

# **Using the Bird Point Count Database Web Site**

***A Guide for U.S. Fish and Wildlife Service Personnel***

**July 2009**

The use of trade or product names is for descriptive purposes only, and does not imply endorsement by the U.S. Government.

# Table of Contents

Introduction .....	Page 1
The User Guide .....	Page 1
Text Formats .....	Page 1
Web Site Basics .....	Page 2
Web Site Structure .....	Page 2
Web Page Sections .....	Page 3
Web Page Headers .....	Page 3
Accessing the System .....	Page 5
Logging In .....	Page 5
Forgotten Passwords .....	Page 5
User Profiles .....	Page 6
Changing Passwords .....	Page 6
Changing Land Units .....	Page 7
Login Difficulties .....	Page 7
Requesting Access to an Existing Land Unit .....	Page 8
Establishing a New Land Unit .....	Page 10
My Point Counts .....	Page 10
Describing a Land Bird Survey Program .....	Page 11
Study Designs and Land Unit Description .....	Page 11
Adding a Study Design .....	Page 11
Study .....	Page 13
Sampling .....	Page 14
Field Methods .....	Page 15
Editing the Land Unit Description .....	Page 16
Points .....	Page 18
Creating Points .....	Page 18
Common Point Features .....	Page 19
Identifying Geographic Coordinates .....	Page 19
Entering Data Points Manually .....	Page 20
Pasting Data from a File .....	Page 21
Viewing and Editing Points .....	Page 23
Deleting Points .....	Page 23
Habitat Descriptions .....	Page 24
Point Groupings .....	Page 24
The Point Groupings Function .....	Page 24
Types of Groups .....	Page 25
Creating Point Groups .....	Page 25
Editing Point Groups .....	Page 26
Deleting a Point Group .....	Page 27

Species Lists .....	Page 27
Creating a Species List .....	Page 27
Adding Species .....	Page 28
Editing a Species List .....	Page 29
Using Bird Surveys to Create or Edit Species Lists .....	Page 29
Observers .....	Page 30
Available Security Levels .....	Page 30
Regional Coordinator .....	Page 30
Responsible Party .....	Page 30
Data Manage .....	Page 31
Data Entry .....	Page 31
Observer Only .....	Page 31
A Land Unit's Observers List .....	Page 32
Adding Observers .....	Page 33
Editing the Observers List .....	Page 34
Deleting Observers .....	Page 35
Entering Survey Data .....	Page 36
Pre-entry Tasks .....	Page 36
Entering Data .....	Page 36
The Bird Survey Forms .....	Page 37
The Survey Header Page .....	Page 38
The Sighting Entry Page .....	Page 41
Repeating Header Values .....	Page 43
Reviewing and Editing Surveys .....	Page 44
Locating a Survey .....	Page 44
Viewing a Survey Report .....	Page 45
Editing a Survey .....	Page 46
Updating Species Lists .....	Page 46
Verifying a Survey .....	Page 47
Creating Reports .....	Page 48
Land Unit Description .....	Page 49
Study Annual Report .....	Page 50
Species Inventory Report .....	Page 51
Species Observations .....	Page 52
Survey Effort .....	Page 53
Abundance Among Years .....	Page 54
Abundance Within Year .....	Page 55
Species Across Sites .....	Page 56

Check-off Lists .....	Page 58
Setting Up a New Land Unit .....	Page 58
Land Unit Manager Tasks .....	Page 58
Responsible Party Tasks .....	Page 58
Before logging into the BCPD Web site . . . . .	Page 58
Long onto the BPCD and perform the following .....	Page 58
Before Entering Survey Data .....	Page 59
Before logging onto the BPCD Web site . . . . .	Page 59
Long onto the BPCD Web site .....	Page 59
Enter Your Survey Data .....	Page 60
Field Crew and/or Data Entry Tasks .....	Page 60
Verifying Party Tasks .....	Page 60
Coordinate Information .....	Page 61
What are Decimal Degrees and Degrees, Minutes, Seconds .....	Page 61
Index .....	Page 63



# Introduction

The [\*Bird Point Count Database\*](#) (BPCD) was designed to support the U.S. Fish and Wildlife Service (FWS) data management needs of the National Wildlife Refuges and Wetland Management Districts (e.g., *land units*). The database stores land bird survey data, provides basic report functions, and permits the public to explore the data. While the database provides an efficient method for data storage, sharing, and basic reporting, it will still be the responsibility of the land unit's biologist and/or other staff to analyze and effectively use the data to support their land unit's management decisions. This need can be met through the use of standard online reports generated by the database or custom analysis of data downloaded to suit specific land unit needs.

