Integrated Population Monitoring Reporter (IPMR)

General Introduction

Please, please take the time to read this introduction. You may waste a considerable amount of effort if you do not read the details in the General Introduction carefully. I am always trying to make the program more intuitive so that instructions aren't so important, but until I succeed then please take the time to read them.

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IPMR concepts

IPMR is an application that has been developed to assist BTO ringers and nest recorders to enter, manage and submit ringing and nest record data to BTO HQ. IPMR holds its user's data in a database. This database holds both ringing and nest recording data. Submissions to BTO HQ for ringing, CES, RAS and nest recording are made independently of each other.

Multiple databases are supported

IPMR can support multiple databases. The use of more than one database is usually required for ringers who use both their own rings and also those of a partnership or group thus requiring the records to be kept separate. For nest recording in a ringing partnership or group normally all Nest records would be entered into one IPMR database. This need not be the one fom which the Ringing records are submitted.

IPMR concepts for Ringing Data

The concept behind IPMR is that the prime copy ringing data for an individual or group is maintained within one IPMR database. The prime copy of ringing data is the authoritative copy - the one from which data are sent to BTO HQ. There are a number of facilities within IPMR to support this including: the checking and automatic setting of record types based on records already within IPMR; the maintenance of the usage of rings within series and the automatic generation of submission sequence numbers.

Information on Ring Series and captures can be exchanged within ringing groups

In a group situation multiple people can enter capture data; it is recommended that this be on the basis of responsibility for discrete series of rings. The series need not be the full series as received from BTO HQ, but could be perhaps a set of , say, 100 rings out of a series of 1,000. The allocation of rings can be managed through the Ring Series facility. The Ring Allocation Splits function aids the entry of ring series which need to be split for allocation for example to ringing group members (they are also used for an auto ring series add facility when importing capture records).

Use more than one database if appropriate.

Someone who enters ringing captures for (1) their own rings, (2) for another ringer and (3) for a ringing group should do so in **three** different database files. See the File > Select > Database function about creating a new database file. You should not have a separate database for each year.

IPMR is not really designed to hold personal records of birds ringed on someone else's rings, e.g. on a ringing course. It can be done, but these captures should certainly be held in a separate database from one used to submit captures to the BTO.

IPMR automatically manages which records have been submitted to BTO HQ

The submission of records to BTO HQ is done on a different basis to B-Ring. Because IPMR holds all records and allows them to be automatically managed there is no need to control which ring series to submit and which not to; this is handled by IPMR automatically. When a submission file is created ALL records ready for submission are selected.

IPMR concepts for Nest Recording

All nest records for an individual or group for multiple years are held in a single IPMR database. IPMR doesn't have any facilities to allow multiple people to enter nest record data and for it to be consolidated into one IPMR database.

Each nest has a unique sequentially numbered Nest Record Number in the database; this number cannot be changed.

Places and subsites hold default habitat and nest information to aid nest data entry

Places hold geographic information such as grid reference and county and should be defined before creating any nest records; these represent a piece of woodland, an area of moorland, or a park for instance.You will often find that there is nest information that is common across nests. This can be because the habitat at a site is the same for large areas or it can be common across years for regularly used nest sites or where Nest Boxes are used. You can define subsites and Nest Boxes within IPMR.

Once set up Subsites can be selected directly from the Nest form or can be linked to a Nest Box.

Manage your portfolio of Nest Boxes

Nest Boxes are a key feature of IPMR. When a Nest Box is set up in IPMR it is linked to a Nest Box Type which hold information about its size, type and the material it is made from. Nest boxes can be linked to a Subsite for habitat information. A variety of information is held Nest box details. When a Nest is created a Nest Box code can be selected. If the information above has all been entered when the Nest Box was defined then the Nest Box Type, Subsite, Habitat and other information such as nest height and orientation are copied into the Nest record. Alternatively these details can be entered directly into the Nest record. (If Nest Boxes are not identified individually then there is no need to set any up.)

Both Subsites and Nest Box details can hold a grid reference. This can be your own local reference, but if it this is an OS 6 figure grid reference such as NZ372567 then it will be copied into a nest record when selected.

Multiple submissions can be made in a given year, but it is expected that generally one submission will be made per year.

B-Ring and IPMR compatibility

Import your old B-Ring Data

B-Ring RDF files or standard Submission format files created by B-Ring can be imported into IPMR. See *Importing Captures* below.

The B-Ring BTOPL.TAB file can be imported into IPMR from the *Import/Export Control Information*. See the Place codes section under *Starting IPMR for the first time* below.

Using IPMR within Partnerships and Groups

Exchange ringing data within your group or partnership

Operation as part of a group, partnership or when other people such as C-permit holders are using the rings requires the exchange capture records. The Ringing Secretary should have the Group's IPMR Database. Other group members can use IPMR (or B-Ring) to send in Submission (or RDF or comma delimited) files. The exchange of Place details, Subsites, Observers and Ring Series is also recommended. These can be transferred from the Group's Database to members databases, which is suggested for Ring Series, or vice versa, which is more likely to add new Place records. This is accomplished using the Control > Import and Export functions available under the Control menu item. See the *Ring Series* section later in the guide for more information on allocating Ring Series out to group members.

Group members should use their own name and permit number not that of the group.

As a result of all this it is recommended that the person who collates capture records for submission to BTO HQ uses IPMR, but those who collect and enter the data can use either B-Ring or IPMR. There are benefits in having IPMR used by all members of a group such as the exchange of Ring Series information, but this is not critical.

Little things that you should know

- There are often many ways of doing a particular task wihin the Windows environment. For the purpose of filling in data into forms, which is most of what you are doing with IPMR, it is recommended that you use the TAB key to move from field to field. Sometimes an extra field (or box) will appear depending on your response in the previous field or the cursor will jump to another field missing out ones that aren't appropriate. The mouse is most useful for tick boxes and drop down menus.

