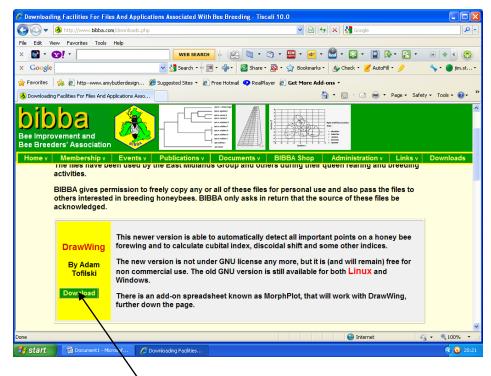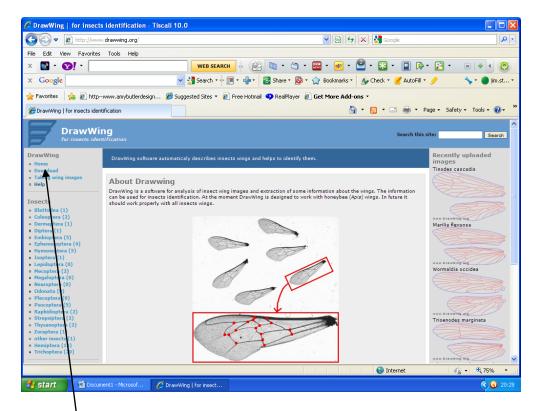# Instructions for Using DrawWing

Open and download the software from the BIBBA website
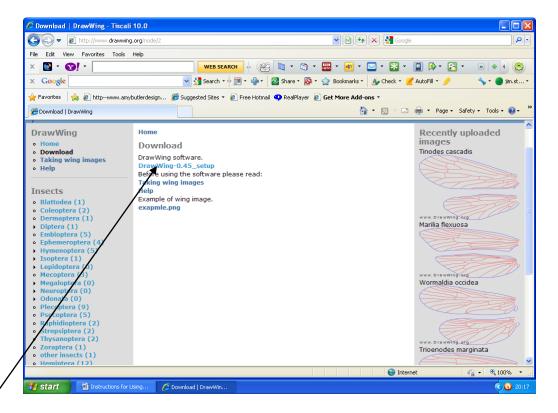

