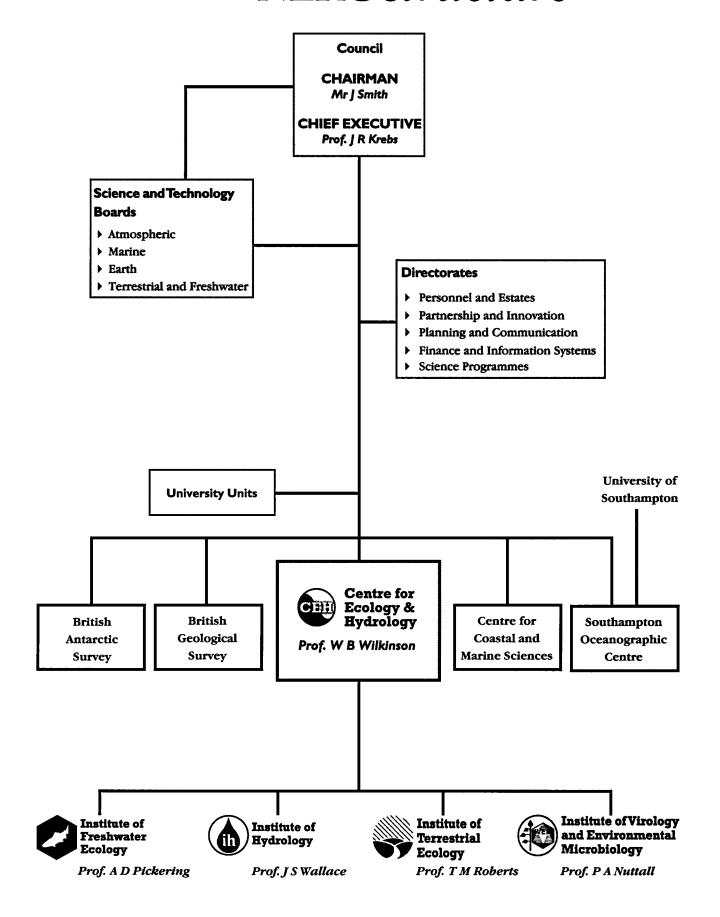
### **Contents**

| Appendices | es |
|------------|----|
|------------|----|

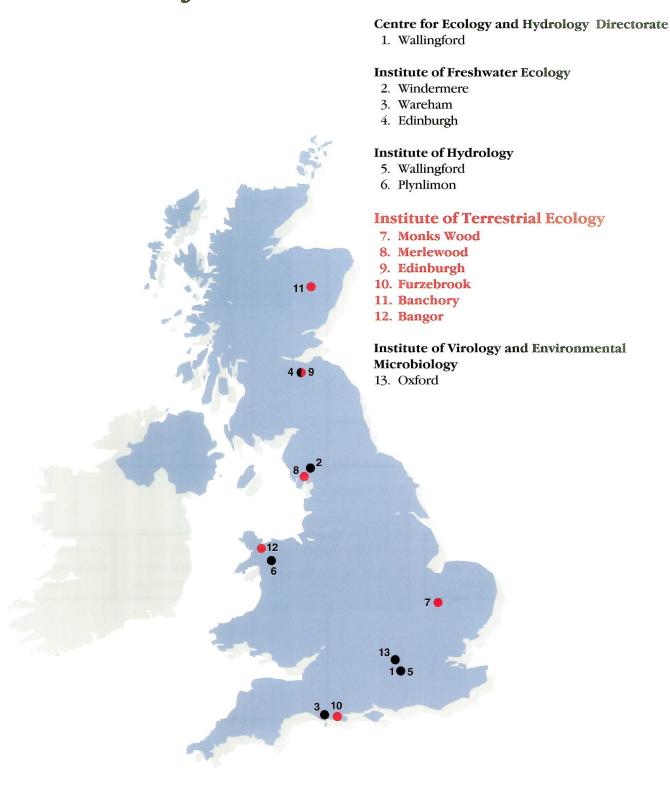
| Appendix 1 | NERC structure                     | 105 |
|------------|------------------------------------|-----|
| Appendix 2 | Institute structure                | 107 |
| Appendix 3 | Staff at 31 March 1998             | 108 |
| Appendix 4 | Research projects at 31 March 1998 | 114 |
| Appendix 5 | ITE publications                   | 116 |

#### **APPENDIX I**

### NERC structure



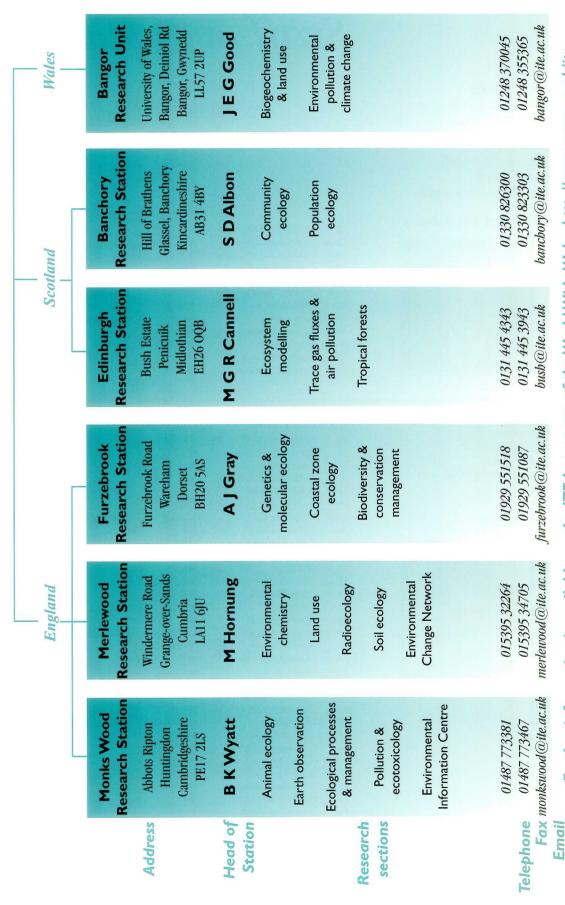
### Location of CEH sites



T M Roberts

**Director:** 

### Institute structure



## Staff at 31 March 1998

#### DIRECTORATE

ITE Monks Wood Abbots Ripton HUNTINGDON Cambs PE17 2LS Telephone 01487 773381 Fax 01487 773590 WWW http://www.nmw.ac.uk/ite

#### Director Prof T M Roberts



| Dr   | Anderson,Lloyd         | SSO    |                                 |
|------|------------------------|--------|---------------------------------|
| Miss | Beamish, Michelle      | AO     |                                 |
| Mrs  | Broomfield, Jacqueline | EO     |                                 |
| Miss | Cooper,Ruth E          | AO     |                                 |
| Mrs  | Green,June I           | HEO    |                                 |
| Mrs  | Harman, Dorothy        | PS     | Personal Sectretary to Director |
| Mrs  | Kimber,Joy V           | TYP    |                                 |
| Mrs  | Parsell, Jane          | SEO    | Head of Administration          |
| Mrs  | Richards, Carolyn      | AO     |                                 |
| Prof | Roberts, Mike          | GRADE5 | Director                        |
| Miss | Stapleford,Sarah L     | EO     |                                 |
| Mrs  | Stefanelli,Suzanne     | EO     |                                 |
|      |                        |        |                                 |

#### Monks Wood Abbots Ripton HUNTINGDON Cambs PE17 2LS Telephone 01487 773381 Fax 01487 773467

#### Head of Station Prof B K Wyatt



| u |      |                     |        |  |
|---|------|---------------------|--------|--|
|   | Mrs  | Appleby, Victoria   | AO     |  |
|   | Mr   | Arnold, Henry       | HSO    |  |
|   | Dr   | Baker, John R       | GRADE7 |  |
|   | Ms   | Barnard,Lorraine    | SO     |  |
|   | Mr   | Barratt,David       | SO     |  |
|   | Mr   | Bellamy,Paul        | SO     |  |
|   | Dr   | Boyd, Elaine M      | HSO    |  |
|   | Mr   | Brown,Nigel J       | HSO    |  |
|   | Prof | Bull,Keith R        | GRADE7 | Head of Environmental Information Centre |
|   | Mrs  | Burton,Valerie      | AA     |  |
|   | Dr   | Carey,Peter D       | HSO    |  |
|   | Mr   | Cooper,Jonathan     | SO     |  |
|   | Miss | Cox,Ruth            | HSO    |  |
|   | Mrs  | Croft,Jane M        | SO     |  |
|   | Dr   | Cummins,Clive       | SSO    |  |
|   | Miss | Dale,Lois C         | SO     |  |
|   | Ms   | Davies,Cynthia      | SO     |  |
|   | Dr   | Dawson,Alistair     | GRADE7 | Head of Animal Ecology Section           |
|   | Dr   | Dobson,Stuart       | GRADE7 |  |
|   | Miss | Durup, Jacqueline   | ALIB   |  |
|   | Miss | Finnie,Jill K       | SO     |  |
|   | Mrs  | Forrest, Wendy      | AA     |  |
|   | Mrs  | Francis, Juliet     | AO     |  |
|   | Mr   | Freestone,Paul      | HSO    |  |
|   | Mr   | Fuller,Robin        | GRADE7 | Head of Earth Observation Section        |
|   | Mr   | Garbutt,Angus       | SO     |  |
|   | Mr   | Gascoigne, Jonathan | SO     |  |
|   | Mrs  | Gaunt, Julie M      | SGB1   |  |
|   | Ms   | Gerard,France       | HSO    |  |
|   | Mr   | Greatorex-Davies,N  | HSO    |  |
|   | Mr   | Greenslade,Peter    | SO     |  |
|   | Mrs  | Guerin, Elizabeth   | TYP    |  |
|   | Miss | Hall,Jane R         | HSO    |  |
|   | Mr   | Hankard,Peter       | SO     |  |
|   | Mr   | Harding,Paul        | GRADE7 |  |
|   | Dr   | Hartley, Jeanette   | HSO    |  |
|   |      |                     |        |  |

| Prof      | Hıll,Mark O                       | GRADE7    | Head of Ecological Processes and Management Section |
|-----------|-----------------------------------|-----------|---|
| Dr        | Hıll,Ross A                       | HSO       |   |
| Dr        | Hinsley, Shelley                  | SSO       |   |
| Dr        | Hinton, Jacqueline                | SSO       |   |
| Mrs       | Horne,Janice                      | SGB2      |   |
| Mr        | Howe,Paul D                       | HSO       |   |
| Mrs       | Jolly,Marilyn                     | SGB2      |   |
| Mrs       | King, Marjorie                    | PS        |   |
| Miss      | Kodz,Donna M                      | SO        |   |
| Mr        | Malcolm,Heath                     | HSO       |   |
| Mrs       | Manchester,Sarah                  | SO        |   |
| Ms        | Mann, Jayne L                     | AO        |   |
| Miss      | McNally,Sandra                    | SO        |   |
| Dr        | Meharg,Andrew                     | GRADE7    |   |
| Dr        | Moffatt,Timothy                   | HSO       |   |
| Dr        | Morton,Daniel                     | HSO       |   |
| Dr        | Moss,Dorian                       | GRADE7    |   |
| Mr        | Mountford,Owen                    | SSO       |   |
| Mr        | Myhıll,Davıd                      | SO        |   |
| Prof      | Newton,Ian                        | IMP5      |   |
| Dr        | North,Peter R                     | HSO       |   |
| Dr        | Osborn, Daniel                    | GRADE7    | Head of Pollution and Ecotoxicology Section         |
| Dr        | Plummer,Stephen                   | HSO       |   |
| Dr        | Preston,Chris                     | GRADE7    |   |
| Dr        | Pywell,Richard                    | SSO       |   |
| Mrs       | Rigden, Carol                     | HEO       |   |
| Mr        | Rothery,Peter                     | GRADE7    |   |
| Mr        | Roy,David B                       | HSO       |   |
| Dr        | Shaw,Elizabeth                    | HSO       |   |
| Prof      | Shead John D                      | IMP6      |   |
| Dr        | Shore,Richard                     | SSO       |   |
| Dr        | Smith, Geoffrey                   | HSO       |   |
| Mrs       | Southwood,Anne                    | SGB1      |   |
| Mr        | Sparks,Timothy                    | SSO       |   |
| Mr        | Spendlove,Mark                    | SGB1      |   |
| Ms        | Swetnam,Ruth                      | SO        |   |
| Dr        | Telfer,Mark G                     | HSO       |   |
| Mr        | Thomson,Andrew                    | HSO       |   |
| Mr        | Turk,Anthony                      | ASO       |   |
| Mrs       | Turk,Hazel L<br>Ullyett,Jacquline | SGB2      |   |
| Mrs       | , , ,                             | SO        |   |
| Mrs<br>Dr | Wade,Doreen<br>Wadsworth,Richard  | PS<br>HSO |   |
| Mr        | Walker,Kevin                      | SO        |   |
| Mrs       | Wallis,Susan                      | SO<br>SO  | Assistant to Head of Station                        |
| Miss      | Warman, Elizabeth                 | SO<br>SO  | 1 Listing to Hem of Sunton                          |
| Dr        | Weeks,Jason M                     | GRADE7    |   |
| Mr        | Whitehead, Sydney                 | SGB1      |   |
| Mr        | Wilson,Andrew                     | SSO       |   |
| Dr        | Wilson,Susan                      | HSO       |   |
| Mr        | Wright, Julian                    | SO        |   |
| Prof      | Wyatt,Barry K                     | GRADE6    | Head of Station                                     |
| Miss      | Wyatt,Claire                      | SO        |   |
| Mr        | Wyllie,Ian                        | SSO       |   |
| Mr        | Yates, Michael                    | SSO       |   |
| Mrs       | Yates,Tina J                      | HSO       |   |
|           | , ,                               |           |   |

#### **APPENDIX** 3

**Merlewood Research Station** GRANGE-OVER-SANDS Cumbria LA11 6JU Telephone 015395 32264 Fax 015395 34705

#### Head of Station **Prof M Hornung**



|                          |   | ****   |  |
|--------------------------|---|--|--|
| Mr                       | Adamson, John   | HSO  |  |
| Mr                       | Afsar,Amjad A   | SO   |  |
| Miss                     | Barnett, Catherine  | SO   |  |
| Mr                       | Barr,Colin J  | SSO  |  |
| Mr                       | Benefield,Christopher   | HSO  |  |
| Mr                       | Benham,David  | HSO  |  |
| Mrs                      | Bennett,Peggy   | AO   |  |
| Mr                       | Beresford, Nicholas   | SSO  | *  |
| Dr                       | Black,Helaina   | HSO  |  |
| Mrs                      | Brown, Joanna   | EO   |  |
| Dr                       | Bunce,Robert  | GRADE7   | Head of Land Use Section                 |
| Mrs                      | Cook,Celia C  | AO   |  |
| Mr                       | Coward, Paul A  | HSO  |  |
| Mr                       | Culling,Adrian  | ASO  |  |
| Mrs                      | Delve,Julie   | PS   | Personal Secretary to Head of Station    |
| Mrs                      | Dickinson,Amanda  | SO   |  |
| Miss                     | Dodd,Beverley   | ASO  |  |
| Dr                       | Ellis,Noranne   | HSO  |  |
| Dr                       | Firbank,Leslie  | GRADE7   |  |
| Mr                       | Gardiner, Andrew  | ASO  |  |
| Miss                     | Garnett, Jacqueline   | ASO  |  |
| Miss                     | Gillespie, Morna  | HSO  |  |
| Mrs                      | Goodsir,Karen   | AOC  |  |
| Ms                       | Grimshaw,Julie  | TYP  |  |
| Dr                       | Harrison, Anthony   | GRADE7   | Head of Soil Ecology Section             |
| Prof                     | Hornung, Michael  | GRADE6   | Head of Station                          |
| Dr                       | Howard,Brenda   | GRADE7   | Head of Radioecology Section             |
| Dr                       | Howard, David   | HSO  | -, -, -, -, -, -, -, -, -, -, -, -, -, - |
| Mrs                      | Howson,Gillian  | HSO  |  |
| Dr                       | Ineson,Philip   | GRADE7   |  |
| Dr                       | Jones,Helen E   | SSO  |  |
| Mrs                      | Kennedy, Valerie  | HSO  |  |
| Ms                       | Lane,Amanda M   | HEOC   |  |
| Mr                       | Lethbridge,Roy  | TEC2   |  |
| Mr                       | Lindley,David   | GRADE7   |  |
| Mr                       | McNamara,Nial   | SO   |  |
| Dr                       | Morecroft, Michael  | HSO  |  |
| Dr                       | Parekh, Nisha   | HSO  |  |
| Dr                       | Parr, Terence   | GRADE7   | Head of Environmental Change Network     |
| Mrs                      | Parrington, Judith  | SO   | Tiedd of Environmental Ostinge New Ork   |
| Mrs                      | Poskitt, Janet  | so   |  |
| Miss                     | Pounder,Rebecca   | AO   |  |
| Mr                       | Quarmby, Christopher  | SSO  |  |
| Mrs                      | Raine,Linda   | TYP  |  |
| Miss                     | Rennie,Susannah   | SO   |  |
| Mr                       | Roberts James   | SSO  |  |
| Miss                     | Robertson, Sylvia M   | SO   |  |
| Mr                       | Rossall, Martin   | ASO  |  |
| Mr                       | Rowland,Alan  | SSO  | Head of Environmental Chemistry Section  |
| Dr                       | Sanchez, Arthur   | SSO  | Head of Environmental Openisity Section  |
|                          | AND RECOVERED AND AND AND AND AND AND AND AND AND AN  |  |  |
| Mr                       | Scott, Richard  | HSO<br>CRADE7  |  |
| Dr                       | Scott, William  | GRADE7   |  |
| Miss                     | Singleton, Diana  | SO   |  |
| Mr                       | Sleep,Darren  | SO   |  |
| Mr                       | Smart,Simon M   | SO   |  |
| Mr                       | Stark,Gavin J   | HSO  |  |
| Miss                     | Taylor, Michele   | ASO  |  |
| Miss                     | Van De Poll,Martine   | SSO  |  |
| Mr                       | Watkins, John   | HEOC   |  |
| Mrs                      | Whittaker,Diana   | SGB1   |  |
| Mr                       | Wilson,David  | ASO  |  |
| Mr                       | Woods,Clive   | HSO  |  |
| Mr                       | Wright,Simon  | HSO  |  |
| The second second second | A THE COMMISSION OF SHORE | and the second s |  |

| Dr   | Arah,Jonathan   | SSO    |                                       |
|------|---|--------|---------------------------------------|
| Mrs  | Binnie,Jillian  | SO     |                                       |
| Mr   | Brown, Thomas   | SO     |                                       |
| Mrs  | Campbell, Nancy   | AO     |                                       |
| Prof | Cannell,Melvin  | GRADE6 | Head of Station                       |
| Dr   | Cape,Neil   | GRADE7 |                                       |
| Ms   | Coyle,Mhairi  | SO     |                                       |
| Dr   | Crossley,Alan   | SSO    |                                       |
| Mr   | Deans, Douglas  | GRADE7 |                                       |
| Dr   | Dick,Janet M  | HSO    |                                       |
| Mrs  | Dickson,Linda   | AO     |                                       |
| Mrs  | Doyle,Robina  | EO     |                                       |
| Mr   | Elphinstone,Gordon  | PTO    |                                       |
| Mrs  | Ferguson, Majorie   | TYP    |                                       |
| Prof | Fowler, David   | IMP6   | Head of Trace Gas Fluxes and Air      |
|      | V (100 m) (10 |        | Pollution Section                     |
| Dr   | Friend,Andrew   | SSO    |                                       |
| Dr   | Hargreaves, Kenneth   | SSO    |                                       |
| Mr   | Harvey,Francis  | HSO    |                                       |
| Mr   | Horsburgh, Alex   | SGB2   |                                       |
| Mr   | Ingleby, Kevin  | HSO    |                                       |
| Mrs  | Innes, Davis S  | AO     |                                       |
| Mr   | Lawson, Gerald  | SSO    |                                       |
| Dr   | Leakey,Roger  | GRADE7 |                                       |
| Mr   | Leith,Ian D   | HSO    |                                       |
| Dr   | Mason, Philip   | SSO    |                                       |
| Mr   | McEwan, David   | SGB2   |                                       |
| Dr   | McFadyen,Gordon   | HSO    |                                       |
| Miss | Milford, Celia  | SO     |                                       |
| Dr   | Milne,Ronald  | SSO    |                                       |
| Dr   | Mobbs,Deena C   | HSO    |                                       |
| Mr   | Munro,Robert  | HSO    |                                       |
| Dr   | Murray, Maureen   | HSO    |                                       |
| Mr   | Murray, Thomas  | HSO    |                                       |
| Mr   | Nemitz,Eiko G   | HSO    |                                       |
| Dr   | Pitcairn, Carol   | HSO    |                                       |
| Miss | Potter,Katherine  | PS     | Personal Secretary to Head of Station |
| Miss | Scobie,Sheila   | LIB    | Library Services                      |
| Dr   | Sheppard, Lucy  | SSO    | zioren y correcce                     |
| Dr   | Skiba, Ute M  | HSO    |                                       |
| Mr   | Smith,Rognvald  | SSO    |                                       |
| Mr   | Storeton-West,Robert  | SO     |                                       |
| Dr   | Sutton, Mark  | SSO    |                                       |
| Miss | Tang,Yuk S  | SO     |                                       |
| Mr   | Wallace, James  | SGB2   |                                       |
| Dr   | Watt,Alan D   | GRADE7 | Head of Ecosystem Modelling Section   |
| Dr   | White, Andrew   | HSO    | Trems of Leosystem modelling section  |
| Dr   | Wilson,Julia  | GRADE7 | Head of Tropical Forests Section      |
| Di   | wnsonjuna   | JIMDE/ | read of Propical Polesis section      |

**Edinburgh Research Station** Bush Estate, PENICUIK, Midlothian EH26 0QB Telephone 0131 445 4343 Fax 0131 445 3943

#### Head of Station **Prof M G R Cannell**



#### **APPENDIX 3**

#### **Furzebrook Research Station**

WAREHAM Dorset BH20 5AS Telephone 01929 551518-9 Fax 01929 551087

Head of Station **Prof A J Gray** 



| Dr            | Brown,Susan L          | HSO    |  |
|---------------|------------------------|--------|--|
| Dr            | Bullock,James          | SO     |  |
| $\mathbf{Dr}$ | Caldow, Richard        | HSO    |  |
| Mrs           | Chester,Irene          | AO     |  |
| Mr            | Clarke,Ralph           | GRADE7 |  |
| Dr            | Daniels,Roger          | GRADE7 | Head of Genetics & Molecular Ecology Section |
| Dr            | Elmes,Graham           | IMP6   |  |
| Dr            | Goss-Custard, John     | IMP6   | Head of Coastal Zone Ecology Section         |
| Prof          | Gray,Alan J            | GRADE6 | Head of Station                              |
| Ms            | Hodder,Kathryn         | SO     |  |
| Mrs           | Jones,Mary C           | EO     |  |
| Dr            | Kenward,Robert         | GRADE7 |  |
| Ms            | Le V Dit Durrel, Sarah | SSO    |  |
| Miss          | Maskell,Lindsey        | SO     |  |
| Dr            | McGrorty, Selwyn       | SSO    |  |
| Miss          | Mogg,Rebecca           | SO     |  |
| Miss          | Moy,Isabel L           | SO     |  |
| Mr            | Pearson,Barrie         | HSO    |  |
| Mrs           | Perkins,Mary           | PS     | Personal Secretary to Head of Station        |
| $\mathbf{Dr}$ | Raybould,Alan          | SSO    |  |
| Dr            | Reading, Christopher   | SSO    |  |
| Mr            | Rispin,Ed              | HSO    |  |
| Mrs           | Rogers, Julie          | SGB1   |  |
| Mr            | Rose,Robert J          | HSO    |  |
| Mr            | Snazell,Rowland        | SSO    |  |
| $\mathbf{Dr}$ | Stillman,Richard       | HSO    |  |
| $\mathbf{Dr}$ | Thomas, Jeremy         | IMP6   | Head of Biodiversity and Conservation        |
|               |                        |        | Management Section                           |
| Dr            | Treweek,Joanna         | SSO    |  |
| Mrs           | Wardlaw, Judith        | HSO    |  |
| Prof          | Webb, Nigel R          | GRADE7 |  |
| Mr            | West,Andrew D          | SO     |  |
|               |                        |        |  |

#### **Banchory Research Station** Hill of Brathens Glassel **BANCHORY Kincardineshire** AB31 4BY Telephone 01330 826300 Fax 01330 823303

Head of Station Dr S D Albon



|       | Prof               | Albon,Stephen  | GRADE6 | Head of Station                       |
|-------|--------------------|--|--------|---------------------------------------|
|       | Mrs                | Andrews, Patricia  | TYP    |                                       |
|       | Dr                 | Bacon,Philip   | GRADE7 |                                       |
|       | Dr                 | Bayfield,Neil  | GRADE7 |                                       |
|       | Dr                 | Carss,David N  | SSO    | × ×                                   |
|       | Mr                 | Conroy, James  | HSO    |                                       |
|       | Mr                 | Cummins,Roger  | SSO    |                                       |
|       | Mr                 | French,Donald  | SSO    |                                       |
|       | Mrs                | Gash,Moira   | AO     |                                       |
|       | Dr                 | Hanley,Michael   | HSO    |                                       |
|       | Prof               | Harris,Michael   | GRADE7 | Head of Population Ecology Section    |
|       | Dr                 | Hartley,Susan  | SSO    | Head of Community Ecology Section     |
|       | Mr                 | Irvine,Justin  | SO     |                                       |
|       | Mr                 | Littlejohn,Arthur  | SGB2   |                                       |
|       | Dr                 | Marquiss,Michael   | SSO    |                                       |
|       | Dr                 | Massei, Giovanna   | SSO    |                                       |
|       | Mrs                | McGowan,Geraldine  | HSO    |                                       |
|       | Mrs                | McKenzie,Seona   | PS     | Personal Secretary to Head of Station |
|       | Dr                 | Palmer,Stephen   | HSO    |                                       |
|       | Miss               | Pearce,Imogen  | SO     |                                       |
|       | Mr                 | Picozzi, Nicholas  | SSO    |                                       |
|       | Mrs                | Ratcliffe,Rosemary   | AO     |                                       |
|       | Dr                 | Redpath,Stephen  | HSO    |                                       |
|       | Mrs                | Reid,Joy P   | EO     |                                       |
|       | Mr                 | Scott,David  | SO     |                                       |
|       | Mr                 | Stien,Audun  | HSO    |                                       |
|       | Miss               | Thurlow,Madeline   | SO     |                                       |
|       | Miss               | Truscott,Anne Marie  | SO     |                                       |
|       | Dr                 | Wanless,Sarah  | SSO    |                                       |
|       | Mr                 | Webb,Andrew D  | SO     |                                       |
|       | Mr                 | Welch,David  | GRADE7 |                                       |
| - And | THE REAL PROPERTY. | CALLY TO THE PARTY OF THE PARTY |        |                                       |

| Prof          | Ashenden,Trevor    | GRADE7 | Head of Environmental Pollution and<br>Climate Change Section |
|---------------|--------------------|--------|---|
| Mrs           | Bell,Shirley       | SO     |   |
| Mrs           | Brittain,Sarah     | SO     |   |
| Dr            | Buse,Alan          | SSO    |   |
| Mrs           | Cooper, Jacqueline | TYP    |   |
| $\mathbf{Dr}$ | Emmett,Bridget     | SSO    |   |
| Prof          | Good,John E G      | GRADE6 | Head of Station   |
| Mr            | Hughes,Steven      | HSO    |   |
| Mr            | Jones,Laurence     | SO     |   |
| Mrs           | Langhorne, Glenys  | AO     |   |
| Dr            | Mills,Gina E       | SSO    |   |
| Mr            | Moonen,Paulus      | SO     |   |
| Mr            | Norris,David       | SO     |   |
| Miss          | Owen,Diana E       | EO     |   |
| Dr            | Reynolds,Brian     | GRADE7 | Head of Biogeochemistry and                                   |
|               |                    |        | Land Use Section  |
| Mrs           | Roberts, Heather   | PS     | Personal Secretary to Head of Station                         |
| Mr            | Stevens, Paul      | GRADE7 | ů ů   |
| Dr            | Stirling,Clare     | HSO    |   |
| Dr            | Thomas,Adrian      | HSO    |   |
| Mr            | Williams, Dylan    | SO     |   |
|               |                    |        |   |

