

2013 Data Entry Protocol

Rocky Mountain Bird Observatory



March 2013



ROCKY MOUNTAIN BIRD OBSERVATORY

Mission: *To conserve birds and their habitats*

Vision: *Native bird populations are sustained in healthy ecosystems*

Core Values: *(Our goals for achieving our mission)*

1. **Science** provides the foundation for effective bird conservation.
2. **Education** is critical to the success of bird conservation.
3. **Stewardship** of birds and their habitats is a shared responsibility.

RMBO accomplishes its mission by:

Partnering with state and federal natural resource agencies, private landowners, schools, and other nonprofits for conservation.

Studying bird responses to habitat conditions, ecological processes, and management actions to provide scientific information that guides bird conservation efforts.

Monitoring long-term trends in bird populations for our region.

Providing active, experiential, education programs that create an awareness and appreciation for birds.

Sharing the latest information in land management and bird conservation practices.

Developing voluntary, working partnerships with landowners to engage them in conservation.

Working across political and jurisdictional boundaries including, counties, states, regions, and national boundaries. Our conservation work emphasizes the Western United States, including the Great Plains, as well as Latin America.

Creating informed publics and building consensus for bird conservation needs.

Suggested Citation:

N.J. Van Lanen, C.M. White, and M. F. McLaren. 2013. 2013 Rocky Mountain Bird Observatory Data Entry Protocol. Unpublished report. Rocky Mountain Bird Observatory, Brighton, CO, USA

Cover Photos:

Singing MacGillivray's Warbler; By Glen Tepke (pbase.com/gtepke). Used with permission.

Contact Information:

Chris White
PO Box 1232
Brighton, CO 80601
303.659.4348

chris.white@rmbo.org

Table of Contents

Table of Contents	1
I. Accessing the Databases	2
II. Data Entry Site Features	2
III. Data Categories	2
A) Landowner Contact Information	2
B) Transect Description	3
C) Transect Visit Data.....	3
D) Point Visit Data	3
E) Vegetation Data	3
F) Bird Data.....	3
IV. Entering Data	3
A) Landowner Contact Information	3
B) Transect Description	3
C) Survey Data	5
1) Getting Started	6
2) Visit Data.....	6
3) Point Data	7
4) Vegetation Data.....	7
5) Bird Data	9
6) Saving your entered survey data	10
7) Editing entered data/ Completing a partially entered transect.....	10
8) Uploading entered data to the database.....	10

I. Accessing the Databases

You will need to visit two separate sites in order to enter all the data associated with a given transect.

Landowner Database

Private Landowner Contact Information

You can record information regarding private landowner contacts by visiting <https://fc.rmbo.org/Default.aspx>. Once there you will need to log in and click on the link entitled "Landowner Database".

Data Entry Site

Transect Description Information

You can update transect description information by opening the data entry folder that was provided to you by your crew leader and opening the transect.htm file in Firefox (you can do this by right-clicking on the transect.htm file and select "Open with" and then "Firefox").

Survey Information

In order to enter data collected during a survey you will need to open the data entry folder that was provided to you by your crew leader and then open the index.htm file in Firefox. The first time you use the data entry program you will need to be online so that the program can download the necessary files from the database. Once the program has downloaded the files, you can enter data either offline or online.

II. Data Entry Site Features

Updates

The data entry site is a relatively new program and therefore is still undergoing periodic changes to improve compatibility for all avian monitoring programs and to increase usability. The data entry system has been designed to notify users if a new and improved version is available when the program is opened. When your crew leader sends you the data entry system you should do the following: Right click on the zipped folder, select "Extract All", and have the files extracted onto your desktop. If, while you are online, you receive a notification that there is a new version of the data entry site available you should choose to download the newest version. A pop-up blocker notification will appear on the top of the screen. Click on the pop-up blocker notification, select "Options", and select "Show <http://rmbo.org/v2...>". Next, select "Save File" and choose a location on your computer for the file to be saved. Close the Firefox browser where you have the data entry application open. Go to your desktop and delete the "Data Entry" folder. Finally, "extract all" files for the new zipped data entry folder onto your desktop.

Note: By saving the latest version to the same location on your computer your browser will retain links to any saved transects that you have previously entered.

