

## Appendix 3.1 – References

---

- Collinge, J. and Prosser, C. Assessment of the RIGS Initiative in delivering Earth Science Conservation. English Nature, Peterborough, 1994
- Countryside Commission, Countryside Commission, *Policy Digest: Areas of Outstanding Natural Beauty* (CCP 356). 1994
- Countryside Commission, *Countryside Commission Advice: Limestone Pavement*. Department of the Environment. Planning Policy Guidance Note 9: Nature Conservation (PPG 9). HMSO, 1994
- Ellis, N V, (Editor), D Q Bowen, S Campbell, J L Knill, A P McKirdy, C D Prosser, M A Vincent and R C L Wilson, *An Introduction to the Geological Conservation Review*. JNCC, Peterborough, 1996
- English Nature, *Natural Areas*. Peterborough, 1993
- English Nature, *Conserving England's Earth Heritage*. Peterborough, 1996
- NCC, *Regionally Important Geological/Geomorphological Sites*, Peterborough, 1991
- Nature Conservancy Council, *Earth Science Conservation in Great Britain – A Strategy*. Peterborough, 1990
- National Trust, *The National Trust and Nature Conservation*. Gloucestershire, 1995
- Oliver, P G (Ed), Proceedings of the First UK RIGS Conference. Hereford and Worcestershire RIGS Group, Worcester, 1998
- RSNC, *Starting RIGS*. Newark, 1993
- Scottish Office, *Natural Heritage Designations in Scotland: A Guide*. Edinburgh, 1998
- Scottish Office *National Planning Policy Guidance 14: Natural Heritage*, 1999
- Stanley, M, 'Record of the rocks', *Earth Science Conservation* No.22, 1984, pp 17-22
- Welsh Office, *Planning Guidance (Wales), Technical Advisory Note No. 5: Nature Conservation and Planning*, Stationary 1996
- Wildlife Trusts, *RIGS National Development Strategy*. Newark, 1997

## BAPs and Local Agenda 21

- HMSO, Biodiversity: *The UK Action Plan*, 1994
- HMSO, Biodiversity: *The UK Steering Group Report, Volume 1: Meeting the Rio Challenge*, 1995
- HMSO, Biodiversity: *The UK Steering Group Report, Volume 2: Action Plans*, 1995
- HMSO *Government Response to the UK Steering Group Report on Biodiversity*, 1996
- Munro, D. A. and Holdgate, M.W. (Eds), IUCN – The World Conservation Union/United Nations Environment Programme/World Wide Fund for Nature, *Caring for the Earth: A strategy for sustainable living*. Gland, Switzerland, 1991
- UK Biodiversity Group: *Tranche 2 Action Plans, Volume 1 - Vertebrates and Vascular Plants*, English Nature, 1998

UK Biodiversity Group: *Tranche 2 Action Plans, Volume 2 - Terrestrial and Freshwater Habitats*, English Nature, 1998

UK Biodiversity Group: *Tranche 2 Action Plans, Volume 3 - Plants and Fungi*, English Nature, 1999

UK Biodiversity Group: *Tranche 2 Action Plans, Volume 4 - Invertebrates*, English Nature, 1999

UK Biodiversity Group/Local Government Management Board, *Guidance for Local Biodiversity Action Plans*, 1997: *Guidance Note 1 - An Introduction; Guidance Note 2 - Developing Partnerships; Guidance Note 3 - How Local Biodiversity Action Plans Relate to Other Plans; Guidance Note 4 - Evaluating Priorities and Setting Targets for Habitats and Species; Guidance Note 5 - Incentives and Advice for Biodiversity*

UK Biodiversity Group/Improvement and Development Agency, *Local Biodiversity Action Plan Case Studies*, 1999

World Commission on Environment and Development (Chair: Gro Harlem Brundtland), *Our Common Future*, Oxford University Press, 1987.

## GCR and SSSIs

Ellis, N.V., Bowen, D.Q., Campbell, S., Knill, J.L., McKirdy, A.P., Prosser, C.D., Vincent, M.A. and Wilson, R.C.L. *An Introduction to the Geological Conservation Review*. Geological Conservation Review Series 1, Joint Nature Conservation Committee, Peterborough, 113pp. 1996

English Nature, *SSSIs: what you should know about Sites of Special Scientific Interest*. English Nature, Northminster House, Peterborough. 1992

English Nature, *Position Statement on Sites of Special Scientific Interest*. English Nature, Northminster House, Peterborough. 1993

Larwood, J.G., RIGS and SSSIs: fitting the pieces together. *Exposure*, 2, 2-3. The Wildlife Trusts, Newark. 1993

Nature Conservancy Council, *Earth science conservation in Great Britain - a strategy (and appendices)*. English Nature, Northminster House, Peterborough, 1990

Scottish Natural Heritage. *Scottish Sites of Special Scientific Interest*. 1994

## ESAs

MAFF Environment Matters, *Environmentally Sensitive Areas*, MAFF Publications, London, 1995

## European Sites

Department of the Environment, *The Habitats Directive: How it will Apply in Great Britain*. Bristol, 1997

