

iRecord Simpler Download Analyser User Guide

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Contents

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Introduction

Download and installation

User interfaces

Selecting and downloading iRecord data

Running the Analyser

Using the Pivot Table

Species counts

Species quantity by 10k square

Species record counts by 10k square

Species record counts by period

Creating a report from the PivotTable

Introduction

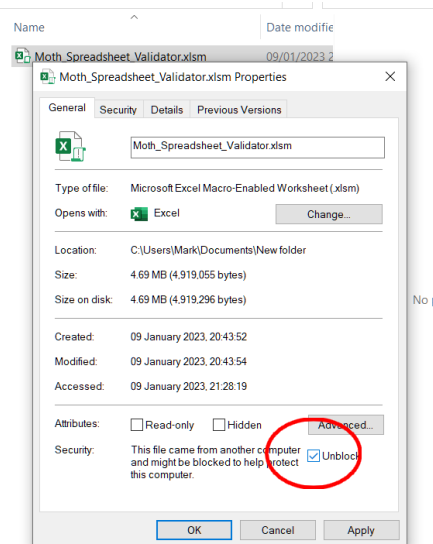
iRecord as a system is not focussed on providing a reporting function beyond filtering a list of records which can be downloaded. Further analysis or mapping etc is then a challenge for the user. A simple way of analysing and summarising the records is to use Microsoft Excel's Pivot Table functionality. This is not too difficult to use, but it would be good to have a helping hand and quite often the data required for the analysis or reporting that is most useful is not provided directly by iRecord. Examples of this are 10km square or the month of the date of the observation.

The iRecord Simpler Download Analyser is an Excel macro based application that opens the downloaded iRecord file, creates a number of extra useful derived columns and opens the PivotTable function. Not very sophisticated or clever, but is a helping hand for those not familiar with doing this type of thing or those who would like to save ten or fifteen minutes of their time.

Download and installation

The Analyser requires Microsoft Excel to run and can be downloaded from <https://butterfly-conservation.org/in-your-area/east-scotland-branch/irecord-simple-download-analyser>.

The Analyser is an Excel Spreadsheet application that uses macros. It is recommended that you [move it to a Documents folder](#) that you use for your County Recorder work. Double-click the 'iRecord_Simple_Spreadsheet_Analyser' filename to open Excel. On a Mac then click on Enable Macros when prompted, On Windows, as it has been downloaded from the internet and contains macros Excel will not enable editing and will ['block' the macros from running](#). To resolve these you should click on the Enable Editing button and then view the macro block message. You now need to go back to Windows File Explorer and right-mouse-click the iRecord_Simple_Spreadsheet_Analyser file name and select 'Properties' from the shortcut menu. The Properties panel should have a Security section at the bottom with a checkbox that you can tick to Unblock the macros.



If you wish you can also create a shortcut to the analyser by right-mouse-clicking the filename and selecting Create Shortcut. You can drag this to your Desktop from where you can start the analyser in the future.

User interfaces

First the data to be analysed needs to be selected from iRecord.

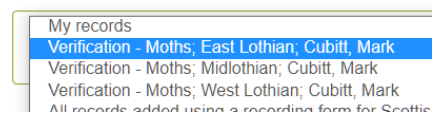
Then the Analyser must be opened in Excel and is a one tab or worksheet. There is a button labelled 'Open Spreadsheet workbook and create blank pivot table' alongside a brief description of the application's function. When this button is clicked you are asked to select the downloaded file which is opened.

Finally, the opened file which is now an Excel spreadsheet with the first worksheet with the data and a second worksheet with the pivotable present and ready to be used.

The use of each of these is described below.

Selecting and downloading iRecord data

Having logged onto iRecord choose the Explore > Download Records function from the menu. The select the 'Records to access' of the option to 'My records' or the area for which you are a verifier or for an Activity you are associated with.



In the 'Record status included' option the default of excluding not accepted records might be the right one, but othersise chosse another option from the drop-down.

