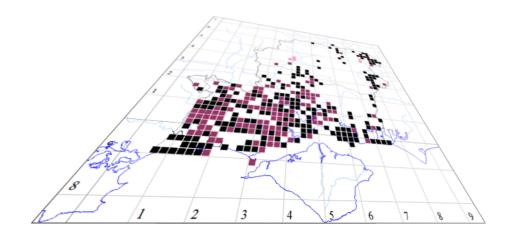
Chapter 8 Schedules and Catalogues



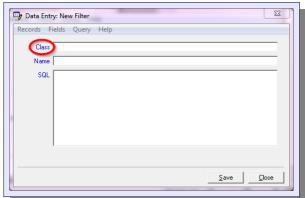
The author of this handbook is pleased to have errors pointed out and to receive suggestions for improvement and other comments.

Please send all communications to: vc11recorder@hantsplants.net

Introduction

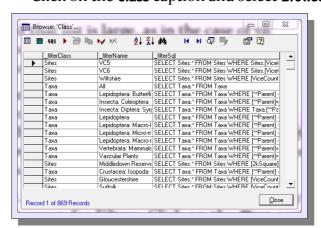
MapMate provides species lists for the main taxonomic groups, and for a sample of more restricted groups. Quite often one feels the need to work with a subset of the taxa in a full species list - especially if that list is large, as in the case of vascular plants. For instance, one may want to produce listings or maps for a Rare Plant Register, a local axiophyte list, or vegetation community constants. Or one wants to draw together taxa from several species groups – gall-causers and host plants, say – in a single data set.

Doing it the Wrong Way

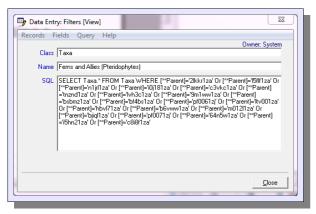


How to go about this? One approach would be to build one's own **Filter**. You will know about Filters from setting your recording defaults, whether for Data Entry, Analysis or Atlas building. And if you open the Data Entry form and select **Add New...**, you will see that one of the options offered is **Filters**. What is missing, to help you construct a Filter, is the ability to list existing Filters in the Analysis queries.

However you can still do it. You could create a new query to do it, and I'll explain how later in the chapter. But for now, use **Add New...** / **Filters** in the Data Entry screen for Records to open up a new Data Entry screen for Filters. Click on the **Class** caption and select **Browse Class...**



This will give you a list of all defined Filters. As you'll see if you scroll through, it includes Record and Site filters as well as Taxa. Look for an entry with the name **Ferns and Allies** (**Pteridophytes**). If you don't find this one, choose one of the **Vascular Plants** entries. Highlight it, and click on the **View Record** button in the toolbar.



What you see here is what might be called the direct and brutal method of constructing a Filter. If you're wondering what this query is doing, it's looking up all the Taxa that belong to one of a number of families (the 'Parent') that are members of the Pteridophyta. If you have a long list, you'll appreciate that making a filter like this is not much fun. You have to go through the Taxon lists, noting down the unique keys of

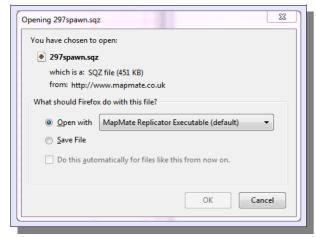
all the candidate members (and for many types of list you'll have to do it at the species level, not the family!); then you have to write a query like this, taking great care that you don't make any transcription errors. Then, if ever you need to make any changes, you'll have to make a laborious search through the query to find the unintelligible key you need to delete or alter.

You might be tempted to make it easier to understand by using species or family names rather than the unique key. If you do, you are making yourself a hostage to taxonomic fortune. A name change implemented in MapMate, such as the recent update to Stace Edition 3, will invalidate your filter until you go through and make all the necessary name edits. Using the unique key at least means that if the taxonomic entity stays the same and the name changes, this change happens for your Filters automatically.

The alternative to building Filters in this way is to use Schedules. Schedules are not a standard feature of MapMate; they are an add-on feature developed for the BSBI, although they can be used with any species group or across many species groups.

Installing the Schedules Patches

To make use of Schedules, you will first have to download and install two patches from the MapMate web site user zone: Patch 297, which is the base package; and Patch 351, which has an update to the predefined Schedules distributed with the base package.



