



NATIONAL FEDERATION FOR BIOLOGICAL RECORDING



NFBR NEWSLETTER 12 : January 1992

National Federation of Biological Recording Newsletter 12

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Articles for the newsletter should be submitted to the editor, preferably on computer disc, either 5.25 or 3.5 in disc in ASCII format, or Windows Word format on DOS compatible discs, or in ASCII on Unix/Xenix format discs.

Editorial

In July the Government announced its intention to introduce hedgerow protection measures following the issue of a consultation paper earlier in the year. Although still not confirmed, no doubt the legislation will come. There are two elements proposed:

A hedgerow notification scheme and a system of management grants. Landowners wishing to remove hedgerows or reduce their size would need to notify their local authority of their intention. If the authority believed the hedgerow to be of landscape, wildlife or historical interest it would register it as such and inform the owner or occupier. Registered hedges would be protected for 10 years and would qualify for management grant.

Hedgerow maintenance grants. Central government will be responsible for providing grants to encourage the re-introduction of environmentally beneficial management.

These proposals are welcome, but do raise the problem of by whom and how hedgerows are to be assessed. Records centres will obviously be increasingly called upon to provide assessments of hedgerows. Any articles for publication detailing hedgerow survey and assessment experience would be very welcome.

The newsletter relies on you to send in items of interest. We particularly need reviews of meetings and publications, and news items.

Next deadline: 1st March 1991

Chairman's Report 1990/91

A transcript of the report to NFBR AGM 5/7/1991

Since the AGM at Leicester on 1.6.1990 there have been four meetings of Council in London and Bristol. Matters dealt with have included this conference, CCBR activities, the newsletter and RECORDER. Conference is currently happening, the latest newsletter has happened and there is some movement on RECORDER. Correspondence concerning RECORDER has been exchanged with NCC (to no real effect) and I am awaiting a reply to a letter sent to NCCE in May. NFBR's input has tried to be constructive and I understand that a rethink is in progress within NCCE on the matters of charging an annual fee for the use of RECORDER and of the legal requirement for this to be maintained.

I have represented NFBR (& thus the other agencies with an interest in the storage of biological data -

BCG, MDA, OAL, MGC & MA) at 4 meetings in London and at Monks Wood. A statement of intent has been prepared which I have circulated to all our "constituents" and which has been printed in our newsletter. CCBR is now seeking initial funding to carry out the information gathering and collating exercises, followed by a series of recommendations for future support of biological recording. There is a strong possibility that some of this money will be made available this financial year, thus allowing work to start somewhat earlier than originally expected. A questionnaire was circulated with our newsletter and I am grateful for the replies received to date. The information which they contain will be useful in putting together the data that CCBR will be compiling.

There is a feeling that CCBR's appeal to DoE for funding has not been received as sympathetically as was expected because of the Commission's lack of formal status. There is, therefore a proposal that CCBR should become either a non-profit making company or a charity and its representatives (such as NFBR) should pay a membership fee. This proposal is currently being discussed and I should be grateful of you comments on these options.

On March 2nd I organised a joint NFBR/YNU recording conference at York to report the national initiatives back to naturalists and conservationists in the North of England (or at least the most important part of it). Contributors were Adrian Norris, the Keeper of Natural History at Leeds City Museum, who is keeping information from YNU excursions in a site-based storage system, Dr Michael Archer, a regional co-ordinator for BWARS who discussed the relationship of regional and national recording schemes, Prof. Mark Seaward, the organiser of the Lichen Mapping Scheme, who demonstrated the ways that mapped data could be coordinated, and I dealt with the initiatives of BCG, NFBR and CCBR over the past decade. It has been decided that such a conference shall take place in alternate years at York. If anyone else would like to organise a similar event in other parts of the country I shall be delighted.

The Select Committee on Science and Technology has set up a sub-committee to consider Systematic Biology Research. Although NFBR was not invited to submit evidence I was informed by Paul Harding and a comment has been sent.

The Countryside Commission has recently circulated a consultation paper on "Visitors to the Countryside". Again NFBR has not been invited to comment but the paper deals with aspects of interest to us and a response is being formulated.

Bill Ely.

National Federation for Biological Recording Fifth Annual General Meeting

Held on Friday 5th July 1991 at the University of Sussex

Minutes

1. Apologies were received from Charles Copp, Charles Couzens, Stella Turk, Ian Maclean, Chris Yates and Meg Game.
2. Minutes of the fourth AGM held on 1 June 1990 were accepted without alteration.
Proposed: H Arnold
Seconded: S Ball
3. The Chariman's report for 1990-1991 was given.
4. The Accounts and Balance Sheet were presented. W Ely will check the entry of £399.98 for AGM fees during 1990/91 since there is a separate entry of £288.78 for conference expenditure. Subject to this being clarified the accounts were accepted.
5. I Evans has resigned. H Arnold must stand down for one year before becoming re-eligible. The nominations on the agenda at item 5 were proposed en-bloc by H Arnold and accepted unanimously. Council is therefore:

Bill Ely, Chairman

Phil Collins, Editor

Marie Moreau, Secretary

Charles Copp, Treasurer and Membership Secretary

Paul Harding

Colin French

Martin Sandford

Alex Tait

Graham Walley

Claire Appleby

Laurence Way

Meg Game

Stuart Ball

Charles Couzens/Sara Hawkeswell co-opted as representative from RSNC

6. Bill Ely will check with Charles Copp regarding the auditor.
7. A question was put regarding the role of NFBR now that the CCBR was in existence. Paul Harding said that NFBR was very beneficial in heightening the awareness of both biological recording and the need for national policies and standards. NFBR has a major role in generating and collating data and establishing good scientific practice. P. Harding will produce a structure diagram to illustrate the connections between NFBR, CCBR, BRC, DoE, NCC etc for the next NFBR newsletters. Any views should be sent to the Chairman.