III. Data Categories

The data entry can be broken up into 6 major sections:

A) Landowner Contact Information

Recording all communication with private landowners.

B) Transect Description

Directions to the transect, notes about the transect, camping locations, etc.

C) Transect Visit Data

Observer, transect name, date, start and end times, sky, wind, temp, etc.

D) Point Visit Data

The points visited during the survey, point count start times, gps accuracy, reasons points were not surveyed.

E) Vegetation Data

Vegetation and other point information such as the presence/absence of prairie dogs.

F) Bird Data

Species recorded at the point, and information related to the observation such as detection type, sex, distance from observer, etc.

IV. Entering Data

A) Landowner Contact Information

To access the Landowner Database go to: <https://fc.rmbo.org/Default.aspx> and login. Next, click on the link for the Landowner Database. To find a landowner you can either use the search box in the upper left corner of the screen or select the transect associated with the landowner using the drop down menu in the upper right corner. To view information or update the contact log for a particular landowner click on the landowner's name. To add contact information click on the button at the top of the screen labeled "View Contact Log" and type a description of the contact/contact attempt in the text box and click on the "Add Note" button using your mouse (pressing the "Enter" button will not add your comment to the log).

Please be specific when recording contact information. Try to include whether or not you spoke with someone or if you reached their voicemail, whether or not you left a message, and what the outcome of the correspondence was. For example, "Called and left message on voicemail asking Frank to call me back" is more informative than "Called, no answer". Each contact note will be "tagged" with a date and time stamp as well as your name. If you are unable to add the note to the contact log immediately after the correspondence please include the date and time when the contact was made/attempted in the note since the time stamp will not reflect the time of the correspondence.

B) Transect Description

To record or edit transect description information go to the data entry folder provided by your crew leader and open the transect.htm file with Firefox. Select the "Load a Transect" link at the top of the page, choose the appropriate transect from the dropdown menu, and click "Load". If the transect has been surveyed in past years, this page should already be filled out. Only the fields that are displayed in white are available for editing. For all transects make sure that the following information is entered and accurate.

Transect Identifiers

1. Transect Name – You may enter a short descriptor for the transect if you wish.

Transect Access

1. **Access Point (AP)** - Enter the zone, easting, and northing of the access point (where you parked your vehicle to access the transect) if it is different from previous years.
2. **DL Page** - Enter the page number and coordinates from the Delorme (e.g., if the transect can be found on page 12, at the coordinates B4, then enter 12 B4).
3. **Accessible to** - From the drop-down menu, select what type of vehicle is required to get to the access point. Your choices are: all vehicles, high-clearance, or 4WD only. If a transect requires both high-clearance and 4WD please select 4WD only.

Transect Information

1. **Directions** - It is absolutely crucial to have detailed and accurate directions to every transect. If you conduct a survey for the first time, please make sure to provide UTM's of the most logical and efficient location from which to access each transect. This location should be recorded as the Access Point and is the end point for the driving directions you provide. Also, be explicit in your description of the Access Point itself. The Access Point should be an easily recognizable feature on the landscape (e.g., a cattle guard, sign post, parking turnoff). Driving directions should begin at a major landmark readily found on a map (e.g., town, major intersection, etc.) and end at the Access Point. Record mileages from intersections or other landmarks using your odometer to the nearest 10th of a mile.

If the directions you received for a transect are incomplete or inaccurate, enter correct directions into the database. Please do not simply record your directions in addition to the existing incorrect directions. This will make it difficult for the technicians in subsequent years to determine which set of directions to follow.

Finally, provide directions from the Access Point to the logical first point count location on the transect.

Example: From the junction of US-89 and US-69 in Prescott, AZ head North on US-89 for 34.8 miles. Turn right onto Drake Road and follow this road 6.5 miles past the quarry. Turn right onto FR 182 and drive another 0.9 miles, just past where the electric fence crosses the road. This is the Access Point. Point 4 is 1.79 km E from the AP. Easy hike in, ~1/2 hour.

2. **Transect Description** - The transect description section allows you to provide information outlining what a future technician should expect when surveying a transect. This should include notes on habitat type(s), slope, useful landmarks, vegetation, terrain, and tips on how to navigate between points (where applicable). Record any points that are inaccessible and why (e.g., on a steep cliff, in the middle of a lake, etc.). If there is a preferred survey order due to terrain or other reasons you can record that information here as well. Please refrain from recording specific bird species detected on the transect as this can bias future survey data.

