

THE SUSSEX RECORDER

Proceedings from the
Biological Recorders' Seminar

held at

The Downlands Centre, Hassocks

March 1994

Compiled and edited by
Harry Montgomery

Sussex Wildlife Trust

Woods Mill

Henfield

West Sussex

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The Proceedings of the 1994 Biological Recorders' Seminar

The fifth Biological Recorders' Seminar took place in March and was again a very successful day. It has taken a while to prepare the proceedings as usual, but a copy is now enclosed and I hope you find it interesting.

None of this work would have been possible without the help of volunteers. I would particularly like to thank Dennis Dey and his team of helpers who organised the event, including the excellent lunch, and Harry Montgomery who collated, edited and organised the mailing out of the proceedings.

I hope to circulate a copy of the proceedings to everyone who is interested; if you think I may have missed anyone or got a wrong address, please let me know. The document will also be on sale to the general public for £4.00 + p&p. Although there is no charge to recorders, our finances are severely stretched so any donations towards the cost would be greatly appreciated.

The date for the next seminar has been set for Saturday, 25th February 1995. I look forward to seeing you then.

Tony Whitbread,
Conservation Officer.

AW/gf
29.9.94

Putting *wildlife* on the map

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INTRODUCTION

Tony Whitbread

This is our fifth annual seminar for biological recorders. We had problems with the invitations and this may account for a drop in the attendance this year.

As always, the primary purpose of the meeting is to enable recorders to meet one another and exchange information. I hope the talks will also be helpful in bringing people up to date, not only on some of the recording which is taking place, but also on sources of biological records, certain conservation issues, and some of the applications of survey data.

We are meeting at a time when public perceptions and the political climate are shifting in favour of wildlife as part of the broader issue of sustainability. This is enabling the Trust and other conservation bodies to take a proactive stance instead of the defensive attitude of recent decades. Ideas are being floated to restore wildlife habitats instead of merely preserving those which exist. In the current jargon of conservationists, there is an opportunity to allow our Constant Natural Assets to expand. Surveys and recording will play a vital part in this process by showing to what extent restoration schemes are being successful.

This morning we have progress reports on the Environmental Survey Directory and the SSCI project, which is now in progress in East Sussex as well as West Sussex, I am glad to say. We then have some reports on different biological groups and a talk from the Trust's Chairman on action to conserve the silver-studded blue butterfly.

After lunch we will talk about the inventory of rare species which the Trust is compiling. After a couple of introductory talks we will split up into working groups which, we hope, will advise us on the future programme of the project.

Tony Whitbread
Sussex Wildlife Trust
Woods Mill
Henfield

ENVIRONMENTAL SURVEY DIRECTORY UPDATE

Simon Curson

This is just a brief update on the past year, which has been very much a year of data entry.

The following table compares data entered last year with data entered this year.

	March 1993	March 1994
Surveys	463	630
Sites	1064	2276

All surveys held at East Sussex County Council and at English Nature are now on the system and I hope to add all data at Sussex Wildlife Trust and West Sussex County Council by the end of August.

All SSSIs, NNRs, LNRs, West Sussex SNCIs and RSPB reserves are now on the system and the Sussex Wildlife Trust reserves are in the process.

Outside enquiries mainly from environmental consultants have come in at the rate of about one per month. The SESD has been extensively used by the consortium (EN, SWT, ESCC and WSCC). The County Councils have used it mainly for planning applications. English Nature has used it mainly for help in answering outside enquiries. The Sussex Wildlife Trust has used it for more strategic purposes, such as help with public enquiries and to find out the implications of large or major developments such as the proposed Gatwick developments. It has also been invaluable in the East Sussex SNCI project.

As it stands the SESD works perfectly; however, we are looking at developing it to attract further funding, both from those bodies that have so far been forthcoming and from additional ones. The way forward which we see is to have an information service where we would collate all the data from the major organisations so that it could be sent to enquirers direct instead of handing the enquirers on to other organisations. Also other information could be stored at this office, such as contact lists of names and addresses for environmental organisations, county recorders, specialists in certain fields, nationwide or local surveys that would like records from the public. In fact all the information that may be scattered through several organisations could be brought together.

We hope to move to this stage as soon as we can, but realistically it will not be until this time next year at least.