#### **Bangor Research Unit**

University of Wales, Bangor Deiniol Road BANGOR Gwynedd LL57 2UP Telephone 01248 370045 Fax 01248 355365

Head of Unit Prof J E G Good



#### **APPENDIX 4**

## Research programmes

| Soils and soil-vegetation | ì |
|---------------------------|---|
| interactions              |   |

#### Theme 1.1 Physicochemical processes affecting soil-water interactions

- Issue 1 1 1 Solid-solution partitioning of chemical species
- Issue 1 1 2 Organic matter decomposition and the production of humic substances

#### Theme 1 2 Biologically mediated soil processes

- Issue 1 2 1 Activity and diversity of key functional populations
- Issue 1 2 2 Trophic interactions in soils and their influence on soil organic matter production and degradation

#### Land use science

#### Theme 2 1 Long-term and large-scale monitoring of land use

- Issue 2 1 1 National-scale survey of land use and cover
- Issue 2 1 2 Remote sensing of land use and cover
- Issue 2 1 3 Monitoring and evaluation of land use policies

#### Theme 2 2 Land use systems

- Issue 2 2 1 Environmental impacts and management of farming systems
- Issue 2 2 2 Environmental impacts and management of forestry systems
- Issue 2 2 3 Impacts of land use (change and management)
- Issue 2 2 4 Development of land use and water resource management strategies
- Issue 2 2 5 Environmental impact, coastal zone survey and management

#### Theme 2 3 Management of ecosystems in tropical regions

- Issue 2 3 1 Management and restoration of forests and drylands
- Issue 2 3 2 Agroforestry

#### Theme 2.4 Landscape function and modelling

- Issue 2 4 1 Modelling spatial processes
- Issue 2 4 2 Applied landscape ecology

#### The urban environment

#### Theme 3.1 Patterns of urban land/water use and associated habitats

Issue 3 1 1 Pattern and distribution of urban habitats in relation to past and present land/water use

#### Theme 3.3 The distribution and dynamics of atmosperic pollution

Issue 3 3 4 Measurement of direct effects of hydrocarbons on vegetation

#### Theme 3.4 Urban water dynamics, risk and hazard

Issue 3 4 2 Floods and pollution flushes

#### Freshwater resources

#### Theme 4.6 Fish dvanimics

Issue 4 6 1 Fish population dynamics

### **Biodiversity and** population processes

#### Theme 5.1 Biodiversity characterisation, pattern and monitoring

- Issue 5 1 1 Species richness in relation to environmental factors
  Issue 5 1 2 Biodiversity of communities and resilience to environmental change

Theme 5 2 Ecosystem function and biodiversity

Issue 5 2 1 Trophic interactions and ecosystem function insect-plant interactions

#### Theme 5.3 Population processes underlying biodiversity

- Issue 5 3 1 Organism responses, fitness and demographic functions
- Issue 5 3 2 Interactions between demes, local populations and greater populations
- Issue 5 3 3 Interactions between populations of different species
- Issue 5 3 4 Comparative population and community processes

#### Theme 5 4 Conservation and restoration of biodiversity

- Issue 5 4 1 Single-species conservation programmes monitoring and evaluation Issue 5 4 2 Ecology of introduced species
- Issue 5 4 3 Habitat creation and restoration
- Issue 5 4 4 Wetland management and restoration

#### Pest and disease control

#### Theme 6.3 Environmental impact of GMOs and potentially invasive species

Issue 6 3 1 Gene flow in natural plant populations

#### Theme 7.1 Radionuclides **Pollution** Issue 7 1 1 Parameterisation of radionuclide contamination and transfer Issue 7 1 2 Incorporation of spatial variability Issue 7 1 3 Improving estimation of radiation doses Issue 7 1 4 Development of countermeasures Issue 7 1 5 Collaboration Theme 7.2 Acidifying pollutants Issue 7 2 1 Emissions Issue 7 2 2 Atmospheric chemistry and transformations Issue 7 2 3 Deposition Issue 7 2 4 Impacts on soil-plant systems Issue 7 2 5 Surface water and catchment-scale impacts Issue 7 2 6 Modelling Issue 7 2 7 Critical loads Theme 7.3 Photochemical oxidants Issue 7 3 1 Atmospheric transformations and transport Issue 7 3 3 Impacts on vegetation, materials and human health Theme 7.4 Toxic metals Issue 7 4 1 Transport and deposition Issue 7 4 2 Soil and aquatic processes and soil-plant transfers Issue 7 4 3 Transfer to animals Issue 7 4 4 Ecotoxicology and environmental standards Theme 7.5 Organic pollutants Issue 7 5 1 Monitoring Issue 7 5 2 Transport and food-chain transfer Issue 7 5 3 Biological degradation and transformation Issue 7 5 6 Ecotoxicology and environmental standards **Environmental risks and** Theme 8 3 Understanding and modelling the role of rare events on ecological systems Issue 8 3 1 Rare events and ecological processes Issue 8 3 3 The ecological repercussions of floods and droughts extreme events Theme 9 1 Greenhouse gas budgets and cycles Global change Issue 9 1 1 Global atmospheric CO<sub>2</sub> monitoring Issue 9 1 3 Net CO<sub>2</sub> fluxes for UK vegetation and soil Issue 9 1 4 Exchange mechanisms in high-latitude wetlands Issue 9 1 5 Greenhouse gas emissions for the whole UK Issue 9 1 6 Soil sinks of methane Theme 9 2 Land-atmosphere-ocean interactions Issue 9 2 1 Improved hydrological representations with GCMs Issue 9 2 4 Dynamic ecosystem modelling Theme 9.3 Forecasting and detecting the impacts of global change Issue 9 3 2 Impacts on the distribution, abundance and behaviour of species and communities Issue 9 3 3 Impacts on the pools and fluxes of carbon and nutrients in ecosystems Integrating generic science Theme 10 1 Environmental assessment, economics and history Issue 10 1 1 Environmental valuation and quantative prediction of environmental impacts Issue 10 1 4 Historical land use change and environmental policy Theme 10 2 Remote sensing Issue 10 2 1 Development, calibration and validation of remote sensing systems and data products Issue 10 2 2 Algorithms and models for estimation of biophysical variable Issue 10 2 3 Use of remote sensing for distributed hydrological and ecosystem modelling Issue 10 2 4 Generic data products from earth observation Issue 10 2 5 Infrastructure facilities Theme 10.3 Instrumentation Issue 10 3 1 Intelligent sensor clusters Theme 10.4 Biotechnology development Issue 10 4 1 Virus replication Theme 10.5 Analytical chemistry Issue 10 5 2 Organic matter quality and characterisation Issue 10 5 5 Sample matrices Issue 10 5 6 Field analytical techniques Issue 10 5 8 Stable isotope facility Theme 10.6 Databases and reference collections Issue 10 6 1 Integrity and accessibility of databases and collections within CEH Issue 10 6 2 Monitoring environmental change Issue 10 6 3 Environmental management Theme 107 Biometrical applications, research and development Issue 10 7 1 Biometrical collaboration Issue 10 7 2 Application and development of biometrical methods Issue 10 7 3 Statistical training

#### Publications by ITE staff

- Refereed papers in journals
- Books, book chapters, conference proceedings, papers and summaries
- Contract reports ITE publications for sale Titles published in 1997-98

#### APPENDIX 5

## Publications by staff at 31 March 1998

#### Refereed papers in journals

(Aminah,H), Dick,J McP & (Grace,J) 1997 Rooting of Shorea leprosula stem cuttings decreases with increasing leaf area Forest Ecology & Management, 91, 247-254

(Appleby,B) & Redpath,S M 1997 Indicators of male quality in the hoots of tawny owls (Strix aluco) Journal of Raptor Research, 31, 65-70

Arah,J & (Hodnett,M) 1997 Approximating soil hydrology in agroforestry models Agroforestry Forum, 8, 14-17

Arah, J.R.M., Thornley, J.H.M., (Poulton, P.R. & Richter, D.D.) 1997 Simulating trends in soil organic carbon in long-term experiments using the ITE (Edinburgh) Forest and Hurley Pasture ecosystem models. Geoderma, 81, 61–74

Arah, J.R.M. 1997. Apportioning nitrous oxide fluxes between nitrification and denitrification using gas-phase mass spectrometry Soil Biology & Biochemistry, 29, 1295–1299

(Bates,J W, Proctor,M CF), Preston,CD, (Hodgetts, N G & Perry, A.R.) 1997 Occurrence of epiphytic bryophytes in a tetrad' transect across southern Britain 1 Geographical trends in abundance and evidence of recent change Journal of Bryology, 19, 685-714

(Baxter, R.), Ashenden, TW & (Farrar, JF) 1997 Effect of elevated CO2 and nutrient status on growth, dry matter partitioning and nutrient content of Poa alpina va vivipara L Journal of Experimental Botany, 48, 1477-1486

(Beaverstock,J, Bell,M, Child,L., Evans,D) & Sheail, J 1997 The National Forest and global environmental sustainability European Environment, 7, 54-62

Bell, S & Ashenden, T W 1997 Spatial and temporal variation in nitrogen dioxide pollution adjacent torural roads Water, Air and Soil Pollution, 95, 87-98

(Bentley, GE, Goldsmith, A.R., Juss, TS) & Dawson, A. 1997 The effects of nerve growth factor and anti-nerve growth factor antibodyon the neuroendocrine reproductive system in the European starling Sturnus vulgaris Journal of Comparative Physiology A, 181, 133-141

(Bentley, GE, Goldsmith, A.R.), Dawson, A. (Glennie, L.M, Talbot, R.T & Sharp, P.J) 1997 Photorefractoriness in European starlings (Sturnus vulgaris) is not dependent upon the long day-induced rise in plasma thyroxine General & Comparative Endocrinology, 107, 428–438

Beresford, N.A., (Crout, N.M.J., Mayes, R.W.), Howard, B.J. & (Lamb, C.S.) 1998 Dynamic distribution of radioisotopes of cerium, ruthenium and silver in sheep tissues Journal of Environmental Radioactivity, 38, 317–338

(Berg,M P , Verhoef,H.A., Bolger,T Anderson, J. M., Beese, F., Couteaux, M. M.), Ineson, P., (McCarthy, F., Palka, L., Raubuch, M., Splatt, P. & Willison, T.) 1997 Effects of air pollutant-temperature interactions on mineral-N dynamics and cation leaching in reciplicate forest soil transplantation experiments *Biogeochemistry* 

(Berg,MP, Verhoef,H.A., Bolger,T therg, Mr, vernoet, H.A., Bolger, I., Anderson, J. M., Beese, F., Couteaux, M. M.), Ineson, P., (McCarthy, F., Palka, L., Raubuch, M., Splatt, P. & Willison, T.) 1997 Effects of air pollutant temperature interactions on mineral-N dynamics and cation leaching in replicate forest soil transplantation experiments Biogeochemistry, 39, 295–326

Black, HIJ & (Okwakol, MJN) 1997 Agricultural intensification, soil biodiversity and agroecosystem function in the tropics the role of termites Applied Soil Ecology, 6, 37-53

(Blackburn,T M, Gaston,KJ, Quinn,R.M), Arnold,H & (Gregory,R.D) 1997 Of mice and wrens the relation between abundance and geographic range size in British mammals and birds Philosophical Transactions of the Royal Society of London B, 352, 419-427

(Blanco-Metzler, H, Villalobos, R., ) Watt, A.D & (Cosens,D) 1997 Efecto del manejo de las malezas en macadamia sobre la población delbarrenador de la nuez Ecdytolopha torticornis (Lep Torticidae) Revista Mesoamericana, 8, 96-

(Blatt, M R., Maurousset, L.) & Meharg, A.A. 1997 High-affinity NO3(-)-H(+) cotransport in the fungus Neurospora induction and control by pH and membrane voltage Journal of Membrane Biology, 160, 59-76

Boorman, L.A. & Ashton, C 1997 The productivity of salt marsh vegetation at Tollesbury, Essex, and Stiffkey, Norfolk, England Mangroves and Salt Marshes, 1, 113-126

(Boxman,A.W, Blanck,K., Brandrud,T-E). Emmett,B.A., (Gundersen,P., Hogervorst,R.F., Kjonaas,O.J., Persson,H. & Timmermann,V.) 1998 Vegetation and soil biota response to experimentally-changed nitrogen inputs in conferous forest ecosystems of the NITREX project Forest Ecology and Management, 101,65-

Boyd, EM, Meharg, A.A., Wright, J & (Killham, K.) 1997 Assessment of toxicological interactions of benzene and its primary degradation products (catechol and phenol) using a lux-modified bacterial bioassay Environmental Toxicology and Chemistry, 16,

Boyd,E M , (Killham,K.), Wright,J , (Rumford,S , Hetheridge,M ,Cumming,R.) & Meharg, A.A. 1997 Toxicity assessment of xenobiotic contaminated groundwater using lux modified Pseudomonas fluorescens Chemosphere, 35, 1967-1985

(Bredemeier, M, Blanck, K., Xu, Y-J, Tietema,A., Boxman,A.W.), Emmett,B.A., (Moldan,F., Gundersen,P., Schleppi,P. & Wright,R.F.) 1998 Input-output budgets at the NITREX sites Forest Ecology and Management,

(Briones,M,J I ), Ineson,P & (Piearce,T G ) 1997 Effects of climate change on soil fauna responses of enchytraeids, Diptera larvae and tardigrades in a transplant experiment Applied Soil Ecology, 6, 117–134

(Brown,R.H.A.), Cape J N & (Farmer J G ) 1998 Partitioning of chlorinated solvents between pine needles and air Chemosphere, 8, 1799-1810

Bull, K.R. & Sutton, M.A. 1998 Critical loads and the relevance of ammonia to an effects-based nitrogen protocol Atmospheric Environment, 32, 565-572

(Burkhardt,J), Sutton,M.A., Milford,C Storeton-West, R.L. & Fowler, D 1998 Ammonia concentrations at a site in Southern Scotland from 2 vr of continuous measurements Atmospheric Environment, 32, 325-331

(Calladine, J) & Harris, M P 1997 Intermittent breeding in the Herring Gull Larus argentatus and the Lesser Black-backed Gull Larus fuscus Ibis, 139, 259-263

(Camphuysen,C.J., Duiven,P.), Harris,M.P. & (Leopold,M.F.) 1997 Recoveries of guillemots

ringed in the Netherlands the survival of rehabilitated oiled seabirds Sula, 11, 157-174

Cannell, M G R., Fowler, D & Pitcairn, C E R. 1998 Climate change and pollutant impacts on Scottish vegetation *Botanical Journal of Scotland*, 49, 301–313

Cape, J. N., Hargreaves, K.J., Storeton-West, R.L., (Jones, B., Davies, T., Colvile, R.N., Gallagher, M.W., Choularton, T.W., Pahl, S., Berner, A., Kruisz, C., Bizjak, M., Laj, P., Facchini, M.C., Fuzzi, S., Arends, B.G., Acker, K., Wieprecht, W, Harrison, R.M & Peak, JD) 1997 The budget of oxidised nitrogen species in orographic clouds Atmospheric Environment, 31, 2625—

Cape J N 1997 Photochemical oxidants - what else is in the atmosphere besides ozone? Phyton (Horn), 37, 45-

Cape,J N & (Percy,K.E.) 1998 Use of needle epicuticular wax chemical composition in the early diagnosis of Norway spruce (Picea abies (L) Karst) decline in Europe Chemosphere, 36, 895-900

Cape JN, Sheppard, LJ, Binnie, J& Dickinson, A.L. 1998 Enhancement of the dry deposition of sulphur dioxide to a forest in the presence of ammonia Atmospheric Environment, 32, 519-524

(Carnol,M), Ineson,P & Dickinson,A.L. Soil solution nutrogen and cations influenced by (NH4)2SO4 deposition in aconiferous forest Environmental Pollution, 97, 1-10

(Carnol,M), Ineson,P, (Anderson,J M, Beese,F, Berg,MP, Bolger,T, Couteaux,M-M, Cudlin,P, Dolan,S, Raubuch,M & Verhoef,H.A.) 1997 The effects of ammonium sulphate deposition and root sinks on soil solution chemistry in conferous forest soils Biogeochemistry, 38, 255-280

Carreira, J.A., Harrison, A.F., Sheppard, L.J. & Woods, C. 1997 Reduced soil Pavailability in a Sitka spruce (*Picea sitchensis* (Bong.) Carr.) plantation induced by applied acid-mist, significance in forestdecline Forest Ecology and Management, 92, 153-166

Carss, DN & Marquiss, M 1997 The diet of cormorants Phalacrocorax carbo in Scottish freshwaters in relation to feeding habitats and fisheries Ekologia Polska, 45, 207–

Chadwick,D R., Ineson,P , Woods,C & (Piearce,T G ) 1998 Decomposition of Pinus sylvestris litter in litter bags influence of underlying native litter layer Soil Biology & Biochemistry, 30, 47-55

(Chen.J M , Rich,P M , Gower,S T , Norman.J M ) & Plummer.S 1997 Leaf area index of boreal forests theory, techniques, and measurements Journal of Geophysical Research D, 102, 29429-29443

(Choularton,T W, Colvile,R.N, Bower,K.N, Gallagher,M W, Wells,M, Beswick,K.M, Arends B G, Mols,J.J., Kos,G P.A., Fuzzi,S, Lind,J.A., Orsi,G, Facchini,M C, Laj,P, Gieray,R., Wieser,P, Engelhardt,T, Berner,A., Kruisz,C, Moller,D, Acker,K., Wieprecht,W, Luttke,J, Levsen,K., Bizjak,M, Hansson,H-C, Cederfelt,S-I, Frank,G, Mentes,B, Martinsson,B, Orsini,D, Svenningsson,B, Swietlicki E, Wiedensohler A, Noone K I, Pahl S. Mentes, B., Martinsson, B., Orsini, D., Svenningsson, B., Swietlicki, E., Wiedensohler, A., Noone, K.J., Pahl, S., Winkler, P., Seyffer, E., Helas, G., Jaeschke, W., Georgil, H. W., Wobrock, W., Preiss, M., Maser, R., Schell, D., Dollard, G., Jones, B., Davies, T., Sedlak, D. L., David, M. M., Wendisch, M.), Cape, J. N., Hargreaves, K.J., Sutton, M.A., Storeton-West, R.L., Fowler, D., (Hallberg, A., Harrison, R.M. & Peak, J. D.) 1997 The Great Dun Fell Cloud Experiment 1993 an overview Atmospheric Environment, 31, 2393–2405

Clarke, R.T., Thomas J.A., Elmes, G.W. & (Hochberg, M.E.) 1997. The effects of spatial pattern in habitat quality on community dynamics within a site. Proceedings of the Royal Society, series B, 264, 347-354

(Colvile, R.N, Bower, K.N, Choularton, TW,

- Gallagher, MW, Beswick, K.M, Arends, BG, Kos, GP.A., Wobrock, W, Schell, D), Hargreaves, K.J., Storeton-West, R.L., Cape, JN, (Jones, BMR., Wiedensohler, A., Hansson, K.-C, Wendisch, M, Acker, K., Wieprecht, W, Pahl, S, Winkler, P, Berner, A., Kruisz, C& Gieray, R.) 1997 Meteorology of the Great Dun Fell Cloud Experiment 1993 Atmospheric Environment, 31, 2407–2420
- (Cornelissen, J. H. C., Werger, M.J.A., Castro-Diez, P., van Rheenen, J. W.A.) & Rowland, A.P. 1997 Foliar nutrients in relation to growth, allocation and leaf traits in seedlings of a wide range of woody plant species and types Oecologia, 111, 460–469
- (Crabtree, J. R.), Bayfield, N. G., (Wood, A.M., MacMillan, D. C. & Chalmers, N.A.) 1997 Evaluating the benefits from farm woodland planting *Scottish Forestry*, 51, 84–92
- Crossley, A., Sheppard, L.J., Cape, J.N., Smuth, R.I. & Harvey, F.J. 1997 Stem growth reduction in mature Sitka spruce trees exposed to acid mist *Environmental Pollution*, 96, 185–193
- (Crout,N MJ, Mayes,R.W), Beresford,N.A., (Lamb,C S) & Howard,BJ 1998 A metabolic approach to simulating the dynamics of C-14, H-3 and S-35 in sheep tissues *Radiation and Environmental Biophysics*, 36, 243-250
- (Crout,N MJ), Beresford,N.A., Howard,BJ, (Mayes,R.W. & Hansen,H S) 1998 A model of radiostrontium transfer in dairy goats based on calcium metabolism *Journal of Dairy Science*, 81, 92-99
- Daniels, R.E., (McDonnell, E.J.) & Raybould, A.F. 1998 The current status of *Rumex rupestris* in England, and threats to its survival and genetic diversity *Watsonia*, 22, 33–39
- Dawson, A. 1997 Plasma-luteinizing hormone and prolactin during circannual rhythms of gonadal maturation and molt in male and female European starlings *Journal of Biological Rhythms*, 12, 371–377
- Dawson, A. & (Goldsmith, A.R.) 1997 Changes in gonadotrophin-releasing hormone (GnRH-I) in the pre-optic area and median eminence of starlings (Sturnus vulgaris) during the recovery of photosensitivity and during photostimulation Journal of Reproduction and Fertility, 111, 1-6
- Dawson, A. & (Sharp, P.J.) 1998 The role of prolactin in the development of reproductive photorefractoriness and postnuptial molt in the European starling (Sturnus vulgaris) Endocrinology, 139, 485–490
- Dawson, A. 1998 Photoperiodic control of the termination of breeding and the induction of moult in House sparrows *Passer domesticus Ibis*, 140, 35–40
- (Dell'Omo,G), Shore,R.F & (Lipp,H-P) 1998 An automated system, based on microchips, for monitoring individual activity in wild small mammals *Journal of Experimental Zoology*, 280, 97-99
- (Dighton, J), Jones, HE, (Robinson, C) & Beckett, J 1997 The role of abiotic factors, cultivation practices and soil fauna in the dispersal of genetically modified microorganisms in soils Applied Soil Ecology, 5, 109–131
- (Dover, J. W.), Sparks, T. H. & Greatorex-Davies, J. N. 1997. The importance of shelter for butterflies in open landscapes. *Journal of Insect Conservation*, 1, 89–97.
- (Duquenne,P), Parekh,N R., (Catroux,G & Fournier,J -C) 1996 Effect of inoculant density, formulation, dispersion and soil nutrient amendment on the removal of carbofuran residues from contaminated soil Soil Biology and Biochemistry, 28, 1805–1811
- Durell, S.E.A. Le V dit, Goss-Custard, J.D. & Clarke, R.T. 1997 Differential response of migratory subpopulations to winter habitat loss *Journal of Applied Ecology*, 34, 1155–1164
- **Dursun,S** 1997 Effects of aluminium on mycelial growth of *Phoma exigua* Pers *Kukem Dergisi*, **20**, 69–76
- (Dury, S.J.), Good, J. E. G., Perrins, C. M., Buse, A. & Kaye, T. 1998. The effects of increasing CO2 and temperature on oak leaf palatability and the implications for herbivorous insects. *Global Change Biology*, 4, 55–61.
- Eastwood,J.A., Yates,M.G., Thomson,A.G. & Fuller,R.M. 1997. The reliability of vegetation indices for monitoring saltmarsh vegetation cover

