

My Bird Observations

Android User Guide 3.8.0

First Draft

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Getting Started

This is IMPORTANT!!!

Safeguard Your Data

Apps can have bugs. Devices break, get lost and lose their minds.

Use the **Backup** feature of the app to back up your data regularly. Move a copy of the backup to a safe location off the device.

To restore from a backup the version numbers of the app and the text file must match. **DO NOT EDIT the text file** to change the number. This may allow the file to load, but it will be wrong or even very WRONG. If the versions are different, **send the file to me** for resolution.

Very Brief Overview

MBO is a global bird listing app for smart devices. It is not a bird guide. It allows you to record bird sightings and to share that information with others.

The app uses three taxonomies – eBird (a variant of Clements), International Ornithological Congress (IOC) , and British Ornithologists' Union (BOU) vernacular names.

Two major features exist for recording sightings – My Lists and Life List. My Lists are maintained as lists of bird sightings from individual day trips. Life List is a list of first sightings of all the birds you've ever seen. Other types of life lists can be maintained through liberal use of sighting comments in a trip. (clumsy, but doable)

Trips can be exported from the app as delimited text files. Three export files are available – eBird import format, Eremaea import format or a generic file suitable for import into spreadsheet software.

The Life List can also be exported as a delimited text file.

Species name can be displayed in English, Swedish, German, Spanish, French, or Latin (scientific). This is only the names. Everything else is in ENGLISH.

Settings

Before starting your first list, take a minute to visit the **Settings** page. This page controls a number of options that you'll want to set. You get to this page through the menu.

- Press the device menu key or back key to display the menu.
- Tap *Settings*.
- Change options if you want to.
- To exit the page, press the back key.

The currently displayed options appear on the right. Buttons to change the options appear on the left.



display language for species names Species names can be displayed in English, Latin (scientific), Swedish, German, Spanish or French. This only applies to bird names. This app is written in English, the only language I know. When a non-English language is selected the following restrictions apply: lists are sorted in taxonomic order only; 1st & last and last word searches are unavailable.

new sighting save options

- **save option** This option controls the behavior of the app when adding a new sighting to a trip. There are 4 choices. 'edit' options allow you to add comments and counts when you add a sighting. 'speed' options add the sighting immediately when a species is selected. You may want to use speed if numbers and comments aren't important to you. 'return' options returns to the trip after adding a sighting rather than remaining in the bird name database. You may want to use the return option if you already have a lot of sightings for your trip.
- *edit*: Open the sighting page when the species is selected from bird name database. Stay in the database after exiting the sighting page.
- *edit return*: Open the sighting page when the species is selected from bird name database. Return to the trip after exiting the sighting page.

- *speed*: Add the sighting without opening the sighting page. Stay in the database.
- *speed return*: Add the sighting without opening the sighting page and then return to the trip.

start number This option sets the default starting count for a sighting, either 1 or X. X represents the presence of a species.

trip lists, templates, life list (not available for non-English)

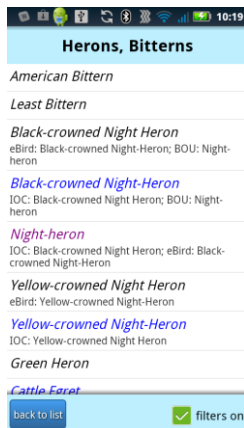
display order Your lists can be displayed in alphabetic or taxonomic order (IOC order).

taxonomy You must choose which taxonomy to use for displaying your list. The choice is color-coded. eBird taxonomy uses blue text, IOC uses black text and BOU uses purple text.

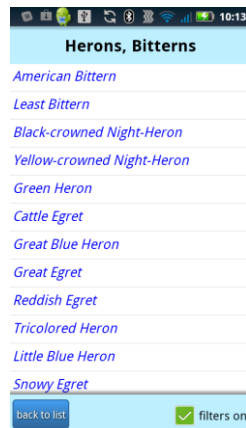
bird name database (not available for non-English)

display order The names can be displayed in alphabetic or taxonomic order (IOC order).

taxonomy In addition to the choices of a single taxonomy as described above, you can choose to see all taxonomies at once. When all is selected, Names are black. eBird names that differ from the IOC name are blue and BOU names that differ from the IOC name are purple.



