# **CORK - COUNTY GEOLOGICAL SITE REPORT**

NAME OF SITE Other names used for site IGH THEME TOWNLAND(S) NEAREST TOWN/VILLAGE SIX INCH MAP NUMBER ITM CO-ORDINATES 1:50,000 O.S. SHEET NUMBER GIS CODE Knockadoon Head Ballymacoda IGH7 Quaternary Knockadoon Ballymacoda 78 609100E 570370N (Knockadoon pier) 81 GSI BEDROCK 1:100,000 SHEET NO. 25 CK058

# **Outline Site Description**

Sea cliff exposures backing onto a popular beach and fishing pier, resting on a rock pavement.

# Geological System/Age and Primary Rock Type

Diamict or glacial till deposited during the last Ice Age, around 20,000 years ago, on a wave-cut rock platform comprising sandstone and siltstone of the Upper Devonian Ballytrasna and Gyleen Formations.

## Main Geological or Geomorphological Interest

The wave-cut platform at Knockadoon Head rises as much as 5 m above beach level. Its surface is incised and some of the incisions have developed into large hollows. The platform is covered by till which has a matrix of red sand. Clasts are rounded to angular and in places stratified. Incisions and hollows in the rock platform are filled by till, which is clast-supported in places and typically fines upwards. The lower till is in sharp, horizontal contact with the matrix-supported till that forms the upper section of the cliff. This upper till has abundant irregularly-shaped clasts, some horizontally stratified.

### Site Importance – County Geological Site

This site contains excellent exposures of Quaternary sediment sequences on the south coast of Ireland. The sediments rest on a deeply incised, wave-cut rock platform and the relationship between platform and overlying sediments is well displayed across the site.

### Management/promotion issues

The site is located along the foreshore from a pier that is readily accessible via road. It is within Capel Island and Knockadoon Head Nature Reserve, established for bird protection. Threats to the site are mainly from coastal erosion as the cliffs are not armoured, albeit the rock platform may provide some natural protection. It merits promotion, possibly as part of a south coast geological heritage trail.



Knockadoon Head, south of pier - cliff of till resting on wave-cut platform.



Knockadoon Head, south of pier: view of cliff section above wave-cut platform. Large hollow in centre is filled by clast-supported till, which fines upwards. There is a sharp, horizontal contact with the matrix-supported till that forms the upper section of the cliff. This till has abundant irregularly-shaped clasts, some horizontally stratified.



View to north of pier at Knockadoon Head, cliffs of till on wave-cut rock platform.



Hennessy et al., 2023. Geological Survey Ireland.