Bedrock Geology of Ireland

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Scale: 1:1,000,000

Onshore geology presents the bedrock data from the OneGeology-Europe map project (www.onegeology-europe.org) coloured to an Irish lithostratigraphical scheme. Derived from the Geological Survey of Ireland 1:500,000 Bedrock Geological map of Ireland and 1:100,000 Bedrock Map Series and the Geological Survey of Northern Ireland 1:250,000 Geological Map of Northern Ireland.

Offshore data are derived from the EMODnet project map (www.emodnet-geology.eu) compiled by GSI from Petroleum Affairs Division and INFOMAR (www.infomar.ie) mapping and other published sources. Contains British Geological Survey materials © NERC (1982, 1986, 2009).

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Geological Survey of Ireland

Department of Enterprise, Trade and Investment
Geological Survey of Northern Ireland

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Bedrock Geological Legend

Offshore

- Paleogene to Neogene sediments (overlay, St. George's Channel)
- Neogene sedimentary material — 125
- Paleogene basalt — 124
- Paleogene limestone & claystone — 123
- Upper Cretaceous limestone — 122
- Upper Jurassic mudstone & sandstone — 121
- Middle Jurassic limestone & mudstone — 120
- Lower Jurassic mudstone & limestone — 119
- Middle to Upper Triassic mudstone, sandstone, evaporite — 118
- Triassic to Cretaceous sandstone, mudstone, limestone — 117
- Mesozoic sedimentary rocks — 116
- Permian to Triassic sandstone & mudstone — 115
- Upper Paleozoic to Mesozoic sedimentary rocks — 114
- Pennsylvanian sandstone, mudstone, coal — 113
- Mississippian limestone & calcareous shale — 112
- Mississippian sandstone, mudstone, limestone — 111
- Devonian sandstone & conglomerate — 110
- Silurian sandstone & mudstone — 109
- Ordovician to Silurian sandstone & mudstone — 108
- Ordovician to Devonian granitoid & other igneous rocks — 107
- Ordovician sandstone, slate & volcanic rocks — 106
- Cambrian sandstone & quartzite — 105
- Lower Paleozoic metasedimentary rocks — 104
- Neoproterozoic to Lower Paleozoic metasedimentary rocks — 103
- Neoproterozoic schist & gneiss — 102
- Paleoproterozoic to Mesoproterozoic gneiss & schist — 101

Onshore

Ma | QUATERNARY | NEOGENE | PALEOGENE | CRETACEOUS | JURASSIC | TRIASSIC | PERMIAN | CARBONIFEROUS | DEVONIAN | SILURIAN | ORDOVICIAN | CAMBRIAN | PROTEROZOIC (NEO & MESO)

- 29 Oligocene clay, sand & lignite
- 28 Paleocene basalt lava
- 27 Upper Cretaceous chalk, flint, glauconitic sandstone
- 26 Lower Jurassic mudstone & limestone
- 25 Triassic sandstone, mudstone, evaporite
- 24 Permian sandstone, conglomerate, evaporite
- 23 Westphalian shale, sandstone, siltstone & coal
- 22 Namurian shale, sandstone, siltstone & coal
- 21 Viséan to Westphalian sandstone, conglomerate & mudstone
- 20 Viséan sandstone, mudstone & evaporite
- 19 Viséan limestone & calcareous mudstone
- 18 Carboniferous volcanic rocks
- 17 Tournaisian limestone
- 16 Tournaisian sandstone, mudstone, limestone
- 15 Upper Devonian sandstone & mudstone
- 14 Old Red Sandstone; sandstone, conglomerate & mudstone
- 13 Devonian volcanic rocks
- 12 Silurian mudstone, greywacke & conglomerate
- 11 Silurian sandstone, siltstone, conglomerate
- 10 Late Ordovician to Silurian greywacke, mudstone
- 9 Middle to Upper Ordovician slate, sandstone, greywacke, conglomerate
- 8 Lower to Middle Ordovician slate, sandstone, greywacke, conglomerate
- 7 Serpentinite & sedimentary melange (Paleozoic)
- 6 Ordovician volcanic rocks
- 5 Cambrian greywacke, slate, quartzite
- 4 Neoproterozoic (to Cambrian?) metasedimentary rocks - Dalradian
- 3 Neoproterozoic schist & gneiss
- 2 Mesoproterozoic gneiss
- 1 Paleoproterozoic gneiss

IGNEOUS INTRUSIONS

- 61-56 Ma: 35 Paleogene basic intrusive rocks; 34 Paleogene rhyolite; 33 Paleogene granitic rocks
- 410-380Ma: 32 Siluro-Devonian granitic rocks & appinite
- 475-462 Ma: 31 Lower Paleozoic gabbroic - dioritic rocks
- 30 Ordovician granitic rocks

international border

faults, onshore

faults, offshore

Geological time column drawn to scale for the Phanerozoic (Ma=million years ago).
Grey shading joining the onshore unit legend to the time column shows stratigraphical ranges for Ireland as a whole; individual successions contain many more breaks. Gaps between grey areas indicate that no rocks of that age are preserved at the surface onshore.