EchoBook User Manual

Contents

1 Getting Started

1.1 Installing Our System – UNFINISHED (Still a Proof of Concept)

As system is still in proof of concept stage this aspect is not ready for users with non-technical background, the following steps provided are for the proof-of-concept deployment designed by Karlis Jaunslavietis.

1.1.1 About

The following sections describe a proof-of-concept offline deployment method on Linux servers; this has been tested only on 64-bit Ubuntu 18.04, but should, in theory, work on any 32-bit or 64-bit Linux machine with Bash available.

1.1.2 EchoBook Deployment

To deploy the main EchoBook system that hosts the user interface and backend, the following actions must be taken (steps 1 - 3 require npm to be installed and an internet connection):

1) Ensure that all production dependencies are included in the bundleDependencies list of package.json, like so:

```
"bundleDependencies": [
    "@sailshq/connect-redis",
    "@sailshq/lodash",
    "@sailshq/socket.io-redis",
    "ajv",
    "browserify-fs",
    "grunt-browserify",
    "moment",
    "node-excel-export",
    "papaparse",
    "sails",
    "sails-hook-apianalytics",
    "sails-hook-organics",
    "sails-hook-orm",
    "sails-hook-sockets",
    "sails-mysql",
    "stream",
    "underscore",
    "vue-bootstrap-datetimepicker",
    "vuejs-paginate",
    "grunt",
    "sails-hook-grunt"
  ],
```

2) Install all dependencies in the current directory using the command npm install --no-bin-links --production
3) Bundle the project itself, along with all its dependencies, using the command npm pack
4) Copy the generated archive to the Deployment/echobook folder. After, the folder can be transferred to any portable storage medium, such as a USB drive that will be taken to the customer's site.
5) On the target server, run script install_echobook.sh (ensure that the correct archive name is set within the script). This installs NodeJS & npm on the server from the binaries included in the Dependencies folder, as well as unpacks EchoBook
6) To run EchoBook, run script launch_echobook.sh. This checks for any missing configuration parameters (such as database hostname) and, if missing, prompts the user to enter them before continuing.

1.1.3 Database Deployment

The target server should have MySQL server pre-installed; this was not automated as no specific MySQL version is required and, during installation, the user is likely to want to be able to adjust the configuration themselves.

Once the MySQL server is installed, the user should create a new database and run the init.sql script inside the database; this creates the required tables and inserts a single user with Superadmin privileges (username: superadmin, password: password). This password should be changed at the first opportunity.

1.1.4 Coordinator Service Deployment

To deploy the coordinator service, the following actions must be taken (steps 1-3 require an internet connection and Python 3, pip and virtualenv):

1) From the coordinator service folder, install the dependencies by running the command pip install -r requirements.txt
2) Create a Python 3 virtual environment by running the command virtualenv env --python=python3. This will contain a python 3 installation and all the required dependencies.
3) Bundle the project itself, along with all its dependencies, using the command tar -czvf coordinator-service.tar.gz * (any other archiving software can be used too)
4) Copy the generated archive to the Deployment/coordinator folder. After, the folder can be transferred to any portable storage medium, such as a USB drive that will be taken to the customer's site.
5) On the target server, run script install_coordinator.sh (ensure that the correct archive name is set within the script). This unpacks the archive.
6) Ensure that the correct configuration parameters are set in config.py (these are described in section 5.1). The coordinator service can then be launched by running the command launch_coordinator.sh, which uses the virtual environment to run the service.

1.2 Getting on the System - UNFINISHED

Given that all the steps in 1.1 have been completed, using the values defined by lauch_echobook.sh you should now be able to open Your browser of choice (excluding Internet Explorer and Edge) and then navigate to localhost to get to the system.

1.3 Getting an Account

If you don't have an account then your project coordinator can make accounts to use with the system, if you require an account please talk with them to get one setup with the permissions you require (see section 1.4 for explanation on available permissions).

If you are the project coordinator you will have been given access to **the super admin account**, this account is to make you are admin account only, **it should not be used as an everyday account**, it is there for recovery purposes in the case all other admins lose access to their account, be that through forgot passwords or deletion of account.

1.4 Account Permissions Explained

1.4.1 Read

This allows the user to read all data on the system (minus information only viewable to an admin such as other user information / activity) without being able to edit any of it or make new entries.

1.4.2 Create

Includes all from **Read** but users can now create new records for birds, nest sites and RFID rings. They can also edit the entries that they made but not any others.

1.4.3 Edit

Includes all from **Create** but they can now edit any entry they want, no longer limited to just the ones made by them.