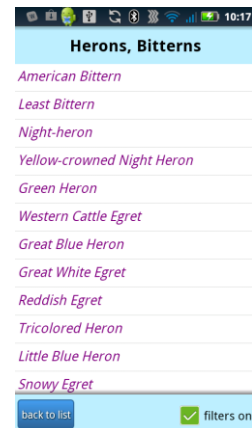
all



eBird



IOC



BOU

Quick Basics of Trip Lists

Trips are lists of sightings that logically belong together. A trip includes general trip information and one or more sightings. The initial app page (**My Lists**) displays all your trips in date order, newest to oldest. Usually a trip defines a single date and a time range at a single location. Date and trip name are required, but all other information is optional as far as the app is concerned.

Start a new trip.

- Press **newlist** to open the **List Info** page.
- Enter or change data.
- Select option from menu to exit the page.

Add sightings

- Press **addsighting** on the trip list page.
- Find the species in the bird name database.
 - Browse through database
 - Or use one of the search options
- Change data. (optional)
- Press an action button to exit the page.

Edit trip list information

- Tap the trip on the **My Lists** page.
- Press **info**.
- Change data.
- Select option from menu to exit the page.

Delete entire trip

- Tap trip on the **My Lists** page.
- Press **info**.
- Select **delete** from menu to exit the page.

Change a sighting

- Tap the sighting on the trip list to open the sighting page.
- Edit the data.
- Press an action button to exit the page.

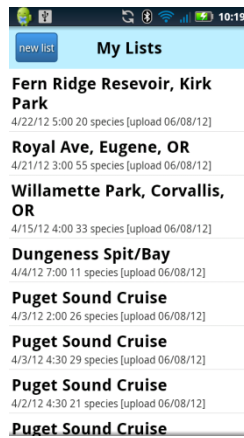
Delete a sighting

- Tap the sighting on the trip list to open the sighting page.
- Press **delete** to exit the page.

Trip Lists

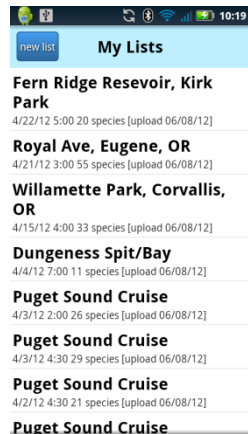
My Lists

The **My Lists** page is the opening screen of the app. All trips are listed here in date order, newest to oldest. The data shown for each trip are the name, date and start time, number of species sighted and the date it was last exported as a text file.



New Trip

To start a list, press **newlist** on the **My Lists** page. This opens the **List Info** page.



List Information

The info page is pre-populated with the current date, current time and a stop time of current time + 2 hours. **Name** is the only data that you must enter.

Note for eBird users: **Name** is used for location and protocol is generated based on the **Distance** or **Area** data.

- stationary protocol: **Distance** and **Area** are both zero.
- traveling protocol: **Distance** > zero
- area protocol : **Area** covered > zero
- [random and casual not supported at this time]

List Info Fields

Species total: The number of species included in the trip. This is populated by the app.

Name: The name of the trip.

Location: The geographic location. This is pre-populated with United States.

Date: The date the trip occurred. This is pre-populated with current date.

Notes: Comments pertaining to the entire list, like the weather .

Start time: This is pre-populated with current time.

Stop time: This is pre-populated with current time plus 2 hours.

Duration (m): This is generated by app. **Stop time** minus **start time** in minutes.

Distance (m): This is pre-populated with '0' miles.

Area (acres): This is pre-populated with '0' acres.

Observers: This is pre-populated with '1' .

Reported all observations: This is checked by default. (eBird import field)

List Info Buttons

`country` → changes **Location** country from popup menu

`state` → adds state to **Location** from popup menu

`county` → adds county to **Location** from popup menu. Available for US states only.