- International Journal of Remote Sensing, 18, 3901–3907
- (Effendi,R., Saradin,A.), Munro,R., Ingleby,K. & Scott,R. 1997 Impact of forest clearance on growth and mycorrhizal infection of natural regenerating Dipterocarp seedlings Bulletin Penelitian Kebutanan, 9, 10–22
- Emmett,B.A., (Kjonaas,O.J., Gundersen,P., Koopmans,C., Tietema,A.) & Sleep,D 1998 Natural abundance of 15N in forests across a nitrogen deposition gradient Forest Ecology & Management, 101, 9–18
- Emmett,B.A., (Cosby,B.J., Ferrier,R.C., Jenkins,A., Tietema,A. & Wright,R.W.) 1998 Modelling the ecosystem effects of nitrogen deposition simulation of nitrogen saturation in a Sitka spruce forest, Aber, Wales, UK. Biogeochemistry, 38, 129–148
- Emmett,B.A., Reynolds,B., (Silgram,M.), Sparks,T.H. & Woods,C. 1998. The consequences of chronic nitrogen additions on N cycling and soilwater chemistry in a N saturated Sitka spruce stand, North Wales. Forest Ecology & Management, 101, 165–175.
- (Feakin,S.J., Gubbins,B., McGhee,I.), Shaw,L.J. & (Burns,R.G.) 1995 Inoculation of granular activated carbon with s-triazine-degrading bacteria for water treatment at pilot-scale Water Research, 29, 1681–1688 (Feber,R.E.).
- Firbank, L.G., (Johnson, P.J. & MacDonald, D.W.) 1997 The effects of organic farming on pest and non-pest butterfly abundance Agriculture, Ecosystems and Environment, 64, 133–139
- (Foot J P, Caporn, S J M, Lee J.A.) & Ashenden, T W. 1997 Evidence that ozone exposure increases the susceptibility of plants tonatural frosting episodes *New Phytologist*, 135, 360.374
- Fowler,D, Flechard,CR., Sutton,M.A. & Storeton-West,R.L. 1998 Long-term measurements of the land-atmosphere exchange of ammonia over moorland *Atmospheric Environment*, 32.453–459
- Frankland, J C. 1998 Fungal succession unravelling the unpredictable *Mycological Research*, 102, 1–15
- (Freeman, C, Lock, M.A., Hughes, S,) Reynolds, B& (Hudson, J.A.) 1997 Nitrous oxide emissions and the use of wetlands for water quality amelioration *Environmental Science & Technology*, 31, 2438–2440
- (Freeman, C., Liska, C., Ostle, N.J., Lock, M.A.), Hughes, S., Reynolds, B. & (Hudson, J.A.) 1997 Enzymes and biogeochemical cycling in wetlands during a simulated drought *Biogeochemistry*, 39, 177–187
- Friend,A.D., Stevens,A.K., (Knox,R.G.) & Cannell,M.G.R. 1997. A process-based, terrestrial biosphere model of ecosystem dynamics (Hybridv3 0). Ecological Modelling, 95, 249–287.
- (Gardner, S M ), Hartley, S E , (Davies, A.) & Palmer, S 1997 Carabid communities on heather moorlands in North East Scotland the consequences of grazing pressure for community diversity Biological Conservation, 81, 275–286
- Garnett, M H, Ineson, P & Adamson, J K. 1997 A long-term upland temperature record no evidence for recent warming *Weather*, 52, 342– 351
- Gerard, F. F. & North, P. R.J. 1997. Analyzing the effect of structural variability and canopy gaps on forest BRDF using a geometric-optical model. Remote Sensing of Environment, 62, 46–62.
- (GibbJ O T ), Svendsen, C, Weeks J M & (Nicholson, J K.) 1997 1H NMR spectroscopic investigations of tissue metabolite biomarker response to Cu(II) exposure in terrestrial invertebrates identification of free histidine as a novel biomarker of exposure to copper in earthworms *Biomarkers*, 2, 295–302
- (GibbJ O T, Holmes, E, Nicholson, J K.) & Weeks, J M 1997 Proton NMR spectroscopic studies on tissue extracts of invertebrate species with pollution indicator potential Comparative Biochemistry & Physiology, 118B, 587–598
- Gillies, A.C. M., (Cornelius, J.P., Newton, A.C., Navarro, C., Hernandez, M.) & Wilson, J. 1997 Genetic variation in Costa Rican populations of the tropical timber species *Cedrela odorata* L., assessed using RAPDs *Molecular Ecology*, 6, 1133–1145

- Goss-Custard, J.D., (Ross, J.), McGrorty, S., Durell, S.E.A. Le V dit, Caldow, R.W.G. & West, A.D. 1998 Locally stable wintering numbers in the oystercatcher *Haematopus ostralegus* where carrying capacity has not been reached *Ibis*, 140, 104-112.
- **Gray, A.** 1996 Genetic diversity and its conservation in natural populations of plants *Biodiversity Letters*, 3, 71–80
- (Grigor,P N, Goddard,PJ, Cockram,M S), Rennie,S C & (MacDonald,AJ) 1997 The effects of some factors associated with transportation on the behavioural and physiological reactions of farmed red deer Applied Animal Behaviour Science, 52, 179–189
- (Grime, J. P., Thompson, K., Hunt, R., Hodgson, J. C., Cornelissen, J. H. C., Rorison, I. H., Hendry, G.A.F.), Ashenden T. W., (Askew, A.P.), Band, S. R., Booth, R.E., Bossard, C. C., Campbell, B. D., Cooper, J. E. L., Davison, A.W., Gupta, P. L., Hall, W., Hand, D. W., Hannah, M.A., Hillier, S. H., Hodkinson, D.J., Jalili, A., Liu, Z., Mackey, J. M. L., Matthews, N., Mowforth, M.A., Neal, A.M., Reader, R.J., Reiling, K., Ross-Fraser, W., Spencer, R.E., Sutton, F., Tasker, D. E., Thorpe, P. C. & Whitehouse, J.) 1997. Integrated screening validates primary axes of specialisation in plants. Oikos, 79, 259–281
- (Gundersen,P), Emmett,B.A., (Kjonaas,O.J, Koopmans,C.J & Tietema,A.) 1998 Impact of nitrogen deposition on nitrogen cycling in forests a synthesis of NITREX data Forest Ecology & Management, 101, 37–55
- (Harreus,D, Hohler,H-R.) & Weeks,J M 1997 Combined non-invasive cell isolation and neutral-red retention assay for measuring the effects of copper on the Lumbricid Aporrectodea rosea(Savigny) Bulletin of Environmental Contamination and Toxicology, 59, 44–49
- Harris, MP, Wanless, S, (Barton, TR. & Elston, D.A.) 1997 Nest site characteristics, duration of use and breeding success in the Guillemot *Uria aalge Ibis*, 139, 468–476
- Harris, MP, (Baillie, SR. & Dudley, C) 1997 Ringing recoveries and colony attendance of Isle of May guillemots *Seabird*, 19, 31–39
- Harris, M P & Wanless, S 1997 The effect of removing large numbers of gulls Larus spp on an island population of oystercatchers *Haematopus* ostralegus implications for management *Biological Conservation*, 82, 167–171
- Harris, M. P. & Wanless, S. 1997 Breeding success, diet, and brood neglect in the kittiwake (Rissatri dactyla) over an 11-year period ICES Journal of Marine Science, 54, 615–623
- Harris, M.P., (Freeman, S.N.), Wanless, S., (Morgan, B.J.T. & Wernham, C.V.) 1997. Factors influencing the survival of puffins Fratercula arctica at a North Sea colony over a 20-year period Journal of Avian Biology, 28, 287–295.
- Harris, M. P. & Wanless, S. 1997 Successful rehabilitation of oiled guillemots *Uria aalge Sula*, 11, 183–185
- Harris, M P & Wanless, S 1997 Inland nesting by Razorbills Scottisb Birds, 19, 121–122
- Hartley, J, (Cairney, J W G) & Meharg, A.A. 1997 Do ectomycorrhizal fungi exhibit adaptive tolerance to potentially toxicmetals in the environment? *Plant and Soil*, 189, 303–319
- Hartley J, (Cairney J W G, Sanders, F E.) & Meharg, A.A. 1997 Toxic interactions of metal ions (Cd2+, Pb2+, Zn2+ and Sb3-) on in vitro biomass production of ectomycorrhizal fungi New Phytologist, 137, 551–562
- Hartley, S. E., (Iason, G. R., Duncan, A.J. & Hitchcock, D.) 1997 Feeding behaviour of red deer (*Cervus elaphus*) offered Sitka spruce saplings (*Picea sitchensis*) grown under different light and nutrient regimes *Functional Ecology*, 11, 348–357
- Hartley, S E 1997 The effects of grazing and nutrient inputs on grass-heather competition *Botanical Journal of Scotland*, 49, 317–326
- Hartley, S E. 1998 The chemical composition of plant galls are levels of nutrients and secondary compounds controlled by the gall-former? Oecologia, 113, 492–501
- (Heal, M.R.) & Cape, J. N. 1997. A numerical evaluation of chemical interferences in the measurement of ambient nitrogen dioxide by passive diffusion samplers. *Atmospheric Environment*, 31, 1911–1923.

- (Hendry,R.,) Bacon,P.J., Moss,R., Palmer,S C F & (McGlade,J.) 1997 A two-dimensional individual-based model of territorial behaviour possible population consequences of kinship in red grouse Ecological Modelling, 105, 23–29
- (Hill,D , Hockin,D , Price,D , Tucker,G , Morris,R.) & Treweek,J 1997 Bird disturbance improving the quality and utility of disturbance research Journal of Applied Ecology, 34, 275-289
- Hill,MO & Carey,PD 1997 Prediction of yield in the Rothamsted Park Grass Experiment by Ellenberg indicator values Journal of Vegetation Science, 8, 579-586
- Hitchcock, P, (Gray, T.R.G) & Frankland, J. C. 1997 Production of a monoclonal antibody specific to Mycena galopus mycelium Mycological Research, 101, 1051-1059
- Hodder, K.H & Bullock, J M 1997 Translocations of native species in the UK implications for biodiversity *Journal of Applied* Ecology, 34, 547-565
- (Hodge,I) & McNally,S 1997 To the rural White Papers and beyond *Journal of* Environmental Planning and Management, 40, 375-376
- (Hope,D, Billet,MF), Milne,R. & Brown, T.A.W 1997 Exports of organic carbon in British rivers Hydrological Processes, 11, 325-344
- Hornung,M , (Dyke,H , Hall,J R. & Metcalfe, SE) 1997 The critical load approach to air pollution control Issues in Environmental Science and Technology, 8, 119-140
- (Horvath.L.) & Sutton.M.A. 1998 Long-term record of ammonia and ammonium concentrations at K-puszta, Hungary Atmospheric Environment, 32, 339-344
- (House, W.A., Leach, D, Long J L.A., Cranwell, P, Smith, C, Bharwaj, L.), Meharg, A.A., (Ryland, G, Orr, DO) & Wright, J 1997 Micro-organic compounds in the Humber rivers Science of the Total Environment, 194/195, 357-371
- Howard, B.J., Beresford, N.A., (Mayes, R.W Hansen, H S, Crout, N MJ & Hove, K.) 1997 The use of dietary calcium intake of dairy ruminants to predict the transfer coefficient of radiostrontium to milk. Radiation and Environmental Biophysics, 36, 39–43
- Howard, P.J.A. 1997 Analysis of data from BIOLOG plates comments on the method of Garland and Mills [Letter to the editor] Soil Biology & Biocebmistry, 29, 1755-175
- Howe, PD 1998 Predicting the effects of pesticides on birds *Pesticide Outlook*, 9, 13–17
- (Huang, Y, Eglinton, G), Ineson, P, Latter, PM, (Bol, R. & Harkness, DD) 1997 Absence of carbon isotope fractionation of individual n-alkanes in a 23-year field decomposition experiment with Calluna vulgaris Organic Chemistry, 26, 497-501
- (Hutchings,M.J., Turkington,R.), Carey,P & (Klein,E.) 1997 Morphological plasticity in *Trifolium repens* L. the effects of clonegeno type, soil nutrient level, and the genotype of conspecific neighbours Canadian Journal of Botany, 75, 1382-1393
- Ineson,P, Cortrufo,MF, (Bol,R., Harkness,DD & Blum,H) 1996 Quantification of soil carbon inputs under elevated CO2 C3 plants in a C4soil Plant and Soil, 187, 345-350
- Ineson,P, (Taylor,K.), Harrison,A.F, PoskittJ, Benham,DG, (Tipping,E & Woof,C) 1998 Effects of climate change on nitrogen dynamics in upland soils 1 A transplant approach Global Change Biology, 4, 143–152
- Ineson,P, Benham,DG, PoskittJ, Harrison,A.F, (Taylor,K.) & Woods,C 1998 Effects of climate change on nitrogen dynamics in upland soils 2 A soil warming study Global Change Biology, 4, 153–161
- Ineson,P, Coward,P.A. & (Hartwig,U.A.) 1998 Soil gas fluxes of N2O, CH4 and CO2 beneath Lolium perenne under elevated CO2 the Swiss free air carbon dioxide enrichment

- experiment Plant & Soil, 198, 89-95
- Ingleby, K., (Diagne, O), Deans, JD, Lindley,D K., (Neyra,M & Ducousso,M) 1997 Distribution of roots, arbuscular mycorrhizal colonisation and spores around fast-growing tree species in Senegal Forest Ecology and Management, 90, 19-27
- (Jacobs,M N , Johnston,P.A.), Wyatt,C L., (Santillo,D ) & French,M C 1997 Organochlorine pesticide and PCB residues in pharmaceutical, industrial and food grade fish oils International Journal of Environment and Pollution, 8, 74-93
- (Jones, R.I, Grey, J), Sleep, D & Quarmby, C 1998 An assessment, using stable isotopes, of the importance of allochthonous organic carbon sources to the pelagic food web in Loch Ness Proceedings of the Royal Society of London B, 265, 105-111
- Kennedy,V H, Sanchez,A.L., (Oughton,D H) & Rowland, A.P 1997 Use of single and sequential chemical extractants to assess radionuclideand heavy metal availability from soils for root uptake The Analyst, 122, 89-100
- Kenward, R.E, Hodder, K.H, Rose, R.J Walls, C.A., Parish, T, (Holm, J L, Morris, P.A., Walls, S & Doyle, F I) 1998 Comparative demography of red squirrels (Sciurus vulgaris) and grey squirrels (Sciurus carolinensis) in deciduous and conifer woodland Journal Of Zoology, 244, 7-21
- Kenward, R.E 1997 Inferring sustainable yields for raptor populations Journal of Raptor Research, 31, 295-296
- Kenward, R.E & Hodder, K.H 1998 Red squirrels (Sciurus vulgaris) released in conifer woodland the effects of source habitat, predation and interactions with grey squirrels (Sciurus carolinensis) Journal of Zoology, 244,
- (Kerslake,JE) & Hartley,SE 1997 Phenology of winter moth feeding on common heather effects of source population and experimental manipulation of hatch dates Journal of Animal Ecology, 66, 375–385
- (Kitchener, A.C) & Conroy, J W H 1997 The history of the Eurasian beaver Castor fiber in Scotland Mammal Review, 27, 95-108
- Kruuk,H, Taylor,PT & Mom,G.A.T 1997 Body temperature and foraging behaviour of the Eurasian otter (Lutra lutra), in relation to water temperature Journal of Zoology, 241, 689-697
- Kruuk,H, Conroy,JWH&Webb,A. 1997 Concentrations of mercury in otters (Lutra lutra L) in Scotland in relation to rainfall Environmental Pollution, 96, 13-18
- (Kupcinskiene,E) & Ashenden,T 1997 The effects of SO2 and NO2 on plants from contrasting habitats Botanica Lithuanica, Suppl 1, 147-149
- (Kupcinskiene, E.A.) & Ashenden, TW 1997 Effects of low concentration mixtures of acidic atmospheric pollutants on plants in controlled condition experiments Environmental Enginering, 1, 16–21
- (Kupcinskiene,E.A.), Ashenden,T W , Bell,S.A., Williams,T G , Edge,C P & Rafarel, C. R. 1997 Responses of Agrostis capillaris to gaseous pollutants and wet nitrogen deposition Agriculture, Ecosystems & Environment, 66, 89-99
- Lane, A.M.J 1997 The UK environmental change network database an integrated information resource for long-term monitoring and research Journal of Environmental Management, **51**, 87–105
- Latter,P M , Howson,G , Howard,D M & Scott,W.A. 1998 Long-term study of litter decomposition on a Pennine peat bog which regression? *Oecologia*, 113, 94–103
- Lawson,G.J & (Wright,H L.) 1997 Agroforestry in British overseas aid programmes Agroforestry Forum, 8, 49-52
- (Lawton, J H, Bignell, D E, Bolton, B, Bloemers, GF, Eggleton, P, Hammond, PM, Hodda,M, Holt,R.D, Larsen,TB, Mawdsley,N.A., Stork,NE, Srivastava,DS) & Watt,A.D 1998 Biodiversity inventories, indicator taxa and effects of habitat modification in tropical forest Nature, 391,

- **Leakey,R.R.B & (Sanchez,P.A.)** 1997 How many people use agroforestry products? *Agroforestry* . Today, 9, 4–5
- Leakey,R.R.B & (Simons,A.J.) 1998 The domestication and commercialization of indigenous trees in agroforestry for the alleviation of poverty Agroforestry Systems, 38, 165-176
- (Liao,L-P), Lindley,D K. & (Yang,Y-H) 1997 Decomposition of mixed foliar litter I A microcosm study Chinese Journal of Applied Ecology, 8, 459-
- Lindley,D K., (Diagne,O), Deans,J D & (Dione,M) 1997 Nutrient budgets in a chronosequence of Acacia senegal plantations in a Sahelian savannah Agroforestry Forum, 8, 27–30
- Luckman,A., (Frery,A., Yanasse,C C F) & Groom,G B 1997 Texture in airborne SAR imagery of tropical forest and its relationship to fore regeneration stage International Journal of Remote Sensing, 18, 1333–1349
- (Luttke, J., Scheer, V., Levsen, K., Wunsch, G.), Cape, J. N., Hargreaves, K.J., Storeton-West, R.L., (Acker, K., Wieprecht, W. & Jones, B.) 1997 Occurrence and formation of nitrated phenols in and out of cloud Atmospheric Environment, 31, 2637-2648
- MacDonald, J.A., Skiba, U., Sheppard, L.J., (Ball, B.), Roberts, J.D., (Smith, K.A.) & Fowler, D. 1997. The effect of nitrogen deposition and seasonal variability on methane oxidation and nitrous oxide emission rates in an upland spruce plantation and moorland Atmospheric Environment, 31, 3693–3706
- (Mack, E L.), Firbank, L.G, Bellamy, P E Hinsley, S.A. & Veitch, N 1997 The comparison of remotely sensed and ground-based habitat area data using species-area models Journal of Applied Ecology, 34, 1222-1228
- (Marrs, R.H ) & Frost, A.J 1997 A microcosm approach to the detection of the effects of herbicide spraydrift in plant communities Journal of Environmental Management, 50, 369-388
- Massei,G, (Genov,PV), Staines,BW & (Gorman ML) 1997 Mortality of wild boar, Sus scrofa, in a Mediterranean area in relation to sex and age Journal of Zoology, 242, 394-400
- Massei,G, (Genov,PV), Staines,BW & (Gorman,M L.) 1997 Factors influencing home range and activity of wild boar Sus scrofa in a Mediterranean coastal area Journal of Zoology, 242, 411-423
- (Matthews, R.B) & Lawson, G.J 1997 Structure and applications of the HyCAS model Agroforestry Forum, 8, 14-17
- McGrorty,S 1997 Winter growth of mussels Mytilus edulis as a possible counter to food depletion by oystercatchers Haematopus ostralegus Marine Ecology Progress Series, 153, 153-165
- (McTiernan, K.B), Ineson, P & Coward, P.A. 1997 Respiration and nutrient release from tree litter mixtures Oikos, 78, 527-538
- Meharg,A.A., Shore,R.F., Weeks,J.M., Osborn,D., Freestone,P. & French,M.C. 1997 Food-chain transfers of cadmium released into a woodland ecosystem by a chemical accident Toxicological and Environmental Chemistry, 59, 167–178
- Meharg,A.A., (Dennis,G R. & Cairney,J W G ) 1997 Biotransformation of 2,4,6-trinitrotoluene (TNT) by ectomycorrhizal basidiomycetes Cbemosphere, 35, 513-521
- Meharg,A.A., (Cairney,J W G & Maguire,N) 1997 Mineralization of 2,4-dichlorophenol by ectomycorrhizal fungi in axenic culture and in symbiosis with pine Chemosphere, 34, 2495-2504
- Meharg, A.A., Shore, R.F., French, M.C. & Osborn, D 1997 Dioxin and furan residues in wood mice (Apodemus sylvaticus) following a large scale polyvinyl chloride (PVC) fire Environmental Pollution, 97, 213–220
- (Mesen,F), Newton,A.C & Leakey,R.R.B 1997 Vegetative propagation of *Cordia alliodora* (Ruiz & Pavon) Oken the effects of IBA concentration, propagation medium and cutting origin Forest Ecology and Management, 92, 45-54
- (Mesen,F, Newton,A.C) & Leakey,R.R.B 1997 The effects of propagation environment and foliar area on the rooting physiology of Cordia alliodora (Ruiz & Pavon) Oken cuttings Trees, 11, 404-411
- Milne, R. & Brown, T.A. 1997 Carbon in the vegetation and soils of Great Britain Journal of Environmental Management, 49, 413-433
- Mobbs,D C, (Crout,N MJ), Lawson,GJ &

- Cannell, MGR. 1997 Structure and applications of the HyPAR model Agroforestry Forum, 8, 10-
- Montesth, J. L. 1997 Agroforestry modelling a view from the touchline Agroforestry Forum, 8,
- (Moody,A.L., Thompson,W.A., de Bruijn,B , Houston,A.I ) & Goss-Custard,J D 1997 The analysis of the spacing of animals, with an example based on oystercatchers during the tidal cycle Journal of Animal Ecology, 66, 615-
- (Morel-Chevillet,C), Parekh,N R., (Pautrel,D & Fournier J - C ) 1996 Cross-enhancement of carbofuran biodegradation in soil samples previouslytreated with carbamate pesticides Soil Biology and Biochemistry, 28, 1767-1776
- Moss,R. 1997 Grouse and ptarmigan nutrition in the wild and in captivity Proceedings of the Nutrition Society, 56, 1137–1145
- (Murray, S) & Wanless, S 1997 The status of the Gannet in Scotland in 1994-95 Scottish Birds, 19, 10-27
- (Neal,C, Robson,A.J, Shand,P, Edmunds, W M , Dixon, A.J , Buckley, D K., Hill, S , Harrow, M , Neal, M , Wilkinson, J ) & Reynolds, B 1997 The occurrence of groundwater in the Lower Palaeozoic rocks of upland Central Wales Hydrology and Earth System Sciences, 1, 3-18
- (Neal,C , Hill,T ), Alexander,S , Reynolds,B , (Hill, S, Dixon, A.J, Harrow, M, Neal, M & Smith, C.J) 1997 Stream water quality in acid sensitive UK upland areas, an example of potential water quality remediation based on groundwater manipulation Hydrology & Earth System Sciences, 1, 185-196
- Newsham, K.K., McLeod, A.R., Roberts, J.D., Greenslade, PD & Emmett, B.A. 1997 Direct effects of elevated UV-B radiation on the decomposition of Quercus robur leaf litter Oikos, 79, 592-602
- Newsham,K.K., (Lewis,G C), Greenslade,P D & McLeod,A.R. 1998 Neotypbodium lolit, a fungal leaf endophyte, reduces fertility of Lolium perenne exposed to elevated UV-B radiation Annals of Botany, 81, 397-403
- Newton,I & Dale,L.C 1997 Effects of seasonal migration on the latitudinal distribution of west Palaearctic bird species Journal of Biogeography, 24, 781-789
- (Ofori,D , Newton,A.C ), Leakey,R.R.B & (Grace J) 1997 Vegetative propagation of Milicia excelsa by leafy stem cuttings effects of maturation, coppicing, cutting length and position on rooting ability Journal of Tropical Forest Science, 10, 115–129
- Pakeman,R.J , (Le Duc,M G & Marrs,R.H ) 1997 Moorland vegetation succession after the control of bracken with asulam Agriculture, Ecosystems & Environment, 62, 41-52
- Pakeman, R.J & (Marshall, A.G.) 1997 The seedbanks of the Breckland heaths and heath grasslands, eastern England, and their relationship to the vegetation and the effects of management Journal of Biogeography, 24, 375-
- Parekh.N R., (Hartmann.A. & Fournier I-C) 1996 PCR detection of the mcd gene and evidence of sequence homology between the degradative genes and plasmids from diverse carbofuran-degrading bacteria Soil Biology and Biochemistry, 28, 1797–1804
- (Patterson,I,J), Massei,G & (Genov,P) 1997 The density of cicadas Cicada orni in Mediterranean coastal habitats Italian Journal of Zoology, 64, 141-146
- (Pearman, D.A.), Preston, CD, Roy, DB & (Stewart,A.) 1998 The use of B S B I Monitoring Scheme dates to predict nationally scarce species in Britain Watsonia, 22, 21-28
- Pearson,B, Raybould,A.F & Clarke,R.T 1997 Temporal changes in the relationship between observed and expected sex-investment frequencies, social structure and intraspecific parasitism in Leptotborax tuberum (Formicidae) Biological Journal of the Linnean Society, 61, 515-536
- Pearson, B & Raybould, A.F 1998 The effects of antibiotics on the development of larvae and the possible role of bacterial load in caste determination and diapause in Myrmicarubra

- (Hymenoptera formicidae) Sociobiology, 31, 77-
- (Piertney, SB, Goostrey, A., Dallas, JF) & Carss, DN 1998 Highly polymorphic micro satellite markers in the great cormorant Pbalacrocorax carbo Molecular Ecology, 7, 133-
- (Pollard,E), Greatorex-Davies,JN & Thomas,J.A. 1997 Drought reduces breeding success of the butterfly Aglass urticae Ecological Entomology, 22, 315-318
- (Pollard,E, Woiwod,IP), Greatorex-Davies J N, Yates, T, J, & (Welch, R.C.) 1998 The spread of coarse grasses and changes in numbers of lepidoptera in a woodland nature reserve Biological Conservation,
- (Polle, A., Eıblmeier, M), Sheppard, L. & Murray,M 1997 Responses of antioxidative enzymes to elevated CO2 in leaves of beech(Fagus sylvatica L) seedlings grown under a range of nutrient regimes Plant Cell and Environment, 20, 1317-1321
- (Prendergast,J.R.) & Eversham,B.C. 1997 Species richness covariance in higher taxa empirical tests of the biodiversity indicator concept Ecography, 20, 210-216
- Preston, C D & Hill, M O 1997 The geographical relationships of British and Irish vascular plants Botanical Journal of the Linnean Society, 124, 1-120
- Preston, CD 1997 The genus Rosa in Cambridgeshire (v c 29) an interim account Nature in Cambridgesbire, 39, 40-53
- Preston, CD, Roy, DB & Hill, MO 1997 The phytogeography of Scotland Botanical Journal of Scotland, 49, 191-204
- Preston,C D , (Bailey,J P & Hollingsworth,P M ) 1998 A reassessment of the hybrid Potamogeton x gessnacensis G Fisch (P Natans x P polygonifolius, Potamogetonaceae) in Britain Watsonia, 22, 61-68
- Preston, CD, (Hollingsworth, PM & Garnall, R.J.) 1998 Potamogeton pectinatus L. x P vaginatus Turcz. (P x bottonicus Hagstr), a newly identified hybrid in the British Isles Watsonia, 22, 69-82
- Pywell,R.F , (Putwain,P D ) & Webb,N R. 1997 The decline of heathland seed populations following the conversion to agriculture Journal of Applied Ecology, 34, 946-960
- (Quinn,R.M, Gaston,K.J) & Roy,D B 1997 Coincidence between consumer and host occurrence macro lepidoptera in Britain Ecological Entomology, 22, 197–208
- (Rawlins, BG, Baird, A.J, Trudgill, ST) & Hornung,M 1997 Absence of preferential flow in the percolating waters of a coniferous forest soil Hydrological Processes, 11, 575–585
- Raybould, A.F, Mogg, R.J & (Gliddon, C.J) 1997 The genetic structure of *Beta vulgaris* ssp *maritima* (sea beet) populations II Differences in gene flow estimated from RFLP and *isozymeloci* are habitat-specific Heredity, 78, 532-538
- Raybould,A.F , Mogg,R.J , Aldam,C , (Gliddon,C.J , Thorpe,R.S ) & Clarke,R.T 1998 The genetic structure of sea beet (Beta vulgaris ssp maritima) populations III Detection of isolation by distance at micro satelliteloci Heredity, 80, 127–132
- Reading, C.J 1997 A proposed standard method for surveying for reptiles on dry lowlandheath Journal of Applied Ecology, 34, 1057–1069
- Redpath,S, (Madders,M, Donnelly,E, Anderson,B, Thirgood,S, Martin,A.& McLeod,D) 1998 Nest site selection by hen harriers in Scotland Bird Study, 45, 51-61
- Reynolds,B, Fowler,D, Smith,R.I & Hall,JR. 1997 Atmospheric inputs and catchment solute fluxes for major ions in five Welsh upland catchments Journal of Hydrology, 194, 305-329
- Reynolds,B (Wilson,E.J.) & Emmett,B.A. 1998 Evaluating critical loads of nutrient nitrogen and acidity for terrestrial systems using ecosystemscale experiments (NITREX) Forest Ecology & Management, 101, 81–94
- Richardson,J H , Shore,R.F , Treweek,J R., & (Larkin, S B C) 1997 Are major roads a barrier to small mammals Journal of Zoology, 243, 840-
- (Rodrigo, V H L.), Stirling, C M,

