



NEW ZEALAND BIOSECURE

Entomology Laboratory



Online National Mosquito Surveillance Database

User Guide

Version 4 Updated November 2018

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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.

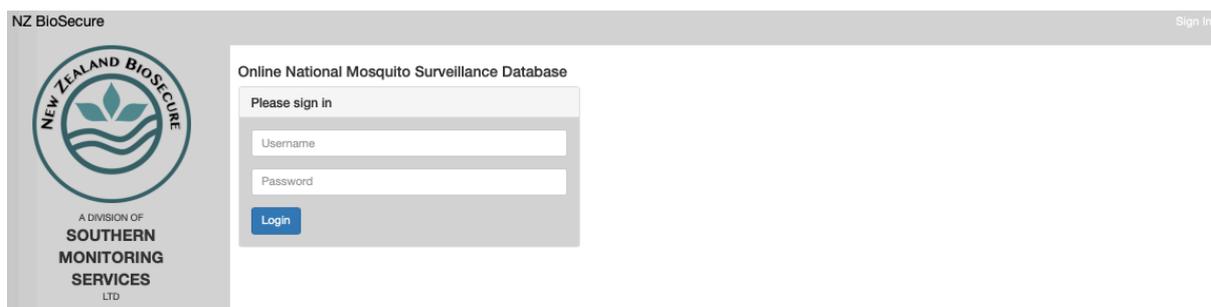


Figure 1. Login page for the National Online Mosquito Database.

Logging In

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

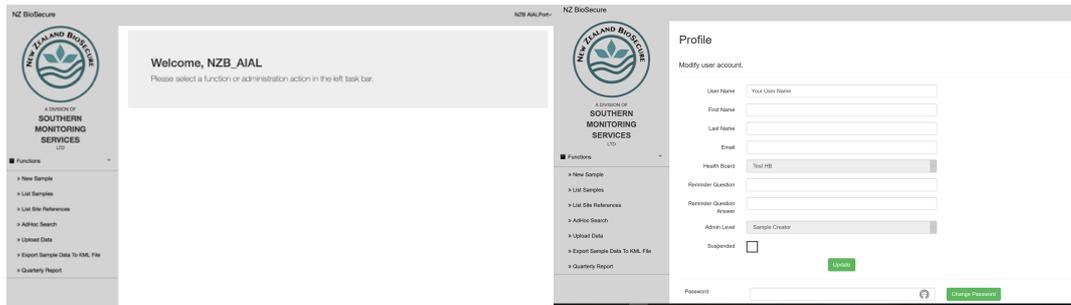


Figure 2. Left: National Online Mosquito Database main menu. Right: Profile

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”.

Home / Create Sample

(*) Indicates the field is required

Main Information | **Sample Data** | Trap Data | Attachments | Results | All

Sample Data

Sample Number*

Site Reference No.* Add Reference No.

Reason for Sampling* Add Reason

Positive/Negative Sample*

GPS East*

GPS North*

Total Dips

Positive Dips

Habitat Category*

Sample Type* Sample Type

Control / Treat New Product

Temperature

Salinity

Next Page

Sample Status

Save

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).

(*) Indicates the field is required

Main Information Sample Data **Trap Data** Attachments Results All

Trap Data

Trap* Yes

Trap Type Other Add Trap Type

Trap Nights number of nights trap has been active since last check

Attractants Water Add Attractant

Next Page

Save

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).

(*) Indicates the field is required

Main Information Sample Data Trap Data **Attachments** Results All

Attachments

Upload File

Choose File no file selected

Comments

Comments

Next Page

Save

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.

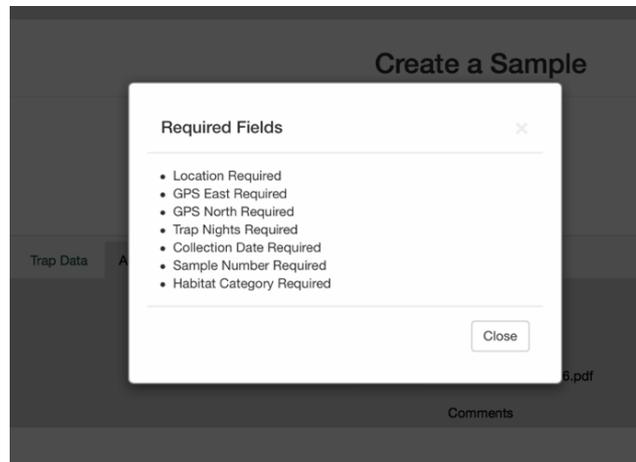


Figure 7. Missing data fields

“All”

