

NATIONAL FEDERATION FOR BIOLOGICAL RECORDING.

NEWSLETTER 4

April 1987.

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The Editor welcomes articles (line diagrams, sorry no
photographs), short news items, reviews and comment.

Material for Newsletter 5, June 1987 to the Editor by **Friday 29th May**.

NEWS

Europe Recommends Local and National Databanks.

Clear and helpful recommendations promoting locally based survey, and local and national biological databanks have been published by the Council of Europe.

The Report of the Council of Europe's 3rd Colloquy on Computer Applications in the Field of Nature Conservation CESN Inf(86)14 (see summary of Colloquy in NEFR Newsletter 3) includes the following **draft** recommendations to be presented to the "European Committee for Nature Conservation and Natural resources" [CESN] early in 1987.

The Committee of MinistersRecommends that the governments of member states take appropriate steps to implement the following measures:

- a) encourage the creation of more protected areas and their inclusion into the network of biogenetic reserves,
- b) promote the inventory of biotypes at a local level that will provide detailed information on their flora, fauna and land-use,
- c) promote and support the development of local of local and national data banks to be used for land management, nature conservation, scientific research or educational purposes,
- d) give financial support for these activities,
- e) promote the co-operation and the co-ordination of local, national and international efforts for the development of a coherent network of data banks on all regions of Europe,
- f) encourage the reference to Flora Europaea for standard names to be used by all data banks dealing with the flora of europe,
- g) encourage the elaboration of lists of standard names for the major groups of organisms of the fauna of Europe and the production of machine readable forms of such lists.

Nature Conservancy Council & Dept of Environment are represented on the CESN and NEFR has asked both organisations to support the above draft recommendations and to promote their adoption by the Committee of Ministers. NEFR has asked other conservation organisations to help impress on MCC & DoE the value of this initiative from Council of Europe.

Surveying MSC Ecologists.

Gerald Pawe, Centre for Urban Ecology and Monica Hale, Urban Spaces Scheme, are conducting a British Ecology Society funded survey of ecological employment on Community Programme. The survey hopes to determine the nature and extent of such employment and clarify issues such as: low pay, job substitution, professional standards and career prospects.

A questionnaire will shortly be sent to County Nature Conservation Trusts, Local Authority Ecologists, Urban Wildlife Groups. In addition NEFR has supplied an address label list of local records centres and MSC ecological survey teams associated with RSPB, Field Studies Council and other organisations. If you do not receive a questionnaire or are interested in this project please contact: Gerald Pawe, Project Director, Centre for Urban Ecology, The Birmingham Settlement, 318 Summer Lane, Birmingham, B19 3RL

Recording for the Record

The Biological Recording in Scotland Campaign (BRISC) is promoting three Scotland wide species surveys in 1987. BRISC is asking all naturalists, resident & visiting, to look out for Oak Leaf Galls, the Stinkhorn, and the Orange Tip. For further details and a good home for your records contact: BRISC c/o Scottish Wildlife Trust, 25 Johnstone Terrace, Edinburgh.

The appeal in Newsletter 3 for details of active surveys, staff appointments and other short news items has had little time to take effect. One low energy way of ensuring the Newsletter is up to date with developments in your organisation, is to put NFER on the mailing list for your Newsletter. May I thank Suffolk RBC/Nat Soc and Leics City Wildlife Group who already do just this.

Avon is to have a Phase 1 habitat survey in 1987 and NCC have supplied funding for a supervisor, Julian Scott, based in Bristol Regional Environmental Records Centre. Julian funding for the publication of a publically accessible form of the results and already has the interest of the Countryside Commission.

CONFERENCES

UCI/RANC Annual Conference 1986.

Information in Conservation

12 December 1986 University College, London, Dept of Geography

Conference addressed problems arising from the lack of adequate information in conservation. In five sessions, speakers from local government and from industry gave their views as information users, while ITE represented the data supplier, with its Land Characteristic Data Set and Environmental Data Unit, and its involvement in the PBC Domesday project, assessment of land use and landscape, European environmental database, satellite image analysis. Professor Furrough described appropriate technology particularly the use of geographical information systems, and the NCC described the potential of such systems. Finally, Dr Hellawell discussed the effect of the administrative and political environment on data exchange. Conference proceedings are in preparation and details of their publication will be announced in the NFER Newsletter.

The conference highlighted the potential use of "Map based" databases (geographic /cartographic information system) in conservation. To cope with the interest in this subject, Claire Appleby, Conference organiser, will be preparing items on map based data-bases for NFER Newsletter. Please help Claire keep us up-to-date by contacting her with details of your applications & software at: Wiltshire Biological Records Centre, 41 Long Street, Devizes, SN10 1NS. Tel: 0380 77369

The Use of Invertebrates in Site Assessment for Conservation

Newcastle University, 7th Jan 1987 (Conference Proceedings £4 form AFPC-
see Reviews for address.

