# NEW ZEALAND BIOSECURE
### Entomology Laboratory

A DIVISION OF SMS
SOUTHERN MONITORING SERVICES LIMITED

# Online National Mosquito Surveillance Database

# User Guide

Version 3 Updated 29 July 2017

# BIOSECURITY SPECIALISTS

# Contents

# Introduction

The Online National Mosquito Surveillance Database is a single, centrally housed database for all District Health Board mosquito surveillance which is accessible via the internet. The database is securely stored by an independent IT company, supplying a degree of physical security that should protect it against all but the most extreme disasters. It is frequently backed up, and has a power supply with several backup contingencies, and is also protected by an industrial firewall which has continually updated virus protection.

The database is managed by the entomologists at the New Zealand BioSecure Entomology Laboratory (NZBEL) and maintained by an external IT company. Access to the database is only available to Ministry of Health approved services and is generally limited to District Health Board Public Health Units.

# Database Operation

Mosquito surveillance collection data is entered as individual or multiple sample records by the sampler which, once saved, can be viewed individually online or various datasets selected and exported into Microsoft Excel. Entered and saved data can only be edited or deleted by users with the appropriate permissions.

Negative sample records should be entered routinely, they become automatically "Complete" once saved, as no further information is to be added to them by the entomologists. Samplers are able to edit or add further information if required.

Positive sample records are "Incomplete" until the specimens have been identified in the laboratory, and the entomologists enter the results and save the "Complete" sample record.

All samples entered into the database, but not received by the Entomology Laboratory after 3 days, will be followed up via email or phone call to locate them. Samples should be entered on the day of collection.

The database year runs from July $1^{st}$ to $30^{th}$ June and is archived January $1^{st}$ to December $31^{st}$. All samples entered each year are archived at end of the following July. Once archived, the sample records can no longer be altered.

## Access

The database is accessed by "Health Boards". These consist of the 12 actual health boards, and the NZB entomologists group. Each health board has a number of users which access the database via the internet.

## Users

To access the data on the database, you must be a registered user. There are four database user levels: sample creator, sample editor, health board admin and superusers, which are explained below.

The **Sample Creator** is the first user level. Sample creators are able to add new samples into the database, run *ad hoc* search queries and export data for external use. They are also able to edit or delete their own sample records until the records are archived. A health board may have one or many sample creators who access the database.

The second level is the **Sample Editor**. Sample editors can perform all the same activities as the sample creator, however they are able to edit all the non-archived sample records entered from their health board.

The next level is **Health Board Admin**. Each PHS usually has only one health board admin who has the ability to add new users and suspend old users (for their health board only), in addition to the capabilities of the sample editor. The health board admin cannot edit or delete archived data.

The highest user level is the **Superuser**. This level is only available to the NZBEL entomologists and the database IT staff, who have access to all the data, and are responsible for managing the database, including updating pages, improving search functions and data archiving etc. They cannot alter the archived data records.
When a user is no longer required, e.g. an ex-employee, the status of the user can be suspended, and will no longer appear in the drop-down menus etc. PHU staff should email the laboratory taxonomy@nzbiosecure.net.nz to arrange this.

## New Users

If you are not a registered user, and require access to the database, you should contact your local Health Board Admin or the NZBEL Entomologists via the taxonomy email (taxonomy@nzbiosecure.net.nz).  They will provide you with an access user name and password to access it.