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

(*) Indicates the field is required

Tab	Main Information	Sample Data	Trap Data
Main Information	Health Board: Nelson Marlborough DHB Sample Officer: Select Sample Officer Location*: Select Location Collection Date*: Collection Date	Sample Number*: Sample Number Site Reference No.*: Select Site Reference No. (Add Reference No.) Reason for Sampling*: Select Sample Reason (Add Reason) Positive/Negative Sample*: Positive GPS East*: i.e. Longitude 00 00 00.000 E GPS North*: i.e. Latitude 00 00 00.000 S Total Dips: e.g. Tyre = 1 Positive Dips: e.g. Pos Tyre = 1, Neg Tyre = 0 Habitat Category*: Select Habitat Category Sample Type*: Select Sample Type (Sample Type) Control / Treat: Select Control / Treat (New Product) Temperature: Temperature Salinity: Salinity	Trap*: Yes Trap Type: Select Trap Type (Add Trap Type) Trap Nights: number of nights trap has been active since last check Attractants: Select Attractant (Add Attractant)

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

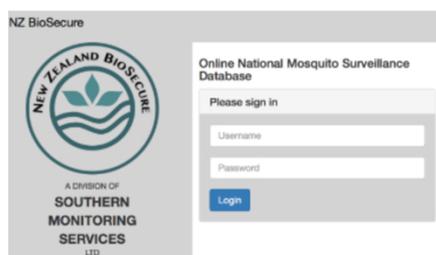
Entering Multiple Samples – Upload a CSV

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

On-line National Mosquito Surveillance Database

NZBEL maintains the National Mosquito Surveillance Database, an online database containing all mosquito sampling results for the Ministry of Health.

We provide technical assistance for users of both the online National Database and the associated field surveillance. Click on the icons below to access the database, sample forms and guidelines.



On-line Database Access

Sampling and Surveillance Resources for Download



National Sample Form



Excel Headers Examples



CSV Upload Template
Complete data as per example template save as csv and upload.



Database User Guide - Nov2018



Sample-Trap Sheet



GAT Instruction Manual



BG Sentinel Trap
Instruction Manual

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

The CSV file must follow a specific format (Figure 11), this cannot be altered.

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 date entered must be in the following format yyyyMMddHHmmss.

e.g. Original Date: 2017/07/27 09:05:02;

Import Date Format: 20170727090502

Figure 11. Headers and related values the database can read.

To upload multiple samples, download the CSV file from the website (Figure 10). Open as excel and enter sample data to each of the rows as specified in the header using the correct format (Figure 11). 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 left hand column (Figure 12)

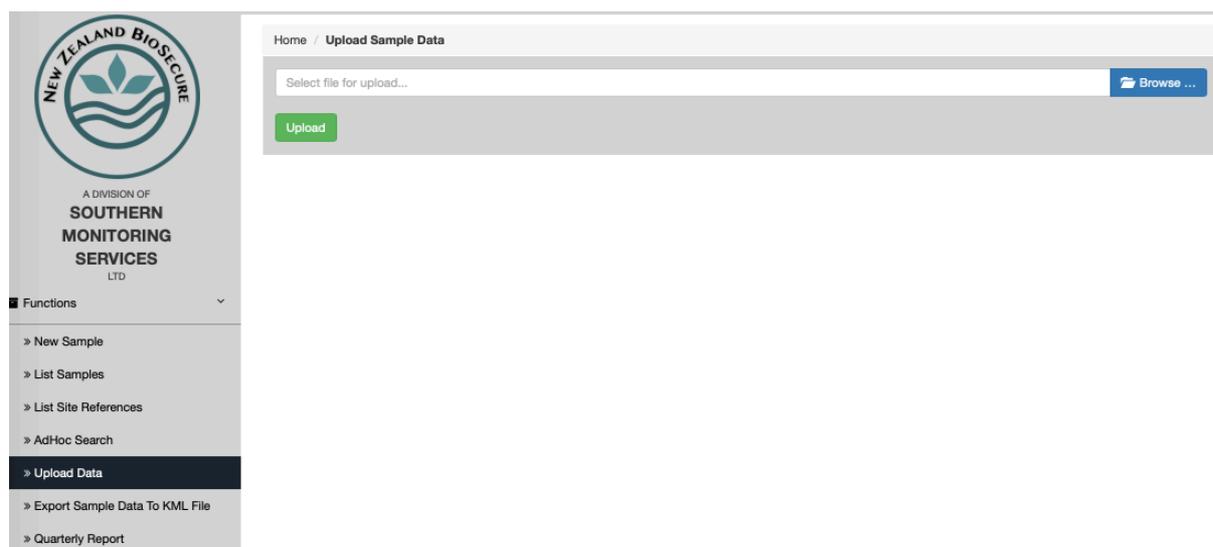


Figure 12. Upload Data

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

A popup will display confirming upload success (Figure 13).