Simon Curson
Sussex Wildlife Trust
Woods Mill
Henfield

SITES OF NATURE CONSERVATION IMPORTANCE (SNCI) PROJECT IN EAST SUSSEX

Louise Clark

- Work is now being carried out in the districts of Wealden and Rother.
- Information has been gathered from Natural History Groups, amateur and professional naturalists and organisations. This includes site recommendations, and information on the particular wildlife interest of sites.
- Parish Tree Wardens have been of particular help as regards ownership information.
- Surveys already carried out on sites in these two districts are being collated and examined. We have been greatly helped in this respect by Simon Curson and the Environmental Survey Directory.
- Last field season (Summer '93) most survey work was carried out in Rother district. The Bexhill strategic framework area was surveyed in detail as it is under considerable development pressure.

Results so far:

Rother District

Sites Surveyed

WOODLAND - 27: These are mostly situated in the Bexhill/Battle area.

GRASSLAND - 6: These are sites recommended as potential unimproved meadows. They include 2 large sites each consisting of a series of unimproved pastures.

MISCELLANEOUS - 7: These include an area of nice shingle flora at Cooden, wonderful herb-rich churchyards and cemeteries and the whole of the River Brede flood plain. The River Brede valley is perhaps the most significant wildlife site found by the SNCI team. It consists of a system of clean ditches surrounding mostly sheep grazed pastures, on either side of the river (which has been canalised by the NRA). The ditches host a wonderful array of marginal and aquatic plants, and there is an extensive list of dragonfly records for this area. The survey report will be submitted to EN, with a suggestion for consideration for SSSI designation.

Potential SNCIs (not needing survey)

WOODLAND - 14: These include woods surveyed by Dr. Whitbread, and a number belonging to the Woodland Trust.

GRASSLAND - 8: These include neutral meadow sites surveyed in recent years by Graham Steven of EN.

WATER BODIES - 2: These are Bewl Water and Darwell Reservoir, which both have amazing bird records and very nearly qualify for SSSI status.

PARKLAND - 1: There is copious information on Beauport Park near Eastbourne, which suggests it might qualify for SNCI status.

MISCELLANEOUS - 2: Churchyards, etc.

Sites Still to Survey

WOODLAND - 77

GRASSLAND - 13

WATER BODIES - 8

PARKLAND - 8: A lichen/bryophyte survey of old trees in these sites needs to be undertaken, as most existing records are quite old.

HEATHLAND - 1

MISCELLANEOUS - 7

Wealden District

Sites Surveyed

WOODLAND - 6: Most are located on the Rother/Wealden border.

GRASSLAND - 3: Again, sites recommended as of potential interest.

MISCELLANEOUS - 2: These were both recommended churchyards/cemeteries.

Potential SNCIs (not needing survey)

WOODLAND - 18: Again, sites surveyed by Dr. Whitbread and Woodland Trust reserves.

GRASSLAND - 21: Again, meadow sites surveyed in recent years by Graham Steven of EN.

CHALK GRASSLAND - 12: These are all sites surveyed by Graham Steven (EN).

HEATHLAND - 3: Most of these were surveyed by Marion Finch as part of the Commons Survey of Sussex.

Sites Still to Survey

WOODLAND - 127 (Gasp!)

GRASSLAND - 12: More meadow sites recommended as of potential interest.

HEATHLAND - 6: These sites were known to be of interest many years ago, and may still be!

WATER BODIES - 8: These include lakes, village ponds, and the ditch systems abutting the Rivers Rother and Tillingham. The River Tillingham promises to be of similar, if not equal, wildlife interest and importance as the River Brede.

PARKLAND - 1

ROCK OUTCROPS - 7: This figure is very provisional, but probably includes the larger outcrop sites. However, many woodland ghylls also boast significant rock outcrop features. A lichen and bryophyte survey of these sites also needs to be undertaken, as existing records are very old. It is hoped to link it with the survey of Parklands.

MISCELLANEOUS - 6: Including other areas of shingle beach, cemeteries, etc.