Once registered, open your internet browser  and navigate to database login page,  at National Online Mosquito Database (Figure 1). It is recommended that you bookmark this page or create a shortcut from your desktop, to save typing the internet address each time you access the database. The  site  can  also  be  accessed  through  the  SMSL Website.
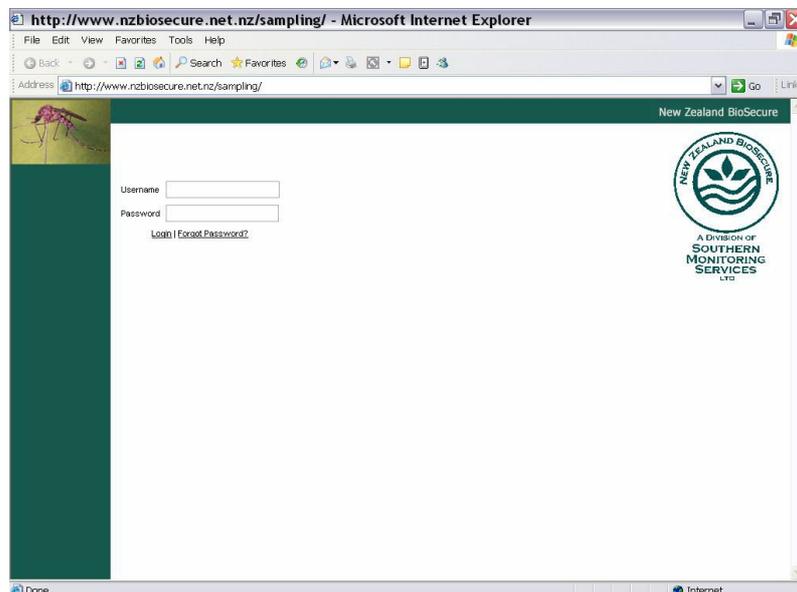


Figure 1. Login page for the National Online Mosquito Database.

## Logging In

Enter your username and your password and click the "Login" button. The menu page will appear. (NB. pressing "enter" on your keyboard will not work).
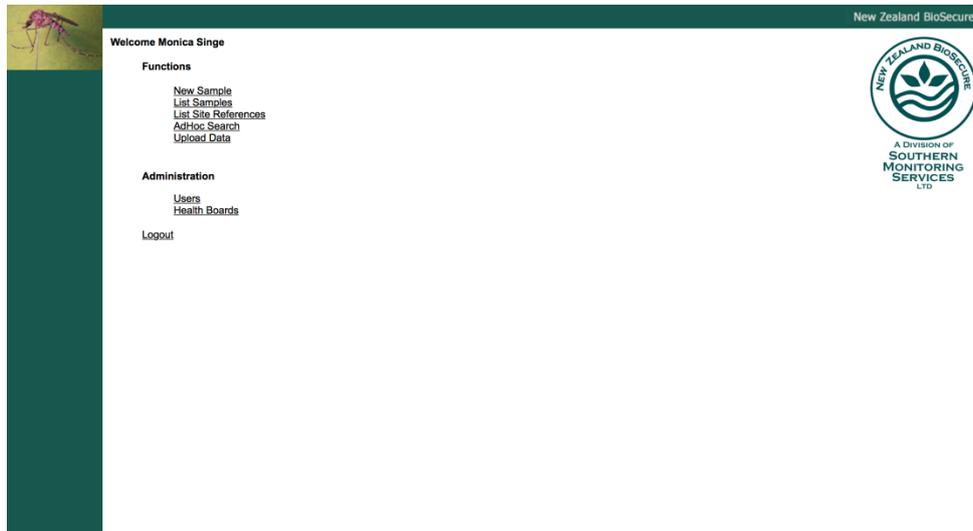
Figure 2. National Online Mosquito Database main menu.

# Entering Sample Information

Samples can be entered singularly or in multiple by uploading a csv file.

## Entering New Samples

On the menu page (Figure 2), select "New Sample" and a new sampling data form will appear (Figure 3). Many of the fields contain drop-down menus where you can select from a list. Most of these are accompanied by another field, positioned directly below it, which is for adding new items to the drop-down list. For example, the "Location" field has a drop-down list which allows you to select the correct location from an alphabetical list, however, if you have a new location that is not already listed, select "New Location" from the top of the drop-down list and enter it manually into the "New Location" field below. Enter your geographical coordinates using WGS84.

Each new addition will appear in the drop-down list from then on, and does not need to be typed in again.



Figure 3.  New sampling data form

The "Sample Officer" field will automatically contain the name of the person who is logged in, and the "Collection Date" field will automatically display the current date of entry. **NB. This needs to be changed to the day of collection if the data is not entered on the same day. The "Trap" field will automatically display "Yes", and needs to be changed to "No" manually, where required.**

Select the correct option from the drop-down list for "Location", adding in new details where appropriate (as outlined earlier in this section) and manually enter your "Sample Number".