## *The User Guide*

This user guide was developed for FWS employees, to help them enter and edit their land bird survey data. As result, it is not designed to document the [\*explore\*](#) functions, used by the general public.

## Text Formats

This document uses a series of specialized text styles, characters, and symbols to identify specific types of information. Below is a summary of the styles.

**Bold Text** = Notable word or phrase.

Numbers (①) are used to identify specific items in a figure.

Blue arrow graphics (▶▶) are hotlinks to other sections in this document (*in the .pdf file*).

[\*\*\*Bold, Italic, Underlined, and Blue Text\*\*\*](#) are hypertext links to specific Web pages.

***Bold and Italic Text*** is used to identify individuals with login/password access to the BPCD.

**Bold and Underlined Text** are references to data the user enters, or sections within the BPCD. These references are not hypertext links.

The red arrow graphics (◀◀) identify required data entry fields.

***Bold, Italic, and Red Text*** is used to identify FWS standardization recommendations and/or requirements.

*Italic, Underlined, and Brown Text* identifies miscellaneous help information users may want to consider when performing a particular task. They include warnings about potential errors or database conflicts/irregularities.

## Web Site Basics

### Web Site Structure

The BPCD Web site is organized into three main sections; [explore](#) (Figure 1, ①), [my point counts](#) (②), and [about](#) (③).

The public has access to the data query ([explore](#)) and Web site information ([about](#)) sections. Login access is required to access the data entry, management, and reporting functions ([my point count](#)).

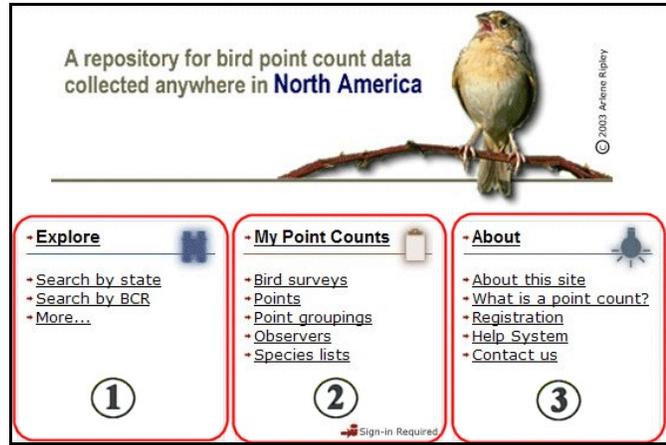


Figure 1. The three sections of the BPCD Web site, as shown on the [BPCD home page](#).

The BPCD home page contains two types of Web links; links to commonly used functions (Figure 2, ①) and links to Web pages that contain complete lists of available functions (②).

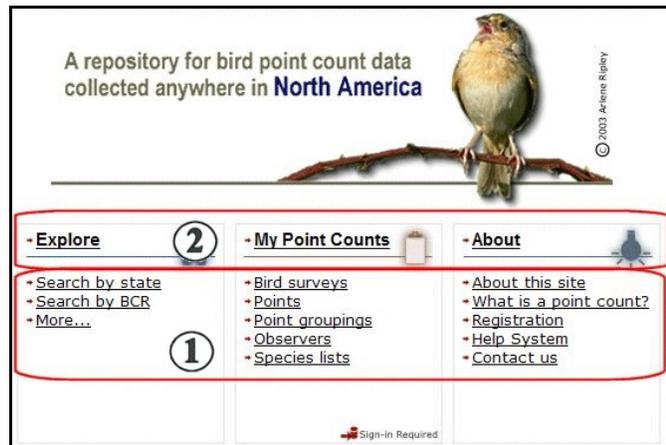


Figure 2. Links to the three sections, available on the BPCD home page.

