New Zealand BioSecure
A division of Southern Monitoring Services Limited

Online National Mosquito Surveillance Database

User Guide

Version 5 Updated November 2020

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 1st to 30th June and is archived January 1st to December 31st. 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. You should change your password once you have gained access – this can be accessed under your name located top right-hand corner (Figure 2).

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.

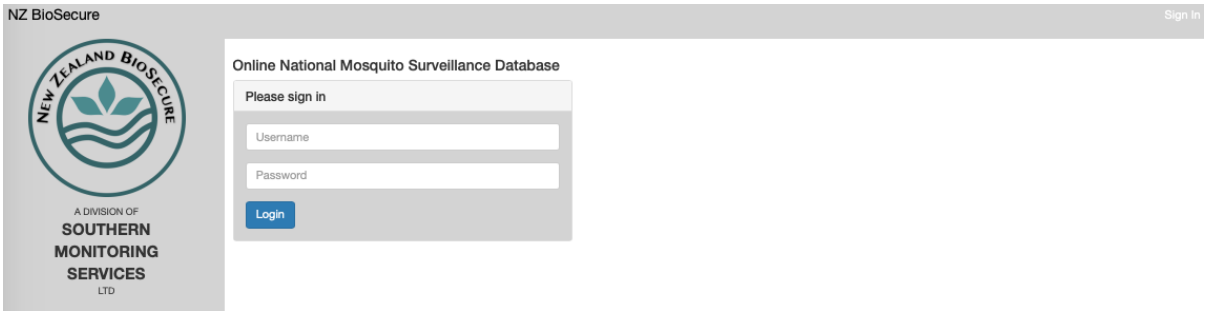

Figure 1. Login page for the National Online Mosquito Database.

Logging In

Enter your username and your password and click the “Login” button (Figure 1). The menu page will appear.

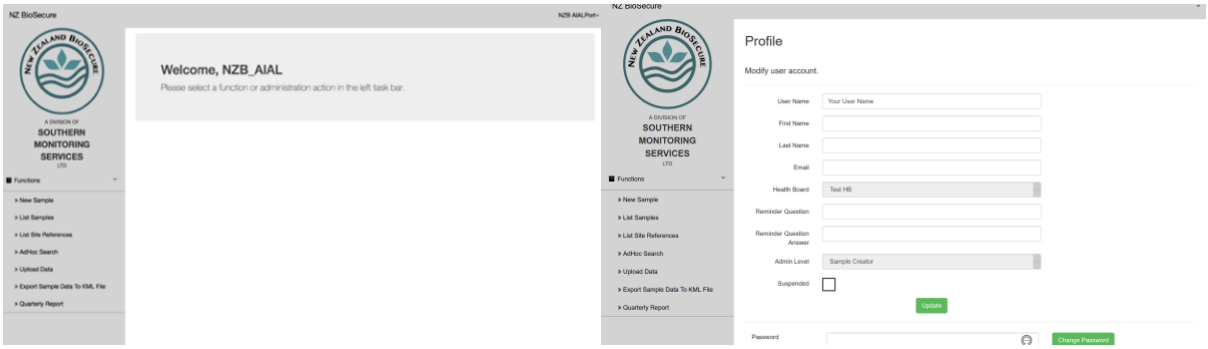

Figure 2. Left: National Online Mosquito Database main menu. Right: Profile

Entering Sample Information

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

Entering New Samples

On the welcome page (Figure 2), select "New Sample" from the left hand menu, a new "Create Sample" form will appear (Figure 3).

"Main Information"

Select your Health Board, and select your sampling officer details.

Enter the location: Locations are now regional, select the Location for the sampling region. A list of your Public Health Service Regions is available from taxonomy@nzbiosecure.net.nz.

Complete the "Collection Date": Click on the collection date or calendar and choose the date. Then select "Next Page" to view Sample Data Tab (Figure 3).

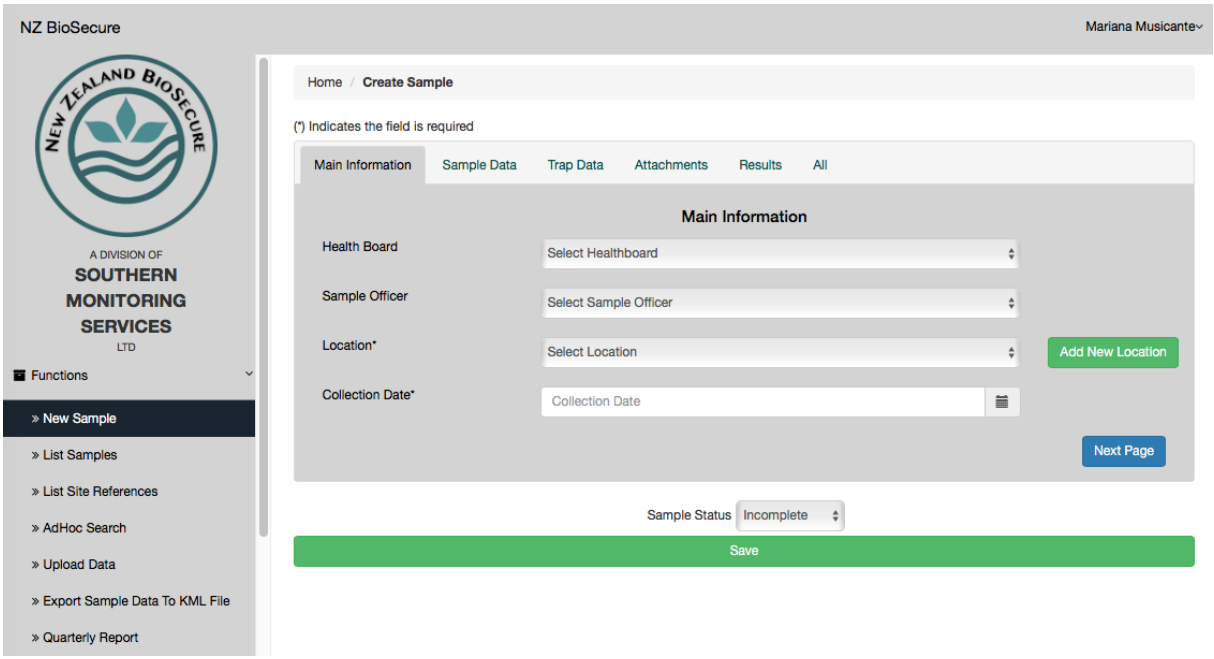

Figure 3. New "Create a Sample" Main Information Tab

"Sample Data"

Several fields are now compulsory. They are denoted by the (*) beside the field name (Figure 4). Fields may contain drop-down menus where you can select from a list. Some of these are

accompanied by an option to add new information to the drop down lists - Green Tabs positioned to the right. For example, click in the grey box “Select Site reference Number” and begin to type the site name, and select from the list of previously entered site references. However, if you have a new site reference that is not already listed, select the green “Add Reference No.” (the green tab changes to “Cancel”) and enter the new site reference manually into the “Site Reference No” field. Once saved new references will appear in the list and do not require entering again. Continue entering sample data field.

Saved details for site references should include the following fields: “Trap Type”, “Reason for Sampling”, “Attractants”, “GPS East”, “GPS North”, “Habitat Category”, and “Sample Type”.

