

Index

Figures are shown in *italics*; tables in **bold**.

- Aeolian Islands, Italy 298–299
Agassiz Rock, Edinburgh Geological Society 104
Aggregates Levy Sustainability Fund (ALSF) 119, *120*,
185, 190
 geodiversity audit 168
 Welsh 155, 160
agriculture, geological mapping 261
Alderly Edge, England 115, *117*
Anglesey Geoparks 160
Animals and Birds Protection Board, Tasmania 260
Anning, Mary 140
Ansted, David Thomas 199
archaeology 66, 140, 211–212
Area of Critical Environmental Concern 27
Area of Outstanding Natural Beauty (AONB) 54, 149,
166, 208
 Giant's Causeway 12
 Isle of Wight 178
Area's of Scientific Interest (ASIs), An Foras Forbartha
237, 238
Areas of Special Scientific Interest (ASSI) 244
Arthur's Seat, Scotland 20
Association of Teachers of Geology 40
Association of Welsh RIGS groups (AWRG) 70, 147, 160
 achievements 168
 geoconservation questionnaire 166, **167**
 geodiversity audit 155–158
 Australia, Exit Cave system 266
 see also Tasmania
Australian Fossil Mammal Sites 294
Australian Heritage Commission (AHC) 262
Australian Natural Heritage Charter 33
Australian and New Zealand Geomorphology Group 269
Austria, legislation 251

Belgian Royal Commission on Monuments and Sites 249
biodiversity 86, 108, 238, *242*, 261–262, 273
 conservation societies 81, **81**
 Tasmania 261–262
 use of term 253
 voluntary sector 61
Biodiversity Action Plan (BAP) 84, 178
Black Country Geodiversity Action Plan 143–145,
144, **227**, 232, 233
 education 143–145
 geotourism 143–145
 site enhancement 143–145
 visitor access 143–145
Black Country Geological Society 142–143, **224**, 230
Black Country Geopark 143, 232
Black Country Nature Conservation Strategy **226**, 232
Boulder Committee, Scottish erratics 104
Bowder Stone, Lake District 46, *46*
Brecon Beacons National Park 108, 158
Bristol Natural History Society 71
Britain 17–21
 geodiversity 138–139
 geological sites 251
 history of geoconservation 113–121
 interest in Geology 17–20
 legislation 17
 policy milestones 113–121
 scientific imperialism 12
 voluntary sector 66

British Association 91–92
 Dudley 141
 preservation of sites of geological importance 92
British Cave Research Association 128
British Caving Association 128, 214
British Geological Survey 5, 34, 103–112, 158, 166,
193–194, **224**
 action plans 110–111, **110**
 borehole cores 106
 building stone 106, 107
 collaborations 107, 108
 collections 105–106
 data 105
 donations 106
 events 108
 function of 103–104
 geoconservation role 104–107
 geodiversity audits 110–111, **110**
 geoparks 108
 history 103–104, 107
 Land Survey Units 107
 mapping *105*
 mineral resources 106, 107, 110
 Museum of Economic Geology 41
 museums 18, 105–106
 and NGOs 108
 Palaeontological Collection 106
 and planning policy 110–111
 publications 103, 107, 108
 and RIGS 107–108
 and statutory bodies 108
 stratigraphy 106–107
 and UKRIGS 107–108, **109**
British Museum *see* Natural History Museum
British Regional Guides 106
British Trust for Conservation Volunteers (BTCV)
 see Corporation Corps
Brown End Quarry Geological Reserve, Curry Fund 97, 98

Canadian Rocky Mountain Parks 291–292
Canaima National Park, Venezuela 294–295
Cardiff University 158
 geological audits 160
Carlsbad Caverns National Park, USA 295
Castlepook Cave, Ireland *243*
cavers 207–208, 211, 212
 digging 211–212, *212*
 strategies 211–212, *212*, 214
caves 18, 262
 accessibility 209, 211
 archaeological excavation 211–212
 biotic processes 209–211
 bone caves 208–209, *209*
 data from 207, 208, 209
 deposits 207
 exploration 207–215
 farming 210–211
 formation 207
 geoconservation strategy 207
 geotourism 249, *250*
 human processes 209–211
 management 211
 physical processes 209–211
 quarries 209–210, 212

- caves (*Continued*)
 refuse sites 210, 210
 threats to 207, 208, 209–211
- Caves of Aggtelek Karst, Hungary 295
- Central Eastern Rainforest Reserves, Australia 292
- Chesil Beach, Dorset 18
- Chester Society of Natural Science 61, 70, 71–80
 collectors and donors 73–77, 76
 fieldtrips 72–73, 73, 77, 77, 78
 geology 72–73, 79–80
 lectures 72, 77, **78**