Nature Conservancy Council, *Internationally Important Bird Sites: Special Protection Areas and Ramsar Sites*, Publicity Services Branch, Peterborough, 1990

## Wildlife Sites

The Wildlife Trusts. *The Wildlife Sites Handbook*. Newark, 1997

The Scottish Wildlife Trust. *The Wildlife Sites Manual*. Edinburgh, 1996

## Local Nature Reserves

English Nature, *Nature is Your Neighbour: Local Nature Reserves for Local People*. Peterborough, 1992

English Nature, *Local Nature Reserves in England: A Guide to Their Selection and Declaration*. Peterborough, 1999

## National Nature Reserves

Marren, P, *National Nature Reserves*. English Nature, Peterborough, 1998

English Nature, *Visiting National Nature Reserves*. Nature Conservancy Council for England, Peterborough, 1993

## Natural Areas

English Nature, *Natural Areas*. Peterborough, 1996

English Nature and Countryside Commission, *The Character of England: Landscape, Wildlife and Natural Features*. English Nature, Peterborough, date unknown (c.1997)

English Nature, *Natural Areas*. Peterborough, 1999

Countryside Commission, *Protecting Our Finest Countryside: Advice to Government*. Cheltenham, 1998

## Appendix 3.2 – Case study: the nature of Devon, a biodiversity action plan

---

The Devon Biodiversity Action Plan (BAP) is unique as it refers directly to RIGS and covers Earth science in some detail. Earth heritage is an important component of Devon's biodiversity. The local BAP covers a summary of Devon's Earth history, including all geological periods and geomorphology.

The different geological sites in Devon are considered in context with national, regional and local importance with specific reference to RIGS.

### Geological Sites in Devon

*Non-Statutory Geological Sites:* "In addition to the GCR sites, there are a large number of other localities of county or regional significance for geological or geomorphological conservation. Although many of these are well known and much used by those involved in geological research and study, there has been no comprehensive protection other than where they lie within sites designated for other reasons. The Regionally Important Geological (and Geomorphological) Sites (RIGS) initiative promoted by English Nature through its earth science conservation strategy encourages the protection, management and research/educational use of such sites. These aims are being pursued on a district-wide basis in order to identify and document RIGS sites, otherwise known in Devon as 'County Geological Sites'".

The Devon local BAP attempts to evaluate Devon's Earth heritage resource against threats and losses and potential gains. This is very important for RIGS as it clearly demonstrates a rationale for protection and conservation of local Earth heritage sites.

### Geological Threats and Opportunities

Nature Of Threat	Effect On Earth Science Interest
<i>Waste disposal and landfill</i>	<ul style="list-style-type: none"> <li>◆ Geological exposures obscured</li> <li>◆ Access difficulties for remaining exposures</li> </ul>
<i>Built development</i>	<ul style="list-style-type: none"> <li>◆ Geological exposures and geomorphological features obscured or obliterated</li> </ul>
<i>Mineral extraction</i>	<ul style="list-style-type: none"> <li>◆ Loss of caves/karst features and other fossil landforms/'integrity' sites</li> <li>◆ Geological exposures obscured by back-filling</li> </ul>
<i>Dredging</i>	<ul style="list-style-type: none"> <li>◆ Disruption to natural coastal processes</li> </ul>
<i>Natural degradation</i>	<ul style="list-style-type: none"> <li>◆ Vegetation obscures geological exposures</li> <li>◆ Loosening of rock faces creates safety/access problems</li> <li>◆ Stability and flooding problems in mines and tunnels</li> </ul>
<i>Restoration/landscaping of worked-out Quarries</i>	<ul style="list-style-type: none"> <li>◆ Obscures geological exposures</li> </ul>

*...table continued overleaf*

Nature Of Threat	Effect On Earth Science Interest
<i>Coastal defence</i>	<ul style="list-style-type: none"> <li>◆ Obscures geological exposures</li> <li>◆ Prevents erosion necessary to maintain soft-rock exposures</li> <li>◆ Impact on active coastal geomorphological processes</li> </ul>
<i>Sea-level rise</i>	<ul style="list-style-type: none"> <li>◆ Potential loss of foreshore exposures</li> </ul>
<i>Forestry</i>	<ul style="list-style-type: none"> <li>◆ Obscures rock outcrops and landforms</li> <li>◆ Promotes natural degradation through growth of vegetation and burial by leaf-litter</li> </ul>
<i>River engineering</i>	<ul style="list-style-type: none"> <li>◆ Impedes fluvial geomorphological processes and thereby prevents development of natural river features and study of natural river systems and processes</li> </ul>
<i>Geological use and study</i>	<ul style="list-style-type: none"> <li>◆ Popular and heavily used areas can be damaged by excessive hammering, coring and collecting</li> </ul>
<i>Agriculture</i>	<ul style="list-style-type: none"> <li>◆ Deep ploughing and land improvements may destroy small-scale landforms</li> </ul>

For more information contact:

**Devon Wildlife Trust**  
 Shirehampton House  
 35-37 St David's Hill  
 Exeter  
 Devon EX4 4DA  
 ☎ (01392) 279244