

The Geological Heritage of the South Wexford Coast

The online report titled '*The Geological Heritage of Wexford*' comprises an audit of sites of particular geological, geomorphological, mining and quarrying interest in Co Wexford including fossils and deposits from previous ice ages (Meehan *et al*, 2018). The project is supported by Geological Survey Ireland, Wexford County Council and The Heritage Council. The report is a contribution to the programme of work in the *County Wexford Biodiversity Action Plan 2013-2018* and the *Wexford County Development Plan 2013-2019*. The online publication comprised three parts: (1) the main report, a 54-page overview; (2) an 8-page introduction to the individual site reports; and (3) 42 individual site reports, the following 17 of which refer to the South Wexford Coast. These 17 sites are arranged here in sequential order of occurrence from west to east and their locations are shown in Figure 1 below.

The report suggests that the Hook peninsula may be an area suitable for consideration for proposal for designation a geopark (Meehan *et al*, 2019, main report page 20).

Hook Head (WX023)	Bannow Bay (WX004)	Kilmore Quay (WX025)
Sandeel Bay (WX035)	Barrystown Mine (WX005)	St Patrick's Bridge (WX040)
Graigue Great (WX019)	Loftusacre (WX029)	Tacumshin Lake (WX041)
Petit's Bay (WX032)	Cullenstown (WX015)	Lady's Island Lake (WX028)
Baginbun Head (WX001)	Ballyteige Bay (WX003)	Carnsore Point (WX012)
Fethard (WX017)	Saltee Islands (WX034)	

Note: Hook Head overview (WX024) is not a separate site to Hook Head (WX023). The site formerly known as Wood Village is renamed 'Fethard' and Ballyteige 'Bay' site refers to Ballyteige Burrow.

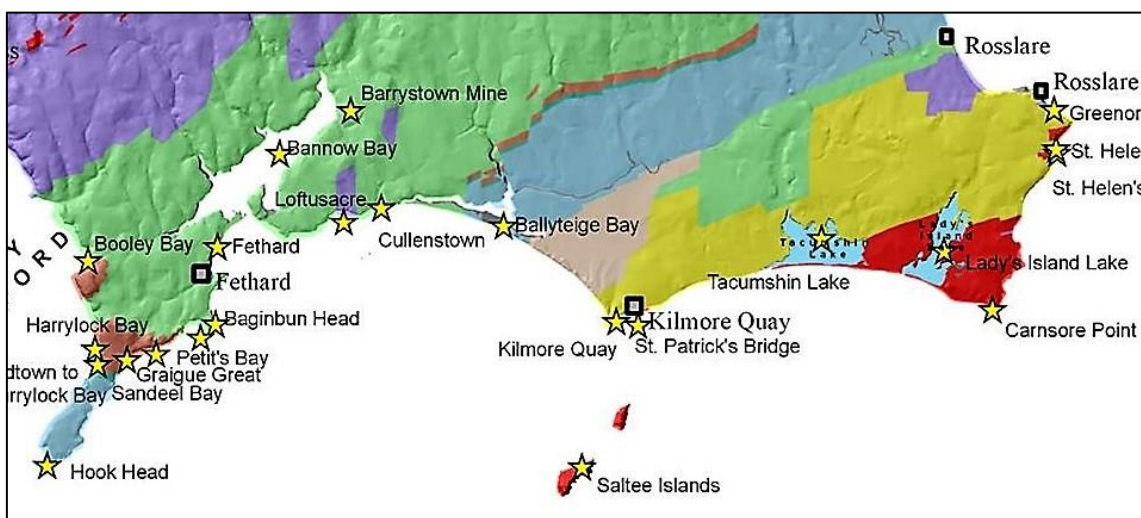
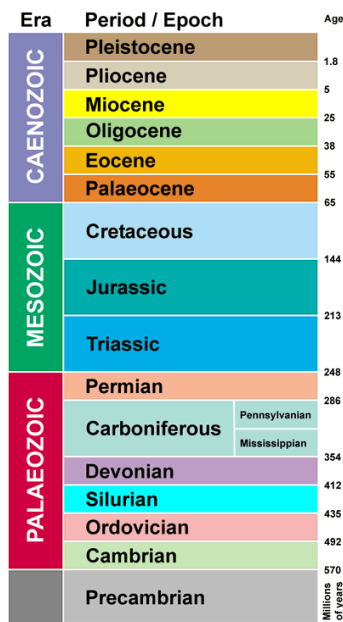


Figure 1. Locations of 17 geological heritage sites on the South Wexford Coast.