`date` → changes **Date** from popup date picker

`starttime` → changes **Start time** from popup time picker

`stoptime` → changes **Stop time** from popup time picker

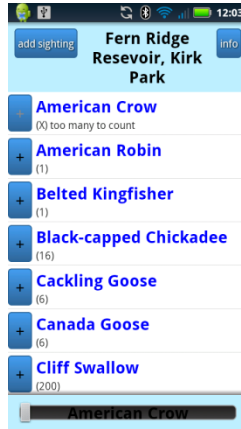
`copyoldlistname/loc` → Copies the name and location of existing list. Use this to help keep your trip names standardized. (Particularly important for eBird and Eremaea imports)

Exit List Info

To navigate off the page you must either `save` or `cancel` by selecting your choice from the menu. The menu is displayed by pressing the device menu or back key.

Existing Trip

A trip list is opened when a trip is selected from the **My Lists** page. There is a slide bar at the bottom of the screen for fast scrolling.



The trip page shows the list of the sightings. The name of the trip appears at the top of the screen. Counts and comments are displayed for each sighting. The count can be incremented by one with a single tap of the **+** button. The **+** button is disabled if the count is X. (Can't add 1 to X)

Change List Info

- Press **info** to open **List Info** page. Fields will be populated with last saved data.
- Tap **save** or **cancel** on the menu to return to the trip page.

Delete Trip

- Press **info** to open the **List Info** page.
- Tap **delete** on the menu.
- You are returned to the **My Lists** page after the delete.

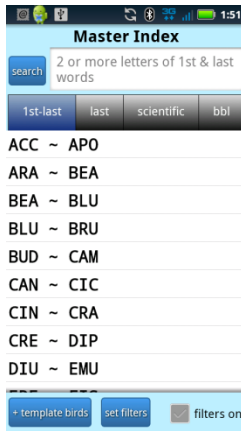
Add Sighting

Press **add sighting** to open the **Master Index** page of the bird name database.

Find Species

The list can be displayed in alphabetical order or taxonomic order. The display sort order is an option on the **Settings** page. Browse through the lists of names or use one of the search options to find a species.

Browse Bird Name Database



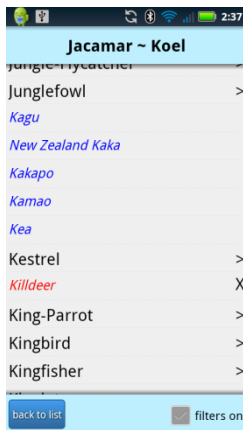
Alphabetic Order:

Birds are ordered by the last word of name and then the rest of the name, like the index of a book.

The index is split into sections to limit the number of bird names returned from database at any given time. This is to speed up the look-ups.

The Master Index lists the sections. It shows the first 3 characters of the first and last species in the group.

To browse for a species, select an entry that would include the last word of the name. For example: to look up American Crow, tap CRE ~ DIP.

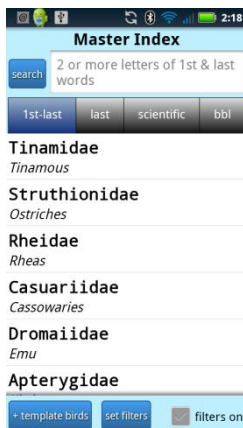


When a master index entry is selected, the corresponding bird name list opens.

If the last word of the bird name is unique, the full name is displayed.

If the last word is not unique, the word is displayed with >. Tap the word to display the list of full names

Names displayed in red with an X have already been added to the trip.



Taxonomic Order:

The index is split by family.



When a family is selected, all the species in the family are listed.

Search for Species

- Press the type of search.
- Enter the search criteria in the search box.
- Press **search**.

