GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Ballyconneely Bay Drumlin**
Other names used for site	Ballyconneely Drumlin
IGH THEME	**IGH7 Quaternary**
TOWNLAND(S)	**Ballyconneely**
NEAREST TOWN/VILLAGE	**Ballyconneely**
SIX INCH MAP NUMBER	**49**
ITM CO-ORDINATES	**461992E 742987N**
1:50,000 O.S. SHEET NO. 44	**GSI BEDROCK 1:100,000 SHEET NO. 10**

Outline Site Description
This site refers to an exposure of a discrete drumlin along the north side of Ballyconneely Bay, just south of Ballyconneely village.

Geological System/Age and Primary Rock Type
The drumlin is formed on granite bedrock, which in this locality is specifically from a metagabbro suite. The feature itself is Quaternary in age, having been deposited at the base of the ice sheet moving northeast to southwest during the maximum period of the last Ice Age. The drumlin is dominated by sediment which was derived from the Twelve Bens, to the east, carried as 'erratic' material on to the granite bedrock by the ice. The rock types of boulders, cobbles and pebbles within the drumlin sediment include mylonite, gabbro, dolerite, vein quartz and psammite.

Main Geological or Geomorphological Interest
The drumlin forms a high, discrete hill formed from subglacial 'till' sediment, and is especially well exposed as the sea has been incising into the soft sediment by erosion, leaving a vertical cliff of glacial sediment. The internal structures within the drumlin have been studied by numerous Quaternary scholars, and the internal sedimentary make-up shows internal stratified sediments conforming to a 'lee-side infill' drumlin deposit.

Within the drumlin section, the products of subglacial lodgement and subglacial melt-out can be seen within the sediments, as well as laminated muds and gravels. A number of depositional events therefore seem to have contributed to the formation of this particular drumlin feature, but at a larger scale the drumlins of the region were probably formed during the same glacial event under the same subglacial conditions.

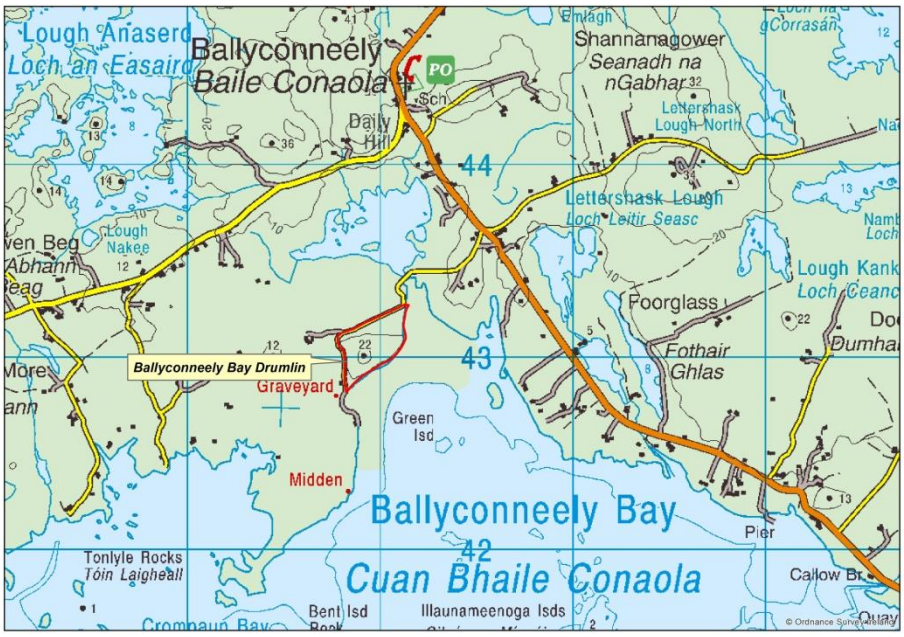
The central lower part of the portion of the drumlin has groundwater seepage issuing onto the base of the section, and a tufa curtain has formed as a result.

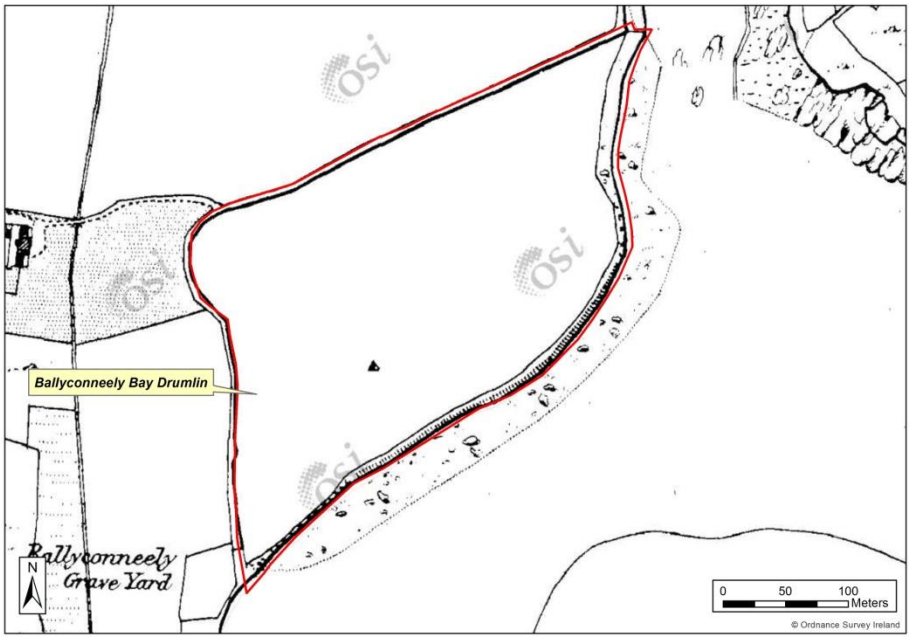
Site Importance – County Geological Site
This is an excellent exposure through the long section of a drumlin and is easily accessible. The sediment exposure merits designation as a County Geological Site.

Management/promotion issues
This is an excellent site in terms of displaying the sediments associated with forming macro-scale, Quaternary subglacial geomorphology features. The site is accessible *via* the public beach and is therefore easily visited. The cliff is prone to slumping, however, and care must be taken when close to the faces; knowledge of tides is also importance when visiting the feature. The importance of the section could be highlighted in promotional material for the Slyne Head Peninsula SAC and proposed NHA. A signboard on the beach close to Ballyconneely Graveyard, where the feature can be well seen, might help promote the feature.

The section through the drumlin at Ballyconneely, looking northeast across the beach.

Left: Unsorted diamicton forming the core of the drumlin; the lower portion has been covered by a veneer of tufa.
Right: Looking north along the section, where the 'lee side infill' can be clearly seen as cross beds of stratified diamict.





Meehan et al. 2019. Geological Survey Ireland.