Subscriptions have fallen due. C Copp will progress their collection.

There was no other business therefore the meeting was closed.

News

Co-ordinating Commission for Biological Recording Progress Update (November 1991)

The CCBR Programme

CCBR has agreed that before recommendations on the co-ordination of biological recording can be formulated a detailed study of the present situation must be carried out. Since December 1990, CCBR has been seeking funds (about £80K) to carry out this study.

Funding

In June DoE agreed to part fund the CCBR Programme. Together with DoE funds, CCBR has already secured a promise of a similar sum from the three new country conservation agencies, administered by the Joint Nature Conservation Committee and smaller sums from NERC and the New Phytologist Trust. CCBR is setting itself up as a Trust with charitable status so that it can receive and administer these funds legally.

Trying to place the contract for the Programme.

Because CCBR is receiving money from government agencies, placing the contract has had to follow a formal and lengthy process. Invitations to over 25 companies to "express interest" in tendering were sent out in July. Only 11 companies responded and 6 were shortlisted to tender. Tender specifications were sent out on 3rd September. Only 3 tenders were submitted by the closing date. At the interviews on 22nd October, none of the 3 companies were found to be wholly suitable.

Programme consortium.

CCBR discussed the situation and decided to use one of the companies, Applied New Technologies to carry out a substantial part of the Programme, in particular the information gathering and databasing. Legal advice will be sought from suitable specialists yet to be agreed. The analysis of the information and preparation of the draft report will be done by the Institute of Terrestrial Ecology. Overall project management will be by a small group drawn from CCBR with the Chair, Sir John Burnett taking a leading role.

Questionnaire survey of data sources.

One of the main parts of the Programme will be a survey and review of the present situation. A detailed survey, partly using a questionnaire, will be undertaken with the active involvement of NFBR. The precise details will be agreed in December, but it is probable that some financial reward for completion of the questionnaire will be available to agencies such as local records centres.

Watch this space - things should begin to happen in the very near future which will involve YOU.

Bill Ely, NFBR Chairman and NFBR representative on CCBR.

Paul Harding, NFBR Council and CCBR Secretary

NFBR Questionnaire

Many responses have been returned, but some areas have yet to reply. Please do so soon. The data is being collated at present. The CCBR questionnaire detailed above will be part filled in using data from the NFBR questionnaire when they are sent out, so that centres can check their entries.

RECORDER

Considerable development work has been undertaken. Improvements to the species file include:

1. Higher plants added with statuses.
2. Pseudoscorpions added.
3. Bryophytes will be done soon.
4. All invertebrates up to Coleoptera part 1 had been added, status and species accounts will be updated by February

The postal installation package has been developed and the manual written.

The user group is to be reconstituted with a meeting in the early spring. Date to be finalised.

Project ideas needed

Now that CCBR's programme is underway Council feels that it is important for NFBR to identify and draw up proposals for specific projects that could be submitted to CCBR for funding in future.

Proposals discussed at Council include:

Developing Codes of Practice
Guide-lines for data handling
The role of local records centres in monitoring British Wildlife
Recording Instructions

Members are invited to submit brief details of further projects with outline costings. There is no guarantee that funding will be available but it is important that NFBR is actively involved in the development of recording in future. Please send your ideas to Bill Ely.

Environmental Databases

A further batch of environmental databases have been established and have been circulating questionnaires to organisations.

ECO Environmental Education Trust

UK Directory of Environmental Databases.

The directory is funded by the Countryside Commission and UK2000.

A questionnaire can be obtained from:

Avon Education Centre, Junction Road, Bristol BS4 3JP

Student Data Directory.

A WWFN sponsored project in collaboration with Kingston Polytechnic to collate details of data generated by student projects.

Details of the directory are available from:

Dr Seppe Cassettari, Kingston Polytechnic, Penrhyn Rd, Kingston, Surrey 0815491366

EcoBase

A commercial environmental database available on disc. A basic entry for you organisation is free, but otherwise charges are made. The software is designed for use by schools, higher education bodies, libraries etc. Details from P.S. Berry, Pwlllyfan, Llansadwrn, Llanwrda, Dyfed SA19 8LS

Planning News

This section is intended to be an occasional feature reporting developments in planning policy that may effect the demand for and type of environmental information required by users of record centres.

Planning and Compensation Act 1991

This act received assent on 25th July. The act's main provisions cover the handling of waste materials, litter and pollution control.

The Environmental Protection Act 1990

The act covers provisions relating to litter, stubble burning and waste disposal.

Neither act contains items directly relevant to records centres other than the restructuring of NCC.

A consultation paper has been issued by the government on planning changes concerning agricultural and forestry buildings. Local authorities will be able to require details of all new agricultural and forestry buildings and alterations to existing buildings and farm and forestry roads. They will be able to take into account the nature conservation interest of areas affected by the proposals.

EEC Habitats Directive

The draft Habitats Directive went before the Environment Council on 12th December and was adopted.

The agreement came after the resolution of long standing differences over how much money should be allocated to pay for environmental protection. About 10% of Britain is likely to be affected, but the Government has not indicated what areas will be protected. £280 million has been allocated over 5 years for member states to carry out the directive.

Institute of Ecology and Environmental Management

The Institute of Ecology and Environmental Management has recently been formed and is supported by the British Ecological Society, the British Association of Nature Conservation, Institute of Biology and the Royal Geographic Society.

The institute has been formed to support professionalism in the environment. Major objectives of the Institute include: the encouragement of high quality and responsible work in the environment, to raise the profile of the profession and to give ecologists and environmental managers equal status with other professionals. The Institute will also work towards the establishment of national and internationally acceptable and recognised standards in the professional application of ecology and environmental management.

Details of membership are available from IEEM, 36 Kingfisher Court, Hambridge Road, Newbury RG14 5SJ

Wildlife Link Data Handling Group.