- (Teklehaimanot, Z & Nugawela, A.) 1997 The effect of planting density on growth and development of component crops in rubber/ banana intercropping systems Field Crops Research, 52, 95-108
- Rothery,P, Newton,I, Dale,L. & (Wesolowski,T) 1997 Testing for density dependence allowing for weather effects Oecologia,112,518-523
- Rowland, A.P & (Haygarth, PM) 1997 Determination of total dissolved phosphorus in soil solutions Journal of Environmental Quality, 26, 410-415
- Ruess, L. 1997 Biological indicators of critical loads interactions between soil nematodes and fungi in relation to soil acidification Abbandlungen und Berichte des Naturkundemuseums Gorlitz, 69, 199–200
- (Russo, L.), Massei, G & (Genov, PV) 1997 Daily home range and activity of wild boar in a Mediterranean area free from hunting Ethology, Ecology and Evolution, 9, 287–294
- (Rutter,S M ), Beresford,N.A. & (Roberts,G) 1997 Use of GPS to identify the grazing areas of hill sheep Computers and Electronics in Agriculture, 17, 177–188
- Sanchez, A.L., Singleton, D, (Walters, B & Cobb.J ) 1997 Radionuclides in whole diets of people living near the Sellafield nuclear complex, UK. Journal of Radioanalytical and Nuclear Chemistry, 226, 267–274
- (Sanchez,P.A., Buresh,R.J.) & Leakey,R.R.B 1997 Trees, soils and food security *Philosophical* Transactions of the Royal Society London B, 352,
- (Sattin,M), Mılne,R., Deans,JD & (Jarvıs,PG) 1997 Radiation interception measurement in poplar sample size and comparison between tube solarimeters and quantum sensors Agricultural and Forest Meteorology, 85, 209-216
- Shaw,L.J & (Burns,R.G ) 1996 Construction and equilibration of a repacked soil column microcosm Soil Biology and Biochemistry, 28, 1117-1120
- Shead J 1997 The institutional development of river management in Yorkshire The Science of the Total Environment, 194/195, 225-234
- Sheail J 1997 The Scott Report of 1942 an historical perspective on the 'Rural' White Papers Journal of Environmental Planning and Management, 40, 376–381
- Shearl J 1997 The sustainable management of industrial watercourses an English historical perspective Environmental History, 2, 197-215
- Sheail J 1997 Guardianship' and the Rural Workshop' - the first quarter-century of UK experience in nature conservation Journal of Environmental Management, 50, 429–443
- Shearl.J The new National Forest from idea to achievement Town Planning Review, 68, 305-324
- Sheail, J., Treweek, J. R. & Mountford, J. O. 1997 The UK transition from nature preservation to creative conservation' Environmental Conservation, 24, 224-235
- Sheail J 1997 Environmental history a challenge for the local historian Archives, 22, 157-169
- Sheail, J 1997 The National Forest of the English Midlands - a local government perspective Local Government Studies, 23, 1-16
- Shearl, J 1997 Scott revisited post-war agriculture, planning and the British countryside Journal of Rural Studies, **13**, 387–398
- Sheail J 1998 Never again' pollution and the management of watercourses in postwar Britain Journal of Contemporary History, 33, 117–133
- Sheppard, L.J 1997 Soil dressing with sulphur does it reduce frost hardiness in spruce seedlings? Environmental and Experimental Botany, 37, 137–
- Sheppard,L.J., Crossley,A., Harvey,F.J., Wilson,D. & Cape,J.N. 1997 Field application of acid mist to a single clone of Sitka spruce effects on foliar nutrition and frost hardines Environmental Pollution, 98, 175-184
- Sheppard,L.J , Leith,I D , Morris,E , Cape,J N & Roberts, D 1997 Open-top chamber and field exposure of Sitka spruce to simulated acid mist a comparison of results Environmental Pollution, 98, 185-194
- (Shiembo, PN), Newton, A.C & Leakey, R.R.B

- 1997 Vegetative propagation of Ricinodendron beudelotii, a West African fruit tree Journal of Tropical Forest Science, ,514-525
- Shore, R.F., (Feber, R.E.), Firbank, L.G., Fishwick,S K., (MacDonald,D W) & Norum,U 1997 The impacts of molluscicide pellets on spring and autumn populations of wood mice Apodemus sylvaticus Agriculture, Ecosystems & Environment, 64, 211–217
- Singles,R.J, Sutton,M.A. & (Weston,K.J) 1998 A multi-layer model to describe the atmospheric transport and deposition of ammonia in Great Britain Atmospheric Environment, 32, 393-399
- Skanes, H M & Bunce, R.G H 1997 Directions of landscape change (1741-1993) in Virestad, Sweden - characterised by multivariate analysis Landscape and Urban Planning, 38, 61–75
- Skiba, U, Fowler, D & (Smith, K.A.) Nitric oxide emissions from agricultural soils in temperate and tropicalclimates sources, controls and mitigation options Nutrient Cycling in Agroecosystems, 48, 139–153
- (Smith,JT), Howard,DC, Wright,SM, Naylor, C, (Brookes, A.M, Hilton, J) & Howard, B.J 1998 Use of a satellite-derived land cover map to estimate transport of radiocaesium to surface waters The Science of the Total Environment, 209, 1-15
- Smith,R.I, Cape,JN, Binnie,J, Murray,TD, Young, M & Fowler, D 1997 Deposition of atmospheric pollutants to the LOIS area *The Science of the Total Environment*, 194/195, 71–
- (Sorensen, FF), Weeks, JM & (Baatrup, E) 1997 Altered locomotory behavior in woodlice (Oniscus asellus (L)) collected at a polluted site Environmental Toxicology and Chemistry, 16,
- Sparks,T H & (Gadsden,R.J) 1997 The trials and tribulations of experimental design in ecotoxicology Toxicology and Ecotoxicology News/Reviews, 4, 55-59
- Sparks, TH, Mountford, JO, Manchester, S.J, Rothery, P& Treweek, JR. 1997 Sample size for estimating species lists in vegetation surveys The Statistician, 46, 253-260
- Sparks, TH & Yates, T.J 1997 The effect of spring temperature on the appearance dates of British butterflies 1883–1993 Ecography, 20,
- Stark, G, Barr, C & Watkins, A.J 1997 Using the Countryside Information System to inform woodland policy Arboricultural Journal, 21,
- (Stevens,R.J., Laughlin,R.J., Burns,L.C.,)
  Arah.J.R.M. & (Hood,R.C.) 1997 Measuring the
  contributions of nutrification and denitrification to the flux of nitrous oxide from soil Soil Biology and Biochemistry, 29, 139-151
- Stillman,R.A., Goss-Custard,J D & Caldow,R.W E 1997 Modelling interference from basic foraging behaviour *Journal of Animal Ecology*, 66, 692–703
- Stirling, CM, (Davey, P.A.), Williams, TG& (Long, SP) 1997 Acclimation of photosynthesis to elevated CO2 and temperature in five British native species of contrasting functional type Global Change Biology, 3, 237-246
- Stirling, CM, Williams, TG, Jones, ML& Ashenden, TW 1997 Plant canopy development and turnover in a range of British native species grown at elevated CO2 and temperature Abstracta Botanica, 21, 265-274
- (Suett,D L., Jukes,A.A.) & Parekh,N R. 1996 Non-specific influence of pH on microbial adaptation and insecticide efficacy in previously-treated field soils Soil Biology and Biochemistry, 28, 1783-1790
- Sutton,M.A., (Perthue,E), Fowler,D, Storeton-West,R.L., Cape,JN, (Arends,BG & Mols, J.J.) 1997 Vertical distribution and fluxes of ammonia at Great Dun Fell Atmospheric Environment, 31, 2615-2624
- Sutton, M.A., (Lee, DS, Dollard, GJ) & Fowler, D 1998 Atmospheric ammonia emission, deposition and environmental impacts Atmospheric Environment, 32, 269-271
- Sutton,M.A. (Burkhardt,J., Guerin,D.), Nemitz,E. & Fowler,D. 1998. Development of

- resistance models to describe measurements of bi-directional ammonia surface - atmosphere exchange Atmospheric Environment, 32,473-480
- (Swietlicki, E, Hansson, HC, Martinsson, B Wentes, P., Orsini, D., Svenningsson, B., Wiedensohler, A., Wendisch, M., Pahl, S., Winkler, P., Colvile, R.N., Gieray, R., Luttke J. Winkler, P., Colvile, R.N., Gieray, R., Luttke, J., Heintzenberg, J.), Cape, J. N., Hargreaves, K.J., Storeton-West, R.L., (Acker, K., Wieprecht, W., Berner, A., Kruisz, C., Facchini, M. C., Laj, P., Fuzzi, S., Jones, B. & Nason, P.). 1997. Source identification during the Great Dun Fell Cloud Experiment 1993. Atmospheric Environment, 31, 2441–2451.
- (R. Tarrega,R., Luis-Calabuig,E) & Alonso,I 1997 Space-time heterogeneity in the recovery after experimental burning and cutting in a Cistus laurifolius shrubland Plant Ecology, 129, 179-
- (Thirgood, S.J.) & Redpath, S.M. 1997 Red grouse and their predators Nature, 390, p547
- Thomas, J.A., Elmes, G.W., Clarke, R.T.
- (Kim, K.G., Munguira, M.L. &Hochberg, M.E.) 1997 Field evidence and model predictions of butterfly-mediated apparent competition between gentian plants and red ants Acta Oecologia, 18, 671-684
- (Thompson, K.), Parkinson, J.A., (Band, S R & Spencer, R.E.) 1997 A comparative study of leaf nutrient concentrations in a regional herbaceous flora New Phytologist, 136, 679-689
- (Thompson,S), Treweek,JR. & (Thurling,D.J) 1997 The ecological component of environmental impact assessment - a critical review of British environmental statements Journal of Environmental Planning and Management, 40, 157–171
- (Thomson,P E, Parker,J P), Arah,J R.M, (Clayton,H & Smith,K.A.) 1997 Automated soil monolith-flux chamber system for the study of trace gas fluxes Soil Science Society of America Journal, 61, 1323-1330
- Thornley, J H M & Cannell, M G R, 1997 Temperate grassland responses to climate change an analysis using the Hurley Pasture Model Annals of Botany, 80, 205-221
- Thornley, J H M 1997 Modelling allocation with transport/conversion processes *Silva Fennica*, 31, 341–355
- Thornley, J H M 1998 Modelling shoot root relations the only way forward? Annals of Botany, 81, 165-171
- (Tietema,A.), Emmett,B.A., (Gundersen,P., Kyonaas,OJ, & Koopmans,CJ,) 1998 The fate of 15N-labelled nitrogen deposition in coniferous forest ecosystems Forest Ecology & Management, 101, 19-27
- (Tietema,A., Beier,C , De Visser,P H B ), Emmett,B.A., (Gundersen,P , Kjonaas,O,J & Koopmans, C.J.) 1997 Nitrate leaching in coniferous forest ecosystems the European field-scale manipulation experiments NITREX (nitrogen saturation experiments) and EXMAN (experimental manipulation of forest ecosystems) Global Biogeochemical Cycles, 11, 617–626
- (Topping,M) & Kruuk,H 1996 Size selection of prey by otters, Lutra lutra L an experimental approach Zeitschrift für Saugetierkunde, 61, 376-378
- Treweek, J. R. & (Thompson, S.) 1997. A review of ecological mitigation measures in UK environmental statements with a view to sustainable development International Journal of Sustainable Development and World Ecology, 4.40-50
- Treweek, J. R., (Watt, T.A. & Hambler, C.) 1997 Integration of sheep production and nature conservation experimental management Journal of Environmental Management, 50, 193-210
- (Tyack,A.J, Walls,SS) & Kenward,R.E 1998 Behaviour in the post-nestling dependence period of radio-tagged common buzzards Buteo buteo Ibis, 140, 58-63
- (Van Strien,A.J., Van de Pavert,R.), Moss,D., Yates,T.J., (Van Swaay,C.A.M.) & Vos,P. 1997 The statistical power of two butterfly monitoring schemes to detect trends Journal of Applied Ecology, 34, 817–828
- Wanless, S, (Gremillet, D, Hilton, GM) & Harris, MP 1997 Estimation of digestion and defaecation rates in the Shag Phalacrocoras aristotelis Seabird, 19, 47–50

- Wanless,S, Bacon,P,J, Harris,MP, (Webb,A.D, Greenstreet,SPR.) & Webb,A. 1997 Modelling environmental and energetic effects on feeding performance and distribution of shags (Phalacrocorax aristotelis) integrating telemetry, geographical information systems, and modelling techniques ICES Journal of Marine Science, 54, 524-544
- Wanless,S & Harris,M P 1997 Phalacrocorax aristotelis shag BWP Update, 1, 3–13
- Wanless,S , Harris,M P , (Burger,A.E & Buckland,S T ) 1997 Use of time-at-depth recorders for estimating depth and diving performance of European shags Journal of Field Ornithology, 68, 547-561
- (Waterhouse, CE, Sporring, S) & Bayfield, NG. 1998 Sustainable harvesting of bog myrtle in Scotland Botanical Journal of Scotland, 50, 11-20
- Watson, A., Pottie, J, Rae, S & Duncan, D 1997 Melting of all snow patches in the UK by late October 1996 Weather, 52, 161
- Watson, A 1997 Disappearance and later colonization of red deer on Cairn Gorm, Scotland Journal of Zoology, 242, 387-389
- Watson, A. & Rae, R. 1997 Some effects of set-aside on breeding birds in northeast Scotland *Bird Study*, 44, 245–
- (Watson,A., Stephen,K.D., Nedwell,DB) & Arah,JR.M 1997 Oxidation of methane in peat kinetics of CH4 and O2 removal and the role of plant roots Soil Biology and Biochemistry, 29, 1257–1267
- Watson, A. 1997 Numbers of Snow Buntings on arable land in North-east Scotland Scottish Birds, 19, 115-116
- Watson, A. 1997 Capercaillie and Black Grouse south of Banff in the 1940s Scottish Birds, 19, 117–118
- Webb,N C 1997 Effects of fires on heathland communities NNA Berichte, 10, 134–141 Welch,D & Scott,D 1997 Decline of moorland plants following the establishment of a Scots pine plantation *Botanical* Journal of Scotland, 49, 27-37
- Welch,D, Scott,D & Staines,B W 1997 Bark stripping damage by red deer in a Sitka spruce forest in western Scotland III Trends in wound condition Forestry, 70, 113-120
- Welch, D 1997 The distribution of brambles (Rubus spp) in north-east Scotland Watsonia, 21, 378-380
- Welch,D Response of bilberry Vaccinium myrtillus L Stands in the Derbyshire Peak district to sheep grazing, and implications for moorland conservation *Biological* Conservation, 83, 155–164
- (Wells,M, Bower,K.N, Choularton,TW), Cape,JN, Sutton,M.A., Storeton-West,R.L., Fowler,D., (Wiedensohler,A., Hansson,H.C., Svenningsson,B., Swietlicki,E., Wendisch,M., Jones,B., Dollard,G., Acker, K., Wieprecht, W., Preiss, M., Arends, B.G., Pahl, S., Berner, A., Kruisz, C., Laj, P., Facchini, M.C. & Fuzzi, S.) 1997 The reduced nitrogen budget of an orographic cloud Atmospheric Environment, 31, 2599-
- (Whitehead,P G , Barlow,J , Haworth,E Y ) & Adamson, J. K. 1997 Acidification of three Lake District tarns historical long term trends and modelled future behaviour under changing sulphate and nitrate deposition Hydrology and Earth System Sciences, 1, 197-204
- (Whitfield, CP, Davison, A.W) & Ashenden, TW 1997 Artificial selection and heritability of ozone resistance in two populations of Plantago major New Phytologist, 137, 645-655
- Wilson,S C , (Alcock,R.E , Sewart,A.P & Jones,K.C ) 1997 Persistence of organic contaminants in sewa sludge-amended soil a field experiment Journal of Environmental Quality, 26, 1467-1477
- Woods, C & Rowland, A.P 1997 Applications of anion chromatography in terrestrial environmental research Journal of Chromatography A, 789, 287–299
- Wright,S M, (Strand,P, Sickel,M.A.K.), Howard,B.J. Howard,D C & Cooke,A.I 1997 Spatial variation in the vulnerability of Norwegian Arctic counties to radiocaesium deposition The Science of the Total Environment, 202, 173-184
- (Yang, Y-H), Harrison, A.F & Ineson, P 1997 Biomass responses to a simulated global warming by changing of elevation and fertilizer addition in upland grassland *Acta* Phytoecologica Sinica, 21, 234-241
- (Young, CS, Lethbridge, G), Shaw, LJ & (Burns, R.G) 1995 Survival of inoculated *Bacullus cereus* spores and vegetative cells in non-planted and rhizosphere soil Soil Biology and Biochemistry, 27, 1017-1026
- (Zak,S K., Beven,B) & Reynolds,B 1997 Uncertainty in the estimation of critical loads a practical methodology Water, Air and Soil Pollution, 98, 297–316

#### Books, book chapters, conference proceedings, papers and summaries

Alonso,I 1997 Effect of extensive grazing on two heathlands in different climatic areas In. XXXVII Reunion Cientifica de la Sociedad Espanola para el Estudio delos Pastos Junta de Andalucia, 105–112 Junta de Andalucia Consejeria deAgricultura y Pesca

Alonso, I 1997 Influencia del pastoreo y la disponibilidad de luz y nutrientes en ladinamica de las comunidades de brezales de las Tierras Altas Escocesas V Jornadas de la Associación Espanola de Ecologia Terrestre, Cordoba, 14–17 July

(Aminah, H), Dick, J McP & (Grace, J) 1996 Vegetative propagation of Shorea leprosula by leafy stem cuttings In Proceedings of the International Symposium on Recent Advances in Tropical Tree Seed Technology and Planting Stock Production, edited by A C Yapa, 148–154 Saraburi ASEAN Forest Tree Seed Centre

(Anderson, C W ) & Smith, R.I 1997 Environmental statistics and the mapping of ozone exposures In *Proceedings of the Workshop on* Statistics at Universities Its Impact for Society, edited by A Zempleni Budapest Eotvos University Press

Anderson, LS, Davies, CE & Moss, D 1997 The UN convention on biological diversity follow-up in EEA Member countries 1996 Copenhagen European Environment Agency

(Bale, J. S., Hodkinson, I. D., Block, W.), Webb, N. R., (Coulson, S.J. & Strathdee, A.T.) 1997 Life strategies of Arctic terrestrial arthropods In *Ecology of Arctic Environments*, edited by S. J. Woodin & M. Marquiss, 137–165 Oxford Blackwell Science

Barr,C.J & Fuller,R M 1997 A commentary on the rural results In *Land use – UK. a survey for the* 21st century, edited by R Walford Sheffield Geographical Association

Barr, C.J., Fuller, R.M., (Kivell, P. & Walford, R.) 1997 Devising the key sample In *Land use – UK a survey for the 21st century*, edited by R. Walford Sheffield Geographical Association

Bayfield, N G & Frankiss J R. 1997 Impacts of oil pollution from the Braer on semi-natural vegetation In *The impact of an oil spill in turbulent waters The Braer*, edited by J M Davies & G Topping, 52–62 London The Stationery Office

Bayfield, N G (contributor) & McInnes, T (producer) 1997 The real story the environmental impact of the Braer (Video) Fisheries Research Station

Bellamy, P. E., Brown, N.J., (Enoksson, B.), Fırbank, L. G., (Fuller, R.J.), Hinsley, S.A., (Schotman, A.G. M.) & Swetnam, R.D. 1997. The role of landscape structure and dispersal in limiting nuthatch distribution. In Species dispersal and land use Proceedings of the 6th annual IALE (UK) conference, edited by A. Cooper & J. Power, 151–158.

(Benstead,P, Drake,M, Jose,P), Mountford,O, (Newbold,C) & Treweek,J 1997 The wet grassland guide managing floodplains and coastal wet grassland for wildlife Sandy The Royal Society for the Protection of Birds

(Bentley, GE, Goldsmith, A.R.) & Dawson, A. 1997 GnRH neurons in long-term thyroidectomised male starlings (Sturnusvulgaris) appear to be unresponsive to changes in photoperiod Society for Neuroscience Abstracts, 23, p415

(Bobbink,R., Van der Eerden,L) & Dobson,S 1997 Nitrogen oxides Geneva World Health Organization (Environmental Health Criteria 188)

Boorman, L.A., (Londo, G & Vandermaarel, E) 1997 Communities of dune slacks In *Dry Coastal Ecosystems*, 275–295 (Ecosystems of the World Vol 2C)

Boorman, L.A. & (Vandermaarel, E) 1997 Dune grassland In *Dry Coastal Ecosystems*, 323–344 (Ecosystems of the World Vol 2C)

(Bregnballe, T), Goss-Custard, JD & Durell, S E.A.le V dit 1997 Management of cormorant numbers in Europe, a second step towards a European Conservation and Management Plan In Cormorants and buman interests, edited by C van Dam & S Asbirk, 62–122 Wageningen IBN.D.I.O.

Briggs,S , Hinton J & Plummer,S 1998 Changing the view NERC News, Spring 1998, 7

(Brookes, A.M., Furze, M.T.) & Fuller, R.M. 1996 An assessment of the Land Cover Map of Great Britain within headwater stream catchments for four river systems in England and Wales In GIS Research UK Conference 1995

Brown, N.J., Cox, R., Thomson, A.G., Pakeman, R., Wadsworth, R.A. & Yates, M. 1997. Development of a Spatial Decision Support System for the Biological Influences on Inter-Tidal Areas (BIOTA) project within the Land Ocean Interaction Study In Proceedings of Coast 97, Aberdeen, August 1997.

Brown, N.J., Cox, R., Thomson, A.G., Pakeman, R., Wadsworth, R.A. & Yates, M. 1997. Initial attempts to assess the importance of the distribution of saltmarsh communities on the sediment budget of the North Norfolk coast. In *Proceedings of Coast* 97, Aberdeen, August 1997.

Bullock, J. M., Hodder, K.H., Manchester, S.J. & Stevenson, M.J. 1997. Review of information, policy and legislation on species translocation. Peterborough. Joint Nature Conservation. Committee. JNCC Report No. 261

Caldow,R., Pearson,B & (Rose,S) 1997 The usage of lowland raising wet grassland by wetland birds The importance of site wetness In Grassland management in environmentally sensitive areas, edited by R D Sheldrick, 213–215 Reading British Grassland Society (BGS Occasional Symposium no 32)

(Callan,P) & Malcolm,H M 1997 Zinc and the environment conclusions of the Environment Working Group In Zinc report of an international meeting, 12–13 September 1996, Adelaide, edited by A Langley and S Mangas, 76–79 Adelaide National Environmental Health Forum National Environmental Health Forum Monographs, Metal Series No 2

Cape.J N 1997 Sunshine and clouds – the ACE-2 experiment NERC News, Winter 1997, 14–15

Cape J N, Sheppard, L.J, Crossley, A., Leith, I D & Fowler, D 1997 The effects of acid mist on spruce – from chamber to a forest In Proceedings of the International Symposium on Forest Decline caused by Air Pollution, Hiroshima, Japan, 41–45 Keio Japan Science & Technology Corporation

Carey, P D 1997 Modelling the spread of Himantoglossum bircinum (Lizard orchid) at a site in southern England In Species dispersal and land use processes proceedings of the sixth Annual Conference of IALE (UK), edited by A Cooper & J Power, 211–218

Carss,D N 1998 Wanted dead or alive BBC Wildlife, 16, 30–32

(Cooper J I ) & Raybould, A.F 1997 Transgenes for stress tolerance consequences for weed evolution In *Proceedings of the 1997 Brighton* Crop Protection Conference – Weeds, 265–272

Critical Loads Advisory Group 1996 Critical levels of air pollutants for the United Kingdom London Department of the Environment

Critical Loads Advisory Group 1996 Mapping and modelling environmental acidification in the United Kingdom London Department of the Environment

Critical Loads Advisory Group 1997 Deposition fluxes of acidifying compounds in the United Kingdom Penicuik Institute of Terrestrial Ecology

(Crompton,G) & Preston,C D 1997 Vascular plant records Nature in Cambridgeshire, 39, 84–86

Cummins, R.P., (Elston, D.A., Gauld J H), Barr, C.J. & Bunce, R.G. H 1997 Monitoring vegetation in the Scottish ESAs. In *Grassland* management in environmentally sensitive areas, edited by R.D. Sheldrick, 14–24 Reading British Grassland Society (BGS Occasional Symposium no 32)

(Curtis, C.J., Allott, T.E. H., Kernan, M., Bird, D.), Reynolds, B., (Harriman, R.) & Hall, J. 1997. The use of the First-Order Acidity Balance model (FAB) for the prediction of intrate leaching and calculation of critical loads for total acidity in Great Britain. In Surface water acidification the increasing importance of nitrogen, edited by A. W. Mackay, 10–12. London. University College London.