Select the appropriate "Site Reference No." from the drop-down list and this will automatically refresh the page and fill in the saved details for that site (Refer to the Site References section for further information). Saved details should include the following fields: "Trap Type", "Reason for Sampling", "Attractants", "GPS East", "GPS North", "Habitat Category", and "Sample Type".

For larval samples, both the "Total Dips" and "Positive Dips" need to be entered manually, and for adult and other trap samples, the number of "Trap Nights" need to be entered.

You may attach a file, a photograph or report to samples, by clicking "Browse" next to the "Upload File" field and navigating to the relevant file (Figure 4 below). When you save the sample form, the file will copy onto the database and be saved with the sample data. This is ideal for interception sitreps and specimen images.
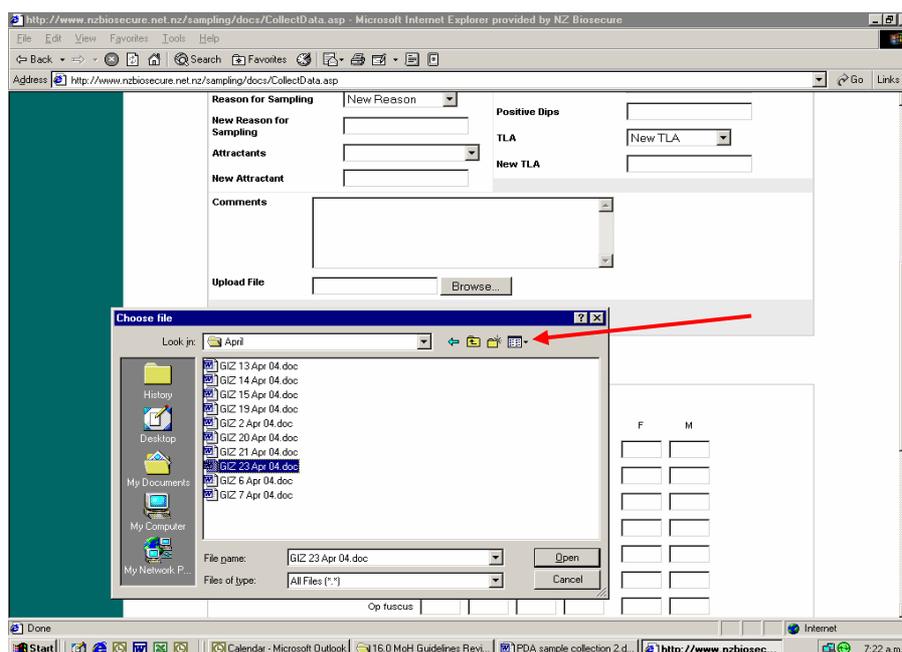


Figure 4. To attach a file click in the Browse button and then open your file.

## Saving the Sample Information

When all the information for the sample has been entered, click the "Save" button at the bottom of the page to save the record. The sample is then saved onto the database. If your sample does not save, i.e. you do not have a "Sample Saved" window appear (Figure 5).
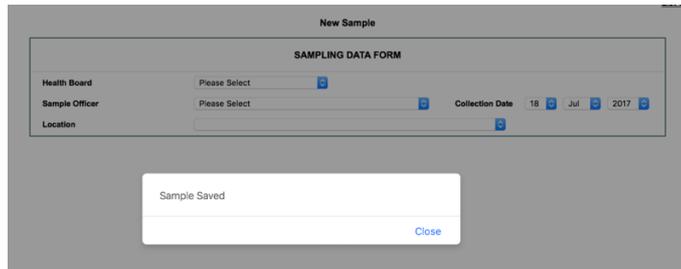
Figure 5. This window will appear if the samples have been saved

Click on the "back" icon on your internet browser and try clicking "Save" again. Repeat until the "Sample Saved" message appears on the screen (Figure 5). Failing this, contact your Health Board Admin or the NZBEL entomologists for assistance.

## Entering Multiple Samples – Upload a CSV

The database has an upload function to add multiple samples in a CSV file. The CSV file format and example headers can be downloaded from the SMSL website (Entomology Laboratory page).
The CSV file must follow a specific format (Figure 7), this cannot be altered.