The group met at Monks Wood to look at BRCs resources. Other sessions include a discussion of data exchange formats and information on international botanical databases.

Reports Received

NRA Corporate Plan

The corporate plan includes statistics on all spheres of NRA's operation. Of particular interest are the figures and proposed programmes for fisheries and conservation.

Fisheries

In 1989/90 fisheries sampling sites numbered 1,477, with netting sites totalling 1,602. 8,936 km of river were surveyed. Increases in sampling sites to 1830 over the next three years are proposed.

Conservation

2,280 km of river were surveyed in 1989/90 with an expected rise to 6000km per annum from 1991/2. Environmental Impact Assessments are expected to increase in number from 127 in 1989/90 to 189 in 1991/1992.

Staffing increases are proposed from 33 to 59 by 1992/3

Research and development projects and proposals include the provision of basic data on aquatic flora, species/habitat relationships, development of methods of survey, assessment and appraisal of conservation value.

Museums Documentation Association Annual Report 1990

The report contains an outline review of progress during the year. Of particular importance was the publication of the proposed MDA Data Standard, including a new Data Dictionary with a description of fields and terminology guide-lines. The Terminology Working Group was reconvened in November and the group published a report on place-names recording practices.

The Computer Centre handled data from the Federation of Natural Sciences Collections Research Unit from Scotland, the North West and Tyne and Wear as part of a programme to develop and apply national standards across different subject areas.

ESRC Data Archive Bulletin Summer 1991

This latest bulletin contains a short article on Geographic Information Systems now in use in higher education including ARC/INFO, ERDAS, GRASS and SPANS and the problems of implementing these systems. The article includes details of two projects to collate information on GIS and to provide support material.

Details are available from:

David Unwin, Midlands Regional Research Laboratory, Bennett Building, University of Leicester, Leicester LE1 7RH.

Another item that may be of interest to some is the publishing of tithe survey maps of 1836 on CD-ROM. The surveys provide useful historic information on land use.

News from Record Centres

Rotherham

Most pre-1987 records continue to be stored in the manually operated interactive systems which can provide information on either sites or species. All records from 1987 to 1991 are being entered into the computer system using Recorder. 48,250 records were entered during the year to take the total number of records to 122,000. 200 additional species have been entered on to the species file and over 4,700 sites/subsites added.

Sussex

Sussex Environmental Survey Directory Project has been launched as a way of recording the whereabouts of all types of environmental surveys in East and West Sussex. The project is supported by East and West Sussex County Councils, English Nature, The Sussex Wildlife Trust and the Booth Museum of Natural History. A steering group has been established and a compiler was appointed in November 1989. Suitable record cards and base maps have been produced and software developed to handle the information.

Surveys

Brown Hare Survey

English Nature is funding a national hare survey from this autumn. Volunteers have been asked to walk selected 1km squares once each month from October to February.

Contact Dr Stephen Harris, Dept of Zoology, University of Bristol, Woodland Rd, Bristol BS8 1UG
Marine Atlas NERC

Hedgehog Road Kill Survey

The Mammal Society is continuing last years survey, recording the numbers of hedgehogs seen and mileage covered. The project ran in July-September.

Details from Pat Morris, West Mains, London Road, Ascot SL5 7DG.

Diary

Inventory and Cartography of Natural Biotopes in Europe.

Commission of the European Community/Council of Europe, Strasbourg: 17-19 December 1991. The meeting will bring together representatives of most European countries, including eastern nations to discuss biological recording, mainly at the level of biotopes. A report will be in the next newsletter.

Vegetation management in forestry, amenity and conservation areas.

7-9 April 1992. Association of Applied Biologists, University of York

Identifying Parasitic Wasps

Six day course run jointly by the Natural History Museum and Sheffield University. April 1992 £550. Details from Dr D Quicke Dept of Animal and Plant Sciences, Sheffield University, Sheffield S10 2TN

Pattern and Process: Phylogenetic Approaches to Ecological Problems.

Lin. Soc. & Natural History Museum discussion meeting, 2-3 September 1992. Details Executive Secretary, Linnean Society, Burlington House, Piccadilly, London.

Biology in Europe after 1992

Institute of Biology, University of Southampton, 2-3rd April 1992, including sessions on education, training and professional qualifications, and biological research funding. Details from Miss Nicola Beaney, Institute of Biology, 20 Queensberry Place, London SW7 2DZ

Biodiversity Strategy and Action Plan European meeting August 1992

World Resources Institute, ICUN UN Environment Programme. One session will deal with information.

Progress to meet the Challenge of Environmental Change

International Congress of Ecology, Ecological Manchester 20-26 August 1994. Suggestions for symposia titles are required. details from the Secretary, VI International Congress of Ecology, Dept of Environmental Biology, University of Manchester, M13 9PL.

Publications

It has been sometime since a full list of ITE atlases was published in the newsletter:

ITE Provisional Atlases

Available from Publications Sales, ITE, Merlewood Research Station, Grange-over-Sands, Cumbria LA11 6JU.

Provisional atlas of the insects of the British Isles: Part 9 Hymenoptera: Vespidae social wasps, 1987, M.E. Archer, £2.50.

Provisional atlas of the centipedes of the British Isles, 1968, A.D. Barber & A.N. Keay, £ 7.00.

Provisional atlas of the millipedes of the British Isles, 1988, British Myriapod Group, £3.00.

Provisional atlas of the nematodes of the British Isles, Parts 1-3 Longidoridae Trichodoridae and Criconematidae, 1977, D.J.F. Brown C.E. Taylor et al, £2.00.

Provisional atlas of the marine dinoflagellates of the British Isles, 1981, J.D. Dodge, £4.00.

Provisional atlas of the insects of the British Isles Part 4 Siphonaptera fleas, 1974, R.S. George, £1.00.

Provisional atlas of the Mycomycetes of the British Isles, 1982, R.S. George, £1.00.

