

County Rare Plant Registers

Alex Lockton, Sarah Whild & David Pearman

Approved by the Records and Science & Research Committees of the BSBI

Amended and updated to May 2005, Bob Ellis & David Pearman

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Introduction

This report has been written as guidance for BSBI vice-county recorders and others who may wish to prepare County Rare Plant Registers (CRPRs). It contains recommendations on a standard approach and suggestions about what to include; we have also reviewed some of the existing publications.

The term ‘County Rare Plant Register’ is used here for publications that include only plants. ‘Local Red Data Book’ is perhaps more appropriate for those publications which attempt to cover the full range of species present in a county. Different standards are often applied to the various taxa, particularly for animals.

History

The first British Red Data Book was written by Franklyn Perring & Lynne Farrell in 1977. It was optimistically entitled British Red Data Book 1: vascular plants, but it was ten years before the next one (insects) was to be produced. Since then RDBs have been published for birds, other invertebrates, stoneworts, lichens, bryophytes and the third edition of vascular plants has been published. In future, vegetation communities are also to be added to the list. The categories used vary between the taxa and are not really comparable.

In about 1990 Dr Perring suggested that all BSBI vice-county recorders should produce lists of locally rare species. He suggested a number of criteria, which have been refined several times. Since then other criteria have been proposed, notably by Cameron Crook in BSBI News in 1997, and by Lockton, Whild and Pearman in 2001 (the first edition of these guidelines).

The need for standardisation

If CRPRs are to have a useful role in conservation and scientific research, it really is valuable if they all conform to the same set of criteria. Planning Departments in local authorities are unlikely to give much credence to conservation designations that are simply awarded by personal preference; consultants and conservationists will find it much easier to work with criteria that are the same wherever they are working; and of course a national picture can only be built up if all the local statuses are comparable. The BSBI has plans to compile lists of the species that are considered rare in each vice-county: we need the support of the v.c. recorders to achieve this.

Geographical area

There has been some debate about the most appropriate geographical area to include. Depending on the perceived readership, it might seem appropriate to cover administrative counties, Natural Areas, or other geographic units as appropriate. Unfortunately, there is no obvious unit of area that can be applied consistently across the whole of the British Isles without having some drawbacks. It is important, however, that one standard unit should be chosen and, for several reasons, the vice-county seems the most sensible.

- The vice-counties are already defined throughout the British Isles and are unchanging in their boundaries;
- There are recorders or recording groups for each vice-county;
- There is an element of consistency in the size and nature of a vice-county.

This third point might raise some eyebrows, as the largest vice-counties are nearly ten times the size of the smallest, but in practice they do tend to relate to some sort of coherent unit – more so, for example, than the administrative areas covered by the various sorts of local authorities.

Where a vice-county is a particularly awkward unit from the political point of view, or where a list of rare species is being drawn up for another unit of area – a Natural Area, perhaps – the information should first be organised by vice-county and then re-organised for the chosen area.

What species to include

No species should be included if it is not native to the vice-county or thought to have expanded its range into the vice-county by anthropogenic processes (except under rule 7 below). In practice this is often a matter of judgement, and some species are likely to be present both as natives and as escapes or introductions. It should be clearly stated which records are considered to be native. Where a difficult choice has to be made, the facts as known can be set out in the text, allowing the reader to come to an informed decision.

It is important to include under each entry – and preferably in a summary table – which of the following categories each species qualifies under (i.e. the reason they have been included).

1. Internationally Rare

One point of view might see this as the most important group of species in each vice-county, although they may not be particularly rare within that county. Another view might be that these species have been chosen by bureaucrats a long way away with no particular knowledge of Britain and Ireland! If the former view is taken then it is very useful to give a full account of those species, which are characteristic of a particular area, or even endemic to it. The current definition of an internationally rare species is any which: -

is endemic to Britain. A list of these is available in Cheffings & Farrell, 2005. There are also endemic hybrids involving alien taxa. It might be argued that such alien endemics are of lower conservation importance than native ones, but they might be included and then the details can be explained in the text.

is of restricted distribution internationally, and has its status recognised by some international standard such as the IUCN Red Lists, the EU Habitats Directive, or the Bern Convention. Wherever possible, the global distribution of these species should be described in the text of the CRPR and the importance of the local population evaluated.