**Dawson,A.** 1997 Circannual rhythms in starlings In *Perspectives in Avian Endocrinology*, edited by S. Harvey & R.J. Etches, 149–158 Bristol. Journal of Endocrinology Ltd

Dawson,A. & (Deeming,D C ) 1997 Thyroid

function in ostriches compared to that in non-ratite birds In Advances in comparative endocrinology, edited by S Kawashima & S Kikuyama, 439–444 Bologna Monduzzi Editore

(Dawson,T P, Curran,PJ,) North,P RJ & Plummer,S E 1997 The potential for understanding the biochemical signal in the spectra of forest canopies using a coupled leaf and canopy model In Proceedings of the Seventh International Symposium on Physical Measurements and Signatures in Remote Sensing, Vol II, 463–470 Rotterdam Balkema

(Dawson, TP, Curran, PJ,) North, PRJ & Plummer, SE 1997 Analysing the reflectance spectra of conifer forests using a coupled leaf and canopy model in *Third International Airborne Remote Sensing Conference*, Copenhagen, Denmark, 7–10 July 1997

Dick, J Mc P & (Aminah, H) 1996 The production and utilitzation of clonal planting stock of Southeast Asian trees In Proceedings of the International Symposium on Recent Advances in Tropical Tree Seed Technology and Planting Stock Production, edited by A.C Yapa, 165–174 Saraburi ASEAN Forest Tree Seed Centre

Dick, J Mc P, (Thuy, L T T) & Mason, P 1997 Restoration of dipterocarp forest on denuded areas of the Cat Tien national park in South East Vietnam In Premier seminaire Reconstitution des formations a dipterocarpaceesdans le parc national de Cat Tien, 19–22 January 1998, Bien Hoa City, Vietnam

(Diemont, W H , Jensen, F P , Lahlsson, L), Webb, N R. & (Wynde, R.) 1997 Lowland Atlantic heathland In *Habitats for birds in Europe a conservation strategy for the wider environment*, edited by G M Tucker & M I Evans, 187–202 Cambridge Birdlife International

Elmes, G W 1997 Biological diversity of ants and their role in ecosystem function. In Biodiversity research and its perspectives in the East Asia, edited by L Byung-Hoon, K. Tae-Heung, & S Byung-Yu, 33–48 (Proceedings of the International Inaugural Seminar of KIBIO, Chonju, Korea, May 3 1996) Chonju Korean Institute for Biodiversity Research Chonbuk National University

Fırbank, L G 1997 Farm landscapes for biodiversity Grange-over-Sands Institute of Terrestrial Ecology

(Floyd,R., Hauxwell,C) & Watt,A.D 1997 International workshop on Hypsipyla shoot borers of Meliaceae *Antenna*, 21, 66–69

Fowler,D, Smith,R., Coyle,M, Sutton,M, (Campbell,G, Downing,C & Vincent,K.) 1997 Rural air pollution in the UK. In *Air pollution in the United Kingdom*, edited by G Davidson & C N Hewitt, 39–56 London The Royal Society

Fowler,D, Skiba,U & Harreaves,K.J 1997 Emissions of nitrous oxide from grasslands. In Gaseous nitrogen emissions from grasslands, edited by S C Jarvis &B F Pain, 147–164 Oxford CAB International

Fowler,D, Flechard,C, (Erisman,J-W & Spindler,G) 1998 Long-term flux measurements for NH3 and SO2 and their implications. In Proceedings of Symp 98, Eurotrac-2 Symposium, Garmisch-Partenkirchen, March 1998

Fowler,D, Hargreaves,K.J. & Skiba,U 1998 New techniques for the measurement and interpretation of greenhouse gas fluxes. In Proceedings of the Workshop on "Biogenic emissions of greenhouse gases caused by arable and animal agriculture measurement technologies and emission factors", October 23–24, 1997, Petten, The Netherlands, 61–72.

Fox,R.(ed ) 1997 Butterflies for the New Millenium Butterfly Conservation/Institute of Terrestrial Ecology, Biological Records Centre

French,D D, Cummins,R.P, (Miller,G R.), Bayfield,N G & McGowan,G M 1997 Subalpine pine scrub in the Cairngorms In *The ecology and* restoration of montane and subalpine scrub babitats in Scotland, edited by D Gilbert, D Horsfield and D BA Thompson, 81–83 Battleby SNH (Scottish Natural Hentage Review no 83)

(Friday, L.E.) & Preston, C.D. 1997 Aquatic habitats and communities. In *Wicken Fen. the* making of a nature reserve, edited by L.E. Friday, 22-45 Colchester Harley Books

Friend,A.D , (Kellomaki,S , Kruijt,B ,) Barton,C , Crossley,A., (Jarvis,P G & Wang,K.Y ) 1997

- Modelling leaf, tree and forest responses to increasing CO2 and temperature In The likely impact of rising CO2 and temperature on European forests, edited by P G Jarvis and B Saugier
- Fuller, R.M & Barr, C.J 1996 The rural landscape In Preliminary results from the Land Use - UK Survey, edited by R. Walford Sheffield Geographical Association
- Fuller, R.M, Thomson, A.G & Eastwood, J.A. 1997 Strategic remote sensing of coastal and estuarine environment types for flood defence and conservation feasability study Part 1 Executive summary and outline report Bristol
  Environment Agency (R & D Technical Report
- Fuller, R.M , Thomson, A.G & Eastwood, J.A. 1997 Strategic remote sensing of coastal and estuarine environment types for flood defence and conservation feasability study Part 2 Main report and appendices Bristol Environment Agency (R & D Technical Report W47)
- (Gallagher,M , Fontan,J , Wyers,P , Ruijgrok,W , Duyzer,J , Hummelsh,P ) & Fowler,D 1997 Atmospheric particles and their interactions with natural surfaces In Biosphere-atmosphere exchange of pollutants and trace substances, edited by S. Slanina, 45-92
- Garnett, M H & Adamson, J K.A. 1998 Blanket mire monitoring and research at Moor House Nature Reserve In Blanket mire degradation causes, consequences and challenges, edited by J H Tallis, R. Meade & P D Hulme, 116-117 Aberdeen Macaulay Land Use Research Institute
- (Gauld,J H ), Cummins,R. & (Elston,D.A.) (Gauld J H ), Cummins, R. & (Eiston, D.A.) 1997 ESA monitoring in Scotland – grasslands In Grassland management in environmentally sensitive areas, edited by R.D. Sheldrick, 227– Reading British Grassland Society (BGS) Occasional Symposium no 32)
- (Gil-Delgado, J.A.) & Newton, I 1997 Carduelis chloris greenfinch In The EBCC atlas of European breeding birds their distribution and abundance, edited by W J M Hagemeijer and M J Blair, 712–713 London T& AD Poyser
- Goss-Custard, J D , (Rufino, R. & Luis, A.) 1997 Effect of babitat loss and change on waterbirds London The Stationery Office
- Goss-Custard, J D , (Rufino, R. & Luis, A.) 1997 Introduction In Effect of babitat loss and change on waterbirds, edited by J D Goss-Custard, R. Rufino & A. Luis, p1 London The Stationery
- Goss-Custard, J D & West, A.D 1997 The concept of carrying capacity and shorebirds In Effect of babitat loss and change on waterbirds, edited by J D Goss-Custard, R Rufino & A. Luis, 52-62 London The Stationery Office
- Gray, A.J 1997 Genecology, the genetic system and the conservation genetics of uncommon British grasses In The role of genetics in conserving small populations, edited by T E Tew, T J Crawford, J W Spencer, D P Stevens, M B Usher & J Warren, 56–64 Peterborough JNCC
- Gray, A.J & Raybould, A.F 1997 The history and evolution of Spartina anglica in the British Isles In Proceedings Second International Spartina Conference, edited by K.Patten, 13–16
  Washington DC Washington State University
- Gray, A.J., Raybould, A.F. & Brown, S.L. 1997 The environmental impact of Spartina anglica past, present and predicted In Proceedings Second International Spartina Conference, edited by K.Patten, 39–45 Washington DC Washington State University
- Gray, A.J. 1998 The BIOTA project an integrated study of ecological processes on a sedimentary coastline In *Proceedings of a* Transdisciplinary Euroconference on CoastalManagement Research, 28–29 European Science Foundation
- Greatorex-Davies,N 1997 Summary of discussions at Rhayader and Doncaster In Butterflies for the New Millenium, edited by R Fox, 22–25 Proceedings of 3rd Annual Meeting held at Doncaster 10 May 1997 Butterfly Conservation/Institute of Terrestrial Ecology, **Biological Records Centre**
- (Habs,H, Simon,B, Thiedmann,K.U) & Howe,P 1997 Aluminium Environmental Health Criteria 194 Geneva World Health Organization

- (Haes, ECM) & Harding, PT 1997 Atlas of grassboppers, crickets and allied insects in Britain and Ireland London Stationery Office
- Harding,P 1997 Why ITE is supporting the butterflies for the New Millenium project In Butterflies for the New Millenium, edited by R. Fox, 4–6 Proceedings of 3rd Annual Meeting held at Doncaster 10 May 1997 Butterfly Conservation/ Institute of Terrestrial Ecology, Biological Records
- Harris, MP 1997 Uria aalge guillemot In The EBCC atlas of European breeding birds their distribution and abundance, edited by W J M Hagemeijer and M J Blair, 368-369 London T& AD Povser
- Harris,M P 1997 Fratercula arctica puffin In The EBCC atlas of European breeding birds their distribution and abundance, edited by W J M Hagemeijer and M J Blair, 376-377 London T& AD Povser
- Harris, M P 1997 Recommended common murre restoration techniques In Exxon Valdez oil spill seabird restoration workshop, edited by K I Warheit, C S Harrison & G J Divoky, 24–32 Pacific Seabird GroupTechnical Publication 1
- Hill,M O & Preston,C D 1997 Abirthday tribute Dr H L K. Whitehouse Journal of Bryology, 19, 387-389
- Hodder, K., Bullock, J M & Manchester, S.J 1996 Review of information on species translocation in the UK. In The introduction and naturalisation of birds, edited by J S Holmes & J R Simons, 131-132 London Stationery Office
- Howard, B.J 1997 Transfer to animals In Radioactivity in the terrestrial environment[al], review of UK research 1993–1996 and recommendations for future work, 25–27 + annex **B4** London Department of the Environment
- Howard, B.J. & (Strand, P.) 1997 Radiological vulnerability in the Arctic In The Third International Conference on Environmental Radioactivity in the Arctic Extended abstracts volume 2, Tromso, Norway, June 1-5, 1997,36-37 Tromso AMAP - Arctic Monitoring and Assessment Programme
- Howard, B.J & Howard, D C 1997 The radioecological significance of semi-natural ecosystems In *Health impacts of large releases of radionucludes*, edited by H Paretzke, 21–45 Chichester John Wiley & Sons
- Howard, BJ 1998 Managing prohibited areas implications for the food chain In *Local* Authorities managing accidental radiation releases LARMACC National Conference, held 26th November 1997, National Motorcycle Museum, Birmingham, 1-9
- (Huntley,B, Collingham,YC) & Hill,MO 1996 Tree species' responses to environmental changes during the last glacial evaluating alternative hypotheses using a spatially-explicit migration model *Italian Journal of Quaternary Sciences*, 9,
- Ineson,P & (Cotrufo,M F) 1997 Increasing concentrations of atmospheric CO2 and decomposition processes in forest ecosystems. In Plant responses to elevated CO2 evidence from natural springs, edited by A Raschi et al, 242-267 Cambridge Cambridge University Press
- (Inglis, C.J., Sutton, G.) & Lawson, G.J. 1997 Research and monitoring for sustainable forest management in North-West Guyana In Research on environmentally sound forest practices to sustain tropical forests, 27–35 (Proceedings of the FAO/ IUFRO Satellite Meeting held in conjunction with the IUFRO XX World Congress) Rome FAO
- (Jones, CG) & Hartley, SE 1998 A precursor competition model of plant phenolic allocation in response to environmental factors. In Reponses of plant metabolism to air pollution and global change, edited by LJ de Kok, 23-50 The Hague SPB Academic Publishing
- (Jones, MB), Ashenden, TW, (Parsons, A. Payer, HD, Raschi, A.) & Thornley JH M 1997 The effects of rising CO2 and changing climate on grassland communities in Europe In Global change climate change and climate change impacts Proceedings of a symposium held in Copenhagen, Denmark, 6–10 September 1993, 247–257, edited by I Trioen
- (Jones, S, Millington, A.) & Wyatt, B K. 1997 An evaluation of ERS-2 ATSR-2 and NOAA-14 AVHRR multi-temporal data for phenological studies, using comprehensive ground verification procedures in

- humid and sub-humid environments. In Observations and interactions proceedings of the Annual Conference of the Remote Sensing Society, 280-285 Nottingham The Remote Sensing Society
- (Jordan, C) & Hall, J R. 1997 Acidification in soils In Soil and environment Northern Ireland, edited by J G Cruikshank, 171-176 Agricultural and Environmental Science Divison, DANI and the Agricultural and Environmental Science Department
- (Kammenga,J E , Simonsen,V , Kohler,H -R.), Weeks, J M & (Donker, M) 1997 Manual of BIOPRINT-II First technical report Silkeborg National Environmental Research Institute
- Kenward, R.E 1997 The impact of falconry on wild raptor populations preface Journal of Raptor Research, 31, 293
- Kenward, R.E 1996 The use of radio-tagging to monitor released animals In. Restoration of bustard populations captive breeding, release, monitoring and habitat management, edited by Y M van Heezik & P J Seddon, 91–96 Riyadh National Commission for Wildlife Conservation Developm
- (Khun,E C O ) & Dick J McP 1996 Rooting ability of three tropical timber hardwood species in basin propagators In Proceedings of the International Symposium on Recent Advances in Tropical Tree Seed Technology and Planting Stock Production, edited by A.C. Yapa, 199–205. Saraburi. ASEAN Forest Tree Seed Centre
- (Kiemer, M C B ), Carey, P D , Palmer, S C F & Roy, D B 1998 The biogeographical zones and biodiversity of the coastal waters of Scotland Battleby Scottish Natural Heritage (Scottish Natural Heritage Research, Survey & Monitoring Report No 103)
- Lawson,G,J, Cannell,M G R., (Crout,N,J, Matthews,R.B) & Mobbs,D C 1997 Merging crop and forest models to represent agroforestry systems In Agroforestry for sustainable land-use fundamental research and modelling temperate and mediterranean applications, 415–422 International Workshop, June 1997, Montpellier, France
- Lawson, G.J 1997 Forestry grants in the EU 15 countries, 15 approaches *ICF News*, 3, 8–9
- Lawson, G.J 1997 Attitudes to grant-aided tree-planting in the European Union In Agroforestry for sustainable land-use fundamental research and modelling temperate and mediterranean applications, International Workshop, Montpellier, June 1997
- Leakey,R.R.B , (Temu,A.B , Melnyk,M & Vantome, P) 1996 Domestication and commercialization of non-timber forest products in agroforestry systems Rome Food and Agriculture Organization
- Leakey, R.R.B & (Jaenicke, H) 1997 The domestication of indigenous fruit trees opportunities and challenges. In *Proceedings 4th* International BIO-REFOR Workshop, edited by K. Suzuki, S Sakurai, K Ishii & M Norisada, 15-26 Tokyo BIO-REFOR
- Leakey,R.R.B 1997 Domestication potential of Prunus africana ("Pygeum") in sub-Saharan Africa In Conservation and utilization of indigenous medicinal plants and wild relatives of food crops, edited by A.M. Kinyua, W.M. Kofi-Tsekpo & L B Dangana, 99-106 Nairobi UNESCO
- (Lovblad,G) & Sutton,M.A. 1997 The requirements for monitoring data for the assessment of transboundary air pollution effects to man and ecosystems In EMEP-WMO Workshop on strategies for monitoring of regional air pollution in relation to the need within EMEP, GAW and other international bodies, Aspenaas Herrgaard, Sweden 2–4 June 1997, edited by J Schaug & K Uhse, 81–120 Kjeller NILU
- (Lovblad,G) & Sutton,M.A. 1997 Working group 3 report assessment of effects In EMEP/WMO Workshop in strategies for monitoring of regional air pollution in relation to the need within EMEP, GAW and other international bodies, edited by J Schaung & K. Uhse, 10–16 Proceedings of a workshop held ın Aspenaas Herrgaard, Sweden 2–4 June 1997 Kieller NILU
- (Lundberg,P), Howe,PD, Dobson,S & (Crookes,M,J) 1997 Xylenes Geneva World Health Organisation (Environmental Health Criteria
- (Maddox,T), Shore,R.F & Turk,A. 1998 A survey of small mammals at Grafbam Water Cambridgesbire Report, Huntingdonshire Fauna and Flora Society, 50th, 36-39
- Manchester, S.J., Treweek, J.R., Mountford, J.O. &

Pywell, R.F. 1997 The success of nurse crops in the establishment of species-rich lowland wet grassland In *Grassland management in environmentally sensitive areas*, edited by R.D. Sheldrick, 260–261 Reading British Grassland Society (British Grassland Society Occasional Symposium No 32)

Manchester, S.J., Mountford J.O., Treweek, J.R. & Sparks, T.H. 1998 Experimental reconstruction and rehabilitation of floodplain grassland. In *United Kingdom Floodplains*, edited by R.G. Bailey, P.V. Jose and B.R. Sherwood, 379–394 Westbury Academic & Scientific Publishing

Marquiss,M & Carss,D N 1997 Fish-eating birds and fisheries BTO News, 210, 6–7

(Marti,C) & Picozzi,N 1997 Tetrao urogallus capercaille In The EBCC atlas of European breeding birds their distribution and abundance, edited by W J M Hagemeijer and M J Blair, 204–205 London T & AD Poyser

McGowan, G 1997 The distribution of the small mountain ringlet, *Erebia epipbron mnemon* (Haworth 1812) in Scotland *Entomologist s Gazette*, 48, 135–145

Morecroft, M D 1997 Wytham Estate and the Environmental Change Network In *The Wytham Communicator*, edited by D MacDonald & S Stafford, 32–33 Oxford University

Morecroft, M D 1997 The Environmental Change Network dataset In *The Wytham Communicator*, edited by D MacDonald & S Stafford, 53– 54 Oxford University

Moss,D, Davies,C & Roy,D 1997 CORINE Biotopes Sites database status and perspectives 1995 Copenhagen European Environment Agency

Mountford, J.O., (Tallowin, J.R.B.), Sparks, T.H., (Gowing, D.J. G.), Manchester, S.J., (Rose, S.C.), Treweek, J.R., (Gilbert, J.C. & Armstrong, A.C.) 1997. Experimental and monitoring studies of the use of raised water-levels for grassland rehabilitation in lowland ESAs. In *Grassland management in environmentally sensitive areas*, edited by R.D. Sheldrick, 67–72. Reading. British Grassland Society. (BGS Occasional Symposium no 32)

Mountford,O & Treweek,J 1998 Managing wet grasslands for wildlife NERC News, Spring 1998, 20-21

(Navarro, C), Gillies, A., Wilson, J & (Hernandez, M) 1997 Resultados de el proyecto evaluación de la diversidad genetica de caoba en Centro America y Mexico In *III Congreso Forestal Centroamericano*, 15–17 de Septembre, 1997, San Jose, Costa Rica, 106–107 Heredin Impresos Belen

Nemitz,E, Sutton,M.A., (Choularton,TW, Wyers,GP, Otjes,R.P, Mols,R.P, Mennen,M, van Putten,EM & van Hellemond,J) 1997 Field investigations into the potential influence of ammonia and acidic gases on concentrations and surface-atmosphere exchange of aerosols *J Aerosol Science*, 28, Suppl, \$337–\$338

Nemitz,E, Sutton,M.A., (Choularton,T W & Gallagher,M W) 1997 Modelling the concentration and flux profiles of size and composition distributed NH4+ aerosol as modified by the NH3-HN03-NH4N03 equilibrium *J Aerosol Science*, 28, Suppl, \$387–388

(Newbold, C) & Mountford, O 1997 Water level requirements of wetland plants and animals Peterborough English Nature (English Nature Freshwater Series No 5)

Newton,I & (Vaisanen,R.A.) 1997 Fringilla coelebs chaffinch In. The EBCC atlas of European breeding birds their distribution and abundance, edited by W J M Hagemeijer and M J Blair, 702–703 London T& AD Poyser

Newton,I 1997 Carduelis carduelis goldfinch In The EBCC atlas of European breeding birds their distribution and abundance, edited by W J M Hagemeijer and M J Blair, 714–715 London T& AD Poyser

Newton,I 1997 Pyrrbula pyrrbula bullfinch In The EBCC atlas of European breeding birds their distribution and abundance, edited by W J M Hagemeijer and M J Blair, 738–739 London T& AD Poyser

Newton,I 1997 Coccotbraustes coccotbraustes hawfinch In The EBCC atlas of European breeding birds their distribution and abundance, edited by W J M Hagemeijer and M J Blair, 740– 741 London T& AD Poyser Newton,I 1998 Population limitation in birds London Academic Press

(Nkowani,K., Fawcett,R.H., Dent,J.B.) & Lawson,G.J. 1997 Incorporating farmers' objectives into smallholder land-use goal programming in agroforestry planning models. In Agroforestry for sustainable land-use fundamental research and modelling temperate and mediterranean applications, 433–43. International Workshop, June 1997, Montpellier, France

(Nolan,A.M., Atkinson,P.M.) & Bullock,J.M. 1997. Patch-based statistical modelling of heathland dynamics in Dorset, England. In Species dispersal and land use processes. Proceedings of the 6th annual IALE(UK) conference, edited by A. Cooper & J. Power, 193–201.

North, P.R.J., (Briggs, S.A.), Plummer, S.E. & (Settle, J.J.) 1997 Development of novel algorithms for atmospheric correction of ATSR-2 dual angle imagery. In Proceedings of the Seventh International Symposium on Physical Measurements and Signatures in Remote Sensing, Courchevel, France, 7–11th April 1997

(Ong, C.K., Mutua J.), Wilson, J. & Deans, J. D. 1997. Exploring below ground complementanty in agroforestry using sap flow and root fractal techniques. In Agroforestry for sustainable land-use fundamental research and modelling temperate and mediterranean applications, 351–356. International Workshop, June 1997, Montpellier, France.

Palmer, S C F, Paterson, I S, Marquiss, M & Staines, B W 1998 The impact of deer browsing on regeneration of Scots pine a preliminary study In Population ecology, management and welfare of deer, edited by C R Goldspink, S King and R J Putman, 48–53 Manchester Manchester Metropolitan University

Parr,T 1997 The United Kingdom's Environmental Change Network (ECN) 5 years on The Globe. 38, 2–4

Parr,T W 1997 Vegetation recording in the Environmental Change Network In ECOFACT Workshop review of techniques for botanical survey and monitoring, edited by C J Barr Grange-over-Sands Institute of Terrestrial Ecology

Photochemical Oxidants Review Group 1997 Ozone in the United Kingdom fourth report of the Photochemical Oxidants Review Group 1997 London Department of the Environment, Transport and the Regions

Preston, C D 1997 The next hundred years BSBI Welsh Bulletin, 62, 9–10

Preston, C D & (Chater, A.O.) 1997 Potamogeton x Coopen (Fryer) in Wales BSBI Welsh Bulletin, 62, 11–12

Preston, C D & (Whitehouse, H L.K.) 1997 Bryophyte records. *Nature in Cambridgeshire*, 39, 87

Pywell,R., (Peel,S, Hopkins,A.) & Bullock,J 1997 Multi-site experiments on the restoration of botanically diverse grassland in ESAs. In Grassland management in environmentally sensitive areas, edited by R D. Sheldrick, 160–167 Reading British Grassland Society (BGS Occasional Symposium no 32)

Reading, C.J. 1997 Determining reptile abundance on dry lowland heath. In *3rd World Congress of Herpetology, Prague*, edited by Z. Rocek & S. Hart

Redpath, S M & (Thirgood, S.J.) 1997 Birds of prey and red grouse London The Stationery Office (Edited by I Newton)

(Rehfisch,M M, Holloway,S,J), Yates,M G, Clarke,R.T, (Austin,G, Clark,N.A.), Durrell,S E.A. le V dit, Eastwood,J.A., Goss-Custard,J D, Swetnam,R. & (West,J R.) 1997 Predicting the effect of habitat change on waterfowl communities a novel empirical approach In Effect of babitat loss and change on waterbirds, edited by J D Goss-Custard, R Rufino & A Luis, 116–126 London The Stationery Office

Reynolds, B 1997 Nitrate leaching in Welsh upland catchments (Abstract) In Surface water acidification 1 The increasing importance of nitrogen. Abstracts of a one day symposium held at the ESRC, 11th September, 1997, edited by A W Mackay, 8–9 London Environmental Change Research Centre, University College (Research Report No 41)

(Reynolds,P) & Staines,B W 1997 Deer management in Scotland In Conservation and the use of wildlife resources, edited by M Bolton Chapman & Hall Roberts,T M 1997 Changes in priorities for management and research on biodiversity. In Britain's natural environment a State of the Nation review, edited by A W MacKay & J Murlis, 13–18 London Ensis Ltd

Rowland, A.P 1997 Atomic absorption spectrometry and other solution methods. In Modern analytical geochemistry—an introduction to quantitative chemical analysis for earth, environmental and materials scientists, edited by R. Gill, 67-68 Harlow Longman.

(Sanchez,P.A.) & Leakey,R.R.B 1997 Land-use transformation in Africa three determinants for balancing food security with natural resource utilization Nairobi ICRAF

Scott, W.A., Parr, T W , Lane, A.M , (Durrant, D , Corbett, S , Milne J , Anderson, R.), Adamson J , (Tyson, K., Bealey, C , Bater J , Hargreaves, P ), Morecroft, M & (Turner, A.) 1997 The United Kingdom Environmental Change Network Annual Data Digest for 1994 Grange-over-Sands Environmental Change Network

Scott, W.A., Parr, T.W., & Lane, A.M. The United Kingdom Environmental Change Network Annual Data Digest for 1995 Environmental Change Network Report

(Sharp,V.A.), Weeks,J M , (Williams,T M & Setiapermana,D) 1997 Land-derived contaminant influx to Jakarta Bay, Indonesia Volume 3 community structure and tissue level contamination of reef-building corals Keyworth British Geological Survey (LOCS Technical Report WC/97/55)

Sheail, J 1997 Grasslands the historical context. In Grassland management in environmentally sensitive areas, edited by R D. Sheldrick, 14–24. Reading British Grassland Society (BGS Occasional Symposium no 32)

Sheail J 1997 Environmental issues In Contemporary Britain an annual review 1996, edited by P Catterall V Preston & P Nicholson, 327–338 Aldershot Dartmouth

(Simpson, V. R., Walls, S. S., Cooper, J. E.) & Kenward, R. E. 1997. Causes of mortality in radio-tracked Eurasian buzzards (Buteo buteo) in Dorset. In Proceedings of the 4th Conference of the European Chapter of the Association of Avian Veterinarians, edited by B. Stockdale, 188–193 Loughborough. Association of Avian Veterinarians.