Louise Clark
Sussex Wildlife Trust
Woods Mill
Henfield

AN UPDATE ON THE WEST SUSSEX SITES OF NATURE CONSERVATION IMPORTANCE (SNCI) PROJECT

Graham Roberts

I continue to co-ordinate the West Sussex SNCI Project. The objective of SNCI status is to protect the sites from harmful land use and land management changes and to encourage sensitive site management. With 192 SNCIs already identified (and a further 30 shortly to be added), this is a huge task which clearly cannot be achieved by one person. Thus the project depends on a partnership approach involving many conservation bodies, other organisations and individual naturalists.

The initial contact with SNCI owners and managers is usually a personal visit by myself (or, in the case of heathland sites, by Ann Griffiths). Each owner is presented with an 'SNCI pack' which includes information on the project, plus a site description and map of their SNCI. It is explained that assistance may be available, eg. advice on management, help with drawing up a management plan, grant aid and practical assistance. If the owner is interested they are put in touch with the most appropriate organisation to deliver these services.

The following examples (illustrated with slides in the talk) demonstrate some of the follow-up work taking place on SNCIs in West Sussex:

1. Heyshott Green

A floristically rich village green managed by the Parish Council (July hay cut) with grant aid from West Sussex County Council (WSCC). During 1993 Heather Winship studied the large chamomile population for a Plantlife research project. Plantlife is also giving advice on recreating conditions suitable for an extremely rare plant, the small fleabane, formerly known from Heyshott Green.

2. Sullington Hill, Storrington

Sussex Downs Conservation Board (SDCB) Ranger, Pip Howes, has organised a series of scrub clearance tasks using volunteers during this past winter. Part of the site has been entered into an ESA agreement. (SNCIs are now being targeted by the ESA scheme.)

3. River Ems, Westbourne

Following recent flooding, the National Rivers Authority (NRA) has been asked to undertake flood defence measures including dredging the river. NRA contacted me for advice on account of the site being an SNCI. Subsequent site meeting with landowner, NRA Engineer, NRA Conservation Officer and myself. I am to pursue, with the landowner and Countryside Commission, the possibility of entering land into Countryside Stewardship Scheme.

4. Chichester Gravel Pits

This week the Sussex Ornithological Society (SOS) launched a raft to attract breeding terns on one of the lakes. The project was supported by grant aid from WSCC Coastal Plain Area Manager, John Heathcote, with practical assistance from WSCC Countryside Ranger, John Knight, and myself.

5. Private Woodland on Large Estate

This site supports a large colony of an uncommon butterfly, the Duke of Burgundy. Also grizzled skipper. Graham Hart of the Sussex branch of the British Butterfly Conservation Society (BBCS) and I have produced a management plan which is now being implemented by the estate, Sussex BBCS members and the SDCB.

6. Privately-owned Sand Pit

An extremely rare plant, the red-tipped cudweed, was discovered in and adjacent to this SNCI by Frances Abraham. The estate and tenant farmer have been extremely supportive of measures to protect this plant. Naturalists, particularly Frances Abraham and Frank Penfold, plus Pip Howes (SDCB Ranger) and I have undertaken some practical work. Tim Rich of Plantlife is to organise further practical work this summer. The Sussex Botanical Recording Society (SBRS) has been invited to survey the site.

7. Pond Copse, Milland

WSCC is grant aiding coppice management following a management plan produced by me.

8. Liphook Golf Course

A small area of wet heath supports the rare marsh club-moss. Members of the West Sussex Heathland Forum (chaired by Ann Griffiths, ESCC), including Dr. Francis Rose, are advising the Golf Club on management.

9. Pulborough Brooks RSPB Reserve

This SNCI, like most nature reserves, is well managed and therefore requires no input from the SNCI project.

10. Wey and Arun Canal

Part of this disused canal is a proposed SNCI. Last July I led a field trip of the SBRS. Phil Belden and other experts have provided dragonfly records. Further surveys are being organised by English Nature.

11. Glow-worm Records

The national glow-worm survey, organised in Sussex by Julie and Robert Howard, has produced vital information for the SNCI project.

Good management of existing SNCIs and the identification of further SNCIs requires detailed information on both flora and fauna, particularly threatened species such as glow-worms.

Once again, I wish to thank everyone who has assisted with the West Sussex SNCI Project. I am particularly grateful to all the amateur naturalists who continue to provide survey data, advice and practical assistance. **Your support is much appreciated.**

Graham C.M. Roberts
Countryside Services
West Sussex County Council
Chichester

VASCULAR PLANT RECORDING IN SUSSEX

Alan Knapp

I shall be talking about plant recording in Sussex, covering the activities of the Sussex Botanical Recording Society (SBRS) - which is linked to the Botanical Society of the British Isles (BSBI) via vice-county recorders, Mary Briggs for West Sussex and Paul Harmes for East Sussex.