2. Nationally Threatened or Rare

All IUCN categories CR (critically endangered), EN (endangered), VU (vulnerable) and NT (near threatened) should be included in this category as well as various levels of uncertainty (Data Deficient, Waiting List & Parking List). Our advice is that these designations be shown for all the relevant taxa in the county. In addition, all species listed as Nationally Rare should be included. The list of these is given on the BSBI web site, www.bsbi.org.uk.

The 3rd edition of the British Red Data Book (Wiggington 1999) is still useful for accounts of many species.

3. Nationally Scarce

The Nationally Scarce taxa are also listed on the BSBI web site. In many cases it is the Nationally Scarce species which are of the greatest interest ecologically, rather than just for their rarity. It is often the case that a few such species are quite widespread within the counties in the middle of their range, and they are sometimes indicators of good quality habitat. It is particularly useful for a CRPR to go into some depth in their analysis of these species, highlighting threats and opportunities for their conservation.

Accounts of the most of the Nationally Scarce species can be found in *Scarce Plants in Britain* (Stewart *et al.* 1994).

Experience shows that there are often Nationally Scarce species present in a county as casuals or as garden escapes. Such species can be included, even if there are no current sites or if it is likely that they are not native to the region, but the entries can be short and should explain the circumstances.

4. Locally Rare

Species which are present in 3 sites or fewer, and do not fall into the above three categories.

The category 'locally rare' is of considerable interest. It draws the attention of botanists, site managers and planners to species that might be on the edge of their range or for some other reason uncommon within the county. Very often these plants represent a significant level of local interest not picked up by coarser national measures.

This category is now well established, though there has been some discussion before arriving at the current consensus. The original proposal by Farrell & Perring is that a species should be defined as 'locally rare' if it was known to be present within three or fewer 'sites' within a vice-county. In this context a 'site' is a discrete area within a moveable kilometre square, which seems at first glance to be slightly vague but in general is fairly easy to apply in practice. All thresholds must be arbitrary and approximate, to a degree, but this limit of three has been found to be generally convenient and should be applied for consistency.

Using this system, Locally Rare species tend to fall into a number of categories:

- Native species that occur in restricted habitats such as ancient woodlands.
- Casual records of native plants, often found on the edge of their range within the county.
- Species that are difficult to identify such as hybrids, subspecies and apomicts.

Of these three groups it is of course the first that is of most interest to conservationists, but the second group might be worth including, as information on species on the edge of their range can reveal changes in their distribution. With the third group, there is a danger of cluttering up the register with lists of plants that are simply under-recorded. Members of this group should only be included if the compiler is confident that they are truly rare within the vice-county.

5. Locally Scarce and Declining

Species that are native, present in 10 sites or fewer, or thought to be in serious decline (and do not fall into the first 4 categories).

This category has often produced the most value (and the most surprises) in preparing a County Rare Plant register. It is inevitably somewhat subjective to know what taxa one should include in this category, but there is often a good reason to include species that are evidently in decline. It is a matter of judgement as to whether to accord this group the full treatment. The balance of opinion is that locally rare species, by being limited to 3 sites or less, are too rare and that this scarce category is a far better guide to species and habitats that may be in real decline.

6. Extinct

The Register should cover any species which was formerly native to the vice-county but which is now thought to be extinct there. This may well form an appendix, but we are really keen on seeing it included as part of the work.

It can be difficult to decide which species are extinct and which have simply not been recorded for a while. The IUCN suggests that an absence of 50 years is appropriate, but recording effort must also be taken into account. The vice-county recorder is probably the best placed person to make such a decision and any uncertainties can be explained in the text. As a minimum, we recommend following the VCCC, and listing those species not seen since 1970.

It is valuable to research the old records to find species that became extinct a long time ago, as they are often very interesting from an ecological point of view. However, this aspect of a CRPR can take a long time to research. Additional information can always be incorporated into later editions or addenda.

7. Alien species of particular interest

Any non-native taxon that is present in three or fewer sites in the vice-county which has been established for a long time and which is of particular cultural, historical or ecological interest. This excludes casuals.

The conservation agencies have decided that for their purposes, archaeophytes are honorary natives, and we are happy to endorse that view! Thus they should be included in the above criteria, but there may be other species which are not native to the British Isles but which are worth including. It is also reasonable to include some plants that may have been deliberately introduced – for example the old Whitty Pear (*Sorbus domestica*) of the Wyre Forest would have been included under this category in a CRPR for Worcestershire even before it was discovered to be a native species.