1.4.4 Export

Includes all from **Read** but now has access to exporting to excel spreadsheet functionality in the Birds Table Page (see section 4).

1.4.5 Admin

Includes all from **Edit** and **Export** with the addition of being able to create, delete and edit Users, and to view User Activity on the system.

1.4.6 Super Admin

Includes all from **Admin** with the addition that this account cannot be deleted by any others, there should only be one of these at any given time as it is designed to be a recovery account not an everyday use one.

2 Navigation

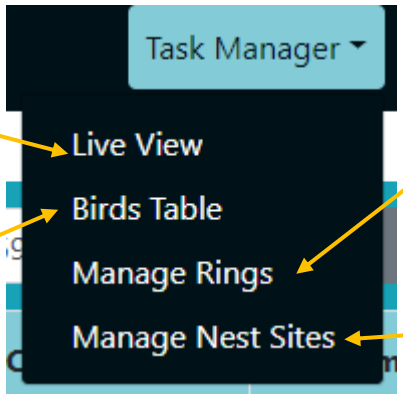
2.1 For Most Users

Once you are logged in, at the top of the page, on the right, you will see 2 menu items allowing navigation throughout the system and on the left a home button to return you back to the starting screen (Live View).

2.1.1 Task Manager

Same functionality as the home button, it takes you to the Live View. (See Section 3)

Takes you to the Bird Table. (See Section 4)

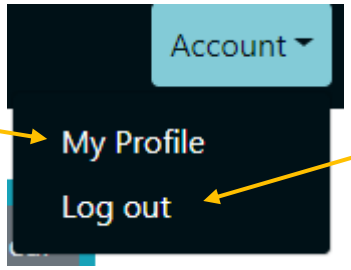


Takes you to the Manage Rings Page. (See Section 5)

Takes you to the Manage Nest Site Page. (See Section 6)

2.1.2 Account

Takes you to Your Profile Page (See Section 9)

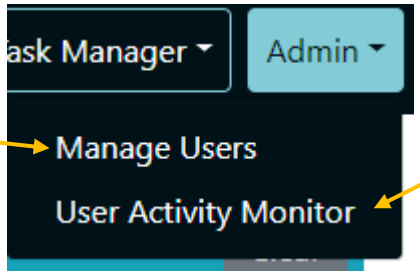


Will Log you out of the system and take you back to the login page.

2.2 For Admins

In addition to the above navigation options Admins have one extra menu item on the right side as shown below:

Takes you to the Manage Users Page (See Section 7)



Takes you to the Manage Activity Page (See Section 8)