There is the option to 'Create a filter' on the right of the window.



Click on this button and select, for example 'When' and set the 'Field record date' to 01/01/2010. Click on 'Apply'. The Filter summary panel is updated and now shows something like:

Filter summary

Verification - Moths; East Lothian; Cubitt, Mark:

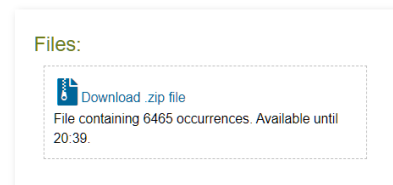
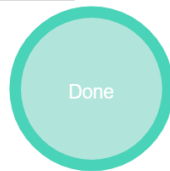
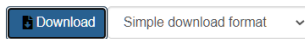
- insect - moth
- Records in East Lothian

Standard filter:

- Records recorded on or after 01/01/2010
- Exclude not accepted records

Status: Exclude not accepted records

The below this select 'Simple download format' and click on 'Download'. When finished processing the download link is shown on the right

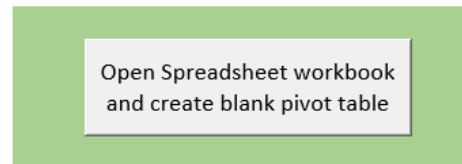


Click on the link and save the file to your computer.

Running the Analyser

Either use the Desktop shortcut to the Analyser if you created one in the installation step or open the Analyser spreadsheet from Excel.

Click on the 'Open Spreadsheet workbook and create blank pivot table' button and navigate using the Windows file selection window to the downloaded file and open it. The Analyser will process the records and add a number of extra columns:



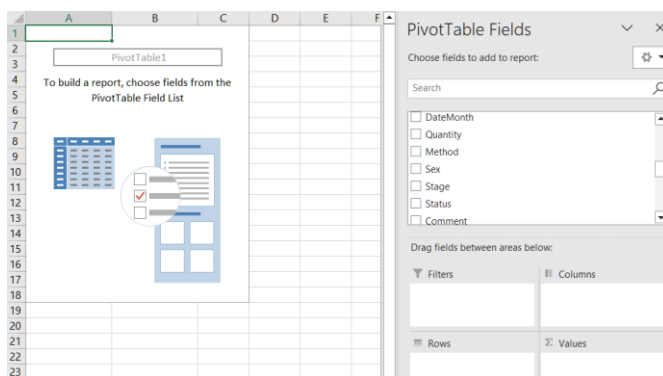
- ABH Code & Common name (which allows the pivot table so sort the table in taxonomic sequence)
- ABH Code & Taxon
- 1K grid reference
- Tetrad grid reference
- Hectad (10k) grid reference
- VC name
- Year (of a specific date or the last year of a date range)
- Month (of a specific date)

	A	B	C	D	E	F	G	H	I	
1	Taxon	ABH_CommonName	ABH_Taxon	Site	Gridref	Gridref1k	Gridref2k	Gridref10k	VC	VCName
2	Mesapamea secalis	73.169 Common Rustic	73.169 Mesapamea secalis	Big Wood, Gilmerton	NT541813	NT5481	NT58K	NT58	82	East Lo
3	Dysstroma truncata	70.097 Common Marbled Carpet	70.097 Dysstroma truncata	North Berwick	NT541812	NT5481	NT58K	NT58	82	East Lo
4	Mesapamea secalis	73.169 Common Rustic	73.169 Mesapamea secalis	Big Wood, Gilmerton	NT541811	NT5481	NT58K	NT58	82	East Lo
5	Dysstroma truncata	70.097 Common Marbled Carpet	70.097 Dysstroma truncata	North Berwick	NT541810	NT5481	NT58K	NT58	82	East Lo
6	Mesapamea secalis	73.169 Common Rustic	73.169 Mesapamea secalis	Big Wood, Gilmerton	NT541802	NT5480	NT58K	NT58	82	East Lo
7	Mesapamea secalis	73.169 Common Rustic	73.169 Mesapamea secalis	Big Wood, Gilmerton	NT541848	NT5484	NT58M	NT58	82	East Lo
8	Dysstroma truncata	70.097 Common Marbled Carpet	70.097 Dysstroma truncata	North Berwick	NT541846	NT5484	NT58M	NT58	82	East Lo
9	Mesapamea secalis	73.169 Common Rustic	73.169 Mesapamea secalis	Big Wood, Gilmerton	NT541848	NT5484	NT58M	NT58	82	East Lo
10	Dysstroma truncata	70.097 Common Marbled Carpet	70.097 Dysstroma truncata	North Berwick	NT541846	NT5484	NT58M	NT58	82	East Lo