 members 71–72, **80**, **81**
 presidents 73, 74, **74**, 79, 80
 prizes and medals 78–80, 79
 volunteers 73
- Chinese National Geoparks Network 273
- collections 13–14, 141
 geovolunteers 70
 library collections 37
 UK database of 13
see also fossils; museums; specimens
- Committee on Land Utilisation in Rural Areas 114
- Committee for Site Documentation 95
- Commons Preservation Society 67
- company Geodiversity Action Plan (cGAP) 31, 34
- conservation 20–21, 61, 66, 67, 82, 143
 attitudes to 66
 audits 3, 5
 biological and geological 85
 conscious 139, 140
 definition 2, 3
 legislation 1, 2, 104
 local 118–119
 policy 91
 regional 118–119
 special reasons for 19–21
- Conservation Areas 266
- Conservation Corps **222**, **223**
- Conservation in England and Wales, Wildlife
 Conservation Special Committee 115, 116
- Conservation and Restoration of Monuments
 and Sites 280
- conservation sites 12–13, 15, 119, 124, 139, 249, 270
 access to 7, 11–12, 66, 91, 192
 aesthetic appeal 81, 140, 260, 262
 commercial exploitation 7, 19, 26, 38, 46, 55
 cutting new geological section **224**
 damage by geologists 91, 93, 95
 interpretation panels 191, 192, 230
 non-statutory 137
 selection criteria 31–32
 self-preserved 18–19
 sense of value 17, 123, 124, 249, 257
 vandalism 217, 220, **222**, **223**
see also geological sites
- Convention on Biodiversity (1992) 32
- Copper Coast Geopark, Co. Waterford 246
- Cork Geological Association 244
- Corporation Corps 231, 231
- Cotswold Hills Geopark 181
- Cotswolds Area of Outstanding Natural Beauty 181
- Cotteswold Naturalists' Field Club 71
- Country Parks 54
- Countryside Act (1968) 54, 116
- Countryside Agency 121
- Countryside Council for Wales (CCW) 118, 148, 168
 research projects 168
 RIGS documentation 160
- Countryside and Rights of Way Act (2000) 118
- County Development Plan 243
- County Geological Site (CGS) 237, 241, 242–245
 audits 244–245
 non statutory 243
- county heritage audits 237
- County Minerals and Waste Local Development
 Plans 191
- Cromarty Beach, Scotland 18
- Crystal Palace Park, England 197–205
 Dinosaur Court 17, 18, 40
 fortunes of 203
 geological awareness 204
 teaching 204
 Victorian ideal 198–199, 204
 vision 198
see also Geological Illustrations
- cultural heritage 250, 280–281
 historical associations 285
- Curry Fund 91, 96–98, **98**
 Brown End Quarry Geological Reserve 97, 98
 grants **98**
 RIGS groups 98, 99
- Department for the Environment and Rural Affairs
 (Defra) 177, **177**
- Department of the Environment Transport and Regions
 (DETR) 185
- Department of Trade and Industry **223**
- Devil's Tower, Arizona 23, 25, 26–27
- Devon Coast, UK 299
- Dinosaur Isle Museum 173, 175, 176
- Dinosaur National Monument, Utah 27
- Dinosaur Provincial Park, Canada 288
- Dorset, geotourism 51
- Dorset, UK 299
 Jurassic Coast 12
- Dudley, Dud 138–139
- Dudley, England 217–235
 British Association visit 141, 142
 cultural heritage 232
 fossils 140
 industrial heritage 232
 nature conservation law 143
 Supplementary Planning Guidance 232
- Dudley Geological Museum 141, 142
- Dudley and Midland Geological Society 140–141
- Dudley Museum 140, **223**, **225**
 keeper of geology 232
 and Wren's Nest National Nature Reserve 232
- Dudley Rock and Fossil Fair 41, **226**
- Durmitor National Park, Montenegro 289
- Earth heritage conservation 7
- Earth Heritage Trusts 41
- Earth Science (2000) 244
- Earth Science Forum for England and Wales (ESEF) 108
- Earth Science Teachers' Association 40
see also Association of Teachers of Geology
- Earth Science World Heritage Sites 246
- Earth Summit (1992) 1
- Edinburgh Geological Society 71
 Agassiz Rock 104
- Edinburgh, Scotland 19
- English Heritage 108
- English Nature 118, 121, 147, 175, **226**
 Face Lift Programme 185
 fossil collecting guidelines 178
 LGAPs 185–190
see also Natural England
- Environment and Heritage Service (Northern Ireland) 148
- Environmental Protection Act (1990) 118

- Epping Forest Act (1878) 67
- Europe
 geoconservation 249–256
 legislation 249, 254
- European Association for the Conservation of the Geological Heritage (ProGEO) 5, 237, 246, 249, 252, 254