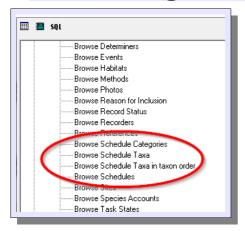
Log on to the MapMate User Zone using your Computer Unique Key and password; and search through the list of patches for these two.

You can open them directly from here, in which case make sure to open 297 first and 351 second. Or you can save them into the **Data / Cache / Download** folder of your MapMate installation. In the latter case, MapMate will install them next time you run the Replicator, and it doesn't matter which order you save them in, as MapMate will sort out which to load first.

What Schedules Will Do For You

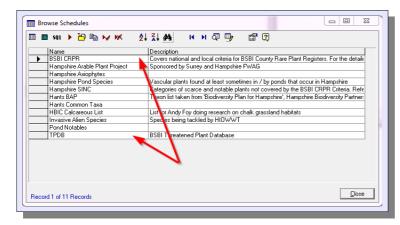
- Schedules are a way to bring together an arbitrary set of taxa as a named group.
- Schedules let you define their members by name, but internally refer to member taxa by unique ID, ensuring that your list remains accurate after taxonomic name changes.
- Schedules let you categorise entries, providing extra documentation on why a taxon is included, and allowing easy selection of subsets for reporting and other purposes.
- Schedules come with a set of predefined stock queries.
- Schedules provide a relatively straightforward way of defining new Schedule-based Filters.
- Two nationally-defined predefined Schedules for botanists come with the package.

Anatomising a Schedule



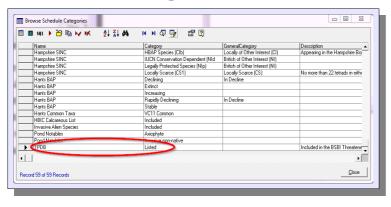
Before defining our own, we'll start by looking at the predefined Schedules to understand what they contain and how they work. Once you've loaded the patches, you should see some extra queries in the **Browse Tables** sections of the Analysis menu. Start by opening up **Browse Tables**.

Schedules



Select **Browse Schedules**. Your list won't be as long as mine at this stage, but it should include **BSBI CRPR** and **TPDB**. These are the ones that are distributed as part of the package. You'll see that the definition of an overall Schedule is very simple: just a Name and an optional Description.

Schedule Categories



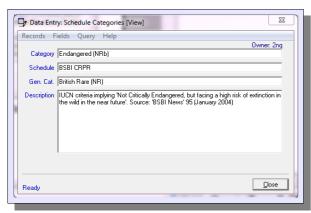
Go back to the query list and select **Browse Schedule Categories**. Once you've declared your Schedule, you will need to define at least one Schedule Category to make it useful; but in many cases you only need one. Find the **TPDB** entry in the list; you'll see that there is just one, and that it has a simple **Category** of **Listed**. (It's a good idea to include a neutral name

like this even when you have only a single Category; it will make life easier if you ever come to refine your Schedule with more Categories in the future.)



Now have a look at the listings for **BSBI CRPR**. This is an example of a complex Schedule. First of all, there are lots of entries; all the separate criteria through which a taxon can be included in a County Rare Plant Register have been given their own **Category**. In addition, the categories are given a higher-level **General Category**, which makes distinctions between species included

on national criteria (British Rare etc.) and those given on local criteria (Locally Rare etc.)

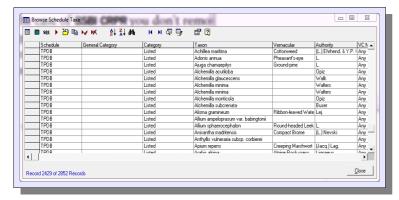


If you want to see the full **Description** for a Schedule Category you can, as usual, click on the **View Record** button to bring up a form with the individual record.

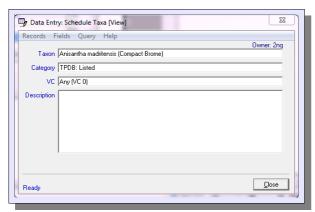
Incidentally, the detail you will see for these Schedule Categories on your system won't be quite the same as you are seeing in these illustrations. That brings up an interesting point. You have the ability to add or substitute different categories in any Schedule, including the predefined ones. In

my case, I've done it to add codes that are meaningful to my local Biological Records Centre. But I strongly recommend that in the case of **BSBI CRPR** you don't remove any British criteria, as the whole Schedule will no longer work for you as intended without a lot more work on your part. If you add new local criteria the result is not as potentially damaging, but it might take you outside the guidelines defined for Rare Plant Registers nationally.