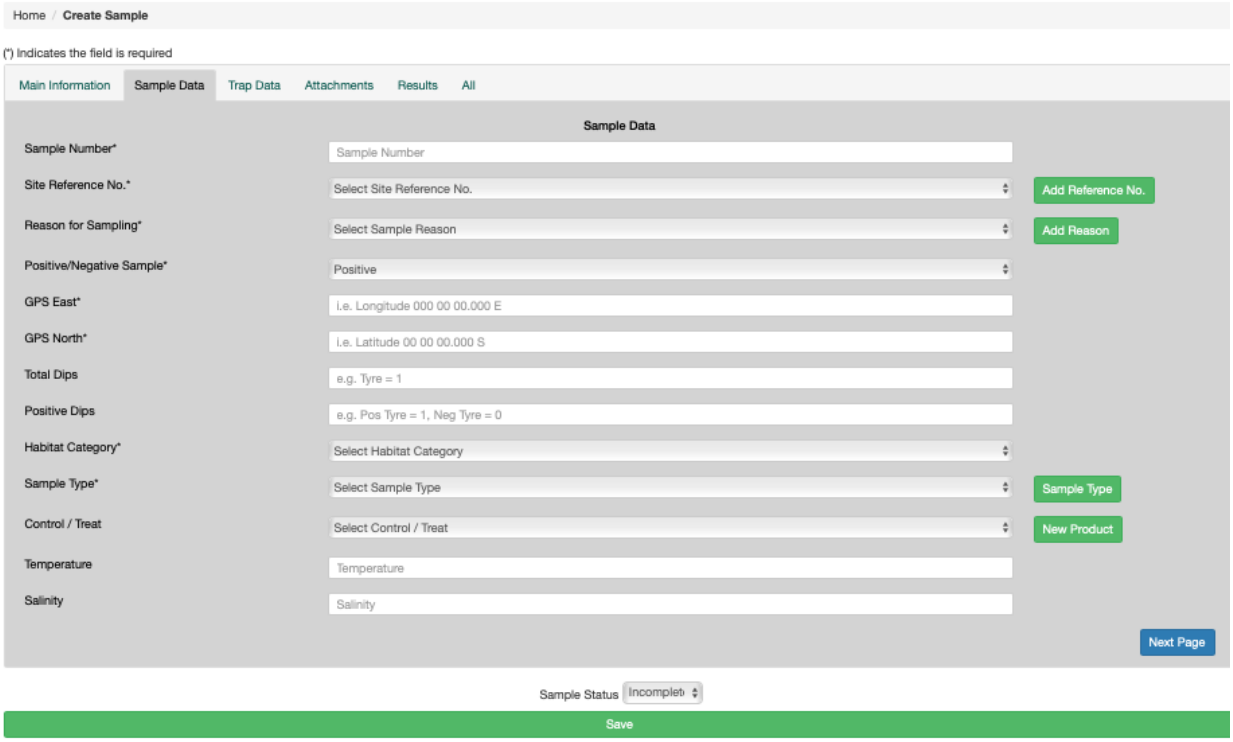

Figure 4. New “Sample Data” Tab

NB: The coordinates must be recorded and entered using Latitude and Longitude with degrees, minutes and seconds (Lat Lon (DMS)) under WGS84 datum following this example.

“GPS East”: 000 00 00.0000 E
“GPS North”: 00 00 00.000 S

It will read like the following on your GPS unit:
Longitude: 174° 54’ 57.836” E; GPS North: 41° 13’ 59.826” S

The coordinates should be entered using the following format in the online database e.g.
GPS East: 174 54 57.836 E; GPS North: 41 13 59.826 S.

Note that when entering the coordinates the following characters are not required (° “ ‘ -).

For larval samples, both the “Total Dips” and “Positive Dips” are required to be entered manually, and for all adult and larval trap samples, the number of “Trap Nights” must be entered.

NB: Enter habitat category: For traps select “Trap option”

NB. The “Positive/Negative” field will automatically display “Positive”, and needs to be changed to “Negative” manually, where required.

“Trap Data”

When complete select “Next Page” Trap Data will be displayed (Figure 5).

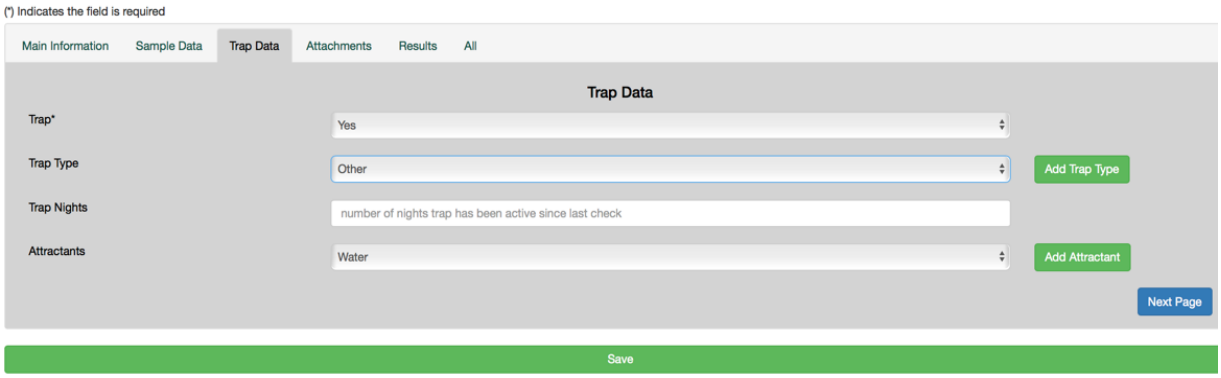

Figure 5. New “Trap Data” Tab

NB. 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 “Trap”, “Trap Type”, “Attractants” and enter the number of trap nights and adding in new details where appropriate (as outlined earlier in this section).

“Attachments”

Select “Next Page” to upload “Attachments” (Figure 6).

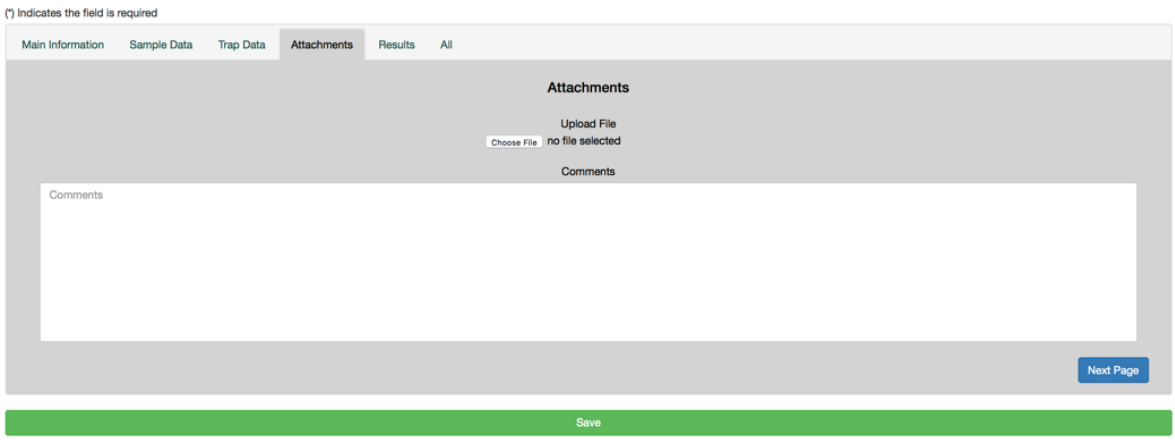

Figure 6. New “Attachments”

You may attach a file, a photograph or report to samples, by selecting “Choose File”. Your browser will direct to your file source for selection. 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. You can add comments in the comments section.

You can save your sample by selecting the Green “Save” Bar at the bottom of the page.

If there are compulsory fields not entered a pop-up will occur (Figure 7) indicating missing data. Navigate to the correct tab and enter the missing data. Saving can occur at any page.

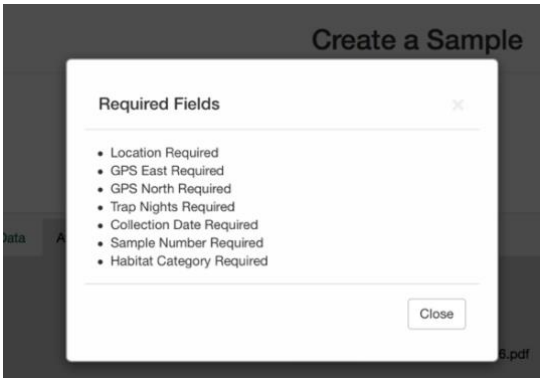

Figure 7. Missing data fields

"All"

Alternatively, all the sample information can be entered in the "All" tab (Figure 8).