Atlas of the non-marine Mollusca of the British Isles, 1982, B. Ing, £1.00.

Provisional atlas of the insects of the British Isles Part 8 Trichoptera Hydroptilidae caddisflies (Part 1), 1978, J.E. Marshall, £2.00.

Provisional atlas of the ticks (Ixodoidea) of the British Isles, 1988, K.P. Martyn, £4.00.

Provisional atlas of the click beetles (Coleoptera : Elateroidea) of the British Isles, 1990, H. Mendel, £5.50.

Provisional atlas and catalogue of British Museum (Natural History) specimens of the Characeae, 1983, J.A. Moore & D.M. Greene, £6.35.

Provisional atlas of the marine algae of the British Isles, 1985, T.A. Norton, £3.50.

Provisional atlas of the Sepsidae (Diptera) of the British Isles, 1985, A. Pont, £3.00.

Provisional atlas of the harvest-spiders (Arachnida : Opiliones) of the British Isles, 1988, J.H.P. Sankey, £3.00.

Provisional atlas of the larger Brachycera (Diptera) of Britain and Ireland, 1991, C.M. Drake. £5.00.

Other recent publications of interest

Recent surveys and research on butterflies in Britain and Ireland a species index and bibliography, compiled by P.T. Harding and S.V. Green, £2.50.

The Moths and Butterflies of Great Britain and Ireland Vol 7 Part 2, Lasiocampidae to Thyatiridae edited by A. M. Emmet & J. Heath 1991. Harley Books ISBN 0946589267 £49..

The Biology of Butterflies, Ed R.I. Vane-Wright & P.R. Ackery, 1989 £23.75 Princetown University Press.

A complete guide to British Moths, M. Brooks 1991, Jonathon Cape £19.91 ISBN 0224 021958.

Insects of the British Cow-dung community AIDGAP guide P.Skidmore, FSC, 1991 £8.25 ISBN-1851538216 X.

British Sawflies: a key to the adults of the genera occurring in Britain. AIDCAP guide. A Wright, FSC, 1991 ISBN 1851538203 X.

RSPB Conservation Review volume 5(1991) is now available, £7.00, includes articles on Habitat Conservation, species and habitat action plans and site protection.

British Plant Communities - Volume 1 Woodlands and Scrub J.S. Rowell Ed, 1991, ISBN 0521235588, £70.00.

The first of five volumes forming the National Vegetation Classification. The publication includes community descriptions, a dichotomous key of types, distribution maps and sections on physionomy and habitat dynamics.

Ecology of plant communities: a phytosociological account of the British vegetation, J.O. Rieley & S.E. Page, Longman, 1991, £25.00 ISBN 0582446392.

A synopsis of British vegetation and its relationship to European phytosociological usage.

Flora of the Outer Hebrides, R.J. Pankhurst & J.M. Mullin, Natural History Museum, 1991, £19.95 ISBN 0565011219.

New Flora of the British Isles, C.A. Stace, 1991, Cambridge University Press.

Safety in biological field work. revised edition 1990. Institute of Biology. Includes safety in specific habitats and special procedures. £8.60.

Reviews

A Review of Phase 1 Habitat Survey in England by G. Wyatt NCC1991

This publication is intended for all those individuals involved in planning and nature conservation who need to know the "state of the art" of Phase 1 habitat surveys in England.

It is a clear and enlightened overview of the purpose, use and achievements of the phase 1 survey method, together with a critique of those surveys that have been completed and a succinct analysis of the problems and failures of the survey teams. Where critical it is also constructive and gives good advice; Chapter 4 I would regard in particular as being essential reading for those planning an habitat survey.

There are other chapters on the critical methodology, the use of remote sensing techniques and the costings of completing and overhauling phase 1 surveys in England. There are also clear conclusions and guidelines for the future.

I would thoroughly recommend this book to anyone with an interest in phase 1 or other comprehensive habitat surveying. It is one of a range of publications available from:

The Publications Department, English Nature, Northminster House, Peterborough, PE1 1UA, and costs £10.00.

Marie Moreau

Environmental Assessment: Experience To Date, Institute of Environmental Assessment, October 1991

This document provides an assessment of EIAs submitted from July 1988- July 1991. This damning report identifies the inadequacies of the current EIA system following up earlier work (Tarling et al). Major problems are the inconsistent application of the legislation across the country, the poor quality of statements with nearly 50% unsatisfactory and the lack of independent project specification, the lack of environmental statement quality reviews and guidelines. The report is highly critical of DoE's limited suggestions to improve the system, in particular its failure to address the lack of independent scoping or the provision of adequate resources for planning authorities to commission reviews of the adequacy of EIAs. It suggests the formation of a Council of Environmental Assessment and a wide range of provisions such as independent project specification.

The document also includes a statement of the Institute review criteria, one of which may be of interest:

1.4 Baseline conditions

A description of the environment as it is currently and as it could be expected to develop if the project were not to proceed. Some baseline data can be gathered from existing sources, but some will need to be gathered and the methods used should be clearly identified. Baseline data should be gathered in such a way that the importance of the area to be affected can be placed into the context of the region or surroundings and that the effect of the proposed changes can be predicted.

The implications of the document are that environmental data is absolutely vital to adequate EIA. However the proposals do not provide any framework for supporting organisations that collect environmental data. The suggested provision of funding to local authorities is purely so they can engage other consultants to carry out assessments of assessments. What is needed is more and wider qualified staff and support for data collecting in addition to the Institute's other proposals.

The Institute of Environmental Assessment was received with scepticism by some conservationists. However this document, whilst not perfect does indicate that the Institute's position on EIA is much closer to that of conservation bodies. The additional pressure that it can bring to bear to get the government to address the inadequacies of the EIA system can only be welcomed.