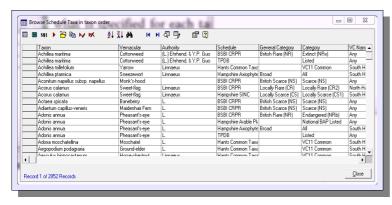
Schedule Taxa



Finally, a Schedule needs to specify which taxa are included in it, and why. Return to the query list and select **Browse Schedule Taxa**. Scroll down to the listings for **TPDB**. An included taxon will be listed in the Schedule Taxa for a Schedule at least once; we'll explain later why it might appear more than once.



Calling up **View Record** on one of these items shows what is specified for each taxon. Notice that only the **Category** needs to be identified; the entry in the Schedule Categories will establish what General Category, if any, then applies. The **Any** entry for the VC establishes that this designation applies across all of Britain and Ireland.

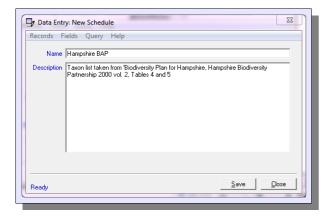


The last option in the browsing list, **Browse Schedule Taxa in taxon order**, simply allows you to see more easily, for a given taxon, which Schedules it is included in.

Creating a Schedule

For illustration, I'll create a new Schedule for some Hampshire BAP species. You may prefer to do something more realistic for your own data set, but I'm sure you will be able to follow the general procedure here without difficulty.

The Schedule

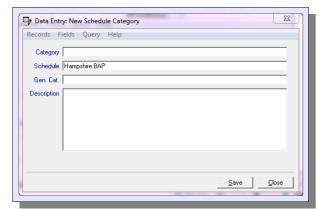


Select **Data Entry** from the MapMate toolbar, and from the Data Entry form menu select **Records / Add New... / Schedules**.

A Schedule **Name** is, of course, obligatory. The **Description** field is for any notes about the purpose or content of the Schedule; you can leave it blank if you wish.

That's all there is to the first stage. **Save** your Schedule and **Close** the form.

The Schedule Categories

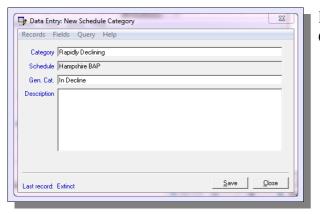


From the Data Entry form select Records / Add New... / Schedule Categories. First select the Schedule you're creating entries for. You can type the name (as long as you get it exactly right), or click on the Schedule caption and choose List Possibles to select it from the list. The F2 key will of course have the same effect if your cursor is sitting in the Schedule field.

Since you're going to be creating several Categories for the same Schedule, you may as well fix this

entry by clicking on the **Schedule** caption and choosing **Lock Schedule**.

Now type **Extinct** into the **Category** field. You don't need to enter a General Category (**Gen. Cat.**) for this one, and we'll leave **Description** out of this set, so you can just click on **Save**.

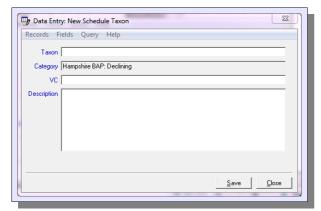


For the next entry, **Rapidly Declining**, we'll add a General Category of **In Decline**.

I'll leave you to enter other categories for the Schedule. The rest of the list for this example is:

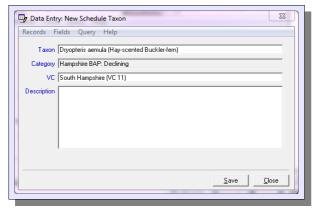
- Declining (In Decline)
- Stable (-)
- Increasing (-)

The Schedule Taxa



The final step is to define the taxa that are to be included in the Schedule. From the Data Entry menu select Records / Add New... / Schedule Taxa. First select a Category: if you List Possibles you will see that categories are now listed by their Schedule and Category Entry. If following my example, search down the list for Hampshire BAP: Declining and select that. We'll be adding a few with the same Category, so you may want to Lock that.