Click on Downloads
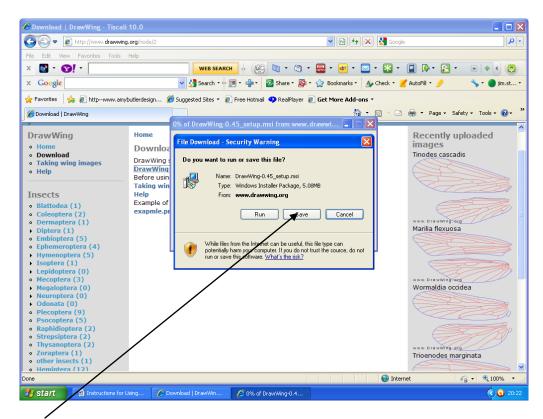

Click on DrawWing to Download

Click on Download

Click on Download
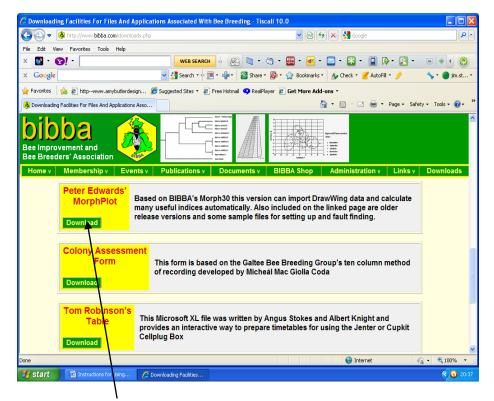
Click on Save

Save onto Desktop
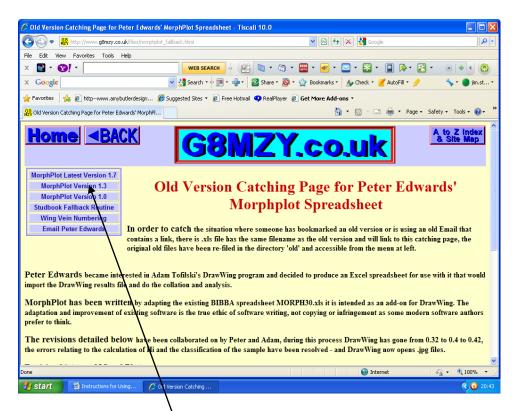
Instructions for using MorphPlot
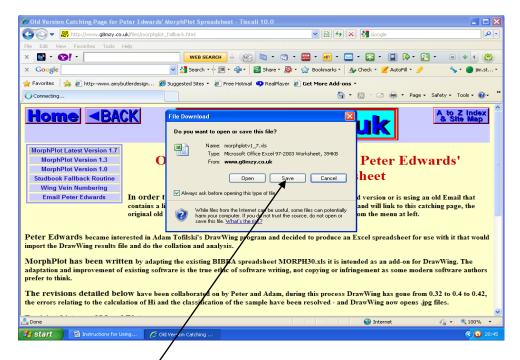
Go back to BIBBA Website and download software

Click on Downloads

Click on Peter Edwards MorphPlot

Click on MorphPlot latest version 1.7

Click on Save and save to Desktop

Prepare your wing samples

Make a new folder for your scan on your desktop by right clicking your mouse on the desktop.
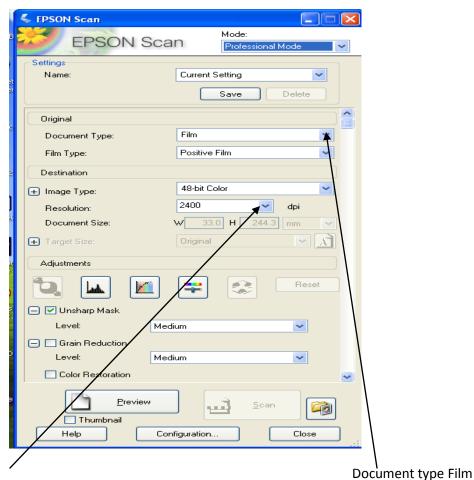
Give you folder a names e.g. Hive 1 Jim Nov 2011
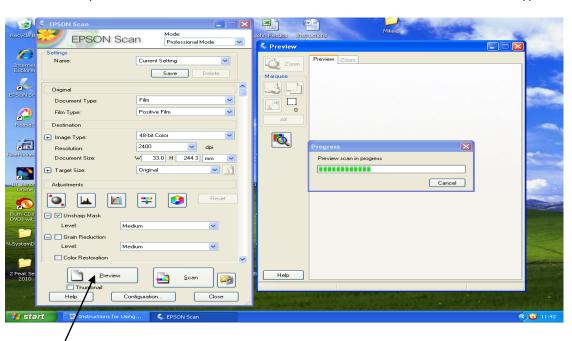

Open your Scanner software.

Scanner Minimum Requirements

1. Transmitted light photographic scanner
2. Minimum resolution 2400 x 2400 dpi
3. Save scans as jpg, png or bmp in the folder created

For the Epson Perfection V100 Photo Scanner
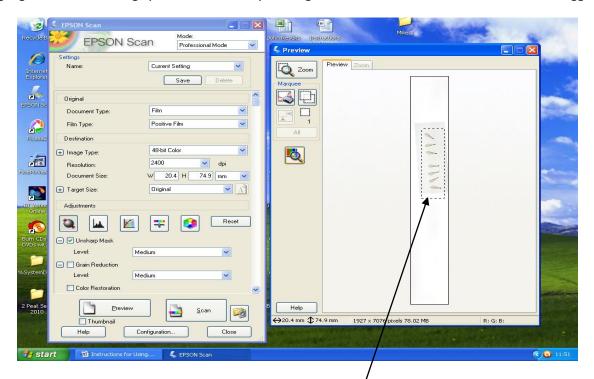

