CORK - COUNTY GEOLOGICAL SITE REPORT

NAME OF SITE	**Galley Head**
Other names used for site	Belacoon Cove (part of it)
IGH THEME	**IGH8 Lower Carboniferous, IGH10 Devonian, IGH13 Coastal Geomorphology**
TOWNLAND(S)	**Dundeady, Donoure**
NEAREST TOWN/VILLAGE	**Rosscarbery**
SIX INCH MAP NUMBER	**144**
ITM CO-ORDINATES	**533900E 531215N (lighthouse)**
1:50,000 O.S. SHEET NUMBER	**89** **GSI BEDROCK 1:100,000 SHEET NO. 24, 25**
GIS CODE	**CK047**

Outline Site Description
Galley Head is a pronounced headland extending out into the Atlantic Ocean between the Old Head of Kinsale and Mizen Head.

Geological System/Age and Primary Rock Type
The bedrock cropping out at Galley Head is a condensed sequence of sandstone and minor mudstone of the Toe Head and Old Head Sandstone Formations, which are both of Devonian (419-359 million years ago) age, and flaser-bedded sandstone and mudstone of the Narrow Cove and Pig's Cove Members of the Kinsale Formation, which is of Lower Carboniferous (Mississippian) age (359-323 million years ago). The headland itself and the cliffs, coves, inlets, geos, beaches, blowholes and caves are of Quaternary age.

Main Geological or Geomorphological Interest
At Galley Head a wide bedrock headland juts out into the ocean, and has been incised within inlets, forming coastal rock cliffs, beaches, coves, geos, blowholes and caves.

In the region around Galley Head, on a macro-scale the bedrock records an Upper Devonian to Lower Carboniferous clastic sequence that was deposited in an ENE–WSW trending half-graben, known as the South Munster Basin. This stratigraphical succession is attenuated across the Galley Head peninsula due to the presence of a palaeogeographical feature called the Glandore High. Evidence suggests that the Glandore High was an east–west-oriented feature, faulted to the north and east, which was part of the southern flank of the South Munster Basin. Later, during post-Carboniferous Variscan orogeny, the relatively thin stratigraphy of Galley Head underwent prolonged deformation, causing a local periclinal fold pair to develop within the hinge zone of a regional syncline. The main cleavage then developed parallel to bedding on the overturned south limb of the anticline of this fold pair.

The rocks exposed around Galley Head are thus exceptionally important to understanding the complex depositional and structural history of the southern part of Ireland. The coastal erosional and depositional features are unusual in that such a variety of features occur in such a small area.

Site Importance – County Geological Site
Galley Head has excellent exposure into structurally complex rocks that straddle two geological periods, and which are important to understanding of the geological development of the Munster Basin. As such it warrants inclusion as a County Geological Site. The modern coastal features add markedly to the interest factor.

Management/promotion issues
The site is accessible via a long laneway, which ends in a cul-de-sac at Galley Head lighthouse. There are some high cliffs and deep geos and blowholes on both the western and eastern side of the headland that are particularly hazardous. Regardless of walking on the platform, localities should only be visited as tides permit. A signboard outlining the coastal geomorphological features at the locality and the importance of the site in terms of Irish bedrock history would be a worthwhile addition to the locality.

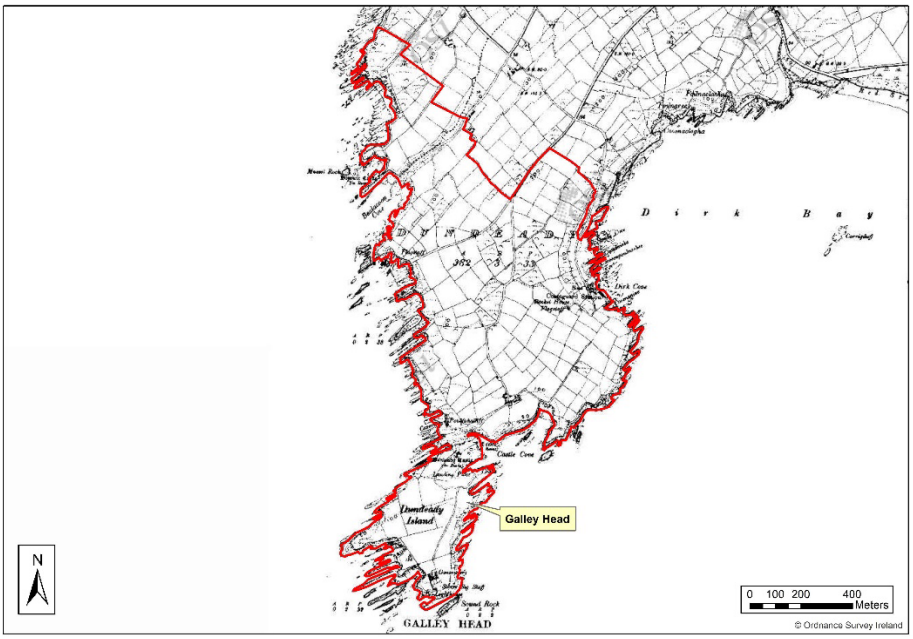
Hennessy et al., 2023. Geological Survey Ireland.

Galley Head and the lighthouse, viewed from the northeast.

Inlets, geos and blowholes along the western side of Galley Head, looking northwards.

Flaser-bedded sandstones and mudstones of the Narrow Cove Member along the northern side of Belacoon Cove.

Folded and steeply-dipping mudstones of the Narrow Cove Member (left) and Pigs Cove Member (right) at Belacoon Cove.



Hennessy et al., 2023. Geological Survey Ireland.