SJRecorder Instructions

Note: This app is designed to run on Android touchscreen devices (such as phones and tablets) which have a built in GPS or other geo-positioning device. It will not work on Apple, Blackberry or Windows products.
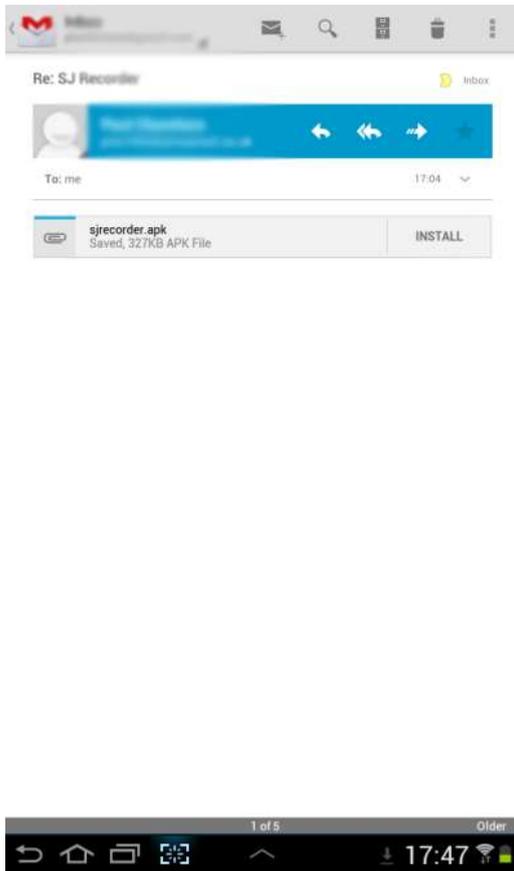
We would not recommend this app for devices running below Android 3.0. It has been tested on Android 3.0 and above but there may be issues with devices running on Android 2 or lower (e.g. the text in some of the boxes appears to be invisible).

Contents

To Install the App

- Get the **SJRecorder.apk** file onto your Android device by emailing it to yourself as an attachment (see below left) or by saving it onto an external SD-card.
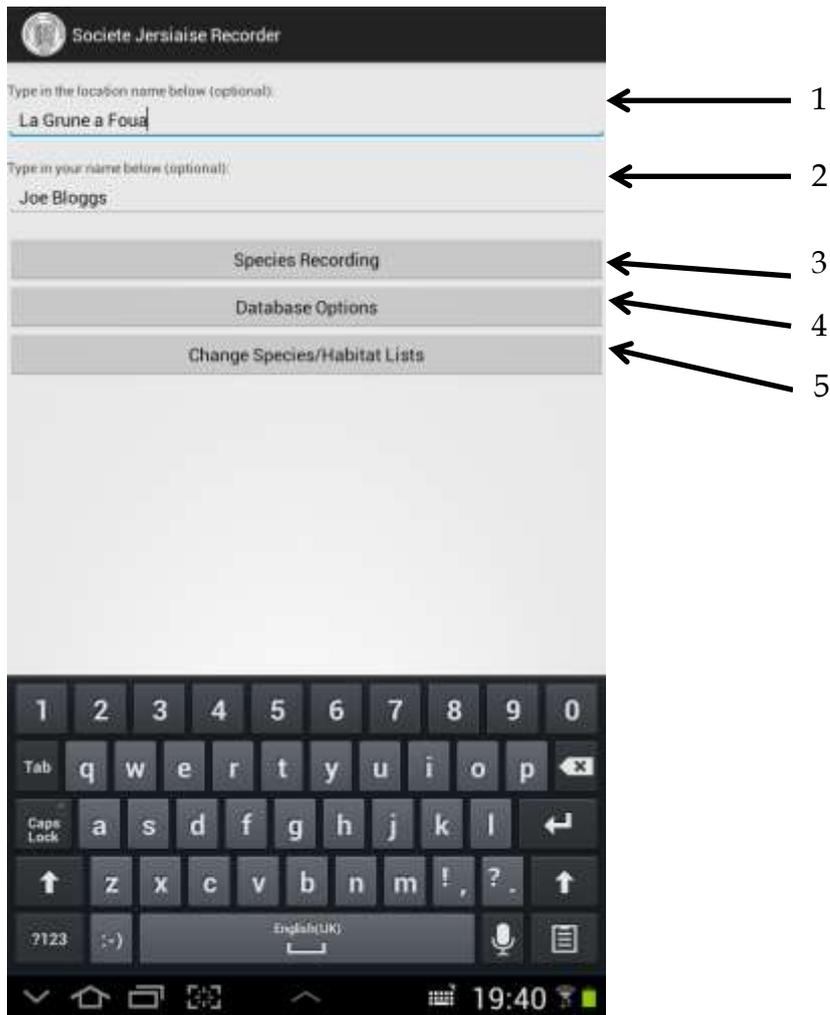

- Find the file on your email/SD-card and install it. It will warn you about the app using location and storage devices (such GPS and database utilities). Click 'Install' to proceed.