Windows Date and Time formats

- The Regional settings (in Control Panel) for *short dates* **must** be set to English (British) or English (United Kingdom) and the year component must be present. This ensures that date format are day, month and year e.g. dd/MM/yy. Four digit dates e.g. dd/MM/yyyy and period seperators e.g. dd.mm.yy are also acceptable. Also the Time display settings (also in Regional Settings) can cause problems. If IPMR won't start then set the *Time style* to be HH:mm:ss. If it is already set to these values then re-enter dd/MM/yyyy and for the time and re-enter or re-select HH:mm:ss as the *Time Style* and (without touching any of the other settings) click the Apply button. IPMR will not start unless these settings are correct.

- There is an Options form under the Control menu item. This sets up a number of useful things including the Current Year that data is being entered for. Take a look at the form and its accompanying help

Just type in the day and month for dates after setting the Current Year

- When entering data into some fields, particularly numeric ones, something like __._ is often displayed. This shows the format of the entry required; in this case a number with one decimal place. To enter the data type the number, e.g. 21.1, into the field. Also just 1.1 can be typed into the field; this will initially look like 1_.1, but when the next field is moved to then the number entered will look like 1.1 as might have been expected.

Don't forget the F1 and Esc keys

- Help for a form can always be viewed by just pressing the F1 key
- Pressing the **Esc** key will Undo the last edit. Pressing it twice will undo all changes made to the record
- If IPMR goes into an error loop then using the Ctrl-Shift-Q key combination will try and shut down IPMR to save turning the PC off!

Creating backups of the database

Ensure that your data is safe

As with all valuable information, the data held in the IPMR database needs to be looked after. Periodic backup copies of the database(s) should be made as insurance against software or hardware failure. Having a recent backup will help to reduce the impact of such a failure. Having multiple backups is highly recommended because if the database is unknowingly corrupted and a backup is made when you leave IPMR then the backup will be corrupted too. Backups are set up from the Control/ Options menu item. The use of the PKZip backup option to a diskette is recommended as PKZip backups can hold in excess of 20,000 records per diskette and PKZip will automatically span multiple diskettes if required. (This facility does not require the use of a Zip Disk!)

Creating multiple backup sets can be achieved quite simply. A Backup Set is composed of one or more diskettes. Say that it is decided to have three backup sets. Each set can be used in turn: backup set number 1 after your first session, set 2 after the next, set 3 next time, and then overwrite set 1 again after the fourth session. Consider taking one copy to be held "off-site" well away from the computer that holds the prime data so that major damage to a building will not damage the backup.

Mapping Tool Integration

From the Capture Selection and Processing facility DMAP or VersaMap files can

be generated and managed. DMAP or VersaMap can then use these output files to show point positions or movements. Only more recent releases of DMAP will support movements.

Standard Reports

IPMR has many standard reports available. If you can't find a report use Help Search and enter "Report" . The reports include:

- Place summary details
- Ring series usage
- Ring stocks
- Available rings report
- Costs of rings report
- Ring costs by observer
- Capture history
- Recovery history
- Recoveries
- No original ringing record
- Capture details summary
- Cross-tabulation for captures
- Captures submissions
- Outstanding Controls

Report Manager

There is also an ad-hoc reporting facility available using the report manager. Using this facility records can be selected from IPMR tables or existing queries and reports created. The fields for the reports, groupings and sort orders for the data can be selected and row and column headings can be entered

Your own copy of Microsoft Access ?

In order to allow you to use all of the features and functions of IPMR mentioned in this guide a run-time version of Access is installed when IPMR is installed. If you have your own copy of Access at versions 2, 95, 97 or later then you can use it for analysis and reporting functions that are not provided by IPMR already. See Integration with your own copy of Microsoft Access (Page 3)

IPMR Functions

General

IPMR requires the *Owner* information to be added when an IPMR database is first used. This is information such as your name, permit number and/or nest recorder observer code.

Follow the help screens to set up IPMR right first time

When IPMR is started for the first time some Help screens will be popped up automatically.

At the bottom of the help screens for the key features of IPMR that are required to set up IPMR are sections headed '***What next if you are setting up IPMR:'.*** These will lead the user through the other things that you need to do to start using IPMR. If a help screen is accidentally closed then go back to the main 'blue' IPMR screen and press F1 and the last help topic will be re-displayed. Some of the information contained in this help flow is given in the following sections:

Owner

IPMR requires the Owner information to be added when an IPMR database is first used. This is information such as individual, partnership or group name, permit number and/or nest recorder name and observer code. The permit number or observer code **must** be added before ringing capture or nest record data can be added to IPMR..

You will be prompted for this automatically or to go back and view or change the information click on the menu Control > Owner Details.

If you are a nest recorder and not a ringer, but pulli in any of your nests are ringed then PLEASE do enter the details of the ringer or group involved in the Ringer fields (They will give your their permit number). If there is more than one ringer or group ringing your birds then either enter one of the details of dummy values such as 'Ringer' and '999'. This will enable you to enter pulli (and/or adult) capture information including ring numbers for your nests; this is most valuable to the BTO.

IPMR Setup and Options

There are a number of options that need to be setup in order to make best use of IPMR's facilities. To view or change your options Click on the menu Control > Options.

Make sure that you set the IPMR Options correctly

Folders/Directories can be set up as required. During the installation the application folder (c:\ipmr by default) where IPMR and its associated files reside will have been chosen. The Data folder is where the IPMR database(s) are held. Other folders to help manage importing and exporting information can be set too. These folders can be on another drive (e.g. a drive that holds only data to ease the making of backup copies of files).

Backup options referred to above are set from the Options form.

Current Year is the way the IPMR avoids having to key in a four digit year with every date entered. Normally it will be the calendar year for which recording is being made, but it can be set to any previous year for entering historical records.

Default Country should be set to GB for Great Britain and Northern Ireland or ER for Eire. This is the default used when setting up Place codes (see below).

Export Format is the format (comma delimited, WK1 or Excel) used to export

information from IPMR in particular from Captures and Nest Selection and Processing functions.

Capture Update Confirm option of Yes will prompt before each Capture record being entered is saved (as for B-Ring). A setting of No will stop this prompt appearing.

Return Key behaviour This option allows you to set whether pressing the Return key will take you to the next field or next record.

Other options are available. Go to the Options form and click on the help button to get a complete overview of the options.