Example: Moderate transect with rolling hills dominated by Pinyon-Juniper. Suggested order of points: 16-13, 9-12, 8-6, 2-4, points 1 and 5 inaccessible due to cliffs.

3. **Notes/camping** - Record any other important or interesting information here, wildlife encounters, road conditions, etc. Please also record the location at which you camped the night before conducting the survey, available amenities (if any) and the cost. Please include the UTM's of camping site if different than the AP. It is also helpful to know if camping at the Access Point is an option and if any alternatives are available in the area. Information on local services such as fuel, libraries, etc. is also helpful.

Example: points 13-16 are owned by Anne and Timothy Scott; contact them the day before at 820-999-8888. Remaining points are public - USFS. Camp at the AP or at one of several dispersed camping sites with fire pits and picnic tables located along FR 182. Nearest library is located in the town of Prescott.

4. **Access Difficulty** - Enter a number corresponding to the appropriate level of difficulty in traveling from the Access Point to the first point of the survey (typically the closest point). Numbers for Access Difficulty should be assigned as follows:
- 1: ≤ 3 km and easy topography. Hike to transect requires less than 45 minutes.
 - 2: 3 km - 6 km with relatively easy topography. Hike to transect requires less than 75 minutes.
 - 3: ≥ 6 km and/or difficult terrain. Transect likely requires backpacking into transect the day before.
 - 4: Transect is inaccessible due to river, cliffs, or other dangerous terrain.
5. **Transect Difficulty** – Enter the number that corresponds to the appropriate level of difficulty when traveling between points on the transect. Numbers for Transect Difficulty should be assigned as follows:
- 1: Relatively flat transect. 16 points are easily surveyed in approximately 4 hours.
 - 2: Hilly terrain, areas with dense vegetation, and/or a few stream crossings. Technician might not be able to complete all 16 points during the sampling period.
 - 3: Steep slopes, dense vegetation, or difficult stream crossings throughout the transect. Technician is unlikely to complete 12 or more points during the sampling period.
 - 4: Transect has cliffs, rivers, or other dangerous terrain that do not permit 6 points to be finished.

C) Survey Data

Transect Visit Data, Point Data, Vegetation Data, and Bird Data should all be entered by opening the browser file entitled "index.htm" with Firefox. If Firefox is not your default browser, right click on the index.htm file and select "Open With" and then select Firefox, or open a blank tab in Firefox and drag and drop the "Index" file into the open browser window.

Survey data can be entered offline and then subsequently uploaded into RMBO's database. BE SURE to upload any data that you enter as soon as you have internet access to avoid ; otherwise, your data entry efforts may be lost (since no one else can upload the information you've entered without your computer).

Occasions may arise where the data recorded on the datasheet seem incorrect or are missing. Under no circumstances should you enter any values other than those recorded on the datasheet or those values which are designated below to indicate

“missing values”. If you run into a problem where you must enter a value and do not know what to enter, please contact your crew leader or Chris White (chris.white@rmbo.org).

When entering data we recommend that you use the “Tab” button to move from one field to the next across rows. To return to the previous cell you can use “Shift + Tab”.

1) Getting Started

The first time you open the index file you will need to be online so that the program can download the necessary files from the database. Once the program has downloaded the files, you can enter data either offline or online. Upon opening the index file you will be prompted to select one of the following data entry modes: IMBCR, IMBCR (variable points), Parks, Tamarisk, Habitat, or Wintering Grasslands. At training your crew leader will instruct you on which version you should be using for your project. Select the desired mode and then click “Load”. Next, you should select either “New Visit” or “Saved Transects”. If you are entering data for a new transect select “New Visit”. If you are going to be entering data for a transect that you have already begun entering data for select “Saved Transects”.

When entering survey data offline, the information you enter is actually saved within the Firefox browser. This means that if you clear your browser history, you will lose any saved data not yet submitted to the database. We recommend that you check your browser settings and make sure you do not clear your browser history until you have successfully uploaded all your data to the online database. Go to Tools/Options/Privacy and make sure you set the “Firefox will:” setting to “Remember History”.