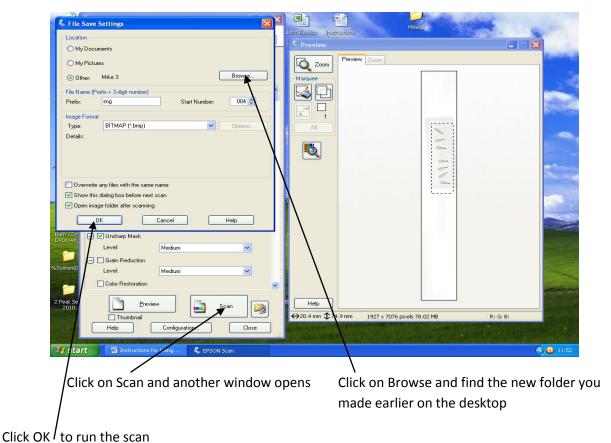Minimum of 2400 dpi

Document type Film

Click Preview

If all goes well you should have a preview scan of your wings

Highlight the area of wings you wish to scan by holding down the left button of the mouse and dragging

Release the mouse and the area to be scanned will be marked

Click on Scan and another window opens   Click on Browse and find the new folder you
                                              made earlier on the desktop

Click OK to run the scan

The scanned wing image will be in your desktop folder you made.

If you are scanning up to 50 wings you will need to repeat the scan again with a new batch of wings from
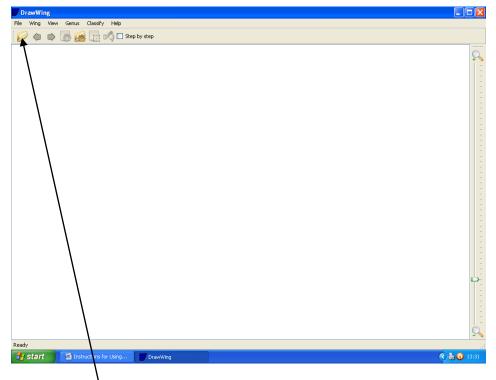
the preview step.

Each scan completed will go into your desktop folder

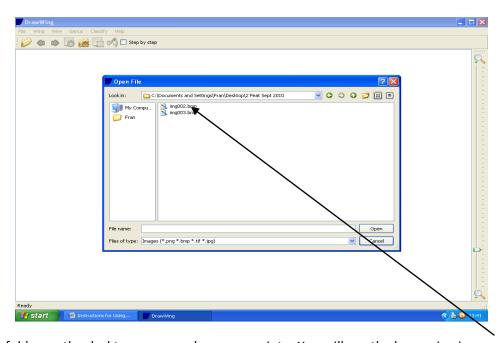When finished all 50 wings close all the scanner windows.

You are now ready to do the analysis.

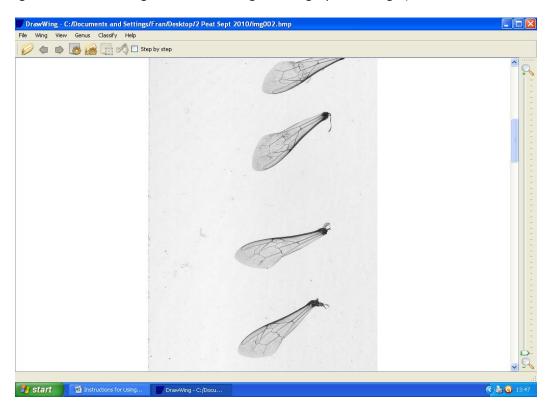DrawWing

Click on the DrawWing icon to open the program

Click on the File folder icon

Open your folder on the desktop you saved your scans into. You will see the bnp or jpg images icons
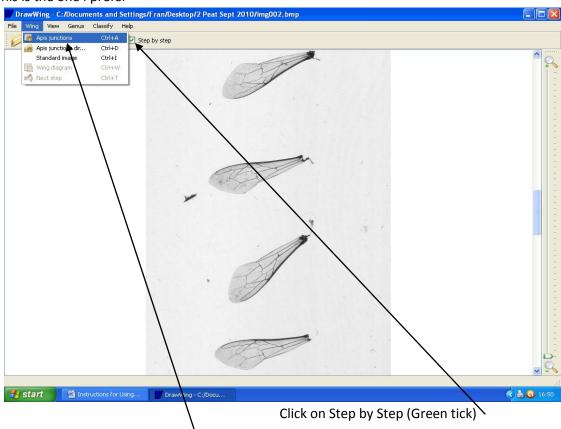
Click on the first image scan.