The next thing that you will want to do is to try entering some data, but there are a few things that need to be set up first:

Observers

Observers, are optional, but are required for allocating ring series to, assigning processors' or wing measurers' initials to captures and to assign Nest Records to. They are also used for reporting purposes e.g. for someone's ringing or training totals for the year.

Click on menu Control > Observer Details to view, enter new or update Observer information. Go to the last line (if there are already observers present) of the list and type in the name of the observer/ringer. Press TAB and enter the initials normal used on ringing sheets for this person. Press TAB again and enter their ringing permit number if appropriate. Press TAB again to reach the Other Observer check box and TAB again to enter a new name, or ENTER to exit the form. For now don't worry about Other Observer checkbox - see Help for further information. Observers can be deleted later only if they have no records associated with them in the database.

Place codes - 1km squares

Import your B-Ring BTOPL.TAB file

Places codes are references to the 1km squares (in GB, NI and Eire) at which ringing or nest recording takes place. These must be entered. They can be up to 6 characters in length, but if you need to stay compatible with B-Ring should be kept to three charaters in length. Registered site codes are also entered here; they can be the same as or different to the IPMR place codes (and there can be multiple Place codes sharing a registered site code if required). This is done using the Places form under the menu Control > Places > Own Places Details. A list of all of your Place codes will be presented. As shown in the screen shot below this list can be sorted as required. Click on Create for a new Place code; enter the new place code into the field on the pop-up window and click OK. Click Edit to view or update a place.

The 'Ringing' check box must be set in order to use the Place code for ringing captures and the 'Nest Recording' check box for use with Nest Records. These are automatically set when entering Places manually or on import based on whether there are permit number or nest recorder codes entered on the Owner details form.

Enter your grid reference first; this will set the default list of counties/regions to which IPMR thinks you should select. If the list doesn't include the right county then select 'Full List' from the drop down and all of them will be displayed (also please inform the BTO of the omission so that it can be corrected).

Enter the Registered site code if there is one and it has been registered with the BTO. Select Coastal or Inland in order to support the Age Specific Totals list.

The defaults panel at the bottom of the form will put the values shown into your capture or nest records when you select a Place code for them. They will not be changed retrospectively if, for example, the Place's habitat changes.

If CES ringing occurs at the Place then Click on the CES check box. Enter the CES site code in the field (box) that appears. In order to enter ringing details at a Place with the CES check box selected during the April to September period a Ringing Session must have been set up (see later) or the CES start and stop years must have

been set to exclude entry of, for example, historical data. These years are set by entering them on the pop-up form displayed by clicking the CES Details button (which is onlly displayed when the CES checkbox is selected).

The Owner's Place checkbox should normally be left set. If not it becomes an "Others' Place" which are used for Recovery and control sites.

If there is an existing B-Ring BTOPL.TAB file or another IPMR user has entered some of your Places then they can be imported from the Control> Import/Export> Import Control Information. The BTOPL.TAB file must be first copied into the Import Path directory or folder. (Place details can also be shared among IPMR users using the import and export functions).

Ringing

Ringing subsites

Ringing subsite details hold default habitat and capture methods for regularly used sites or nets for general and in particular for CES ringing. Subsites are set up within a Place so a Place code should be selected first.

The values shown are defaults and will override those set for the assocaited Place. If the Place is set for CES then the Subsite will display a selection for whether the net (subsite code) is a standard or additional net.

Ring Series

Manage your ring series and keep track of their costs too

IPMR automatically keeps a record of the usage of Ring Series, allows the management of the allocation out of rings within a group and provides some ring cost reporting.

If IPMR is to be used for ringing data then Ring Series will need to be entered. They can be entered in advance or added while manually entering captures or during the import process. Adding in these latter cases can be done using the Ring Series form from the menu or, if series splits have been entered in to the Ring Size Information function, a prompt will offer to add a series automatically.

Take a look at the the Ring Size Information form using menu Control > Ring Series > Ring Size Information and set your default ring size allocation value that you would like IPMR to use as a default ring series length when creating ring series. Note the Last Ring Number user column which will be blank if you are a new user; this is used to allow IPMR to set the next ring number when entering ringing Captures when a species that takes a given ring size is entered.

Manually creating Ring Series is done from the menu Control > Ring Series> Own Ring Series. The first ring and the length of string should be entered. All other fields are optional.

Ring Series can be "allocated" to group members or others who use rings. This allocation allows their use and submission status to be monitored. If the Ring Series are allocated then the Control Export file can be created for an individual in the Observers table. This allows a Ringing Secretary to send out new series of rings and a diskette/email with a file allowing the ringer to load the series information into their IPMR database.

Some old ring series are not in the Ringing Unit's validation file. Rings in these series cannot be used except if they are imported with the option that they are not to be submitted; in this latter case the ring series are set up by the import function.

Submission sequence number

If data on disk submissions have already been made (using B-Ring or your own program) in the calendar year that IPMR is first used then the Reset Submission Sequence Number facility will need to be used to tell IPMR the last sequence number used from Control > Submissions > Reset Last Submission File Number.

Captures field setup

Ease the burden of new bird and retrap captures data entry

When entering capture records it needs to be as efficient as possible. Because IPMR holds all fields in its database (rather than just selected fields as in B-Ring) there is a Field Setup facility. This allows, within certain restrictions, the fields that are displayed when entering data to be selected and tabbed through in a preferred order. Multiple setups for different types of ringing operation can be created.

The field setup is based on putting IPMR fields into one of three categories: Tab order, View list and Hide list.

Tab Order list	Fields in the Tab Order list will appear on the Enter Capture Details form and are the only fields that will be tabbed through when entering information. The order of fields in the list determines the order that they will be tabbed through. In the List style Enter Capture Details form it also determines the order in which the fields are displayed.
View List	Fields in the View list will appear on the Enter Capture Details form, but will not be tabbed to when entering information
Hide list	These fields will not be displayed on the Enter Capture Details form.

Select a field to be moved between lists so that it is highlighted and then click on one of the button with horizontal blue arrows between the two lists involved. The field will then move between the lists. Sometime it will take a partner field e.g. Pulli Ringed and Alive. The order of fields in the Tab order sequence list is changed using a similar process except using the vertically aligned arrow buttons at the left size of the form.