2) Visit Data

- a. **Observer** - Enter the observer’s username login using the drop down menu. The observer is the person that collected the data. In the event that more than one surveyor collected data for a transect choose the observer that collected data for the most points and enter all of the data together as one transect. If both surveyors completed the same number of points, arbitrarily choose one (and only one) of the surveyors. **(Required)**.
- b. **Date** - Enter the date on which the survey was conducted as yyyy/mm/dd by typing in the appropriate digits. **(Required)**
- c. **GPS Unit** - Enter the four digit number located on the silver property tag of the GPS unit that you used to complete the transect. If you are using a personal GPS unit or a GPS that does not have a silver property tag on it please enter “0000”.
- d. **Transect ID** - Select a Transect ID from the drop-down list. (Note: if you click in the box and then type “c” the list will jump to the Colorado transects, or type “w” and it will go to the Wyoming transects). **(Required)**
- e. **Who Collected?** - Select the name of your employer from the drop down menu. **(Required)**
- f. **Data Entry** - Type in your first and last name. Please be sure to enter this even if you were the observer for this transect visit. Make sure you are being consistent with your name (i.e., use the same capitalization scheme, don’t

2013 Data Entry Protocol

enter “Andy” for one survey and “Andrew” for another, etc.). Do not include a date that the data was entered on. The data entry field should be the same for all surveys entered by an individual.

- g. **Time** - Enter the start and end time of the survey using the format hhmm (e.g., 0545) (Note: there is no colon and the time must be 4 digits. Enter a “0” in the first place holder if the time is between 1 AM and 9 AM). If no time was recorded on the datasheet enter “0000”.
- h. **Sky** - Enter the Sky information recorded at the start and end of the transect. If no Sky information was recorded enter “-1”.
- i. **Wind** - Enter the Wind information recorded at the start and end of the transect. If no Wind information was recorded enter “-1”.
- j. **Temp** - Enter the temperature in degrees Fahrenheit recorded at the start and end of the transect. If no Temp was recorded enter “-99”.
- k. **Notes** – Record any notes written in the “Notes” section of the data sheet.

3) Points Completed

To enter Point Data click on “Points Completed” located on the left side of the screen. Add any necessary rows for individual points on the survey (even if you did not survey that point) by clicking the “Add Point Visit” button at the top of the screen.

- a. Point – Enter the point numbers in numerical order that exist for the associated transect. **This will make it easier for us to proof the data after the field season.**
- b. **Start Time** – Enter the start time for each point from the Bird Datasheet in the format hhmm (e.g., 0545) (Note: there is no colon and time must be four digits. Enter a “0” in the first place holder if the time is between 1 AM and 9 AM). If no time was recorded on the datasheet for a given point enter “0000”.
- c. **GPS Accuracy** – Enter the accuracy of the GPS location that was recorded on the Vegetation Datasheet in meters. If no accuracy was recorded on the datasheet enter “-1”.
- d. **Completed** – Select a reason why the point was not completed from the drop down menu if you did not survey the point. This information can be found on the back of the Vegetation Datasheet. By default each point is set as “completed”. If the point was not conducted and there is no code recorded on the datasheet for why it was not done enter “U” for “unknown”.
- e. **Notes** – This section should be used when you select “Other” as a reason the point was not completed. Explain why the point was not completed in the Notes section.

4) Vegetation Data

Those of you that are not required to collect vegetation data for your study design should have chosen a data entry option that does not have a “Vegetation Data” tab and you should skip this section. For the rest of you, click on the button labeled “Vegetation Data” located on the left side of the screen. If necessary, you can quickly create rows for all the points that were completed on the survey by clicking on the “Copy Completed Points” button located at the top of the screen. Enter all the vegetation information for each point following the directions below.

