

1. Physical and human geography

The Mourne Gullion Strangford Aspiring UNESCO Global Geopark (aUGGp) is midway between the cities of Belfast (UK) and Dublin (Republic of Ireland) and is located on the main road and rail network that connects the two. Belfast has a population of 340,220 people whilst Dublin has a population of 1,346,359 people. The main city is Newry that is within 1-hour travelling time of two international airports (Dublin and Belfast International), one regional airport (George Best Belfast City), and two international passenger ferry ports (Warrenpoint and Dublin).

The Mourne Gullion Strangford aUGGp is located in the SE of Northern Ireland, adjacent to the border with the Republic of Ireland. The aUGGp has an area of 960 sq km, and a population of 100,322. The mean population density is 106.62 people per sq km but this ranges from the sparsely populated upland areas to the urban centres of Newry, Downpatrick, Newcastle and Kilkeel.

The region boasts 3 discrete upland regions in the Dromara Hills, Mourne Mountains, and Slieve Gullion. The highest point is within the Mourne Mountains and is Slieve Donard at 850 m. The uplands are surrounded by lowlands covered in glacial sediment, much of which is in the form of drumlins. The mountains are dissected by valleys formed by ice during the last glaciation. Carlingford Lough, a drowned glacial valley, lies on the southern edge of the proposed Geopark, and Strangford Lough, the largest sea inlet in the UK and Ireland, lies at the eastern edge of the proposed Geopark, both of which are important to the early human history of the region and later as major transport routes.

2. geological features and geology of international significance

The Mourne Gullion Strangford aUGGp has over 400 million years of geological history. It charts the closure of the Iapetus Ocean and the bringing together of the two parts of what we now know as the island of Ireland, its passage through tropical latitudes, the birth of the North Atlantic Ocean, and finally the shaping of landscape by ice during the last glaciation. There are two particular highlights that should be mentioned.

The Mourne Gullion Strangford Gullion aUGGp is noted for its discrete Palaeogene Complexes. Each one has its own character and beauty and therefore importance for tourism but each one is still an area of intense scientific research. The complexes are part of the British and Irish

Igneous Province, which is itself part of the North Atlantic Igneous Province. They all have contacts with the Silurian/Devonian end-Iapetus lithologies making this region the only region on the island of Ireland where it is possible to tell the story of the closing of the Iapetus Ocean and the opening of the Atlantic Ocean in the same place. There are currently no other UNESCO Global Geoparks with similar characteristics.

One of the other geological highlights is the more recent glacial history in the Strangford area of the proposed Geopark. The best examples of this are found along the Ballyhornan coastline which is a beautiful locality even without knowing anything about its geological history and in particular, the spectacular Quaternary geology on display at Killard Point. This designated site records the events and processes that operated in this area from 15,000 to 13,000 years ago during the closing stages of the final glaciation to affect the island of Ireland, the Midlandian. The site is of such importance that this short period has won a place in the scientific literature as the Killard Point Event.