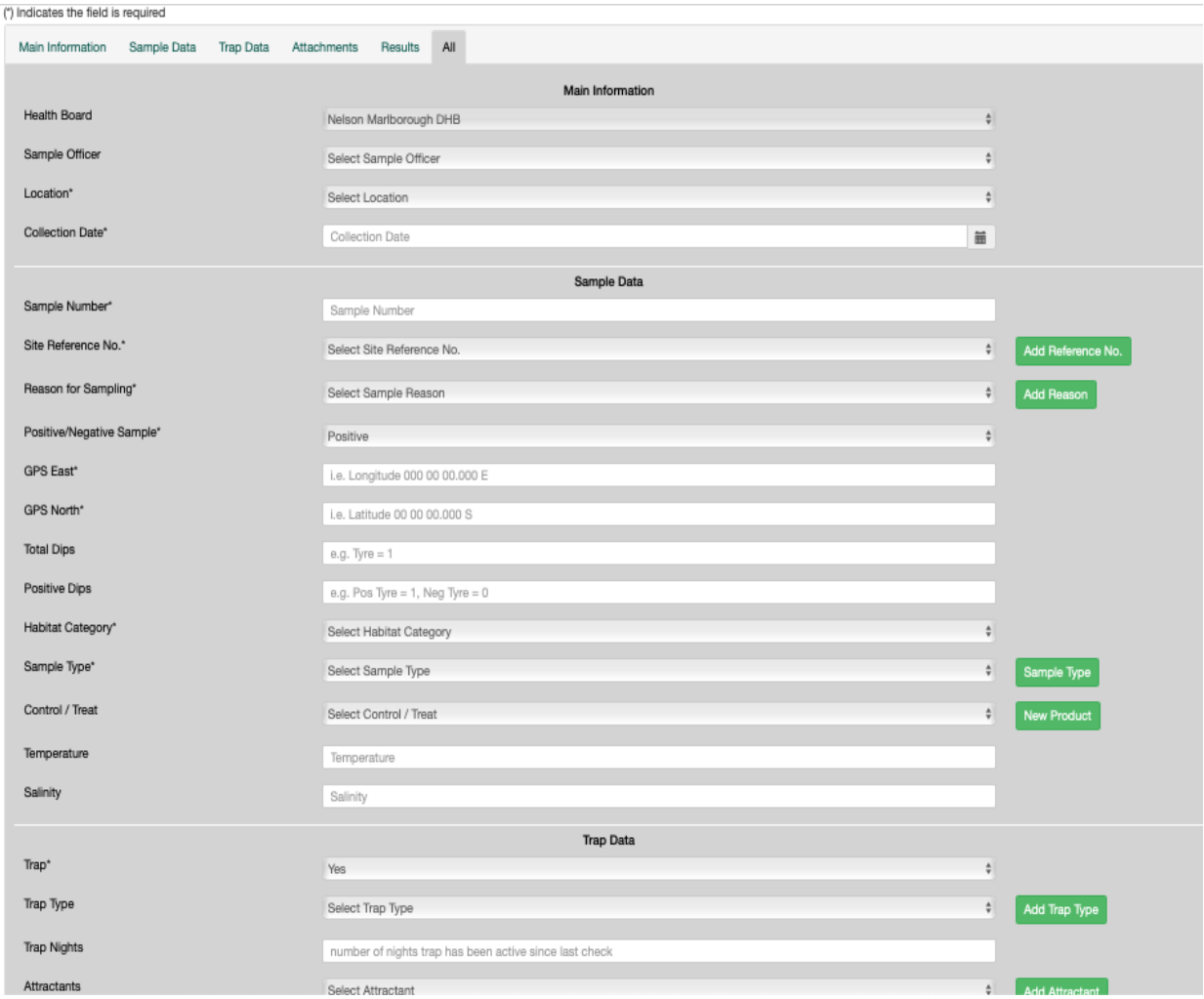

Figure 8. All tab

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” displayed at the top of the page (Figure 9). Click on the “back” icon on your internet browser and try clicking “Save” again. Repeat until the “Sample Saved” message appears on the screen. Failing this, contact your Health Board Admin or the NZBEL entomologists for assistance.

The sample has been saved to the database!

Figure 9. This legend will appear if the samples have been saved

Entering Multiple Samples – Upload a CSV

The database has an upload function to add multiple samples in a CSV file. CSV stands for Comma Delimited Value. The CSV file format and example headers can be downloaded from the SMSL website (Entomology Laboratory page, Figure 10).

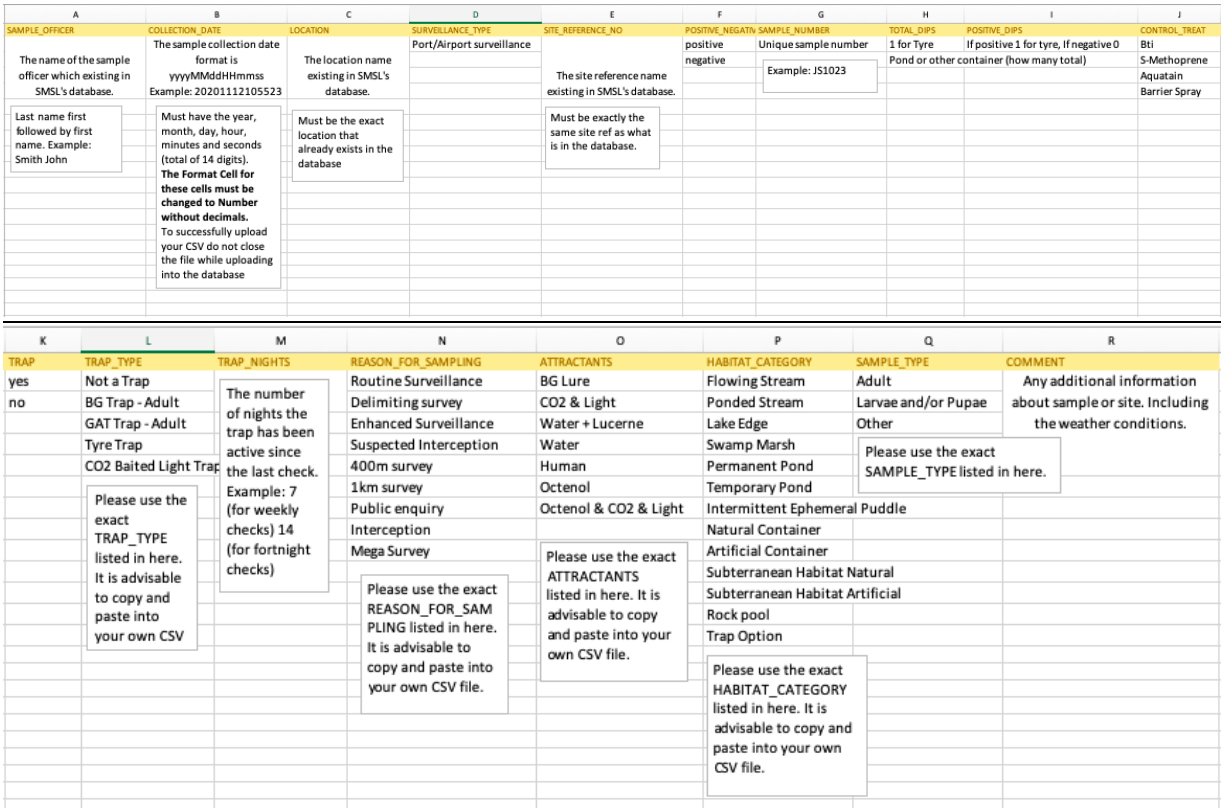

Figure 10. Web Page Downloads - Excel Headers Examples and CVS Upload Template

To upload multiple samples, download the “CSV example” file from the website (Figure 10). Open the file and edit it to reflect your own routine surveillance. Enter the sample data to each of the rows as specified in the header using the correct format (Figure 11).

The CSV file must follow a specific format with specific options for each column (Figure 11), this cannot be altered. All elements in the CSV file must be copied exactly as they appear in the online database or the “CSV Example” file provided in the SMS web page.

NB: Samples from new site references need to be entered manually the first time. Alternatively, a new site reference may be created in the database prior to upload a CSV file.