The best strategy for using the Field setups will be developed by each user over time. Initially it may be easier to have all of the required fields in the tab order list. However, when data entry becomes more familiar then fields for which the auto repeat function is used (see *Entering Captures* below) can be put in the View list. Once values are set up for the first capture of a data input session (using a mouse to move between fields) this will save the extra tab key depressions required to enter the data for the rest of a session's captures. Note that when tabbing out of the last field in the Tab Order list the record will be saved and the next one opened.

Constant Effort Sites

Constant Effort Site (CES) ringing is supported by IPMR. Captures are entered in the normal way. However, some additional information needs to be set up specifically to support CES.

- Place information (see above) includes an indication that a Place is used for CES using the CES Checkbox and the CES Site Code. The First and Last years of a CES study can also be set (this is optional - if you don't set them then all years are assumed).
- Capture Subsites should be set up for that Place for each net (whether standard or additional). If you need to exclude a net from CES reporting, e.g. when doing a RAS study nearby in non-CES nets, this can be achieved using a subsite code with the CES Exclude check box selected.

  When importing B-Ring data that uses OWN, OWN2 or USER1 field to hold net or additional net information the User defined import code conversions can be used to convert these codes to IPMR Subsites.
- Ringing Session information is recorded in order set up visit numbers/codes for CES reporting. All mist netting visits during the CES season (from April to August) must have a Ringing Session. These can be either an CES visit (in which case the visit code is numeric - from 01 to 12) or a non-CES visit (with alphabetic codes).

  In the example screen shot the visit details are not completed. These are optional, but can be used to create a CES submission report.

  Captures cannot be entered for Places where CES ringing occurs during the CES season without a Ringing Session recorded as either a CES or non-CES visit. The CES summary sheet report contains a column for Captures in CES season without a session which should always have zero values as a check that

all Ringing Sessions have been set up correctly.

The View Captures button can be used to display all (non-pullus) captures for the session. The subsite and its additional net or excluded net status are also displayed. Also in order to exclude individual birds from CES submission a check box beside each capture can be clicked.

Annual CES submission files and report can be created using the Constant Effort Site Submission Function.

Entering Captures

There are a number of other things that can be set up to aid the use of IPMR, but this is the minimum. If you want to try it out now you can go to the Captures/New (form or list styles) to enter some captures. You can use either style of form depending on your personal preference; the Form style displays one record per capture, the List style displays records in a spreadsheet-like manner. The List style shows records for only one day and avoids having to enter the date. (These records can be deleted if you are just testing out IPMR using the Capture Selection and Processing function by selecting all dates, selecting the record and pressing the 'Delete' key.)

Captures will normally be birds you trap yourself during normal ringing activities and will as such usually be New birds or Retraps. However, they can also include birds that have been recovered by non-ringers, found dead or has been observed as field sightings. In these cases the appropriate record type will need to be selected. There are 18 different Record types (not just N, C and R) so if you don't know how to use them (including recent changes to sightings record types) please use help and search on "record types".

There are a number of facilities to aid the adding of records. Which of these you employ depends, in part, on how you record data in the field – see below for some examples. These include:

Current Year is set in Options

- To avoid the need to type in the year of Capture into records, the Current Year is set in the Options facility. This can be set to a previous year if you wish to enter historical records.

Auto repeat copies information from one record to the next

- Double clicking on the input fields for record type, ring number, species, date and some other fields sets the **auto repeat** function. This copies information from one record to the next (or increments the ring number); the fields' background turns pale yellow in colour to show that auto repeat is on for that field. A number of fields are set this way by default.

If you record each ring series on a separate sheet

- Ring numbers can be incremented using the auto repeat function mentioned above for Record Type and Ring number. This is useful if a string of new rings is being entered.

If you record all new birds on the same sheet

- If a mixed set of ring sizes for new birds the set the autorepeat to record type only. IPMR keeps a note of the last ring used of each ring size so don't enter the ring number first and perhaps put the Ring field lower down the tab order. When a species is entered then the next ring number for the appropriate size is entered automatically. This facility needs a new-bird record type to be present and depending upon the species the ring number may not be added until the age and/or sex are added.

If you record retraps and new birds on the same sheet

- If you enter the ring number first IPMR automatically looks through your database for previous records to set the record type for you. This will only work effectively if you have historical records in the database of course

Use 2 or 5 character species codes to speed data entry

- In the species field a special facility allows the use of the BTO's short codes for common species e.g. "R." for Robin or "SW" for Sedge Warbler[1]. Full species codes can be used too. The mouse can also be used to select entries in drop down lists, but keyboard entry is faster if you know the codes

Use the Full list entry to change from a ring size based species list

- The list of species codes to select from is based on ring size. This means that the number of letters in the species code that you mean to type is minimised. If you use a non-standard ring size for a bird or it is an uncommon species then you can either enter the species code or select the Full List entry in the Species list. This latter option will extend the list to all of the species available. (If it is still not one of these then you will need to use the special ****1 species code for rarities.)
- You can enter the sex in the Age field e.g. 4F and the sex code will be automatically moved to the Sex field for you..

To start entering Capture records using the List style form select from the menu bar Captures > Enter Capture Details > List style. This will present a form that requests the required Captures Field setup (see above) and also the date for the List style form (the date is not requested for the Form style). Click on OK to continue.

The Captures Entry form will be displayed. The cursor will usually be in the ring number field. Enter the ring number. Unless it is a Control the ring should be part of a ring series already entered into IPMR. If you have not already added it then rather than closing the Captures entry form the New Ring series can be added using the Control > Ring Series >Own Ring series menu function as outlined above.

Use the Tab key to move through the fields and enter data directly using the keyboard. For drop down lists then keyboard entry can be used with the list of entries in the list being scanned as characters are entered so for example when entering a Sedge Warbler only "se" need be entered as that is the only species code starting with SE that takes an "A" ring.