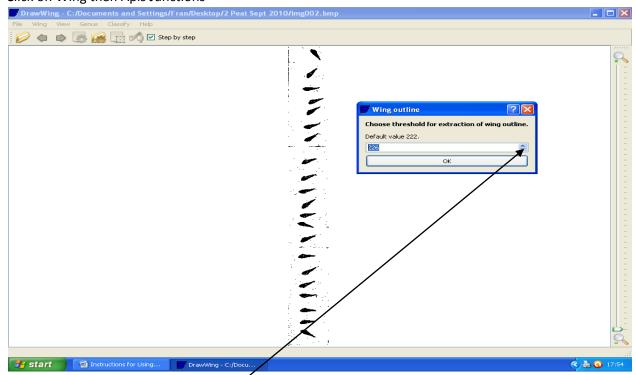DrawWing will start converting the scanned image to the grayscale image (This will take a few minutes)

You have a choice of two methods for the wing analysis.

1. Is the automatic computer analysis where you click on Wing then click Apis junction. The computer will take a few minutes to complete the auto analysis. When complete click View, click Indexes from Directory. Choose your Directory (Use your folder where the scanned images are). Click OK and your results will go into the folder for later analysis.
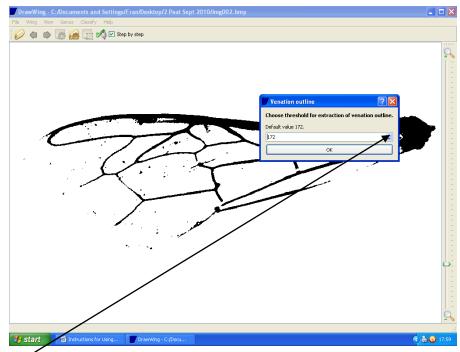
2. This is the one I prefer

Click on Step by Step (Green tick)

