

JCWL Geopark Project Fact Sheet

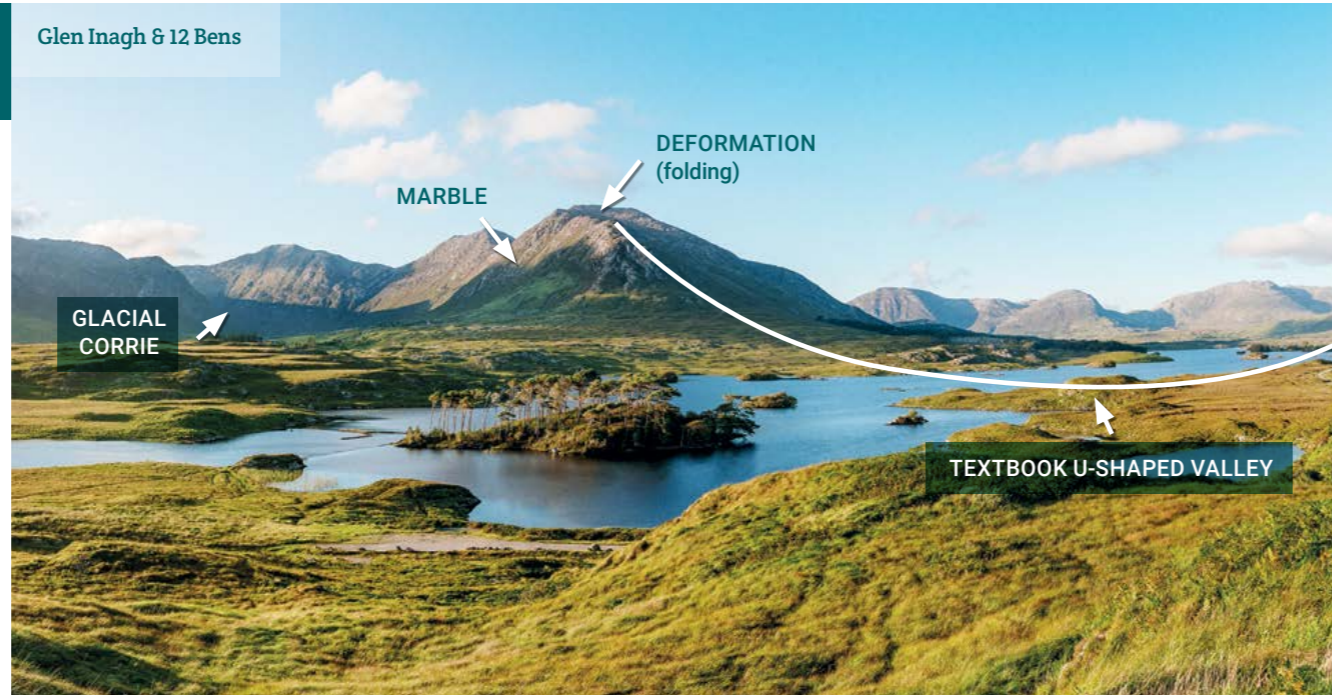
A UNESCO Global Geopark is an area with sites and landscapes of international geological significance and its status adds no further planning regulations to those already in place

Highlights

- ▶ A geological story of over 700 Ma told through the rocks and landscape with the best complete record of opening and closing of the Iapetus Ocean.
- ▶ Great geodiversity of each rock type (igneous, sedimentary and metamorphic), a rich fossil record and evidence of multiple folding and faulting events in the uplands.
- ▶ A vast and diverse glaciological landscape throughout the region that includes many U-shaped valleys, corries and drumlins and Killary Harbour - Ireland's only fjord.
- ▶ Important karst and epikarst landscapes (around Loughs Carra, Mask and Corrib) linked to limestone bedrock; Cong isthmus is one of the world's fastest flowing spring complex and has multiple cave systems.
- ▶ Lough Carra - a unique marl lake and biodiversity hotspot boasting rare flora and fauna.