Upload Data

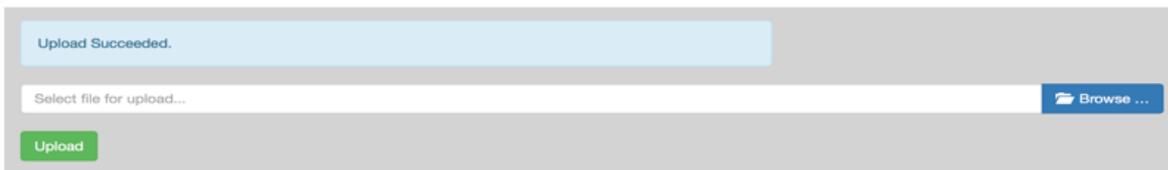


Figure 13. "Upload Succeeded"

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 14).

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 15).

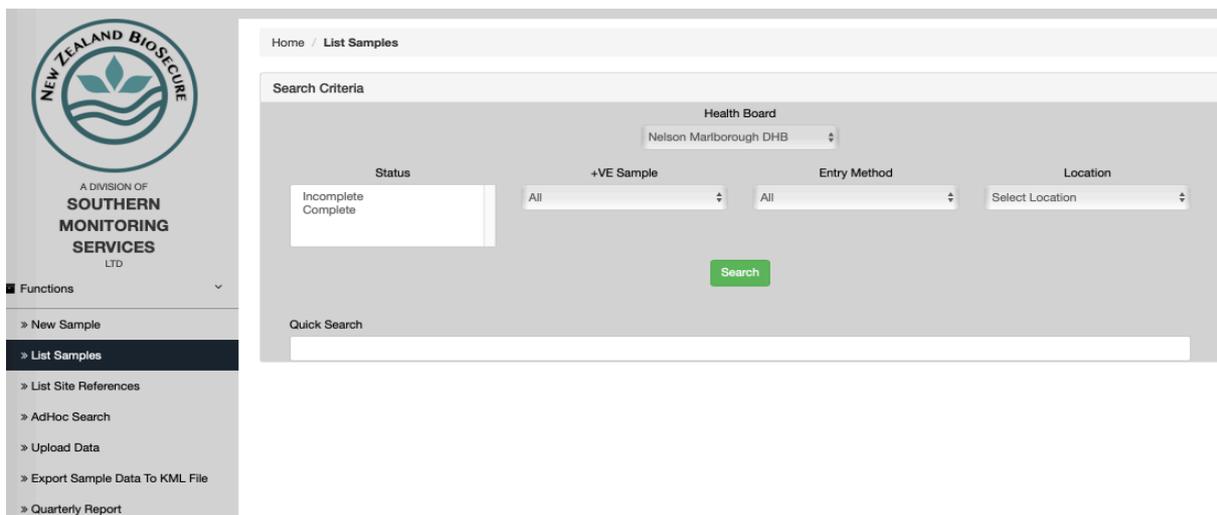


Figure 14. List Samples Link.

Sample Number	Location	Status	Positive or Negative	Sample Date	Create Date	Attached File		
SJ9975	Christchurch Port	Complete	Negative	21/11/2018	21/11/2018		Check results	Delete
SJ9976	Christchurch Port	Complete	Negative	21/11/2018	21/11/2018		Check results	Delete
SJ9977	Christchurch Port	Complete	Negative	21/11/2018	21/11/2018		Check results	Delete
SJ9978	Christchurch Port	Complete	Negative	21/11/2018	21/11/2018		Check results	Delete
SJ9979	Christchurch Port	Complete	Negative	21/11/2018	21/11/2018		Check results	Delete
SJ9980	Christchurch Port	Complete	Positive	21/11/2018	21/11/2018		Check results	Delete
SJ9981	Christchurch Port	Complete	Negative	21/11/2018	21/11/2018		Check results	Delete