- Digne Declaration 253
- European funding programmes 245
- European Geopark Week 276, 276
- European Geoparks Charter 274
- European Geoparks Network (EGN) 54–55, 108–110, 173, 178, 246–247, 249, 252, 253, 273, 274–276
 community based 246–247
 Convention of Cooperation with UNESCO 276, 277
 distribution of 275
 functions 108
 funding 276
 initiatives 246–247
 promotion 276
 selection 253
 specimen collection ban 252
- European Landscape Convention 254
- European Union
 inter-regional funding scheme 245
 policies and geoconservation 249
- European Working Group on Earth-Science Conservation 252
- Everglades National Park, USA 288
- Fforest Fawr Geopark 158–160
- field guides 40, 45, 48–49, 50, 51, 52–54
- Fieldwork Code 91, 95, 96, 98
- Fingal's Cave, Staffa 18
- Finland 251
- Florissant Fossil Beds, Colorado 27
- Forest Practices Act (1985) 268
- Forestry Commission 41, 266–267
 Forest Practices Code 266–267
 Forest Practices Unit 266–267
- fossicking 37
- Fossil Cycad National Monument, USA 27
- fossils 14, 31, 125
 collection of 173, 174–176, 220, **221**, 232
 collectors 17
 dinosaurs 175
 and mining 140
 sale of 41
- France, ammonite wall, Digne 252
- Friends of Wren's Nest Group **227**
- Galápagos Islands, Ecuador 287
- Game Reserves 266
- General Survey Act (1824), USA 22
- geo-exploitation 7, 19, 26, 38, 46, 55
- geoconservation 1–5, 7, 103, 114, 250
 advocates 4–5
 aesthetics 104, 260, 262
 awareness of 7, 66, 67, 168, 243
 benchmark sites 270
 coastal protection 173, 176–177
 conscious 145
 consequential 137–138
 definition 2, 66–67, 113, 137
 development of 4–5, 17–30, 104, 114, 140, 237–238
 and education 7, 268–269
 erosion 173, 176–177
 Europe 249–256
 geomorphology classification 263–265, 267, 270
 global 4, 5, 252–253, 255
 human resources 237
 impact of art 7, 140
 interpretation boards 41, 191, 192, 230
 local 4, 61, 66, 137–146
 origins 2–4, 7–16
 policy milestones 113–121, 250
 and political agenda 237–238
 proactive 143
 reactive 143
 stages 3–4, **3**, 5
 statutory frameworks 107, 113
 strategy 249, 270
 structured 237
 subjective importance 145
 temporal importance 145
 terminology 253, 269
 threats to 173
 unconscious 4, 137, 145
 women in 86
- Geoconservation Commission of the Geological Society of London 15, 108
- geodiversity 5, 31–33, 66, 84, 86, 107–111, 137, 138–139, 270
 audits 5, 31, 34, 86, 155–158
 awareness of 81, 86, 148
 and biodiversity 86, 108, 238, 242, 261–262, 273
 classification systems 257, 265
 concept of 31–36
 cultural 138–139, 143
 definition of 31, 137
 future of 34–35, 145
 land use planning 34
 management aims **35**
 paradigm 33–34
 partnerships 107–111
 representative elements 267–268
 status of 34–35
 terminology 31–36, 147, 253, 257, 267, 269
 themes 239–241
- geoheritage *see* geological heritage
- Geological Association 18
- Geological Conservation Review (GCR) 3, 5, 31, 81, 108, 116–117, 123–135, 184
 audience 131, 132
 blocks 123, 124–125, **126–127**
 consultation 128
 criteria 31–32, 81, 123, 125–128
 database 123, 132
 expertise 124, 128, 132
 field investigation 123, 129
 fossils 125
 funding 124, 131–132
 future of 132–133
 geological heritage 124
 origins 123–124
 publications 123, 129–131, **130**, 131–132
 register 123, 129
 site documentation 129–132
 site identification 116–117
 site selection 123, 124–129, **126–127**, 128, 129, 132
 site types 125–128
 speleology 124
 stratigraphy 125
- Geological Curators' Group 95
- geological heritage 15, 124, 217, 243, 266–269
- Geological Heritage Standing Committee 265
- Geological Illustrations 197–205, 198
 authors 198–199
 changing fashions 203–204
 construction 199–200

- Geological Illustrations (*Continued*)
 dinosaur models 200–203, 201–203
 plans 203
 primary rocks 199, 200
 restoration of 204
- geological mapping 5, 104, 139, 139, 261
- Geological Monuments 262, 263
- Geological Reserves Sub-Committee 114, 219
 classification **115**
- geological sites 37, 107, 246
 aesthetic properties 140
 cultural protection 138
 cutting new sections 217
 designation 279–304
 educational value 263–265