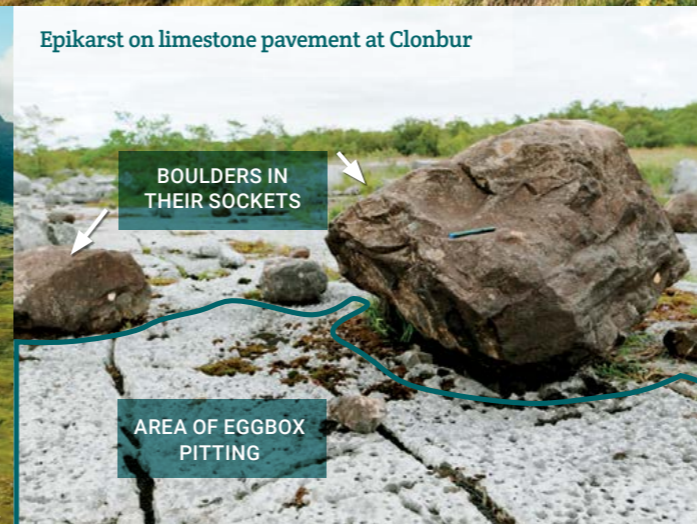
Glen Inagh & 12 Bens



Killary Harbour - Ireland's only fjord



Epikarst on limestone pavement at Clonbur



Beyond Geology

- ▶ Diverse habitats; blanket bog, fertile grasslands, vast woodlands, limestone pavements, and many lakes and rivers.
- ▶ These habitats are home to a range of mammals, birds and plant life.
- ▶ Managed lakes and rivers for salmon and World-Cup trout.
- ▶ Evidence of human presence 10,000 years ago.
- ▶ Neolithic ritual landscapes: stone tombs, stone circles, and rock art.
- ▶ Strong associations with many Irish Saints (St Patrick, St Brendan, etc).

- ▶ Stone castles and settlements from the Middle Ages.
- ▶ Development of large estates such as Ashford Castle.
- ▶ Strong tradition of music, storytelling, crafts and food production.

Ma - MILLION YEARS AGO
DATING IS BASED ON CURRENT KNOWLEDGE

The Geological Story in 10 Steps

- 700 Ma** PRECAMBRIAN
 Supercontinent of Rodinia, starts to rift (split apart); NW Ireland becomes part of Laurentia, and SE Ireland part of Gondwana. Deposition of sediments on the floor of the new Iapetus Ocean separating the two. Both are located in the Southern Hemisphere.
- 485 Ma** ORDOVICIAN
 Arc volcanism and deposition of sediments associated with subduction during early closure of the Iapetus Ocean.
- 475 - 463 Ma** ORDOVICIAN
 Collision of continents with metamorphism (transformation of existing rocks; e.g. limestone into marble), magmatic arc, regional deformation (folding) and relocation of Connemara. Formation of a major mountain range.
- 425 Ma** SILURIAN
 Further sediments deposited flat on top of older, deformed (folded) rocks. NW and SE Ireland came together with the closing of the Iapetus Ocean; The island of Ireland is now whole.
- 400 Ma** DEVONIAN
 Intrusion of Galway granite and occurrence of strike-slip faulting. Major mountain range is being eroded.
- 350 Ma** CARBONIFEROUS
 Deposition of limestone in warm, tropical, shallow seas. Ireland is at the Equator.
- 65 Ma** PALAEOGENE
 Opening of Atlantic Ocean and uplift of mountains we see today. Ireland is at its current latitude.
- 35 Ma** PALAEOGENE
 Karst landscapes start to develop where limestone outcrops.
- 1 Ma** QUATERNARY
 Multiple ice ages shape our modern landscape.
- 0.01 Ma** HOLOCENE
 Arrival of humans in the area.

