

## LEITRIM - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Benbo</b>
Other names used for site	Benbo2
<b>IGH THEME</b>	<b>IGH5 Precambrian, IGH11 Igneous intrusions</b>
<b>TOWNLAND(S)</b>	<b>Cloonaquin, Gortnaskeagh, Boiny</b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Manorhamilton</b>
<b>SIX INCH MAP NUMBER</b>	<b>21</b>
<b>ITM CO-ORDINATES</b>	<b>605190E 818900N</b>
<b>1:50,000 O.S. SHEET NUMBER 16</b>	<b>GSI BEDROCK 1:100,000 SHEET NO. 7</b>
<b>GIS CODE LM003</b>	

### **Outline Site Description**

Extensive rock exposures on mountain-top moorland.

### **Geological System/Age and Primary Rock Type**

Precambrian Sliswood Division paragneiss, cut by granitic intrusions.

### **Main Geological or Geomorphological Interest**

Benbo is a steep-sided hill at the northwestern end of the Ox Mountains. It affords spectacular views over much of northern Leitrim and neighbouring counties. The exposures at the summit comprise folded paragneiss of the Precambrian Sliswood Division, which comprises Precambrian rocks of uncertain affiliation in the Lough Derg inlier in Donegal, the Rosses Point inlier in Sligo and in the northeastern Ox Mountains. The northeast Ox Mountains succession is tectonically distinct from the known Dalradian rocks of the southwestern Ox Mountains.

The paragneisses contain numerous metabasite pods, and abundant intrusions of later veins of granite and granitic pegmatite cut the foliation / bedding of the paragneisses. The paragneisses display an intense tectonic foliation that reflects a history of extreme high-pressure and high-temperature metamorphism and deformation. The gneisses were derived from original quartz-feldspar sediments deposited after c. 1700 Ma. Basic bodies derived from the mantle were emplaced during later deformation and are now preserved as metabasite pods within the gneisses. The whole succession is interpreted as having been uplifted from the lower crust during the Grampian Orogeny, around 470 - 480 Ma. The granitic intrusions (c. 455 Ma) post-date the uplift.

### **Site Importance – County Geological Site**

This site contains excellent exposures of the Northeast Ox Mountains succession, part of the distinctive Sliswood Division, a Precambrian succession with a history of extreme metamorphism. The summit site affords excellent views over north Leitrim, including the Truskmore massif, Glenade valley and uplands around Lough Allen.

### **Management/promotion issues**

Although the site is not within any protected area, its hill-top location means it is unlikely to face any threats in the future. Most of the site is on commonage, grazed by sheep. Access is from the south *via* an old, paved path, which runs upwards across private land from a modern sealed road, that provides access to a forestry plantation to the west.



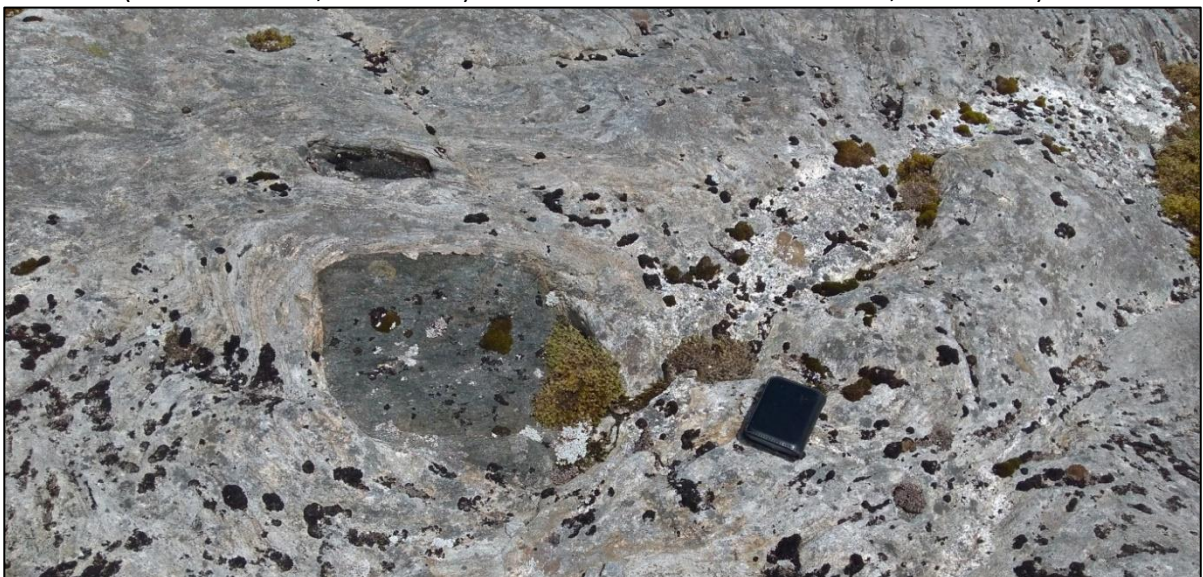
General view of main outcrop area, on eastern side of Benbo summit. Summit cairn visible to west