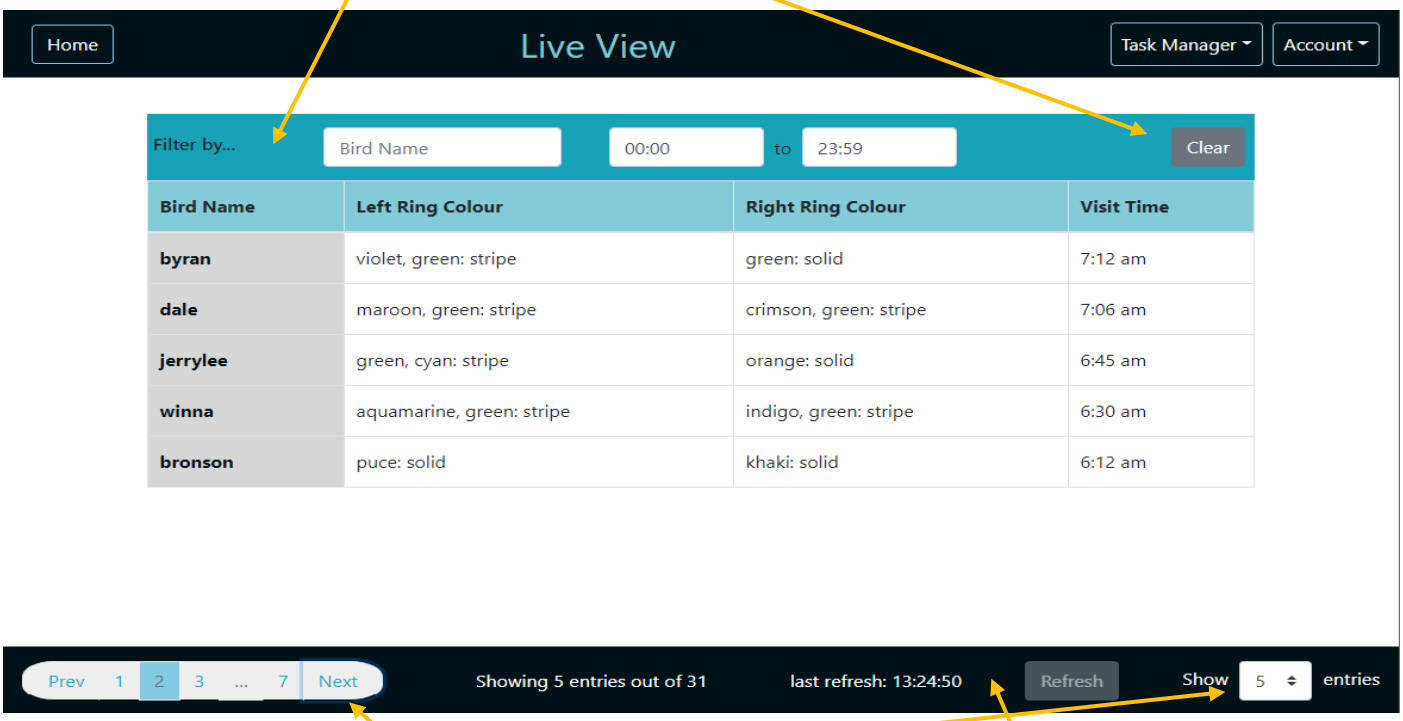
3 Live View

3.1 Summary

This page will display the visits to feeders by birds wearing the RFID rings, it will display visits only for that day and will reset at midnight. As the name suggests, this will update live, so when a new visit is found you will see a notification and you will have the option to refresh to see it. The following section will breakdown the page and how to navigate it.

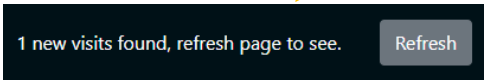
3.2 Page Explained

common between tables: pages contain this filter bar that will allow you to filter down field to see just what you want, in live view you can search by bird name and you can set the start and end time to show visits from to clear filters just press the button.



common between tables: pages in the page bar to switch to different pages, and an option to select how many rows to display per page if steps of (5, 10, 15, 20, 25, 30, All)

When new visits are found this part of the page will update to reflect this fact, and the refresh button will become available to click and fetch these new visits.