- The app should then install itself and appear in the device's app library as 'SJ Recorder' with the Société Jersiaise circular logo.

The Home Screen

Find the app in your device's app library. Open it. You should be faced with a screen like that below. This screen will allow you to enter the name of the location and the recorder (these can be left blank). It will also allow you to navigate to the three other screens

1 and 2 – Type in a location name in the box at the top of the screen (see arrow 1, above). Type in your name (see arrow 2 above). Both boxes may be left blank.
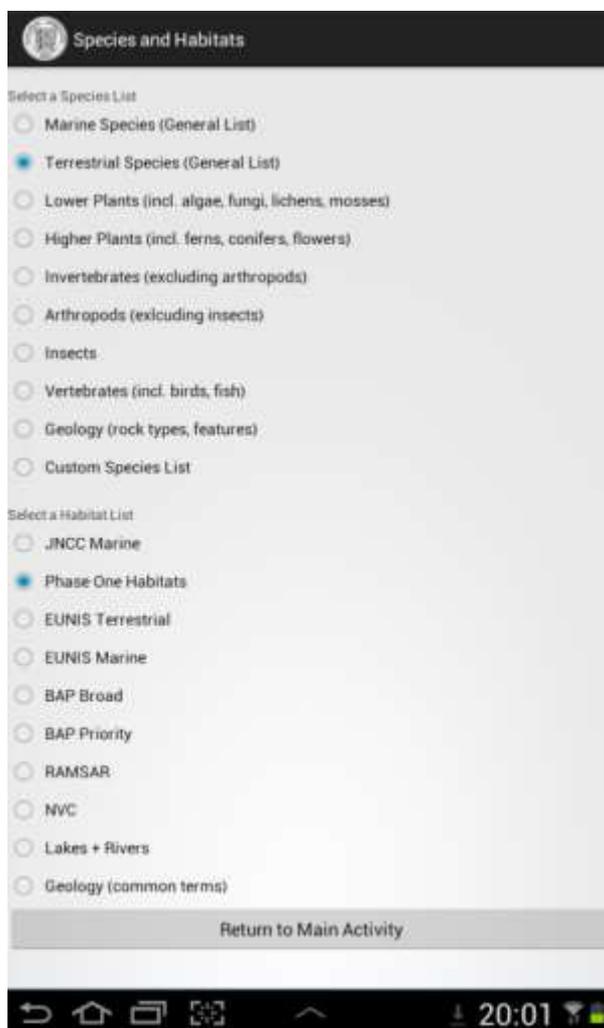
3 – Press this button to go to the species recording screen. A new screen will open.

4 – Press this button to go to the database options screen. A new screen will open.

5 – Press this button to go to the change species/habitats screen. A new screen will open.

To Select Species and Habitat Lists

On the Home Screen press the button marked 'Change Species/Habitats Lists'. A new screen should open that looks like this:

Rather than put all possible species names and habitat options into one long list, this app has broken them into more manageable lists. These lists are based on the species lists used by the Guernsey Biological Records Centre and Jersey Biodiversity Centre and so will probably have a bias towards southern Britain.