 interpretative panels 41
 loss of exposure 91
 models for rehabilitation 270
 spirituality 7, 138
- Geological Sites Database GD2 185
- Geological Society of Australia (GSA) 262, 263, 269
- Geological Society of London 15, 18, 108, 197, **223**
- Geological Society's Geoconservation Committee 98
- Geological Survey of Great Britain *see* British Geological Survey
- Geological Survey of Ireland 237, 238, 245
- geological surveys
 for agriculture 24
 systematic 104
- geological time 12, 199
- geologists
 damage to sites 91, 93, 95
 female 140
 field conduct 94, 95
- Geologists' Association (GA) 5, 66, 82, 91–102, 166, 175, 185, 193
 conservation awareness 95–96, 98
 excursions 48, **49**, 50, 52, 53, 54
 Geological Guides 45, 94
 history of 91–93
 legislation 93
 local 152, 158
 and RIGS 98, 99, 100–101
 Wren's Nest National Nature Reserve 218
see also Curry Fund; Fieldwork Code
- geology
 awareness 1, 42, 147, 204
 commemorative plaques 55
 education 14, 39–40, 53
 engagement and cultures 137
 popularity of 37, 41, 197, 249
 public parks 197–198
 status of history of 285
 trails 217
- Geology Trusts 4, 83, 193
- Geoparks 1, 5, 37, 86, 273–277, 286
 criteria 54
 development 55
 Digne Convention [1991] 273–274
 establishing 274
 funding 273
 philosophy 273–274
 promotion 55
see also European Geoparks Network; Global Geoparks Network; Global Network of National Geoparks
- georegionalization 267–268
- GEOSITE project 254
- geosites *see* geological sites
- geotopes 252–253
- geotourism 5, 37–60, 124, 143–145, 176, 249, 273
 accessibility 43–45, 46–47, 48
 artistic outputs 37
 caves 249, 250
 commercial exploitation 7, 46, 274
 definitions 37–39
 development of 39–40, 51, 54
 England 38, 43–48, 49, 176
 erosion 265–266
 excursions 48, 51–52
 geoconservation funding 37, 38
 interpretative panels 41, 191, 192, 230
 modern 48–51, 54
 and transport 47, 48, 51–52, 53, 54, 55
see also educational geotourism; recreational geotourism
- GeoValue project 191
- geovolunteer 70, 86
- Germany, Baumannshöle cave 249
- Giant's Causeway, Northern Ireland 7–16, 21, 292
 commercialism 12, 18–20
 designation of 12
 geological debate 9–10
 iconography of 7–10
 illustrations 8–10, 9, 10, 11
 literary record 7–8
 tourism 8, 10–12
 visitor impact 237
- Gibraltar Point, Lincolnshire 18
- Ginkgo Petrified Forest State Park, Washington State 27, 27
- Glacier Bay, N America 288
- Glasgow Geological Society 71
- Global Geoparks Network 108, 246, 253, 277
- Global Geosites Working Group 246
- Global Indicative List of Geological Sites (GILGES) 254
- Global Network of National Geoparks 273, 276–277
- Grand Canyon National Park, USA 288
- Great Barrier Reef, Australia 289
- Great Smoky Mountains National Park, USA 290–291
- Gros Morne National Park, N America 293
- Grosvenor Museum 73, 74
- guidebooks 45, 48, 52–53
- Gulf of Porto, Corsica 291
- Gunung Mulu National Park, Malaysia 298
- Gwynedd and Mon RIGS 149–158
- Ha Long Bay, Viet Nam 295
- Harrison's Rocks, National Trust 93
- Hawaii Volcanoes National Park 293
- Hawkins, Benjamin Waterhouse 199, 200
- Health and Safety at Work Act (1974) 95
- Heard Islands 296–297
- Helsham Commission 266
- Herculaneum 139
- heritage *see* cultural heritage; geological heritage; natural heritage; world heritage
- Heritage Act (1995) 244
- Heritage Officer Scheme 244
- Hill, Octavia 67, 68, 68, 80
- Historic Scotland 108
- Huascarán National Park, Peru 292
- Hunter, Robert 67–68
- Hutton's Rock, Scotland 20, 19
- Ilulissat Icefjord 301
- Institute of Geological Sciences *see* British Geological Survey
- International Commission of the IUGS on the History of Geological Sciences 286

- International Conference on Geological and Landscape Conservation **226**
- International Council on Sites and Monuments (ICOMOS) 280–281, 286
- International Geological Correlation Programme (IGCP) 274, 286
- International Union for the Conservation of Nature (IUCN) 266, 280–281
- International Union of Geological Sciences (IUGS) 246, 254, 286
- INTERREG projects *see* European Union inter-regional funding scheme
- Ireland *see* Northern Ireland; Republic of Ireland
