

WICKLOW - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Kippure
Other names used for site	<i>Cipiúr</i>
IGH THEME	IGH7 Quaternary
TOWNLAND(S)	Powerscourt Mountain, Kippure, Castlekelly
NEAREST TOWN/VILLAGE	Enniskerry
SIX INCH MAP NUMBER	2, 6
ITM CO-ORDINATES	711500E 715490N (summit)
1:50,000 O.S. SHEET NUMBER	56 GSI BEDROCK 1:100,000 SHEET NO. 16

Outline Site Description

A landmark mountain on the South Dublin-Wicklow county boundary, capped with a prominent transmission tower. The upper mountain hosts extensively eroded peat, exposed granite sands, and granite blocks.

Geological System/Age and Primary Rock Type

Erosion of the peat has been ongoing for the past 3,000 years on this granite mountain. The granites (fine to coarse-grained, with microcline phenocrysts) are part of the Late Caledonian Leinster granites that were emplaced around 405 million years ago (Devonian).

Main Geological or Geomorphological Interest

Above heights of c. 740m, the near-flat summit of Kippure is devoid of significant peat accumulations. The summit hosts a blockfield of rounded granite boulders that lie embedded in grus (crumbled sandy granite). Below the 740m contour, areas of blanket peat are extensively eroded. Deep peat gullies, sub-peat pipes, solitary peat hags (haggs), and collapsing peat banks characterize much of the upper mountain slopes. Where peat has eroded fully, granite bedrock is exposed, with thick accumulations of grus, or granite sand (quartz, feldspar, mica) overlying the bedrock

Peat erosion has been a continual process in Wicklow for over 3,000 years, and is not considered to be attributed solely to recent human disturbance. Peat erosion is considered to be a natural consequence of the accumulation of peat on sloping ground. Climate is also considered to be an influencing factor, as are natural bog flows. Clearance of woodlands in the region pre-dates the onset of peat erosion by too significant a period of time to have had any direct influence on the onset of erosion. Human and biotic factors (grazing animals, vegetation burning, drainage, trampling) are both considered contributory factors to peat erosion, although studies indicate that erosion began before most human and biotic factors began.

Site Importance - County Geological Site

This site is an excellent CGS for observing the effects of long-term (millennial scale) peat erosion. Kippure is a landmark mountain, and is the most northerly of the nunataks. The site is located in the Wicklow Mountains SAC (02122) and on the Wicklow-Dublin county boundary, and should be considered along with the adjacent part of Kippure CGS in South Dublin County.

Management/promotion issues

Access to the site by foot is afforded along a 3.5km tarmacadam service road. The summit is capped by a 127m high TV and radio transmitter mast. It has been suggested that management of the peatland resources may decrease current erosion rates in some areas of high-level blanket peat. The processes of peat erosion that are evident on Kippure and elsewhere in Wicklow are an integral part of the upland blanket peatland system.



Upper limit of peat erosion on east side of Kippure summit. Main erosion occurs below this altitude (~740m).



Peat banks, peat hags, granite sands and granite blockfields on Kippure summit looking north towards Tallaght.



Sub-peat pipes and gullies on upper east slopes.



RTÉ radio/TV transmitter station on summit.