To select a species and habitat list, simply click on the circle to the left. If you do not select anything then the default lists will be 'Marine Species (General List)' and 'JNCC Marine'.
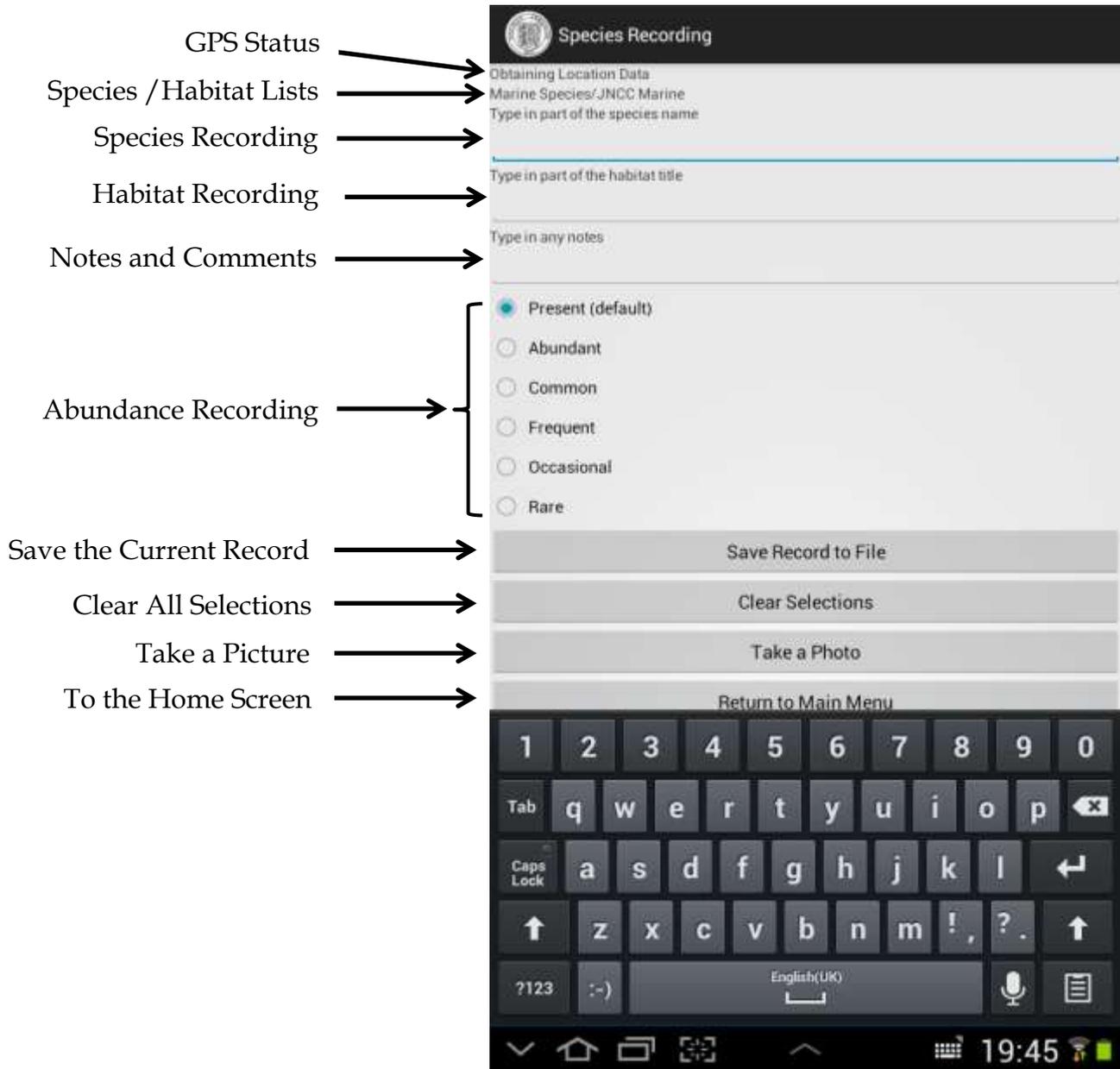
Once you have selected your species and habitat species lists press on 'Return to Main Activity'. This will take you back to the home screen.

The content of these lists should be self-explanatory with the possible excpetion of the following lists:

- *Marine Species (General List)*. To save having to change lists too often, this list contains a list of the most commonly encountered marine species in the Channel Islands. It has been tailored for use by the Société Jersiaise so some of the vernacular names may be unfamiliar to users in the UK.

- *Terrestrial Species (General List)*. Likewise, this contains a list of the 3,000 most commonly reported terrestrial species (everything from lichens to mammals). It should be good for most general recording purposes.

- *Geology.* Some common geological terms have been included for general field-recording purposes.

- *Custom Species List.* This allows the user to lists of their own species. Instructions as to how to this are given below.

How to Record Species and Habitats

Having selected which species and habitats you wish to record, press the 'Species Recording' button on the Home Screen. This should open an new screen that looks like this:

