

INDEX AND EXPLANATION

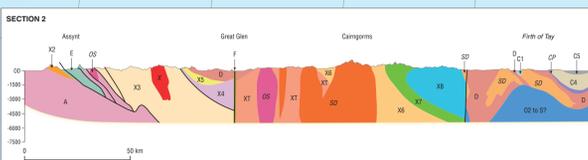
SEDIMENTARY and METAMORPHIC ROCKS

ERA	PERIOD	OROGENIC EVENTS	ROCKS
CENOZOIC	NEOGENE	1	1 Craig Group and Buchan Gravels Formations: gravel and sand
		2	2 Neogene and Palaeogene strata, including Solent and Lower Weald groups: clay, silt, sand and gravel with lignite
	PALAEOGENE	3	3 Barton and Bracklesham groups, Baginbun Formation: clay, silt and sand
		4	4 Thames Group, London Clay and Havorth Formations: clay, silt and sandy clay
		5	5 Lambeth Group: sand and clay, pebbles, shaly
	CRETACEOUS	6	6 Thanet Sand Formation: fine sand
		7	7 Chalk Group, Uster White Limestone and Hunstanton formations: chalk, minor sandstone
		8	8 Selborne Group, Upper Greensand Formation and Gault Formation: sandstone, clay
		9	9 Lower Greensand Group: sand and sandstone
		10	10 Wootton Group, Spynet Clay, Giltsey Sandstone and Sandringham formations: mudstone, sandstone and siltstone
MESOZOIC	JURASSIC	11	11 Purbeck Group: limestone, mudstone and evaporites
		12	12 Portland Group: limestone and sandstone
	TRIASSIC	13	13 Kimmeridge Clay, Angulifer Clay and West Waltham formations: mudstone and muddy limestone
		14	14 Corallian Group: limestone, sandstone, siltstone and mudstone
		15	15 Oxford Clay, Osgelby and Kettlewells formations: mudstone and sandstone
		16	16 Great Oolite Group: limestone, sandstone and mudstone
	PERMIAN	17	17 Rensselaer Group and Dogger Formation: siltstone, mudstone and sandstone
		18	18 Inferior Oolite Group: limestone with sandstone and mudstone
		19	19 Lias Group and Waterloo Mudstone Formation: mudstone, limestone, limestone and sandstone
		20	20 Penarth and Mercia Mudstone groups: mudstone, siltstone and evaporites
PALAEOZOIC	CARBONIFEROUS	21	21 Sherwood Sandstone Group: sandstone and conglomerate
		22	22 mudstone, siltstone and sandstone
	DEVONIAN	23	23 Zechstein, Carboniferous Coal, Silesian Mudstone and Belfast groups
		24	24 Exeter, Appley, Stewary and Eiler groups: sandstone, breccia
	ORDOVICIAN	25	25 Wenlockian Group: sandstone, siltstone and mudstone with coal
		26	26 Coal Measures Supergroup, including Leinster coalfield: coal bearing mudstone, siltstone and sandstone
	SILURIAN	27	27 Millstone Grit, Craven, Tynedale, Clackmannan, Lethin, Shalton, Central Gairn and Kilsyth groups: sandstone, siltstone, mudstone and limestone
		28	28 Barren, Scaevole groups: sandstone, mudstone, limestone and conglomerate
	CAMBRIAN	29	29 Carboniferous Limestone Supergroup, Tyrone, Armagh, Finlaggie groups: limestone, mudstone, limestone and conglomerate
		30	30 Basal Carboniferous: Ravenstonedale, Inverclyde, Roe Valley, Navan groups: limestone, mudstone, limestone and conglomerate
PRECAMBRIAN	31	31 Cullin Supergroup and Cork Group: mudstone and sandstone with limestone and extrusive rocks	
	32	32 Tama, Meadfoot and Dartmouth groups: mudstone and siltstone with limestone, sandstone and conglomerate	
MESOPROTEROZOIC	DEVELOPMENT OF THE LISIARD AND STAIR POINT: METASOMATISM AND METAGNEOGENESIS	33	33 Devonian rocks of the Lizard and Stair Point: metasedimentary and metagene rocks
		34	34 Old Red Sandstone Supergroup, Fife and Cross Slieve, Dingle and Inveragh groups: sandstone, siltstone, mudstone and conglomerate
	SILURIAN	35	35 Devonian rocks including Windermere Supergroup, Gairn, Fife, Kilsyth and Devonian-Silurian Muller Shale groups and of the West Basin: mudstone, siltstone and sandstone, with siltstone
		36	36 Devonian rocks including Windermere Supergroup, Gairn, Fife, Kilsyth and Devonian-Silurian Muller Shale groups and of the West Basin: mudstone, siltstone, sandstone, tuff and lava
	ORDOVICIAN	37	37 Mochrum Lower Ordovician rocks including Skelton, Mearns, Highland and Tyrone Volcanic groups: mudstone, siltstone and sandstone, with conglomerate, tuff and lava
		38	38 Cambrian rocks including Gairn, Haroch, Dumfries and Blyth groups: mudstone, siltstone, sandstone, quartzite and dolomite, with tuff and lava
	PRECAMBRIAN	39	39 Metasedimentary rocks of Angulifer, Charnwood, Long Mynd, Balaclava, prosit, schist, metamorphosed mudstone, sandstone, conglomerate, limestone
		40	40 Southern Highlands Group: metamorphosed sandstone and mudstone
	MESOPROTEROZOIC	41	41 Argill and Appin groups: metamorphosed sandstone, mudstone, limestone, quartzite and calcareous
		42	42 Grampian, Colonsay and Bowmore groups: sandstone and metamorphosed sandstone
MESOPROTEROZOIC	43	43 Moine - undivided: East Sutherland, Badenoch	
	44	44 Loch Eil Group: metamorphosed sandstone	
MESOPROTEROZOIC	45	45 Glenfian Group: metamorphosed mudstone and sandstone	
	46	46 Morar and Tarskavag groups: metamorphosed sandstone	
MESOPROTEROZOIC	47	47 Torridon Group: sandstone and conglomerate	
	48	48 Bear and Iona groups: sandstone and mudstone	
MESOPROTEROZOIC	49	49 Boor Group: sandstone, conglomerate, mudstone, impact rock	
	50	50 Anagh Gneiss, Rhinns Complex, South Harris rocks, Loch Maree Group: gneiss, metamorphosed sedimentary and volcanic rocks	
MESOPROTEROZOIC	51	51 Lewisian Complex: gneiss, metamorphosed mafic and felsic intrusive rocks	
	52	52 Fault zone rocks, no age assigned	