If you put in initials of a subsite code not already in the system, you will get a message saying the text you enter must match an entry in the list. Do not panic! Use the drop down list to make the selection or if it really is a new observer or subsite click OK and then use the menu Control > Capture Subsite (or Observers) and create the new entry. Close the Control information form and you can then select the new entry back in the Captures form.

IPMR assumes that all birds are new birds unless you put in a ring number that is already in the system or if it is not part of a Ring Series in the system. If the ring number is already in the system then IPMR automatically enters the species and the other fields can be entered as normal. If you don't have older data in the system (e.g. imported from B-Ring) then you will have to manually set the Record type field to R. (If you enter retraps as a set then Auto-repeat can be set for the record type field.)

Importing Captures

B-Ring RDF files, Submission file and comma delimited (CSV) files can be imported into IPMR. See Help within IPMR for more details about the CSV format required. The Control > Options function allows the Import directory to be set. This could be the directory used to hold B-Ring information e.g. c:\bring\btodata\.

Place (1km square) codes must be set up beforehand. These can either be created individually from the Control > Places function or imported from a B-Ring BTOPL.TAB file or from Control Export files created by other IPMR systems for

[1] The short codes can be found using the File > IPMR Table and Queries facility by Viewing the Species Data table and looking for the column headed SSPEC.

example those of other group members.

Auto Creation of Ring Series

It is probably best if Ring Series have been set up before importing capture records, but this isn't required. If a value is entered in the *Split Into Series Of* field for a ring size in the Control > Ring Series > Ring Size Information facility, then Ring Series of this length will be set up automatically when a capture with an unknown ring number of this ring size is encountered during an Import.

To import capture record select Captures > Import Captures from the menu. Select one of the file names from the drop down list and click OK. The Import Captures form is displayed; click on the Start button. Selected fields from the incoming record are displayed on the left hand side of the form and those from the record to be imported on the right. Records can be Skipped or Imported by clicking on the respective buttons. If IPMR finds an error in the file it will only allow the record to be skipped or for the Import to be cancelled. Skipped records are put into a reject file. For B-Ring RDF files or CSV if the errors in the reject file are corrected then it can be re-imported (there should be no errors in submission files).

Warnings will be issued if the capture already exists or if the ringing (as opposed to a recapture) record exists. If the imported record is for a dead pullus then IPMR checks that the date is that if the original ringing record (if any). These records can then be imported or skipped.

There are check boxes to allow the Import to continue until an error is found or to continue to Bypass errors (by automatically skipping them). These options allow you to let IPMR continue to import records which is not a particularly rapid process.

Continue until error or Bypass error options on Import

IPMR will try to convert old pre-Data-on-disk codes for some fields e.g. Plumage code or Sexing Method to the current ones. User defined code conversions can also be set up for some fields where you have used your own conventions. Note that using the user defined facility can slow down import processing.

Old codes can be converted to current values

Any errors generated during an import into IPMR are saved in a text file and can be viewed from within IPMR from the Captures > Import menu item.

Creating Submission files

Do this only when you are ready to send a submission to the BTO (or a submission to your ringing group's secretary).

Captures Submission files can be created using the Captures > Submissions > Create function. Normally you would select "All Outstanding Captures" and click OK. All capture records appropriate to be submitted to BTO HQ will be selected when this function is used. (There is no selection by ring series involved.)

You can enter your e-mail address here. This will be used in the future by the Ringing Unit to email recovery details back to you.

Make a note of the name and location of of the submission file which will be displayed in a message box. This file should be emailed to ringing.data@bto.org (or if you have no email) put on a diskette and posted to The Nunnery.

Entering information received from BTO HQ

When the Ringing Unit sends details of a recovery of one of your ringed birds or first ringing details for a control that you have sent in you can enter these details into IPMR. This enables a full capture history to be maintained. There are Capture menu options for 'Enter recoveries' and 'Control First Ringing details'. These ask for the ring number, which is checked before a capture details entry form is presented. Before entering the capture details the Place details will need to be added. These can be added using the standard Places facility, but in order to keep details of your places separate from those of others and to allow the use of a simpler form the Control > Places > Others' Places menu option should be used.

When using the Recoveries function the Record Type will have been set to C (Control) by default in the Captures form. However, if the bird has been recovered by a non-ringer, is a local control i.e. a retrap, is dead or has been observed as a field sighting then the record type will need to be changed. Fields such as the species and ring number will have been completed. The other fields should be completed as normal.

Others' Ring Series

Reference details can be held of ring series used by other ringers. It is particularly useful for storing ring series of local ringers with whom you might swap controls. There is a facility to import Others' ring series information from a file that can be generated from the Ring Series form of another IPMR user's database.

Confidential Sites

The places function has a check box to indicate that a place is confidential. When the check box is selected the open details can be entered with a greater coordinate (in)accuracy figure of up to 99 km. The fields to contain the secure details are displayed and can, optionally, be entered.

The data on disk submissions are created using the open place details. Printed Ringing schedules can be created using the confidential information. These are made on the basis of the sets of records in the data on disk submissions and are managed from the Captures/ Submission menu items.

Location details for secure places can be kept in the database in encoded form with the use of a password. To do this use menu item Control > Places > Set Secure Place Password. (It can be unset again by entering a blank new password.)

Working with Capture records held in IPMR

Select your records: The Captures > Capture Selection and Processing function allows records to be selected by record type, species, ring series or number, date and/or submission status (or many other fields using the SQL facility). Once the selection criteria have been entered by filling in one of the fields at the top of the form e.g. a date, a species and/or a place code, the 'Run Query' button should be clicked. The set of records that meet the criteria are then displayed. To get data for a retrapped bird enter the ring number and all of the record for that bird will be displayed.

View capture details: The details of the record(s) can be viewed or edited by selecting a record and clicking the 'Edit Capture Record' button. If the record has already been submitted a warning message will be displayed; if the record is then updated it can be flagged for resubmission by clicking on the warning message.

Analyse your data

Standard reports: Capture history and capture details reports can be produced for the selected records.

Export data: An export function allows the selected records to be written to a comma-delimited file.

