

OFFALY

AREA OF COUNTY: 1,999 square kilometres or 771 square miles

COUNTY TOWN: Tullamore

OTHER TOWNS: Banagher, Birr, Clara, Edenderry, Moneygall

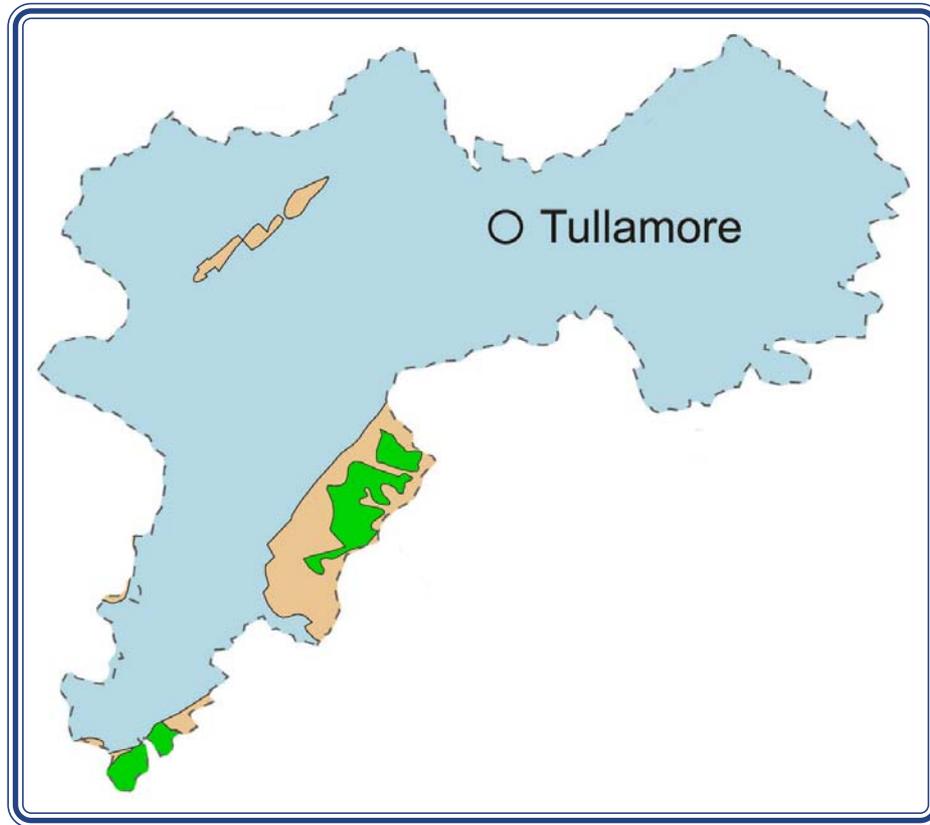
GEOLOGY HIGHLIGHTS: Slieve Bloom Mountains, Mushroom Stones

AGE OF ROCKS: Silurian to Carboniferous



Camcor Valley in the Slieve Bloom Mountains

These mountains are composed of a core of older Silurian rocks surrounded by younger Devonian sandstones.



Geological Map of County Offaly

Green: Silurian; **Beige:** Devonian sandstones and conglomerates; **Light blue:** Lower Carboniferous limestone.

Geological history

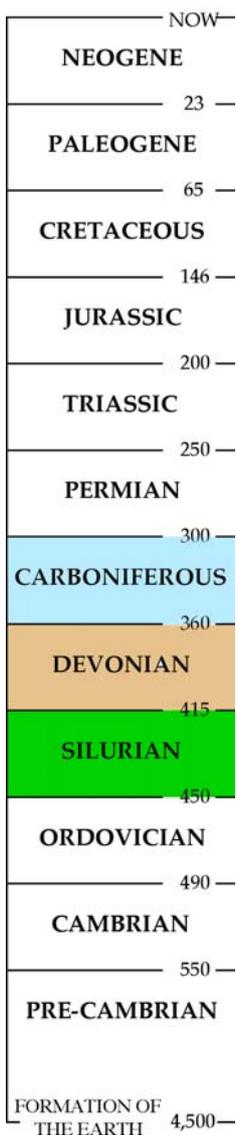
The oldest rocks in Offaly are those of Slieve Bloom, an inlier of older rocks surrounded entirely by younger rocks. The core of the inlier are the hills of Silurian sedimentary slaty rocks, but these are poorly exposed. They are protected by thick sandstones of Devonian age. These can be seen in the eroded trenches of river valleys such as the Silver River, and were originally deposited by rivers around 380 million years ago. In the Carboniferous Slieve Bloom was probably an island in the shallow tropical seas.

Today, few of Offaly's rocks are exposed. They have been eroded down over millions of years to a low lying plain, and are now blanketed by bogs and glacial deposits left by the last Ice Age. Offaly has some of the largest and finest bogs in Ireland's midlands.



Eskers at Kilcormac

The most recent development occurred during the last 1.6 million years when ice ages came and went, the last ending about 10,000 years ago and leaving Offaly with some of the finest glacial deposits of sand and gravel across the lowlands. Eskers (the international name for these features comes from the Irish name: eiscir) formed around Tullamore in particular, from rivers flowing beneath the ice, leaving a long narrow ridge of sand and gravel such as that at Kilcormac (pictured above). The Eiscir Riada is famous in history, providing a dry route across the boggy plains of the Midlands, and to the monastic centre at Clonmacnoise.



Offaly's Mushroom Stones

These weird shaped stones (such as that at Ballylin, pictured right) are thought to have been formed by lake water dissolving away the limestone below the level of the lip leaving curious shapes, often in the form of a mushroom. The temporary lakes have long since drained away, sometimes replaced by bogs. Offaly has nearly half of the 70 or so of these features recorded throughout the country.



Geological timescale showing age of rocks in Offaly.

Peat harvesting at Derries Bog, Co. Offaly



Offaly fossils

Where limestone is exposed there is a good chance of finding fossils within it, of the typical types from the Carboniferous seas, such as crinoids, brachiopods, nautiloids, trilobites and corals.

Mining & Building Stones

Like most parts of the country, small limestone quarries have often been used for local building needs. The eskers too have been extensively dug into in old farmers' 'borrow pits' and modern aggregate quarries, as the stone is easily extracted. In modern times, Bord na Mona has been removing entire bogs to make peat briquettes for fuel and milling the top layers for garden peat and compost.

Suggested reading

- L. Dunne & J. Feehan 2003. *Ireland's Mushroom Stones. Relics of a Vanished Lakeland*. Environmental Resource Management, University College Dublin.

Map adapted with permission from Geological Survey of Ireland 1:1,000,000 map 2003.
Image credits: Graham Horn 1 ; Jonathan Billinger 4 (both licensed for reuse under the Creative Commons Licence); Mike Simms 3 (top); Matthew Parkes 3 (bottom).