- Irish Geological Association 244
- Irish Geological Heritage programme 32, 237, 238–242
county audits 244
objectives 244, 245
procedures 239–241
site lists 237, 241–242
themes 237, 242, 243, 245
- Ischigualasto–Talampaya National Parks, Argentina 298
- Isle of Wight 173–179
designations 177, 178, **178**
erosion 176–177
exposures 173, 177
fossil collection 174–175
geoconservation future 178–179
geology 173–174, 174
geotourism 49–51, 50, 176
Local Geodiversity Action Plan (LGAP) 178
museum curation 174–175
quarries 177
RIGS 177
- Italy 251
- Jeju Volcanic Island, Republic of Korea 302–303
- Joint Nature Conservation Committee (JNCC) 108, 131, 132
- Judkins Quarry, Warwickshire 185, 189
- Jungfrau-Aletsch-Bietschhorn, Switzerland 299–300
- karst systems 207, 209, 260, 264
- Kingsley, Charles 71
- Knockan Crag National Nature Reserve
Visitor Centre 109
- Kvarken Archipelago, Finland 299
- Kyrlé Society 68
- Lake Baikal, Russian Federation 296
- Lake District 47, 54
geotourism 45–48, 46
Wordsworth 47–48, 47
- Lake District Defence Society 68
- Lake Turkana National Park, Kenya 297
- land ownership 4, 17, 27–28, 241, 268
access issues 91
commercialism 46
fossil collection 175
- Laponian Area, Sweden 296
- legislation 5, 17, 26–27, 91, 113–121, 120, 192
- Leicester Literature and Philosophical Society 71
- Limestone Pavement Action Group 96
- Limestone Pavement Biodiversity Habitat Action
Plan Working Group 168
- Limestone Pavement Order 118, 210
- limestone pavements 98, 149, 168, 242
RIGS 160
- Limestone Strategy Report **225**
- Lithodendron Wash, USA 23, 22
- Liverpool Geological Society 71
- Liverpool Museum 42
- Local Geodiversity Action Plan (LGAP) 2, 31, 34, 61, 84–86, **85**, 119, 168, 173, 178, 185–190, 193
- Lorentz National Park, Indonesia 297–298
- Los Glaciares, Argentina 289
- McDonald Islands 296–297
- Macquarie Island, Tasmania 257–258, 258, 297
- Mammoth Cave National Park, USA 289–290
- Man and the Biosphere (MAB) 273, 274, 286
- Marble Arch Caves Geopark, Co. Fermanagh 246
- Marsh, George 7, 14
- Messel Pit Fossil Site, Germany 295–296
- Miguasha National Park, Canada 298
- Mineral Resources Development Act (1995) 268
- minerals 14, 31
collectors 17
sale of 41
- Minerals Planning Authority 191
- mining 17, 140
geological mapping 261
industry and geoconservation 263
mine instability 217
- Mining Heritage Trust of Ireland 246
- Mining History Society of Ireland (MHSI) 246
- Mining Industry Act (1926) 106
- Ministry of Town and Country Planning 114–115
- Mole Creek Karst National Park Management Plan 266
- Monte Bolca fish mines, Italy 13
- Monte San Giorgio, Switzerland 300
- Morne Trois Pitons National Park, Dominica 297
- Muir, John 7, 14–15
- Murchison, Roderick 140–141
- Museum of Economic Geology, Geological Survey 41
- Museum of Isle of Wight Geology 173, 175, 177–178
- Museum of Practical Geology 18, 105
- museums 5, 13, 18–20, 105–106
collections 37
displays 41–42, 106
geological museums 166
- Nahanni National Park, Canada 287
- National Caving Association *see* British Caving Association
- National Galleries of Scotland 42
- National Geodiversity Action Plan (GAP) 31, 34, 85–86
- National Geoscience Data Centre, UK 103–104
- national heritage 282
- National Heritage Plan 243
- National Monuments 27, 92
- National Museum 158
- National Museum of Ireland 237–238
- National Museum of Scotland 98, 105–106
- National Museum of Wales 42, 168
- National Natural Landmarks List 32
- National Nature Reserves (NNR) 5, 12, 115, 117, 208, 217, 220, 230
- National Park Service 27
- National Parks 4, 5, 32, 54, 166, 208, 249, 250–251, 251, 265, 266
- National Parks and Access to the Countryside Act (1949) 20, 54, 113, 116, 124, 183, 220, **221**
- National Parks and Reserves Management Act (2002) 268
- National Parks and Wildlife Service (NPWS) 237, 238, 241
- National Scheme for Geological Site Documentation (NSGSD) 185
- National Scheme for Site Documentation 95

- National Trust 28, 61, 67, 91, 166
 fossil collecting policy 175
 geoconservation 68–70
 Giant's Causeway 12
 growth of 66, 69, 69
 Harrison's Rocks 93