Figure 6. Headers and related values the database can read.

To upload multiple samples, download the CSV file from the website. Open as excel and enter sample data to each of the rows as specified in the header using the correct format. Save and name the file as a CSV to a known location.
**NB: Fields and values in CSV should be separated by comma.**
Login and select "Upload Data" from the menu page (Figure 1 and Figure 2)
Select "Choose File", browse to locate your file, and choose. Select "Upload".

**NB: Sample uploads should be checked by the entering sampler, the date automatically defaults to the date of upload. (This cannot be changed). The sampler should edit the date as required to ensure the information is accurate. Refer entering samples above.**

**NB: The date entered must be in UTC format.**
The import date should be Corodinated Universal Time (UTC) date formatted, converted to yyyyMMddHHmmss. For example;
Original Date: 2017/07/27 09:05:02
UTC Date: 2017/07/26 21:05:02
**Import Date Format: 20170726210502**

## Listing Samples

The "List Samples" link on the menu page allows you to view some of your samples for the current year or viewable archived datasets year. You can list your samples based on their "Status" (All, Complete or Incomplete), "+VE Sample" (All, Positive, Negative) or "Entry Method" (All, Uploaded or Manual). (Figure 7).

In "List Samples" be as selective as possible to find the samples, make your selections and click "Search". Your samples will appear below in a summary table, from which you can edit or delete your samples.
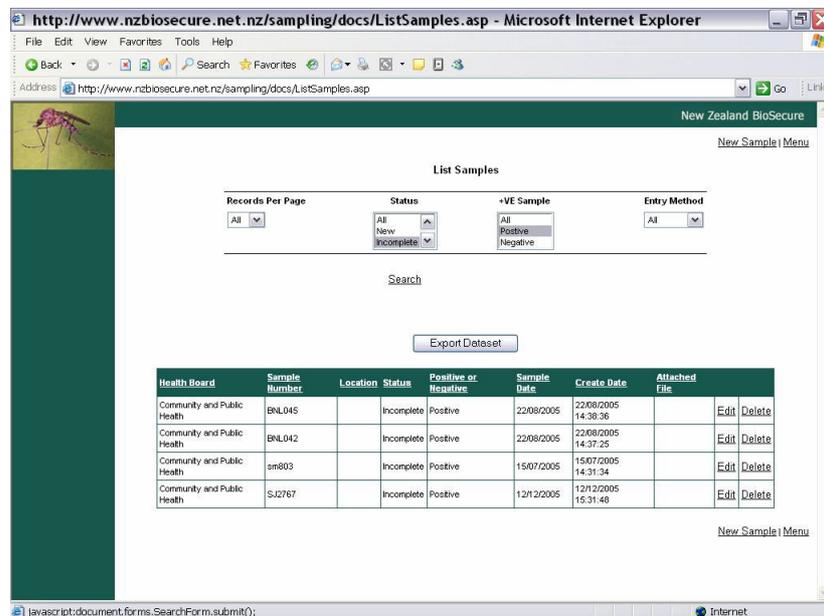


Figure 7. List Samples Link.

You can also export this dataset to your computer, by clicking on "Export Dataset". Refer to the Exporting Datasets section for more detail on this.

If an error message appears try narrowing the search to "Complete" and "Positive" or "Incomplete" and "Negative" for example, or limiting the "Records Per Page". The Database has many entries and buffering is in place. If an error message continues to appear use the "Ad Hoc Search" option and select a particular time frame for your search (Figure 8).

## Site References

The database utilises an automated system for reducing the amount of data entry required for samples from fixed trap sites. The site details are manually entered into the database once, and then become automatically linked to the "Site Reference No." field. From then on, the site detail fields are automatically filled in, once the appropriate "Site Reference No." has been selected from the drop-down list.

## Listing Site References

Click on the 'List Site References' link on the Menu page, and all the site references for your Health Board will be displayed. From this page, you may add to the information relating to a particular site reference by clicking on 'Edit' adjacent to it.