GPS Status

Species /Habitat Lists

Species Recording

Habitat Recording

Notes and Comments

Abundance Recording

Save the Current Record

Clear All Selections

Take a Picture

To the Home Screen

GPS Status

At the screen top (below where it says 'Species recording') is the unit's GPS status. It may take a few minutes for your device to find a GPS signal. While it is doing this it will say 'Obtaining Location Data'. Once a signal has been located the text will give a latitude and longitude position (in decimal degrees) and the accuracy of this in metres. Most handheld devices will be accurate to around 5 to 10 metres.
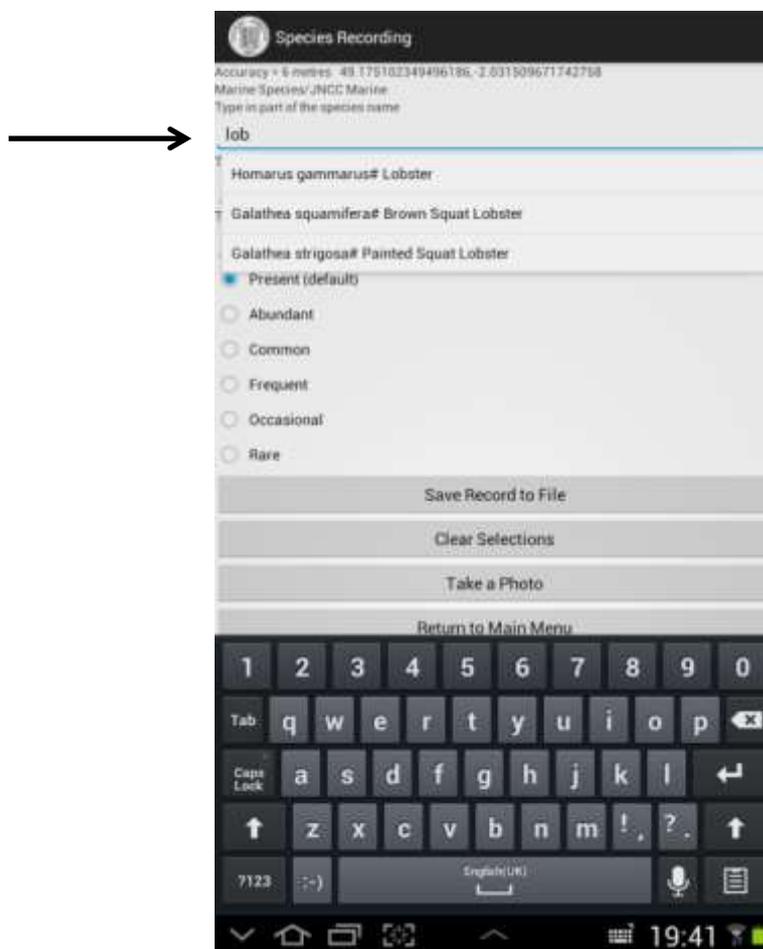
To save battery power the device does not search for a GPS position if you move away from this screen or if it is on stand-by mode. Thus it may take it a few seconds to re-calculate your position once to move back to the Species Recording screen or turn the device back on. Be aware of this and always check the GPS status before making a species record.

Species/Habitat Lists
This shows which species and habitat lists are currently in use. Instructions as to how to change these are given above.

Species Recording
To obtain a species name. Below where it says 'Type in part of the species name' type in three (or more) consecutives letters from your species name. This will bring up a list of names that contain those letters.
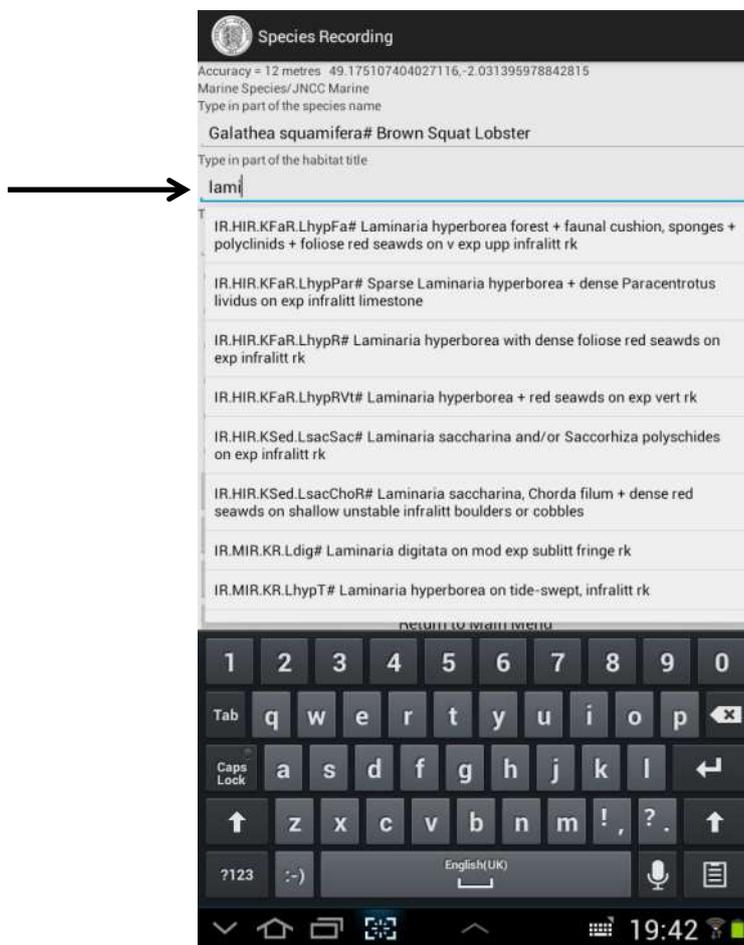