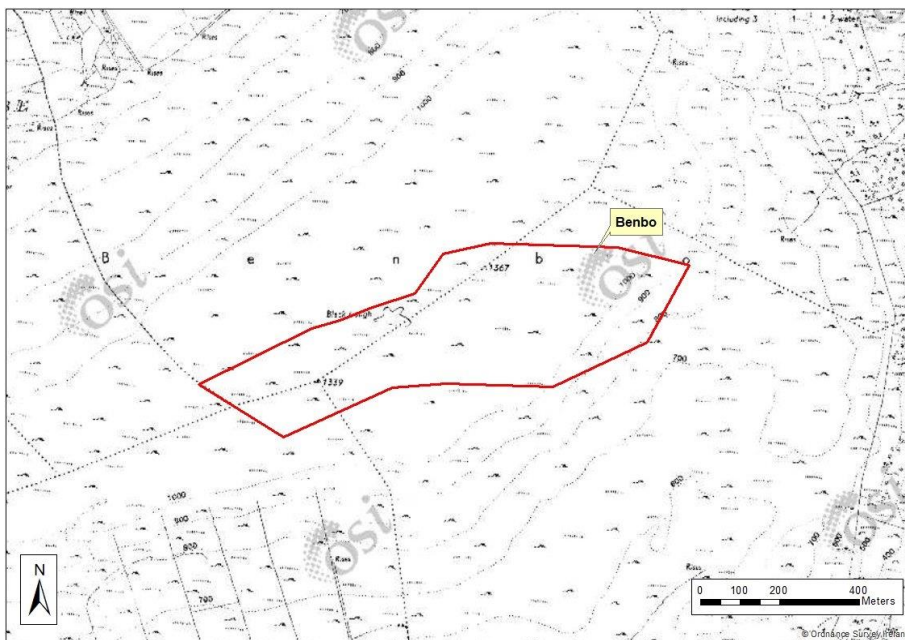
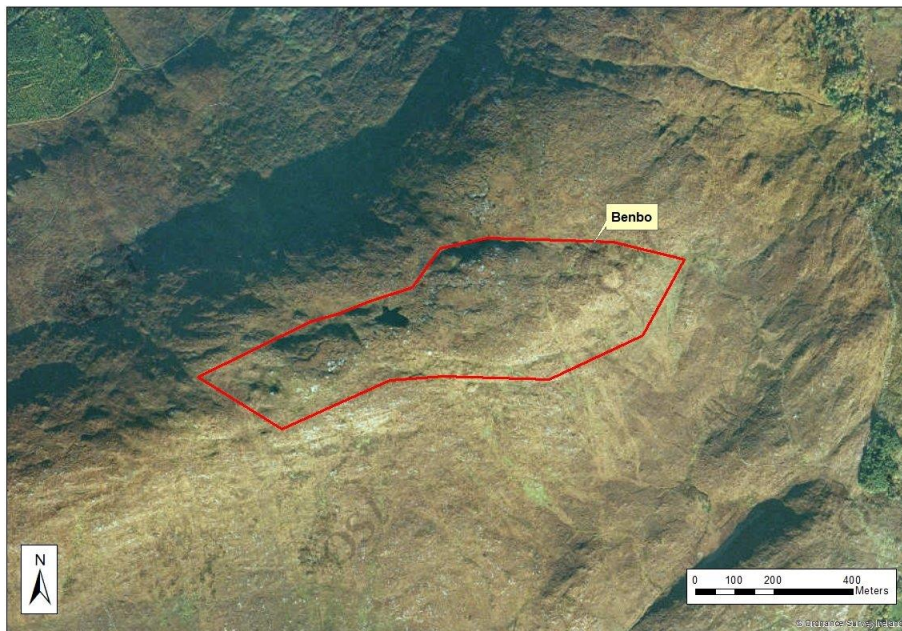
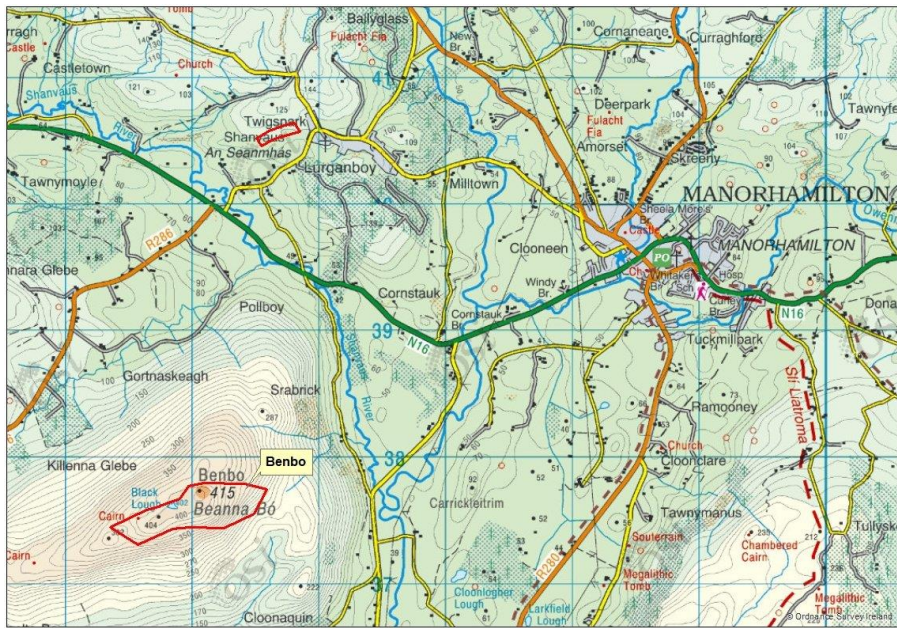
Thick vein of quartz-feldspar pegmatite cutting paragneiss. Eastern side of Benbo summit.  
(Wallet for scale, L = 100mm)



Close-up of outcrop on Benbo summit showing granite vein cutting paragneiss foliation. (Wallet for scale, L = 100mm)



Near circular outcrop of metabasite pod, wrapped by foliated paragneiss. Eastern side of Benbo summit. (Wallet for scale, L = 100mm).



Parkes et al., 2020. Geological Survey Ireland.