Computer packages for bird clubs; testing report

RSPB recently commissioned BTO to review current data handling practices amongst local and county bird clubs. This resultant report "Computers and Bird Clubs Review" was produced in October 1990. The results showed that relatively few clubs had actually embarked on computerisation, but many were very interested. As a follow up a number of software packages were tested, including Cobra, Recorder, Bird Recorder and the Hertfordshire Bird Club Database and the results published in "Computer packages for bird clubs".

The report concludes that Cobra and the Herts BC system are the most suitable programmes due to their flexibility. Recorder was felt to be inappropriate because of its provision of a range of facilities that are irrelevant to bird clubs and a lack of ability to handle

As a result of the report RSPB and BTO are considering developing Cobra as a database package for bird clubs.

Council felt that there were considerable errors in the report concerning the assessment of Recorder. As the package is becoming the standard system amongst record centres it was felt important that comments should be submitted. Comments were prepared by Martin Sandford of Suffolk BRC providing detailed corrections to the errors made regarding recorder and some overall comments. A summary of his letter is published below.

The Suffolk BRC has been using Recorder for over a year now. From the beginning of 1991 we have been using the package to process bird records for the Suffolk Naturalists Society and Suffolk Ornithologists' Group.

As the manager of a local biological records centre (and council member of NFBR) I am surprised that BTO has not liaised with the network of records centres in this country and with NFBR to see what is already being done in this area. Bird Clubs are being very short sighted and parochial if they only collect data to produce an annual report with no thought as to what other uses might be made of such large and expensively stored datasets. There is a great value in being able to analyse species data in relation to other groups of taxa, food sources, habitat type etc. Equally, users of biological record centres could benefit greatly from access to bird data especially where it relates to breeding sites and habitat protection.

A further advantage of using the local BRC to store data is that there is no loss of continuity when the County Bird Recorder changes. Such changes often result in large losses of information and, where the data is stored on a home computer, there may be difficulties transferring to another machine or to new software. Many LRC's have already invested in the expensive hardware and software required for data handling. Bird clubs might do better to spend their limited resources employing staff to input data at the LRC rather than setting up independent non-compatible systems.

With the setting up of the Co-ordinating Commission for Biological Recording under the Chairmanship of Sir John Burnett there is, at last, the real possibility of biological recording receiving recognition and core-funding from central government. It would be a great pity if ornithologists missed this opportunity to participate in and contribute to a national network which can raise the standards of recording and make their data quickly available to planners and conservationists.

The Bird Club Computer Users' Group, if set up, should seek to establish contacts with other groups covering similar ground. There is already a Recorder users group, a BSBI Computer Users Group, a Linnean Society Specialist Group on computer applications and no doubt many others with relevant interests.

M. Sandford October 1991

Visitors to the countryside; Countryside Commission

As mentioned by Bill Ely in his Chairman's Report Council felt it was important to send comments to the Countryside Commission voicing its concern over some of the proposals set out in "Visitors to the countryside". This consultation paper puts forward proposals that develop and update policies about people.

The main tenant of the document is to forge a stronger link between peoples' use of the countryside and its conservation. Extracts of NFBR's response drafted by Bill follow.

The production of this consultation paper and the proposals for a revision of the Country Code are a development of the Commission's view of its role in Britain's countryside. Unfortunately this development is not sustained by the rest of the paper. It may have a "green" cover and introduction but this is rapidly replaced by standard Countryside Commission interests, particularly access. The Commission's lack of knowledge and experience in conservation becomes glaringly obvious in those chapters where it attempts to address this subject - these are very short and very short on ideas. Unless this document is completely rewritten, in co-operation with those organisations which have the requisite knowledge and experience, then the Federation believes that it will be a wasted opportunity.

The revised objective towards countryside recreation which the Commission proposes "to improve and extend opportunities for the public to enjoy the countryside in ways that help sustain both its environmental quality and the social and economic well being of rural communities" is welcomed. Unfortunately the Commission has little experience in green issues and the rest of the paper fails to live up to this opening objective. The rest of it is still based firmly in the belief that the Commission's responsibility is limited very largely to encouraging access to the countryside.

The Commission's first theme is to provide information, but it is first necessary to collect that information. The Federation is concerned with the

principles and practices of collecting, collating and disseminating environmental information and believes that greater emphasis needs to be placed on these activities. The quality of the work achieved in the countryside depends on the quality of the decisions which are made and those decisions depend on the quality of the available information. Without due regard to establishing this base of reliable data the decisions and actions are likely to be inefficient, ineffective and uneconomical and may even be damaging or destructive.

The proposed action for conservation work consists of dealing with litter and dogs. They are totally inadequate and the Commission will risk ridicule if this is put forward as its substantive contribution to conservation.

The NFBR supports the Commission's re-evaluation of its priorities for dealing with the countryside. In the past many professional conservationists and information managers have had a low opinion of the Commission's activities, which have seemed to disregard the sustainable management of the resource which the Commission exploits and to concentrate on superficial aspects with little attempt to subject proposals to rigorous evaluation or monitoring. As a result this consultation paper is lacking the ideas and knowledge about heritage matters which a professional organisation such as the Commission should possess. It is vital that the Commission should consult with those organisations which are in possession of these areas of expertise in order to replace this very inadequate document with one which justifies the Commission's name on the front.

Bill Ely NFBR Chairman

Conference 1991

Report of Programme

I have tried to give main points only, as a great deal of complicated data was illustrated on slides and overhead projector transparencies; it would have been impossible to note down all the points.