 philosophy 68, 69–70
 sites 68–69
 and University College, London (UCL) 69
 National Trust Act (1907) 68, 70
 National Trust Geological Policy 69–70
 Natural England 108, 121, 193–194, 220
 Natural Environment Research Council 103
 Natural Environment and Rural Communities
 Act (2006) 121
 natural heritage 280–281, 282–283, 285
 Natural Heritage Areas (NHAs) 237, 238, 241, 246
 Natural History Museum 18, 41, 105, 238, 245
 Natural History Society of Northumberland, Durham
 and Newcastle upon Tyne [1846] 71
 Natural Monuments 18, 249
 Nature Conservancy 31, 41, 62, 94–95, 116, 118,
 183, 220
 Nature Conservancy Council (NCC) 107, 118, 124, 147,
 181, 184, 185, **223**
 strategy 81, 119, 123
 nature conservation
 economic justification 62
 and geoconservation 250
 legislation 113
 statutory basis 107
 voluntary organisations **63–65**
 Nature Conservation Act (2002) 266, 268
 Nature Conservation Review (NCR) 123
 Nature Reserves 266
 Nature Reserves Investigation Committee 93, 219, **221**
 Geological Reserves Sub-Committee 114
 Ngorongoro Conservation Area, Tanzania 288–289
 North East Wales RIGS (NEWRIGS) 148, 149–158, *164*
 North Pennines AONB 108
 North West Highlands Geopark, Scotland 109
 Northern Ireland 7–16, 244
 Norway
 legislation 251
 West Norwegian Fjords 253, *254*
- Oatlands Park Grotto, Weybridge, England 40
 Open Spaces Preservation & Land Development
 Society 68
 Open University Geological Society 66, 166
 Ord Hill, Scotland 13
 Ordnance Survey 104
 Organic Act (1916), USA 27
- Paxton, Joseph 198
 Peak Cavern 44, *44*
 Peak District, England 43–45
 Peat Consortium 96
 peatlands 98
 Petrified Forest National Monument 27
 Petrified Forest National Park, USA 24, 22, 24
 Petroleum (production) Act (1934) 106
 Phong Nha-Ke Bang National Park, Viet Nam 300
 Pirin National Park, Bulgaria 291
 Pitons Management Area, Saint Lucia 301
 Planning Policy Statement 9
 Biodiversity and Geological Conservation (2005)
 110–111, 118, 119
 geodiversity 84, 191
 Nature Conservation (1994) 119
 Plitvice Lakes National Park, Croatia 289
- Plot, Robert 139
 Poland 251
 Pompeii 139
 preservation 2, 18–20, 24, 66, 67, 82, 143
 Preservation of American Antiquities Act (1906) 17, 26
 Primary Survey, Wales 106
 ProGEO *see* European Association for the Conservation
 of the Geological Heritage (ProGEO)
 Prussia, natural monuments 251
 Public Health Act (1875) 68
 Purnululu National Park, Australia 300–301
 Pyrénées 297
- quarries 17
 caves 209–210, 212
 refuse dumping 217
 Quaternary Research Association 185
- Ramsar 273
 Recreation Areas 266
 Regional Forest Agreement (Land Classification)
 Act (1998) 268
 Regional Forest Agreement (RFA) 267–268
 Regional Reserves 266
 Regionally Important Geological/geomorphological Sites
 (RIGS) 1, 2, 4, 41, 61, 70, 81–82, 113,
 147, 173, 185
 criteria 82, 185
 guidelines to expand 82
 Isle of Wight 177
 limestone pavement *160*
 local groups 82
 and minerals 168
 Northern Ireland 244
 origin of 118–119
 policy recognition of 119
 site clearance work 192, *193*
 student support 168
 Wales 147–171
 Warwickshire 181, **186–189**, *190, 191*
see also United Kingdom Regionally Important
 Geological/geomorphological Sites
 (UKRIGS); Welsh RIGS groups
- Republic of Ireland 237–248
 Reserve Management Code of Practice 266
 Rhynie Chert, Scotland 13, *19, 20, 125*
 Río Plátano Biosphere Reserve, Honduras 290
 Royal Geological Society of Cornwall 71
 Royal Irish Academy's National Committee
 for Geology 246
 Royal Scottish Museum *see* National Museum Scotland
 Royal Society for Nature Conservation (RSNC),
 Small Grants Fund 149
 Royal Society for the Protection of Birds 61–62
 Rural Development Service 121
- Salisbury Crags, Edinburgh 104
 Sangay National Park, Ecuador 291
 Scheduled Ancient Monument **227**
 Science and Art Museum *see* National Museum
 of Scotland
 Scottish Earth Science Education Forum (SESEF) 108
 Scottish Geology Festival, Rock On 108
 Scottish geology week 2
 Scottish Natural Heritage (SNH) 34, 98, 108, 118, 148
 SE Union of Scientific Societies 93
 Sequoia National Park, USA 25