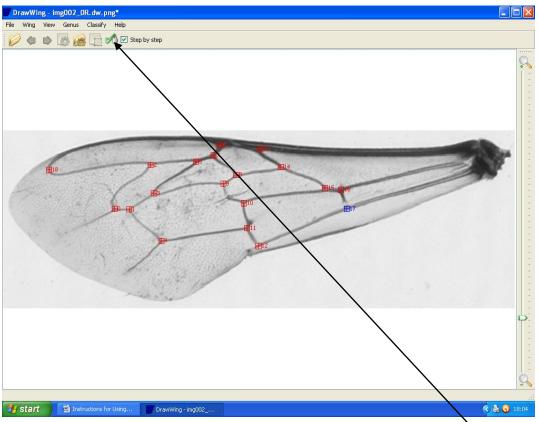Click on Wing then Apis Junctions

Wait a few minutes and you will get the dark wing outlines. If the image is too dark or too light alter the default value up or down . Then click OK
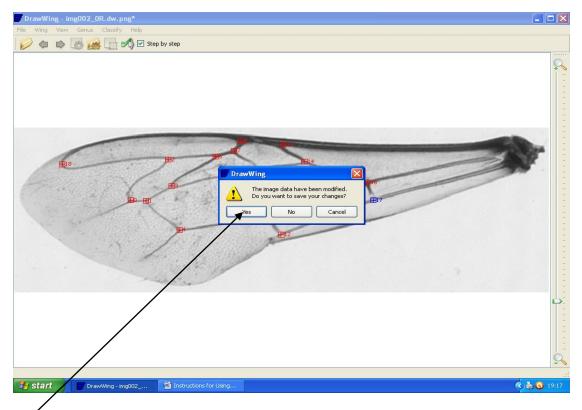
The first wing image will appear. If the vein outline is poor again alter the image up or down to correct   Then click OK
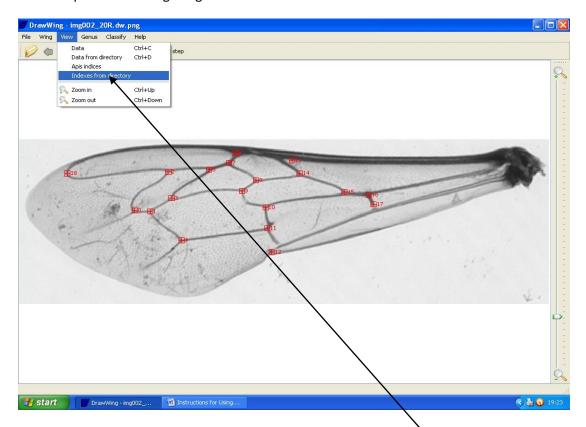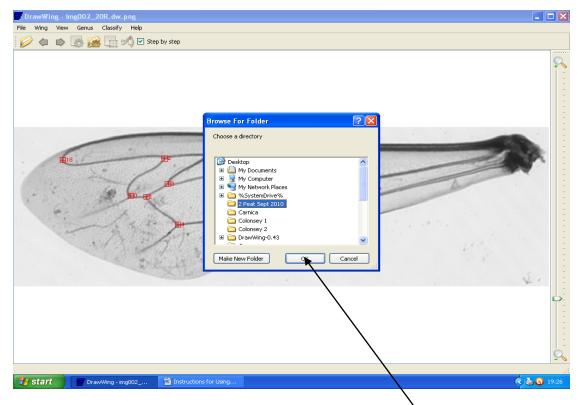

Check the points 0-7 and 18 are in the correct position. If not move them with your mouse. The other points are not important. When you are happy with the positions click the green next step icon
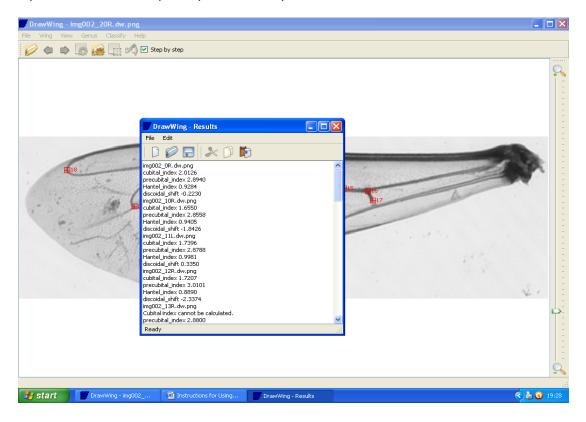
Click Yes and repeat for all wing images.

When finished all the wings click on View then on Indexes from Directory
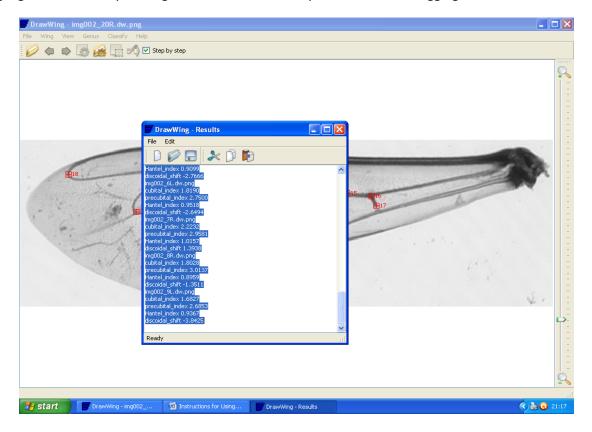
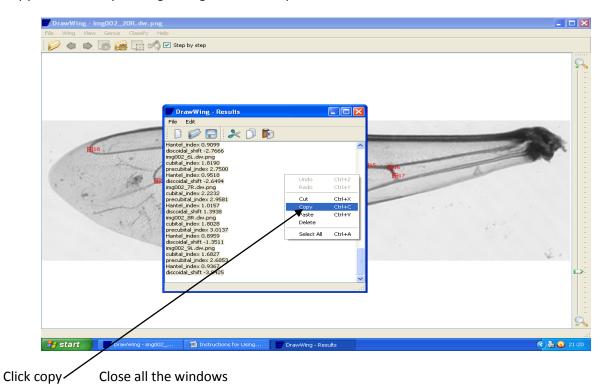Choose your folder on Desktop that you made for your scans and click OK