Over 100 participants heard short papers from six speakers in three sessions: 1) "The Use of Biological Records", with presentations by Dr C Foster on the use of data from the National Waterbeetle Recording Scheme to classify and rank aquatic sites and Mr W.A. Fly of Rotherham on the role of a local record centre; 2) "Designing surveys to answer specific questions", with a talk by R.H.L. Disney on rapid sampling surveys to assess sites and Dr D.A. Sheppard of MCC on the application of conservation assessment criteria to invertebrates; 3) "Multivariate Techniques", with Mr K.M.T. Furse of the EPA talking about their river survey and Dr S.P. Rushton of Newcastle University describing methods to quantify conservation criteria using ordination techniques.

Foster discussed the choice of invertebrate groups and the difficulties of sampling, concluding that the chosen group should contain a reasonable number of species (say 300-500) which could be sampled readily and should have a relatively stable nomenclature and well known national distributions. It was also considered important that the species sampled should depend on the site in some way and should not include too many tourists or vagrants. Disney also discussed sampling, stressing the importance of obtaining concurrent and replicated samples in the sites to be compared.

In both the talks and discussion there was a consensus that two processes were involved in the analysis of site species lists: i) choosing comparable sites, ii) ranking sites using one or more criteria and selecting the "better" members of each group as conservation sites.

There were differences in the method of selecting comparable sites, with Foster, Furse, & Rushton all favouring classifications erected from the invertebrate data using TWINSpan, whilst Disney preferred to use existing schemes based mainly on vegetation. Defining the geographical area over which to compare sites was debated.

The principal criterion on which to rank sites also differed. Disney advocating species richness, measured as the average number of species caught in replicated traps run concurrently in comparable sites, whilst Foster described 'Vetscore', a method of quantifying the rarity value of species lists by giving each species a weight according to how many 10m squares it was recorded from. Rushton concentrated on the quantification of typicality whilst Sheppard stressed the need to consider as many criteria as possible.

The EPA's river survey showed what could be achieved using consistent sampling and multivariate techniques. River systems throughout Gt Britain were sampled for macro-invertebrates and many physical parameters measured. TWINSpan was used to classify samples and Multiple Discriminate Analysis to identify the best combination of physical factors to categorise a new site. By determining, from the data set, the chances of a given species occurring at a site with a particular set of physical characteristics, it was possible to examine whether a new site was richer or poorer than expected. An unexpectedly 'poor' site may indicate pollution, a rich site may be of conservation value."

Dr S.Pall.MCC

BRISC AGM 1986

BIOLINK '86

Perth Museum 20th September 1986

Biological Recording in Scotland Campaign (BRISC) has been promoting recording in Scotland for eleven years and BIOLINK '86 provided this previously ad hoc organisation with a constitution at an inaugural AGM. The conference heard speeches from: N.Fasterbee, NCC on mapping wildcat distribution; J.Haddow, Work of Central Region Bat Group; N.Mackinnon, Work of Marine Conservation Society in Scotland. The afternoon was a poster and exhibit session with lively discussion. A fuller account of this meeting and other BRISC activities is in the BRISC Newsletter, contact the Editor: Mr Charles Woodward, Ayrshire BRC, The Dick Institute Museum, Elmbank Avenue, Kilmarnock, Ayrshire KA3 2RT.

REVIEWS

Biological Survey & Evaluation in Urban Areas: Methods & Application to Strategic Planning.

NCC, Dept TI, Northminster House, Peterborough, PE1 1UA :1986, pp.49 £2

This is a collection of seven papers given at a one-day conference in 1984. They cover a wide range of topics and this booklet will be of interest to all those involved in survey and evaluation, not just in urban areas.

The first paper is on entomological survey in urban areas, by A. Stubbs, makes a plea for more attention to be given to invertebrate in site evaluation & management. He lists six reasons for not ignoring entomological interest, from moral to public demand. Little help is given on how to obtain suitable data, but the paper concludes with a useful if brief section on on management techniques.

Bird surveys are considered by C.R.Harrison: in contrast to invertebrates, willing & competent surveyors are numerous. The mobility of birds gives a much more immediate indication of environmental change than the other popular group plants. Birds are quick to exploit new habitats and to desert old ones that no longer meet their requirements.

H.R.D..Seward gives a fascinating account of the use of lower plants for evaluation of air pollution. Gardeners may not be pleased to hear that black spot, the disease of roses, which was formerly absent or rare in urban areas, has dramatically extended its range into urban centres since the Clean Air Acts.

