

DONEGAL - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Sliabh Liag Carbónmhar
Other names used for site	Slieve League Carboniferous
IGH THEME	IGH8 Lower Carboniferous
TOWNLAND(S)	Ballymore, Malin Beg, Shanbally
NEAREST TOWN	Carrick
SIX INCH MAP NUMBER	89, 90
ITM CO-ORDINATES	555340E, 878112N (east), 554370, 878463N (west)
1:50,000 O.S. SHEET NUMBER: 10	GS1 BEDROCK 1:100,000 SHEET NOs. 3, 4
GIS Code DL040	

Outline Site Description

The site comprises two substantial outcrops along the southern edge of Slieve League summit as well as many loose boulders strewn around the summit plateau.

Geological System/Age and Primary Rock Type

The rocks here are feldspathic sandstones and conglomerates, considered to be part of the Basal Clastics that form the base of the Lower Carboniferous throughout south Donegal. As they are correlated with similar rocks to the east in the Largymore outlier, they are assigned to the Rinn Point Limestone Formation (Ballyshannon Limestone Formation equivalent).

Main Geological or Geomorphological Interest

Much interest attaches to these outliers, which occupy the highest topographical position at which Carboniferous rocks occur in Donegal. Their position also suggests that Carboniferous strata must have been deposited even farther west and have been lost to denudation. The total thickness of the exposed strata is less than 15m. The beds forming the western outcrop on the summit are mainly conglomerates containing rounded and subangular quartzite pebbles but a few beds of coarse-grained sandstone are also present. The eastern outlier caps the plateau east of the One Man's Pass and comprises a rock pavement of scattered boulders, as well as a stratified outcrop of conglomerate and sandstone that lies at its southern edge. The conglomerates consist of clasts of angular quartz and some rounded pebbles of quartzite set in a coarse sand matrix; the interbedded rocks are white, well-cemented sandstones of variable bed thickness. Lower in the sequence the sandstones are more arkosic containing K-feldspar. Occasional indeterminate fossils have been reported, including possible *Stigmara* (roots of trees) and annelid (worm) markings. The outliers rest unconformably on thin-bedded quartzite of the Slieve Tooley Quartzite Formation.

Site Importance: County Geological Site

These outliers are the westernmost occurrence of Lower Carboniferous rocks in Donegal. Their preservation at the altitude of Slieve League summit is probably explained by differential uplift during the Palaeogene. They provide important evidence for the geographical extent of Lower Carboniferous sedimentation. It is also unusual that these outcrops have been preserved at all as remote outliers in such an extreme location.

Management/promotion issues

The site is entirely within the Slieve League SAC and proposed NHA (00189). Access to the site is either along the cliff path route from the car park at Bunglass on the coast or, on the eastern, inland side of the summit, from the car park near Teelin, which is used mainly by hill-walkers. Beyond this car park there is further access for 4X4 vehicles to the 365 m level. From there a good way-marked footpath leads to the eastern Carboniferous outcrop. The route to the higher, western outcrop is via the One Man's Pass. Promotion is unnecessary but reference to the outliers should be included in any literature or signboards relating to Slieve League, including via the information panel at Bunglass.



Lower Carboniferous outcrop (foreground) on summit of Slieve League.



Rock pavement of scattered boulders of Carboniferous sandstone and conglomerate northeast Of Slieve League summit outcrops.



Thinly bedded sandstone above conglomerate containing large angular clasts of white quartzite (left) and massive conglomerate bed above sandstone (right).