**IMPORTANT NOTE:** If you change ANY information in the site references, the changes will be reflected through ALL of the current sample records in the database which use that site reference. **If the change involves a moved trap, it is necessary to create a new site reference.**

Old site references can be removed by NZBEL, at the end of a database year once the archiving has been completed. Email taxonomy with a list of site references to be removed, and you will be advised by email when this has been completed.

To add a new reference, click on the 'Add Site Ref" link in the top right corner of the site references page. Fill in the appropriate fields and click save. The new site reference will automatically appear in the dropdown menu for the next new sample you enter.

## Ad hoc searches

On the Menu page, click on "Ad hoc Search" link to produce the Search Samples page (Figure 8).



Figure 8. In the Ad Hoc Search menu refine your search adding a time frame for example.

Most fields from the sample records are included in this page, as they can be used to search and select the sample records. A single field or a combination of several fields can be used for searching. This is often the easiest way to search for samples.
Examples of searches; all  samples collected on a particular date, all positive samples collected by a particular sampling officer during the month of April.

Once you have entered your criteria, click "Search" and you will be given the listing options as above in the Listing samples section. You can also export this dataset by clicking the "Export to CSV" button.

Refer to the Exporting Datasets section for more detail on this.

**Finishing a Session**
When you have finished with the database, click on "Menu" at the top right of the current screen and you will be returned to the menu page. Click "Logout" to terminate your connection.

# Exporting Datasets

Data can be exported readily. The system is windows optimised and is the preferred option. Mac datasets may be compromised.
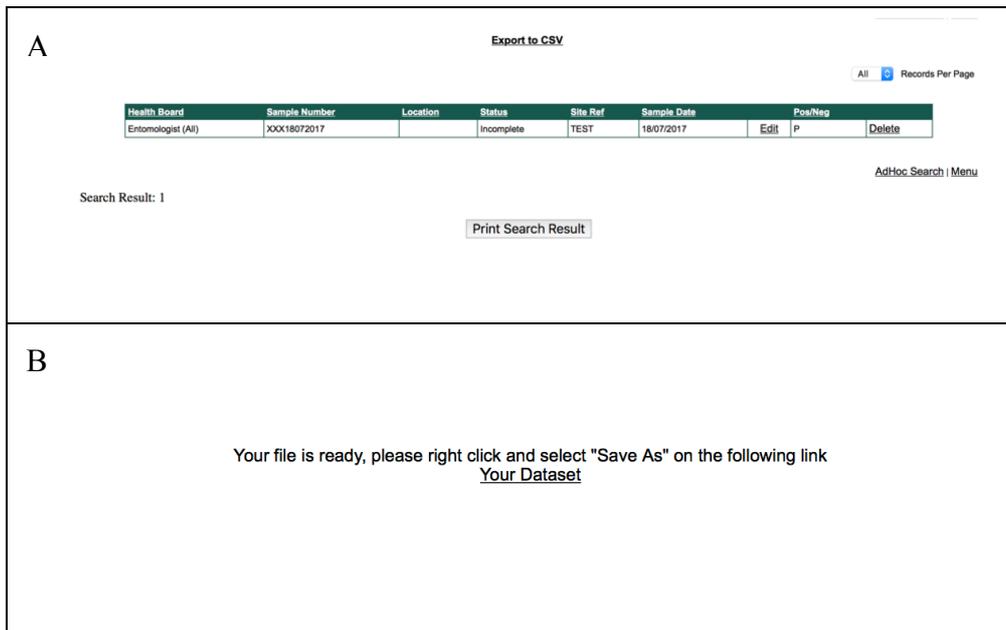


Figure 9. A. Search results. B. Your dataset is ready to be save.

## Ad Hoc Search Export Option

After you have searched or listed the sample records and obtained the data you wish to export, click on "Export to CSV" (Figure 9). Right Click on the "Your Dataset" link and save. The file will download and save to your choice of location. Once downloaded it can be imported into excel for viewing.