The measurement of urban open space by air photography is discussed by W. Cordan Collins. This is followed by an account of the discussion on site evaluation for nature conservation, which was led by D. Coode and reported by G.Parker. This interesting paper emphasizes the social value of wildlife sites in urban areas, but points out that the importance of social criteria further increases the complexity of survey & evaluation. There is need for work on suitable methodologies.

Both this and the last paper, by I.R.Collis on strategic planning for wildlife, point out that there is a basic requirement for adequate survey data covering all undeveloped land and including aspects such as habitat type and quality, size, ownership, development proposals, etc.. Another theme brought out by both papers is that ecologists cannot afford to be isolationists. Input from the social science is important in assessing site value in urban areas, whereas better communication with planners is needed urgently if nature conservation is to be taken seriously in the planning process. It is more use to talk to planners about the contribution nature conservation can make to urban life, and the strategic importance of a site and its perception & use by the local community, than to concentrate on the "The rare hoverfly that was seen four years ago behind the power station" a comment which may not entirely please Dr Stubbs.

Dr H.Came, CLUE

[Ed note: The Fairbrother Group AGM & Spring Conference, Leicester March 21 was on "Urban Habitat Survey & Evaluation" - more details in Newsletter 5]

The use of Invertebrate Community Data in Environmental Assessment.

M.D.Fyre, S.P.Rushton, H.J.Luff, S.G.Pall, C.N.Foster & C.J.Topping. 1986 £2
M.Turner, AFRC, Faculty of Agriculture, The University, Newcastle-U-Tyne NE1 7RU.

The report considers the application of Two-Way Indicator Species Analysis (the FORTRAN Computer program TWINSpan by Hill) and Detrended Correspondence Analysis (DECORANA - also by Hill) to various invertebrate data sets. TWINSpan produces a hierarchical classification by dividing samples into groups which have similar species compositions. DECORANA orders samples and species along environmental gradients defined by the changing species composition found within the samples.

Two data sets were derived from field work in North-East England: 1) a survey of water beetles from which 384 sites with five or more species were grouped into 10 habitat types using presence/absence data. 2) spiders and ground beetles caught in pitfall traps at 54 grassland sites were analysed using relative abundance of species in the catch as well as presence/absence. Physical parameters of the sites (soil density, moisture, pH, organic matter and sand content, biomass of vegetation) were also measured.

It was found that a rather different classification resulted from the analysis of spiders and ground beetles separately, but no meaningful pattern emerged when the two groups were combined. Ordination of the spider data produced axes which correlated well with mean vegetation biomass and soil moisture. The ground beetle ordination axes correlated with substrate composition. It was also found that little was gained by using relative abundance of species rather than their presence or absence.

Two further data sets concerning spiders and ground beetles on a European scale were assembled from literature sources and were analysed to examine whether it was feasible to construct a classification covering a large geographical area and whether the technique was robust enough to tackle data from widely differing sources. The analysis of 158 lists of spiders produced 14 end groups most of which contained samples from a single country. 438 lists of ground beetles gave a much more comprehensive classification which was interpretable on habitat rather than national grounds.

If the major environmental variables governing the distribution of communities can be identified, then there is scope for using subtle changes in communities to monitor changes in the environment. In the field of conservation little use is made of invertebrate data at present. Classification of faunas so that comparisons of similar sites can be made, and methods of quantifying the criteria used in site selection (such as rarity, species, richness, and typicality) are needed. The applications of the methodology in this field are discussed with particular reference to the possibility of quantifying typicality using ordination scores.

Because of the large numbers of species involved and the subtlety of their interactions, analysis of invertebrate communities is potentially a powerful tool in the areas of environmental monitoring and conservation, although their use presents considerable problems of sampling and the availability of specialised manpower, methods are becoming available to utilise at least some groups of invertebrates. Dr S.Ball. NCC

Septimlingual Dictionary of the Names of European Animals

Cozmány, L. Academy of Sciences, Budapest 1980 : Two vols

This dictionary cross-references to the scientific names of 20,000 European animals, vernacular & dialect names in English, French, German, Hungarian, Spanish, Russian. (Introduction in each language). Amongst the qualifications for inclusion an animal or plant group must have a written common name in at least two of the languages and be a present native inhabitant of Europe.

Volume one lists in alphabetical order, the species, genera and all higher taxa. Main synonyms are given under the specific name and cross-referenced in alphabetical sequence in the list itself. In volume two, the common names of all taxa are given in alphabetical sequence in each language section and are cross-referenced to entries in vol 1 by a number code. eg: The English entry "seven-spot ladybird, seven spotted ladybird, ladybird, lady bug; lady beetles; cushion lady; bishop barnaby; ladycow; ladyfly" cross-references to Coccinella septempunctata.