A new worksheet is created with the Excel Pivot table ready to use.

Using the Pivot Table

The Worksheet called 'PivotTable' has a place-holder for the pivot table on the left and a configuration panel called 'PivotTable fields' on the right.



This is a very powerful facility. A number of example analyses/reports will be described here, but there are many more and you will get the idea very quickly, if you are not already familiar with it.

Species counts

As a first example lets get a list of species in taxonomic order with the total quantity count for each species. First click on 'ABH_CommonName' and then drag it down into the white box under 'Rows'. Then use the scrollbar on the list of fields to find Quantity. Click on the Quantity field and then drag that down to the Values box. You will see that what appears in that box is 'Sum of Quantity' as Excel has guessed that as Quantity is numeric you might want to add up the values. We can change that later if required. You will now see that the PivotTable has a list of the species with their total quantities showing. 😊

Row Labels	Sum of Quantity
04.015 Rose Leaf-miner	0
12.016 Cork Moth	0
37.013 Grey Birch Case-bearer	0
37.015 Common Case-bearer	0
37.021 Bearberry Case-bearer	0
52.006 White-barred Clearwing	1
65.016 Yellow Horned	0
66.001 December Moth	1
70.095 Red-Green Carpet	1
70.096 Autumn Green Carpet	1
70.097 Common Marbled Carpet	23
72.031 Cinnabar	1
72.034 Crimson Speckled	1
72.043 Buff Footman	1
73.163 Light Arches	8
73.169 Common Rustic	12
73.244 Common Quaker	2
73.249 Hebrew Character	2
73.250 Twin-spotted Quaker	2
(blank)	4
Grand Total	60

PivotTable Fields

Choose fields to add to report:

Search

DateYear
 DateMonth
 Quantity
 Method
 Sex
 Stage
 Status

Drag fields between areas below:

Filters **Columns**

Rows **Σ Values**

ABH_CommonName Sum of Quantity

Species quantity by 10k square

Another interesting report to show species distribution by ten km square can be created by following the species counts above and then clicking on and dragging Gridref10k (or indeed 2k or 1k) field into the Columns box.

Row Labels	HU44	NC55	NS77	NS97	NT56	NT58	NT67	NT77	SO06	V856430	V8743	Grand Total
04.015 Rose Leaf-miner				0								0
12.016 Cork Moth				0								0
37.013 Grey Birch Case-bearer				0								0
37.015 Common Case-bearer				0								0
37.021 Bearberry Case-bearer				0								0
52.006 White-barred Clearwing				1								1
65.016 Yellow Horned				0								0
66.001 December Moth						1						1
70.095 Red-Green Carpet				1								1
70.096 Autumn Green Carpet				1								1
70.097 Common Marbled Carpet					10	1		12				23
72.031 Cinnabar				1								1
72.034 Crimson Speckled				0			1					1
72.043 Buff Footman				1								1
73.163 Light Arches	2	1	1	3	1							8
73.169 Common Rustic						12						12
73.244 Common Quaker				2								2
73.249 Hebrew Character				2								2
73.250 Twin-spotted Quaker				2								2
(blank)				1		1			1	1		4
Grand Total	2	1	1	15	1	23	2	1	12	1	1	60

Species record counts by 10k square

To change from quantity totals (which us the 'Sum of Quantity' to record counts we can change the 'Field Value Settings' by clicking on the down-arrow next to 'Sum of Quantity' in the Values box, and then choose Count from the panel that is presented.