Figure 15. 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

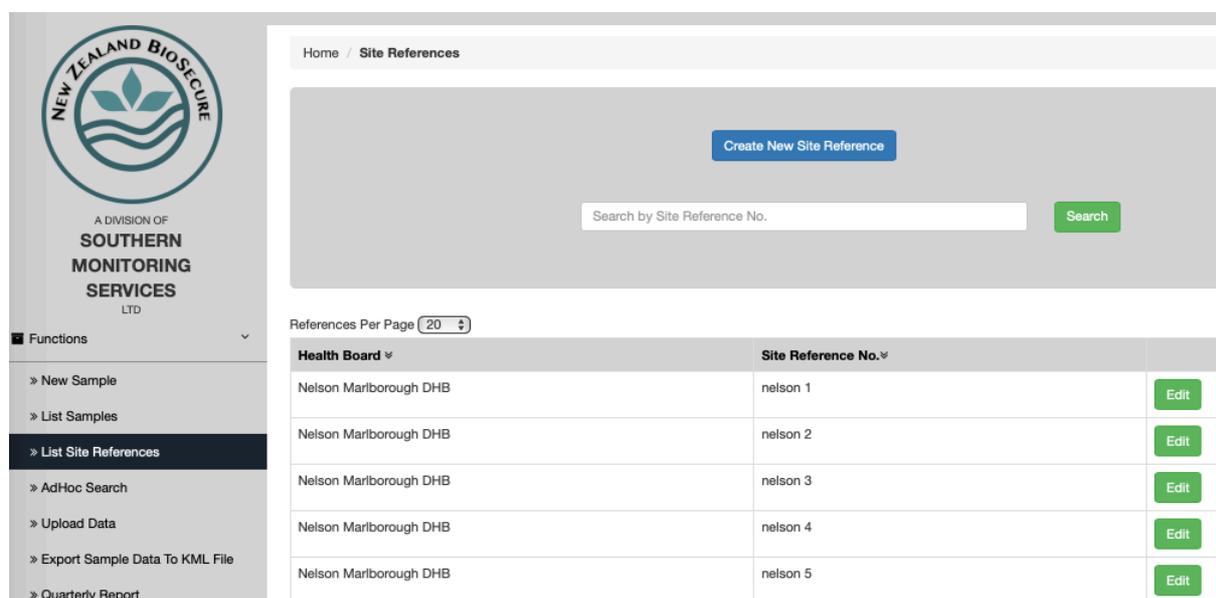
detail on this (Page 14).

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 15).



The screenshot displays the 'List Site References' page. On the left is a sidebar with the 'NEW ZEALAND BIOSECURE' logo and a menu where 'List Site References' is highlighted. The main area features a 'Create New Site Reference' button, a search bar labeled 'Search by Site Reference No.', and a table of references. The table has columns for 'Health Board' and 'Site Reference No.', with five entries for Nelson Marlborough DHB, each with an 'Edit' button.

Health Board	Site Reference No.	
Nelson Marlborough DHB	nelson 1	Edit
Nelson Marlborough DHB	nelson 2	Edit
Nelson Marlborough DHB	nelson 3	Edit
Nelson Marlborough DHB	nelson 4	Edit
Nelson Marlborough DHB	nelson 5	Edit

Figure 15. List Site References

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. Please do not delete site reference data. 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 blue button “Create New Site Reference” link from the “List Site References” (Figure 15). Fill in the appropriate fields and click save (Figure 16). The new site reference will automatically appear in the dropdown menu for the next new sample you enter.

Health Board	<input type="text" value="Nelson Marlborough DHB"/>
Site Reference No.	<input type="text" value="Site Reference"/>
GPS East	<input type="text" value="GPS East"/>
GPS North	<input type="text" value="GPS North"/>
Surveillance Type	<input type="text" value="Select Surveillance Type"/>
Trap Type	<input type="text" value="Select Trap Type"/>
Reason for Sampling	<input type="text" value="Select Sample Reason"/>
Attractants	<input type="text" value="Select Attractant"/>
Trap	<input type="text" value="Yes"/>
Habitat Category	<input type="text" value="Select Habitat Category"/>
Sample Type	<input type="text" value="Select Sample Type"/>
Salinity	<input type="text" value="Salinity"/>

Save

Figure 16. Create a new Site Reference

Ad hoc searches

On the Menu page, click on “Ad hoc Search” link to produce the Search Samples page (Figure 17).



The screenshot shows a web interface for 'AdHoc Search'. At the top, there is a breadcrumb trail: 'Home / AdHoc Search'. Below this is a form titled 'Search Criteria' with the following fields:

- Health Board:** A dropdown menu with 'Nelson Marlborough DHB' selected.
- Sample Creator:** A dropdown menu with 'Select Sample Officer' selected.
- Location:** A text input field with 'Location' entered.
- Collection Date From:** A text input field with 'Collection Date From' entered.
- Collection Date To:** A text input field with 'Collection Date To' entered.
- GPS East:** A text input field with 'GPS East' entered.
- GPS North:** A text input field with 'GPS North' entered.
- Sample Number:** A text input field with 'Sample Number' entered.
- Site Reference Number:** A dropdown menu with 'Select Site Reference No.' selected.
- Surveillance Type:** A dropdown menu with 'Select Surveillance Type' selected.
- Trap Type:** A dropdown menu with 'Select Trap Type' selected.
- Reason For Sampling:** A dropdown menu with 'Select Sample Reason' selected.
- Attractants:** A dropdown menu with 'Select Attractant' selected.
- Trap?:** A dropdown menu with 'All' selected.

Figure 17. In the Ad Hoc 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 to 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.

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 18).