Tabulation queries: Using the Report > Cross-tabulation menu item cross-tabulations can be generated into a report. This is a powerful reporting facility allowing you to report on say counts or averages of one field tabulated by up to two others. For example you could compare average weights by site by month of the year. In this case you could have already selected by species using the selection query. The cross-tabulation is saved as a query that can be used by the Report Manager or to be exported into a file that you can put into a spreadsheet, for instance.

Recoveries Reporting: If you select a set of birds, based on either original ring details, recovery details or just place involved then any recoveries that those

birds are involved in can be shown in a report or the information can be exported.

Other Ringing Reports

Click on Captures > Reporting. There are a selection of reports available. Select one to try by clicking on the menu item. On the criteria selection form specify a criterion and click on OK. The report will appear on the screen and you can page through it using thearrows in the bottom left corner of the screen. To print a report select File > Print from the menu when the report is displayed.

Nest Recording

Nest Subsites

Nest Subsites can be Specific or General

Subsites can be used in two ways. It is important to understand these:

1) It can hold information for Specific nests sites. These might include Peregrine eyries or Dipper nests in the same spot under a bridge. They are somewhat analogous to Nest Boxes, but obviously have quite different characteristics.

2) It can hold General habitat and other nest information that can be used to set default values when you set up a Nest Record. This can be useful at colonies or for regularly used sites with common habitat. The alternative is to enter the habitat information individually for each Nest Record.

Go to Control > Nest Subsites. You will be presented with a list style form in which you can enter subsites for any of your Places. Select the place code from the drop down list and then enter a subsite code and name. Clicking on the Subsite Details button will display the detailed information for that subsite.

Nestbox Types

This is the information that the BTO want to know about your Nest Boxes

If a nest is recorded as being a Nest Box then a Nest Box type must be associated with it. This includes information on the style of box and its size. Generally you will have a set of Nest Box types. You will typically have a number of Nest Boxes that have the same Nest Box Type. A number of Nestbox Types are shipped as a starter set with IPMR; these are based on those in the BTO Nestbox Guide.

Go to menu item Control > Box Types you will be presented with a list style form, similar to that for Nest Subsites, in which you can enter new Nest Box types. Clicking on the Box Type Details button will display the detailed information.

Nest Boxes

This is the information that you may want to hold about your Nest Boxes

Nest Boxes are associated with a Place. Each will have a code and must have an associated Nestbox Type. If you use numeric Nest Box codes then it is suggested that you use leading zeroes, e.g. 011 rather than 11 (see below). Usually you will also associate a Subsite to store habitat information. There are a number of other attributes that you can hold for a Nest Box. It is recommended that you complete the Walk Order which, when you select the Nest Box for a Nest record, the box's walk order is used to set the Nest Finding field in a nest record. The Nest Finding field is used to sort active nests for some IPMR reports. As for Nest Box codes if you want to use numbers for the walk order then you should use leading zeroes in order for the sort to operate as you want (as it sorts by characters, not by number value). Other information such as Nest Box height, etc, may also be recorded.

Rapidly enter your Nest Box details

It is recommended that you add all of the Nest Box codes for a Place using the Nest Box list form. Once these have been entered go to the top of the list and click on the Box Details button. This will show the details about the box. You can navigate back and forward through the list of boxes for that Place using the 'Next Box' and 'Previous' buttons. If you double click on any of the fields the background colour will turn yellow and any values held in that field will be transferred to the next box you go to assuming that the field(s) involved are empty in the next box's details (it will not overwrite any information!).

You can change Nest Box details between years

If you move a Nest Box between seasons then you can retain the Nest Box code if you wish. The Nest Box details required by BTO HQ for a nest are copied to and held in the Nest record. This means that changing the Nest Box details will not affect previously entered nests.

Creating Nests

Nest records are entered initially from the Nest Recording > New Nests menu item.

When entering a new nest you should normally enter the Species concerned first. If this is not know initially then leave the Species field blank. The Place code and habitat codes are mandatory and must be completed before entering any visits information. Having entered the Place code the drop down lists of Subsites and/or Nest Boxes available will be populated with any you have set up for that Place. The grid reference will be a four figure grid reference (from the Place details) with hyphens in place of the third and sixth figures from a six figure grid reference. If you can please add these missing digits to increase the accuracy and value of the data. Nest Subsites or boxes can have six figure grid references entered in their details and these will be used in the nest record.

Make use of the default values held for your place, subsite or box.

Upon entering a subsite or a box with an attached subsite many of the fields in the Nest Record will be automatically filled if default values have been set up for them (they can then be overridden, if required, for this individual nest). The values, of course, can be entered for any of these fields manually without using subsite or Nest Box codes. Generally the fields on the form should be self explanatory with the aid of the BTO's Nest Recording handbook.

Nest Site details, if not already added from the subsite details, can be entered by selecting entries from the drop down lists or the blue Nest Site details button can be clicked; this will present a new form from which the entries required can be selected.

Habitat details must be entered for at least one habitat for the first two levels of coding e.g. "B1: Scrubland (or very young - Regenerating natural or semi-natural woodland". Three further habitats can be entered if required. Also levels 3 and 4 of habitat description can be entered onto a pop-up form by clicking on the blue buttons adjacent to the habitat codes.

The Shared Nest button should only be used where, for example, a blue tit and a great tit both lay eggs into the same clutch of eggs. This should NOT be used when a nest is reused either by a different species displacing the original nesting attempt or where a pair lays a second clutch. In the latter case the pair code and brood number should be entered (see Help for further details).

The Finding Information field has a dual role. One is to allow you to enter some information that is useful in relocating a nest, but it is also used in a number of instances to sort the nest records into an order. Therefore it should be entered with some data that means that when sorted it will be in a sequence that is useful to you e.g. a walk order of nests (e.g. PM/001) or distance along a beach (e.g. 0050m).

The nest details shouldn't need to be changed, as it will be Nest Visits that will be updated from now on, but the Edit Nest menu option allows this, if required.

If details are being entered for a number of new nests then the use of the auto repeat function can save much time. Most of the fields for the form can use this facility. To turn it on or off the mouse should be "double clicked" on each field. The background colour will change to a pale yellow colour when auto repeat is on.