(Source: Meehan *et al*, 2018 Part 2, page 4)

Meehan, R., Hennessy, R., Parkes, M. and Gatley, S. 2018. *The Geological Heritage of County Wexford*. Unpublished report. Dublin: Geological Survey of Ireland. Available online at <https://www.gsi.ie/en-ie/publications/Pages/The-Geological-Heritage-of-Wexford.aspx>.

Geological heritage sites. Under the Geological Survey of Ireland (GSI) Geoheritage Programme, the following sixteen themes are recognised: (1) Karst (weathered limestone), (2) Precambrian to Devonian Palaeontology (fossils), (3) Carboniferous to Pliocene Palaeontology (fossils), (4) Cambrian to Silurian, (5) Precambrian, (6) Mineralogy, (7) Quaternary (the last 2.6 million years and their Ice Ages), (8) Lower Carboniferous, (9) Upper Carboniferous and Permian, (10) Devonian, (11) Igneous Intrusions (granites, etc), (12) Mesozoic and Cenozoic (aka Caenozoic), (13) Coastal Geomorphology (landforms created by the sea), (14) Fluvial and Lacustrine Geomorphology (landforms created by rivers and lakes), (15) Economic Geology (mining, quarrying, etc), and (16) Hydrogeology (warm springs, etc). Each of the sixteen themes is defined and described at <https://www.gsi.ie/en-ie/programmes-and-projects/geoheritage/activities/background-information/Pages/Themes.aspx>. Examples of eleven of the sixteen themes occur at the seventeen sites on the South Wexford Coast and are tabulated below (Table 1).



Site name	Code	Irish Geological Heritage (IGH) theme number										
		Interest: primary = ◆, secondary = ◻, and tertiary = ○.										
		2	3	4	5	7	8	10	11	13	14	15
Hook Head	WX023		◆				◻					
Sandeel Bay	WX035	◆						◻				
Graigue Great	WX019											◆
Petit's Bay	WX032			◆								
Baginbun Head	WX001			◆								
Fethard	WX017					◆						
Bannow Bay	WX004									◆		
Barrystown Mine	WX005											◆
Loftusacre	WX029	◻		◆		○						
Cullenstown	WX015			◆								
Ballyteige Bay	WX003									◆		
Saltee Islands	WX034					○			◆	◻		
Kilmore Quay	WX025				◆							
St Patrick's Bridge	WX040					◆				◻		
Tacumshin Lake	WX041									◆	◻	
Lady's Island Lake	WX028									◆	◻	
Carnsore Point	WX012								◆	◻		

Table 1. Geoheritage sites on the South Wexford Coast by theme.

Themes 1 Karst (weathered limestone), 6 Mineralogy, 9 Upper Carboniferous and Permian, 12 Mesozoic and Cenozoic, and 16 Hydrogeology (warm springs, etc) are not known to occur in Co Wexford.

Highlights. Highlights of the geological heritage of the South Wexford Coast include

- The fossils, rock formations and historic manufacture of millstones at Hook Head.
- Bannow Bay for its textbook coastal and depositional features, mining heritage and the particularly impressive exposure of a raised beach at Fethard.
- The shingle-based dune system at Ballyteige Burrow, regarded as one of the most impressive in Ireland.
- The Saltee Islands.
- The Precambrian basement of the microcontinent Avalonia at Kilmore Quay and St Patrick's Bridge.
- The barrier coastline and back-barrier lagoons at Ballyteige Burrow, Tacumshin Lake and Lady's Island Lake.

Recommendations. Since they are among the most important geological sites within Co Wexford, all seventeen sites on the South Wexford Coast are recommended to Wexford County Council as County Geological Sites (CGSs) for inclusion within the County Development Plan. The following eight of the seventeen sites are rated of national importance and are recommended to government for designation as geological Natural Heritage Areas (NHAs): Hook Head, Sandeel Bay, Fethard, Bannow Bay, Saltee Islands, Kilmore Quay, Tacumshin Lake and Lady's Island Lake (Meehan *et al*, 2018 Part 1, page 9).

Jim Hurley, 24 February 2020