 Shark Bay, Australia 294
 sites *see* conservation sites
 Sites of Importance for Nature Conservation (SINCs)
 82, 143

- Sites of Special Scientific Interest (SSSI) 4, 31, 62, 113, 118, 123, 124, 173, 208
 Rhynie Chert, Scotland 20
 site assessment 117
- Skocjan Caves, Slovenia 292
- Slovak Karst 295
- Society for the Promotion of Nature Reserves (SPNR)
 62, 93, 94
- soils 31
- Somerset Archaeological and Natural History Society 71
- South China Karst 303
- South Wales Geologists' Association 158
- Special Area of Conservation (SAC) 241, 242
- specimens
 collection of 21, 173, 175, 251–252
 conservation of 140
 protection of 13
 sale of 44
 values 13–14
see also fossils
- speleology 207–215
- speleothems 264
 aesthetic value 212–214
 conservation 212–214, 213
 palaeoclimate 213
 radiometric dating 212–213
 repairs 214
 scientific literature 208–209, 209
 sporting caving literature 208–209, 209
- State Reserves 266
- stratigraphy 12–13, 125
- Sweden, National Parks 250
- Swedish nature conservation act (1909) 250
- Talamanca Range, S America 291
- Tasmania 257–272
 Aboriginal management 258
 biodiversity 261–262
 British colonists 258
 colonists 258–261
 forest industry 266–267
 geoconservation agency development 265–269
 geology of 257
 geomorphology 257, 260, 261, 262, 263–265, 267
 government policy 257, 265, 268
 karst systems 264
 Lake Pedder 262–263
 New River Basin 260
 public land management agencies 257
 public land reserve system 265–266
 tourist erosion 265–266
 wilderness 259, 259, 260, 262–263, 265, 290
see also Western Tasmania National Parks;
 Western Tasmanian Wilderness World
 Heritage Area
- Tasmanian Forestry Commission 32–33
- Tasmanian Geoconservation Database (GCD) 267
 Reference Group 269
- Tasmanian National Parks and Wildlife Service (PWS)
 261, 265–266
- Tasmanian River Condition Index 268
- Tasmanian Scenery Preservation Board 260
- Tassili n'Ajjer, Algeria 290
- Te Wahipounamu, New Zealand 393
- Teide National Park, Tenerife 251, 303–304
- Tentative Lists 284, 286, 287
- Thoreau, Henry 7, 14
- Tongariro National Park, New Zealand 294
- tourism 4, 7, 10–12, 42
 and accessibility 43, 46–47
 and aesthetics 42–43, 46–47, 54
 alternative 39
 and artists and writers 42–43
 eco 39
 educational 39
 environmental 39
 guidebooks 45
 heritage 39
 promotion of 47
 special interest 37, 39
 sustainable 39
see also geotourism
- Treaty on Biological Diversity (1992) 84
- Uluru, Ayers Rock 138
- Underground Workings Sub-committee 223
- Unitary Authority Development Plan 226
- United Kingdom Minerals Industry 33
- United Kingdom Regionally Important Geological/
 geomorphological Sites (UKRIGS) 5, 70, 82–84,
 165, 193
 and British Geological Survey 107–108, 109
 membership 83, 83
 surveys 83–84, 84
- United Nations Conference on the Human
 Environment (1972) 1
- United Nations Educational Scientific and Cultural
 Organization (UNESCO) 32, 54, 108, 246
 Convention of Cooperation with EGN 276, 277
 criteria 257
 Declaration of the Rights of the Memory of the
 Earth 273, 274
 Geoparks initiative 274
 World Heritage Convention 279–304
- United Nations Environment Programme (UNEP)
 280, 283
- United States of America (USA) 21–27
 geotourism 39
 legislation 17, 27
 migration 24–25
 National Parks 32, 250
 public land 28
- United States Army Corps of topographical
 Engineers 22
- University College London (UCL) 69
- University of Portsmouth 175
- Valentia Tetrapod trackway, Co. Kerry 237, 238–239,
 239–240
- Vallée de Mai Nature Reserve, Seychelles 291
- Venice Charter 280
- Victoria Falls, Zambia 293
- Victoria Park Fossil Grove, Glasgow 21, 20, 40, 104
- Virunga National Park, Democratic Republic
 of the Congo 289
- Volcanoes of Kamchatka, Russian Federation 296
- voluntary conservation 1, 61–89, 147
 geoconservation 61–89, 113, 147
 history of 61–66
 UK membership 62
 volunteers 70, 86, 217, 231
 women 80, 81
- voluntary organizations 2, 61, 71, 86
 local geological societies 80–81, 81
- Vredefort Dome, South Africa 301–302
- Wadi Al-Hitan, Egypt 302
- Wadsley *Stigmara*, England 21, 20, 40
- Wales
 academic institutions 165–166, 166