Entering visits

Once you have entered the Nest Record details you can then use the nest visits form.

Visit information such as date, time, nest contents and status codes can be entered directly for each nest visit. Status codes can be typed in directly, selected from a drop down list (based on the state of the nest) or via a selection panel. The selection panel is displayed by clicking the Status Codes Selection button.

The Nest Visits entry form can be invoked from a number of places in IPMR depending on what you want to do and how you want to use IPMR.

Update nest visit information for the set of nests that is convenient for you

- If you come from the Nest Record Card form using the Visits button then you can look at only the one nest.
- If you use the Edit Visits menu item then you will have the full set of nests that IPMR holds.
- If you use the Edit Outstanding Visits menu item (this would be the most common way) then you will have all nests for which an outcome code has not been added. The order of nests in this case is determined primarily by sorting on the content of the Nest Finding/Comments field.
- If you come from the Nest Selection and Processing form then you will have the set of Nests that you have selected available to you. This can be by Place code, Nest Box, Year, etc.

You can either select all nests or outstanding nests to edit and you can scroll through the nests using the Next and Previous buttons or use the Goto... button to move directly to a specific nest.

Nests are termed "Outstanding" until the Final outcome code has been entered. This can be done from either the Nest Record form or the Nest visits form. In the latter case if you enter a Status Code for visit that IPMR thinks might be for the last visit then IPMR will ask whether this is to be used for the Final Outcome code. Nest Records cannot be submitted unless a Final Outcome code has been added.

Other information can be entered for a visit. This includes egg measurements, chick measurements and ringing details (see below) and adult capture details. These are accessed via buttons on the bottom of the form. The buttons are only displayed when the nest has appropriate contents e.g. some eggs for the Egg Details button. To enter adult captures the Adult trapped status code must be entered first. See the Help system for a description of how to enter these details.

Nest statistics

IPMR estimates the nest statistics when you enter a final outcome code for the nest

There are other fields held in the nest record that can be updated from the visits form. These are the first egg and pulli dates, fledging dates and pulli-fledged fields. These are not submitted to BTO HQ, but will be useful for any of your own analyses. IPMR will try to estimate these figures for you when you enter a final outcome for the nest, but you can enter or substitute your own values at any time. The figure for the first pullus date is used for the Pulli Checking report, which lists nests at which there may be ringable young on a given (your next planned visit) date.

Ringing details for nestlings

When the Young Ringed status code and a status code equal to one of the ringing scheme's pullus codes e.g. IP or FM, has been entered and the Chick Handling button is pressed then you will have a message prompt asking whether you want to enter the batch of ringing details together (by specifying first ring and the number of pulli ringed).

The alternative is to enter the birds separately in order to add measurement details etc.

This information is held in the Captures part of the database and handled for reporting and submission purposes as normal there for ringing, but the details are also included with the Nest Record submission so even if you are not a ringer yourself the if your birds are ringed then please set up some ringer details in the Owner information and add the capture information.

One thing to note is the use of the 'P' record type. This is used for pulli that die before fledging. A pullus must only have one capture record submitted to BTO HQ, which if the bird dies in the nest should be a record type P. If you enter a young dead status code for a visit and there have been young ringed then you will

be offered options to convert the record types of these birds from N to P.

Creating a Nest Records submission

Do this only when you are ready to send a submission to the BTO.

Nest Record Submission files can be created using the Nest Records > Submissions > Create Submission File function. Normally you would select "All Outstanding Nests" and click OK. All nest, visit, egg and capture records appropriate to be submitted to BTO HQ will be selected when this function is used. (The capture information is a subset of that submitted by the Captures Submission function. Capture Submissions must be sent in independently of Nest Record Submissions.)

Working with Nest records held in IPMR

The Nest Selection and Processing function allows nest records to be selected by place, species, year, subsite, box code or submission number. Once the selection criteria have been entered the 'Run Query' button should be clicked. The set of records that meet the criteria are then displayed.

View or edit Nests, Visits or the Captures from a selected set of nests

Nest details: The selected nests can be viewed or updated by double-clicking a record, pressing the View button or Choosing the Edit/Edit Record menu item; the first nest displayed will be the nest that is selected in the list. If the record has already been submitted a warning button displayed. If the button is clicked it will be flagged for resubmission.

Visit Details: The Visits of all selected records (starting with those for the selected nest) can be edited by clicking on the View Visits button

Capture selection: The Captures associated with the selected nest can be viewed by clicking on the View Captures button. This function uses a modified version of the Capture Selection and Processing form

Analyse your data

Export data: An export function allows the selected records to be written to a comma-delimited file. The fields exported can be selected from a menu option.

Tabulation queries: Using the Report menu item cross-tabulations can be generated into a report. This is a powerful reporting facility allowing you to report on say counts or averages of one field tabulated by up to two others. The cross-tabulation is saved as a query that can be used by the Report Manager or to be exported into a file that you can put into a spreadsheet, for instance.

On-line help

Clicking the blue Help button found at the top right of all IPMR forms or pressing F1 from within IPMR will take you into the on-line help relevant to the screen that you are using. The Help menu options to start from the Contents page or the help Search facility can be used.

System Requirements and Installation

IPMR requires a Windows 3.1 or Windows 95/98/NT/2000 based PC. IPMR has been designed for a screen resolution of 800x600, which is normal for SVGA; lower (or higher) resolutions can be used. The minimum configuration is a 120MHz Pentium processor with 16MB RAM, but 233MHz with 32MB RAM is recommended. Higher specification PCs are recommended particularly if the database is to hold large numbers of records i.e. greater than 50,000. The maximum size of database will depend on processor speed, the amount of memory installed and the patience of the operator, but many more than 100,000 must be considered carefully. The initial installation requires about 15MB of disk space.

CD install

There is a single installation CD. Full instructions accompany the CD.

Web Site Download install

To download the Complete IPMR System use the Complete IPMR System link available from the BTO web site that can currently be found at http://www.bto.org. This should then give you an option to save the file. You should set the saving location to be an independent directory such as c:\download.