## Web Page Sections

The [BPCD](#) uses a standardized template for its Web pages. All pages contain three main sections; a header (Figure 3, ①), a body (②), and a section for credits, contact information, and disclaimers (③).

The display in the credits section (③) rarely change as the user navigates between one Web page and another. As result, most of the graphics in this document will not include displays of the credits sections.

The headers (①) will change between Web pages. The headers are used to (a) display the current login status of the user, (b) the current location of the user in the Web site, and (c) provide links to commonly used functions. Outside of the introduction section of this document, most of the graphics will not contain elements from the page headers.



Figure 3. The BPCD home page.

## Web Page Headers

When the (a) general public, (b) an individual with **Observer Only** access, or (c) a registered user who has not logged in access a BPCD that is not the home page, the header section will appear similar to Figure 4. The login status of the user is displayed on the right-hand side of the header section (①).

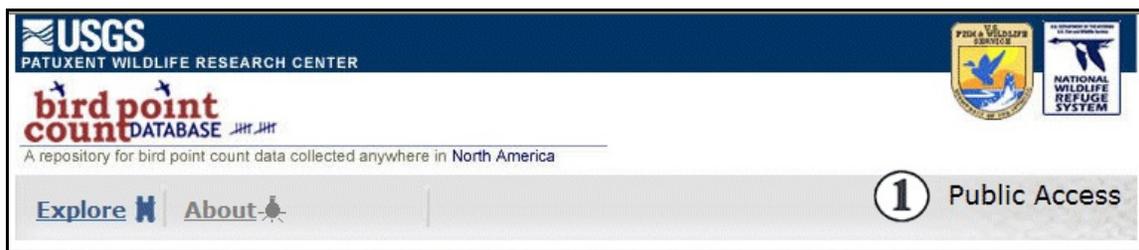


Figure 4. The Web page header section, public access display.

Individuals who have logged into the BPCD will see a header display similar to Figure 5. The name of the land unit is displayed (①) along with the name of the user (②).



Figure 5. The Web page header section, login user display.

No matter where the user is in the BPCD Web site, links to the three main sections are always available (Figure 6, ①). The headers also contain the name of each Web page and the page's location in the BPCD site map (②). Links to commonly used functions are available (③), as well as quick links to BPCD home page, help section, and a feedback form (④).

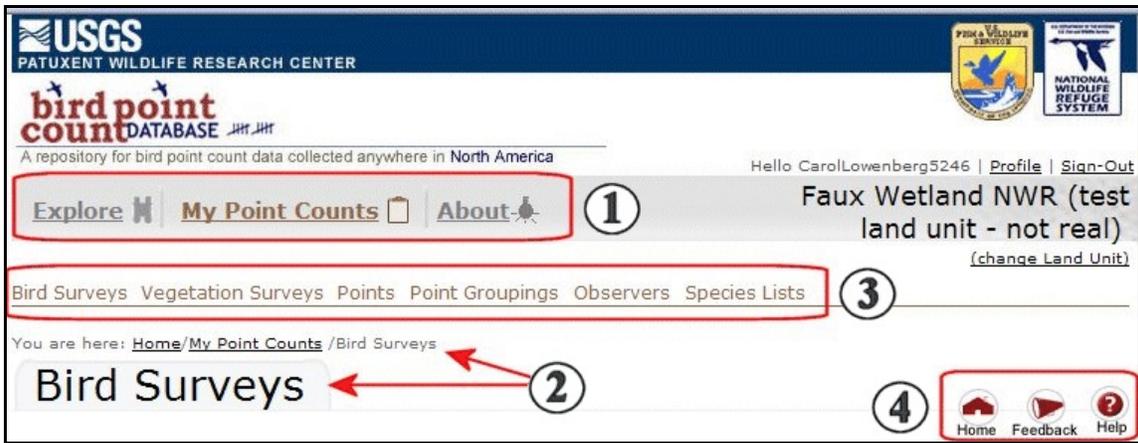


Figure 6. The Web page header section, login user display.

# Accessing the System

## Logging In

The BPCD login site is located on the right-hand side of the home page, next to the **about** menu (Figure 7, ①).