In the example above I was using the Marine Species List and typed in 'lob'. This produced a list of species with 'lobster' in their common name. The more letters that you type in, the more accurate your search will be. *NOTE: the letters must be at the start of a word and not be in the middle. Thus typing 'obster' will not work.* Select the species you want to record from the list by pressing on the name.

Only the text to the left of the hash sign, '#', will be saved. Any words to the right of the hash sign are discarded.

NOTE: You may type in your own species (or any other text) into this box using the keypad and it will still be recorded (but don't use commas). If you just want to record habitat information then leave the box blank.

Habitat Recording
The middle box (below where it says 'Type in part of the habitat title' works on the same principle. Type in three or more letters to get a list of habitat types. You can leave this box blank if you like.

Notes and Comments
In the third box (below where it says 'Type in any notes') you may write any additional information. This is optional. NOTE: DO NOT USE ANY COMMAS – this will interfere with the formatting in the file.

Abundance Recording

Select one of the abundance categories by clicking on the button. The default setting is 'Present'.

Save the Current Record

Check that you have an accurate latitude/longitude position at the top of the screen. Then press 'Save Record to File'. You should get a brief message at the bottom of the screen which says 'Record Saved'. The information from this screen will have been saved to an internal database together the date, time, location and recorder name.

Keep making records. All records will be stored in an internal database until you are ready to export them. It does not matter if you turn off your device or the battery runs out – the records will be preserved until you are ready to export them to a file.

Clear Selections

After saving a record, the Species Recording box will be blank but the Habitat Recording, Notes and Abundance information entered previously will be retained. This is to speed up recording when making multiple entries at the same location. To clear these boxes press 'Clear Selections'.
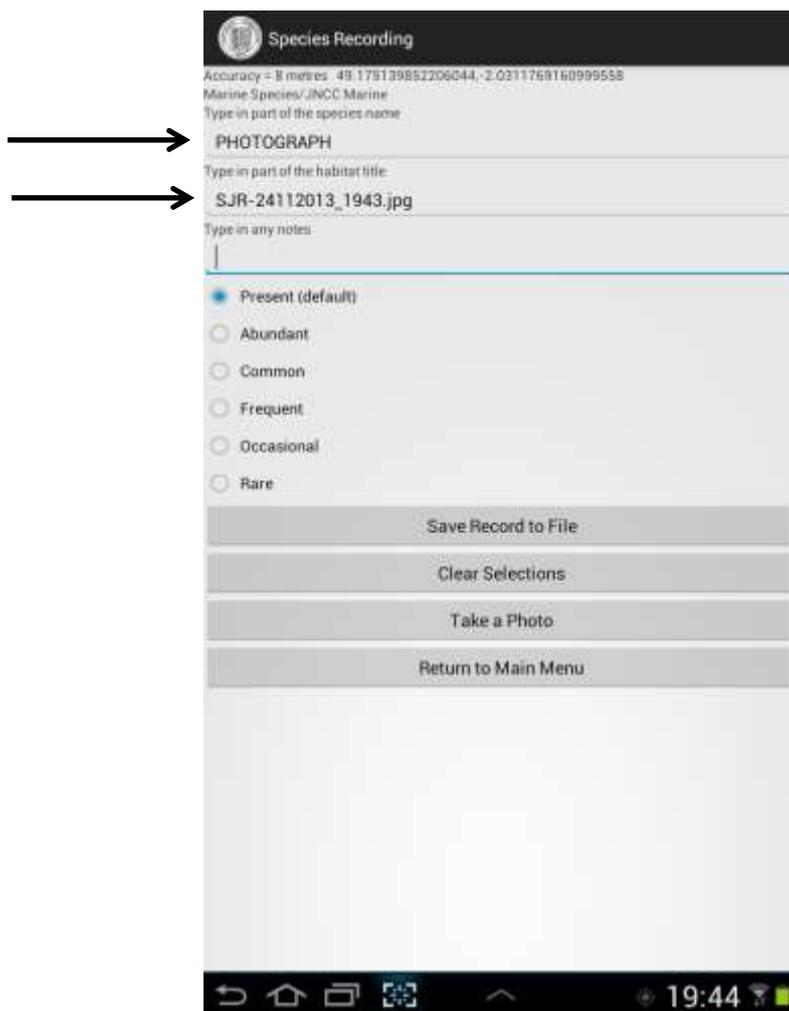
Return to the Home Screen

When you've finished recording, or if you wish to change species/habitat lists or export your records to file, press the 'Return to Main Menu' button.