2013 Data Entry Protocol

- a. **Private property** - click the box for each point that is on private property. Otherwise, leave blank.
- b. **Primary habitat** - Enter the two letter code or select the code from the drop down list that corresponds to the primary habitat that was recorded. If this field was left blank or a two letter code was recorded that does not match any of the options in the drop down menu please select "XX – Not recorded".
- c. **Midstory** – check this box if it was checked on the datasheet.
- d. **Cliff/Rock** - check this box if it was checked on the datasheet.
- e. **P. dog Town** - check this box if it was checked on the datasheet.
- f. **P. dogs present?** - check this box if it was checked on the datasheet.
- g. **# of Snags** - Enter the number of snags that were recorded at each point. If there were no snags present enter "0". If the field was left blank on the datasheet enter "-1".
- h. **Overstory %** - Enter the percentage of canopy cover, rounded to the nearest integer. Do not include decimals. If there was no canopy cover present, enter "0". If canopy cover percent was not recorded enter "-1".
- i. **Overstory mean height (m)** - Enter the estimated mean height of the canopy, rounded to the nearest meter. If there was no overstory cover present enter "0". If there was no canopy height recorded enter "-1".
- j. **Overstory species and abundance** - Enter the two letter code of each species followed by its percentage abundance as a whole number. Leave this section blank if there are no overstory species present. If you recorded a known species that isn't on the list of acceptable two-letter codes, enter "XX" into the database and record the species in the notes section of the visit data tab. If a transect has more than one species recorded as "XX" please enter a note that includes the Species and point(s) where it occurred (e.g., overstory species 1 – XX = Western Red Cedar for points 1,5,14; overstory species 3 – XX = Western Larch for points 3 and 9). If you recorded an unknown species in the field, enter "OT" into the database.
- k. **Shrub cover %** - Enter the percentage cover of the shrub layer to the nearest integer. Do not include decimals. If there was no shrub cover present, enter "0". If shrub cover percent was not recorded enter "-1".
- l. **Shrub mean height (m)** - Enter the estimated mean height of the shrub layer, to the nearest 0.25 meter (e.g., 0.25, 0.50, 1.50, etc.). If there was no shrub cover present enter "0". If no shrub height was recorded enter "-1".
- m. **Shrub species and abundance** – Enter the two letter code of each species followed by its percentage abundance as a whole number. If you recorded a known species that isn't on the list of acceptable two-letter codes, enter "XX" into the database and record the species in the notes section of the visit data tab. If a transect has more than one species recorded as "XX" please enter a note that includes the Species and point(s) where it occurred (e.g. shrub species 1 - point 1 OT=False Azalea; shrub species 2 OT=Snowbrush). If you recorded an unknown species in the field, enter "OT" into the database.
- n. **Ground Cover** - Enter the percentages to the nearest integer of each ground cover category: 1) Snow, 2) Water, 3) Woody, 4) Dead and Down, 5) Herbaceous, 6) Bare/litter, 7) Dead Standing Grass and 8) Live Grass. If data are not recorded for any category enter "-1".
- o. **Dead Standing Grass Height and Grass and Herbaceous height (cm)** - Enter the average height in cm of dead standing grass and live grass and herbaceous in the appropriate columns. If there is no dead standing grass or grass and herbaceous cover present enter "0". If dead standing grass or live

2013 Data Entry Protocol

grass and herbaceous cover was present and the corresponding height was not recorded, enter -1.

5) Bird Data

To enter Bird Data click on the button labeled “Bird Data” located left side of the screen. You can add blank rows in which you can enter the bird data by clicking on the “Edit” button at the top of the screen and then selecting “Add 1 row”, “Add 10 rows”, or “Add 50 rows”. Use the tab button to move from left to right through the fields. Note: when entering 88 bird detections enter the **point that the observer was coming from** in the “Point” column and record the “Minute” as “88”.