Taxon can be chosen by any of the methods used when entering Records, including, for vascular plants, the '2+3' abbreviation.



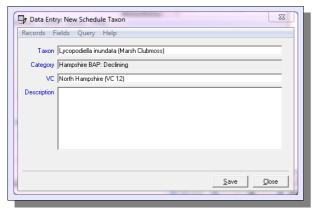
VC raises an important point. Hampshire comprises two vice-counties, VC11 (South Hampshire) and VC12 (North Hampshire). Some of the entries I want to make in this Schedule occur in both vice-counties. What's the best way to represent this? I could simply type Any into this field, and this will be fine as long as the Schedule won't be used outside the county. Any in this case will simply mean "anywhere in Hampshire", and it will also take care of the small areas of VC8, VC22 etc. that

happen to fall in the administrative county.

But if I'm designing my Schedule to be shared with people who are working with data sets beyond Hampshire, then unless I want **Any** to mean "over the whole of Britain and Ireland", I should restrict my Schedule Taxa to the vice-counties that I know about, and leave them to make the additions for their own area.

In the case of *Dryopteris aemula*, in Hampshire it has only been recorded in South Hampshire, so I can enter **11** for **VC**. I can make a second entry for *Equisetum hyemale* on the same basis.

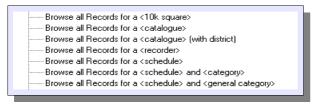
I now come to *Euphrasia pseudokerneri*. This is declining in both halves of the county. As my Schedule is Hampshire-specific, I'll tackle this by setting **Any** for **VC**.



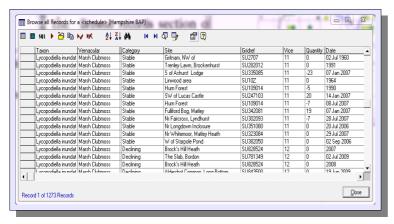
Next up are *Lycopodiella inundata* and *Pilularia globulifera*. These are both Stable in VC11 but Declining in VC12. For each species, I need to make two entries in the Schedule, with the appropriate Category against each vice-county.

There are, of course, more species on the county BAP List than I've covered here; but these few will serve to illustrate other features of Schedules.

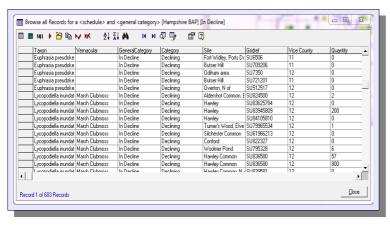
Schedule-based Record Queries



With the Schedules package installed, you'll find that you have several new stock queries installed in the **Browse records** section of the Analysis menu, whose names are, I hope, self-explanatory.

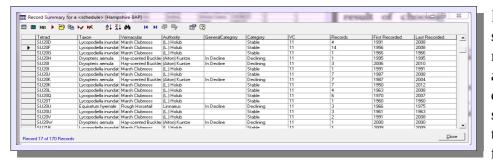


Browse all Records for a <schedule> will list all Records for the Schedule regardless of their Category. You need to type the exact name of the Schedule when prompted, and you can't use partial names; this is a weakness of the current implementation.



Browse all Records for a <schedule> and <category> and Browse all Records for a <schedule> and <general category> will do exactly that, limiting the records to the vice-counties for which the category applies. For instance, here is part of the result of choosing In Decline as the General Category. You'll see that Records are now only listed for the vice-counties in which Taxa are Declining and Rapidly

Declining.



In the **Species summary** section of the Analysis menu, you'll find an analogous set of queries for summarising the data tetrad by tetrad. Here, for example, is part of

the result of running Record Summary for a <schedule> on the fledgling Hampshire BAP schedule.

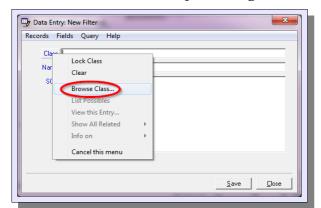
The two predefined **Schedules BSBI County Rare Plant Register** and **Threatened Plants Database** also have both Records and Summary reports already predefined for them.