Take a Picture

If your device has a built in camera then you can activate it from this app and take a picture which can be logged as a record in the database. To do this press the 'Take a Photo' button. This should open your device's camera.
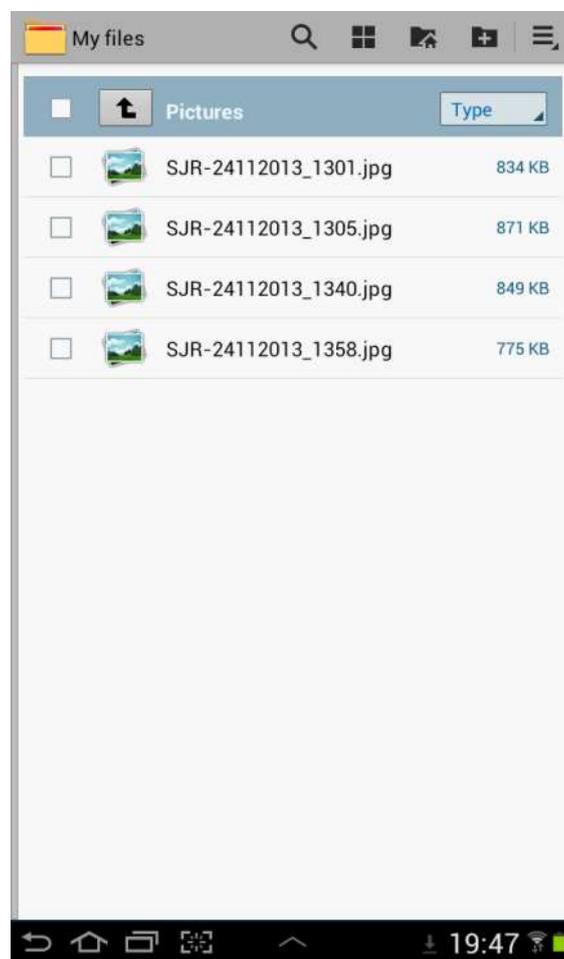
Use this to take a picture by following your device's procedure. The device will probably ask if you want to save or discard the picture; once you have either saved or discarded the picture, it will return you to the SJRecorder app.

The Species recording Screen will have added the word 'PHOTOGRAPH' in the species recording box and the name of the photograph's file in the habitat recording box (arrowed on the previous image). If saved, then this will allow you to match the latitude, longitude, date and time (plus any notes you wish to add) to the photograph at a later date.

If you wish this information to be saved then press the 'Save Record to File' button. Otherwise press 'Clear Selections'.

The photograph will have been saved as a JPEG (at your device's default resolution) in a folder called 'Pictures' within the SJRecorder folder on your SD-CARD. The picture's file is built from the date and time that the image was created and can be cross-referenced to the record that was saved into the database.

How to Create a Custom Species List

This facility was added in at the request of several users who wanted to be able to add in their own species names so that they can be used in the Species Recording screen. The solution I have devised for this is not the easiest thing to use but it should work with practice.

To create your own custom species lists you will need to open the 'My Files' app within your device's app library. Use this to find the SJRecorder folder on your SD-Card. In this you should find a file called 'CustomSpecies.txt'

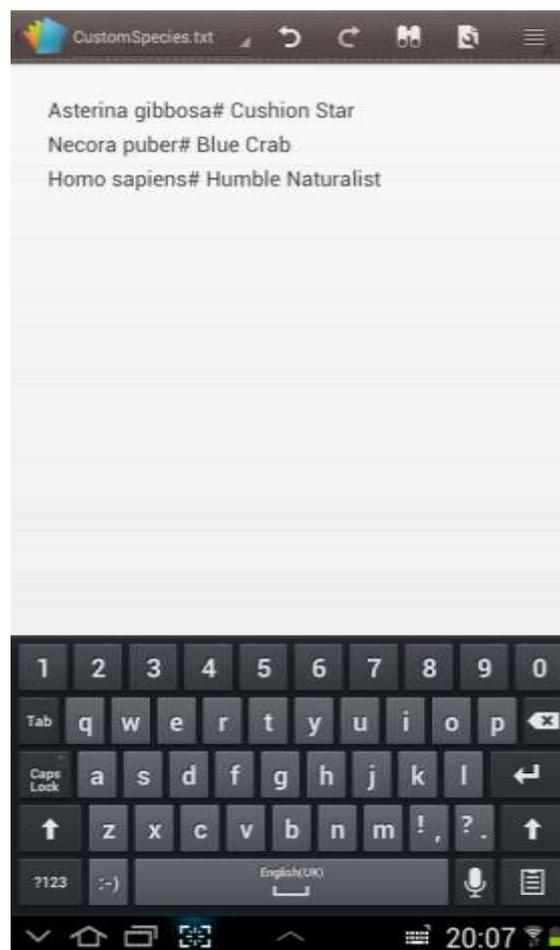This is a text file that, when opened, should contain the following example text:

Species name here# common name or other comment here
Species name here# common name or other comment here
Species name here# common name or other comment here

To create your own custom species list, open the 'CustomsSpecies.txt' file using your device's text editor. Then add your own species list (replacing the example text, if necessary).

To do this you need to have the following in the file:

- Only one species per line

- The information that you want to save to file should be on the left and should be followed by a hash sign: '#'

- Any text after the hash sign will still appear in the species recording screen but it will not be saved to file (this is so that you can have the Latin name to the left of the hash sign and the common name or any identification notes to the right).

- Do not use commas, apostrophes or other punctuation marks as this sometimes causes problems

Below is an example of a simple list of custom species. You can add as many as you like to the list.

Once you have your custom species list complete, save the file. To use the custom species lists you will need to select it from the Species List Screen (see earlier instructions). All being well, you should be able to use your custom species in the Recording Screen:

Of all the features in this app, it is the custom species list that has the most potential to go wrong. For example, some text editors I have used have had an issue reading the file. For this reason, I recommend that you have a back-up version of your custom species saved elsewhere. That way if something goes wrong with the 'Custom Species.txt' file then you have a back-up of the information it contains and you won't lose the lists you've already type in.

You could, for example, create your custom species list in a word processor (such as Word) and then copy and paste it into the 'Custom Species.txt' file. Or, if you create the 'CustomSpecies.txt' file elsewhere on your device and copy it to the SJRecorder folder (overwriting the existing file).

If you select the Custom Species List option then the 'CustomSpecies.txt' file must be in the SJRecorder folder (even if there's nothing in it) otherwise the app may crash. If this happens then re-start the app and go immediately to the 'Change Species/Habitat Lists' screen and choose one of the other species lists.

Exporting Your Records to File

From the Home Screen select 'Database Options'. The below screen should appear:
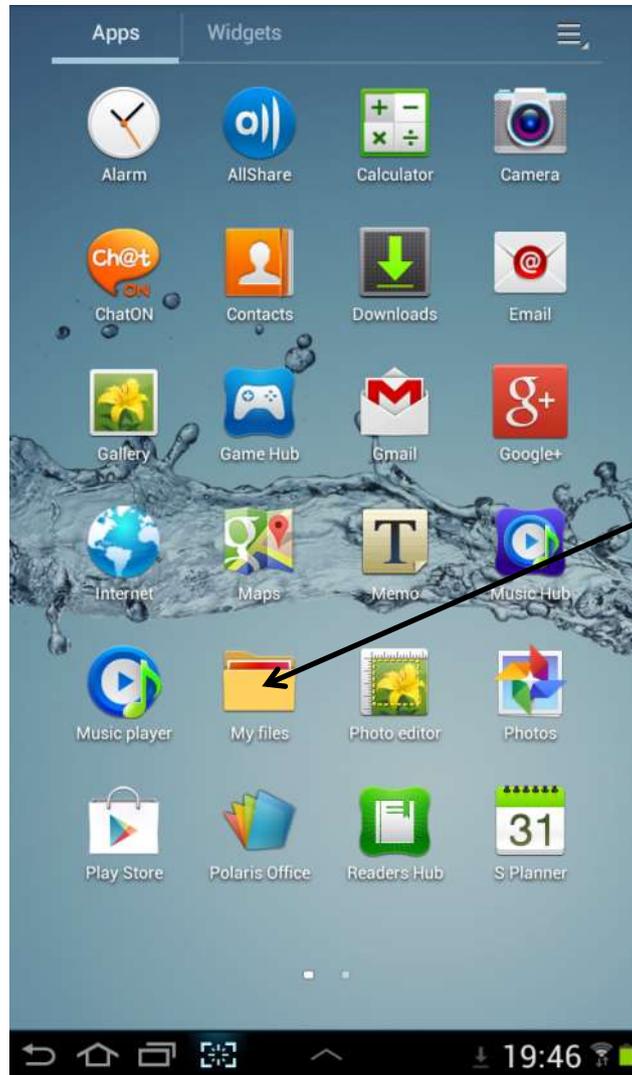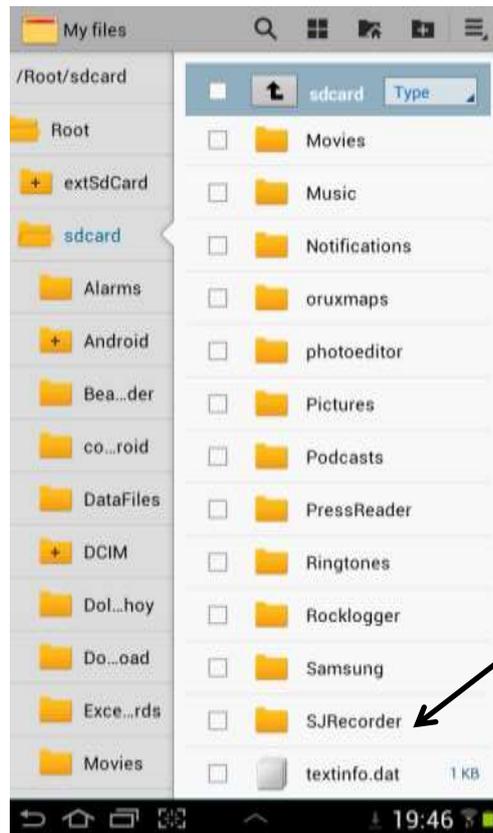