I have found it a comprehensive guide for checking names of animals in manuscripts or publications such as those by MAFF where Black Army, Brassy Willow Beetle and Darcissus Fleworm may be used to the exclusion of scientific names. If you don't happen to know what taxa are intended by Jean Jakes, squint-eyed fellow, skreek, pootie, then you know where to look!

S.Turk. Cornish RDC

ARTICLES

Training in Survey Technique and Identification

All biological surveys require expertise in survey technique and a good knowledge of the taxa being surveyed. The NFBR Newsletter hopes to publicise relevant courses and as a first step this issue carries courses on offer from the Field Studies Council and the Scottish Field Studies Association just in time for the start of the spring/summer field season. Both organisations welcome professional and volunteer surveyors on their courses and some courses have been specifically tailored to be useful to survey teams.

Many other organisations put on identification or survey courses at regional or national level. The editor is keen to discuss with course organisers the promotion of their courses through the Newsletter, please get in contact.

Field Studies Council

The FSC runs a wide range of courses to achieve an "environmental understanding for all" ,so when you go to borrow your wellies from a Field Centres store, you may rub shoulders with serious under-grads, managers from industry learning about pollution or seven-year-olds, eager to extol the virtues of pond dipping! Careful management minimises any conflict between groups and the social atmosphere is a real bonus to a stay at one of the nine residential Field Centres run by the FSC.

The Centres are impressive country houses set in outstanding environments. The standard of accomodation does not rival that of Lord Forte's establishments but the twin rooms are comfortable and the food is home made and wholesome. The Centre's labs and libraries are well stocked and the Centre's local knowledge and long term data, complements the specialist knowledge of the visiting tutor to give a really informed course.

Please take a look through the four leaflets enclosed in the Newsletter, which give a brief description of courses under the headings: Natural History ,Ecology & Conservation; Flowers & other Plants; Birds & other Animals. The full address and telephone number of each Centre is given in the booklet "Index of Short Courses at Nine Residential Centres". For further details of FSC contact:

Information Office, FSC, Preston Mountford, Montford Bridge, Shrewsbury, SY4 1HW. (0743) 850674.

L.Bonner.FSC

Scottish Field Studies Association 1987 Courses

Presented below are a selection of courses run by the SFSA at Kindrogan Field Centre. For a full course list, information sheets on specific courses and booking forms please write to: **Kindrogan Field Centre, Enochdu, Blairgowrie, Perthshire, PH10 7PG Tel: 025081 286**

1-3 May: Introducing Mosses -Gordon Rothero. An introduction to the ways and means of identifying these common but difficult plants. An opportunity also, to discover more about their way of life and conservation. £35

5-7 June: Spiders & Harvestmen -Alastair Lavery. A weekend introduction to the identification and habitats. The course will cover collection methods, identification and ecology of some 200 species. £35

11-15 July: Moths & Butterflies -Robin Knill-Jones. Emphasis will be on the trapping, identification, recording and conservation of moths and butterflies. The range of habitats within range of Kindrogan will be fully exploited, lowland woods to mountain tops. £110

25 July-1 August: Ferns -Chris Page. An introduction to the identification & ecology of ferns, horsetails and their allies for the enthusiastic beginner to the experienced amateur and professional. The variety of species around Kindrogan will be explored along with other excursions to areas both highland & lowland. £110

1-8 August: Spiders -Mike Roberts. A course designed for those with some experience of spiders. A range of highland habitats will be explored and expert help is always available with identification. £110

1-8 August: Mosses & Liverworts -Martha Newton. A chance to become more familiar with these plants through field & microscopic examination. A wide range of habitats will be visited. £110

8-15 August: Getting to Grips With Grasses -Rachel Hamilton. A difficult group made possible with an enthusiastic guide to lead you through both the flowering & non flowering groups. Suitable for the enthusiastic amateur or those with a professional interest -botanical survey, forestry or conservation. £110

15-22 August: Lichens -Chris Hitch. An introduction identification and ecology of the rich lichen flora of the area, suitable for anyone from beginner to more experienced. £110

27-31 August: Wild Roses -Rev.C.G.Craham. A short course jointly organised with the PSBI. For experienced botanists, it offers a chance to become familiar with this difficult group under the guidance of an expert. £60

12-19 September: Fungi -Alan Silverside. A week's foraging in the woods, moors and fields of the Grampians, both for beginners and enthusiasts. Field identification and ecology are covered as well as microscopic techniques. £110

CHECKLIST of LOCAL RECORDS CENTRES

I have put together an alphabetical list of local records centres (LPCs) to up-date the list published by the Biology Curators Group in 1981 (POC Newsletter 2(10), 468, 478). Following the main address list is an index of local records centres by county, region (Scotland), district.