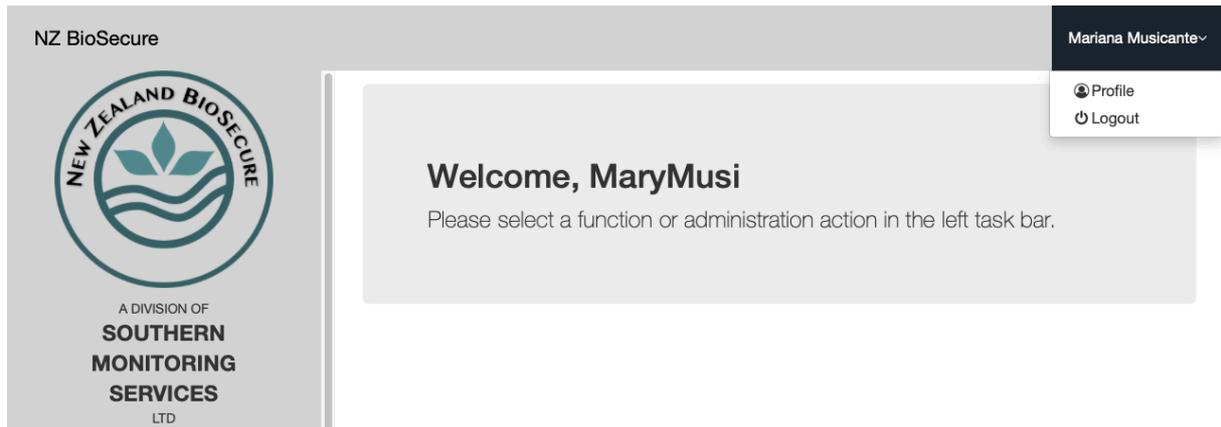


Figure 18. Logout.

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



Figure 19. “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 20).

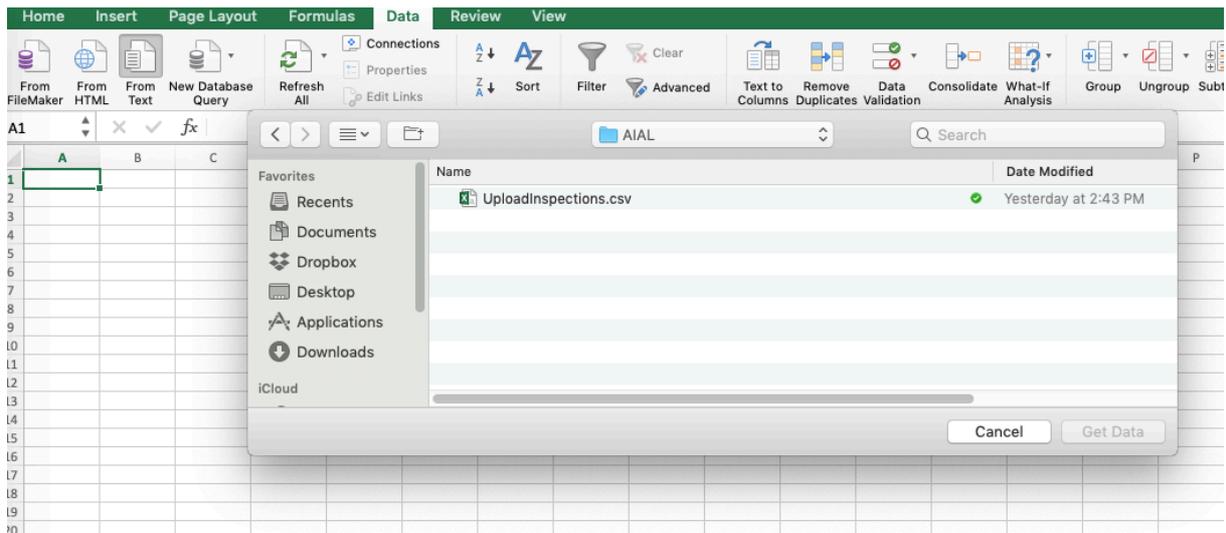


Figure 20. Import CSV

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 21).

