

## DONEGAL - COUNTY GEOLOGICAL SITE REPORT

<b>NAME OF SITE</b>	<b>Oughtarnid</b>
Other names used for site	Oughtdarnid
<b>IGH THEME</b>	<b>IGH5 Precambrian</b>
<b>TOWNLAND(S)</b>	<b>Rossilly Barr</b>
<b>NEAREST TOWN/VILLAGE</b>	<b>Laghy</b>
<b>SIX INCH MAP NUMBER</b>	<b>100</b>
<b>ITM CO-ORDINATES</b>	<b>598612E, 872582N</b>
<b>1:50,000 O.S. SHEET NUMBER 11</b>	<b>GS1 BEDROCK 1:100,000 SHEET NOS: 3, 4</b>
<b>GIS Code DL032</b>	

### **Outline Site Description**

This is a hill-side site beside a minor road. It is covered by blanket bog and scrub and used for grazing sheep.

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

Precambrian Sliswood Division (Lough Derg inlier) metabasite pods in psammitic host rock (Pre-Dalradian or very oldest Dalradian).

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

Oughtarnid contains particularly fine outcrops of boudinaged metabasite pods. Basic intrusions (sills or dykes) in the Lough Derg inlier were emplaced early in the Precambrian sequence and have been altered to metabasite after successive phases of deformation and metamorphism. Deformation has boudinaged some of the intrusions so that an originally continuous sill now appears as a series of disrupted, aligned pods within the original host rocks. The bedding of the original sandstone, now altered to psammite, wraps around the metabasite pods.

The outcrops show pods of various sizes and shapes. The largest pod is zoned, displaying high-pressure granulite facies metamorphism in the interior (isotopically dated at c. 540-50 Ma) and overprinted (later) amphibolite facies metamorphism in the exterior (c. 480 Ma).

### **Site Importance: County Geological Site; may be recommended for Geological NHA**

The outcrops at Oughtarnid are particularly fine examples of the boudinaged metabasite intrusions that are characteristic of the Lough Derg inlier. The isotopic ages obtained from one metabasite at Oughtarnid is of particular interest in dating the various deformation and metamorphism phases of the Sliswood Division Lough Derg inlier.

### **Management/promotion issues**

The site is close to a minor road that is apparently a public road although several farm gates have been installed for livestock control. The site is on private land used for upland grazing and is fenced and screened by thick rhododendron bushes. It appears to be under no threat. It is not suitable for general promotion as it is on private grazing land and there is limited parking space on the very narrow road. However, it could serve as an excellent teaching site by arrangement with the landowner.



Oughtarnid, main outcrops of metabasite pods, viewed towards the north.



Metabasite pods of several sizes (left) and close-up of largest pod in same outcrop (right).



Close-up of teardrop-shaped pod wrapped by strongly curved psammite layering (left) and thin pod with minimally affected psammite layering (right).