NB: The Sample Officer format has changed from November 2020. The correct format is last name first followed by first name. Example: Smith John

NB: The date entered must be in the following format yyyyMMddHHmmss
e.g. Original Date: 2020/07/27 09:05:02;
Import Date Format: 20200727090502

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	SAMPLE_O	COLLECTION_DATE	LOCATION	SURVEILLAI	SITE_REFER	POSITIVE_N	SAMPLE_NI	TOTA	POSITI\	CONTROL_T	TRAP	TRAP_TYPE	TRAP_	REASON_F(	ATTRACTAN	HABITAT_C	SAMPLE_TY	COMMEN
2	Smith John	20201016082006	Heartland H	EnhancedS(	Heartland H	Negative	JS005	1	0	S-Methopr(	Yes	Tyre Trap	4	Enhanced S	Water	Trap Optior	Larvae and/or Pupae	
3	Smith John	20201016082006	Heartland H	EnhancedS(	Heartland H	Negative	JS006	3	0	S-Methoprene		Not a Trap	4	Enhanced S	Water	Permanent	Larvae and/	Big pond
4	Smith John	20201016082006	Heartland H	EnhancedS(	Heartland H	Negative	JS007				Yes	CO2 Baited	2	Enhanced S	CO2 & Light	Trap Optior	Adult	
5	Smith John	20201016082006	Heartland H	EnhancedS(	Heartland H	Negative	JS008				Yes	BG Trap - A(	2	Enhanced S	BG Lure	Trap Optior	Adult	
6	Smith John	20201016082006	Heartland H	EnhancedS(	Heartland H	Negative	JS009				Yes	CO2 Baited	2	Enhanced S	CO2 & Light	Trap Optior	Adult	
7	Smith John	20201016082006	Heartland H	EnhancedS(	Heartland H	Positive	JS010	1	1	S-Methopr(	Yes	Tyre Trap	4	Enhanced S	Water	Trap Optior	Larvae and/or Pupae	
8	Smith John	20201016082006	Heartland H	EnhancedS(	Heartland H	Negative	JS011				Yes	BG Trap - A(	2	Enhanced S	BG Lure	Trap Optior	Adult	
9	Smith John	20201016082006	Heartland H	EnhancedS(	Heartland H	Positive	JS012	1	1	S-Methopr(	Yes	Tyre Trap	4	Enhanced S	Water	Trap Optior	Larvae and/or Pupae	
10	Smith John	20201016082006	Heartland H	EnhancedS(	Heartland H	Positive	JS013	3	2	S-Methoprene		Not a Trap	4	Enhanced S	Water	Permanent	Larvae and/	Big pond
11	Smith John	20201016082006	Heartland H	EnhancedS(	Heartland H	Negative	JS014				Yes	CO2 Baited	2	Enhanced S	CO2 & Light	Trap Optior	Adult	
12																		
13																		

Figure 11. Example of CSV file with headers and related values the database can read

The cells containing the “Collection Date” must be formatted as number without decimals (Figure 12). To do this, select all the dates in your file, right click and select “Format Cells” (Figure 12a) then select “Number”, and enter 0 for the “Decimal Places” (Figure 12b).

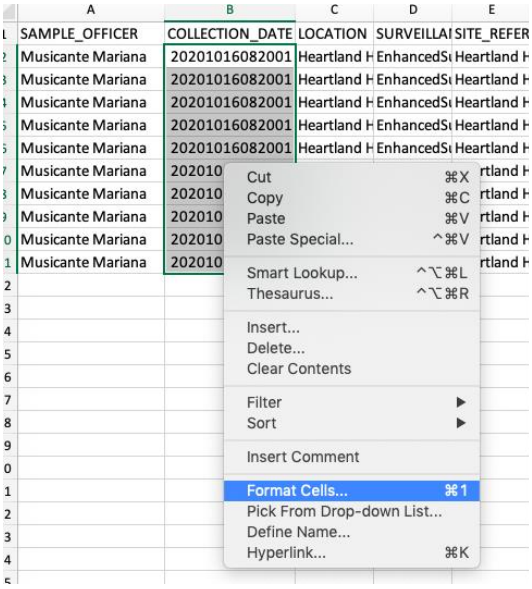

Figure 12 a. Changing cell formats

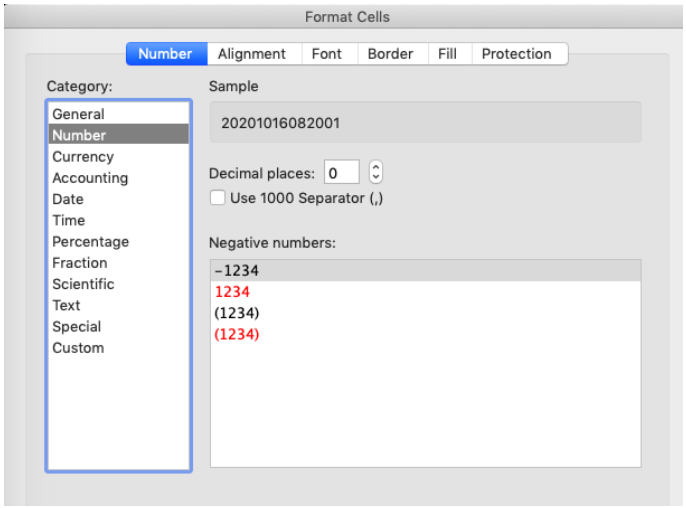

Figure 12b. Formatting the cells to numbers without decimals

Save the changes made, ensure your file is saved as a CSV and leave the document open while uploading.

Login and select “Upload Data” from the menu page left hand column (Figure 13)

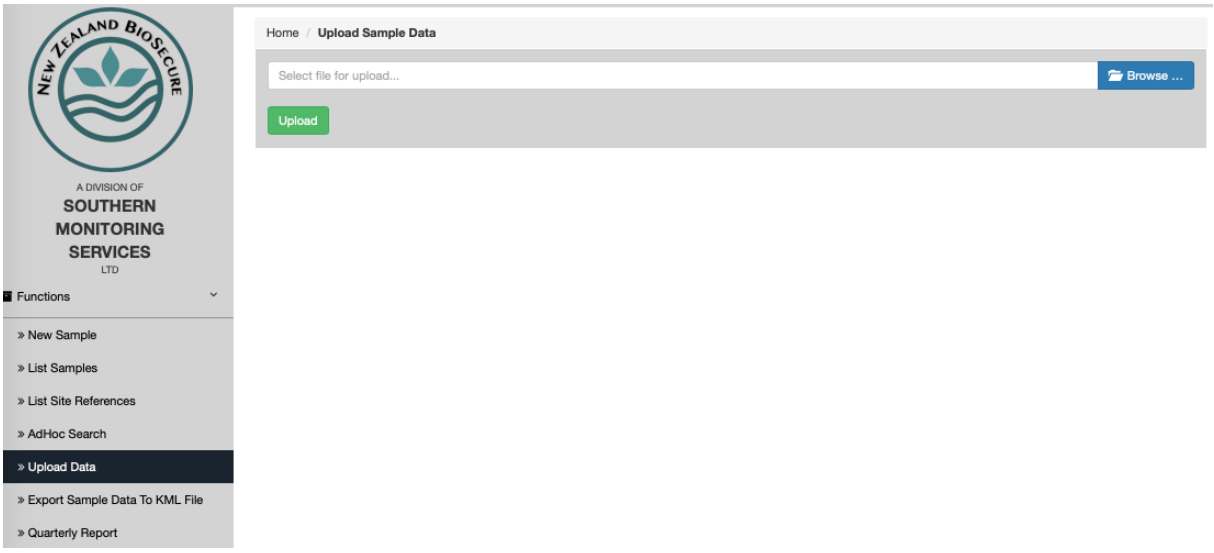

Figure 13. Upload Data

Select “Browse”, to locate your file, and choose. Select “Upload”.

A popup will display confirming upload success (Figure 14).

Figure 14. “Upload Succeeded”

To crosscheck your samples have been entered correctly, go to “Adhoc Search” and search for the date your samples have been obtained.

CSV upload common issues and how to fix them

Name format for “Sample Officer” is incorrect. When this happens a popup will appear in the database (Figure 14). To solve this issue, replace the “Sample Officer” name format in your CSV with the one displayed in the popup (Figure 14).