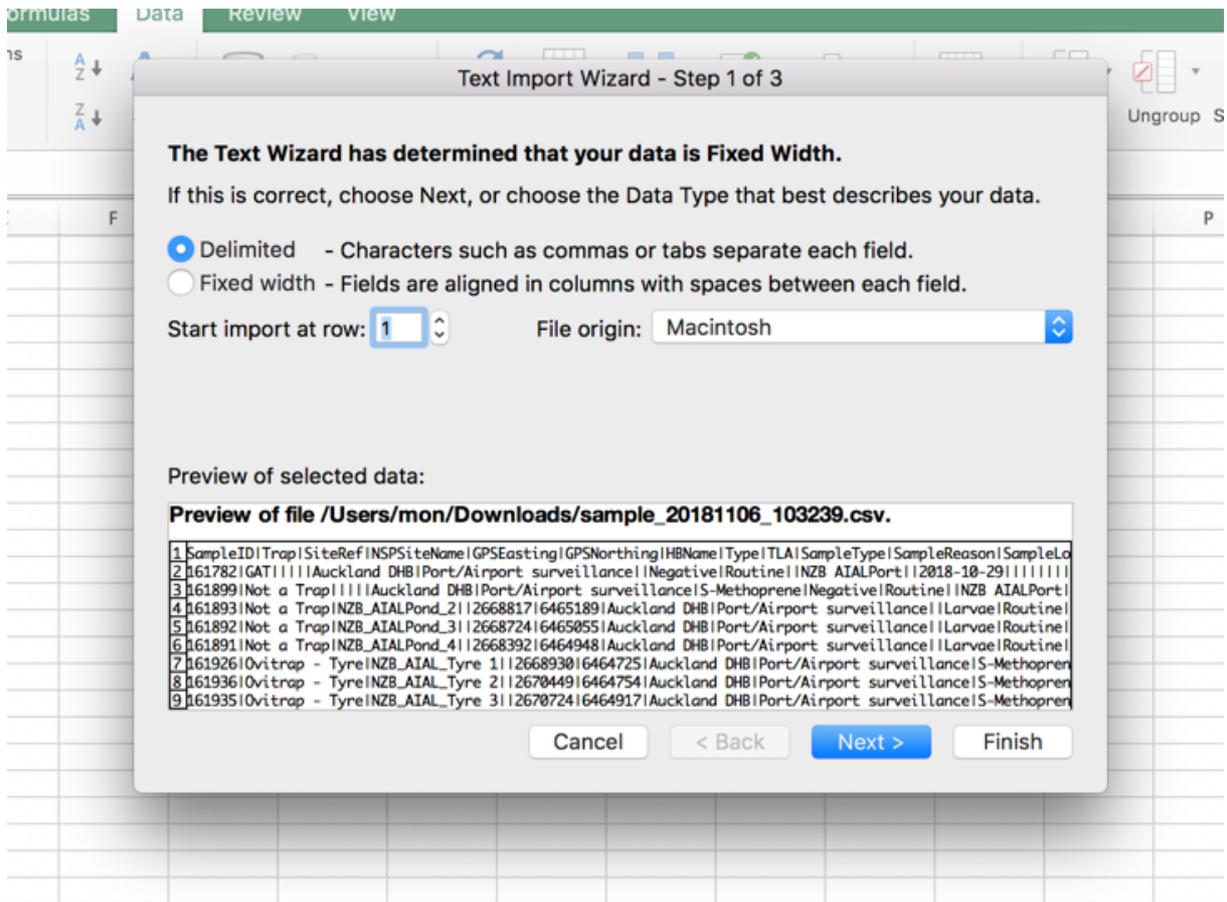


Figure 21. Select “Delimited” and then click “Next”