4 Bird Table

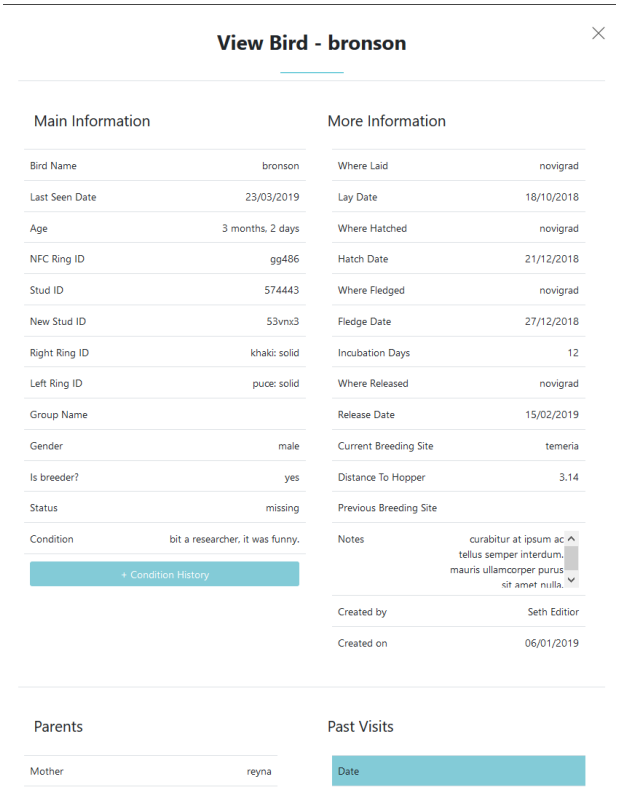
4.1 Summary

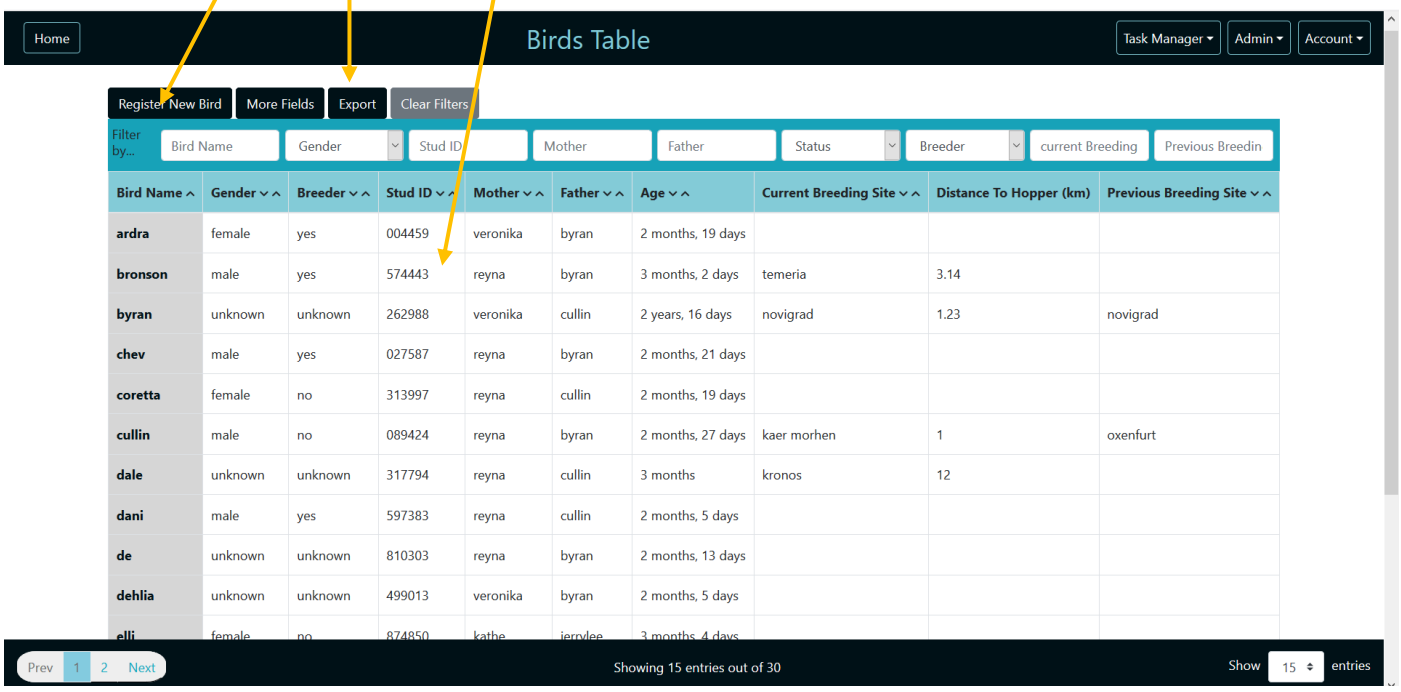
This page can be thought of as your digital studbook, it is here where you will be able to access all information stored on the birds. You can pick and choose what columns you want to see, how you want to filter each column and you can export your onscreen view in to the excel spreadsheet that you have grown accustom to. The following section will breakdown the page and how to navigate it.

4.2 Page Explained

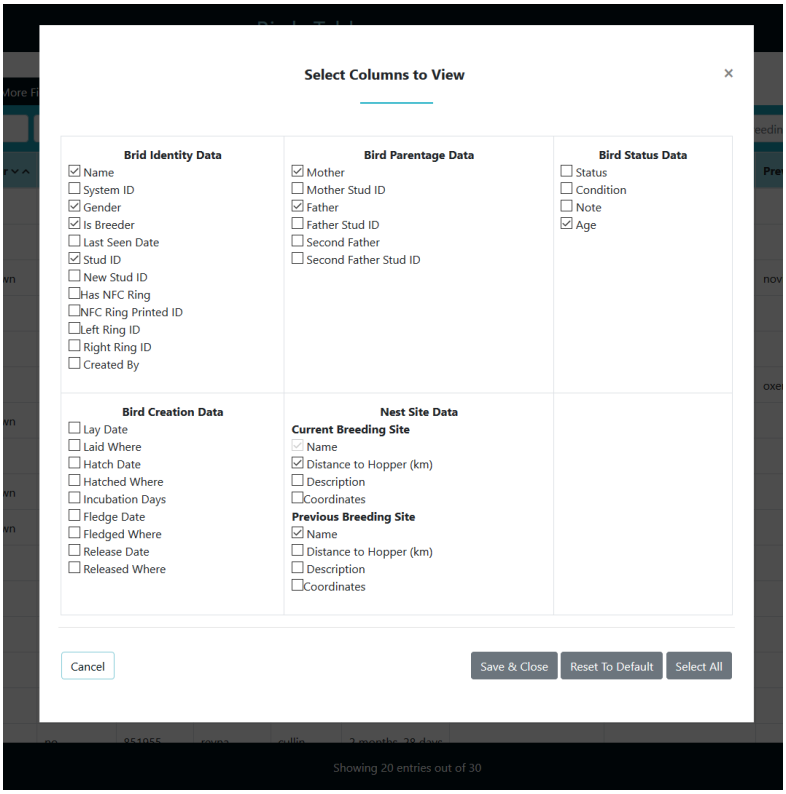
Export will download an excel spreadsheet of all the currently selected columns, the filters will not be carried over, but this can be done through excel through the top bar -> editing -> sort & filter -> filter. Then all columns will have filter buttons added to use.