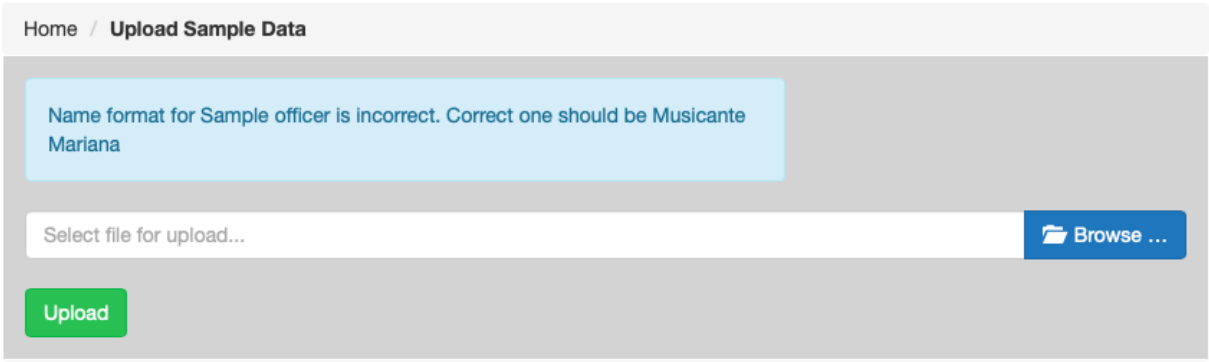

Figure 14. The Sample Officer format is incorrect

NB: The Sample Officer format has changed since November 2020. The correct format is last name first followed by first name. Example: Smith John

The Collection date format is incorrect. When the Collection Date is entered incorrectly a popup will display pointing out the problem (Figure 15). To solve this issue check the following: The date is expressed following the example provided above (yyyyMMddHHmmss); The date contain 14 digits in total; The cells containing the date in the CSV file have been formatted as number without decimals (Figures 12a and 12b).

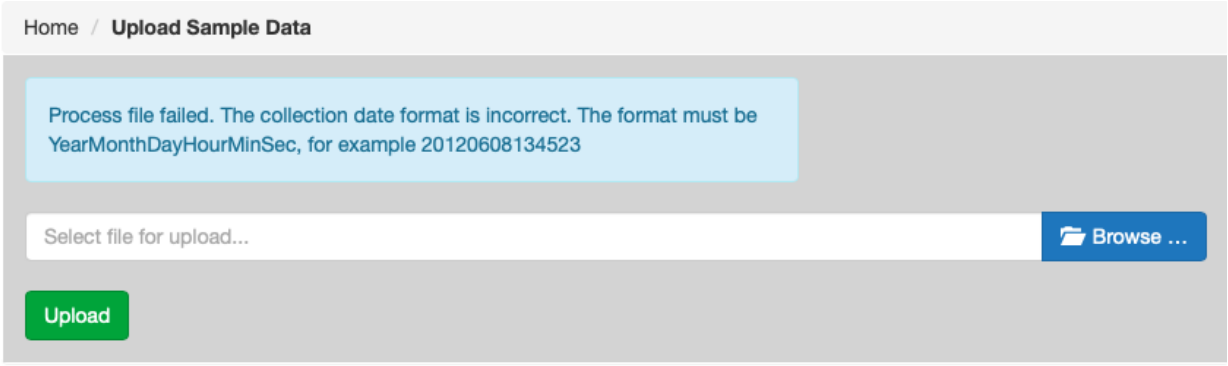

Figure 15. The Collection Date format is incorrect

Listing Samples

The "List Samples" link on the menu page column 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 16).

In "List Samples" be as selective as possible to find the samples, make your selections and click "Search". Your samples will appear in a summary table, from which clicking the green button you can check the results or edit your samples (Figure 17).

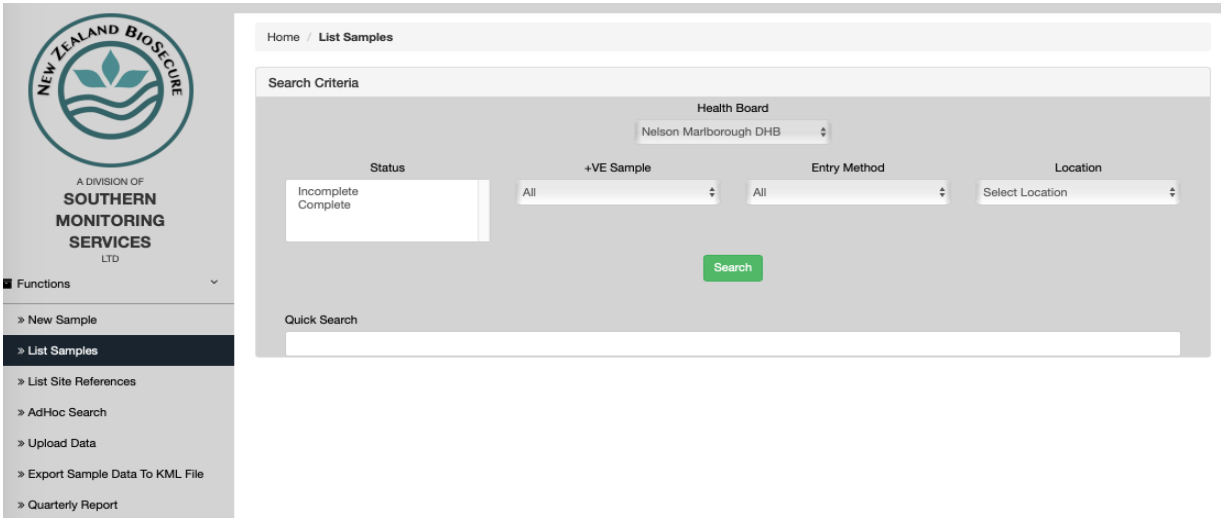

Figure 16. List Samples Link.

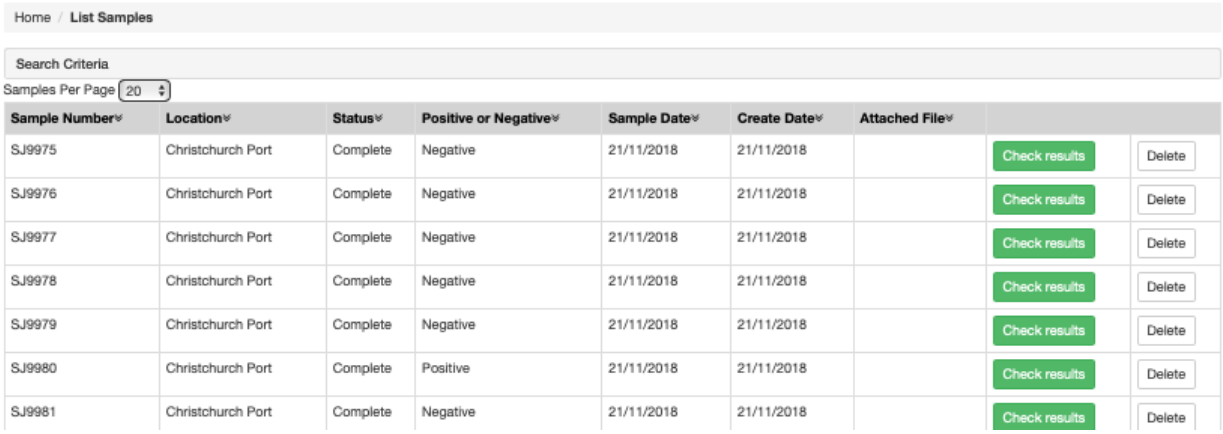

Figure 17. List samples.

You can export datasets to your computer, by clicking from the “AdHoc Search” “Export CSV”. And also “Export Sample Data to KLM File”. Refer to the Exporting Datasets section for more detail on this (Page 14).

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 left Menu, 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 (Figure 18).