Users enter their login name and password into the **sign-in boxes** (①), then press the **sign-in** button (Sign-in).

If an person attempts to access the **my point count** functions before they login, a **sign-in** Web page is displayed (Figure 8, ①).

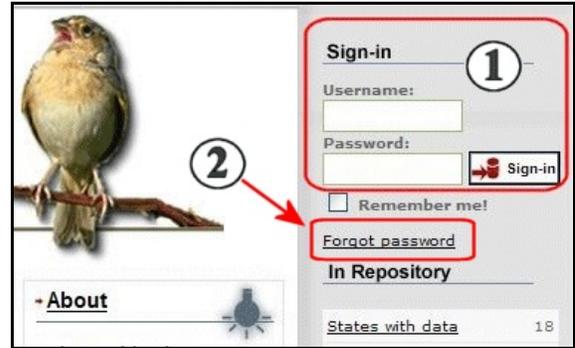


Figure 7. The BPCD home page's login site.

## Forgotten Passwords

Users that have forgotten their password can use the password retrieval application to retrieve it. The links to this function are on both the home page (Figure 7, ②) and the sign-in page (Figure 8, ②).



Figure 8. The sign-in Web page.

When activated, the password retrieval function asks the user to enter their username or Email address (Figure 9, ①).

*Note: The password retrieval function expects only one user per username or Email address. If multiple users share the same Email address or have edited their user names so they are no longer unique, the system has difficulties distinguishing between users.*



Figure 9. The password retrieval function.

## User Profiles

The user profile is used to (a) record background information on each registered BPCD observer, and (b) manage login names and passwords.

Registered users with a security access levels of **Data Entry**, **Data Manage**, or **Responsible Party**, have the ability to access and update their user profile. The link to user profile is located on the right-hand side of a Web page's header section, next to the user's login name (Figure 10, ①).



Figure 10. Locating the user profile link.

The user profile contains contact information (Figure 11, ①), login information (②), the name of the land unit(s) the user has access to (③). The user's access level for each land unit is also displayed (④).

Each user has the ability to edit their contact information and password. Only an individual with a security access level of **Regional Coordinator**, **Data Manage** or **Responsible Party** have the ability to change a user's security level or modify which land unit(s) the user has access to. Background information on how to perform the second set of changes are documented in the observer's section (▶▶, page 30).

A screenshot of the 'User Profile' update form. The form is titled 'User Profile' and has a breadcrumb 'You are here: Home / User Profile'. It contains several sections: 1. Contact Information: 'First Name' (Carol), 'M.Initial' (empty), 'Last Name' (Lowenberg), and 'Email' (clowenberg@usgs.gov). 2. Login Information: 'User Name' (CarolLowenberg5246), 'Password', and 'Re-type Password'. 3. Access Areas: A table with columns 'Land Unit...' and '... As (Security Level)'. The table lists 'Faux Wetland NWR (test land unit - not real)' with 'Data Manage' and 'Upper Mississippi River NWFR - La Crosse District' with 'Responsible Party'. 4. Action Buttons: 'Save' and 'Cancel'.

Figure 11. Updating your user profile (inc. password).

## Changing Passwords

Registered users that have security access levels of **Data Entry**, **Data Manage**, or **Responsible Party**, have the ability to change their passwords.

The default passwords created by the BPCD contain the user's initials and the number code from their login name (Figure 12, ①).

A screenshot of the 'User Profile' update form, similar to Figure 11 but with a focus on the password fields. The 'User Name' field (CarolLowenberg5246) is circled in red with a '1' next to it. The 'Password' and 'Re-type Password' fields are circled in red with a '2' next to them.

Figure 12. Updating your login password.

Since everyone's User Name is displayed in the header section of the Web site, individuals familiar with the BPCD Web site can figure out a person's password if they can see other user's computer screen.

Passwords are changed by entering a new password into the **password** boxes (②) then activating the **save** button (⊖ Save).