Columns can be sorted using the arrows nest to column names. Clicking on a bird will open a popup view showing all the data on that bird in a more easily readable form than scrolling along the table row. From there you can also edit data on the bird, pressing the register button will also open a similar view, except all entries will be blank for you to fill in.





Pressing the More Fields buttons will open a popup (see below) allowing you to select exactly which columns you want to see.

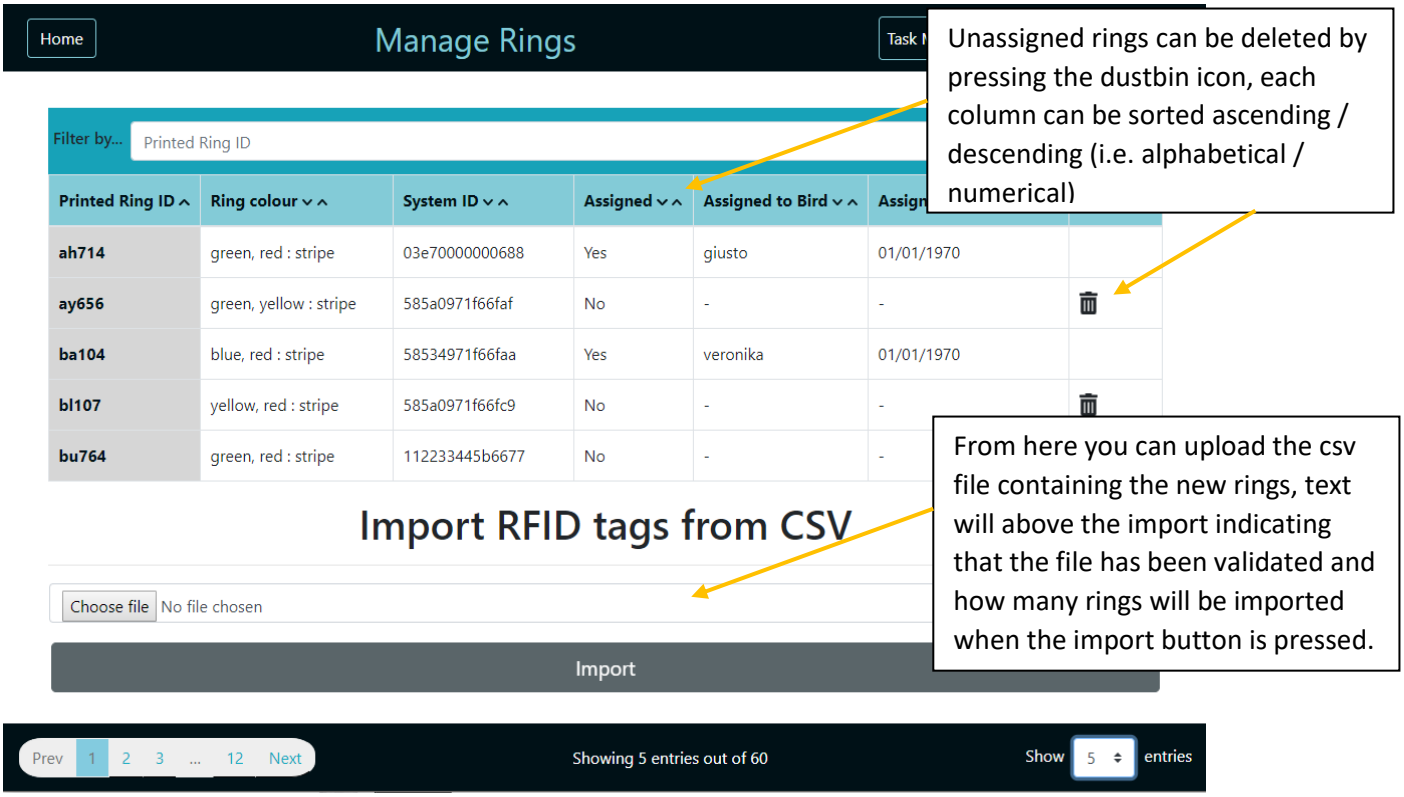


5 Manage Rings

5.1 Summary

Here you will be able to see all the RFID rings currently registered in the system and you can import new rings using the csv file that would be shipped with batch of rings. The following section will breakdown the page and how to navigate it.

