
British Lower Jurassic stratigraphy

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Acknowledgements

Work began on selecting sites for the Lower Jurassic Stratigraphy part of the Geological Conservation Review more than a quarter of a century ago; in fact it was one of the first GCR subject 'Blocks' to be tackled by the GCR unit of the Nature Conservancy Council (NCC). Although some of the Lower Jurassic site reports that were drafted for the NCC during the site selection phase in the late 1970s and 1980s are not accredited in the GCR archive, it is known that several experts were consulted and involved both in GCR site selection, and report preparation, at that time including Philip Copestake, Tony Hallam, Phil Palmer, David Whiteside and Desmond Donovan. The authors of the present volume are indebted to these workers, and indeed to all of those who made a contribution to this early phase of the evaluation of British Hettangian–Pliensbachian sites for the GCR.

Although the majority of sites were selected for the GCR in the 1980s, since that time re-evaluation and more recent proposals have been translated into a revised GCR site list, as represented by the text presented here. So whereas some original GCR sites were re-evaluated and found wanting, others have been added to the GCR list. Thanks go to all of those who have helped in this updating work. Undoubtedly some readers will lament the exclusion of their favourite site, but stratigraphy, like any other science, is an ever-developing pursuit with new discoveries being made, and geological models subject to ongoing modification such that some sites increase in research value. Therefore, it is possible that further sites worthy of conservation will be identified in future years.

My own obsession with the Lias Group (often to the neglect of my school work) began in the early 1970s as new estates and pipe-trenches exposed the fossiliferous clays near my home. By the mid-1980s I had the opportunity to indulge my passion still further through my PhD research on Lower Jurassic echinoderms. My first involvement, albeit fleeting, with the Geological Conservation Review was a little earlier, in 1982, when I accompanied David Whiteside on a site assessment visit to Newnham (Wilmcote) Quarry. I have only a vague memory of the quarry but much clearer recollections of the decrepit state of Dave's Morris Traveller! Fifteen years later, in 1998, I was contracted to prepare the final manuscript for the Lower Jurassic Stratigraphy GCR and was encouraged by JNCC to subcontract sections of the work to several others with appropriate areas of expertise; their names now appear as authors where they have written or substantially contributed to the site account. Many others have been generous with their help both during the preparation of this volume and on matters Liassic over many years prior to it. They have provided access to specimens in museum and private collections; responded to reprint requests; commented on earlier drafts; and, in particular, allowed the use of

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Finally I should like to dedicate this volume to the memory of Professor R.J.G. (Bob) Savage, 1927–1998, an inspirational teacher to so many budding palaeontologists at Bristol University, myself included.

Mike Simms, January 2004

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.

English Nature, Northminster House, Peterborough PE1 1UA.

Scottish Natural Heritage, 12 Hope Terrace, Edinburgh EH9 2AS.

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 not to be impressed 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 of Britain's geological localities 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, both at national and local levels.

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 over two decades of site evaluation and documentation, we now have an inventory of over 3000 GCR sites, selected for around 100 categories covering the entire range of the geological and geomorphological features of Britain.

This volume, describing the British Lower Jurassic rocks of Great Britain, is the 30th to be published in the intended 43-volume GCR series. Not only does it contain the descriptions of key localities that will be conserved for their contribution to our understanding of the stratigraphy of rocks of this age, but also provides an excellent summary of the palaeontological and sedimentological features, and palaeogeographical significance to be found in them, and it outlines the research that has been undertaken on them. The book will be invaluable as an essential reference book to those engaged in the study of these rocks and will 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, those concerned with the practicalities of site conservation and indeed the local people for whom such sites are an environmental asset. The conservation value of the sites is mostly based on a specialist understanding of the stratigraphical, palaeontological and sedimentological features present and is therefore, of a technical nature. The account of each site in this book 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 specialized audience. This volume is not intended to be a field guide to the sites, nor does it cover the practical problems of their ongoing conservation. Its remit is to put on record the scientific justification for conserving the sites.

This volume deals with the state of knowledge of the sites available at the time of writing, in 1998–2003, and must be seen in this context. Stratigraphy, like any other science, is an ever-developing pursuit with new discoveries being made, and existing models are subject to continual testing and modification as new data come to light. Increased or hitherto unrecognized significance may be seen in new sites, and it is possible that further sites worthy of conservation will be identified in future years.

There is still much more to learn and the sites described in this volume are as important today as they have ever been in increasing our knowledge and understanding of the geological history of Britain. This account clearly demonstrates the value of these sites for research, and their important place in Britain's scientific and natural heritage. This, after all, is the *raison &etre* of the GCR Series of publications.

N.V. Ellis, GCR Publications Manager June 2003

[References](#)