## Changing Land Units

If a user has access to more than one land unit, the Web page header will contain an option to change land units (Figure 13, ①)

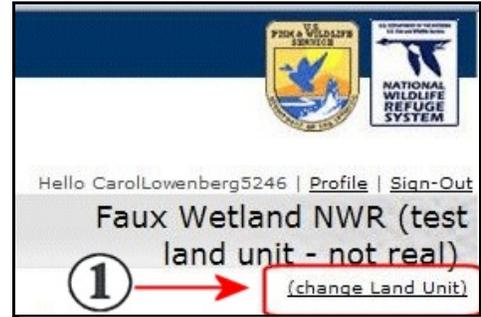


Figure 13. Locating the user profile link.

When activated, the **change land unit** link will open a pop-up window containing a list of available land units (Figure 14, ①). The new land unit is selected, then the **close** button (⊖ close) is activated.

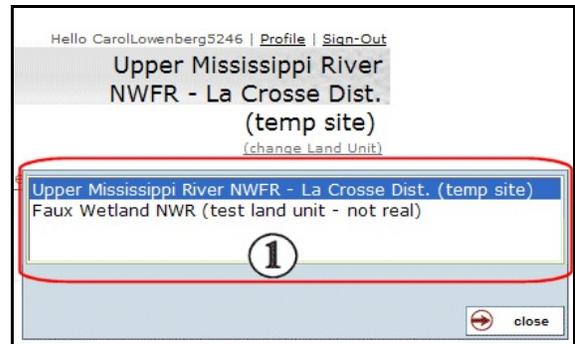


Figure 14. Changing land units.

## Login Difficulties

Sometimes difficulties have occurred when a land user attempts to login, using a valid user name and password. A couple of items can cause these problems, most notably a non-unique login user name or the need to refresh your computer after logging out.

If a person updates their user profile and changes their username to a non-unique name, their login password could get confused with another user's password. Whichever person updates their user profile last will be in charge of the active password for that name. If this type of problem arises, contact your **Regional Coordinator**.

Sometimes if a user logs out of the system then attempts to reenter again, the system will not accept their login name and password. When this happens the system needs to be refreshed. This is accomplished using one of two methods; (1) rebooting the computer, or (2) refreshing the Web browser.

If the Web browser is Windows Explorer, this is accomplished by using the **internet options** function located in the **tools** menu.

**Internet options** contains a function used to delete temporary files, cookies, and saved passwords (Figure 15, ①). If this function is used to clear the browsing history, most users are then able to log into the BPCD.

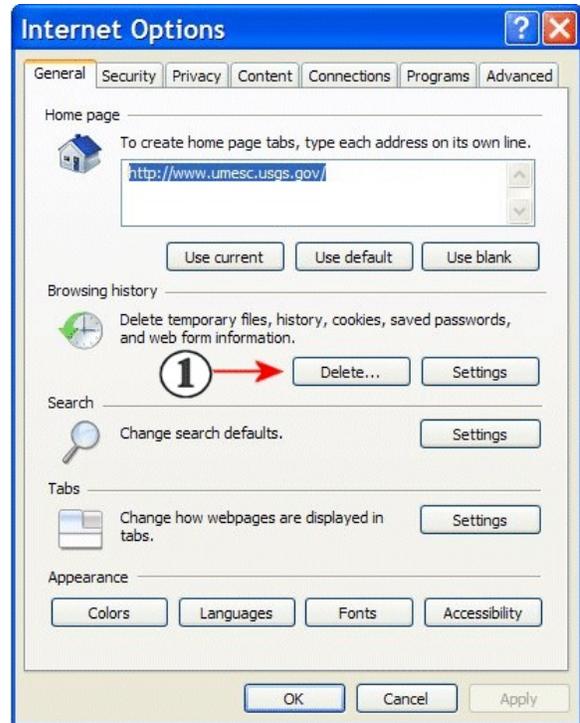


Figure 15. Internet options associated with the Microsoft Explorer Web browser.

## Requesting Access to an Existing Land Unit

If a user knows someone at the land unit, they can contact that person to see who the **Responsible Party** or **Data Manage** contacts are. Individuals with this level of access can modify the land unit's list of observers.

The name of the land unit's **Responsible Party** contact can also be found in the BPCD, using the **explore** (i.e., *public access*) pages (Figure 12, ①).