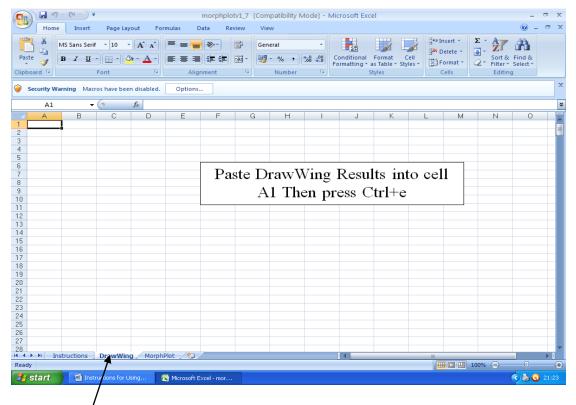Your DrawWing results will appear in a new window

Highlight the results by clicking with the left button of your mouse and dragging
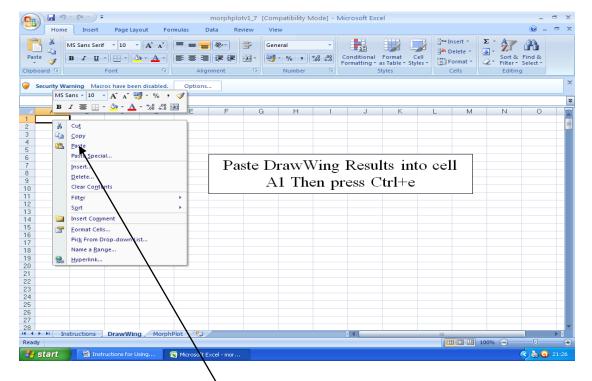

Copy the results by clicking the right button on your mouse
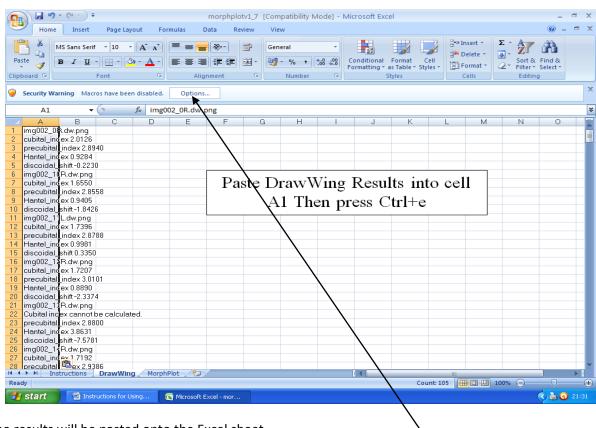

Click copy   Close all the windows

Open Morphplot from your desktop
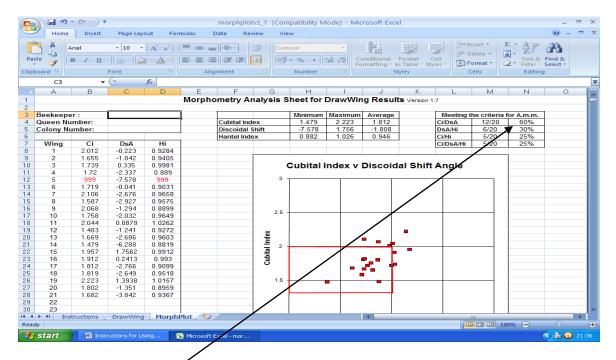

Click on DrawWing

Right click on box A1 and click on paste

The results will be pasted onto the Excel sheet.

Depending on the version of Excel you have you need to enable the Macros

Press Ctrl+e to get your result