

LAOIS - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Rock of Dunamase
Other names used for site	Dunamase Castle
IGH THEME	IGH1 Karst, IGH8 Lower Carboniferous, IGH12 Mesozoic and Cenozoic
TOWNLAND(S)	Park or Dunamase
NEAREST TOWN/VILLAGE	Portlaoise
SIX INCH MAP NUMBER	13
ITM CO-ORDINATES	652950E 698200N
1:50,000 O.S. SHEET NUMBER	54, 55 GSI BEDROCK 1:100,000 SHEET NO. 19

Outline Site Description

A small but prominent, steep-sided limestone hill, capped by the ruins of a Norman castle fortress dating back to the early 12th century.

Geological System/Age and Primary Rock Type

The hill comprises Carboniferous (Mississippian) cherty limestone bedrock (Clogrenan Formation). The steep, rocky slopes of the hill are a typical example of Tertiary karst limestone landforms in the county.

Main Geological or Geomorphological Interest

The Rock of Dunamase is one of a series of small, prominent limestone hills, erosional features known as 'hums' that rise abruptly above a plain. The hills are eroded from medium- to coarse-grained, blue-grey coloured limestones. The limestone beds are regularly cherty, examples of which can be seen in the beds exposed 20m-30m east of the Keep on the hill summit.

The hill is a fine example of a relict karst landform. The hill (and those of similar form in the region) may have formed as isolated 'towers' (possibly comparable to present-day karst landforms in south-east Asia). Subsequent physical erosion by the ice during the Pleistocene glaciations most would have smoothed off sharp peaks, formed the stubby hills found in this part of the county today.

Site Importance – County Geological Site

The Rock of Dunamase is a representative site for the hills (hums) situated between Portlaoise and Stradbally, and is an important County Geological Site.

Management/promotion issues

The site and fortress ruins on the Rock of Dunamase are managed by the National Monument Service and are open to the public year round. A major conservation project on the masonry structures was completed in 2006. The strategic observational and defence advantages afforded by the natural limestone hum are evident in the presence of what was once a strongly fortified castle and ramparts. The site is an ideal location for visitors to be introduced to remnant landforms of the Tertiary, pre-Ice Age landscape of Ireland.



Southeast side of the Rock of Dunamase viewed from the approach road off N80.



Inclined limestone strata on near-vertical cliff on southeast side of the Rock.



Limestone (with cherty nodules) outcrops in the Lower Ward, east of the Keep (upper right).