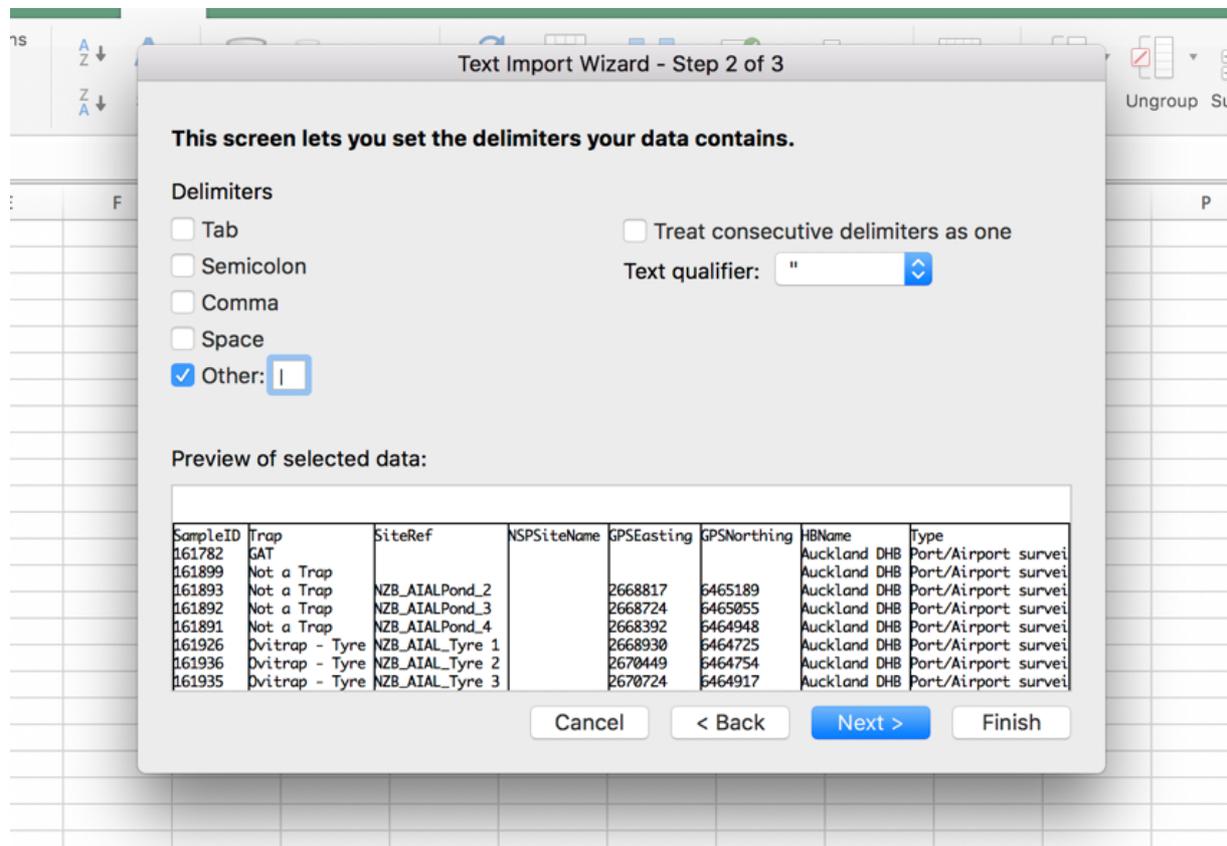


Figure 22. Uncheck the “Tab” box, check the “Other” box and add type in “|” (this is usually the shift \ button, above 'enter' on the keyboard). Click “Next”.

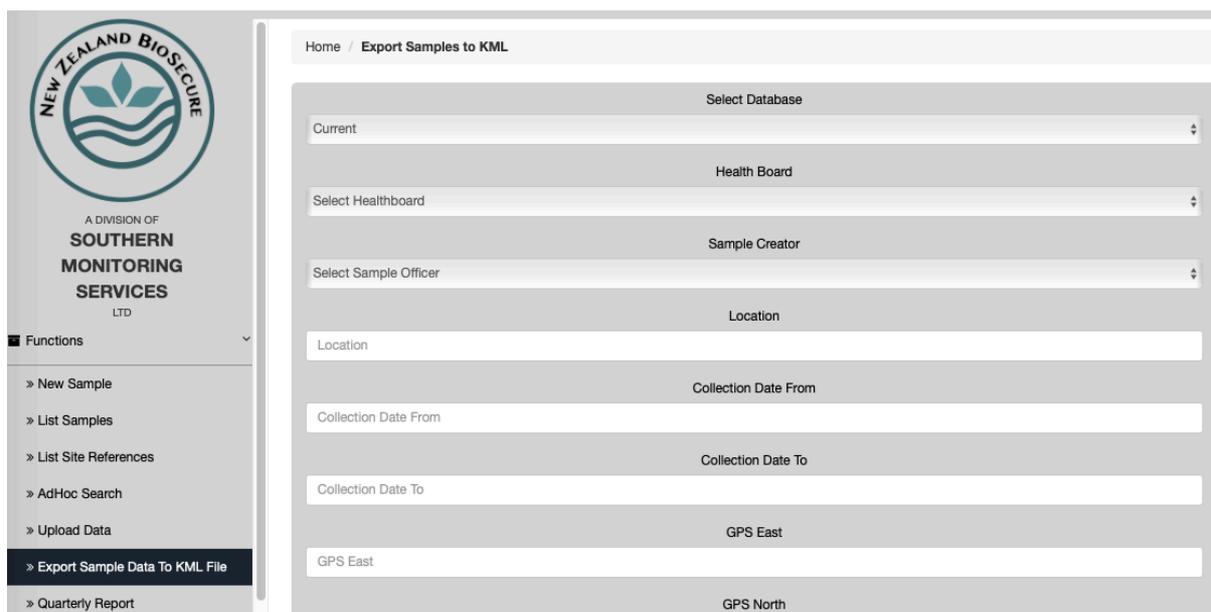
Click “Finish” and add the data to your worksheet where you can review and analyse (Figure 22). Save it as a Microsoft Excel spreadsheet file.

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 23 and Figure 24) 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.



The screenshot shows a web interface for exporting sample data to KML. On the left is a sidebar for 'NEW ZEALAND BIOSECURE' with a menu of functions including 'Export Sample Data To KML File'. The main form area is titled 'Home / Export Samples to KML' and contains several input fields: 'Select Database' (dropdown), 'Health Board' (dropdown), 'Select Healthboard' (dropdown), 'Sample Creator' (dropdown), 'Select Sample Officer' (dropdown), 'Location' (text input), 'Collection Date From' (text input), 'Collection Date To' (text input), 'GPS East' (text input), and 'GPS North' (text input).