Where to explore

SITES OF INTERESTS*

- ▶ Corr na Móna*
- ▶ Glen Inagh & 12 Bens*
- ▶ Maam Valley
- ▶ Maam Cross

- ▶ Finny*
- ▶ Aill Dubh*
- ▶ The Deircs*

- ▶ Corr na Móna*
- ▶ Glen Inagh & 12 Bens*
- ▶ Maam Valley
- ▶ Maam Cross

- ▶ Killary Fjord*
- ▶ Finny*
- ▶ Aill Dubh*
- ▶ Cong*
- ▶ Maam Valley

- ▶ Maam Valley
- ▶ Galway Bay

- ▶ Lough Carra*
- ▶ Ballinrobe*
- ▶ Clonbur*
- ▶ Cong*

- ▶ Glen Inagh & 12 Bens*
- ▶ The Deircs*
- ▶ Killary Fjord*

- ▶ Cong*
- ▶ Clonbur*
- ▶ Lough Carra*
- ▶ Killawalla

- ▶ Everywhere (Killary Fjord*, The Deircs*, etc)

- ▶ Everywhere

Geological Map of Joyce Country and Western Lakes aspiring geopark region

Mapa Geolaíochta den réigiún den gheopháirc (roimh aitheantas)

Dhúiche Sheoigeach agus Lochanna an Iarthair



TIONSCADAL GEOPHÁIRC
**Dhúiche Sheoigeach
 & Lochanna an Iarthair**
 JOYCE COUNTRY & WESTERN LAKES GEOPARK PROJECT

Legend/Eochair Eolais

- Lower Carboniferous (Viséan) sandstone, mudstone & evaporite
 Gaineamhchloch, láibchloch agus gailit ón Treimhse Charbónmhar íochtarach (Viséach)
- Lower Carboniferous (Viséan) limestone & calcareous mudstone
 Aolchloch agus láibchloch chailcreach ón Treimhse Charbónmhar íochtarach (Viséach)
- Lower Carboniferous (Tournaisian) limestone
 Aolchloch ón Treimhse Charbónmhar íochtarach (Thúrnaiseach)
- Lower Carboniferous (Tournaisian) sandstone, mudstone, limestone
 Gaineamhchloch, láibchloch, aolchloch ón Treimhse Charbónmhar íochtarach (Thúrnaiseach)
- Silurian sandstone, siltstone, conglomerate
 Gaineamhchloch, siltít, comhcheirtleán Siolúrach
- Middle to Upper Ordovician slate, sandstone, greywacke, conglomerate
 Slinn, gaineamhchloch, gréabhaca, comhcheirtleán ón Treimhse Ordaiviseach Láir go hUachtarach
- Lower to Middle Ordovician slate, sandstone, greywacke, conglomerate
 Slinn, gaineamhchloch, gréabhaca, comhcheirtleán ón Treimhse Ordaiviseach Íochtarach go Láir
- Ordovician volcanic rocks
 Carraigeacha bolcánacha Ordaiviseacha
- Precambrian metamorphic rocks - Dalradian quartzite, marble, schist
 Carraigeacha meiteamorfach ón Réamhchaimbriach - Dálriadach grianchloichít, marmar, siosta

Igneous Intrusions/Bruth-Ionsánna

- Palaeogene gabbro, dolerite
 Gabró, dolairít Pailéigéineacha
- Siluro-Devonian granite
 Eibhear Shiolúrach-Deavónach
- Lower Palaeozoic gabbro, diorite
 Gabró, dióirít ón Treimhse Phailéasóchíochtarach
- Ordovician granitic rocks
 Carraigeacha eibhreacha Ordaiviseacha

Other/Eile

- Fault
Éasc
- Rivers
Abhainn
- Sites of interest
Suíomhanna speise
- Information centre
Ioanad eolais

Scale/Scála 1:115000
 Projection/Teilgean: Irish Transverse Mercator

Geological data from Geological Survey Ireland
 Sonraí geolaíochta as Suirbhéireacht Gheolaíochta Éireann

Project funded as part of Project Ireland 2040
 Tionscadal maoinithe mar chuid de Thionscadal Éireann 2040