Skiba,U, Sheppard,L, McDonald,J & Fowler,D 1997 Nitrous oxide emissions from forest and moorland soils in northern Britain In *Proceedings of* the 7th International Workshop on Nitrous Oxide Emissions, Cologne, 1997, edited by K H Becker & P Wiesen, 247–253 Wuppertal Bergische Universitaet Gesamthochschule (Bericht Nr 41)

(Skuterud, L., Strand, P) & Howard, B.J 1997 Animals In Reclamation of contaminated urban and rural environments following a severe nuclear accident, edited by P Strand, L Skuterud & J Melin, 52–87 Norwegian Radiation Protection Authority

Smith,G M, Fuller,R.M, (Amable,G, Costa,C & Devereux,B,J) 1997 Classification of environment with vector- and raster-mapping (CLEVERmapping) In Extended Abstracts of GISRUK97, School of Geography, University of Leeds, 9–11 April 1997, 70–72

Smith, G M, Fuller, R.M, (Amable, G, Costa, C & Devereux, B.J.) 1997 CLEVER-Mapping an implementation of a per-parcel classification procedures within an integrated GIS environment In Proceedings of the Remote Sensing Society Conference, Observations and Interactions, 21–26

Sparks, TH, Carey, PD & (Combes J) 1997 First leafing dates of trees in Surrey between 1947 and 1996 The London Naturalist, 76, 15–20

Sparks, T & Greatorex-Davies, N 1997 The butterfly monitoring scheme in Cambridgeshire – coming of age *Nature in Cambridgeshire*, 39, 22–32

Sparks,T H, (Bailey,R.A. & Elston,D.A.) 1997 Pseudoreplication common (mal)practice SETAC News, May 1997, 12–13

(Strand,P, Balonov,M, Aarkrog,A., Bewers,M), Howard,B, (Salo,A. &Tsaturov,Y) 1997
Radioactive contamination in the Arctic In *The Third International Conference on Environmental Radioactivity in the Arctic* Extended abstracts volume 2, Tromso, Norway, June 1–5, 1997,5–9
Tromso AMAP – Arctic Monitoring and Assessment Programme

(Strand,P), Howard,B & (Cooke,A.), editors

1997 Environmental radioactivity in the Arctic proceedings of the Second Symposium and International Conference on Environmental Radioactivity in the Arctic, Oslo, 21-25 August 1995 The Science of the Total Environment, 202

(Strand,P, Balonov,M, Aarkrog,A., Bewers J M ), Howard, B , (Salo, A. &Tsaturov, Y S ) 1997 Arctic pollution issues radioactive contamination Osteras Norwegian Radiation Protection Authority

Sutton,M.A., Milford,C , Dragosits,U Sundin, M.A., Millord, C., Dragosits, U., Singles, R., Fowler, D., (Ross, C., Hill, R., Jarvis, S. C., Pain, B. F., Harrison, R., Moss, D., Webb J., Espenhahn, S., Halliwell, C., Lee, D. S., Wyers, G. P., Hill, J. & ApSimon, H. M.) 1997 Gradients of atmospheric ammonia concentrations and deposition downwind of ammonia emissions first results of the ADEPT Burnington Moor Experiment In *Gaseous nitrogen emissions from grasslands*, edited by S C Jarvis &B F Pain, 131–139 Wallingford CAB International

Sutton,M.A., (Lee,D S, Dollard,G.J) & Fowler,D 1998 International conference on atmospheric ammonia emissions, deposition and environmental impacts Atmospheric Environment, 32, 269–590

Sutton, M.A. 1998 Air quality and protection of the natural heritage – a perspective from the Institute of Terrestrial Ecology Natural Matters,

Swetnam,R.D., Fırbank,L.G., Ellis,N.E. & Hıll,M.O. 1997 Modelling ecological change on set-aside arable land using a GIS approach. In Environmental software systems, Vol 2, edited by R. Denzer, D.A Swayne & G. Schimak, 72–79 Chapman & Hall

(Tallowin, J. R.B.) & Mountford, J. O. 1997 Lowland wet grasslands in ESAs. In *Grassland*. management in environmentally sensitive areas, edited by R.D. Sheldrick, 100-111 Reading British Grassland Society (BGS Occasional Symposium no 32)

Thomson, A.G, Fuller, R.M & (Eastwood, J.A.) 1997 Remote sensing of intertidal habitats Humber to North Norfolk. In Proceedings of the *2nd LOIS Annual Conference*, Hull, p 188

Thornley,J H M & Cannell,M G R. 1997 Short-term and long-term responses to CO2 fertilization in N-poor and N-rich grassland Journal of Agricultural Science, 129, 113–119 (Abstracts of Communications Proceedings of the Twenty-Ninth Meeting of the Agricultural Research Modellers' Group)

**Thornley J H M** 1998 Grassland dynamics an ecosystem simulation model Wallingford CAB International

Treweek,J & Wadsworth,R.A. 1998 GIS for ecology an introduction Addison Wesley Longman

Treweek,J R., Mountford,J O Manchester, S.J., Swetnam, R.D., Brown, N.J., Caldow, R.W.G. & (Hodge, I.D.) 1998 Research on the restoration of lowland ESAS. In *United* Kingdom Floodplains, edited by R G Bailey, P V Jose and B R Sherwood, 349–370 Westbury Academic & Scientific Publishing

Urbanska,K.M), Webb,NR. & (Edwards,P.J.) 1997 Restoration ecology and sustainable development Cambridge Cambridge University Press

(Urbanska, K.M), Webb, NR. & (Edwards,P.J.) 1997 Why restoration? In Restoration ecology and sustamable development, edited by K.M. Urbanska, N.R. Webb & P.J. Edwards, 3–7 Cambridge Cambridge University

(Urbanska,K.M.), Webb,N.R. & (Edwards,P.J.) 1997 The development of criteria for ecological restoration. In *Restoration* ecology and sustainable development, edited by K.M Urbanska, N R Webb & P J Edwards, 133-158 Cambridge Cambridge University Press

(Urbanska,K.M), Webb,N R. & (Edwards,P.J) 1997 Restoration ecology science, technology and society In *Restoration* ecology and sustainable development, edited by K.M Urbanska, N R Webb & P J Edwards, 381-390 Cambridge Cambridge University Press

(Voight,G, Semiochkina,N), Wright,S Howard,B, (Mehli,H & Strand,P) 1997 Initial evaluation of the radioecological situation at the Semipaltinsk test site in the Republic of Kasakhstan, GSF Institut für Strahlenschutz

(Voigt,G, Burrough,P, Crout,N, Desmet,G), Howard, B.J., (Rauret, G., Sansone, U. & Strand, P.) 1997 Restoration strategies for radioactive contaminated ecosystems (RESTORE) In Effects of low-level radiation for residents near Semipalatinsk nuclear test site, edited by M Hoshi, J Takada, R Kim & Y Nitta, 101-114 Proceedings of the Second International Symposium, Hiroshima, July 23-25,

Wadsworth,R.A., Swetnam,R.D & (Willis,S G) 1997 Seeds and sediment modelling the spread of Impatiens glandulifera Royle In Species dispersal and land use processes, edited by A Cooper & J Power, 53 Proceedings of the 6th annual IALE(UK) conference, University of Ulster, Coleraine, 1997

Wanless,S 1997 Morus bassanus gannet In The EBCC atlas of European breeding birds their distribution and abundance, edited by W J M Hagemeijer and M J Blair, 30–31 London T &AD Poyser

**Wanless,S** 1997 *Phalacrocorax aristotelis* shag In *The EBCC atlas of European breeding birds* their distribution and abundance, edited by WJM Hagemeijer and MJ Blair, 36-37 London T&AD Povser

Wanless, S, Bacon, P.J, Harris, MP & Webb, A.D 1997 Evaluating the coastal environment for marine birds In Coast GIS '97-the next millenium, edited by D R Green & G Massie Aberdeen Department of Geography, University of Aberdeen

Watson, A. & Rae, S 1997 Preliminary results from a study of habitat selection and population size of corn buntings Miliaria calandra in north-east Scotland In The ecology and conservation of corn buntings Miliaria calandra, edited by P F Donald & N J Aebischer, 115-123 Peterborough Joint Nature Conservation Committee (UK Nature Conservation, No 13)

Watson, A. 1997 Human-induced changes in numbers of red deer in the Cairngorm area. Deer, 10, 278-281

Watson, A. 1997 Changes in use of the Cairn Gorm area by sheep and reindeer Deer, 10,

Watson.A. 1997 More data on Scottish snowbeds Weather, 50, 356

Watt,A.D, Carey,PD & Eversham,BC 1997 Implications of climate change for biodiversity In Biodiversity in Scotland status, trends and initiatives, edited by LV Fleming, AC Newton, J.A Vickery & MB Usher, 147–160 Edinburgh Scottish Office

Watt,A.D , (Stork,N E & Hunter,M ) , editors 1997 Forests and insects London Chapman &

Watt,A.D., (Stork,N E , Eggleton,P , Srıvastava,D , Bolton,B ,Larsen,T B , Brendell,M.J D & Bignell,D E ) 1997 Impact of forest loss and regeneration on insect abundance and diversity In. Forests and insects, edited by A D Watt, N E Stork & M D Hunter,273–286 Chapman & Hall

Watt,A.D , (Fluckiger,W ,) Leith,I D & (Lindsay,E) 1998 Atmospheric pollution, elevated CO2 and spruce aphids In *The green* spruce aphid in Western Europe ecology, status, impacts and prospects for management, edited by K R Day et al Edinburgh Forestry

Webb,A., French,D D & (Flitsch,A.C C ) 1997 Identification and assessment of possible beaver sites in Scotland Battleby Scottish Natural Heritage (Scottish Natural Heritage Research, Survey & Monitoring Report No 94)

Webb,N R. 1997 Land arthropods in Dorset 1996 Proceedings Dorset Natural History & Archaeological Society, 118, 179–180

Webb, NR. 1997 Ronald Good and the Botanical Survey of Dorset BSBI News, 45-47

Webb, NR. 1997 Study of biotopes and babitats losing wildlife interest as a result of ecological succession Strasbourg Council of Europe Nature and Environment, no 91

Weeks,J M 1997 Effects of pollutants on soil invertebrates links between levels. In

Ecotoxicology ecological fundamentals, chemical exposure, and biological effects, edited by G Schuurmann & B Markert, 645–662 Chichester John Wiley & Sons

Weeks, J M 1997 Detailed report of the contractor Participant no 5 In BIOPRINT II application and standardisation of biochemica lfingerprint techniques in view of the risk assessment of toxicants in soil ecosystems Second technical report, edited by J E Kammenga, 29–31 Denmark National Environmental Research Institute

Weeks,J M , (Sharp,V.A. & Williams,T M ) 1997 Land-derived contaminant influx to Jakarta Bay, Indonesia. Volume 2 contaminant-induced lysosomal membrane damage in blood cells of Greenmussell Perna viridis (Mytilidae) a field transplant study Keyworth British Geological Survey (LOCS Technical Report WC/97/64)

Welch,D 1997 Coastal plants on road verges Biodiversity in North-East Scotland, 4, p6

(Wellburn,A.R., Barnes,J D., Lucas,P W.), McLeod,A.R. & (Mansfield,T.A.) 1997 Controlled O3 exposures and field observations of O3 effects in the UK. In Forest decline and ozone A comparison of controlled chamber and field experiments, edited by H Sandermann, A R. Wellburn & R.L. Heath, 201-247 Berlin

White, A., Friend, A. & Cannell, M 1997 The impact of climate change on natural vegetation In Climate change and its impacts a global perspective, 8–9 London Department of the Environment, Transport and the Regions

(Wilkinson, WB), Parr, TW & Lane, A.M.J 1997 The development of ecological and hydrological integrated environmental data sets within the UK and the establishment of an Environmental Change Network In *Integrated* approach to environmental data management systems, edited by N B Harmancioglu NATO Workshop proceedings, September 1996, Izmir, Turkey

(Woodin,S.J.) & Marquiss,M., eds 1997 Ecology of Arctic environments (Special Publication No 13 of the BritishEcological Society) Oxford Blackwell Science

Wright, S, Howard, B, (Strand, P & Sickel, M.A.K.) 1997 Prediction of radiocaesium deposition from atmospheric nuclear weapons tests within the Arctic Oslo AMAP

Wyatt, B K. 1997 Remote sensing of land cover and land cover change In Optical Remote Sensing of Terrestrial Surfaces New Sensors, Advanced Algorithms and the Opportunity for Novel Applications, Tuusula, Finland Finnish Geodetic Institute

Yates,M G & Goss-Custard,J D 1997 The development of a correlative approach relating bird distribution and remotely sensed sediment distribution to predict the consequences to shorebirds of habitat change and loss. In *Effect of habitat loss and change on waterbirds*, edited by J. D. Goss-Custard, R. Rufino & A. Luis, 138–144. London. The Stationery Office.

#### Contract reports

- Alonso,I & Hartley,S E 1998 The vegetation dynamics of low nutrient environments factors affecting the competitive balance between heather and grasses in Scottish heathermoorlands 1998 18pp European Commission
- (Amable, G., Costa, C., Devereux, B.J.), Smith, G. M., Fuller, R.M., (Higgins, C., Murfitt, P., Pilkington, P., Wilson, R., Cowen, L. & Smith, N. S.). 1997 CLEVER – Mapping classification of environment with vector – and rastermapping Progress report, 1 December 1996 – 3 March 1997 March 1997 British National Space Centre Earth Observation Link Programme
- Anderson, L.S., Preston, C.D., Reading, C.J., Thomas, A.H., Watt, A.D. & Webb, N.R. 1997 Darwin Initiative for the survival of species monitoring and evaluation programme. Reports under PIEDA task instructions 1,2 & 3 May 1997 117pp Pieda PLC
- (Armstrong Brown, S, Loveland, P, Bradley, I, Webb, J, Mitchell, R., Chambers, B, Garwood, T), Black, H & Howard, D 1997 The impact of changing farming practices on sustainability of soils in England and Wales 2nd interim report 1997 MAEE
- Ashenden,T W , Jones,M L M & Rafarel,C R. 1996 Critical levels and loads of nitrogen for vegetation growing on different soils August 1996 Department of the Environment
- Bacon, P.J., Hartley, S. & Webb, A. 1995 DeeCAMP 1 GIS Overview of the Dee Catchment Management Plan Geographical Information System 1995 32pp DeeCAMP Partners
- Barnett, C. L., Dodd, B.A., Beresford, N.A., Self, P. L., Frankland, J. C. & Howard, B.J. 1997 Radionuclide contamination of fruit bodies of macrofungi in England & Wales a survey of contamination levels and dietary intake habits April 1997 60pp Ministry of Agriculture, Fisheries and Food
- Barr, C.J., editor 1997 Current status and prospects for key babitats in England Part 1 lowland beath landscapes September 1997 Department of Environment, Transport and the Regions
- Barr, C.J., editor 1997 Current status and prospects for key habitats in England Part 2 calcareous grassland landscapes September 1997 Department of Environment, Transport and the Regions
- Barr, C.J., editor 1997 Current status and prospects for key babitats in England Part 3 upland landscapes September 1997 Department of Environment, Transport and the Regions
- Barr, C.J., editor 1997 Current status and prospects for key babitats in England Part 4 coastal landscapes September 1997 Department of Environment, Transport and the Regions
- Barr, C.J., editor 1997 Current status and prospects for key habitats in England Part 5 waterside landscapes September 1997 Department of Environment, Transport and the Regions
- Barr, C.J., Bunce, R.G. H. & Smart, S. M. 1997 ECOFACT module 8 review and promotion of techniques for botanical survey, monitoring and assessment 1st progress report July 1997 DETR.
- Barr,C.J., Bunce,R.G.H. & Smart,S. M. 1997 ECOFACT module 8 review and promotion of techniques for botanical survey, monitoring and assessment 2nd progress report October 1997 DETR.
- Bayfield, N G , Sinka, M , Waterhouse, E C & Bienert, M 1997 An approach to monitoring impacts of recreation on montane vegetation in the Carrigorms November 1997 32pp Scottish Natural Hentage
- Bayfield,N G & French,D D 1997 Longlands Farm site ecological features and implications for reinstatement October 1997 10pp UK NIREX Limited
- Bayfield,N G 1997 Recreation impact mapping of the Cairn Gorm Ben Macdui area a pilot study November 1997 36pp Scottish Natural Heritage
- Bayfield,N G , (Sinka,M ) & Conroy,J W H 1997 Visitor use of the Cairn Gorm – Ben

- Macdui area in summer 1996 1997 Cairngorm Chairlift Company
- Bellamy, P., Bunce, R., Duckworth, J., Firbank, L., Hinsley, S., Sparks, T., Stark, G. & Swetnam, R. 1997 Lowland game sbooting study 2nd interim report December 1997 98pp British Association for Shooting and Conservation
- Bellamy, P. E. & Meek, W. R. 1997 Bird survey for Phorate 10G field trial July 1997 15pp Huntingdon Life Sciences
- Bell,S.A., Radford,G L. & (Rossall,M.J.) 1997 Damage assessment survey of saltmarsh affected by the Sea Empress oil spillage Interim report May 1997 14pp Countryside Council for Wales
- Beresford, N.A., (Mayes, R.W., MacEachern, P.J.), Dodds, B.A. & (Lamb, C.S.) 1997 The effectiveness of alginates to reduce the transfer of radiostrontum to the milk of dairy animals. May 1997 22pp Ministry of Agriculture Fisheries and Food
- Beresford, N.A., (Mayes, R.W., Crout, N.M.J., Dawson, J.M., MacEachern, P.J.), Dodd, B.A., (Soar, J.B.), Barnett, C.L. & (Lamb, C.S.) 1997 Transfer of beavy metals from feeding stuffs and environmental sources into meat, milk and other foods of animal origin Part 1 arsenic, cadmium and mercury. August 1997 68pp Ministry of Agriculture Fisheries and Food
- Beresford, N.A., (Hove, K.), Barnett, C.L., Dodd, B.A., (Fawcett, R. & Mayes, R.W.) 1998 The development and testing of rumen dwelling AFCF delivery devices suitable for upland lambs March 1998 12pp Ministry of Agriculture, Fisheries and Food
- Black, H I, J , Parekh, N , Poskitt, J & Williams, D L. 1997 Impacts of nitrogen additions on upland grassland soils Tir EmyrsPaddocks, ADAS Pullpeiran, Dyffed March August 1997 15pp Department of Environment, Transport and the Regions
- Bullock, J. M., Raybould, A.F. & Gray, A.J. 1998 Genetically modified organisms and nature conservation 1998 175pp Joint Nature Conservation Committee
- Bunce, R.G. H., Webb, N. R., Smart, S. M., Watkıns, J. W., van de Poll, H. M. & Scott, W.A. 1997 Ecological factors controlling biodiversity in the British countryside (ECOFACT) Modules 1 & 2. October 1997 116pp Department of the Environment, Transport and the Regions
- Buse,A., Thomas,A., Norris,D & Stevens,P.A. 1998 Production of a database of unmanaged semi-natural vegetation in the English uplands March 1998 44pp English Nature
- Caldow,R.W G, Durell,S E.A. le V dit, Pearson,B, Reading,C.J, West,A.D, (Rose,S & Armstrong,A.C) 1997 The influence of farmland management on wetland bird populations April 1997 99pp Ministry of Agriculture, Fisheries and
- Caldow,R.W G, Goss-Custard,J D, Hodder,K.H, (Pettifor,R., Rowcliffe,M, Lang,A., Webb.J & Houston,A.) 1997 Predicting the population consequences of local land management and babitat loss on global populations of migratory geese from individualbehaviour to population dynamics 1997 7pp NERC, SOAEFD
- Cannell,M G R., Mobbs,D C & Thornley,J H M 1997 Historic impact of climate change on the growth of European forests Final report 1st May 1997-1st March 1998 December 1997 31pp European Forest Institute
- Cannell, M G R. 1998 Carbon sequestration and carbon pools in UK woodlands February 1998 30pp The Woodland Trust, UK.
- Cannell, M G R. 1998 NERC Accountable Grant for International Scientific Co-operation for workin the Man and Biosphere Field Final report March 1998 Department for International Development
- Carcy, P D 1998 Monitoring and evaluation of the Countryside Stewardship scheme topic report on upland agreements interim report 1998 84pp MAFF
- Carss,D N , (Watt J ) & Nelson,K.C 1997 Assessment of the marine and terrestrial areas of Loch Sunart for otter conservation. April 1997 100pp Scottish Natural Heritage
- Chamberlain, H M & Wadsworth, R.A. 1997 Assessment of the relative contribution of the

- electricity supply industry to deposition of sulpbur on Sites of Special Scientific Interest in SouthWales August 1997 20pp Environment Agency
- (Child, L., Evans, D), Hill, M, (Jackson, G, Reid, I), Sheail, J, (Wade, M & Wadsworth, R.) 1997 Scoping research project in relation to monitoring the development of the national forest July 1997 70pp National Forest Company
- Conroy J 1997 San Jorge oil spill, Punta del Este, Uruguay An assessment of the impact of the oil spills on the seals of Isla de Lobos March 1997 26pp International Tanker Owners Pollution Federation Ltd
- Conroy J W H 1998 Otter (Lutra lutra) survey of the Millden Burn (proposed extension of the landfill stte at East Hatton) 1998 W A Fairhurst & Pattners
- Coward,P.A., Kennedy,V H, Parrington J, Roberts J D & Rossall,M J 1997 Heavy metal accumulation in Antarctic lichens analytical data August 1997 10pp Poles Apart
- Coward, P.A., Kennedy, V. H., Rowland, A.P., Parrington, J., Woods, C. & Wilson, D. R. 1997 Impact of quarrying operations on an SSSI soil analytical data. July 1997 13pp English Nature
- Crossley, A., Sheppard, L.J., Harvey, F.J. & Cape, J. N. 1997 Effects of acid mist containing N and S on a Sitka spruce forest plantation established in 1986 at Deepsyke 1997 23pp DETR
- Daniels,R.E., (McDonnell,E.J.), Moy,I.L., Raybould,A.F. & (Davis,R.) 1997 Species Recovery Programme shore dock Final report April 1997 40pp English Nature
- Daniels, R.E. & Maskell, L.C. 1996 Mells Rwer Springs marginal vegetation Baseline surveys 1997 October 1996 26pp ARC Southern
- Daniels, R.E. & Maskell, L.C. 1997 Wytch Farm development surveys of the pipeline route across Wytch Moor November 1997 16pp BP Exploration
- Daniels, R.E. 1998 Coastal protection scheme Nare Hotel Assessment of impact on Fal & Helford candidate SAC January 1998 25pp Jubb and Patters
- (Davies,A.), Hartley,S E & Thurlow,M 1998 The effects of nutrient inputs and grazing on the growth of beather (Calluna vulgaris) 1998 29pp ADAS
- Davies, C. E. & Harding, P. T. 1997 Database and atlas of freshwater fishes in the UK. pulot project 1996/97 June 1997 53pp Joint Nature Conservation Committee, Environment Agency
- Davies, C.E. & Moss, D. 1997 EUNIS Habitat classification. Second interim report. October 1997 126pp European Topic Centre on Nature Conservation, European Environment Agency
- Davies, C E & Harding, PT 1998 Database and atlas of freshwater fishes in the UK. 1997/98 work programme March 1998 Environment Agency
- Dawson,A., Malcolm,H M & (Grimwood,MJ) 1997 Population of the Substance Information System (EA-SIS) Asbestos 1997 62pp Environment Agency Dawson,A., Malcolm,H M & (Grimwood,MJ) 1997 Population of the Substance Information System (EA-SIS) Hydrogenchloride 1997 106pp Environment Agency
- Dawson,A., Malcolm,H M & (Grimwood,M.J ) 1997 Population of the Substance Information System (EA-SIS) Methylenechloride 1997 102pp Environment Agency
- Dawson,A., Malcolm,H M & (Grimwood,MJ) 1997 Population of the Substance Information System (EA-SIS) Dichlorobenzene 1997 102pp Environment Agency
- Deans, J. D., Lindley, D. K., Ingleby, K. & Munro, R.C. 1997 The selection of fast growing trees for sustainable production in the semi-arid zone Final summary report. Commission of the European Communities
- Deans, J.D., Lindley, D.K., Ingleby, K. & Munro, R.C. 1997 The selection of fast growing trees for sustainable production in the semi-arid zone Final scientific report Commission of the European Communities
- Deans J D , Wilson J , (Ong, C K. & Mulatya, J ) 1998 Tree root development and interactions in drylands a comparison of indigenous and exotic

- species focusing on Melia volkensii with socio-economic evaluations First annual report 1 April 1997 - 31 March 1998 1998 International Centre for Research in Agroforestry
- Dickinson, A.L., Kennedy, VH & Parrington, J 1997 The effect of added nitrogen and phosphate on Briza media and Koeleria macrantha in a growth chamber experiment analytical data August 1997 7pp Lancaster University
- Dobson, \$ 1997 Report of the IPCS Third Steering Group meeting for Concise InternationalChemical Assessment Documents (CICADS) 1997 43pp World Health Organisation
- Dobson, S 1998 Report of the Second Final Review Board on CICADs 1998 23pp World Health Organisation
- Dobson, S & Howe, P D 1997 Environmental fate and effects of diuron A review for the ACP 1998 29pp Health and Safety Executive
- Dobson, S, Howe, PD, Cummins, C & Hankard, PH 1997 Risk assessment for priority setting receptor definition and guidance values 1997 63pp Environment Agency
- Durell, S E.A. le V dit, Caldow, R.W G McGrorty, S., Pearson, B., Rispin, W. E. R., Reading, C.J., West, A.D., (Rose, S. & Armstrong, A.C.) 1998 The influence of farmland management on wetland bird populations progress report March 1998 47pp Ministry of Agriculture, Fisheries and Food
- Ellis,N E 1997 Agronomic and environmental evaluation of set aside under the arable area payments scheme a review of the literature Final edition May 1997 75pp Ministry of Agriculture Fisheries and Food
- Elmes, GW 1997 Social organisation and physiological regulation of Myrmica ants adapted to hiring in variable seasonal climates, and their ability to respond to climate change Second interim report October 1996-November 1997 1997 8pp INTAS
- Emmett,B.A., (Barden,T), Jones,MLM (Wildig,J), Young,C, Truscott,A.M, Bostock,A., Brittain,S.A., Ashenden,T & (Rushton,S) 1998 Grazing/nitrogen deposition interactions in upland acid moorland February 1998 54pp Welsh Office, Countryside Council for Wales, National Power, Powergen, Eastern Power
- Emmett, B.A., (Pugh, B) & Williams, D 1998 Influence of forest type, structure and management on nutrate leaching February 1998 11pp National Power, Powergen, Eastern Power
- Emmett,B.A., Lowe,J, Brittain,S.A. & (Bostock,A.) 1997 The impact of ammonia deposition on the soil N status of semi-natural bâbitats Annual report 1997 8pp MAFF
- Eversham, B, Roy, D, Brown, N, Fuller, R.M & McNally,S 1996 Satellite accounting fo biodwersity a scoping study March 1997 35pp **English Nature**
- Eversham, B C, Roy, DB, Brown, N, J, McNaily, S & Fuller, R.M 1997 Satellite accounting for biodiversity a pilot study English Nature
- Firbank, L.G, Bellamy, PE, Bunce, R.GH, Connolly, H, Hinsley, S.A., Stark, G.J& Swetnam, R.D 1997 Lowland game shooting study 1st interim report June 1997 20pp British Association for Shooting and Conservation
- Fowler, D, Smith, R.I, Crossley, A., Binnie, J Leith, I D, Harvey, F, (Choularton, T & Inglis, D) 1997 Valudation of wet deposition mapping procedures 1994-97 and cloud deposition monitoring and mapping in the UK 1994-97 November 1997 44pp Department of the Environment, Transport and the Regions
- Fowler,D , Flechard,C , Storeton-West,R., Smith,R.I , Pitcairn,C E R.,(Campbell,G , Stedman, J., Downing, C. & Vincent, K.) 1997 Monitoring concentrations and dry deposition of sulphur dioxide in theUnited Kingdom. Final contract report October 1997 36pp Department of the Environment, Transport and the Regions
- Fowler, D, Smith, R.I, Coyle, M & Pitcairn, CER. 1997 Co-ordination of wet and dry deposition research and photochemicaloxidants 1995–1998 May 1997 Department of the Environment, Transport and the Regions
- Fowler,D , Hargreaves,KJ , Skiba,U , (Bower,K.N , Gallagher,M W ,Morgan,G H , Dickinson, C. L. & Kaye, A.) 1998 Round Britain flights determination of GB trace gas emissions January 1998 11pp Department of the Environment, Transport and the Regions