Making a Schedule-based Filter

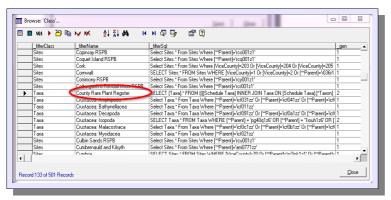
It's likely that if you've devised a Schedule, you'll want to use it for more than just the special Schedule-based queries outlined in the last Section. A Taxon Filter constructed along the lines of the built-in filters for taxon groups will allow you to control:

- what appears in an Atlas;
- what appears in **any** report for any of the taxon-based queries in the Analysis menu;
- what taxa are available to you during data entry;
- what you exchange with other MapMate users through the Replicator.

The Schedules package comes with built-in filters for the two predefined Schedules. But for your own Schedules you will have to do a little more work; MapMate doesn't provide an automated method of producing Filters.



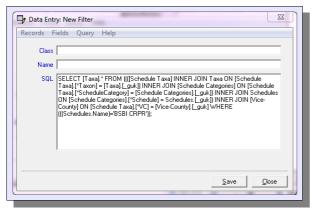
If you're reading this section electronically, you can skip the next three illustrations. If you're not, you'll first need to open up one of the existing Schedule Filters on the system. Open the Data Entry form and select Records / Add New... / Filters. Then click on the caption for Class and select Browse Class...



You now need to find the entry in the list called **County Rare Plant Register**. (Sorting on the column labelled **_filterSQL** is probably a good idea.)

Click in the field for this entry in the **_filterSQL** column, so that all the visible text in that one box is highlighted, but no other column is highlighted. Then click on **Copy Selection** in the toolbar. You might be

tempted to **View Record** in the Data Entry form, to make it easier to see what you're copying; but don't bother. It's one of the quirks of MapMate that it won't let you copy to the clipboard from a "view only" form.



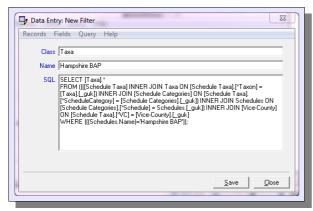
Now make sure to leave the data grid on display, as another of MapMate's quirks is to empty the clipboard without asking when you close the form you're copying data from. Return to the Data Entry form for creating a new Filter, and paste the text into the SQL box of the form. You should see this text. If you've avoided the SQL parts of this handbook so far, you might find this a bit daunting, but don't worry; you only have to make one minor change.

If you're reading this section electronically, you can save yourself the previous steps by cutting and pasting the same text from here.

```
SELECT [Taxa].*
```

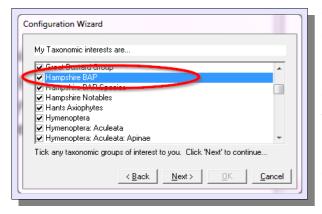
FROM ((([Schedule Taxa] INNER JOIN Taxa ON [Schedule Taxa].[*Taxon] = [Taxa].[_guk]) INNER JOIN [Schedule Categories] ON [Schedule Taxa].[*ScheduleCategory] = [Schedule Categories].[_guk]) INNER JOIN ScheduleS ON [Schedule Categories].[*Schedule] = ScheduleS.[_guk]) INNER JOIN [Vice-County] ON [Schedule Taxa].[*VC] = [Vice-County].[_guk]

WHERE (((Schedules.Name)='BSBI CRPR'));



You now need to change the title in single quotes in the last line ('BSBI CRPR') to be the exact name of your Schedule. Make sure you preserve the single quotes.

Once that's done, type the word **Taxa** into the **Class** field, and the name you want for the filter into the **Name** field. I've used the **Hampshire BAP** example here for illustration. Then **Save** the entry and **Close** the form.

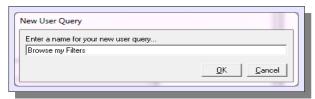


That isn't quite all: to make your Filter available for use, you have to put it into your recording options for taxonomic groups. Choose **View** / **My Configuration...** from the MapMate main menu. On the second screen (**my Taxonomic Interests are...**) you will need to scroll down to find your new Filter, and tick the box. Continue through the rest of the configuration setup leaving other options unchanged, and save your new setup.

You should now be able to use your Filter wherever you have the ability to select any other taxonomic group: specifically, from the Analysis Browser form; from the Records menu on the Data Entry form; when setting up an Atlas; and when specifying what taxa will be exchanged with a Replication partner.

A Query to Browse Filters

We noted earlier that MapMate doesn't provide a built-in query for browsing Filters, unlike most of the other reference tables in the database. As you start to build a library of Schedules and related Filters, you will probably want a cleaner way to list just your own Filters for recollection and maintenance purposes. A custom data query will let you do this.

