasediments display complex deformation, including intense cleavage and folding. The path that runs north from the Táin Way leads to a small quarry 100m north of Slate Rock. The quarry is in cone sheet of medium-grained feldspar porphyry.

## Site Importance – County Geological Site; may be recommended for Geological NHA

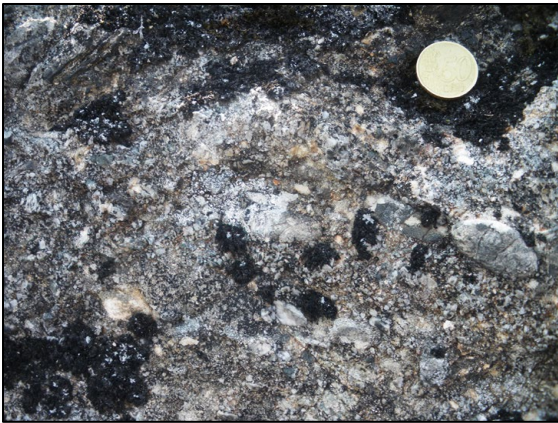
Slate Rock is a large, well-exposed example of Lower Carboniferous conglomerate in a readily accessible location along the Táin Way walking route. Exposures of Carboniferous rocks elsewhere along the contact with the Carlingford Igneous Complex are typically of metamorphosed limestone (skarn) rather than basal conglomerate so this site represents an interesting variation. The dolerite dyke, porphyry cone sheet and boulders of Silurian metasediments displaying complex deformation give the site an unusual breadth of interest.

## Management/promotion issues

The site is on a popular walking route and would be a candidate for an information panel that could both describe the immediate geology but also place the site in the context of the Carlingford Igneous Complex and, given the views across the Lough to the Mourne, the other Palaeogene igneous centres in northeast Ireland.



View of Slate Rock, looking northeast towards Carlingford Lough.



Rounded and angular pebbles in metamorphosed basal conglomerate (left); dolerite dyke intruded into Slate Rock (right). Coin is 24mm in diameter.



Boulder of cleaved and folded Silurian metasediment atop Slate Rock (left); feldspar porphyry cone sheet exposed in small quarry, 100m north of Slate Rock (right).