## List Samples Search Export Option

After you have searched or listed the sample records and obtained the data you wish to export, click on "Export Dataset" which will appear in a small window, click on "Save as" in the next window, and navigate to the location you want the file saved in (Figure 10).
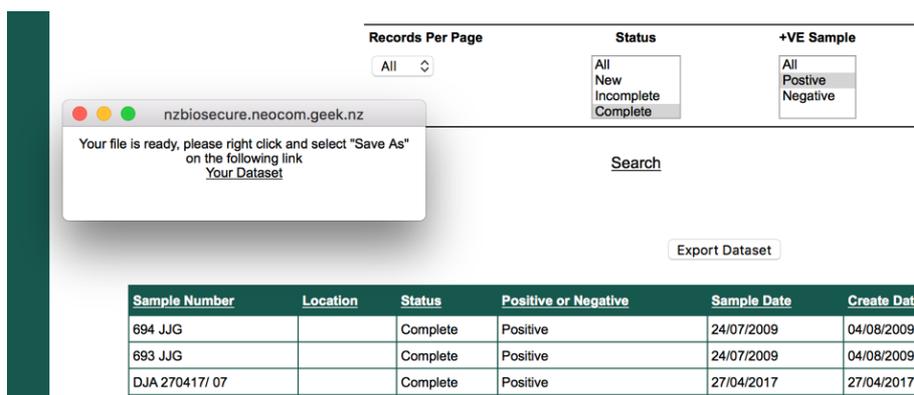


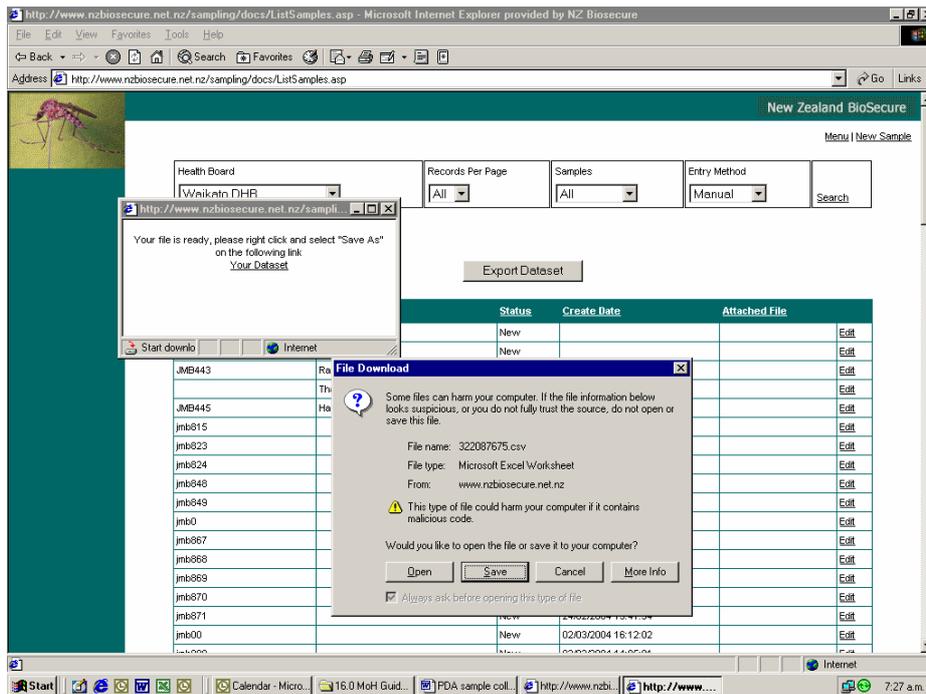Figure 10. When dataset has been downloaded in a Mac

Figure 11. Exporting data.

## Opening Exported Datasets in Microsoft Excel

Datasets exported as CSV files, can be imported into Microsoft Excel, for use in data analysis etc. This may not be automated, as the commonly used separator characters are often used in the data fields, the data may need to be imported manually depending on software versions.