Session 1

The Use of Invertebrate Recording in Site Evaluation

The first session described the Invertebrates Site Register. The Joint Nature Conservation Committee was set up to deal with the national natural science base and has responsibility for the ISR. The ISR includes terrestrial and free-living "macro" invertebrates; it does not include parasitic or microscopic species such as protozoa nor interstitial groups. Red Data Books and survey reports are produced from the ISR. (Note that Red Data Book categories are categories of threat not rarity.) The ISR classifies species as Notable A if they occur in 30 or fewer 10 km squares and Notable B if they occur in 100 or fewer km squares. The ISR can be used to evaluate sites (with other data) in order to strengthen the scientific basis of site defence and management. Species distribution and species diversity at a site can however sometimes be a measure merely of recording effort. Species endemic to a site or geographical area can be ascertained if survey data is available and collated for other similar sites. If a system could be devised to allow protection of enough sites to provide samples of all species then a very large number of sites would be needed. With some sites, species diversity is inversely proportional to naturalness, for example in the case of heaths and raised bogs. The percentage of species characteristic of a certain habitat will decrease as the site becomes altered or disturbed. This is usually undesirable.

Bill Ely talked about invertebrate recording for site identification, evaluation and conservation with particular reference to local record centres. Information must be unbiased and must be available to developers as well as ecologists. There is no advantage in not providing information to those who require it for protection of sites and species. Reactive data is usually needed often in response to planning applications. Longer term strategic planning uses for data are also valuable, in allocating finance and other resources, or for structure, local or subject plans.

Certain taxa can be used as indicators of value, for example in protecting water bodies which can have

low botanical or ornithological interest but high invertebrate value. Rarity, diversity and indication of naturalness (ancient site indicators) are all important ecological parameters of water quality.

Paul Harding talked about saproxylic invertebrates in pasture woodland. There are only a few relics remaining of wood pasture; those with mature timber/dead wood habitats are very valuable for invertebrates. The fossil record shows that a number of dead wood species are extinct in Britain. Saproxylic invertebrates have been in decline for about 10,000 years since the first clearance and interference by man on a large scale. Lichen and beetle interest tends to correlate very well for ancient woodlands. Coleoptera are a useful guide for protecting pasture woodland as generally the ground flora has become impoverished and birds are not a very good index to general ecological value. Future work should look at coppice stools, old pollards and old trees in non-intervention woodland and high forest.

Session 2

The Use of Invertebrate Recording in Monitoring Changes in the Countryside.

Invertebrate recording for monitoring has many uses; in site management, in measuring pollution and its amelioration, in quantifying habitat loss, in measuring the failures and successes of habitat creation and translocation etc. For the majority of invertebrates to flourish the site must be in a fit condition for the whole of the life cycle. Absence can indicate current or past lack of fitness. Colonisations and extinctions can occur in a short space of time, ie one or two seasons. Transect monitoring is not an absolute method but can give very good relative data over a period of years.

Session 3

Taxonomic and other problems for invertebrate recorders

Garth Foster gave an excellent lecture. Water beetles provide a good illustration of some of the problems. In the last 20 years 13 species have been discovered and there have been 7 generic name changes. Many records are produced with lots of errors due to lack of criticality. Good records come from amateurs who have good training and experience or "dippers" using identification services. Complete lists are needed not just rarities, so when recording remember to make a full list of species identified.

The reasons for Recording Schemes are:

1. To validate the rarity/vulnerability statuses of species and sites
2. to aid identification of species requirements
3. to provide a benchmark so that changes can be detected
4. to "force" recorders to go to unrecorded areas
5. to link in with European distribution mapping
6. to provide a rationale for site selection
7. to identify ecological variables dictating community types
8. to give soundly based management advice

Derek Lott spoke of the role of museums in providing taxonomic support. Historically museums played a large role in the 19th century, they were often centres of learning for entomology, botany etc. Museums can provide identification services which are essential for taxonomy. The ability to identify animals and plants accurately and unequivocally is essential to the process of sound biological recording which in turn is necessary for decisions on land use and management and in order to identify and protect the more valuable parts of our wildlife heritage.

Marie Moreau July 1991

A CO-ORDINATED APPROACH TO BIOLOGICAL RECORDING IN THE UNITED KINGDOM

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INTRODUCTION

The impact of man on the natural environment has been increasingly damaging and rapid in recent decades. The resultant loss of biodiversity has become an issue of national and international importance. At a national level, in the United Kingdom, loss of semi-natural habitats, damage to sites of importance for wildlife and threats to species are issues which are increasingly coming to public attention. To assess these issues and to safeguard the biodiversity of the UK from a basis of sound knowledge, there is a clear need for accurate and up-to-date information. Appropriate information is generated by a large number of individuals and organisations for many different purposes, but these dispersed data are not readily usable unless they are collated and made available to potential users.

Biological recording has been defined as the collection, collation, storage, dissemination and interpretation of spatially and temporally referenced information on the occurrence of biological taxa, assemblages and biotopes (Harding 1991a). It is an activity which has a long history in Britain and Ireland, with reliable documentary records from as early as the 17th century. Local, regional and national biological societies have provided a focus for this recording. Many data have been published in the last two centuries, but mainly scattered through a plethora of publications, some of which are very obscure.

Since the 1950s biological recording has become increasingly formalised in the UK. A project to map the distribution of flowering plants was initiated in 1954 (Perring and Walters 1962). The national Biological Records Centre (BRC) was established in 1964 (Perring 1971, Harding 1991b) and local centres with responsibilities for biological recording, mainly based on local authority museums, have been created (Harding and Greenwood 1981, Greenwood and Harding 1982). A more recent list of local centres was included in Berry (1988).

The development of biological recording in the UK occurred without central planning or legislation. The national centre, BRC, was set up and remains within a research council, but with partial funding from the statutory wildlife conservation agency. Although a 'Handbook for local biological records centres' (Flood and Perring 1978) was produced, local centres were set up independently and operate to a range of standards and with varied objectives. Many other organisations undertake some aspects of biological recording as defined earlier, but not all recognise the fact.