Export All Records to File
To export your records from the app's internal database into a file. Press the 'Export all Database Records to File' button. After a few seconds a message should appear saying 'All Database Records Exported'. If you are exporting a lot of records then it may take a short while for this message to appear. The records will be exported to an Excel compatible (.csv) file on your SD-card.
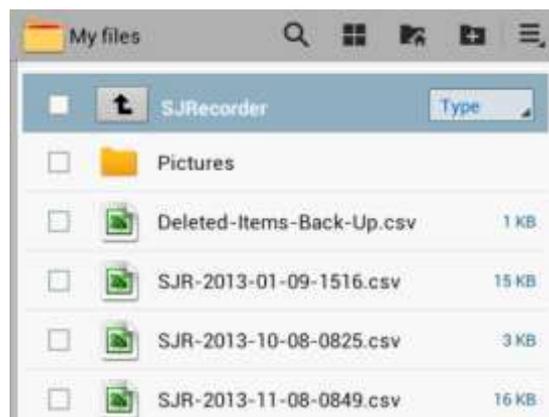
Find the Exported Records

To retrieve the exported records go to your devices apps library and find 'My Files'. Open it.

Click on the 'sdcard' folder then find another folder called 'SJRecorder'. Open this.

Inside will be all the files you have exported. The file names all begin with 'SJR-' followed by the YEAR-MONTH-DAY-TIME.csv that the file was saved. This should allow you to find the last file that you saved.

The file can be opened in Excel or any spreadsheet programme (or other software) that can read a CSV (commas separated) file. The file may be moved or copied to other folders, sent by email, deleted or otherwise manipulated by the user.

The CSV File's Format

Each CSV file should contain the following columns:

id = record number. Automatically generated by the app's database

species = species name from the Species Recording screen

abundance = the abundance category from the Species Recording screen

latitude = in digital format from the Species Recording screen

longitude = in digital format from the Species Recording screen

accuracy = in metres from the Species Recording screen

day = added automatically from the Species Recording screen

month = added automatically from the Species Recording screen

year = added automatically from the Species Recording screen

time = 24 hour clock. Added automatically from the Species Recording screen

location = location name from the Home Screen

recorder = the recorder's name from the Home Screen

habitat = selected from drop down menu

notes = any notes from the Species Recording screen

Deleting All Records from the Database
The app will keep adding records to the database until you delete them. If you wish to avoid continually re-exporting the same records to CSV files or if you wish to start a new survey from afresh, then you will need to deleting all existing records from the database

To do this click on 'Delete All Records from Database'. After a few seconds a message will appear confirming that all records have been deleted.

As a back-up feature, before deleting all the records the app backs them up a CSV file. This means that if you press the delete button by mistake then you can still retrieve the records. The deleted records are preserved in a file called 'Deleted-Items-Back-Up.csv' in the SJRecorder folder. However, please note that this file is overwritten each time the delete button is pressed and so only preserves the last set of deleted records.