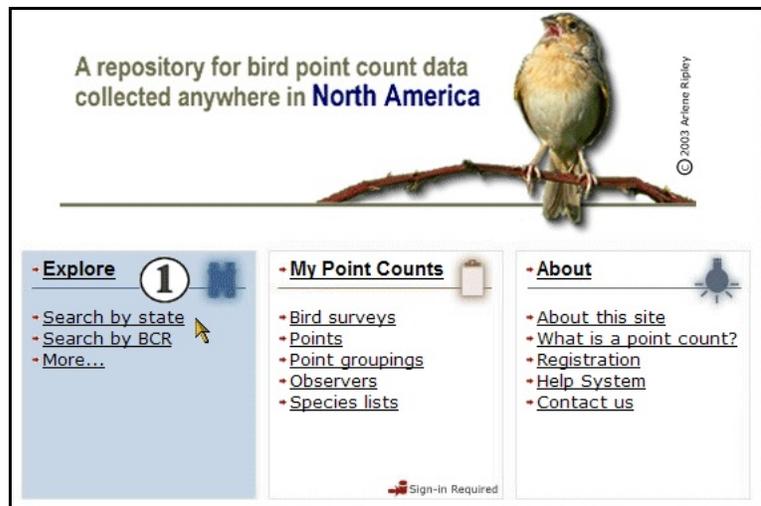


Figure 12. Locating the **explore** function [search by state](#).

The [search by state](#) function (Figure 12, ①), will open a page containing a list of available states and provinces (Figure 13, ①).

The names of the states or provinces are links to land units associated with each area (②). Links to the other search options are also available (③).

Area	# Land Units	# Points
<a href="#">Alabama</a>	1	2
<a href="#">Alaska</a>	1	66
<a href="#">American Samoa</a>	1	3
<a href="#">Arkansas</a>	4	538
<a href="#">California</a>	3	632
<a href="#">Colorado</a>	5	859

Figure 13. Geographic search by state.

If a state or province were selected (Figure 13, ②), a listing of available land units in that state (Figure 14, ①) are displayed (②). The list contains background information on the number of available land bird surveys and survey sites (*i.e., points*). The names of the land units are Web links that will open the land unit's description page (Figure 15).

LandUnit	State	Points	Surveys	Type	Download
<a href="#">Bombay Hook NWR</a>	Delaware	68	552	Nat'l Wildlife Refuge	Download
<a href="#">Prime Hook NWR</a>	Delaware	63	303	Nat'l Wildlife Refuge	Download

Figure 14. Locating available land units.

One of the items contained in the land unit description is the name of the **Responsible Party** (①). That person's name is also an **Email link** which can be used to contact them.

An Email message to the **Responsible Party** needs to contain (a) the requester's first and last name, (b) their Email address, and (c) information on why the person wants access to the land unit (*this is used to determine the user's access level*).

*Background information on security access levels and login rights are listed in **observer's** section of this document (▶▶, page 30).*

**Name:** Bombay Hook NWR  
**Type:** National Wildlife Refuge  
**State:**  
**Survey sites:** 68  
**BCR:** New England/Mid-Atlantic Coast  
**PIF Physiogr. Reg.:** Mid Atlantic Coastal Plain  
**Survey Years:** 1994-2007  
**Contact:** [Ray Brown](#)  
**Studies:** 3  
**More:** [Inventory](#) | [List of Points with Coordinates](#)

Figure 15. Locating a land unit's **Responsible Party** contact.

## Establishing a New Land Unit

If a land unit's name is not listed in The [explore](#) section, then perhaps a profile has not been created for the land unit. An individual associated with the land unit will need to follow the procedures listed below, to get their land unit added to the BPCD. A check-off list containing these procedures is also available, titled [setting up a new land unit](#) (▶, page 58).

### 1. Decide who will be the land unit's *Responsible Party*.

This decision is usually made by the manager of the land unit (*a refuge manager, district manager, or project leader*). The **Responsible Party** is expected to oversee the bird point count projects at the land unit. This person will also coordinate login access to the land unit's data, as well as assigning security levels to observers. A complete listing of the duties performed by the **Responsible Party** is available in the **Observers** section, underneath **available security levels** (▶, page 30).