Search Types

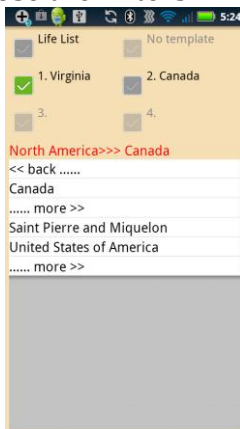
- **1st-last** Enter the first 2 or more letters of the first and last word of the species name. For example, to search for Great Blue Heron enter at least 'gr he'.
- **last** Enter the complete last word of the name. For example, 'heron'.
- **scientific** Enter the first 2 or more letters of the first and last word of the species scientific name. For example, to search for Great Blue Heron enter at least 'ar he'.
- **bb** Enter a 4 or 6 character Bird Banding Laboratory code. For example, 'gbhe'

Limit Bird Name List

MBO's bird name database has over 10,000 names. In most cases you will want to set filters to limit the list to a more reasonable number.

- Press **setfilters** button at the bottom of the Master Index page.
- Chose the filters you want.
- Check the box(s) next to the filter(s) to activate.
- Press the device back key to return to the Master Index page.
- Use the **filterson** checkbox at the bottom of the index pages to toggle the activated filters on and off.

Chose the Filters



Check 'Life List' to show only birds you've already seen.

Regional Filters: 750 global filters are available. 4 may be active at any given time.

- Tap a region.
- Tap a country or tap more>> to select a state. The currently selected area is listed in red above the list. For example: **Central America >> Mexico >> Chihuahua**
- Tap one of the set # options from the menu. Press the device menu key to display the menu. The selected location will appear next to that #.



Or use a custom template that you have created.

- Tap `attach template` on the menu to open template search page.
- Search for the template by entering one or more of the starting letters of the name in the search box and pressing `search`.
- Tap the name on the list. It will be displayed at the bottom of the screen.
- Tap `attach` or `cancel` on the menu to exit.

Create Sighting

Tap the species name. What happens next depends on the **Settings** option currently in effect as previously described.

The sighting page opens if the option is 'edit'. The top of page shows the common name, scientific name and alternate common names due to taxonomy differences. 'Life Bird!!!' displays in red if the species is not on your life list.

There is an input field for **notes**.



Counts

The **Count** field is populated by the app in response to the row of buttons displayed below the notes field. It is the sum total of individuals seen. It can be set to X. An X means present but not counted.

Exit Sighting

Press one of the action buttons (`save`, `cancel`) at the bottom of the screen.

Edit Sighting

- Tap the sighting on the trip list page to open the sighting page.
- Make changes.
- Press one of the action buttons (**save**, **cancel**) at the bottom of the screen.

Delete Sighting

- Tap the sighting on the trip list page to open the sighting page.
- Press **delete** at the bottom of the screen.

Sighting Count Shortcut

Tap the **+** next to the name in the trip list to add 1 to the count. The **+** button is disabled if the count is X.

Sightings with 0 (zero) Count

A sighting with a count of 0 is not counted in the species total for a trip and is not included in an exported trip file. The utility and purpose of such a sighting is discussed the **Templates** section of this document. Trip lists which include 0 count sightings have an extra option on the menu – delete 0 sightings.

Life List

The **Life List** feature is a list of the first sightings of species. The life count displays at the top of the screen. The list can be displayed in alphabetic or taxonomic order and using eBird, IOU or BOU names depending on the options currently in effect on the **Settings** page. There is a slide bar at the bottom of the screen for fast scrolling.



Add Life Bird

Adding a new life bird is handled internally by the app. **There is no way to manually enter a life bird at this time.**

A bird is added to the list when

- a sighting is added to a trip that is not yet on the list. This may be the result of manually adding a sighting or adding a sighting via a text file import.
- a life bird is imported from a text file.

Edit/Delete Life Bird

- Tap the bird name in the **Life List** to open the **First Sighting** page.
- Edit the data.
- Exit the page by tapping a menu option. The menu is displayed by pressing the device menu or back key.
 - Tap `save` or `cancel` on the menu.
 - Or tap `delete` on the menu to remove from the list.

The common name and scientific name of the bird display at the top of the screen. There is 1 date field and 3 text fields.



The screenshot shows a mobile application interface for recording a bird sighting. The top section is a green header with the text "California Quail" and "Callipepla californica". Below this, the date "05/23/11" is shown next to a "change date" button. The form includes three text input fields: "Where:" containing "Malheur", "With:" (empty), and "Notes:" (empty). At the bottom of the form is a green button labeled "All Sightings".