- Fowler,D, Hargreaves,K.J, Nemitz,E, Crossley,A. & Pitcairn,C E R. 1997 MLRS toxicity study, Kirkcudbright ranges September 1997 Ministry of Defence
- Fowler,D , Skiba,U , Hargreaves,K.J , (Kaye,A. & Simpson, T) 1997 Direct measurement of UK emissions of radiatively active gases using boundary layer budgets Annual report 1997 DETR
- French,D D, editor 1997 Biodiversity on agricultural land in Scotland Report for 1996/ 7 appendices April 1997 219pp Scottish Office Agriculture, Environment and Fisheries Department
- French,D D, editor 1997 Biodiversity on agricultural land in Scotland Report for 1996/7 April 1997 154pp Scottish Office Agriculture, **Environment and Fisheries Department**
- Friend, A.D., White, A. & Mobbs, D.C. 1997 Interactive vegetation models Final report Dec 1997 37pp Department of the Environment, Transport and the Regions
- (Gardner,S.,) Welch,D., (Allen,D. & Burke,M.) 1998 Monitoring the maintenance and enhancement of heather moorland 1998 99pp
- Gerard,F , Fuller,R., Brown,N , (Jaakkola,O , Ostling,M , Rosengren,M ,Wester,K., Arozarena,A., Sebastian,A. & Bayarri,E ) 1997 Work programme 9 Research and development Task 9 3 Spatialgeneralisation Final report March 1997 59pp Joint Research Centre,
- (Gowing,D.J G , Gılbert,J C ), Mountford,J O & (Young, EG) 1997 The hydrology/ecology relationship of grassland at Elmlea meadows, CerneyWick Farm, Glos Hills Aggregates Ltd
- Gray,A.J., Reading,C.J., Garbutt,R.A., Barratt,D.R., Myhill,D.G., Cox,R. &Rothery,P 1998 Large scale experimental managed realignment, Tollesbury, Essex andSaltram, Devon 1998 Minisitry of Agricultural, Fisheries and Food
- Gray, A.J & Raybould, A.F 1997 The UK fast track procedure for regulating GMO releases A discussion paper May 1997 81pp Department of the Environment
- Greenslade, P & Pywell, R. 1997 Specification for babitat restoration A1303 Airport way realignment, Cambridge March 1997 W S Atkins
- Hall J, Bull, K., Dyke, H, Gascoigne J, Ullyett J, Wadsworth, R. & Stamp, T 1997 National Critical Loads Mapping Programme Interim report March 1997 18pp Department of the Environment
- Hankard,P & Osborn,D 1997 Potential uses of biomonitoring in pollution control-an introductory guide 1997 22pp Environment
- Harding, PT 1997 Aspal Close a preliminary assessment of its ecological importance June 1997 20pp Forest Heath District Council
- Harding, PT, Preston, CD, Arnold, HR., Greatorex-Davies J N , Telfer, M G , Croft J M ,
  Meek, W , Appleby, V J , Burton, V J &
  Forrest, W.A. 1998 Support for the Biological
  Records Centre 1997/98 fifth annual report General
  services and output 1998 12pp Joint Nature Conservation Committee
- Harris, M.P. & Wanless, S. 1997 Isle of May seabird studies in 1997 September 1997 26pp Joint Nature Conservation Committee
- Harrison, A.F, Lindley, DK., Barr, C.J, Harrison, A.F., Lindley, D. K., Barry, C.J.,
  Benham, D. G., Daniels, R.E., Davies, J.,
  Garnett, J. S., Hall, G., Parkinson, J.A.,
  Poskitt, J. M., Roberts, J. D., Rose, R., Rossall, M.J.,
  Scott, R., Williams, D. L., Wilson, D. R.& Wright, J.
  1997. Disposal of oiled beach materials in sandy
  coastal environments (December 1996). March 1997 70pp Marine Pollution Control Unit,
- Harrison, A.F, Lindley, DK., Daniels, R.E. Scott,R., Hall,G, Rowland,A.P, Benham,DG, Black, HIJ, Davies J, Garnett JS, Pearce, I, Poskitt JM, Rispin, E, Roberts JD, Rose, R., Rossall, M.J., Wilson, D.R., & Wright, J. 1997
  Disposal of oiled beach materials in sandy coastal environments (June 1997) Six monthly progress report (1997) December 1997 70pp Department of the Environment, Transport and the Regions
- Harrison, A.F, Lindley, DK., Barr, C.J Bayfield,N G , Benham,D ,Coward,P.A., Daniels,R.E , (Davies J ),Garnett J S , (Hall,G ),Parkinson J.A., Poskitt J M , Rossall,M.J , Scott,R., Williams,D L.

- &Wilson,D R. 1998 Disposal of oiled beach materials in sandy coastal environments February 1998 77pp MPCU, DETR
- Harrison, A.F., Howson, G & Garnett, J S 1997 Effects of afforestation of agricultural land on the heavy metal mobilityin soil Sixth month report 1997 DCVI FAIR Programme, CEC
- Harrison, A.F., Howson, G & Garnett, J S 1997 Effects of afforestation of agricultural land on the heavy metal mobilityin soil First year report 1997 DCVI FAIR Programme, ČEC
- Hartley, SE, (Davies, A. & Young, C) 1998 Natural compounds as repellents to deer browsing 1998 60pp
- (Highley,D E, Cowley,J) & Webb,N R. 1997 Mineral resources and international nature conservation designations in Dorset Abriefing report for the Department of the Environment, Transport and the Regions October 1997 31pp Department of the Environment, Transport and the Regions
- Hill,M O , (Downing,T E , Berry,P M , Coppins,B J , Hammond,P S ),Marquiss,M , Roy,D B , Telfer,M G & Welch, D 1998 Climate changes and Scotland natural beritage an environmental audit April 1998 Scottish Natural Heritage
- (Hopkins,A.), Pywell,R.F., (Gardner,S M.), Mountford,J.O., (Britt,C.) &Walker,K.J. 1997 A review of recent MAFF and other UK research on biodiversity relevant toESA management 1997 145pp
- (Horgan,G, Glasbey,C, Law,A., Skelsey,C) & Fuller,R. 1997 Automating air photo interpretation for the Land Cover of Scotlandproject July 1997 70pp Scottish Office Agriculture, Environment and Fisheries Department
- Hornung,M 1996 Current status and prospects for threatened habitats in England Overview 1996 86pp Department of the Environment
- Hornung, M, Barr, C.J & Bunce, R.G H, editors 1997 Current status and prospects for key habitats in England Part 6 summary report September 1997 Department of Environment, Transport and the
- Hornung, M., Barr, C.J., Stark, G.J. & Moffat, T. 1998 Countryside survey 2000 Part 1. 1st progress report March 1998 DETR
- Howard,B.J., Wright,S M. & Barnett,C L (eds) 1998 Spatial analysis of vulnerable ecosystems in Europe spatial and dynamic prediction of radiocaesium fluxes into European foods (SAVE) Scientific mid-term report Jan 1996–Dec 1997 January 1998 57pp Commission of the European Communities
- Howard,B.J., (Smolders,E., Gil.J.M., Voigt,G., Strand,P. & Crout,N.) 1998 Spatial analysis of vulnerable ecosystems in Europe spatial and dynamic prediction of radiocaesium fluxes into European foods (SAVE) Extended mid-term status report and contributions of partners to work packages Jan1996-Dec 1997 January 1998 20pp Commission of the European Communities
- Howard,D C , Gillespie,M K., Culling,A.S & Barr,CJ 1998 Hedges associated with roads, tracks and paths - an analysis of Countryside Survey 1990 data March 1998 14pp Department of the Environment, Transport and the Regions
- Howe,P D & King,K.B 1997 Environmental effects of copper chrome arsenate August 1997 24pp Building Research Establishment
- Howe, PD & King, K.B 1998 Environmental fate, levels and effects of arsenic March 1998 118pp National Research Centre for Toxicology
- Hughes,S , (Dowrick,D , Hudson,J.A., Freeman,C ), Brittain,S.A., Reynolds,B , (Hill,P & Hughes,A.) 1996 The Cerrig-Yr-Wyn wetland manipulation study Progress report for 1996 December 1996 9pp Welsh
- Hughes, S, (Hudson, J.A., Freeman, C, Dowrick, D), Brittain, S.A., Reynolds, B, (Hill, P& Hughes, A.) 1998 The Cerrig-Yr-Wyn wetland manipulation study Progress report for 1998 March 1998 5pp Welsh
- (Hutchins,M G ), Reynolds,B , (Smith,B , Wiggans,G N & Lister,T R.) 1997 Evaluation and interpretation of regional and site specific bydrochemicaldata bases for water quality assessment September 1997 BGS technical report Analytical and regional geochemistry series Natural Environment Research Council, Environment Agency, Welsh Office Ineson,P 1997 Mechanisms of nutrient turnover in the soil compartment of forest ecosystems - CORE III November 1993 - November 1996 Final Report 49pp Commission of the European Communities

- Iones, H., Howard, D.C. & Hornung, M. External costs of energy generation. quantification of ecological impacts ETSU
- Howard, D.C., Hornung, M. & Jones, H.E. 1998 External costs of energy production – semi-natural vegetation datasets 1998 Commission of the **European Community**
- (Jones, MB), Ashenden, TW, (Raschi, A., Ryle, G.J.A., Parsons, A.J., Payer, H.D., Brown, K.A.) & Thornley, J. 1992. An investigation of the effects of increasing concentrations of atmospheric CO2 and changing climate on natural and managed grassland communities in Europe using open-top and closed chambers First progress report 9pp + appendices Commission of the **European Communities**
- (Jones, MB), Ashenden, TW, (Raschi, A., Ryle, G.J.A., Parsons, A.J., Payer, H.D., Brown, K.A.) & Thornley, J. 1992. An investigation of the effects of increasing concentrations of atmospheric CO2 and changing climate on natural and managed grassland communities in Europe using open-top and closed chambers Second progress report 40pp + appendices Commission of the **European Communities**
- (Jones, MB), Ashenden, TW, (Raschi, A., Ryle, G.J.A., Parsons, A.J., Payer, H.D., Brown, K.A.) & Thornley, J. 1994 An investigation of the effects of increasing concentrations of atmospheric CO2 and changing climate on natural and managed grassland communities in Europe using open-top and closed chambers Final report 360pp Commission of the European Communities
- (Jones, MB), Ashenden, T, (Raschi, A., Parsons, A. (Jones, M. B.), Ashenden, I., (Raschi, A., Parson: & Payer, H. -D.) 1994 European Stress Physiology and Climate Experiment (ESPACE) Project 2— GRASS First annual report 144pp + appendices Commission of the European Communities
- (Jones, MB), Ashenden, T, (Raschi, A., Parsons, A. & Payer, H-D) 1995 European Stress Physiology and Climate Experiment (ESPACE) Project 2 GRASS Second annual report 185pp Commission of the European Communities
- (Jones, MB), Ashenden, T, (Raschi, A., Parsons, A. & Payer, H -D) 1996 European Stress Physiology and Climate Experiment (ESPACE) Project 2 – GRASS Third annual report 152pp Commission of the European Communities
- (Jones, MB), Ashenden, T, (Raschi, A., Parsons, A. & Payer, H -D ) 1997 European Stress Physiology and Climate Experiment (ESPACE) Project 2 GRASS Final scientific report, March 1997, 476pp Commission of the European Communities
- Jones, M L.M & Ashenden, T W 1997 Monitoring of ground level nitrogen dioxide concentrations around four exemplar British Gas compressor stations Final report March 1997 44pp British Gas
- Kennedy, V H, Dickinson, A.L, Parrington, J, Coward, P.A. & Rowland, A.P 1997 Total nitrogen in leaf litter samples June 1997 7pp University of York
- Kenward, R.E & Hodder, K.H 1997 Red squirrels on Furzey Island in 1996 March 1997 11pp BP Petroleum Developments Ltd
- Kenward, R.E, (Baird, G), McGrorty, S & Reading,CJ 1997 Gull roost prevention at Prescot Reservoir and impact on water quality November 1997 30pp North West Water
- Kenward, R.E 1998 Red squirrels on Furzey Island in 1997 February 1998 10pp British Petroleum
- (Lambin,X., Fazey,I , Samson,J , Dallas,J , Stewart,W , Piertney,S ),Palmer,S C F , Bacon,P,J & Webb,A. 1998 Aberdeensbire water vole survey the distribution of isolated water vole populations in the upper catchments of the rivers Dee and Don, Aberdeenshire 1998 44pp Scottish Natural Heritage
- Leakey, R.R.B 1997 Domestication of agroforestry trees and links with the private sector December 1997 104pp International Centre for Research in Agroforestry
- Leith, I D, Fowler, D, Cape, J N, Sheppard, L.J. & Pitcairn, C E R. 1997 Critical levels of ozone for Fagus sylvatica Annual report 1997 Department of Environment
- Leith, I D, Pitcairn, C E R., Sheppard, L.J & Fowler, D 1997 Effects of enhanced nitrog deposition to native upland plant communities Progress report July 1997 Department of Environment
- (Little,W , Short,C , Curry,N ), Carey,P D & (Finch,C ) 1998 Monitoring and evaluation of the CSS methodology 1998 MAFF

- (Loxton, R.G) & Sparks, T H 1997 Spring arrival dates of migrant birds at Portland, Dungeness, Bardsey and Calf of Man Observatories December 1997 10pp Bird Observatories Council, British Trust for Ornithology
- Malcolm,H M , Dobson,S & (Grimwood,M.J ) 1997 Population of the substance information system (EA-SIS) Toluene March 1997 87pp Environment Agency
- Malcolm, H M , Dobson, S & (Grimwood, M.J) 1997 Population of the substance information system (EA-SIS) Aniline March 1997 69pp Environment Agency
- Malcolm, H M , Dobson, S & (Grimwood, M.J) 1997 Population of the Substance Information System (EA-SIS) Dichlorvos April 1997 87pp Environment Agency
- Malcolm,H M , Dobson,S & (Grimwood,M.J ) 1997 Population of the Substance Information System (EA-SIS) Benzene May 1997 106pp **Environment Agency**
- Malcolm,H M , Dobson,S & (Grimwood,M.J ) 1997 Population of the Substance Information System (EA-SIS) Carbon Monoxide May 1997 53pp Environment Agency
- Malcolm, H M , Dobson, S & (Grimwood, M.J ) 1997 Population of the Substance Information System (EA-SIS) Selenium June 1997 95pp Environment Agency
- Malcolm,H M , Dobson,S & (Grimwood, M,J) 1997 Population of the Substance Information System (EA-SIS) Polychlormated Biphenyls June 1997 109pp Environment Agency
- Malcolm, H M , Dobson, S & (Grimwood, M.J) 1997 Population of the Substance Information System (EA-SIS) Endrin June 1997 88pp Environment Agency
- Malcolm, H M , Dobson, S & (Grimwood, M.J) 1997 Population of the substance information system (EA-SIS) 1,2-Dichloroethane August 1997 113pp Environment Agency
- Malcolm,H M , Dobson,S & (Grimwood,M,J ) 1997 Population of the substance information system (EA-SIS) Methyl ethylketone August 1997 83pp Environment Agency
- Malcolm, H M , Dobson, S & (Grimwood, M, J ) 1997 Population of the substance information system (EA-SIS) Toluenediisocyanate August 1997 78pp Environment Agency
- Malcolm,H M, Dobson,S & (Grimwood,M.J) 1997 Population of the substance information system (EA-SIS) Pentachlorophenol August 1997 115pp Environment Agency Ostler, RJ
- Malcolm, H M & (Grimwood, M, J) 1997 Population of the substance information system (EA-SIS) Antimony August 1997 135pp **Environment Agency**
- Malcolm, H, Dobson, S & Grimwood, M, J 1997 Population of the Substance Information System (EA-SIS) Carbon t 1997 103pp Environment Agency
- Malcolm, H, Dobson, S & Grimwood, M.J 1997 Population of the Substance Information System (EA-SIS) Magnesiu 1997 34pp Environment
- Malcolm, H, Dobson, S & Grimwood, M.J 1997 Population of the Substance Information System (EA-SIS) Tributyl 1997 110pp Environment Agency
- Marquiss, M, Vickers, A.D & Picozzi, N 1997 Baseline survey of pinewood birds in Cairngorms proposed special protection area, Glenmore Forest SSSI and Ballochbuie Forest August 1997 40pp Scottish Natural Heritage
- Marquiss, M, Bellini, L & Redpath, S M 1998 Analysis of CCTV tapes of white-tailed Eagle January 1998 44pp Scottish Natural Heritage
- Mason,P.A., Ingleby,K., Munro,R.C & Wilson,J 1997 Impact of forest clearance on the diversity and abundance of the native ectomycorrhizal flora and the consequences for survival and early growth of regenerating dipterocarp wildlings Final summary report 1997 6pp ITFMP Forest Research Project 3 ITFMP
- McGowan, G M 1997 Environmental assessment of proposals to extend Loch Hills Quarry, Dyce Supplementary report March 1997 Joss (Aberdeen)
- McGowan, G M & (Wigglesworth, T) 1997 Environmental monitoring in the Spey Wellfield 1997 (alders and ground vegetation) November

- 1997 24pp + appendices North of Scotland Water Authority
- McGowan, G M & Bayfield, N G 1997 Environmental assessment of proposals for native pinewood planting in GlenGelder, Balmoral Estate December 1997 58pp Trustees of Balmoral Estate
- McLeod, A.R., (Long, SP & Slee, N.JD) 1997 A review of FACE (Free-Air Carbon Dioxide Enrichment) systems 1997 51pp Natural Environment Research Council, Biotechnology and **Biological Sciences Research Council**
- Moffat, T.J & Hankard, P K. 1997 Countryside Information System stage 2 information needs and priorities April 1997 8pp Department of the Environment, Transport and the Regions, WS
- Moffat,T.J 1997 CIS marketing agreement report 1996 to-date and ITE's forward look August 1997 8pp Department of the Environment, Transport and the Regions
- (Moore,L., Floyd,P.J.), Hankard,P & Osborn,D 1997 The environmental impact of accidents involving explosives March 1997 97pp + Appendices Department of the Environment, Transport and the Regions
- Morecroft, MD, Parr, TW & Scott, W.A. 1997 Pilot study to link Environmental Change Network and Countryside Survey vegetation monitoring Interim report June 1997 October 1997 4pp Department of Environment, Transport and the
- Morecroft, MD, Parr, TW & Scott, W.A. 1997 Pilot study to link Environmental Change Network and Countryside Survey vegetation monitoring Final report December 1997 Department of the Environment, Transport and the Regions
- Moss,D & Davies,C E 1997 Habitat classification parameter frame for a European classification Final draft March 1997 European Environment Agency
- Moss,D & Davies,C E 1997 Habitat classification roposal for European classification March 1997 35pp European Environment Agency
- Moss,D & Davies,C E 1997 European Topic Centre on Nature Conservation 1997 work programme Task7 5 1 EUNIS babitat classification First Interim Report July 1997 53pp European Topic Centre on Nature Conservation
- Moss,D & Davies,C E 1997 Habitat classification database and parameter frame for a European classification December 1997 15pp + Annex European Environment Agency, European Topic Centre on Nature Conservation
- Moss,D & Davies,C E 1997 Habitats Directive annex 1 development of a database December 1997 5pp + Annexes European Environment Agency, European Topic Centre on Nature Conservation
- Moss,D & Davies,C E 1997 EUNIS babitat classification. Final report December 1997 100pp + Annexes European Environment Agency, European Topic Centre on Nature Conservation
- Mountford, JO, Manchester, S.J, Barratt, DR., Mountord, U, Manchester, SJ, Barratt, D R., (Dunbar, F M), Garbutt, R.A., (Green, I.A.), Sparks, T H, Treweek, J R., (Gilbert, J C, Gowing, D.J G & Spoor, G) 1998 Assessment of the effects of managing water-levels to
- enhance ecological diversity 1998 Ministry of Agriculture Fisheries and Food
- Mountford, JO, Roy, DB & Preston, CD 1998 Botanical data for coastal and floodplain grazing marshes 1998 Environment Agency, RSPB
- Moy,I L. 1998 The Solent ecological sensitivity analysis of the shoreline 1998 15pp BP Exploration
- (Neal,C), Reynolds,B, (Harrow,M & Roberts, G) 1998 The impact of confer harvesting and replanting on upland quality R and D progress report August 1997 – January 1998 1998 73pp Environment Agency
- Norris, D.A., Radford, G L. & Stevens, P.A. 1997 Vegetation changes between the 1940's and 1992 in three upland sites in Wales, assessed from aerial photographs August 1997 22pp Countryside Council for Wales
- (Nuttall,P) & Harris,M P 1997 Impact of tick infestations and tick-borne virus infections on seabirds Final report 1997 9pp NERC
- (Opdam, P), Firbank, L, (Fry, G), Hinsley, S, (Lawesson, J & Verboom, J) 1997 LANDECONET Landscape ecology in changing agricultural landscapes the landscape ecological network as the

- templet for biodiversity Final report 1997 Institute for Forestry and Nature Research European Commission
- Pakeman, R.J, Eversham, BC, Roy, DB, Hill,MO, Pywell,R.F, Harding,PT, (Mann,R.) & Manchester,S 1997 March 1997 36pp Environment Agency An expert system fo assessing special conservation interest feasibility phase Final report
- Palmer, M.A. & Roy, D B 1997 An estimate of the extent of dystrophic, oligotrophic, mesotrophic andeutrophic standing water in Great Britain December 1997 53pp Joint Nature Conservation
- Parekh, N.R., Self, P. & Ineson, P. 1997 Identification of microbial pure cultures using electronic digital aromasensors 1997 9pp Aromascan Plc
- Parr,TW, Scott,W.A. & Lane,A.M 1997 The United Kingdom Environmental Change Network progress report for 1997 July 1997 67pp Department of Environment, Transport and the
- Pearce, I S K. 1997 Moorland and montane babitat condition assessment data supplement for Cairngorms March 1997 Scottish Natural Heritage
- Pearce, I S K. & Marquiss, M 1997 Oban sewerage scheme ecological assessment for site 9 May 1997 21pp Mott MacDonald
- Pearce, IS K. 1997 Moorland and montane babitat condition assessment Cairngorms(supplement) October 1997 52pp Scottish Natural Heritage
- (Phong,N T, Tam,B N, Thuy,L.T T), Ingleby,K., Mason,P & Dick,J 1997 Restoration of Dipterocarp forests on denuded areas of the Cat Tien National Park in South East Vietnam annual report on VegetativePropagation and Mycorrbiza studies (January 1997– December 1997) December 1997 30pp EEC
- Picozzi,N 1997 Counts of wading birds in the Shetland Islands ESA, 1997 1997 SOAEFD
- Picozzi, N & Marquiss, M 1997 Management proposals for North Oakenbead Wood June 1997 Mott MacDonald
- Pitcairn, CER., Leith, ID, Sheppard, L.J Sutton, M, Fowler, D, Munro, R.C., Tang, S & Rossall, M.J. 1997 The potential for ammonia impacts on nature conservation 1997 43pp English Nature, Countryside Council for Wales
- (Pollard, E) & Greatorex-Davies, IN 1997 Butterfly monitoring scheme review and suggestions for the future May 1997 91pp Joint Nature Conservation Committee
- Pywell, R.F, (Meek, WM) & Manchester, S 1997 Botanical assessment on routes of proposed Soutbern Range Road, Salisbury Plain Training Area English Nature alternative route B August 1997 32pp Defence Estates Organisation (Lands)
- Pywell,R.F, Rose,R.J, Roy,D B, Barratt,R., Moy,I L., Warman,E.A.,Walker,K.J, Mountford,J O, Carey,P D, Maskell,L., Manchester,S.J, Meek,W M, Thomason,M & Garbutt, R.A. 1998 Ecological survey of Salisbury Plain Training Area 1997 1998 Ministry of Defence, Defence Estate Organisation
- Raybould, A.F, Bullock, J.M. & Gray, A.J. 1997 Stress tolerance and weediness 1997 162pp MAFF
- Reynolds, B, (Dewi, I ap, Omed, H) & Wood,M.J 1997 Agricultural and agro-industrial waste products disposal on Anglesey April 1997 40pp + appendix Environment Agency, Countryside Council for Wales
- Reynolds, B., Norris, D.A. & Radford, G. L. 1997 The effects of land use on water quality in the upper Conwy catchment-GIS analysis 1997 Environment
- Roberts, J.D., Kennedy, V.H., Parrington, J. Woods, C & Rowland, A.P 1997 Nutrient and organic status of decomposing Arctic roots analytical data July 1997 11pp Kings College
- Robertson,S M C & Hornung,M 1998 Impacts of enhanced N deposition adjacent to agricultural point sources Progress report 1998 Department of the Environment, Transport and the Regions
- (Rodrigo, V H L.) & Stirling, C M 1997 Effects of population density on seasonal light and water use of banana-based interculture systems March 1997 38pp Overseas Development Administration
- Roy, DB, Eversham, BC & Watt, A. 1997 Modelling the distribution of Zygaena viciae (New