Figure 22. Export Sample Data to KLM

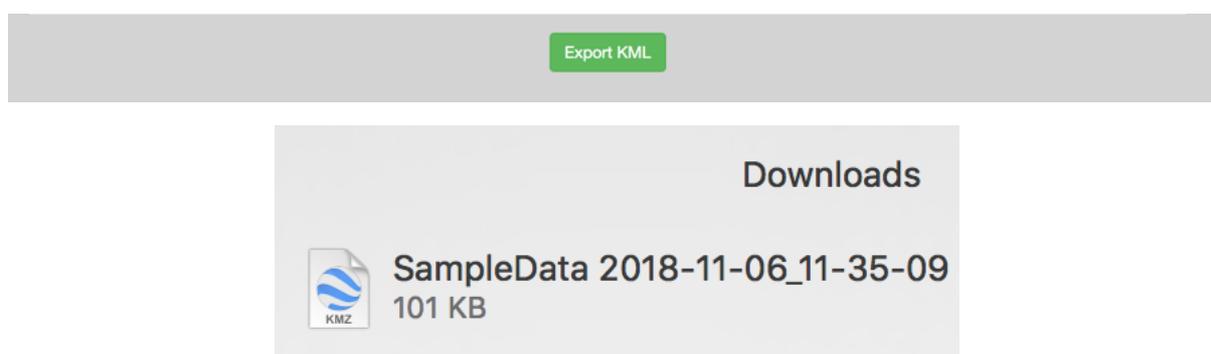


Figure 24. Export KLM button & File Download

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 25).

NB By clicking in the pin the sample information, including results are displayed (Figure 25).

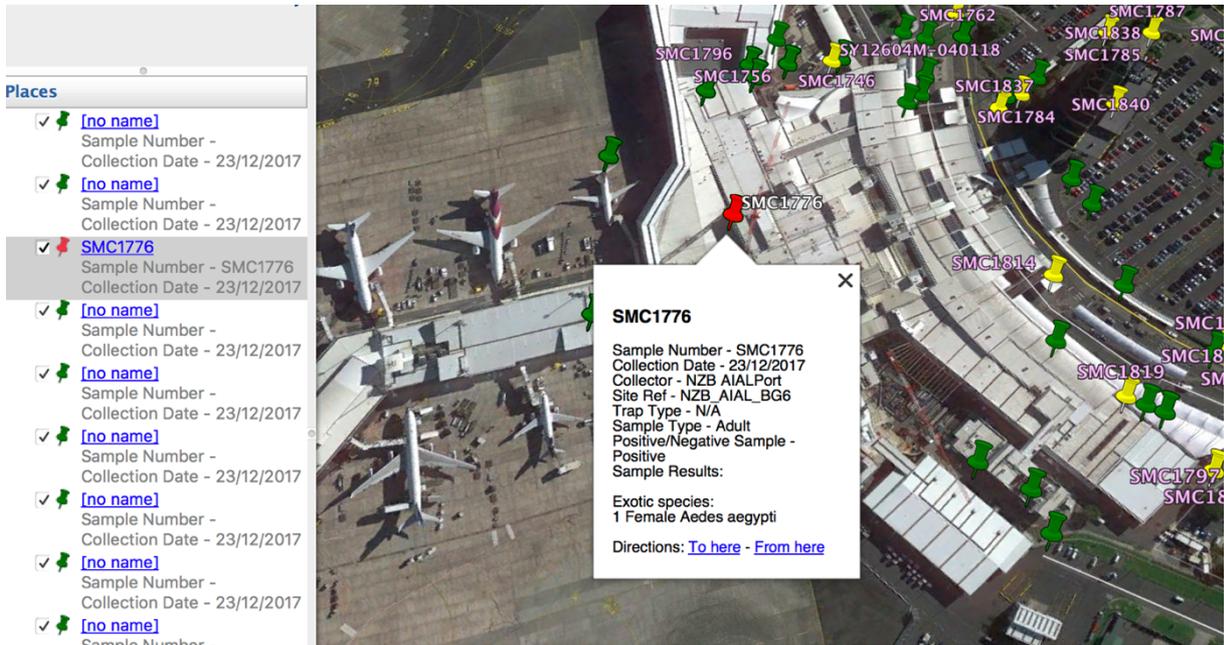


Figure 25. KLM Samples displayed

The following clearly depicts what an error in GPS data is recorded as (Figure 26). Please ensure GPS data is recorded in the correct format and for the correct location.



Figure 26. Incorrect GPS Co-ordinate example

Thank You

If you have any queries please
Email us at the Laboratory
taxonomy@nzbiosecure.net.nz