

DONEGAL - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Bundoran Bay
Other names used for site	
IGH THEME(S)	IGH3 Palaeontology, IGH8 Lower Carboniferous, IGH13 Coastal Geomorphology
TOWNLAND(S)	Magheracar; Drumacrin; Finner
NEAREST TOWN/VILLAGE	Bundoran
SIX INCH MAP NUMBER	106, 109
ITM CO-ORDINATES	581012E, 859101N
1:50,000 O.S. SHEET NUMBER: 16	GSI BEDROCK 1:100,000 SHEET NOS. 3, 4
GIS Code DL006	

Outline Site Description

4.2 km-long coastal section, including cliffs and foreshore.

Geological System/Age and Primary Rock Type

Shales and limestones of the Lower Carboniferous (Arundian) Bundoran Shale Formation.

Main Geological or Geomorphological Interest

Type section for the Bundoran Shale Formation (north of Drowes River mouth to Aughrus Point), comprising highly fossiliferous interbedded shale and limestone.

Site Importance – County Geological Site; recommended for Geological NHA

This is the type section for the Lower Carboniferous Bundoran Shale Formation, which lies above the Ballyshannon Limestone Formation. Uplift to the north after deposition of the Ballyshannon Limestone Formation led to a large volume of mud being deposited in the sea to form the Bundoran Shale Formation. This uplift led to development of a fluvio-deltaic complex, represented by the overlying Mullaghmore Sandstone Formation. At the type locality on Aughrus Point, the formation comprises mainly dark grey thinly laminated shale and thinly bedded limestones which are fossiliferous with abundant brachiopods, byozoans, bivalves, zaphrentid corals, echinoids, sponge roots and, in particular, large crinoids. This and the occurrence of *Delepinea destinezi*, a brachiopod diagnostic of an Arundian age, make this a site of national importance. Significant fossil collections are held in the National Museum of Ireland, Trinity College Dublin and Geological Survey of Ireland.

Apart from the palaeontological and stratigraphic/sedimentary interest, the cliffs are excellent examples of coastal erosion, and a wave cut platform has developed near their bases.

Management/promotion issues

There are no damaging operations evident at the site. The bay is an important recreational area, especially in summer months (beach and sea activities and cliff walking), and is actively managed as such. A pathway along the top of the cliff allows easy access to exposures in many places, but care should be taken where cliffs are steep and rocks are slippery. The main threat observed is undercutting of some cliff sections by wave action.



Bundoran Bay, view northwestwards from town.



Interbedded limestone and shale near Aughris Point (left) and coastal erosion at northern end of bay, including wave-cut platform and sea stack (right).



Brachiopod- and crinoid-dominated assemblage (left) and crinoid stems (right), both in limestone at northern end of Bundoran Bay (coin diameter 23 mm).