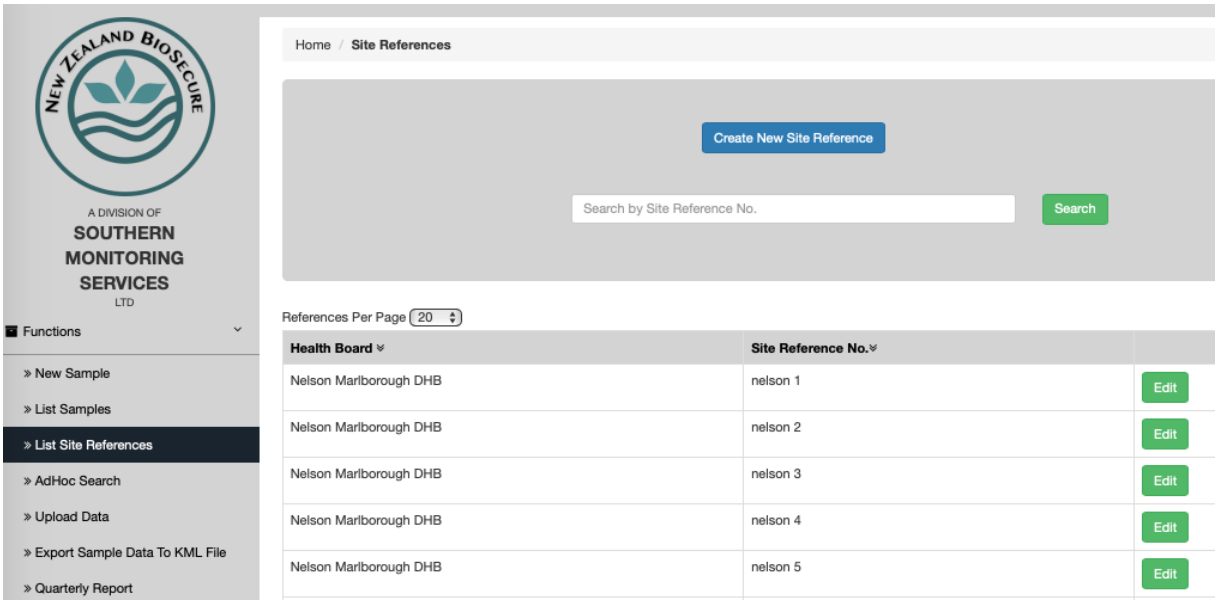

Figure 18. List Site References

To add a new site reference, click on the blue button “Create New Site Reference” link from the “List Site References” (Figure 18). Fill in the appropriate fields and click save (Figure 19). The new site reference will automatically appear in the dropdown menu for the next new sample you enter.

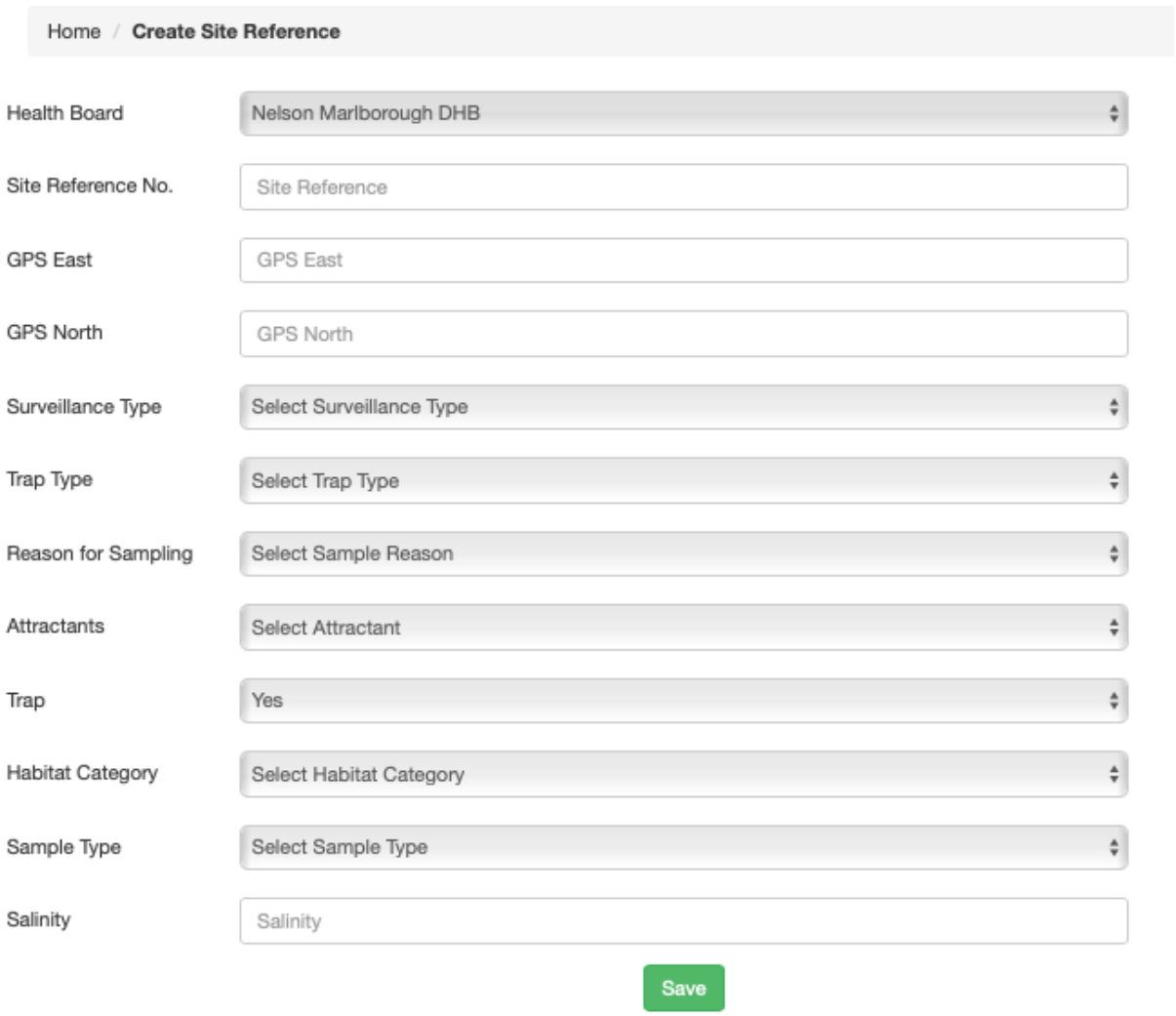

Figure 19. Create a new Site Reference

AdHoc searches

On the Menu page, click on “AdHoc Search” link to produce the Search Samples page (Figure 20).

Figure 20. In the AdHoc Search menu refine your search

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.

NB: A period of time must be entered into the date fields to obtain the search results.

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 (Page 17).

Finishing a Session

When you have finished with the database, click on your name at the top right of the current screen and you will be returned to the menu page. Click “Logout” to terminate your connection (Figure 21).

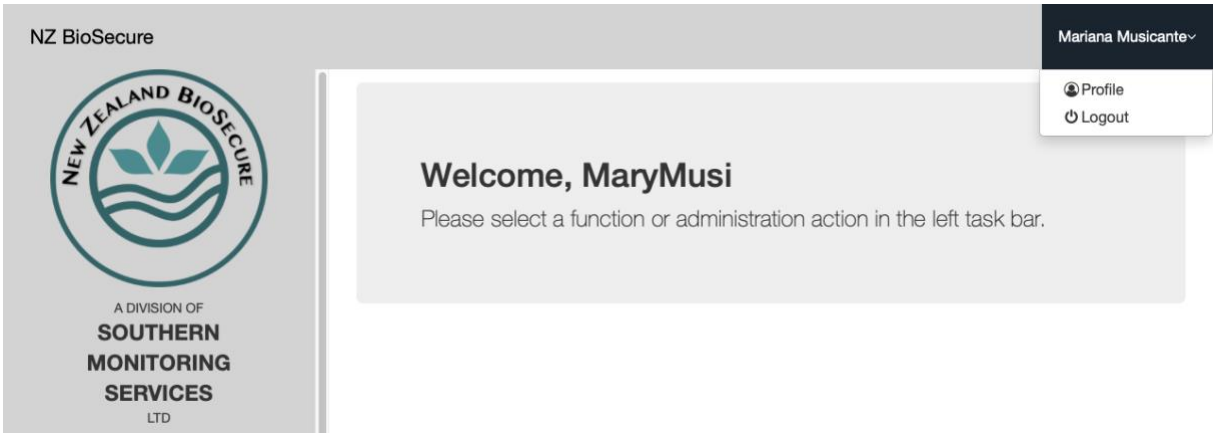

Figure 21. Logout.

Exporting Datasets

Data can be exported readily. The system is windows optimised and is the preferred option.

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 22). The CSV should automatically download to your PC. Once downloaded it can be imported into excel for viewing.