The SBRS is concerned with higher plants but several members also record lower plants. As the successor to the Sussex Flora Society which produced the Sussex Plant Atlas in 1980, the SBRS has produced a Supplement updating the records in 1990.

The SBRS has about 100 members, of whom about 40 are active recorders either individually or in field meetings of the society.

The current aim of recording is forward looking to 2000 when we intend to publish our post-1986 records, partly in anticipation of a new BSBI Atlas of British Isles based on 10km squares (the current UK atlas is from 1950-60 records) and partly to maintain an up-to-date view of the status of higher plants in Sussex.

Records of several types are kept:

1. Post-1986 records of all species in 10km squares.
2. More detailed records of scarcer plants, eg. henbane, water violet, bastard toadflax, musk orchid. The records include at least the tetrad and preferably a 6-figure grid reference, together with habitat and population. The records are almost exclusively post-1986.
3. Careful checks on locally scarce and nationally scarce plants, including Schedule 8 species, of which we have 12 in Sussex, for example spiked rampion, hairy mallow and small hares-ear. Data is in the form of 6-figure grid references, status, latest known records. Information on pre-1986 records is kept in order to help with possible re-finding in the future.

In association with this we are also checking on species which may be extinct, eg. pale heath violet and lesser butterfly orchid. Where it looks hopeful we try to re-find. A recent partial success was early gentian, *gentianella anglica*, which was found above Steyning but only 1 plant!

Problems occur with some nationally scarce species, eg. frog-bit and round-headed rampion, which are quite frequent in Sussex so it is very hard to keep records of all sites.

4. Site records, eg. Amberley, Pulborough Brooks (RSPB), Weirwood, Brinsbury Agricultural College, private landowners, etc.
5. Local floras - Brighton (Paul Harmes and Tony Spiers) and Ashdown Forest (Tim Rich).

All records are held on computer. The records for 10km squares are held in DMAP compatible form which allows for easy mapping.

Others are held currently as text files which allows free format, future flexibility, details added as needed, easy to deal with using a word processor.

Despite being one of the best recorded counties, there have still been a number of recent new finds or re-finds of species thought extinct: meadow clary, red-tipped cudweed, sea knotgrass, mossy tillaea, grass poly.

The aim of SBRS is to provide information on the higher plants of Sussex to organisations including County Councils, Sussex Wildlife Trust and English Nature, making a strong basis for improved future understanding and conservation of Sussex plants.

Alan Knapp
Sussex Botanical Recording Society

DRAGONFLY RECORDING IN SUSSEX

Phil Belden

Members of the Dragonfly Recording Society (DRS) have been updating the Sussex Dragonfly Survey since 1989.

The distribution of dragonfly records correlates strongly with the distribution of dragonfly recorders at present. In fact there are distinct distribution "holes", eg. the upper reaches of the River Adur, the River Ouse and the South Downs.

Standard Record Cards are now used. Numbers of dragonflies seen are logged, as well as whether they are breeding etc.

The distribution of various species was then examined:

- Club-tailed dragonfly - we only have records for the River Arun, in June.
- Scarce chaser - again, records only for the River Arun.
- Common hawkler - there are only 3 sites where this species has been recorded, and these are at far flung locations all over Sussex.
- Small red damselfly - often associated with acid pools and has been recorded on 3 sites on Ashdown Forest.
- Common darter - recorded all over Sussex between July and December.
- Ruddy darter - associated with unpolluted grazing meadows, eg. Pevensy Levels.
- Azure/common blue damselflies - these 2 species are difficult to tell apart. The distribution maps for each are very different. The azure is quite widely distributed whilst the blue is much more rarely recorded.

Records can also show the decline or increase of a particular species (although a longer period of recording is necessary to draw more definite conclusions), eg.:

- Ruddy darter - recent survey information shows an increase in this species, especially around Pevensy Levels.
- Variable damselfly - this species would appear to be in decline.