Life Bird Fields

Date: This should be the date of the first sighting of the species. If the life bird was added when a sighting was added, this date will be the trip date. Press `changedate` and select a date from the popup date picker to change.

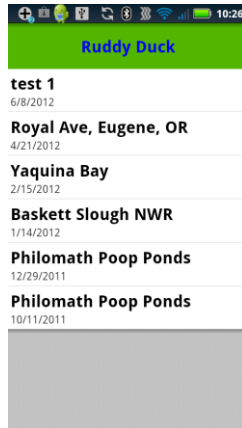
Where: This is for where the bird was seen. If the life bird was added when a sighting was added, this will be the trip name.

With: This is for who was there.

Notes: This is for comments.

List All Sightings

- Press **All Sightings** on the **First Sighting** page to display a list of trips that include that species.
- Use the device back key to exit.




Templates

About Templates

Templates are simply lists of birds. Physically templates are a lot like trip lists and the process for creating and maintaining them is very similar. A template may be used as a bird name database filter, but its primary function is to make trip checklists.

Trip Checklists

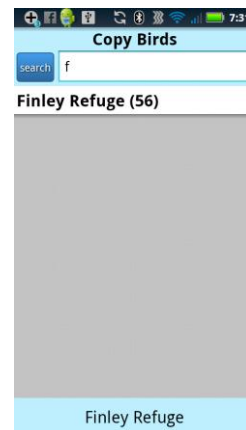
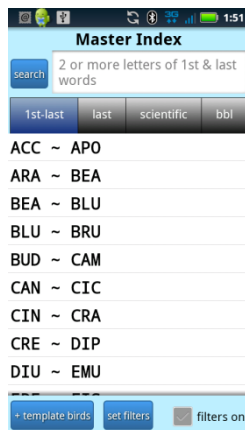
A trip checklist is a trip list that is pre-populated with all the sightings that you could reasonably have on the trip. The sightings have counts of 0 so they are not included in the sighting count of the trip.

A trip checklist is like a paper checklist. You only have to scroll through the list and tap the  next the species to add the sighting. A checklist eliminates the need to search through the bird name database while you're out birding. If you wish, at the end of the trip you can remove the remaining extraneous 0 counts with one tap on the menu.

Checklists created from templates are especially convenient for patch birding and backyard birding.

Add Template Birds to Trip

Press **addsighting** on the trip list page to open the **Master Index** page of the bird name database.



- Press **+templatebirds** to open the **Copy** page.
- Search for the template by entering one or more of the starting letters of the name in the search box and pressing **search**.
- Tap the name on the list. It will be displayed at the bottom of the screen.
- Tap **copy** or **done** on the menu to exit.

New Template

There are a number of ways to create a template and add birds to a template.

- Import a text file.
- Copy a trip list or another template.
- Add birds from the bird name database.

Import a Text File

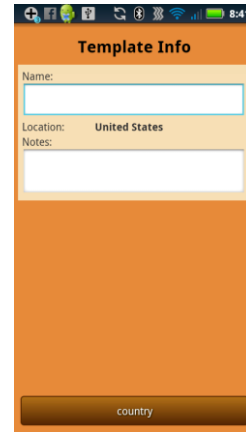
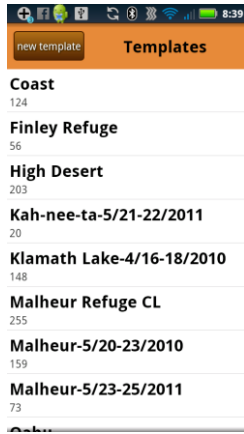
The faster way to create a template is to import a text file.

- Create a plain text file of common English bird names. Each name must be at the beginning of a new line. Comma and tab-delimited files can be imported as long as the name starts the line.
- Copy the file to the **mbo_export_files** directory on the device. The directory is created when the app is installed.
- Use the **Import Template** function to load a new template.