The list will contain errors and omissions. Please help me to improve the list by sending in corrections ASAP, ready for an update in the Newsletter later this year. This list is available on labels for organisations or researchers wishing to contact local records centres. If you wish your organisation to be included or removed from the mailing list please get in contact.

Omissions: When is a data-bank a LPC?

Since the formation of the majority of LPC's in the mid 70's a large number of organisations have of necessity gained significant biological data-banks at a local level. This list includes a handful of County Nature Conservation Trusts, Urban Wildlife Groups, and Local Authority centres not based in museums. The selection has been arbitrary and needs improving. At the moment, I have included only organisations which have indicated that they have a local records centre function. The feasibility of listing all organisations holding significant biological data-sets is being looked at by HPER as part of a Handbook for Biological Recording, please contact editor for details.

ENGLAND & WALES

Aberdeen University Natural History Museum

Mr Kenneth Watt

Tel: 0224 40241 x6413

Aberdeen University
Zoology Dept

Tillydrone Avenue Aberdeen AB9 2TN

Angus District Records Centre

Mr Norman K. Atkinson
District Curator

Tel: 0674-73232

Montrose Museum & Art Gallery
Paradise Place

Montrose Angus DD10 8HE

Arran Biological Records

Mr D. Warner

Tel: 0674 73232

Proddick Castle
Isle of Arran

Ayrshire Biological Records Centre

Mr Charles Lockward
Keeper of Geology
The Dick Institute Museum
17th and Avenue
Pillarwood, Ayrshire PA3 2TH

Tel: (0563-26401)

Berkshire Biological Records Centre

Mr P. J. Carter
Keeper of Natural History
Reading Museum & Art Gallery
Raggrave Street
Reading RG1 1QP

Tel: (0734 55011 x2242)

Biological Records Centre for Lincolnshire & South Humberside

Mr P. Johnson
Assistant Keeper of Natural History
Lincolnshire Museum
Broadgate
Lincoln LN2 1JX

Tel: 0522 30401

Bolton Museum & Art Gallery

Mr S. Garland
Senior Keeper Natural History
Le Mans Crescent
Bolton
Lancs BL1 1SA

Tel: (0204-22311 x379)

The Borders Record Centre

Mr Mike Osborne

Tel:

Firrae

Hellerstain

Cordon Perthshire PH3 6JC

Bristol Regional Environmental Records Centre (BRERC)

Mr G. J. T. Coq
Asst't Curator Nat Hist & Info Tech
City of Bristol Museum & Art Gallery
Queens Road
Bristol BS6 1PL

Tel: 0272 299771 x215

Buckinghamshire Environmental Records Centre

Mrs P. J. Fovelland
Keeper of Natural History & Geology
Buckinghamshire County Museum
Church Street
Aylesbury Bucks HP20 2XP

Tel: NY. 82158

Caithness Records Centre

Mr Iain Smith

Tel:

Caithness Museums Service
Sinclair Terrace
Tick Caithness IV1 5AJ

Cambridgeshire Wildlife Trust
 Mrs Jacqui Green
 Conservation Officer
 5 Fulbourn Manor
 Fulbourn
 Cambridgeshire CB1 5JF

Tel: 0223 680788

Central Region Records Centre
 Mr A. Prackenkridge

Tel: 0706 71917

Stirling Smith Art & Museum
 Albert Place
 Marlton Road Stirling FK9 2JF

Colchester & Essex Museum

Mr A. Heath
 Keeper of Natural History
 Museum Resource Centre
 14 Pygate Road
 Colchester Essex CO1 2YJ

Tel: 0206 712401

Cornish Biological Records Unit
 Mrs Stella Turk

Tel: 0209-215736 (712060)

Paroach House
 Cross Street
 Redruth Cornwall PL15 2JH

Derby Museum & Art Gallery

Mr William Crane
 Keeper of Natural History
 Dept of Natural History
 The Strand
 Derby DE1 1JS

Tel: 0332-31111 x782

Doncaster Museum & Art Gallery Biological Records Centre

Mr P. Skidmore
 Keeper
 Doncaster Museum & Art Gallery
 Quarry Road
 Doncaster DN1 2AF

Tel: 0302 734267

Dorset Environmental Records Centre

Mrs Cletys Roberts
 Keeper of Records
 Dorset County Museum
 High West Street
 Dorchester Dorset DT1 1YA

Tel: 0305-62735

Dundee Records Centre

Mr Richard Brinklow
 Keeper Natural History
 Dundee Museums & Art galleries
 Albert Square
 Dundee DD1 1LA

Tel: 0382 23141 x152

Epping Forest Conservation Centre

Paul Woxey
 Warden & Director of Studies

Tel: 01 505 7714

High Beach
 Loughton
 Essex IG10 4AF

Essex Biological Records Centre.