Once you have exported the CSV file to a known location on your computer, open Microsoft Excel. Click on the "Data" menu, select the "Import External Data" or similar option and click on "Import Data" (Figure 12).
A window will appear and prompt you to browse to the CSV file you wish to open in Excel. Once selected it will open a wizard that you can follow which assists with opening the file
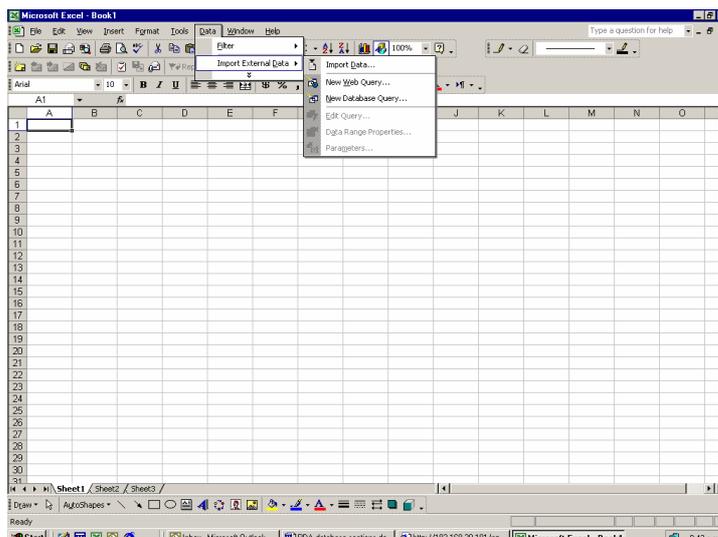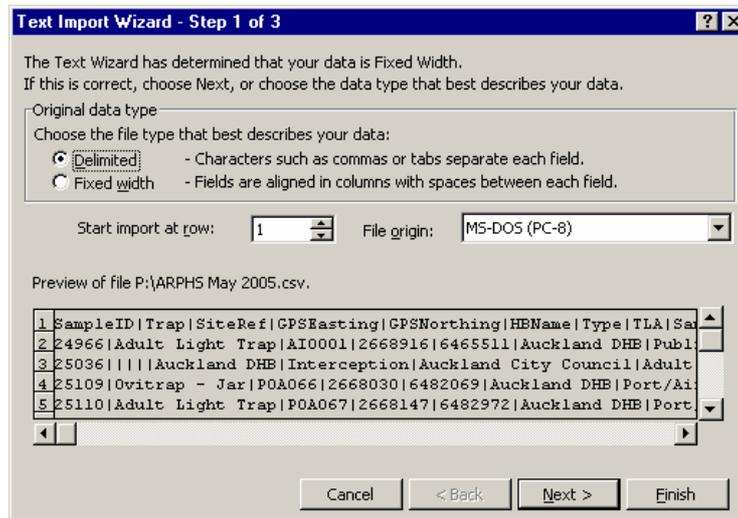


Figure 12. Exporting the CSV data in to Excel

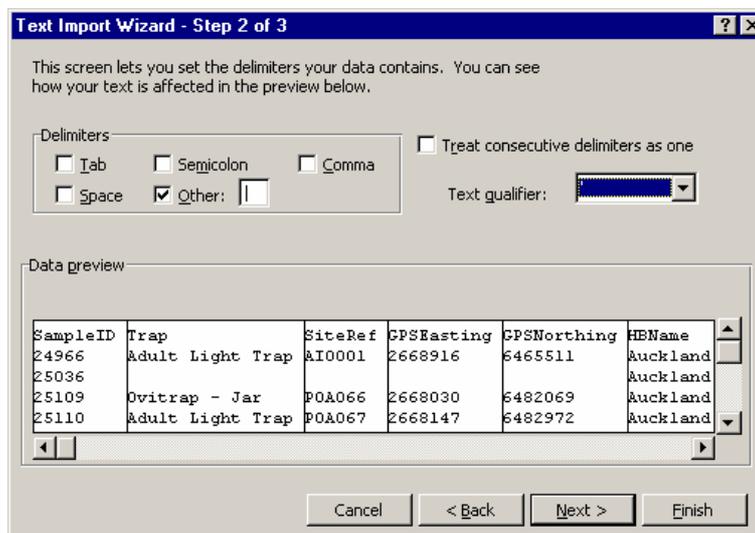Figure 13. Select "Delimited" and then click "Next"



Figure 14. Uncheck the "Tab" box, check the "Other" box and add type in "I" (this is usually the shift \ button, above 'enter' on the keyboard). Click "Next".

Click "Finish" and add the data to your worksheet where you can review and analyse. Save it as a Microsoft Excel spreadsheet file.