You should then Open (execute) the downloaded file. This can be done from File Manager or Windows Explorer. The downloaded file can be found in the download directory e.g. c:\download. Then using the mouse you can either double-click the file name or click the right-hand button the file name and select Open from the shortcut menu. You should take the option to overwrite any existing files. The extraction should also be to your download directory e.g. c:\download or a temporary directory e.g. c:\temp

You should then run the setup program e.g. c:\download \setup.exe

Setup

The installation program provides guidance on the install process and allows for the selection of a target directory for the IPMR application.

After IPMR is installed the *IPMR Installation and Maintenance* program is automatically started. At this time the folders or directories that IPMR uses for its databases and input and output files can be changed. By default your database will be put into C:\IPMR\DATA. The Data directory/folder must be a different directory from the application directory selected earlier in the install process; it can only be moved (e.g. putting it in another drive, such as D:\IPMR\DATA) using the *IPMR Installation and Maintenance* program.

IPMR's other options can be entered at this point using the *IPMR Installation and Maintenance* program or they can be set later using the *Options* function within IPMR. Use File/Exit from the menu to exit *IPMR Installation and Maintenance*.

After Installation

There are two program icons generated by the install process:

- **IPM Reporter** is used to start IPMR.
- **IPMR Installation and Maintenance** is used if the databases need to be moved to a new data directory, to upgrade databases to a new version or if they become corrupted.

Upgrading IPMR

Upgrades to IPMR are distributed using ZIPed files. These are available from the BTO Web site that can currently be found at http://www.bto.org. To download the new IPMR release click on the Latest release link. This will give an option to save the file. Set the saving location to Desktop.

You should then Open (execute) the downloaded file by double-clicking on the file's icon on the Windows Desktop. You should take the option on the PKSFX window to overwrite the existing application files.

The IPMR upgrade must be installed into the IPMR Application directory. This was selected when IPMR was first installed and is c:\ipmr by default.

You MUST then reboot Windows otherwise IPMR may not function correctly and any database upgrade may fail.

If you have been using a previous version of IPMR then any databases may need to be upgraded. First ensure that you have a backup of the database file in case problems occur. Then start the IPMR Install and Maintain program. Under the File menu item there is an Upgrade option. This entry should be selected. This will present a list of your database(s) from which you should select one and click on the Upgrade button. This will then open your database and display a button entitled "Upgrade to Current Database Version" which should be clicked. A confirmatory message will be displayed after the upgrade process. You should then restart Windows on your computer before using IPMR.

Re-installing IPMR on a new PC

Before you change the PC

If you are planning to change PC then you should backup copies of your database(s) and also IPMR20.REF. The databases can be found in the Data Path set in the Options form (by default this is c:\ipmr\data\). IPMR20.REF is held in the Application Path (c:\ipmr by default).

Re-installing IPMR

IPMR should be installed from CD or Web download as normal. Before running the setup.exe program create the c:\ipmr and c:\ipmr\data directories. Copy your databases back to c:\ipmr\data and IPMR20.REF to c:\ipmr. Then run the setup program.

Integration with your own copy of Microsoft Access

Why use your own copy of Microsoft Access ?

In order to allow you to use all of the features and functions of IPMR mentioned in this guide a run-time version of Access is installed when IPMR is installed. If you have your own copy of Access at versions 2, 95, 97 or later then you can use it for analysis and reporting functions that are not provided by IPMR already and you prefer to use Access compared with Report Manager.

Access is a powerful tool and without care data can be lost or damaged, just like you can accidentally delete or corrupt data in a spreadsheet. Consequently, it is recommended that initially you learn to use Access on a copy of your IPMR data rather than the original (see below).

How to integrate Access with IPMR by taking a copy of the database objects

These instructions assume that you are familiar with Access. They assume Access 97, but other versions are similar.

1. Create a new database using File > New database
2. Import your data tables from you own IPMR database using File > Get External Data > Import; Select your IPMR database (from c:\ipmr\data by default) with the file type as Microsoft Access Database; select the 'Tables' tab and click on 'Select All' and then 'Import'
3. Import the reference tables from the IPMR reference database using File > Get External Data > Import; Select the IPMR Reference database called IPMRREF.MDB (from c:\ipmr\) with the file type as Microsoft Access Database; select the 'Tables' tab and click on 'Select All' and then 'Import'
4. Optionally, import the queries from the IPMR application database using File > Get External Data > Import; Select the IPMR Reference database called IPMR20.MDB (from c:\ipmr\) with the file type as Microsoft Access Database; select the 'Queries' tab and select either all or selected queries and then click 'Import'. A starter set of IPMR's queries (you can always add more later) is:

    Q_captures

    Q_CapturesDetail

    Q_CaptRecoveries

    Q_NR_summary

    Q_NRCVisits_Export

    Q_NRCBox_Export

    Any cross tabulation queries you have created

Use File > View Table Relationships from within IPMR to assist in the definition of new cross table queries.

How to integrate Access with IPMR by attaching database objects from within IPMR databases

These instructions assume that you are familiar with Access. They assume Access 97, but other versions are similar.

1. Create a new database using File > New database
2. Attach your data tables from you own IPMR database using File > Get External Data > Attach; Select your IPMR database (from c:\ipmr\data by default) with the file type as Microsoft Access Database; select the 'Tables' tab and click on 'Select All' and then 'Attach'
3. Attach the reference tables from the IPMR reference database using File > Get External Data > Attach; Select the IPMR Reference database called IPMRREF.MDB (from c:\ipmr\) with the file type as Microsoft Access Database; select the 'Tables' tab and click on 'Select All' and then 'Attach'
4. Optionally, import the queries from the IPMR application database using File > Get External Data > Import; Select the IPMR Reference database called IPMR20.MDB (from c:\ipmr\) with the file type as Microsoft Access Database; select the 'Queries' tab and select either all or selected queries and then click 'Import'. A starter set of IPMR's queries (you can always add more later) is:

    Q_captures

    Q_CapturesDetail

    Q_CaptRecoveries

    Q_NR_summary

    Q_NRCVisits_Export

    Q_NRCBox_Export

    Any cross tabulation queries you have created

Use File > View Table Relationships from within IPMR to assist in the definition of new cross table queries.