Mr Colin V. Plant
 Assistant Curator Natural Sciences
 Passmore Edwards Museum
 Parford Road
 Strafordford London E15 4JG

Tel: 01-519-4298/4545

Falkirk District Biological Data Bank

Tel: 0224 24011 x2202

Mr J. H. Sanderson
 Curator
 Falkirk District Museums
 Fore Street,
 Falkirk FK1 5NP

Glasgow Records Centre

Tel:

Mr Geoff Hancock
 Keeper of Natural History
 Art Gallery & Museum
 Pelvingrove
 Glasgow G3 8AC

Gloucestershire Trust for Nature Conservation

Tel: 045292 2761

Dr Gordon McCrone
 Church House,
 Standish
 Stonehouse Glos GL10 3TU

Greater London Ecology Unit

Tel:

Dr David Lawson
 Dr Doug Cane
 The County Hall
 London SE1 7JF

Owent Biological Records Centre

Tel: 0633 840064

Mr R. Argyll Campbell
 Senior Keeper Natural History
 Lewkport Museum & Art Gallery
 John Frost Square
 Lewkport Gwent NP23 1JZ

Hamshire County Museum Service

Tel: 0602 66242

Mrs Jan. Grant
 Keeper of Records & Documentation
 New Chichester House, Chichester
 Park Road, Winchester
 Hampshire SO23 8EP

Hancock Museum

Mr Peter S. Davis

Tel: 091 232 2359

Paras Bridge
Newcastle-upon-Tyne
NE2 4PR

Hereford City Museum & Art Gallery

Mr S. Carter

Tel: 0432-269121 x2.7/324

Keeper

Brook Street,
Hereford,
HR4 9AH

Inverness Records Centre/Highland Biological Recording Group

Mr Stephen Moran

Tel: 0463-237114

Assistant Curator (Natural Sciences)

Inverness Museum & Art Gallery

Castle Wynd

Inverness IV2 3HF

Islay Field Centre

Mr Malcolm Gillvie

Tel:

Port Charlotte
Isle of Islay
Argyll PA46 7W

Isle of Wight Environmental Records Centre

Mr A. Insole

Tel: 0993 619229

Museum Service, Wyde Library,
George Street
Wyde Isle of Wight

Kent Biological Records Centre

Mr F.C. Philp

Tel: 0622 54497

Keeper of Natural History

Waldstone Museum & Art Gallery

St Faiths Street

Waldstone Kent ME14 1HP

Leicestershire Museums Records Centre

Mr Ian P. Evans

Tel: 0533 554100

Assistant Director (Natural Sciences)

96, New Walk

Leicester

Leicestershire LE1 6TP

Llwynnam Field Centre, NMST.

David P. Jones

Tel: 050-749-308

Coedriche-on-yl-e
Llwynnam Wells,
Powys, LL1 6TP

Luton Museum Record Centre

Mr F. Packety

Tel: 0582 31941

Curator

Cardown Park

Luton

Bedfordshire LU2 7HA

Manx Museum, Library & Art Gallery

Mr L.S. Carrad

Tel: 0694 25100/25522

Assistant Keeper

Douglas

Isle of Man

Museum Nan Eilean

Mr Brian Penrie

Tel: 0651 47728305

Tom Hall

Stornoway

Lewis Western Isles HA87 2XP

New Forest Biological Records

Mr & Mrs Velistoad

Tel:

3, Pelvin Close

Lythe

Southampton SO4 5HA

Norfolk Biological Records Centre.

Mr J.C. Inman

Tel: 0463 011277 2007

Keeper of Natural History

Natural History Department

Castle Museum

Norwich Norfolk IP1 3UP

North Eastern Environmental Biological Records Centre

Tel: 0783-41225

Senior Museum Officer (Natural Science)