 geoconservation 170
 population 165, 167

- Warwickshire 181–195
 county LGAP 185–190, 192
 geology 181, 182
 local sites 185, 191–192
 mines 181
 national sites 183–185
 quarries 181, 191, 194
 RIGS 181, **186–189**, 190, 191
 SSSIs 181, 183–185, **184**
- Warwickshire Geological Conservation Group (WGCG)
 181, 185, 189, 190, 192, 193–194, 193
- Warwickshire Museum 181, 185, 193–194
 Acquisition and Disposal Policy 192
 collections 183, 191
 county LGAP 185–190, 192
 Geological Localities Record Centre 185–191,
 192, 194
- Warwickshire Natural History and Archaeological
 Society (WNHAS) 71, 181, 183, 193
- Warwickshire Naturalists' and Archaeologists'
 Field Club 183
- Warwickshire Wildlife Trust 185
- Water Resources Act (1991) 106
- Welsh Annual Forum **165**, 168
 audience 162
 field visits 162–164
 history 160–165
- Welsh Assembly Government (WAG)
 geodiversity audit 168
 geological audit 156
 RIGS audit 3, 160
- Welsh RIGS groups 148, **148**, 149–158
 achievements **170**
 audience 166, 168
 documentation 149, 150–158
 expertise 148, 168–170
 history of 148–165
 map of 164, 169
 and media **170**
 partnerships 158
 and planning authorities 165
 posters 153, 162
 publications 163
 trails 149–150, 153, 159, 161
 unique context of 165–168
 volunteers 168–170
see also Association of Welsh RIGS Groups (AWRG)
- West Norwegian Fjords 302
- Western Tasmania National Parks 263
- Western Tasmanian Wilderness World Heritage Area 257,
 260, 260, 261
- Whin Sill, County Durham 18
- Wildlife (Amendment) Act (2000) 246
- Wildlife Conservation Special Committee 31,
 219–220, **221**
- Wildlife and Countryside Act (1981) 118, 184, 210
- Wildlife Trusts 61
- Willandra Lakes Region, Australia 290
- Wind Cave National Park, USA 25
- Wood Farm Quarry, Warwickshire 190, 190, 191
- Woolhope Naturalists' Field Club 71
- World Commission on Protected Areas 286
- World Conservation Monitoring Centre (WCMC) 283
- World Conservation Union 279, 280–281
see also International Union for the Conservation
 of Nature (IUCN)
- World Heritage Areas 263, 265
 Western Tasmanian Wilderness 257, 260, 260, 261
- World Heritage Committee 273, 281–284
 and ICOMOS 281
 and IUCN 281
 nominations 281, 286–287
 Operational Guidelines 283–284
 political balance 283
 selection criteria 282
- World Heritage Convention (1972) 279–304
 cultural heritage 281
 geoconservation 282–283, 285–287
 Giant's Causeway 12
 mixed sites 281, 283, 284
 natural heritage 281
 operation of 282–283
 origins of 279–280
 pledge 282
 states 279
- World Heritage Fund 282
- World Heritage List 2, 54, 232, 257, 279
 criteria 54, 253
 cultural sites 283, 284
 geological inscriptions 279, 283–285
 geological processes 284, **285**
 geological time 284, **284**
 geomorphology 284, **285**
 In Danger 282
 mixed sites 281, 283, 284
 natural sites 283, 284
 nomination variations 281–282
 palaeontology 284, **284**
 representativeness 283–285
 site numbers 279
 West Norwegian Fjords 253, 254
- World Heritage Properties Conservation Act
 (1983) 265
- World Heritage Sites 1, 4, 5, 32, 249, 287–304
 chronological list 287–304
 geological inscriptions 287–304
 Geosite project 253–254
 geothemes 32, **32**
 and specimen collection 252
- World Heritage Trust 280
- Wren's Nest National Nature Reserve 40, 115, 117, 143,
 144, 217–235
 character of 218–219
 chronology of events **221–227**
 collecting policy 220, 232
 and Dudley Museum 232
 fiftieth anniversary 232–234, 234
 fossils 217, 219, 220, **221**, 232
 Geologists' Association 218
 geology trail 41, **223**, 227, 229–230, 230
 geotourism 145, 232
 instability of 220, **222**, 227–228, 228
 landfills **225**
 management of 220–227, **221–227**, 227–232, 228,
 231–232
 origin of 219–220, 227
 quarries 217
 setting of 220
 stratigraphy 219, 228–229, 229
 visitor centre **225**, 229–230
 volunteers 231, 231
- Writhlington National Nature Reserve 41
- Yellowstone National Park, USA 25, 250,
 287–288
- Yorkshire Dales 207–215, 208
 cave exploration 208–209, 209, 211
- Yorkshire Geological Society 71
- Yosemite National Park, USA 14–15, 25, 292
- Yunnan Protected Areas 301