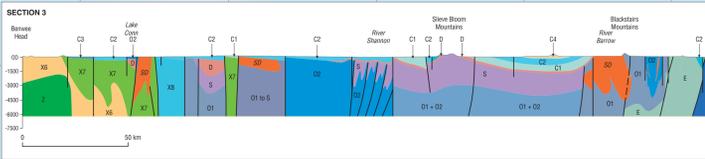
IGNEOUS ROCKS

PERIOD	OROGENIC EVENTS	ROCKS	
PALAEOZOIC	ATLANTIC	53	53 Antrim Lava, Sike Lava and Mull Lava groups: mafic extrusive rocks, lava and tuff
		54	54 Felsic extrusive rocks, lava and tuff
CARBONIFEROUS AND PERMIAN	WELSH	55	55 Felsic intrusive rocks including granite
		56	56 Mafic and ultramafic intrusive rocks including gabbro
DEVONIAN TO DEVONIAN	WELSH	57	57 Felsic intrusive rocks including granite
		58	58 Mafic intrusive rocks including gabbro and diorite
DEVONIAN TO DEVONIAN	WELSH	59	59 Felsic extrusive rocks, lava and tuff
		60	60 Mafic extrusive rocks, lava and tuff
DEVONIAN TO DEVONIAN	WELSH	61	61 Mafic and felsic extrusive rocks, lava and tuff
		62	62 Mafic and felsic extrusive rocks, lava and tuff
DEVONIAN TO DEVONIAN	WELSH	63	63 Felsic intrusive rock, including granite and gneiss
		64	64 Mafic intrusive rocks including gabbro
DEVONIAN TO DEVONIAN	WELSH	65	65 Felsic and alkaline intrusive rocks, including granite and syenite
		66	66 Mafic and felsic extrusive rocks, lava and tuff
DEVONIAN TO DEVONIAN	WELSH	67	67 Mafic and felsic extrusive rocks, lava and tuff
		68	68 Metamorphosed mafic and ultramafic intrusions
MESOPROTEROZOIC	WELSH	69	69 Felsic intrusive rocks, including granite and syenite
		70	70 Felsic extrusive rocks
MESOPROTEROZOIC	WELSH	71	71 Mafic intrusive and extrusive rocks, including gabbro
		72	72 Felsic intrusive rocks, including granite and syenite
MESOPROTEROZOIC	WELSH	73	73 Mafic intrusive rocks, including gabbro
		74	74 Felsic intrusive rocks, including granite and syenite

