Lewisian, Torridonian and Moine rocks of Scotland

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Access to the countryside

This volume is not intended for use as a field guide. The description or mention of any site should not be taken as an indication that access to a site is open. Most sites described are in private ownership, and their inclusion herein is solely for the purpose of justifying their conservation. Their description or appearance on a map in this work should not be construed as an invitation to visit. Prior consent for visits should always be obtained from the landowner and/or occupier.

Information on conservation matters, including site ownership, relating to Sites of Special Scientific Interest (SSSIs) or National Nature Reserves (NNRs) in particular counties or districts may be obtained from the relevant country conservation agency headquarters listed below:

Countryside Council for Wales, Maes-y-Ffynnon, Penrhosgarnedd, Bangor, Gwynedd LL57 2DW.

Natural England, Northminster House, Peterborough PE1 1UA.

Scottish Natural Heritage, Great Glen House, Leachkin Road Inverness IV3 8NW.

Preface

There is such a diversity of rocks, minerals, fossils and landforms packed into the piece of the Earth's crust we call 'Britain' that it is difficult to be unimpressed by the long, complex history of geological change to which they are testimony. But if we are to improve our understanding of the nature of the geological forces that have shaped our islands, further unravel their history in 'deep time' and learn more of the history of life on Earth, we must ensure that the most

scientifically important Earth science sites are conserved for future generations to study, research and enjoy. Moreover, as an educational field resource and as training grounds for new generations of geologists on which to hone their skills, it is essential that such sites continue to remain available for study. The first step in achieving this goal is to identify the key sites, which is a primary aim of the Geological Conservation Review.

The GCR, launched in 1977, is a world-first in the systematic selection and documentation of a country's best Earth science sites. No other country has attempted such a comprehensive and systematic review of its Earth science sites on anything near the same scale. After three decades of site evaluation, consultation with the scientific community, and site documentation, we now have an inventory of over 3000 GCR sites, selected for 100 categories covering the entire range of the geological and geomorphological features of Britain.

The minimum criterion for GCR site selection is that sites should offer the finest and/or the most representative feature for illustrating a particular aspect of geology or geomorphology. The resulting GCR sites are thus, at the very least, of national scientific importance and many of these include features regarded as either 'classic' (i.e. a 'textbook example'), internationally important, or simply 'unique'. Some are, in addition, visually spectacular.

The present volume is the 34th to be published in the GCR series of books, which, when complete, will stretch to more than 40 volumes and provide a vast geoconservation information resource. The volume, in describing the ultimately selected GCR sites, represents the results of that part of the GCR assessment and selection programme for Lewisian, Torridonian and Moine rocks. Each of these three geological themes provided the basis for site selection categories for the GCR. This volume summarizes the considerable research that has been undertaken on the localities and will be invaluable as an essential reference source for those engaged in their study and aims to provide a stimulus for further investigation. It will also be helpful to teachers and lecturers and for those people who, in one way or another, have a vested interest in the GCR sites: owners, occupiers, planners and those concerned with the practicalities of site conservation. The conservation value of the sites is mostly based on a specialist understanding of the Earth science features present and is, therefore, of a technical nature. The account of each site ends, however, with a brief summary of the geological interest, framed in less technical language, in order to help the non-specialist. The first chapter of the volume, used in conjunction with the glossary, is also aimed at a less specialist audience.

This volume deals with the state of knowledge of the sites available at the time of writing, and it must be seen in this context. There is still much to learn about the GCR sites documented here, in increasing our knowledge and understanding of geological history and processes. Geological studies, like any other science, are ever-developing, with new discoveries being made, and existing models being subject to continual testing and modification as new data comes to light. While the existing sites continue to enable us to add to our geological knowledge, increased or hitherto unrecognized significance may be seen in new sites. Indeed, during the writing of this volume, a number of additional localities were considered for inclusion and, after a period of assessment, were ultimately deemed to be worthy of GCR status and were included in this account. That fact is almost inevitable when one considers that some of the original networks of sites were drawn up over two decades ago.

Therefore, it is possible that further important sites will be identified in future years for the GCR as research continues. However, it must be stressed that the GCR is intended to be a minimalist scheme, with the selection of only the best, most representative, example of a geological feature, rather than the selection of a series of sites showing closely analogous features.

This account clearly demonstrates the value of the GCR sites to the study of Lewisian, Torridonian and Moine rocks and their importance within the wider context of Britain's outstanding scientific and natural heritage, and I am grateful to the British Geological Survey to their valuable contribution in assisting JNCC in its conservation goals.

NV Ellis, GCR Publications Manager and Geoconservation Adviser, JNCC June 2008

References