BIOLOGICAL RECORDING IN THE UNITED KINGDOM

Local and national recording schemes

Much biological recording has traditionally depended on the activities of amateur naturalists working mainly in the areas in which they live. Local and regional societies, such as the Yorkshire Naturalists' Union, have collated information from these individuals to safeguard it and to make it more accessible to others (see for example Sutton and Beaumont 1989). The growth of national biological recording schemes, most of which are operated in conjunction with the Biological Records Centre, has developed the potential of this expertise to collate information which can be summarised and interpreted mainly at a national level (Harding 1991a).

A single record from an individual naturalist will be of value to those involved with the collation and use of information at a variety of levels - local/regional taxonomic recorders, local/regional records centres, or national data centres. Each type of collator has slightly different requirements of, and uses for, data. For example, detailed site information tends to be retained by local/regional societies and centres and is used in the study and protection of local sites of interest. At the national level, summarised information is used in taking an overview, for example on the occurrence of species and changes over periods of time.

User requirements

The initial motivations for biological recording were scientific - study of the distribution of species and conservation of threatened species and ecologically important sites. Subsequently, legislation such as the Wildlife and Countryside Act 1981 has created a requirement for biological recording, particularly in relation to land use and development planning. Investment in biological recording by governmental and non-governmental agencies and by local authorities must be justified by the requirements of users.

Government agencies, such as the Natural Environment Research Council (NERC) (which operates BRC), the new nature conservation bodies (Joint Nature Conservation Committee (JNCC), English Nature (EN), Countryside Council for Wales (CCW) and Nature Conservancy Council for Scotland (NCCS)), the Department of the Environment for Northern Ireland and the National Rivers Authority (NRA), have clear requirements from their involvement in biological recording. These include biogeographical and ecological research, species and site protection, monitoring and input to environmental assessment in relation to land use planning. In particular, there is a need for information to support conservation strategy at the national level, through JNCC, and for consistent U.K. information to support work in a European context, for example through the proposed European Environment Agency.

The non-governmental environmental protection agencies, such as the Royal Society for Nature Conservation (RSNC) (the Wildlife Partnership with county and urban wildlife trusts), the Royal Society for the Protection of Birds (RSPB), the National Trust, the National Trust for Scotland and the Wildfowl and Wetland Trust (WWT) similarly have requirements related to their stated objectives in wildlife conservation, landscape protection and ecological research and monitoring.

Industries and related agencies concerned with primary production (e.g. agriculture, forestry, water, power generation), transport and development are involved with biological recording mainly in relation to planning legislation and pollution control and environmental monitoring.

The role of local/regional biological records centres is reviewed by several authors in Anon (1985), and by Appleby (1991), Copp (1984), Ely (in press), and Garland and Whiteley (1984). Provincial museums provide the base for many local/regional centres, with other centres being established by county wildlife trusts, by county planning departments or in association with university departments. With such a broad range of bases, there is no simple definition of the requirements of the users of local centres. Increasingly, local centres are being involved in the planning processes; for example by providing data on sites scheduled for development, by conducting or organising surveys of sites and by storing data on behalf of organisations which have conducted surveys. Provincial museums are able to provide a unique local source of expertise in a relatively impartial institution. Centres based at planning departments or at wildlife trusts will inevitably be perceived to be biased towards the interests of their funding bodies (regardless of the truth).

The use of local records centres as repositories of information on local natural heritage fits well with the traditional role of museums in curating, displaying and interpreting collections of biological and geological specimens. Currently, museum curators are examining the role of their departments, to match responsibilities with resources. In many cases, these reviews are leading to a greater focus on local needs and locally based collection (and recording) policies. Many local centres at museums also cover geology (see Stanley this conference).

Geographical coverage of biological recording

National (Great Britain or United Kingdom) coverage in biological recording, by the principal agencies, has been increasingly fragmented, particularly since the splitting-up of the Nature Conservancy Council in April 1991. Truly national coverage is still maintained by NERC (including BRC), by JNCC, and voluntary bodies such as the RSNC, RSPB, WWT and the British Trust for Ornithology. The role of the new country nature conservation agencies, in England, Wales and Scotland, in relation to biological recording remains to be clearly defined. However, all three agencies already have large quantities of data, much of which is not readily accessible, and they need to acquire new data to update and expand their existing information.

The geographical boundaries of a local records centre's operations normally reflect the boundaries of its funding body(s). Consequently, most local centres are county- or district-based, but some work only within city or national park boundaries. Small areas can be covered in more detail than large ones and users such as planners and land managers often demand detailed coverage. Populated and urbanised areas tend to be better served with local centres

than rural areas. For example, South Yorkshire has four centres, one for each Metropolitan District, whereas there is no centre for Cambridgeshire or for most of Wales.

THE NEED FOR A CO-ORDINATED APPROACH

Biological recording is conducted by many organisations for a wide variety of purposes. Information, some of it replicated many times, may be held by any number of agencies; for example, by BRC, by a local records centre, by English Nature and JNCC and probably by the local wildlife trust and natural history society. The growing need for biological information, not only for conservation and research, but also for use in planning, has led to increased demands for comprehensive and up to date information to be readily available to a steadily increasing number of users.

Awareness of the problems caused by this unplanned, unstructured and often chaotic state of affairs has been apparent to those involved for a long time, but no organisation was in a position to take a lead in trying to remedy the situation. Harding (1990a) summarised the series of events which led up to the formation of the Co-ordinating Commission for Biological Recording early in 1990. The process included a series of conferences organised by the Biology Curators' Group (BCG), BRC, and the National Federation for Biological Recording (NFBR) which have addressed relevant issues (Anon 1985, Copp and Harding 1985, Harding and Roberts 1986, Stansfield and Harding 1988, 1990).

The Linnean Society, prompted by the earlier conferences and by lobbying from NFBR, set up a working group under the chairmanship of Professor R J Berry. That group and its report (Berry 1988) were crucial in moving the discussion from the level of the practitioners (as typified by NFBR, BRC and BCG) to the level of those with political and administrative influence. The discussion was further advanced at a meeting convened by NERC, early in 1989, which brought together representatives of 28 key national organisations concerned with biological recording and/or the use of data.