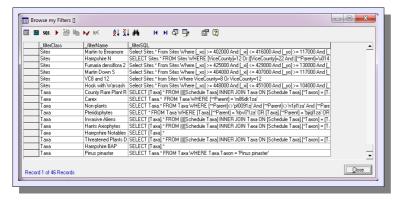


Click on **Analysis** in the MapMate toolbar, and select the **User queries** section in the Browser form. Scroll down to **<new user query>** and click on it. When prompted for a name, enter **Browse my Filters**.



Replace the text in the form with this:

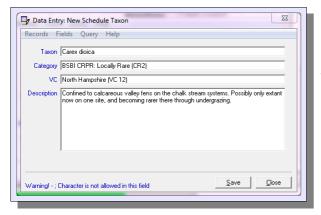
```
SELECT [_guk], [_filterClass], [_filterName],
[_filterSQL]
FROM Filters
WHERE Right(Filters.[_guk],3)=[thiscuk];
Save Query and close the form.
```



Here are the partial results of running this query on my system. Of course, as illustrated here, some of the Filters that you find you own are likely to come from other operations, such as defining custom maps.

Customising the County Rare Plant Register Schedule

If you use a Schedule to help you produce a County Rare Plant Register, then you will need to do some customisation work first. Unless you're going to make a very heretical Register, all the Schedule Categories you need to categories candidate plants are already in place. Also, taxa that should be included on national criteria are already in the Schedule Taxa list. What you will need to add are the Schedule Taxa for species appearing on local criteria of rarity. And if you have species that are nationally rare or threatened as natives, but occur only as plantings or garden escapes in your territory, you may want to remove these from your local copy of the Schedule.



Here is an example of a local entry for Hampshire. How much, if anything, you include in the **Description** is obviously up to you, but it does offer you the chance to hold notes for taxon status that can be exported to a Rare Plant Register document along with the detailed records.

Things to watch out for:

- If you are sharing data with people outside your territory, make sure you include the specific vice-county in each entry, rather than choosing **Any**.
- Avoid duplicating entries for taxa that are already in the Schedule. If you do, some of the Schedule-based queries will give you double reporting.

If you want to export details for the Taxa in your Schedule to a spreadsheet or other document, the best starting place is probably the **Browse Schedule Taxa** query. However this gives you all Taxa included in any Schedule across all Schedules, so you will first need to excise the irrelevant Schedules; and then it will give you all Taxa listed nationally, regardless of whether they occur in your territory. If you followed the more advanced sections of Chapter 4 on reporting, you may feel ready to create some new queries based on this which will give you more restricted results.

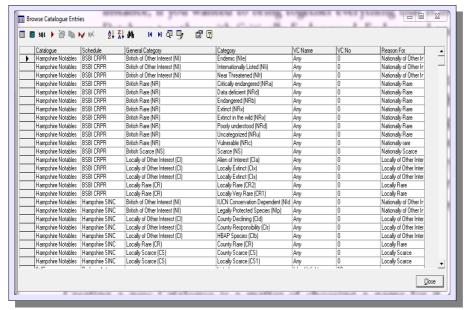
If you want to export the detailed Records for your Schedule, then **Browse all County Rare Plant Register Records** will fit the bill. This probably comes closer to what you actually need; but again, you may like to produce refinements of it in new queries, for instance to extract a single species at a time.

Catalogues

For most people most of the time, Schedules will be an adequate tool for bringing together collections of data. There are some cases where you need either more flexibility or more precision in your selection, and Catalogues are an additional feature designed to supply this. Catalogues can extract all or part of one or more Schedules to provide a new combination of Taxa and their associated Records.

Here are some circumstances where you would need to use Catalogues:

- When you want to select records for a limited territory from a set of data covering a wider area with national Schedule criteria. For instance, selecting all the Threatened Plants Database records for Hampshire from a data set that covers all of southern England.
- When you want to select a limited number of Categories from a Schedule, and there's no General Category that matches your requirements. For instance, if you wanted a combination of Critically Endangered, Endangered, Locally Very Rare and Endemic Categories from the County Rare Plant Register.
- When you want to combine all or parts of several Schedules for reporting. For instance, if you wanted to bring together everything that is in the Threatened Plants Database together with Critically Endangered, Endangered and Vulnerable taxa from the County Rare Plant Register list.