Sunderland Museum

Borough Road

Sunderland Tyne & Wear SP1 1PP

North Herts Biological Records Centre

Mr J. Jones

Tel: 0462 09457

Keeper Field Natural History

North Herts Museum Service Natural History Dept

Old Fire Station,

High St, Baldock, Herts SG7 6HP

North West Biological Field Databank

Mr A.S. Cunn

Tel: 051-207-0001/2401

Assistant Keeper Botany

Merseyside County Museum

William Brown Street

Liverpool L3 9TF

Nottingham Biological Records Centre Mr Graham Talley Curator of Natural History Nottingham Nat Hist Museum Tollaton Hall Nottingham NG8 2AF Ordnery Field Club County Library Laine Street Farnwall CHURCH Oxford Biological Recording Scheme Mr J.H. Campbell Oxfordshire County Council Dept Museum Services Oxfordshire County Museum Woodstock Oxford OX7 1ST Pembrokeshire Biological Records Centre The Curator Colton Manor Museum, Critical Paverfordwest Dyfed SA62 5GL Perth & Kinross District Records Centre Mr P. Taylor Keeper of Natural Sciences Perth Museum & Art Gallery George Street Perth Peterborough City Museum & Art Gallery Mr Gordon P. Chancellor Priestgate, Peterborough PE1 1JL Plymouth Biological Records Centre/Plymouth Wildlife Group Mr David Curry Keeper of Natural History City Museum Drake Circus Plymouth PL4 8AJ Renfrewshire Records Centre Mr David Bellor Keeper of Natural History Paisley Museum High Street Paisley Strathclyde PA1 2JW Tel: 0602-261130 Tel: Tel: 0993 411456 Tel: 0437 82 328 Tel: 0730 30499 Tel: 0733 43329 Tel: 0752-689600 x4376 Tel: 041-899-3151	Royal Albert Memorial Museum Mr David Bolton Keeper of Natural History Queen Street Exeter EX4 3JX Clifton Park Museum Mr V.A. Pily Clifton Lane Fotherham South Yorkshire S65 1JF Scunthorpe Borough Museum & Art Gallery Keeper Natural Sciences Oswald Road, Scunthorpe, South Yorkshire NG15 7BP Seffield Ecology Unit Mr P. Whitely Curator Sheffield City Museum Weston Park Sheffield S10 2TP Shetland Museum Mr Tom Watt Assistant Curator Lower Pillhead Lerwick Shetland Islands ZH1 0PL Shropshire Biological Records Centre Mr John Horton Assistant Keeper Puttercross Museum Old Street Ludlow Shropshire Somerset Trust Environmental Records Centre Mr John Wilkins Records Centre Manager C/O Pyme Court Moorfield Bridgwater Somerset TA5 2JX Southend-on-Sea Museums Service Mr J.F. Skinner Central Museum Victoria Avenue Southend-on-Sea Essex Tel: 0392-56724 Tel: 0709 21213559 Tel: 0724-636639 Tel: 0742 27296 Tel: 0595 5057 Tel: 0564 3657 Tel: 09245 597 Tel: 0702-330214
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St Albans City Museum

Phil Collins
Keeper of Natural History
Hatfield Rd
St Albans
Herts AL1 3PR

Tel: 0727 56679

Staffordshire Biological Records Centre

Mr Geoff Halfenny
Curator of Natural History
City Museum & Art Gallery
Bethesda Street
Hanley Stoke on Trent ST1 4HS

Tel: 273173

Stirchley Grange Environmental Interpretive Centre

Tel:

Telford
Shropshire

Suffolk Biological Records Centre

Mr Howard Pendell
Curator of Natural History
The Museum
High Street
Ipswich Suffolk IP1 3QU

Tel: 0473 213761/2

Townley Hall Art Gallery & Museums

Keeper of Natural History
Townley Hall
Burnley
Lancs BB1 3PC

Tel: 0282 24213

Ulster Museum

Dr P. Finwin
Keeper of Botany & Zoology
Botanic Gardens
Belfast
BT9 5AP

Tel: 0932 66251/5

Warwickshire Biological Records Centre

Mrs Pam Copson
Keeper of Natural History
Warwickshire Museum
Market Place
Warwick CV4 4SA

Tel: 0926-493431

West Glamorgan Biological Records

Dr P. Haylings
Lecturer
University College Swansea
Dept of Zoology
Singleton Park Swansea SA2 8PP

Tel:

West Yorkshire Ecological Advisory & Information Service

Mr Iavin
Cliffe Castle Museum,
Spiry, Gardens Lane,
Feighley, W. Yorkshire WF20 1LJ

Tel: 0535 64164

Wiltshire Biological Records Centre

Mrs. Claire Appleby
Biological Recorder
The Museum
41 Long Street
Devizes Wiltshire SN10 1PS