DRS has also been involved in a survey of Pevensy Levels, as part of a comprehensive wildlife survey being co-ordinated by the NRA, East Sussex County Council and EN. This is in response to the new "Wildlife Enhancement Scheme" which operates over this area, and the need to monitor its success as regards all specialist groups.

Phil Belden
Dragonfly Recording Society

BEETLES IN SUSSEX

Peter Hodge

In recent years there have been many additions to the species recorded in Sussex, taking numbers from 2000 to 2900. There is still a lot to tackle including those species which have apparently disappeared and those which are genuinely new to Sussex. There is a National Recording Scheme for beetles.

There followed a series of slides showing various species:

Longhorn Beetles

- 1) *Prionus coriarius* - 2" long, bores into ancient oaks, has been found in Parham Park, rare.
- 2) *Rhagium bifasciatum* - lives in dead pine wood.
- 3) *Rhagium mordax* - more common than *R. bifasciatum* in Sussex..
- 4) *Leptura fulva* - 3/4" long, a downland species possibly associated with dead wood or the hollow stems of umbellifers. Found in East Hampshire. Unknown from Sussex but could occur in the extreme west.
- 5) *Strangalia aurulenta* - 1" long, body yellow and black, with red legs. It breeds in dead beech in West Sussex, colonising young dead logs or stumps and then moving on. Found from Parham to Hampshire border.
- 6) *Strangalia quadrifasciata* - a Notable B species, fairly widespread throughout Sussex.
- 7) *Strangalia maculata* - yellow and black, a common species.
- 8) *Judolia cerambyciformis* - pale yellow with black marks, found widely in West Sussex.
- 9) *Anaglyptus mysticus* - 1/2" long, found in Arundel Park.
- 10) *Phymatodes alni* - rare, found on dead oak branches.
- 11) *Phymatodes testaces* - nocturnal, found in oak.
- 12) *Obrium brunneum* - a new species found in Britain in the last 50 years. Lives in the branches of spruce, common in Sussex and spreading.
- 13) *Mesosa nebulosa* - not known in Sussex. Hard to find, lives on dead oak logs and branches. Possibly exists in The Mens or Parham Park, etc.
- 14) *Pogonocherus hispidulus* - lives in hornbeam/beech, has a long life, can be found as an adult at any time of the year. Uncommon.
- 15) *Pogonocherus hispidus* - common, lives on crab-apple and holly.

Leaf Beetles

Donacias breed under water and take oxygen directly from plant tissues. Thus the adults can survive under water.

- 16) *Donacia dentata* - rare in Britain, but there are many at Amberley (it lives on arrowhead). Has only 6-8 sites in Britain including Pevensey.
- 17) *Donacia sparganii* - 6-8 sites in Britain including Wickham Fen. Lives on *Sparganium immersum*. Breeds in the River Ouse at Barcombe Mills.
- 18) *Donacia impressa* - at Burton Mill Pond swarms of these can be seen on flower heads of sedges in June. Nationally scarce, found around large lakes in Sussex.
- 19) *Donacia aquatica* - used to be widespread, now one of the rarest *Donacia*, still frequent in the Scottish borders. Has one site in Norfolk and on *Carex impressa* at Burton Pond.
- 20) *Donacia marginata* - lives on *Sparganium erectum*.
- 21) *Donacia vulgaris* - lives on *Sparganium immersum*.
- 22) *Donacia simplex* - common, on *Sparganium*, *Carex*, etc.
- 23) *Donacia thalassina* - lives on sedges including pendulous sedge.
- 24) *Donacia cinerea* - lives on *Typha*, has a dull bloom due to a dense covering of small hairs.
- 25) *Donacia semicuprea* - lives on *Glyceria maxima*.
- 26) *Donacia crassipes* - local, on water lilies, usually in large lakes..
- 27) *Donacia versicolorea* - lives on *Potamogeton natans*.
- 28) *Donacia clavipes* - a large species which has yellow legs and lives on *Phragmites*. When it eats it leaves irregular oval holes.
- 29) *Plateumaris braccata* - also lives on *Phragmites* but its feeding holes are more regular in a neat row across a leaf.
- 30) *Lilioceris lili* - creeping into Sussex, associated with lilies.
- 31) *Cryptocephalus biguttatus* - lives on *Erica tetralix*. A very rare beetle, found on Lavington Common and about 4 other places in Britain. Lives in a case made with its own droppings.
- 32) *Cryptocephalis sexpunctatus* - 2 Sussex records of this species which lives on hazel.
- 33) *Cryptocephalis coryli* - not found in Sussex but lives on the North Downs and Berkshire - on warm hillsides with scattered hazel. Larva lives in a case, the entrance of which is the same size as the head, which seals the entrance. May be associated with ants.
- 34) *Cryptocephalis aureolus* and *Cryptocephalis hypochaeridis* - these two species are brilliant metallic green. Adults are found on yellow flowers, especially hawkweed, on downland slopes.