- #### Geological sites of interest
- | SCOTLAND | SCOTLAND |
|-----------------------------|--------------------------|
| 1 Wick of Rappall | 17 Loch Morar |
| 2 Fucok, Shetland | 18 Culter, Skye |
| 3 Old Man of Hoy, Orkney | 19 Elgol, Skye |
| 4 Sango Bay / Duness | 20 Hallow & Aulival, Rum |
| 5 Ancaist | 21 The Muller, Caithness |
| 6 Laxford | 22 Glen Tilt |
| 7 Soay | 23 Ardnamurchan |
| 8 Glenelg | 24 Glenice |
| 9 Star Taps | 25 Scaemthan |
| 10 Achmelvich | 26 Staffa |
| 11 Assynt | 27 Port Asdaig, Islay |
| 12 Knochan | 28 Arthur's Seat |
| 13 St Kilda | 29 Scaevon |
| 14 Rosneath | 30 Arnan |
| 15 Uist - Outer Isles Fault | 31 Balnakeil |
| 16 Tobermory, Skye | |



- #### Geological sites of interest
- | REPUBLIC OF IRELAND | NORTHERN IRELAND |
|------------------------------|----------------------|
| 1 Doolough granites | 1 Giant's Causeway |
| 2 Cooley | 2 Glenties |
| 3 Croagh Patrick | 3 Antrim Plateau |
| 4 Navan mine | 4 Marlin Arch Cairns |
| 5 Contemna and Joyce Country | 5 Slieve Donard |
| 6 Burns and Cully of Malar | 6 Moineau |
| 7 Glenduff | |
| 8 Loop Head | |
| 9 Valentia | |
| 10 Copper Coast | |



- #### Geological sites of interest
- | WALES |
|-------------------------|
| 1 Great Orme |
| 2 Llanberis / Snowdon |
| 3 Llani |
| 4 Penrhynian Coast |
| 5 The Gower |
| 6 Swansea Valley Cairns |
| 7 Brecon Beacon |
| 8 Big Pit, Blaenau |

- #### Geological sites of interest
- | ENGLAND | ENGLAND |
|---------------------------|--------------------------------|
| 1 Limestone | 13 Worlock Edge |
| 2 Great Whin Sill | 14 Long Mynd |
| 3 Langdale/Hart Fell | 15 Forest of Dean |
| 4 North Yorks Coast | 16 Cotswolds |
| 5 Ingleton | 17 Mendips |
| 6 Malham | 18 Wiltshire/Devon |
| 7 Mam Tor | 19 South Downs |
| 8 Malpas | 20 Seven Sisters |
| 9 Dove Dale | 21 Dorset World Heritage Coast |
| 10 Nottingham Castle Rock | 22 The Needles |
| 11 Humberston | 23 Summer Tor |
| 12 Charnwood | 24 The Lizard |

British Geological Survey
 Geological Survey
 Department for the Economy
 GSNI

0 50 100 150 200 km

© NERC 2017 All rights reserved.
 Contains Ordnance Survey Data © Crown Copyright and database right 2017.
 Produced using Copernicus data and information funded by the European Union - EU DEM layers.
 This product includes data licensed from © EuroGeographics.

Discovering Geology www.bgs.ac.uk/discoveringGeology

1:1 250 000 Scale

Bedrock geology map of the United Kingdom and Ireland