It is best not to have too many species included under this category, and it must remain up to the author what to include. One possible guideline would be to include everything relevant that is listed in the 18th century Flora of the county, if there is one.

Notes on the new Red List (May 2005)

CRPRs have traditionally included Nationally Rare and Scarce plants, as well as Locally Rare and Scarce; that is species selected on the basis of rarity. In 2005 JNCC have issued the new Red List (Cheffings & Farrell 2005), which selects species primarily on the basis of threat. Our advice is that a CRPR should encompass both criteria and most of the new ‘threat’ species will be eligible already.

There may be species that whilst they might be threatened nationally, may still be frequent in the county, such as *Euphrasia* in Cornwall. This, of course already applies to some species selected on national rarity that might be locally frequent, such as *Peucedanum palustre* in East Norfolk. These species should be included in the register but we discuss the amount of data that should be presented in the next section.

Notes on Priority BAP species

Most priority BAP species will be eligible under the standard categories. If possible, the register should indicate priority BAP status for included species.

Notes on other SoCC and LBAP species

This is a difficult area and our advice in the past has been to omit other SoCC (Species of Conservation Concern, the old BAP Long list) and LBAP species on the grounds of their often arbitrary choice and the fugitive nature of their status. We would certainly still take that position now, though the next round of BAP might be more meaningful. We see no reason to clutter the CRPR with SoCC and LBAP species that would not otherwise be included under the above criteria. However, LBAP status of species included according to the standard criteria can be indicated in the register.

What information to include

1. For each species

Essential

Botanical Name

Vernacular Name (preferably just the standard one)

Reason for Inclusion (including international/national category if applicable)

Optional

Other conservation status (e.g. UKBAP or LBAP etc.)

A brief account (remember this is not a local flora) of the species in the county particularly emphasising the importance of the plant in national and international contexts.

2. For each location under each species

Essential

Date (usually the most recent year)

Grid Reference

There is a difficulty of choosing a grid reference for a species that may be widespread within a moveable 1 km sq. Do we choose a representative 6-figure grid reference, a centroid, or ignore the existence of wider colonies or sub-sites altogether? We think that it's important that we represent the best or the most central site with a 6-figure grid reference, but also incorporate a symbol (such as +) in order to differentiate between a species which may be extremely local, and one which is more widespread. Centroids are strongly discouraged.

Location

Optional

Recorder. We would strongly advise including this.

Site Status. (E.g. whether it is a SSSI etc.) Again we would strongly advise including this.

Brief comments including population details and history (i.e. is it holding its own, or is the population declining?)

As mentioned earlier, there may be some species that are threatened or rare nationally but which have a very long list of localities in the county. Recorders are, of course, encouraged to keep as many detailed records as possible for these species, but they might be more easily represented in the register as a distribution map rather than in a huge table.

Writing a County Rare Plant Register

It is useful to consider who might be the audience of this report before it is produced. In the past, three different types of 'Red Data Book' have been produced, each with a different readership in mind:

'Glossy' publications aimed at the general public. These tend to cover all taxa, not just vascular plants, and they treat each item in a fairly superficial way. They can be useful for promoting biological recording and the Wildlife Trust or Records Centre that produces them, but they do leave something to be desired for the more technical reader. They are also expensive to produce and difficult to update.

'Technical' reports, often with much more detail about locations, sites, recorders and populations of the species in question. This is far more information than the general public would want, so circulation or sales tend to be restricted. It is, however, the best format for the purposes of a CRPR, in that it facilitates conservation and further recording. It is this level of expertise which vice-county recorders are uniquely qualified to provide.

Simple lists with minimal additional information. This is the easiest format to produce, and is a good first step towards producing one of the more detailed reports, but the applications are strictly limited.

A number of reports and publications fall between these various categories being, for example, primarily lists with just a few other details.

The recommended approach is as follows: -

1. Prepare a County Rare Plants List

This is the simplest possible approach, and is a good starting point. Simply make a written list of all the species, which, according to the information to hand, fall into one of the seven (check) categories. The list can be made available to other botanists and to officers in conservation organisations for comment, amendments and further fieldwork. In most counties this list will be between around 200 species in length.

2. Prepare a County Rare Plants Register

After a rare plants list has been under consideration for a while, there are likely to be several changes, and attention may be drawn towards those species for which there is inadequate information. It is extremely difficult to comment on such a list – because it does not say where the plants are – so it becomes necessary to offer a full register. This register should contain, as a minimum, the following information about each species: - its name, a list of sites (or grid references), the date of the most recent record at each site and the category under which it is included.

