

WEXFORD - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	St. Patrick's Bridge		
Other names used for site	St. Patrick's Rock, Nemestown Shore		
IGH THEME	IGH7 Quaternary, IGH13 Coastal Geomorphology		
TOWNLAND(S)	Nemestown		
NEAREST TOWN/VILLAGE	Kilmore Quay		
SIX INCH MAP NUMBER	47, 52, 53		
ITM CO-ORDINATES	697540E 603420N		
1:50,000 O.S. SHEET NUMBER	77	GSi BEDROCK 1:100,000 SHEET NO.	23

Outline Site Description

A long narrow tidal ridge of bouldery gravel extending almost 4 kilometres south from the Nemestown shore towards the Saltee Islands.

Geological System/Age and Primary Rock Type

The moraine ridge landform is comprised of Quaternary Age glacial sediments (mud, sand, gravel, boulders) deposited during the last Ice Age.

Main Geological or Geomorphological Interest

St Patrick's Bridge is an elongate landform which extends out (southwards) from the coast obliquely into the Celtic Sea. Composed of laminated muds with layers of sand, gravel and large pinkish-red granite boulders, the feature has been interpreted as a moraine ridge deposited at the southern margin of a grounded Irish Sea glacier. The 'bridge' probably extended as a sub-aerial land bridge to the Saltee Islands after the last Ice Age, but was drowned, eroded and reworked with rising sea-levels. The landform appears to have altered little since Ordnance Survey maps were first produced in the 1830s and 1840s. The muds and shell fragments in the lowermost sediments (basal diamicts) indicate an Irish Sea origin for the moraine (Irish Sea Till). The diamict is interpreted as a subglacial till. Bouldery accumulations of similar origin are present immediately east of St Patrick's Bridge.

Just east of the 'bridge', and about 250m offshore, a large glacial erratic (Carnsore Granite) known as St. Patrick's Rock, stands proud above the sea-surface. Erratic boulders, occurring in abundance to the east of the 'bridge' are mostly granitic. To the west, erratics are rare, indicating the ice front terminated at the St. Patrick's Bridge. The Sebbler Bridge (rocky moraine) extends northwards from Great Saltee Island.

Site Importance – County Geological Site; recommended for Geological NHA

This important County Geological Site merits designation as a Geological NHA. It is located with the Saltee Islands SAC (000707). The moraine ridge is an important site for Irish Quaternary stratigraphy and helps in the understanding of the origin of the Irish Sea Till and the extent of the last British-Irish Ice Sheet in the Celtic Sea during the Last Glacial Maximum (LGM). Radiocarbon dating (47,175 to 29,305 ^{14}C yr BP) of marine shells in the muddy sediments at Kilmore Quay has been used to infer the maximum extent of the British-Irish Ice Sheet during the Last Glacial Maximum (after 20,000 ^{14}C yrBP).

Management/promotion issues

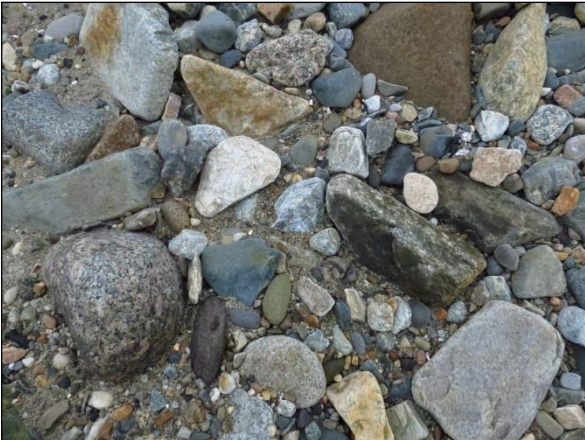
This is an excellent site in terms of macro-scale Quaternary glacial geomorphology. The nearshore part of the site is accessible *via* the beach at Nemestown and is easily visited at low-tide in calm weather conditions. Legend has it the 'bridge' was formed when St. Patrick, chasing the Devil, flung a succession of stones after the fleeing Devil, who was swimming out to sea. The arc-shaped moraine traced the route of the swimmer. The same legend tells of St. Patrick's Rock being flung from Forth Mountain by the holy saint, and is an example of where legend and truth confront: the source being quartzite and the megalith being granite. Nevertheless, these are two examples of geomythology from Irish folklore.



Viewed from Nemestown Shore: St. Patrick's Bridge (half-tide) extending south towards the Saltee Islands (distance). St. Patrick's Rock visible on left. Kilmore Quay Harbour visible far right.



Herring and Great Black-backed gulls on moraine. Little Saltee Island to the south.



Variety of rock types (granite, gneiss, schist, sandstone, limestone) on the beach and moraine.



St. Patrick's Bridge viewed from offshore, looking north.*



Shingle beach, St. Patrick's Bridge, Saltee Islands (far left) and Kilmore Quay Harbour visible (far right).

* Image: Office of Public Works Coast of Ireland Aerial Oblique Imagery Survey 2003. Permission to reproduce acknowledged.