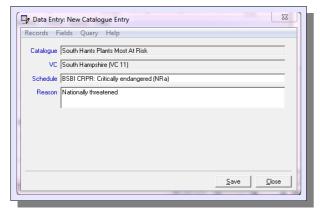


As an example of the last case, in Hampshire we have a Schedule for taxa in the County Rare Plant Register using the BSBI's nationally defined criteria, and another for other species of concern to planners and ecologists in the local authorities, embracing infrequent and declining species, and species enjoying some degree of protection listing. The latter go into a

separate Schedule known as 'Hampshire SINC' (because they are additional species taken into account in notifying Sites of Importance for Nature Conservation). Together these make up a list known as the 'Hampshire Notables', and a Catalogue **Hampshire Notables** combines all the Schedule Categories from both Schedules.

Setting Up a Catalogue

Creating a new Catalogue is a matter of choosing a name for it, then creating a set of Catalogue Entries, each using that as the Catalogue name.



From the Data Entry form choose Records / Add New... Catalogue Entries.

Under **Catalogue** enter your chosen Catalogue name. If you have several to make, you probably want to **Lock** this entry.

If you intend to limit the data to one or more vicecounties from the complete data set, you should enter the vice-county number explicitly and make a separate Catalogue Entry for each vice-county you want. If you are happy to accept all data from your

data set, you can use Any. Depending on circumstances, it may also be worth locking this entry.

The simplest way to choose a Schedule Category is to **List Possibles** from the **Schedule** caption. In any case, it must be one of the categories you have already defined for a Schedule.

Use **Reason** for any comment you want to make on the inclusion of this entry in the Catalogue, or leave it blank.

Once you have saved one entry, continue to make entries under the same Catalogue name until you have the coverage you need.

Catalogue-based Queries

There are two queries provided for Catalogues, and they follow the same pattern as for Schedules:

- Browse all Records for a Catalogue
- Record Summary for a Catalogue

It is of course possible that a taxon appears under a different guise in more than one Schedule, and these queries take account of that and prevent double accounting.

Catalogue-based Filters

There are no predefined filters for Catalogues in the package, as there are no predefined Catalogues; but here is an example that you can use as a model for building your own.

```
SELECT First([Taxa].*)
```

FROM ([Catalogue Entries] INNER JOIN ((([Schedule Taxa] INNER JOIN [Taxa] ON [Schedule Taxa]. [*Taxon] = [Taxa].[_guk]) INNER JOIN [Schedule Categories] ON [Schedule Taxa].[*ScheduleCategory] = [Schedule Categories].[_guk]) INNER JOIN ScheduleS ON [Schedule Categories].[*Schedule] = ScheduleS. [_guk]) ON [Catalogue Entries].[*ScheduleCategory] = [Schedule Categories].[_guk]) INNER JOIN [Vice-County] ON [Catalogue Entries].[*VC] = [Vice-County].[_guk]

```
WHERE ((([Catalogue Entries].CatalogueName)='Hampshire Notables')) GROUP BY Taxa.[ guk];
```

This requires the name in single quotes in the last line to be changed to your Catalogue name.

Sharing Schedules and Catalogues

You now know that you can use Schedules and Catalogues to control the Records you share with partners through the Replicator. What may not be so obvious is that you can also share the Schedule and Catalogue definitions themselves. However, in order to do this, it seems that you must set the **records:** filter for the sync partner to **MapMate Version 1 User**. The data for all elements of the package will then pass over with the next sync you send. I recommend that:

- before doing this, you send them a sync with your default setting for sharing records with them;
- you change the filter to MapMate Version 1 User and send them another sync immediately;
- as soon as you have done this, you set the **records:** filter back to its normal setting for that partner.

I should warn you that this doesn't always seem to send the required data, and I haven't pinned down why; so get your partners to check after they've received and loaded the sync.

If your partner is not recording in the same geographical area as you, make sure that you don't bequeath them any Schedule or Catalogue data with **Any** as the specified vice-county, unless they really are intended to be global criteria.

If you have partners who are also creating Schedules and Catalogues, it's worth checking in advance that you don't have any naming conflicts. As long as Schedule and Catalogue names are unique, there's no problem about using the same name for a Schedule Category within more than one Schedule.