5.2 Page Explained

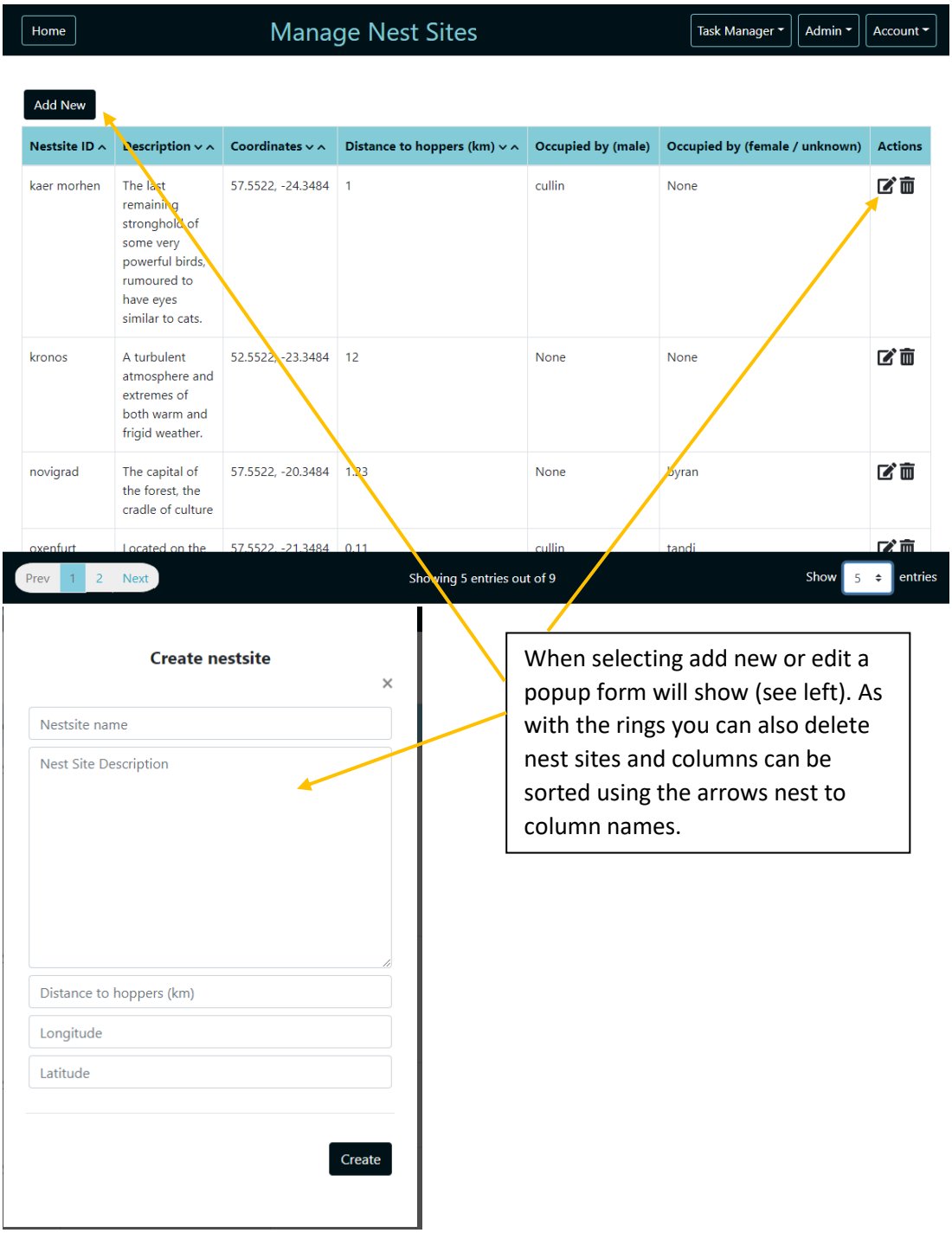


6 Manage Nest Sites

6.1 Summary

In this part of the system you can see the registered nest (breeding sites) and edit / add nest sites. The following section will breakdown the page and how to navigate it.

6.2 Page Explained



When selecting add new or edit a popup form will show (see left). As with the rings you can also delete nest sites and columns can be sorted using the arrows nest to column names.

