

# Great Irish Geoscientists

Ireland has produced a large number of geoscientists many of whom have made important contributions to the understanding of the Earth's structure, history and evolution. Over the last 300 years the rocks in Ireland have been studied in detail, while during the same period a large number of Irish geoscientists have also worked abroad. In the United States Thomas Condon was a geological pioneer and as many as fifteen Irishmen surveyed India's geology and mineral wealth. In the late 1700s and early 1800s Ireland was the focus for the debate between those who considered that basalt and granite were laid down in water and those who, correctly, said that they were produced under the effects of igneous heat. Early studies on earthquake waves were carried out on Killiney Beach, and later they were utilised to reveal that the Earth had an outer liquid core. Many important fossils were first described in Ireland and these have helped date and correlate rocks worldwide. Irish scientists were at the forefront in the debate on the age of the Earth.

## Richard Kirwan (1733-1812)

Galway-born chemist and mineralogist. He argued wrongly that the Biblical Flood was responsible for moulding the Earth's surface. Published the first book on minerals in English in 1784. Kept Dublin weather records for many years. President Royal Irish Academy.



## Richard Griffith (1784-1878)

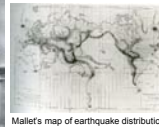
Born in Dublin, he studied engineering and geology. He surveyed Ireland's coalfields for the Royal Dublin Society and later with the assistance of others produced the first large scale geological map of the country. For his public works he was created a Baronet in 1858.



Geological map of Ireland (1855)

## Robert Mallet (1810-1881)

He was a Dublin engineer who studied earthquakes and volcanoes. He produced the first artificial seismic waves at Killiney in 1849, studied the Naples earthquake of 1857, and coined the term 'epicentre' for the point on the ground above the earthquake.



Lava from Mount Vesuvius in Italy collected by Mallet.

## George Victor Du Noyer (1817-1869)

Born in Dublin, he trained as an artist under the antiquarian George Petrie. Later employed as a geologist with the Geological Survey of Ireland for whom he produced many detailed geological maps and illustrated memoirs. Died in Antrim of Scarlet Fever.



## Frederick M'Goy (1823-1899)

Born in Dublin, he published two monographs in the 1840s on Silurian, Ordovician fossils Carboniferous fossils. First Professor of Geology at Queen's Belfast and later Director of the Natural History Museum, Melbourne, Australia. Knighted 1899.



## Henry Benedict Medlicott (1829-1905)

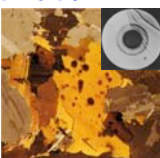
Born in Loughrea, Co. Galway he was one of three brothers who worked for the Geological Survey of Ireland before moving to India. In 1872 he described the 'Gondwana' series of coal-bearing rocks; his term was then used as the name a former southern continent.



The position of the continents during the Jurassic 200 million years ago

## John Joly (1857-1933)

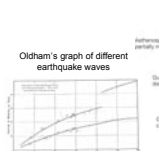
Born in Offaly, he was Professor of Geology at Trinity College, Dublin. He studied the age of the Earth, global tectonics, radioactivity in rocks, the ascent of sap in trees, and invented a method of colour photography. President Royal Dublin Society.



Thin-section of Leinster Granite with dark circular pleochroic halos (enlarged top right) produced by the effects of the decay of a radioactive mineral.

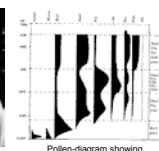
## Richard Dixon Oldham (1858-1936)

Son of Thomas Oldham, successively the Director of the Geological Survey of Ireland and of India, he too worked in India. He studied the Great Assam Earthquake of 1897 and by examining the pattern of earthquake waves discovered that the Earth had a Core.



## Frank Mitchell (1912-1997)

Dublin-born, he was Professor of Quaternary Studies at Trinity College, Dublin. Using pollen and evidence from glacial deposits he documented the evolution of Ireland's landscape and vegetation in the last 2 million years. President Royal Irish Academy.



Pollen-diagram showing development of early woodlands.