The text file name is used for the template name. The app checks the data on the beginning of each line up to a tab, comma or end of line against the bird name database. Lines that are found to have a valid name are added to the template. The name must match exactly. Lines that don't match are ignored.

Start Template Manually

- Press the device menu key or back key to display the menu.
- Tap `Templates` on the menu to open the **Templates** list.
- Press `newtemplate` to open the **Template Info** page.
- Enter data.
- Tap `save` or `cancel` on the menu.

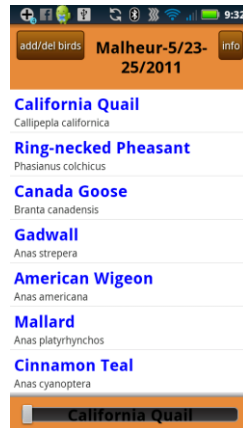


Template Info Fields

- **Name:** The name for the template. Required field.
- **Location:** County. Pre-populated with United States. To change, press **country** and select a name from the popup menu.
- **Notes:** comments

Existing Template

A template list is opened when a template is selected from the **Templates** page. There is a slide bar at the bottom of the screen for fast scrolling. The template page shows the list of the birds. Common and scientific names are displayed.



Change Template Info

- Press **info** to open **Template Info** page. Fields will be populated with last saved data.
- Tap **save** or **cancel** on the menu to return to the template page.

Delete Template

- Press **info** to open the **Template Info** page.
- Tap **delete** on the menu.

You are returned to the **Templates** page after the delete.

Add Birds

Tap **add/delbirds** on the template page to open the **Master Index** of the bird name database.



Copy Birds From Trips or Other Templates

- Press **copybirdlist** to open **Copy Birds** page.
- Press **mylists** or **templates**.
- Search for the list by entering one or more of the starting letters of the name in the search box and pressing **search**.
- Tap the name on the list. It will be displayed at the bottom of the screen.
- Tap **copy** or **done** on the menu to exit.

Birds that are already in the template list are not copied.



Add Birds From Bird Name Database

- Find the species.
- Tap the name to add it to the template.

Find Species

See the **Find Species** section of this document under **Add Sighting** under **Existing Trip**.

Delete Birds

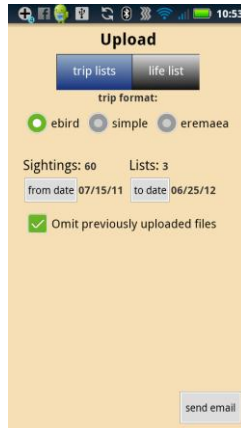
There are two ways to delete birds from a template.

- Delete from template list
 - Tap a name in the list to open a popup Delete? box.
- Delete while browsing the bird name database
 - Tap the name of a bird already in the template. These are birds with red names and marked with an X. The bird will be immediately removed.

Export Lists

Upload

Tap `Upload` on the menu to open the **Upload** Page. Trips and Life List can be emailed as delimited text files.



Export Trip

- Press **triplists**.
- Choose trip format.
- Set **fromdate** and **todate**.
- Check or uncheck Omit previously uploaded files.
- Press **sendemail**.

The text file is written to the mbo_export_files directory on the device and the email app is launched.

Trip Format

eBird

The eBird format is a comma-delimited file that can be imported directly into the eBird database. Use this file as input to the eBird import web tool. It will be named 'ebird_mm_dd_yyyy.txt'. Species not found in the eBird taxonomy are not included in the file. For detailed information about this format see <http://ebird.org/content/ebird/about/using-the-ebird-data-import-tool>. It is the eBird Record Format.

The name of the trip is used for the location column. The content of the protocol column is derived from values on the **Trip Info** screen.

- Stationary protocol: Distance and Area are zero.
- Traveling protocol: Distance > zero
- Area: Area > zero

Import into eBird

- Copy the text file to your computer.
- Login to the eBird web site.
- Navigate to the Submit Observations page.
- Click the Import Data link.
- Browse your computer for the file.
- Select eBird Record Format (Extended).
- Press Import File.
- Follow the site directions.

You can also import from the directory on your device, but not all mobile browsers work. You may have to try more than one to find a good one.

