

GALWAY - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	Dogs Bay and Gorteen Bay
Other names used for site	<i>Cuan an Mhada</i> (Dogs Bay), <i>Gurteen Bay</i> , <i>Port na Feadóige</i> (Gorteen Bay)
IGH THEME	IGH13 Coastal Geomorphology, IGH7 Quaternary
TOWNLAND(S)	Errisbeg West, Ervallah
NEAREST TOWN/VILLAGE	Roundstone
SIX INCH MAP NUMBER	63
ITM CO-ORDINATES	469500E 738250N (centre of tombolo peninsula)
1:50,000 O.S. SHEET No. 44	GS1 BEDROCK 1:100,000 SHEET NO. 10

Outline Site Description

Dogs Bay and Gorteen Bay are small, discrete coastal embayments, flanked on either side by protruding bedrock headlands and located on either side of a long tombolo feature, with white sand beaches within each bay.

Geological System/Age and Primary Rock Type

The tombolo, spit and beach features have been formed in the Holocene Period, since the last glaciation, and the bays themselves host soft sand sediment washed into them during that time.

It is likely that the macro-structure of the 'island' at the end of the bays, and the mainland bedrock ridges, date back through the Quaternary (Ice Age) to the Tertiary Period.

Main Geological or Geomorphological Interest

The site includes a granite 'island' which is linked to the mainland by a sandy spit with beaches along either side of this; a feature which is known as a tombolo. Dogs Bay curves along the western side of this tombolo, with Gorteen Bay to the east. The sands are formed of Foraminifera shells, the calcareous remains of tiny, single-celled marine animals. These Foraminifera have been swept up from deeper water into the channel between the island and the mainland, where they have accumulated to form the tombolo, which, as a result, is comprised of 90% calcium carbonate. The Foraminifera sand is also of great interest, this being one of the few beaches worldwide where Foraminifera sand is found onshore.

The spit has been the result of wind erosion and deposition over the millennia since the Ice Age, and a low-amplitude dune-field has formed across it. The diversity of the dune portion of the site is added to by the presence of wetland areas, including brackish pools and a freshwater marsh.

Site Importance – County Geological Site; recommended for Geological NHA

Dogs Bay and Gorteen Bay are impressive localities and the associated tombolo, beach, dune and slack features, as well as the bounding headlands at Earawalla Point and Gorteen Point, make the bays textbook localities for the recognition of coastal erosion and deposition features. The site is one of the few beaches worldwide where Foraminifera sand is found onshore, and the site is already an SAC/pNHA (Dog's Bay, sitecode 001297).

Management/promotion issues

The location of the features means they are easily accessible, and the area is a popular holiday destination. An information board at Dogs Bay (there is already one at Gorteen Bay) may prove a worthy addition to the site, explaining the formation of the feature and its associated habitats, flora and fauna.



View south across the sandy beach and along the tombolo feature of Dogs Bay.



View north across the dunes between Dogs Bay and Gorteen Bay.



The beach at Gorteen Bay.



Sign explaining tombolo at Gorteen Bay.

