

British regional geology: Northern England

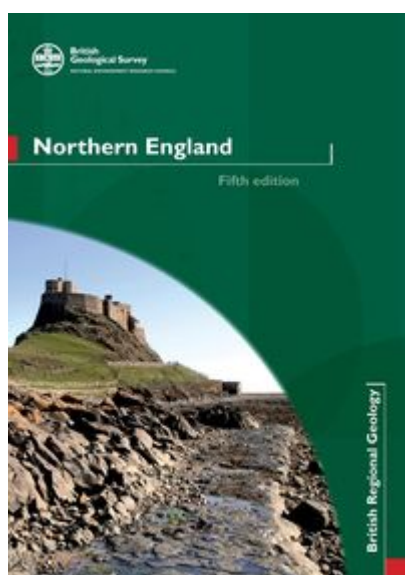
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The British regional geology: Northern England has been converted to a series of articles for this wiki. The book is available for purchase at the [BGS Online Shop](#) Its full reference is:

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Foreword to the fifth edition

Northern England is underlain by a wide variety of rocks with an exposed geological history spanning almost 500 million years. Its mineral wealth, in terms of both coal and metal, has driven the industrial development of parts of the region and has contributed much to the prosperity of the

United Kingdom as a whole. The underlying geological diversity also imparts to the region its scenic range and high landscape value. Two of England's National Parks, the Lake District and Northumberland, form substantial parts of the area described here whilst a third, the Yorkshire Dales, overlaps its southern margin. Recognised Areas of Outstanding Natural Beauty include the Northumberland Coast, the Solway Coast, and the North Pennines, the last of these areas is also designated a UNESCO European and Global Geopark.

The first edition of this guide to the geology of Northern England was written by T Eastwood and published in 1935. The second and third editions were closely based on the original work, though with some additions by F M Trotter and W Anderson. The fourth edition was prepared by a team of authors led by B J Taylor, but was still acknowledged to be based on the previous editions by Eastwood. The fourth edition was published in 1971, but its preparation was mostly carried out in the late 1960s, before the full effects of the plate tectonic revolution had permeated all aspects of geology. This fact alone would justify a new edition, but the huge volume of additional data generated over the last 50 years makes it long overdue. The fresh insights and interpretations presented here owe much to those who have generated this data: colleagues within the British Geological Survey, academic researchers, energy and mineral exploration geologists, civil engineers and, increasingly, scientists working with a broadly based, environmental brief.

With its historical pedigree, the Taylor et al. text has continued to provide a valuable source of data for Northern England and its influence can undoubtedly still be found in this, the new fifth edition, which is nevertheless an entirely new work. The authors have approached their task from a perspective of dynamic geological development, in which tectonic processes, sedimentation and magmatism are integrated, rather than being treated separately in the traditional fashion. The book gives a comprehensive account of the geology of the region that it is hoped will prove informative to a wide range of users, from students and those with a general interest in their surroundings, to professional scientists, planners and engineers.

John N Ludden, PhD
Executive Director
British Geological Survey

Acknowledgements

This edition of Northern England has been compiled by P Stone and edited by him, D Millward, S G Molyneux and J E Thomas.

Articles have been written by the following authors:

[Introduction](#) P Stone

[Early Ordovician](#) P Stone

[Manx Group](#) R P Barnes

[Ordovician: magmatism](#) D Millward

[Late Ordovician to Silurian](#) P Stone

[Devonian](#) P Stone, D Millward and M McCormac

[Carboniferous](#) D J D Lawrence, M McCormac and P Stone

[Late Carboniferous to early Permian](#) D Millward

[Permian, Triassic and Jurassic](#) S M Clarke

[Late Mesozoic and Cenozoic](#) D Millward

[Mineralisation](#) B Young

[Quaternary](#) J W Merritt

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[Ground engineering](#) D C Entwisle

[Geological hazards](#) P Stone

[Hydrogeology and water supply](#) A S Butcher

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