The Co-ordinating Commission for Biological Recording (CCBR) aims to provide representation for as many of the official and voluntary organisations concerned with biological recording as it is practicable to achieve with a small committee. The independent Chairman is Sir John Burnett, there are 10 members responsible for liaison with a wide constituency of organisations, and the Secretariat (PTH) is provided by NERC.

CCBR issued a Statement of Intent in 1990 in which the need for a single, adequately funded, national organisation for the maintenance of biological records was recognised. That organisation should establish, promote, co-ordinate, maintain and monitor standards of accuracy, format, accessibility, and compatibility of records. It should also promote the creation and development of databases to comply with these standards. A Programme for the establishment of a national system for the co-ordination of biological recording was prepared in October 1990; in effect a feasibility study on the proposals synthesized by CCBR from the earlier discussions and reports. Funding this feasibility study has presented some problems, but sufficient funds were secured by July 1991 and, at the time of writing, tenders are being sought.

The results of the feasibility study are unlikely to be available until the end of 1992. In that time further discussions and developments can be expected to bring elements of the national 'network' in biological recording into closer contact. A conceptual framework for such a national system for biological recording is shown in Figure 1. There have been potentially damaging events, such as the Government's decision to form four statutory wildlife conservation agencies where there was previously only one, but there is great willingness in all these new agencies to support the proposals of CCBR.

There is a clear parallel with the way in which museum documentation developed in the United Kingdom. After a long period of general agreement, but total lack of standardisation, the museum profession set up the Museum Documentation Association to bring order out of chaos and to provide a foundation for the development of a national system of information management in relation to museum collections (Stewart 1983).

RECORDER - A STANDARD DATA MANAGEMENT PACKAGE FOR BIOLOGICAL RECORDS

Biological records and associated data are complex and inter-related and it is now very difficult to achieve the standards which are expected of a biological records centre without involving a computerised databank. The history of developing appropriate programs to hold such a databank is not a happy one. Most records centres are housed within larger organisations such as local government and these organisations normally have their own computer staff and procedures. A common practice has been for an existing database used by that organisation to be modified to meet the centre's needs, and that has resulted in lack of uniformity and, often, disappointing performance. The increased interest in environmental matters has resulted in the development of dedicated programs, a number of which are now in existence. Faced with this lack of standardisation, a proposal was put to the National Federation for Biological Recording in April, 1987, that local records centres in Britain should co-operate to write the specifications for a biological recording program and to decide on a suitable one for common use. The requirements for a suitable program were:

1. That information should be stored in a way which maximizes its value to practical users such as planners, land managers, ecologists and conservationists while not losing data which is valuable for naturalists and scientists.
2. That information should be stored with only occasional (and then minimal) loss of detail, making the results of particular value to naturalists and researchers.
3. That the program should be compatible with the internal programs used by one or more of the national collating agencies and the information thus made more widely accessible.
4. That the program should operate on machines available to most records centres and should provide a flexible and detailed recording package to meet their needs.

The Nature Conservancy Council (NCC) (as it then was) had developed the Invertebrate Site Register to bring invertebrates into main-stream conservation and Dr Stuart Ball has written its recording program which runs under the REVELATION data manager program on IBM-compatible micro-computers. He offered to develop this to meet the needs of local centres and produced the RECORDER program by the end of 1987 (Ball 1988 & 1989, Ely 1989). This program has been further developed and responsibility for it has been accepted by NCC and its successor body English Nature. The package, which currently includes c. 30,000 species of British animals and plants and four habitat recording systems in its files, occupies c. 18 Mb of disc space. Extensive use is made of codes, to reduce the amount of space needed to store information, to reduce the opportunities for typing errors and to facilitate the retrieval of the information in the most flexible manner possible. Species and habitat codes are included within the RECORDER files and can be added to by the user, but the codes for sites and individuals specific to a local centre's area need to be added. English Nature and the Royal Society for Nature Conservation are providing back-up for the development of the package and additional codes are periodically passed to English Nature for incorporation into the package.

A EUROPEAN PERSPECTIVE

The co-ordination of information on important wildlife sites in the European Community, through the CORINE Biotopes Project, has been described by Moss (this conference). However, biological recording in the wider sense lacks co-ordination on a European scale although there are the rather low-technology species mapping projects mentioned by Harding (1990b).

The example of the United Kingdom in the development of biological recording at a number of levels and with little co-ordination is one which is to be avoided. However, the example provided by the Co-ordinating Commission for Biological Recording, if its proposed programme results in a national network of data units working to common standards, may well be a better one for colleagues elsewhere in Europe (and further afield) to examine and adapt to their own situation.

The concept of a European Environment Agency was first announced to the European Parliament in January 1989 and although the concept has been adopted as policy, the project is being delayed until a location for the Agency can be agreed. It is planned that the Agency will co-ordinate a wide range of information on the environment from a network of organisations in the member states. Priority areas for information gathering include 'the state of the soil, fauna, flora and biotopes. The data gathering mechanism proposed for the Agency presupposes the existence of relevant national networks. In the UK, the network system being proposed by CCBR would seem to be ideally suited

to provide a small node in the national and international information network envisaged for the European Environment Agency.

It is perhaps not coincidental that the Biological Records Centre, the Secretariat of CCBR and the CORINE Biotopes Project database are all based at the ITE Environmental Information Centre. It is to be hoped that cross-fertilisation of ideas and methods will continue to be possible despite the restrictions which inevitably result from UK Government and European Community funding, and that liaison will continue with a wide constituency, including the non-governmental and voluntary sectors, to promote the co-ordination of biological recording in the UK and abroad.

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Figure 1:

A CONCEPTUAL FRAMEWORK OF A NATIONAL SYSTEM FOR BIOLOGICAL RECORDING