This CRPR should be made available to a wider audience. In a typical county, that might mean distributing about 100 copies. It is useful to have free copies available for Wildlife Trusts, the officers of Country Agencies and planning officials, and it is not difficult to acquire grant funding to make that possible. The Sussex RPR has sold nearly 400 copies, and Dorset has reached 200 in 6 months.

3. Let your imagination run wild...

Whilst preparing these guidelines, many suggestions were made to us about other things that could be included. The best way to indulge these ideas is after preparing the basic information for the standard Rare Plants Register. In Ceredigion, Arthur Chater has listed many other species, including ecological indicators and alien species of purely botanical interest. There is no difficulty in separating these from the 'real' county rarities because the latter are given in bold type. In counties where the vice-county boundary is not convenient to the planning authority, this is the opportunity to produce a report that is convenient to them. In particular, where the v.c. is split into two halves, it might be useful to have a combined list, giving all those plants that are rare in either vice county. Whatever you decide to do, however, please do not bend the rules – it may seem logical in a strictly local context, but it devalues your work when compared to all the others.

Confidentiality

One question that is bound to arise is that of the confidentiality of records. Three particular issues are common:

- Should detailed locations be given?
- Should recorders' names be given?
- Should landowners' confidentiality be respected?

There can be no simple answer to these questions. Some species are at risk from collectors or even just from people wanting to see them and take photographs. Many more are at risk from neglect of their habitat, and keeping the locations secret does nothing to conserve them. Some visitors will trespass on private land and upset landowners; but on the other hand, the landowners most likely to become upset are perhaps those who are more concerned with privacy than conservation. On balance, though, we feel knowledge of a plant's existence is the best key to its survival in a largely man-made landscape.

In general then, the current advice is firmly to give more information rather than less, but to apply common sense to the decision. Some CRPRs give 6-figure grid references for all species, but some balance this by only being available to those who have a legitimate use for the information.

One solution is to give a site name and a recorder's name for every record. Only a 1km square (or even a 10km square) need be given because this, together with a site name, is usually plenty for someone who knows the site and the plant in question to find it. Provision of recorders' name can be of benefit because it immediately draws the attention to the quality of the record. However this seems a less attractive option than full disclosure.

In one or two situations it is necessary to be somewhat coy about localities, by not giving enough information to find the particular plant if it is very rare, quite collectable, and well managed-for at the site. It is best not to draw attention to these confidential ones, because that would be counter-productive. It should be possible to give greater emphasis to those species and sites where conservation is a problem and where public attention can do the most good.

Monitoring & Updating

As a conservation tool, a County Rare Plant Register is most useful if the information in it is constantly updated. Management operations on known sites, translocations and attempted re-introductions, accidental or deliberate destruction of sites - this sort of information, in addition to the normal biological records, is invaluable in assessing the status of the species in future. Incorporating information on population size and threats makes the CRPR more useful to those involved in conservation and planning, and is likely to elicit more interest and feedback. It is useful to record whether the plants are in a designated site such as a SSSI or a County Wildlife Site, too, as this helps site managers to be aware of their presence.

It is not necessarily the role of the vice-county recorder to give ecological advice, but wherever it is possible to do so, good ecological information is very valuable. Vegetation communities, associated species and details such as degree of shade or the grazing regime can be invaluable to the serious researcher.

If the information for the CRPR is held on computer, such information can easily be accumulated as and when it becomes available. It is also useful to develop a network of recorders who can provide such information, as it is unlikely that one recorder could adequately monitor all species, except in the smallest vice-counties.

A simple CRPR is fairly easy to update. Arthur Chater estimates that the one for Ceredigion can be updated every two years, with just a couple of evenings' work. By contrast the Shropshire RPR takes about a month of work to re-write. New information from various sources can be used to update and

improve CRPRs. New finds in the field can add new species to the list or show that a species is too common to retain; new publications and research into the national and international status of a species can highlight other species to incorporate; and taxonomic developments can lead to the recognition of new taxa worth considering.

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Useful web pages

The BSBI web site: www.bsbi.org.uk

The latest Red List (May 2005), containing all the UK threatened, rare and scarce species can be found on the Joint Nature Conservation Committee's web site: www.jncc.gov.uk

UK biodiversity action plan species and habitats can be found at: www.ukbap.org.uk

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