- a. **Point** - Select the point number that corresponds to the bird records you are entering. When entering data for an 88 bird detected between points, you will need to associate the data with a point. Select the point you came from as the point number for 88 birds. **(Required)**
- b. **Minute** – Enter the minute that the bird was detected. If the bird was recorded between points, select “88” for minute (and make sure you select the point you came from as the point number). If no minute was recorded for the bird detection enter “-1”. Make sure you have entered all of the bird detections for the current point before moving on to the next point.
- c. **Species** – Enter the four letter bird code for the bird detection. To quickly find the species you want; while the drop-down list is selected, type the four letter code of the species to automatically select its name. Verify you have selected the correct species, mistakes are commonly made here (e.g., HOWR not HOWA). Press enter or tab to save your entry and move to the next field. When entering “NOBI” records the data entry system will automatically fill in the Distance, How, Sex, and Cluster Size fields. If the bird code was left blank on the datasheet enter “UNBI”. **(Required)**
- d. **Distance** – Enter the distance from the observer to the bird in meters (whole numbers only). If no distance was recorded on the datasheet or if the bird was recorded between points, enter “-1”. **(Required)**
- e. **How** – Select the code for how the bird was initially detected from the drop down menu. Note: If the bird was detected by any means other than singing or flying over and then was heard singing, there should be a two-letter code to enter (i.e., VS, CS, OS). If the bird was first detected singing, then you should only have one code to enter (S). If a bird is detected flying overhead and is then heard singing, it is not a flyover. Just enter the detection as “S”. If the how code was not recorded on the data sheet enter “U”. **(Required)**
- f. **Visual** – Check this box if the Visual box was checked on the data sheet either by left-clicking on the box using your mouse or by tabbing to this field and pressing the space bar.
- g. **Sex** – Enter the sex as it was recorded on the data sheet. If Sex was not recorded on the datasheet enter “U”. **(Required)**
- h. **Migrant** – Check this box if the Migrant box was checked on the datasheet either by left-clicking on the box using your mouse or by tabbing to this field and pressing the space bar.
- i. **Cluster Count** – Enter the number recorded on the datasheet. If Cluster Count was not recorded on the datasheet enter “1”. **(Required)**

- j. **Cluster ID** – Enter the letter recorded on the datasheet. If Cluster ID was left blank on the data sheet leave this field blank.

Before moving on to the next point, make sure you have entered the same number of birds as are recorded on your datasheet and that the Point, Minute, Species, Distance, How, Visual, Sex, Migrating, Cluster Size and Cluster Code are all filled in correctly. Verify that you have entered all time periods including NOBIs for minutes without birds.

To quickly delete all blank rows once you are done entering bird data, click the “Edit” button at the top of the screen and then select “Remove Empty Rows”.

Hint: Remember to use the tab button to move from one cell to the next.

6) **Saving your entered survey data**

You can save your data entry progress by selecting the “File” button at the top of the screen and then clicking on the “Save Transect Visit” button. You can save your entered data at any time from any section you are in (visit data, points completed, vegetation data, or bird data). You will need to delete an empty rows from the bird data tab before saving.

7) **Editing entered data/Completing a partially entered transect**

When you save entered data on your computer, that information is saved within the Firefox browser specifically on your computer. To edit or modify a transect that you had previously entered data for you must open up the index.htm file on the same computer that you began data entry on. Select the appropriate data entry mode and then click on the button labeled “Saved Transects” on the left side of the screen. A drop down menu will appear with the dates, transect names, and observer(s) for any transects that you have entered on the computer you are using. Select the transect that you would like to modify. You can make changes just like when you enter data for a new visit. Please remember to save your work.

8) **Uploading entered data to the database**

Once you have entered all of the data for a transect and have obtained internet access you should upload your data to the online database. First, load the saved transect by clicking on the button labeled “Saved Transects” on the left side of the screen. A drop down menu will appear with the dates, transect names, and observer(s) for any transects that you have entered on the computer you are using. Select the transect that you would like to upload and hit Okay. Next, click on the “File” button and then press the “Submit Transect Visit” button. You can submit a transect multiple times. In the event that you submit a transect and then realize that you need to make edits to the uploaded data, you can simply edit the transect as described above (#7) and re-submit the transect. A warning message will ask if you want to overwrite an existing transect. Be sure you know what you are overwriting before you press “Yes”! Note: If you enter data while connected to the internet it is not necessary for you to save the transect before clicking the “Submit transect” button. Your data will be saved automatically prior to the submission. You will receive a pop-up message telling you that the data have been successfully uploaded.

2013 Data Entry Protocol

If you receive a warning message that the submission failed, relax, the information you entered will have already been saved on your computer and can be recovered at any time by clicking the “Saved Transects” button. If you see an error message when submitting a transect, check all of the tabs to make sure that you’ve entered all required data. This is the most likely reason that you would receive an error message when submitting a transect. If after checking through your data you are still unable to submit the transect and you cannot figure out the problem, contact your crew leader.