- 35) *Chrysolina fastuosa* - not been seen for many years, lives on *Galeopsis tetrahit*. (NB. discovered at Pulborough RSPB reserve on 20th July 1994.)
- 36) *Chrysolina sanguinolenta* - scattered on the Downs between Brighton and Eastbourne, associated with common toadflax.
- 37) *Chrysomela populi* - lives on aspen, a large species with red elytra.
- 38) *Agrilus pannonicus* - makes "D"-shaped exit holes in 1" thick oak bark.
- 39) *Agrilus viridis* - on damaged or fallen willows, rare, found near Powdermill Reservoir.
- 40) *Agrilus sinuatus* - lives on hawthorn, not recorded from Sussex but should occur.
- 41) *Cetonia aurata* - should occur. The rose chafer is scarce in Sussex but plentiful at Lewes and occurs in Arundel Park.

Peter Hodge
Consultant Entomologist

DATA RECORDING FOR CONSERVATION PURPOSES

A study of the silver-studded blue (*Plebejus argus*) at the Iping and Stedham LNR

Robin Crane

The silver-studded blue is principally associated with Southern lowland heaths and its numbers have dramatically declined in recent times through deterioration or destruction of its habitat.

This butterfly has highly specific habitat requirements. The larval food plants are varied. On heathland they are young shoots of *Erica* species, *Calluna vulgaris* and *Ulex* species. Ova are only laid where there are high densities of *Lasius niger* or *Lasius alienus* ants in open areas of young heather where the microclimate is warm. Stands of heather and *Erica* species that are more than twelve years old have been found to be unsuitable for the butterfly. Only plants visited by *Lasius* ants are chosen for ovipositing. The larvae probably only survive on plants with a high nitrogen content that will aid the production of amino acids and sugars, which the larvae exude for their guardian ants. The ants protect the butterfly until it embarks on its first flight.

On Iping Common very large numbers of *Plebejus* were present before the fire in the summer drought of 1976 devastated most of the heathland. However, some butterflies survived.

In 1988 I observed that the silver-studded blues had been reduced to very low numbers and were seemingly confined to the fire breaks and the gas main track. Most of the Common then consisted of dense areas of heather that were twelve years old.

In 1989 I conducted a survey of the whole Common, making a series of visits, aiming to count the butterflies using the Pollard technique. Because the butterflies were so sedentary I was easily able to establish that they were living in a series of distinct but tiny colonies. The total count for eight visits was only 30 males and 14 females.

I recommended that the mowing of the fire breaks and gas main should be drastically reduced and that a 10/15 year cycle of winter burning and/or mowing should be introduced to produce a mosaic of heathland. This would favour many invertebrate species.

The surveys have been continued every year since. There was a steady improvement in numbers in 1990 and 1991 and I was able to confirm that the species was living in very distinct colonies and that these were principally confined to areas dominated by *Erica cinerea*.

In 1992 there was a dramatic increase in numbers, concentrated in a short hot spell at the end of June. *Plebejus* was recorded on Stedham Common for the first time. 1993 produced another excellent season and very high densities of the blues were found to have established themselves in areas burnt in 1989. There were also a number of new areas colonised on Stedham Common, almost certainly as a consequence of the clearance of pine in 1991/92.

Through systematic annual population and habitat surveys it has been possible to advise on conservation and to monitor the progress of the silver-studded blues' expansion. Future annual recording will enable subtle changes in the status of this sensitive and highly specific species to be monitored. It is suggested that similar work could be productively applied to other invertebrates.