Move to Values

Remove Field

Value Field Settings...

Sum of Quantity

Summarize value field by

Choose the type of calculation that you want to use to summarize data from the selected field

Sum

Count

Average

Max

Min

Product

Count of Quantity	Column Labels										Grand Total	
Row Labels	HU44	NC55	NS77	NS97	NT56	NT58	NT67	NT77	SO06	V856430	V8743	Grand Total
04.015 Rose Leaf-miner				1								1
12.016 Cork Moth				1								1
37.013 Grey Birch Case-bearer				1								1
37.015 Common Case-bearer				1								1
37.021 Bearberry Case-bearer				1								1
52.006 White-barred Clearwing				1								1
65.016 Yellow Horned				1								1
66.001 December Moth							1					1
70.095 Red-Green Carpet				1								1
70.096 Autumn Green Carpet				1								1
70.097 Common Marbled Carpet						10	1		4			15
72.031 Cinnabar				1								1
72.034 Crimson Speckled				1				1				2
72.043 Buff Footman				1								1
73.163 Light Arches	1	1	1	3	1							7
73.169 Common Rustic						12						12
73.244 Common Quaker				1								1
73.249 Hebrew Character				3								3
73.250 Twin-spotted Quaker				1								1
(blank)				2		2				1	1	6
Grand Total	1	1	1	22	1	24	2	1	4	1	1	59

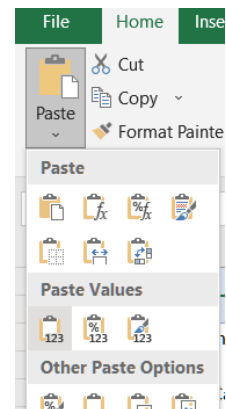
Species record counts by period

To change the columns from grid reference to year or month you can drag the Gridref10k back from the columns box into the Field list and then drag either DateYear or DateMonth into the Columns box.

Row Labels	1987	2018	2019	2020	2021	2022	Grand Total
04.015 Rose Leaf-miner				1			1
12.016 Cork Moth				1			1
37.013 Grey Birch Case-bearer				1			1
37.015 Common Case-bearer				1			1
37.021 Bearberry Case-bearer				1			1
52.006 White-barred Clearwing					1		1
65.016 Yellow Horned				1			1
66.001 December Moth					1		1
70.095 Red-Green Carpet						1	1
70.096 Autumn Green Carpet	1						1
70.097 Common Marbled Carpet				11	4		15
72.031 Cinnabar				1			1
72.034 Crimson Speckled						2	2
72.043 Buff Footman				1			1
73.163 Light Arches		1	2	4			7
73.169 Common Rustic		3			8	1	12
73.244 Common Quaker				1			1
73.249 Hebrew Character				1	2		3
73.250 Twin-spotted Quaker				1			1
(blank)				2	1	3	6
Grand Total	1	4	2	17	22	13	59

Creating a report from the PivotTable

The headings of the PivotTable table normally need a bit of tidying up, such as changing 'Row labels' to 'Species name'. One way to do this is to select the cells of the pivot table and then click 'Copy' from the Excel Ribbon or use the Ctrl-c keyboard shortcut. Then paste this into another spreadsheet, but using the 'Values' option. This can be done from the down arrow beneath the Paste icon in the Ribbon or keyboard shortcut Ctrl-Alt-v and then v again from the Paste-special pop up window.



You can then edit the cells as you wish before copying out into a report / document.

Restrictions

Only the 'Simple' download format of iRecord is supported.