Eremaea

The Eremaea format is a comma-delimited file that can be imported directly into the Eremaea Birds database. Use this file as input to the Eremaea import web tool. It will be named 'eremaea_mm_dd_yyyy.txt' For detailed information about this format see the Import Lists page on the Eremaea Birds web site.

Import into Eremaea

- Copy the text file to your computer.
- Login to the Eremaea web site.
- Click the Import Lists link in the Lists section.
- Select a region.
- Check *First row contains headers*.
- Browse your computer for the file.
- Press Import.
- Follow the site directions.

Simple

The simple format is a generic tab-delimited file suitable for input into spreadsheet software. It is also the input to the **Import MBO Trip** feature discussed in the **Import Data** section this document. It will be named 'simple_mm_dd_yyyy.txt' and has the following columns.

- **World Bird Name:** IOC English name or blank if not part of IOC taxonomy
- **eBird Name:** eBird name, present if different from IOC name
- **BOU Name:** BOU name, present if different from IOC name
- **#:** Number seen or 'X'
- **Notes:** Sighting comments
- **List Name:** Trip name
- **Date:** Trip date, formatted mm/dd/yy
- **Country:** Country
- **State:** State if present
- **County:** County if present
- **List Comments:** Trip comments
- **Scientific name:** Latin name
- **Swedish:** name in Sw
- **German:** name in Ge
- **Spanish:** name in Sp
- **French:** name in Fr

Export Life List

- Press `lifelist`.
- Press `sendemail`.

The text file is written to the `mbo_export_files` directory on the device and the email app is launched.

List List Format

The life list is a generic tab-delimited file suitable for input into spreadsheet software. It is also an input to the **Import Life List** feature discussed in the **Import Data** section this document. It will be named `'lifelist_mm_dd_yyyy.txt'` and has the following columns.

- World Bird Name
- eBird Name
- BOU Name
- Scientific Name
- Date
- Where
- With Who
- Notes
- swedish
- german
- spanish
- french

Import Data

Import MBO Trip

Trips that are in **MBO Simple Trip Format** can be imported into the app. The purpose of this is share trips between devices. Species not already on the Life List will be added.

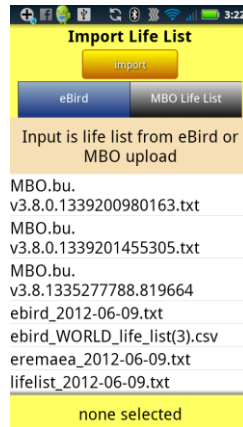
Tap `Import MBO Trip` on the menu to open the **Import MBO Trip List** page.



- Copy simple file to the `mbo_export_files` directory on the device.
- Tap a name. The name will be displayed at the bottom of the screen.
- Press **import**.

Import Life List

Tap `Import Life List` on the menu to open the **Import Life List** page.



- Copy text file to the `mbo_export_files` directory on the device.
- Press type of life list input file.
- Tap a name. The name will be displayed at the bottom of the screen.
- Press **import**.

eBird and MBO generated life list files can be imported into MBO. Birds that are already in the app's life list are ignored.

Create eBird Life List

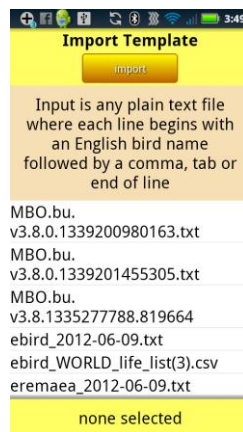
- Login to eBird.
- Select the My eBird tab. (Make sure that in **preferences** *Species Display Name* is set to Common name translated to English (United States).)
- Click the number following the words "My Life List:" on the My eBird page.
- On the World Life List page click the download (csv) link and save the file on your computer.