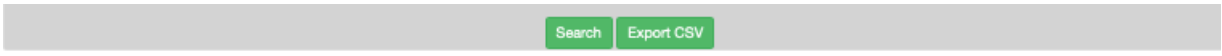

Figure 22. “Ad hoc Search” results. Export to CSV

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 a new file in Microsoft Excel. Click on the “Data” menu, or “File” select the “Import” or similar option (e.g. Get data From Text) or “CSV file” (Figure 23).

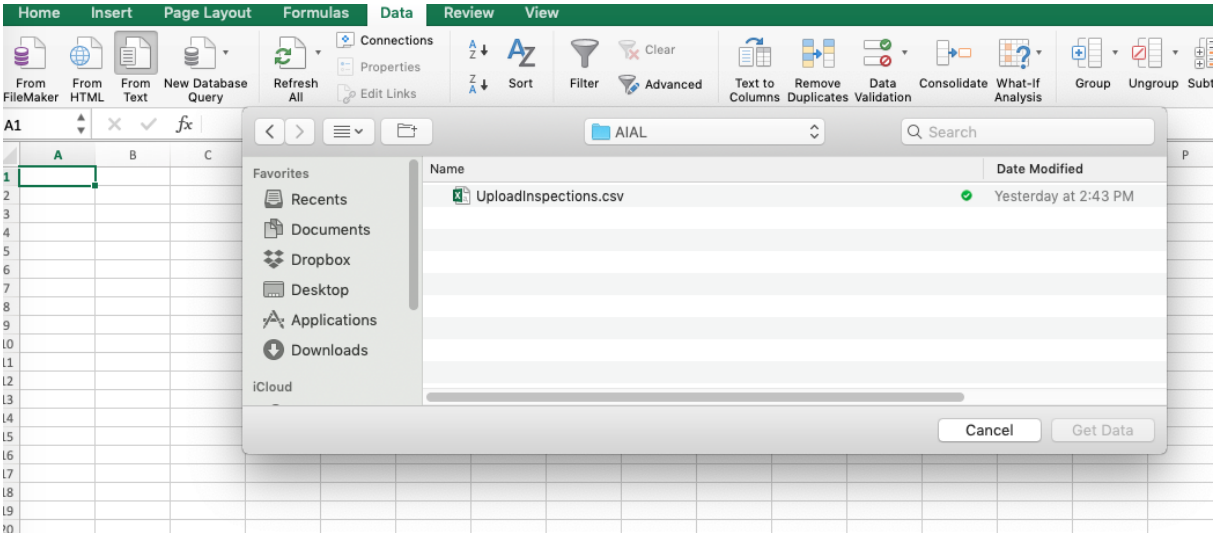

Figure 23. Import CSV

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 24).

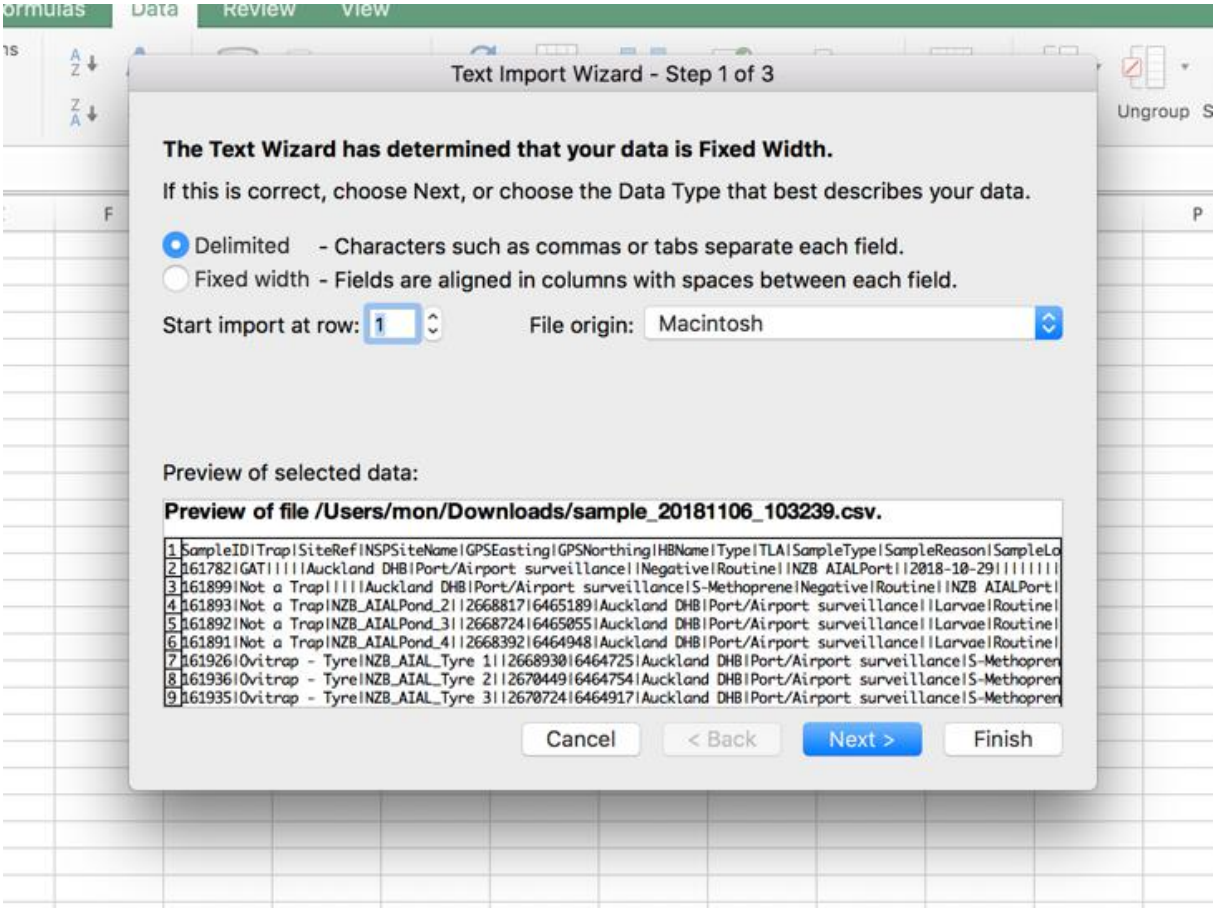

Figure 24. Select “Delimited” and then click “Next”