Tel: 0380 77300

Worcestershire Biological Records Centre

J.F. Thourline
c/o The Museum
1 Conventary Drive
Sicklany Worcester WR1 2HT

Tel: 0905 355071

Yorkshire Museum Biological Records Centre

Dr P. Howard
Keeper of Biology
The Yorkshire Museum
York YO1 2EP

Tel: 0904 29745

ENGLAND & WALEs

<u>County</u>	<u>District</u>	<u>Local Records Centre</u>
Avon		Bristol Regional Environmental Records Centre
Bedford		Futon Museum
Berkshire		Berkshire Biological Records Centre
Buckinghamshire		Buckinghamshire Environmental Records Centre
Cambridgeshire		Cambridgeshire Wildlife Trust
	Peterborough	Peterborough City Museum & Art Gallery
Cheshire		North West Biological Field Data Bank
Cleveland		North Eastern Environmental Records Centre
Cornwall		Cornish Biological Records Unit
Derbyshire		Derby Museum & Art Gallery
Devon & E		Royal Albert Memorial Museum
S&W		Plymouth Biological Records Centre/Plymouth Wildlife Group
Dorset	Plymouth	Dorset Environmental Records Centre
Durham		North Eastern Environmental Records Centre
Dyfed	Preseli	Pembrokeshire Biological Records Centre
	South Pembro	Pembrokeshire Biological Records Centre
Essex		Essex Biological Records Centre.
NE	Colchester	Colchester & Essex Museum
SE	Epping Forest	Epping Forest Conservation Centre
SE	Southend-on-Sea	Southend-on-Sea Museums Service
Gloucestershire		Gloucestershire Trust for Nature Conservation
Greater London		Greater London Ecology Unit
Greater Manchester		North West Biological Field Data Bank
	Bolton	Bolton Museum & Art Gallery
Gwent		Gwent Biological Records Centre.
Hampshire		Hampshire County Museum Service
	Medina	Isle of Wight Environmental Records Centre
	New Forest	New Forest Biological Records
	South Wight	Isle of Wight Environmental Records Centre
Hereford & Worcester		Hereford City Museum & Art Gallery
Hertfordshire N		West Hertspire Biological Records Centre
S		St Albans City Museum
Humberside	Scunthorpe	Scunthorpe Porrough Museum & Art Gallery
S		Biological Records Centre for Lincolnshire & South Humberside
Kent		Kent Biological Records Centre
Lancashire		Townley Hall Art Gallery & Museums
Leicestershire		North West Biological Field Databank
Lincolnshire		Leicestershire Museums Records Centre
N		Biological Records Centre for Lincolnshire & South Humberside
Merseyside		Scunthorpe Museum Biological Records Centre
Middlesex		North West Biological Field Databank
Norfolk		St Albans City Museum
North Yorkshire		Norfolk Biological Records Centre.
Northumberland		Yorkshire Museum Biological Records Centre
Nottinghamshire		Northumberland Biological Records Centre
Oxfordshire		Nottingham Biological Records Centre
Powys		Oxfordshire Biological Recording Scheme
Salop		Illyddinam Field Centre, UWIST.
		Shropshire Biological Records Centre

ENGLAND & WALES Continued

<u>County</u>	<u>District</u>	<u>Local Records Centre</u>
Salop		Stirchley Grange Environmental Int. Centre
Somerset		Somerset Trust Environmental Records Centre
South Yorkshire	Poncaster	Doncaster Museum & Art Gallery Biological Records Centre
	Potherham	Clifton Park Museum
	Sheffield	Sheffield Ecology Unit
Staffordshire		Staffordshire Biological Records Centre
Suffolk		Suffolk Biological Records Centre
Tyne & Wear		Northumberland Biological Records Centre
Warwickshire		North Eastern Environmental Records Centre
West Glamorgan		Warwickshire Biological Records Centre
West Yorkshire		West Glamorgan Biological Records
Wiltshire		West Yorks. Ecological Advisory & Inf. Service
		Wiltshire Biological Records Centre

SCOTLAND

<u>Region</u>	<u>District</u>	<u>Local Records Centre</u>
Borders Region		The Borders Record Centre
Central Region	Clackmannan	Central Region Records Centre
	Falkirk	Falkirk District Biological Data Bank
	Stirling	Central Region Records Centre
Fife Region		Dundee Records Centre
Grampian Region		Aberdeen University Natural History Museum
	Badenoch &	Inverness Records Centre
	Strathspey(pt)	
Highland Region	Caithness	Caithness Records Centre
	Inverness	Inverness Records Centre
	Lairn	Inverness Records Centre
	Poss & Cromarty	Inverness Records Centre
Orkney Islands Area		Orkney Field Club
Shetland Islands Area		Shetland Museum
Strathclyde Region	Argyll & Bute	Islay Field Centre
	City of Glasgow	Glasgow Records Centre
	Cumrock & Doon	Ayrshire Biological Records Centre
	Cunninghame	Arran Biological Records
	Cunninghame	Ayrshire Biological Records Centre
	Filmarnock & Ln	Ayrshire Biological Records Centre
	Kyle & Carrick	Ayrshire Biological Records Centre
	Renfrew	Renfrewshire Records Centre
Tayside Region	Angus	Angus District Records Centre
	City of Dundee	Dundee Records Centre
	Perth & Kinross	Perth & Kinross District Records Centre
Western Islands Area		Museum Nan Eilean
NORTHERN ISLAND		Ulster Museum
ISLE OF MAN		Manx Museum, Library, & Art Gallery