- Forest Burnet) in Scotland using GIS November 1997 16pp Scottish Natural Heritage
- Sanchez, A.L., Singleton, D.L. & (Naylor, C.) 1997 Dietary study to assess ıntake of radionuclides of people living close to nuclear installations 2 West Cumbria March 1997 22pp Ministry of Agriculture, Fisheries and Food
- Sanchez,A.L., Kennedy,V H , (Whicker,F W , Mitchell,N G ), Wright,S M &Howard,BJ 1997 Ecological effects of a bypothetical radiation accident final report July 1997 72pp Magnox Electric plc
- Sanchez, A.L. 1997 Radioactivity around the Sellafield Nuclear Complex, UK. a review of ITE studies 1990–1994 December 1997 28pp Part of a Radiobiological Evaluation Report State Government of Schleswig-Holstein
- Scott,D, Welch,D & Thurlow,M 1997 Monitoring the effects of fencing out red deer at Ballochbuie pinewood Report for 1996 and 1997 July 1997 23pp Balmoral Estate
- Scott,R. & Culling,A.S 1997 Walney Channel saltmarsh survey Site description and habitat map 1997 13pp English Nature
- Shore,R.F , Finnie,J K., Rowland,A.P , Turk,A., Woods, C & Wyatt, C L 1997 Validation of the Mouse Oral Uptake (MORUP) and Toxicity Exposure Ratio(TER) approaches for predicting the toxicity of remedial timber treatments to bats first year interim report June 1997 29pp Health & Safety
- Shore, R.F & Wright, J 1997 Polycyclic aromatic bydrocarbon and n-alkane residues in seabird eggsafter the grounding of the Sea Empress October 1997 40pp Countryside Council for Wales
- Shore, R.F & Turk, A. 1997 Validation of the Mouse Oral Uptake (MORUP) and Toxicity Exposure Ratio(TER) approaches for predicting the toxicity of remedial timber treatments to bats fifth quarterly interim report October 1997 10pp Health & Safety
- Shore,R.F & Weeks J M 1997 Food-chain transfer of cadmium, lead, copper and zinc and the use ofmammals as biological end-points in setting Critical Loads October 1997 14pp Imperial College Centre for Environmental Technology
- Singleton, D L. & Sanchez, A. 1998 Analysis of 14C in vegetation samples collected around 18 nuclear establishments in England and Wales Interim report January 1998 4pp Ministry of Agriculture, Fisheries and Food
- Smith,G M, Fuller,R.M, (Amable,G, Costa,C, Devereux,B,J, Murfitt,P, Wilson,R., Cowen,L & Trig,A.) 1997 CLEVER-Mapping classification of environment with vector and rastermapping Quarterly report, 4 March – 23 May 1997 May 1997 BNSC Earth Observation Link Programme
- Smith,G M , Fuller,R.M , (Amable,G , Costa,C , Devereux, B.J., Briggs, J., Murfitt, P., Cowan, L. & Hobman, E.) 1997 CLEVER-mapping classification of environment with vector- and rastermapping Progress report 24 May—4 September 1997 September 1997 British National Space Centre Earth Observation Link Programme
- Smith, GM, Fuller, R.M, (Amable, G, Costa, C, Devereux,B.J., Briggs,J.,Murfitt,P., Cowen,L. & Hobman,E.) 1997 CLEVER-Mapping classification of environment with vector- and rastermapping Progress report 5 September–1 December 1997 December 1997 19pp British National Space Centre
- (Smith,G W, Nelson,K.C), Carss,D N & (Youngson,A.) 1997 The movements and estimated spawning positions of late running adultAtlantic salmon (Salmo salar L.) returning to the Aberdeensbire Dee as determined by radio-telemetry Feb 1997 SOAEFD
- (Smith,JT, Hilton,J), Howard,B,J, Howard, D.C., Naylor, C., Wright, S., Sanchez, A.L. & Beresford, N.A. 1997 Modelling the chemical availability of radionuclides in upland organic soils Second progress report November 1997 8pp Centre for Ecology and Hydrology
- Snazell, R.G, Rispin, WE, Thomas, J.A. & Elmes,G W 1997 M3 Bar End to Compton invertebrate monitoring Arethusa Clump chalk grassland restoration 1996 October 1997 82pp Mott MacDonald Civil Ltd
- (Stedman,R., Clarke,H P ,) Wadsworth,R.A (Chamberlain, H., Cook, A. & Willis, P. G.) 1997 Welland LEAP – air quality indicators 1997 Environmental Agency

- (Stedman,R., Clarke,H P ,) Wadsworth,R.A (Chamberlain, H, Cook, A. & Willis, PG) 1997 Anglia region LEAP – air quality indicators 1997 **Environmental Agency**
- Stevens, P.A., Lowe J.A.H, Brittain, S.A. & Hughes, S 1997 Soil/plant interactions in lowland grasslands - water chemistry and substrate characteristics from soligenous mire communities in Wales March 1997 54pp Countryside Council for
- Stevens, P.A., Ormerod, S.J. & Reynolds, B 1997 Final report on the acid waters survey for Wales Volume II appendices July 1997 Welsh Office, Environment Agency, Forestry Authority, Countryside Councilfor Wales
- Stevens, P.A., Ormerod, S.J. & Reynolds, B 1997 Final report on the acid waters survey for Wales Volume I main text July 1997 224pp Welsh Office, Environment Agency, Forestry Authority, Countryside Councilfor Wales
- Stillman, R.A. 1998 Review of report entitled "The distribution of wintering waterfowl around freshwater flows over the mudflats of the Orwell Estuary, England" February 1998 7pp Environment Agency
- Storeton-West, R.L 1998 Nutrogen oxides and Storeton-West, K.L. 1998 Nitrogen oxtues and sulphur dioxide calibrations 1998 6pp SEPA Sutton, M.A., Miners, B.P., (Wyers, G.P., Duyzer, J.H.), Milford, C., Cape, J.N. & Fowler, D. 1997 National ammonia concentration monitoring in the United Kingdom. sampling intercomparison, network structure and initial network results Interim report March 1997 43pp Department of the Environment
- Sutton,M.A., Hill,P W , Fowler,D & (Raven,J.A.) 1997 Impacts of nitrogen deposition on plant physiological parameters controlling the ammonia compensation point September 1997 Department of the Environment
- Sutton,M.A., Mılford,C , Nemitz,E , Singles,R.J Smith,R.I & Fowler,D 1997 Exchange of atmospheric ammonia with ecosystems in the United Kingdom Final report December 1997 57pp Department of the Environment, Transport and the
- Sutton,M.A., Tang,Y S , Coyle,M , Pitcairn,C E R., Fowler,D & (Dyke,H ) 1997 Monitoring of ammonia concentrations in the United Kingdom Presentation summaries from the site operators meeting, November 1997 December 1997 20pp Strictly confidential Department of the Environment, Transport and the Regions
- (Tallowin,J R.B ), Bullock,J M , Brown,N.J & Roy,D B 1998 Sustainable livestock systems to conserve key purple moor grass/rush pasture species 1st year report 1998 MAFF
- Thomas,J.A., (Curtis,R.J.,) Rispin,W E, (Goodhand,A., Roberts,R.E.,)Ward,L K. & Snazell, R.G 1997 M3 Bar End to Compton creating new habitat for the Chalkhill blue butterfly on Twyford Down 1996 March 1997 17pp Mott MacDonald Civil Ltd
- Thomas, J.A. 1997 The Rothschild Nature Reserves an assessment of the value and feasibility of proposed babitat restorations May 1997 45pp The Royal
- Thomson, A.G & Fuller, R.M 1997 Bala Lake/Llyn Tegid satellite remote sensing of land use change Preliminary report April 1997 5pp Environment Agency
- Thomson, A.G & Fuller, R.M 1997 Bala Lake/Llyn Tegid satellite remote sensing of land use change Final report April 1997 15pp Environment Agency
- Thomson, A.G & Fuller, R.M 1997 Land cover map of Great Britain – an extension of analysis to identify arable crops In *Predictive models for* support in nitrate policy annual report 1996/97, edited by D S Powlson Rothamsted Institute of Arable CropsResearch
- Thurlow, M, Palmer, SCF, Hartley, S& Paterson, I S 1997 Scots pine regeneration the role of soil and plant nutrients April 1997 12pp Čaledonian Partnership
- Thurlow,M , McGowan,G M & Wigglesworth,T 1997 Aonach Mor environmental audit 1997 November 1997 26pp Nevis Range Development Company
- Thurlow,M & Hartley,S E 1997 Heather and grass cover at Auchnafree plots 1993–1997 1998 3pp Auchnafree Estate Ltd
- (Voigt,G), Howard,BJ, (Rauret,G, Sansone,U, Burrough,P, Crout,N &Strand,P) 1998 Restoration of Contaminated Ecosystems (RESTORE)

- Scientific and management mid term report May 1996-Dec 1997 January 1998 46pp Commission of the European Communities
- (Voigt,G), Howard,B, (Sansone,U, Strand,P, Rauret,G, Burrough,P & Crout,N) 1997
  Mastering events of the past Restoration strategies for radioactive contaminated ecosystems
  (RESTORE) Midterm report 1996–1997 1997
  34pp European Commission
- Wadsworth, R.A. & Chamberlain, H M 1997 Estimating the effects of future emissions scenarios for 2001 using critical loads August 1997 150pp Environment Agency
- Wanless, S. & Harris, M. P. 1997. Interim results of seabird research on the Isle of May during the 1997 breeding season. 1997. In Effects of large-scale industrial fisheries on non-target species interim report, edited by J. Harwood. Directorate General Fisheries of the European Commission.
- Ward,L.K. & Snazell,R.G 1997 M3 Bar End to Compton botanical monitoring flood meadow restoration 1996 May 1997 37pp Mott MacDonald Civil Ltd
- Ward, L. K., Snazell, R.G. & Rispin, W.E. 1997 M3 Bar End to Compton botanical monitoring downland restoration 1996. August 1997. 84pp. Mott MacDonald Civil Ltd.
- Watkıns, J W & Howard, D C 1998 Dıgıtal map of the ITE land classification of Great Britain March 1998 4pp Scottish Office
- Weeks, J. M., Sharp, V.A. & Williams, T. M. 1997 Contaminant-induced lysosomal membrane damage in blood cells of Greenmussel Perna viridis (Mytlidae) from Jakarta Bay, Indonesia a field transplant study. July 1997. 19pp. British Geological Survey, Overseas Development Administration.
- Welch,D & Scott,D 1997 Calibration and status assessment of beather babitat condition classes in Glen Feshie September 1997 29pp Scottish Natural Hentage
- Welch,D 1997 Saxifraga birculus recovery programme Grampian. Report on work done 1997 1997 10pp Scottish Natural Heritage
- Welch,D & Scott,D 1998 Timber degrade in Sitka spruce due to deer bark-stripping 1998 3pp Scottish Forestry Trust
- (Williams,P.J., Biggs,J.), Barr,C.J., Cummins,C.P., Gillespie,M.K., (Rich,T.C.G., Baker,A., Baker,J., Beesley,J., Corfield,A., Dobson,D., Culling,A.S.C., Fox,G.), Howard,D.C., (Luursema,K., Rich,M., Samson,D.), Scott,W.A., (White,R. & Whitfield,M.) 1997 Lowland pond survey 1996 Final report. November 1997 Department of the Environment, Transport and the Regions
- Wilson, J., Gillies, A., (Navarro, C., Hernandez, M., Kremer, A., Labbe, P. & Caron, H.). 1997. Assessment of genetic diversity of economically and ecologically important tropical tree species of Central America and the Carribbean. implications for conservation, sustainable utilization and management Project activity report, 1 November 1996—31 March 1997. April 1997. 11pp. European Commission.
- Wilson J, Deans J D & (Ong, C K.) 1997 Comparison of tree-intercrop root interactions of Gliricidia and Grevilleain semi-arid Kenya Quarterly progress report July-September 1997 September 1997 DFID Forestry Research Programme
- Wilson J , Deans J D & (Ong, C K.) 1997 Comparison of tree-intercrop root interactions of Gliricidia and Grevilleain semi-arid Kenya Quarterly progress report April-June 1997 September 1997 DFID Forestry Research Programme
- Wilson, J., Gillies, A., (Navarro, C., Cornelius, J., Hernandez, M., Kremer, A., Labbe, P. & Caron, H.) 1997 Assessment of genetic diversity of economically and ecologically important tropical tree species of Central America and the Caribbean implications for conservation, sustainable utilization and management Final scientific report, 1 November 1994–31 October 1997 December 1997 111pp European Commission
- Wilson, J., (Shiembo, P. nde & Wainwright, J.) 1997 Domestication of fruit trees and other non-timber economic species. Kumba forest products project Annual report. April 1997 6pp Darwin Initiative

- Wilson, J., (Shiembo, P. nde & Wainwright, J.) 1997 Domestication of fruit trees and other non-timber economic species. Kumba forest products project. Midyear report. November 1997 opp Darwin Initiative
- Woods, C, Kennedy, VH & Parrington, J 1997 Porton Down ECN site nitrogen dioxide diffusion tubes analytical data January-June 1997 (Interim report) August 1997 12pp Chemical and Biological Defence Establishment
- Woods, C, Kennedy, VH & Parrington, J 1997 Alice Holt ECN site nitrogen dioxide diffusion tubes analytical data January-June 1997 (Interim report) August 1997 14pp Forestry Commission
- Woods, C, Kennedy, VH & Parrington, J 1998 Alice Holt ECN site nitrogen dioxide diffusion tubes analytical data January – December 1997 Final report February 1998 18pp Forestry Commission
- Woods, C, Kennedy, VH & Parrington, J 1998 Porton Down ECN site nitrogen dioxide diffusion tubes analytical data. January – December 1997 Final report February 1998 14pp Chemical and Biological Defence Establishment
- Woods, C, Kennedy, V H, Rowland, A.P, Parrington, J, Dickinson, A.L, Wilson, D R. & Rossall, M.J. 1998 Porton Down ECN site rainwater samples analytical data January—December 1997 Final report February 1998 12pp Chemical and Biological Defence Establishment
- Wright J 1997 Analysis of nesting material for polycyclic aromatic hydrocarbons and n-paraffins June 1997 7pp Greenpeace
- (Wright, S M ), Howard, B, J, Barnett, C L., (Stafford, C ) & Stevens, P Development of an approach to estimating critical loads for radiocaesium contamination of cow milk in western Europe DGXII-F-6, Nuclear Fission Safety, Framework Programme 1994-1998 of the European Atomic Energy Community
- Wyatt, B.K., Gerard, F.F. & Fuller, R.M. 1997 Correspondence to other themes as a basis for integrated approaches. Interim report. July 1997 18pp + appendices. European Environment Agency.
- Wyatt,B K., Gerard,F F & Fuller,R.M 1997 Correspondence to other themes as a basis for integrated approaches Second interim report Demonstration program for the inter-comparison of land classifications October 1997 20pp + appendices European Environment Agency
- Wyatt,B K., (Billington,C, Bie,K. de, Leeuw,J de), Greatorex- Davies,N & (Luxmoore,R.) 1997 Guidelines for land use and land cover description and classification. Draft final report December 1997 134pp Food and Agriculture Organisation
- Wyatt, C L. & Woods, C 1997 Analysis of metal residues in brain tissue March 1997 15pp Argyll and Bute NHS Trust
- Wyatt, C.L., Horne, J.A. & Sbore, R.F. 1997 Analysis of organochlorine pesticides in wood and dust taken from a lesser borsesboe bat roost April 1997 10pp Countryside Council for Wales
- Wyatt, C.L. & Horne, J.A. 1997 Analysis of bird prey blood samples for organochlorine pesticide and polychlorinated bipbenyl residues November 1997 11pp National Avian Research Centre
- Yates,M G , Garbutt,A., Wyatt,C L., Shore,R.F , Eastwood,J.A., Yates,T.J , McGrorty,S , Goss-Custard,J D , Durell,S E.A. Le V dit, Rispin,W E , Woods,C & Parrington,J 1997 Environmental assessment of increased Ely Ouse abstraction – final report 1996–97 Volume 1 Rwer flows and sediment, invertebrates and birds September 1997 31pp Essex and Suffolk Water

## ITE publications for sale

The Stationery Office acts as a publisher for the Institute. Titles currently available from SO are listed below.

|   | phibians and repti    | les in Britain  |               | <del>-</del> | house effect and ter                         | restrial ecosy | stems of   |
|---|-----------------------|-----------------|---------------|--------------|--|----------------|------------|
| H R Arnold  |                       |                 |               | the UK       | 11 0 14 D 17                                 | 4.5            |            |
| 40pp  | 0 11 701824 4         | £8 95           | 1995          |              | nell & M D Hooper (e                         |                | 1000       |
|   |                       |                 | _             | 56рр         | 0 11 701488 5                                | £2 45          | 1990       |
|   | e dragonflies of Bri  |                 | nd            | T.d4161      | tion of octomyroogsh                         | izac           |            |
|   | W Mooore & B C Ev     |                 | 100/          |              | tion of ectomycorrh<br>P A Mason, F T Last & |                |            |
| 151pp   | 0 11 701561 X         | £17 50          | 1996          |              | 0 11 701461 3                                | £15 00         | 1990       |
|   | ••-1                  | d - 111: a d t. | maaata in     | 112pp        | 011/014013                                   | 21700          | 1//0       |
| Atlas of gra<br>Britain and                         | asshoppers, cricket   | s and amed i    | iisects iii   | Land use     | change: the causes a                         | nd conseque    | nces       |
|   |                       |                 |               | M C Whith    |  | ara conseque.  |            |
|   | & P T Harding         | £15 50          | 1997          | 201pp        | 0 11 701553 9                                | £35 00         | 1992       |
| 61pp  | 0 11 7021172          | æ15 50          | 1997          | 201pp        | 011/01///                                    | 25700          | -//-       |
| Atlac of me   | ammals in Britain     |                 |               | Managing     | set-aside land for w                         | rildlife       |            |
| H R Arnold  |                       |                 |               | L G Fırban   |  |                |            |
| 144pp   | 0 11 701667 5         | £12 50          | 1993          | 146pp        | 0 11 7015687                                 | £10 50         | 1993       |
| PF  |                       |                 |               |              |  |                |            |
| Biological recording of changes in British wildlife |                       |                 |               |              | anglica: a research r                        |                |            |
| P T Harding   |                       |                 |               | A J Gray &   | P E M Benham (eds)                           |                |            |
| 78pp  | 0 11 701560 1         | £19 50          | 1992          | 80pp         | 0 11 701477 X                                | £4 25          | 1990       |
| Dieds of ne   | rey and red grouse    |                 |               | Tropical t   | trees: the potential f                       | or domestica   | tion and   |
| _   | th & S J Thirgood     |                 |               |              | lding of forest resou                        |                |            |
| 148pp   | 0 11 7021768          | £18 00          | 1997          |              | key & A C Newton (ed                         |                |            |
| 140bb   | 011/021/00            | 210 00          | ->>           | 284pp        | 0 11 701562 8                                | £40 00         | 1994       |
| Climate ch  | hange and rare spec   | ies in Britain  | l             | • •          |  |                |            |
|   | & A Free (eds)        |                 |               | The Unite    | ed Kingdom environ                           | mental chang   | ge         |
| 28pp  | 0 11 701802 3         | £2 75           | 1994          |              | protocols for standa                         |                |            |
| -vpp  |                       |                 |               | terrestria   | l sites                                      |                |            |
| Climate ch  | hange, rising sea lev | vel and the Br  | itish coast   | J M Sykes    | & A M Lanes (eds)                            |                |            |
|   | an, J D Goss-Custard  |                 |               | 220pp        | 0 11 702197 0                                | £25 00         | 1997       |
| 24pp  | 0 11 701429 X         | £2 75           | 1989          |              |  |                |            |
| Critical lo   | ads: concept and a    | plications      |               |              |  |                |            |
|   | g & R A Skeffington   | •               |               |              | Th   | e Statione     | erv Office |
| 134pp   | 0 11 701666 7         | £30 00          | 1993          |              |  |                | •          |
| Cumbrian  | woodlands – past,     | nresent and f   | niture        |              | •  | Publication    |            |
| J K Adamso  |                       | present and .   |               |              |  | РО             | BOX 276    |
| 88pp  | 0 11 701421 4         | £7 10           | 1989          |              |  |                | London     |
| Effect of b   | nabitat loss and cha  | nge on water    | birds         |              |  | 9              | SW8 5DT    |
|   | Custard, R Rufino & A |                 | , <del></del> |              |  |                |            |
| 144pp   | 0 11 702171 7         | £28 00          | 1997          |              |  | Tel: 0171      | 8/3 UUII.  |

### The following Provisonal Atlases have been published by the Biological Records $Centre\,,\,and\,are\,\,available\,from\,the\,Publication\,\,Sales\,\,Section\,\,at\,\,ITE\,Monks\,\,Wood.$

| 142pp   | 0 904282 53 8                                       | £2 00      | 1981   |   | T                                      | el: 01487   | 773381   |
|---|---|------------|--|---|--|-------------|----------|
| Marine dinoflagellates of the British Isles J D Dodge   |   |            |  |   |  | Cambs, PE   | E17 2LS  |
| 67pp  | 0 904282 89 9                                       | £1 00      | 1985   | Huntingdon  |  |             |          |
| Marine algae of the British Isles T A Norton  |   |            |  |   |  |             | Ripton   |
| of Britain and A E Stubbs 134pp   | 1 870393 163  | £5 00      | 1992   | Publication Sales Section ITE Monks Wood  |  |             |          |
|   | l craneflies (Diptera: 'l                           | Tipulinae) |  |   |  |             |          |
| Larger Brace<br>C M Drake<br>131pp  | hycera (Diptera) of Bi<br>1870393147                | £2 50      | Ireland<br>1991  | moorlands   | · ·                                    | _           | 1994     |
| 203pp   | 1 870393 18 X                                       | £6 50      | 1994   | Ecology of  | blaeberry and its ma                   | nagement in | British  |
| Lacewings and allied insects (Neuroptera,<br>Megaloptera, Raphidioptera and Mecoptera) of<br>Britain and Ireland<br>C W Plant |   |            |  | Woodlice in Britain and Ireland: distribution and habitat P T Harding & S L Sutton 151pp 0 904282 85 6 £5 00 1985                 |  |             |          |
| M E Archer<br>18pp  | 0 904282 38 4                                       | £1 00      | 1987   | Sales Se  | ction are:                             |             |          |
| Vespidae, so  | ne British Isles: Part 9,<br>ocial wasps            | Hymenop    | tera:  | Otber tit   | les available fro                      | m the Pub   | lication |
| R S George<br>72pp  | 0 900848 70 7                                       | £1 00      | 1974   | 42pp  | 1870393 15 5                           | £1 50       | 1991     |
| 194pp 1 870393 41 4 £7 50 1998  Insects of the British Isles: Part 4, Siphonaptera, fleas                                     |   |            |  | Recent surveys and research on butterflies in Britain<br>and Ireland: a species index and bibliography<br>P T Harding & S V Green |  |             |          |
| Ground beetles (Coleoptera, Carabidae) of Britain M Luff  |   |            |  | In addition, BRC bas published:   |  |             |          |
| CJohnson<br>91pp  | 1870393 17 1  | £5 50      | 1993   |   |  |             |          |
| Cryptophagidae-Atomariinae (Coleoptera) of Britain and Ireland  |   |            |  | K P Martyn<br>62pp  | loidea) of the British<br>1870393 09 9 | £1 50       | 1988     |
| H Mendel<br>89pp  | 1870393 11 2  | £1 50      | 1990   | 33pp  | 1870393 00 7                           | £3 00       | 1900     |
| Click beetles (Coleoptera: Elateroidea) of the British<br>Isles   |   |            |  | Sepsidae (Diptera) of the British Isles A Pont 33pp 1870393 00 7 & \$3 00 1986  |  |             |          |
| Centipedes<br>A D Barber &<br>127pp   | of the British Isles<br>& A N Keay<br>1 870393 08 2 | £2 50      | 1988   | A E Stubbs<br>34pp  | 1870393 198                            | £2 50       | 1993     |
| R Edwards (ed) – Bees, Wasps and Ants Recording Society<br>139pp 1 870393 42 2 £6 00 1998                                     |   |            | Ptychopterid craneflies (Diptera: Ptychopteridae) of Britain and Ireland |   |  |             |          |
| -   | menoptera of Britain :                              |            |  | 74pp  | 0 904282 04 X                          | £1 00       | 1977     |
| 139pp   | 1 870393 39 2                                       | £6 00      | 1997   | Longidoridae, Trichodoridae and Criconematidae<br>D J F Brown, C E Taylor, B Boag, T J W Alphey & K J<br>Orton-Williams           |  |             |          |
| •   | menoptera of Britain :<br>ed) – Bees, Wasps and A   |            |  |   | s of the British Isles:                |             | atidae   |

## New titles published by the Stationery Office in 1997–98



Birds of prey and red grouse S M Redpath & S J Thirgood

One of the most topical issues in upland land management concerns the relationship between birds of prey and red grouse. Birds of prey are of great conservation interest, while grouse are important to the economy of many upland estates. The persecution of birds of prey, which stems from concerns about their impact on viable moorland management, has generated conflict between conservation and grouse shooting interests. This publication describes the results of a study which examined the impact of raptor predation on red grouse numbers. The study was based at Langholm in south-west Scotland, but was also extended, in part, to five other study moors elsewhere in Scotland.

148pp

0 11 702176 8

£18.00

1997

### Effect of habitat loss and change on waterbirds

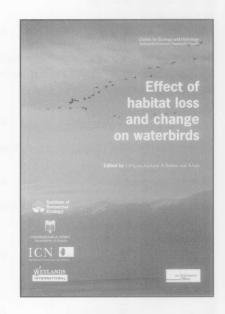
J D Goss-Custard, R Rufino & A Luis (eds)

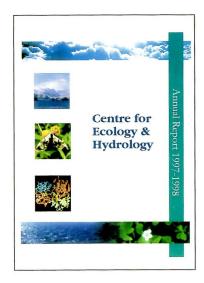
These are the proceedings of the 10th International Waterfowl Ecology Symposium, which was held at the University of Aveiro, Portugal, 18-21 September 1995. The Symposium covered many aspects of the ecology of waterbirds, but the papers in these proceedings address the plenary theme of the Symposium: approaches to predicting the effects of habitat loss and change on populations of waterbirds and to detecting when populations have been affected.

144pp

0 11 7021717

£28.00

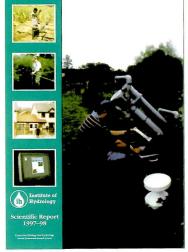






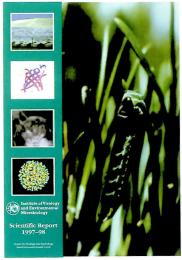
# Centre for Ecology & Hydrology

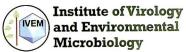
http://www.ceh-nerc.ac.uk



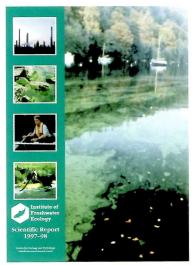


http://www.nwl.ac.uk/ih



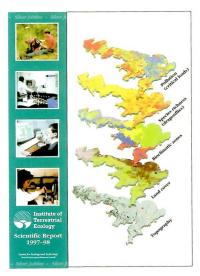


http://mail.nox.ac.uk/





http://www.ife.ac.uk/





- Silver Jubilee - Silver Jubilee - Silver Jubilee - Silver Jubilee - Silver Jubilee



ISBN 1 85531 197 6

Institute of Terrestrial Ecology
Monks Wood, Abbots Ripton, Huntingdon, Cambs PE17 2LS
Telephone (01487) 773381/8 Fax (01487) 773467
Email monkswood@ite.ac.uk
http://www.nmw.ac.uk/ite