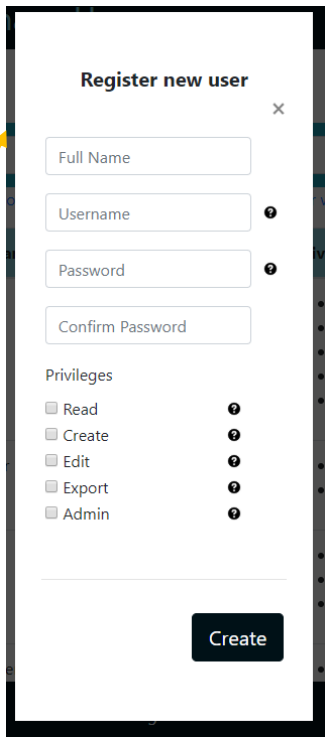
7 User Management

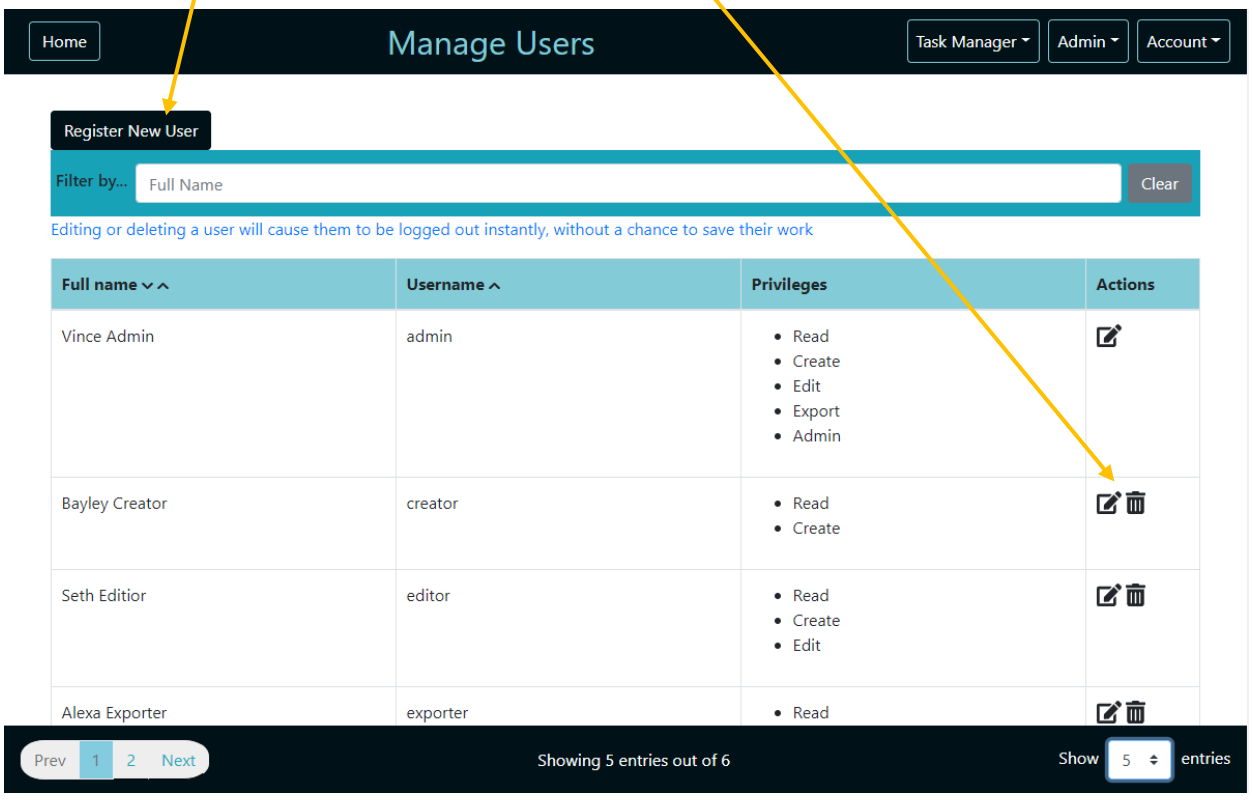
7.1 Summary

This is an Admin only part of the system, in which admins can add, remove, and edit users on the system. The following section will breakdown the page and how to navigate it.

7.2 Page Explained

When selecting add new or edit a popup form will show (see right). As with the other tables you can delete users provided it is not the super admin and it is not your own account. Columns can be sorted using the arrows nest to column names.