Robin Crane
Chairman
Sussex Wildlife Trust
Woods Mill
Henfield

JACOBSWELL LAND - A SITE PROFILE

Matthew Thomas

On 8th March this year, two new Sites of Nature Conservation Importance were confirmed in Lewes District as a direct result of the Sussex Biological Recorders' Field Meetings in 1993.

In 1994 I recommend we concentrate on expanding our survey information for one site which is already known to be of botanical interest.

The '**Jacobswell Land**' lies within Rother District, in the Parish of Hurst Green (grid ref: TQ730268). The whole 30.6 ha (75.6 acres) includes 3.6 ha (8.9 acres) of ancient ghyll woodland. The remaining 27 hectares consist of several small fields of herb-rich neutral grassland, separated by well developed hedges and a number of small ponds.

The ancient meadows of the Jacobswell Land were included in Graham Steven's report on unimproved neutral grassland for English Nature and are subject to a County Council Grassland Management Agreement. There are also proposals to introduce conservation management to the woodlands, ponds and hedgerows, but more survey information is urgently required to ensure the correct management is prescribed. The land manager has agreed, in principle, to allow specialists access to the site for ecological survey.

If you would like to help to survey the Jacobswell Land, please get in touch with me and further details will be sent to you.

Matthew Thomas
Assistant Ecologist
East Sussex County Council

A RARE SPECIES BOOK FOR SUSSEX

Introduction

Tony Whitbread

There are now Red Data Books available for most species groups in Britain. Recently there has also been much interest in producing local Red Data Books (or Rare Species Inventories, to avoid confusion with national documents); notable examples can be found for Lincolnshire and Dorset.

We are now developing the theme in Sussex and one objective of our biological recorders network could be to thrash out the various problems we are bound to come across for the various species groups. Prior to doing this, however, it may be worth summarising what use an inventory could have.

First, I think we should not be ashamed to compile the inventory for our own academic interest. We are involved in biological recording because of our own interest in the subject, so an inventory could be part of that interest. Primarily, perhaps, we need to inform ourselves and improve our own knowledge of Sussex natural history.

Rare species also have a very high PR appeal. Knowing about and using rare species to make a conservation point or "sell" wildlife to the general public could be a very valuable use, always being careful, of course, about how sensitive data is used and how rare species are presented as "flagship" species, not just rare oddities.

A particularly valuable use will be in response to development proposals and when making comments on proposed changes in the countryside. A knowledge of which species are rare in the county and where they occur could be invaluable. Obviously we would want to ensure that proposals do not threaten rare species. But there could be a broader value. If rare species are used as indicators of habitat quality, they will also add to the argument for the protection of wider areas of endangered habitat.

A current theme which could well be worth developing results from international commitments regarding biodiversity. It is now a stated goal in the UK Biodiversity Action Plan to "conserve and enhance biological diversity". The question is how do we achieve this? It is the view of the Wildlife Trusts, and indeed most ecologists, that our national assets are too low. We should look after our best habitats as a basic minimum, but we must now also think much more about restoration, enhancement and expansion.

Simply restoring or expanding habitats will be a thin objective unless we have some form of quality measure which could indicate whether such expansions result in real habitat improvements. Perhaps this is where rare species could help. These sensitive species could be the quality criteria that we might use to assess whether planned improvements result in real conservation gain.

This is a theme which will be picked up in one of the working groups. Perhaps the questions to be addressed are as follows:

What species can be used to indicate whether habitat restoration, enhancement or expansion are achieving conservation gain?

Does this group of species include those in a Rare Species Inventory; indeed, would a Rare Species Inventory be the quality criteria list we need?

The following paper discussed the progress that has been achieved so far with the Rare Species Inventory. There then follows a series of working group reports. These look at four areas which need to be addressed in the inventory. Work with the plant groups is in hand at present so was not discussed by a working group.

Progress Report

Harry Montgomery

The ground rules for the project had been partly laid down by the RSNC and partly decided by the Biological Recorders' Working Group. An Inventory would be prepared first, and would subsequently be "fleshed out" by including information about each species.

Criteria for inclusion were:

all National Red Data Book species, however common in Sussex;
all species protected by legislation, however common in Sussex;
all Nationally Scarce plants, however common in Sussex;
all Notable A and Notable B invertebrates, however common in Sussex;
county rarities (ie. occurring at 3 or fewer locations in either vice-county).

The fourth of the above criteria was dubious because of the very large number of species potentially involved.