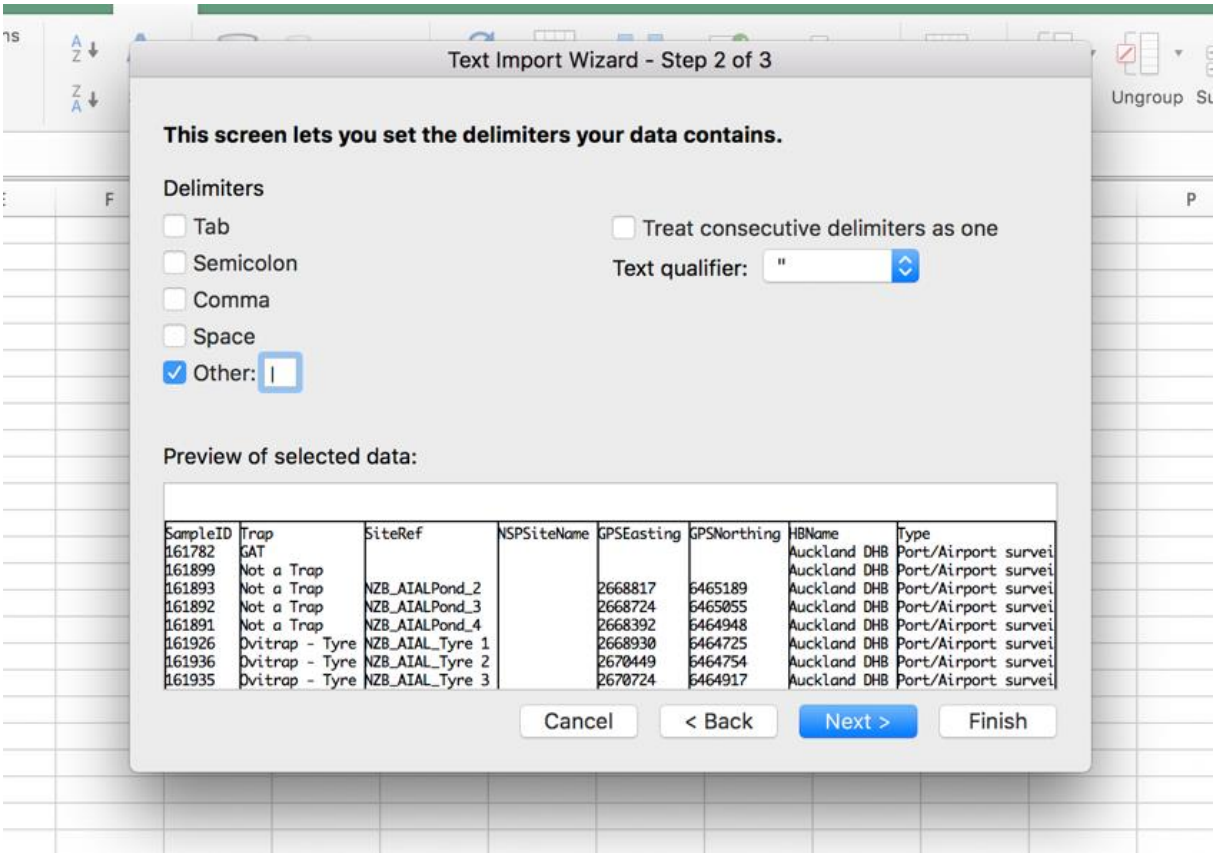

Figure 25. Uncheck the "Tab" box, check the "Other" box and add type in "|" (this is usually the shift \ button, above 'enter' on the keyboard). Click "Next"

Click "Finish" and add the data to your worksheet where you can review and analyse (Figure 22). Save it as a Microsoft Excel spreadsheet file.

Exporting to KML

Exporting sample data to KML enables google earth viewing of sample data and results.

NB: In order to display accurately GPS data entered must be accurate and the coordinate information needs to follow the format described in page 6.

Select the export option from the menu (Figure 26 and Figure 27) and complete the search parameters, as minimum collection dates must be selected. Then select the "Export KML" tab at the bottom of the page, a file will automatically be download.

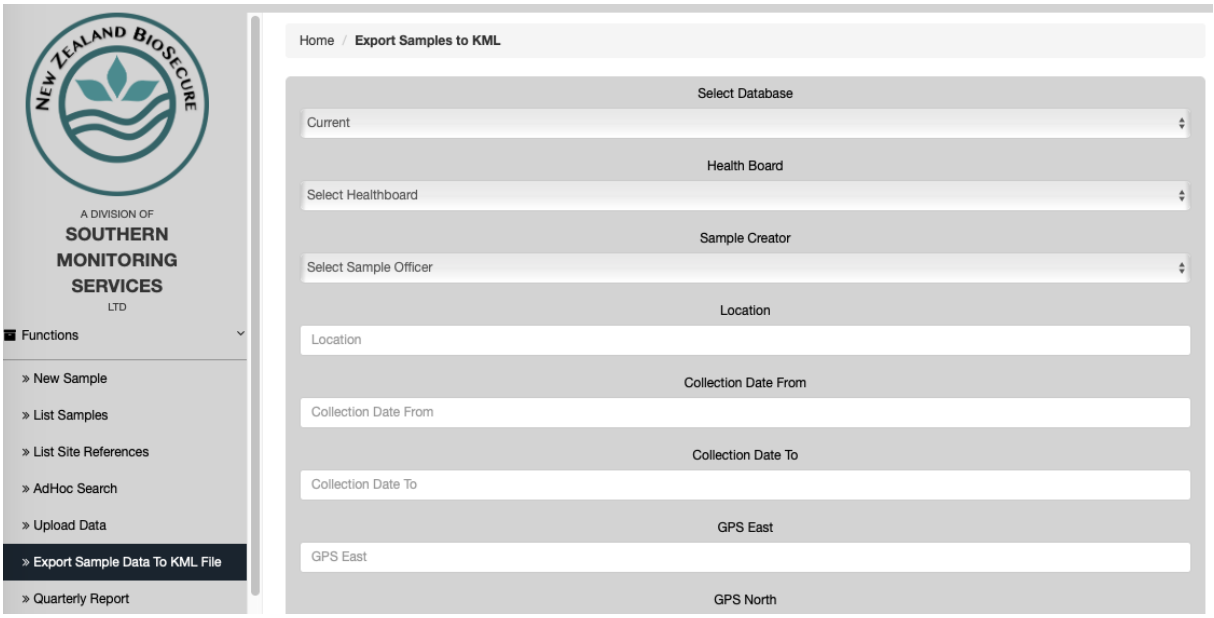

Figure 26. Export Sample Data to KLM

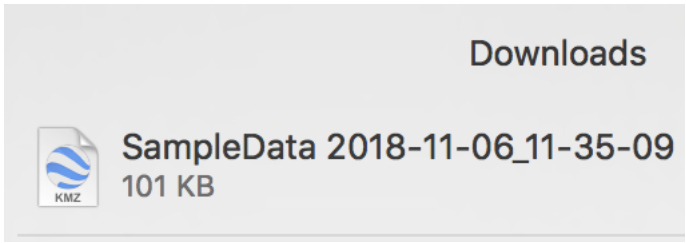

Figure 27. Export KLM button & File Downloaded

Open the downloaded file with google earth and the samples will automatically load. Red pins – Exotic Species, Yellow Pins – non-exotic positive results and Green Pins – Negative (Figure 28).

NB By clicking in the pin the sample information, including results are displayed (Figure 28).

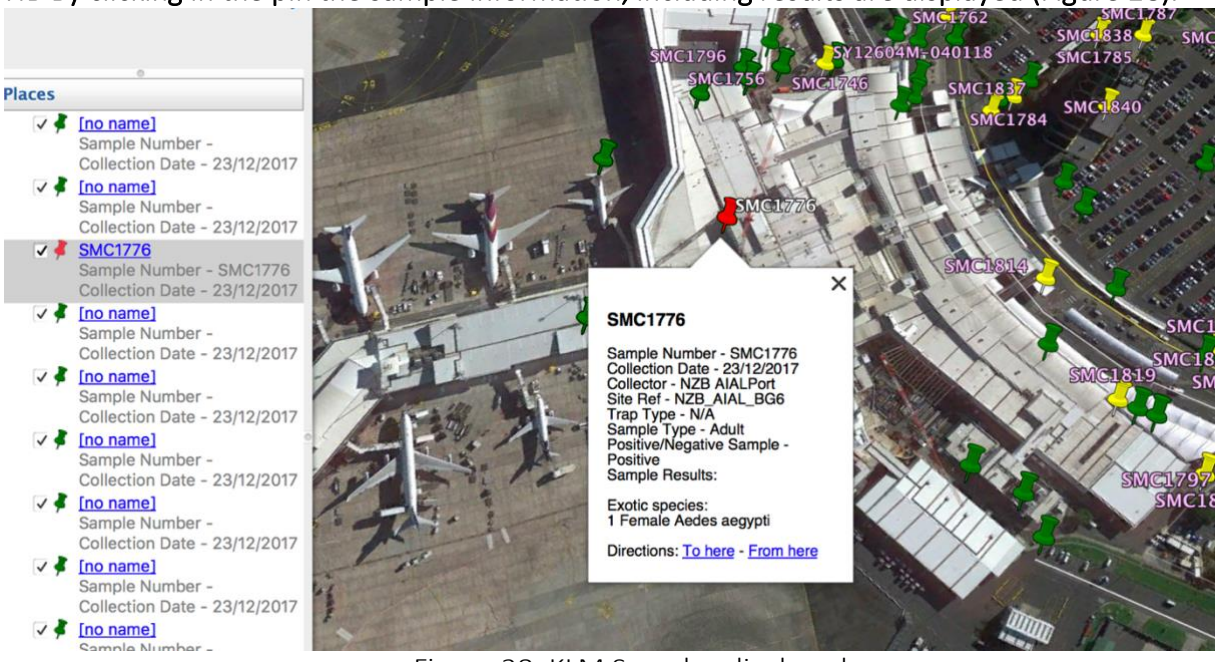

Figure 28. KLM Samples displayed

The following clearly depicts what an error in GPS data is recorded as (Figure 29). Please ensure GPS data is recorded in the correct format and for the correct location.

Figure 29. Incorrect GPS Co-ordinate example

Thank You

If you have any queries please
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