Import Template

Plain text files of English bird names can be imported to create templates. Each name must be at the beginning of a new line. Comma and tab-delimited files can be imported as long as the name starts the line. Lines that do not begin with a valid name according to the bird name database are ignored. Examples of acceptable files are:

- Lists exported from MBO (ebird, simple or lifelist)
- eBird Bar Charts Histogram
- eBird 'Summarize My Observations' report

Tap `Import Template` on the menu to open the **Import Template** page



- Copy file to the `mbo_export_files` directory on the device.
- Tap a name. The name will be displayed at the bottom of the screen.
- Press **import**.

Backup and Restore

Backup/Restore

This feature can be used to:

- transfer data from device to device, including between IOS and Android platforms
- **RECOVER FROM A DISASTER**

Tap Backup/Restore on the menu to open the **Backup/Restore** page.



Backup

The backup file produced by the app is a full backup of user data including trips, life list and templates. It is formatted as an XML file. Its sole purpose is to completely restore data to the app. The file is named `MBO.bu.version#.sequence#.txt` and is written to the `mbo_export_files` directory. This directory is created when the app is installed.

- Press **backup**.
- Copy the file to a safe location off the device.

Restore

The backup file being restored must match the version number of the app. If they are not, send the file to me for resolution. **Do not edit the backup file.**

- Install a fresh copy of the app.
- Copy the MBO.bu file to the `mbo_export_files` directory.
- Tap a name. The name will be displayed at the bottom of the screen.
- Press **restore**.

Miscellany

About Me

My name is Gina. I live on Chincoteague Island, Virginia on the east coast of the United States. English is the only language I know. My Bird Observations is a one woman operation. I am the developer, database administrator, help desk, sales manager, etc for both the iOS and Android versions.

Email: eaglevl@verizon.net

Web: www.mybirdlists.ginasfamilystore.com

Taxonomy

World Bird List & eBird Bird List & The British List

The bird names used in this app are from www.worldbirdnames.org. eBird English names and BOU names are also listed if they differ from those recommended by www.worldbirdnames.org. eBird names appear in blue. BOU names appear in purple.

Four files were used to create this edition of the bird database.

- IOC World Bird Names (version 2.10)
- eBird version 1.052 (8/9/2011)
- The Clements Checklist of Birds of the World (version 6.6)
- The British List (8/31/2010)

Gill, F and D Donsker (Eds). 2011. IOC World Bird Names (version 2.10). Available at <http://www.worldbirdnames.org/> [Accessed 11/2001].`

Clements, J. F., T. S. Schulenberg, M. J. Iliff, B.L. Sullivan, C. L. Wood, and D. Roberson. 2011. The Clements checklist of birds of the world: Version 6.6. Downloaded from <http://www.birds.cornell.edu/clementschecklist/downloadable-clements-checklist>

Steve P. Dudley, Mike Gee, Chris Kehoe, Tim M. Melling And The British Ornithologists Union Records Committee. Available at <http://thebritishlist.blogspot.com/2009/01/british-list-1-jan-2009.html>

BBL codes

Four-letter (for English common names) and six-letter (for scientific names) species alpha codes used by U.S. Bird Banding Laboratory (BBL). Available at <http://www.birdpop.org/alphacodes.htm>.

Non-English

Swedish, German, Spanish, and French translations obtained from Avibase checklists. Available at <http://avibase.bsc-eoc.org/>.

Text Files

The export/import directory for this app is `mbo_export_files`. It is created when the app is installed.

All the text files created by the app have the extension `txt`. `Csv` and `txt` files are the same. The only difference is the file name. I use `txt` so that spreadsheet software will not open them by default. Programs, like Excel, often 'helpfully' change the formatting of the data, especially dates. In most cases, the formatting used in these files is very specific and should not be changed.

When I get to define the file format, I use tab delimited. I think it's easier to read and I don't have to add quotes.

3.8.0 Change List

Birdstack file support has been removed.

New trip list upload file added - Eremaea Birds.

One file is produced for trip lists. The file format can be either eBird import, simple, or Eremaea import.

New Sighting Counts buttons: -1 and 'X' for present.

New Sightings Save Option: 'speed' option added.

Preferred start count option: 1 or X.

Added functionality to load MBO generated life list file.

Numerous 'forced close' problems with tablets on 3.x resolved.