It had been decided to include extinct species, which would be identified as such. It had also been decided not to have a cut-off date, though the inventory would reflect the current situation as closely as possible.

Up to 3 locations in either vice-county would be specified as exactly as possible, but detailed locations would not be given if there were 4 or more occurrences in either vice-county.

The project would, of necessity, rely heavily on the goodwill and patience of individuals who were expert in the various groups.

The inventory had been completed for mosses, liverworts, lichens and stoneworts by abstraction from the published Atlases, and had been brought up to date by the good offices of three experts. A draft list of rare vascular plants had been compiled and was being revised in collaboration with the two vice-county recorders. No other groups had yet been started.

Sussex was rich in rarities, no fewer than 53% of the Nationally Scarce vascular plants being present (or extinct). Statistics for rare species of lower plants were shown in Table 1.

Table 1: Numbers of species of rare lower plants in Sussex

	Proposed for RDB *	County rarity	Total
Mosses	25	106	131
Liverworts	9	56	65
Lichens	56	253	309
Stoneworts	3	6	9

* including extinct species

Working Group Reports

These are given in summary form such that only decisions and important statements are shown.

a. Policy and Applications

Published information on rare species would be of both academic and public interest.

Such a publication would promote the sharing of information and would attract further information of a like nature.

Such a publication would assist in the conservation of rare species, (a) by raising the awareness of site owners and managers, and (b) by identifying areas to be protected from development and other threats.

Criteria for releasing information are needed, ie. the whole area of confidentiality must be assessed.

The need for a further publication was identified, to cover indicators of habitat quality. Indicators of habitat quality should be common species.

A list of significant species would cover both rarities and indicators of habitat quality.

b. Invertebrates

The list of rarities should include extinct species.

'Significant' species should be distinguished from those which were less significant.

The use of a site for breeding was the preferred criterion in defining locations of species in the Inventory, as distinct from mere sighting.

Attention was drawn to the fact that single mollusc colonies can cover large areas.

There would be problems in compiling the Inventory for moths.

c. Vertebrates

Many legally protected species, eg. badgers and the commoner bats, should not be included. (Barbastelle, greater and lesser horseshoe and mouse-ear bats should be included however.)

Each group of vertebrates should be considered separately when selecting candidates for inclusion. Marine vertebrates might also be considered, as well as freshwater and marine fish.

There was considerable concern for the "3 locations" specification. This perhaps should be increased to 5-10.

The group anticipated some problems regarding number of locations and mobile species, eg. bats and birds, and all locations of these species were deemed relevant, whether they were for breeding, foraging or for over-wintering, etc.

Vagrant, odd or out-of-place species should not be included in the Inventory; similarly, there should be no aliens.

Species for the Inventory might include smooth snakes, otters, wallabies, water voles.

There was great concern that ecologically significant species were not going to be included in this Inventory and therefore not monitored. A separate Inventory for these species was strongly suggested.

d. Computing and Recording

Several members had had unsatisfactory experiences with the RECORDER package. There was general agreement that the COBRA package, essentially as used by the Sussex Ornithological Society, would be the most suitable, especially with the DMAP enhancement.

The Inventory should be updated annually or at some other regular interval, rather than haphazardly.

Conclusion

Tony Whitbread

Even though there was relatively little time to discuss the inventory at the seminar, I think some important points have been made.

Our discussions have clearly shown the breadth of the problem we face. An ideal would be to have a standard approach for all groups. This, I think, is impossible. In practice, we will have to note agreed criteria for selection of species in each species group and call heavily on the expertise of specialists when finalising the inventory. I think it is notable that we have so far discussed, and generally agreed on, the nature of the problems, but have not always decided on solutions.

Regarding the use of the inventory, it seems that its use as a list of quality criteria for habitat improvement could be problematical. Generally it was agreed that rarity was of interest in its own right, but often the very rare organisms are not those which can be readily used as quality criteria. We also need lists of notable or characteristic species which are ecologically significant regarding what they tell us about habitat quality. These may be uncommon but are unlikely to be the very rare species.

Overall, I think we are all agreed that a rare species inventory is a good document to aim for. There are problems and no doubt there will be lively discussion as we try to solve these, but a consensus should be possible. Hopefully the coming year should see significant development in this theme.

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