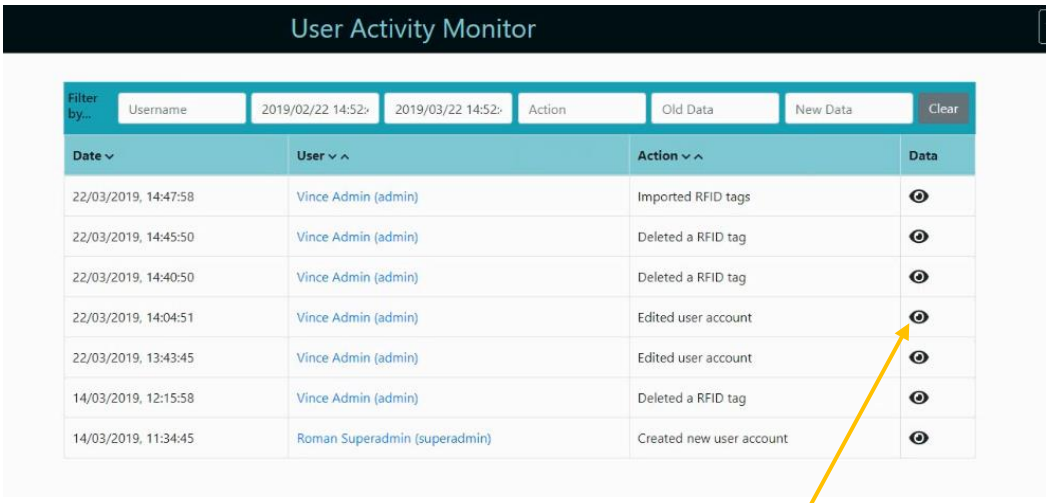


8 User Activity Monitor

8.1 Summary

Another admin only section, here the admins can view all interactions that the users make with the system, if someone edits data, deletes a bird, etc then this is the place to see who done it, and what exactly what changed. The following section will breakdown the page and how to navigate it.

8.2 Page Explained



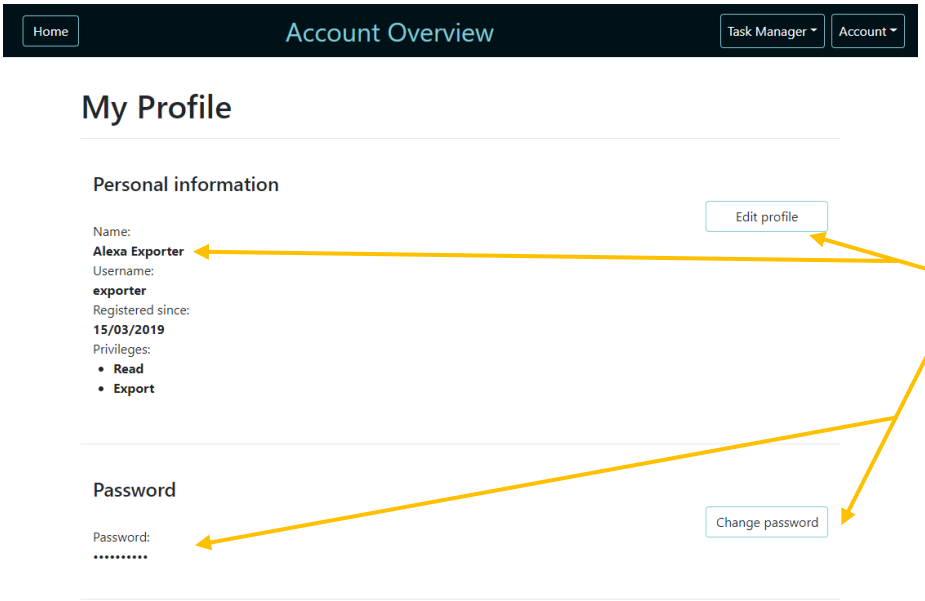
If you want to see exactly what has been changed you can press the eye icon and you will see a popup showing the new data and the old data.

9 My Profile

9.1 Summary

This simple page will all you to change your name and password in the system. The following section will breakdown the page and how to navigate it.

9.2 Page Explained



On this page you can change your Full name (in this current release, username cannot be changed for accountability tracking of changes, if you want a new username you will need a new account). Your permissions can not be changed either, this can only be done by your project coordinator or any other person with admin access. You can also change your password here.

10 Error Recovery - UNFINISHED

10.1 Common Solution

For most random issues, a refresh of the page should be all that's needed to get going again, for more special cases see the following sections for help.

10.2 No Data from Feeders