### 2. Send an Email to the land unit's BPCD [Regional Coordinator](#).

Either the land unit's Manager (*e.g., refuge manager, district manager, or project leader*) or the **Responsible Party** needs to send the Email message. The message needs to include;

- a. The **name of the land unit** (*e.g., National Wildlife Refuge, WMD*).
- b. The **state(s)** associated with the land unit.
- c. The **name of the land unit's Responsible Party** (▶, page 30). Be sure to include,
  - i. first name
  - ii. middle initial
  - iii. last name
  - iv. email address

The [Regional Coordinator](#) will create an entry for the land unit in the BPCD, then enter basic location and background information. The land unit's **Responsible Party** will have the ability to edit this information, should they choose to (▶, page 16).

## My Point Counts

When registered users (*those with login access*) log into the BPCD, they are automatically taken to the Web page titled [my point counts](#) (Figure 16). This is the site where the data entry, editing, and downloading functions are located (①), along with the reporting tools (②) and **Responsible Party** tasks (③).



Figure 16. The [my point counts](#) Web page.

# Describing a Land Bird Survey Program

Before a land unit can enter their survey data they will need to enter background information on how their land unit is implementing its bird survey program(s) (e.g., survey methods used, sites surveyed, individuals who collect or process the data, and species lists).

Initially most of these tasks are accomplished by a land unit's **Responsible Party**. However, as additional observers are added to the BPCD, some of the tasks can be performed by individuals with **Data Manage** access.

## Study Designs and Land Unit Description

Before a land unit can enter their survey data, background information on how the surveys are conducted is required. This is completed by entering one or more study designs.

An individual with **Responsible Party** access is required to enter or edit a study design.

### Adding a Study Design

By default, when a new land unit is added to the BPCD, the first task the **Responsible Party** is asked to perform is entering a study design.

The BPCD automatically sends the new **Responsible Party** observer to the **study design** page. A link to this function is also available on the [my point counts](#) page (Figure 17, ①).



Figure 17. Locating the [study design](#) function on the [my point counts](#) page.

The [study design](#) page (Figure 18) contains summary information for any previously entered study designs (if any, ①) as well as an option to [add a new study design](#) (②).

*Note: If one or more study designs have already been entered into the BPCD, it is recommended you review the list before adding additional study designs. The Responsible Party cannot delete an entry once it has been saved. If you accidentally enter the same*

*study design twice (using different Study Names), you will need to contact the BPCD database administrators to have the duplicate entry removed (use the Contact Us page). Only the Web site's database administrators can delete a Study Design.*

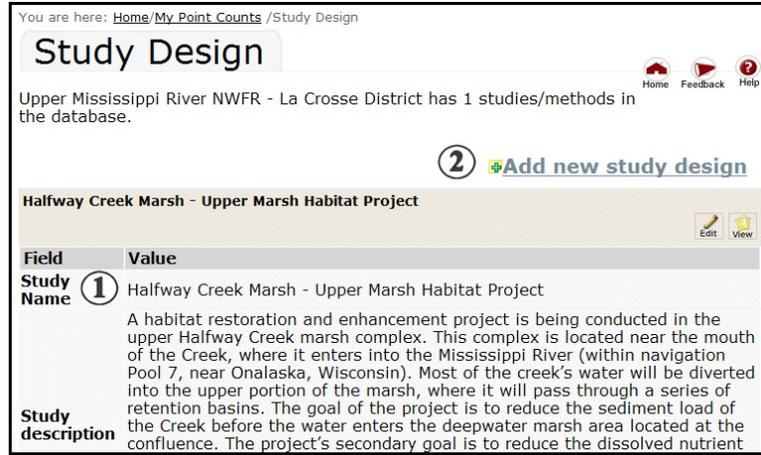


Figure 18. Study Designs - Adding a new study design.

When activated, the [add new study design](#) link (Figure 18, ②) will take the user to a [study design](#) page (Figure 19).



Figure 19. Locating the [study design worksheet](#) and topic sections within the study design.

The Web form used to fill in the study design is broken into three subject sections; overview information (**study**, ①), background information on the sampling design and site selection procedures (**sampling**, ②), and field methods (**field methods**, ③). For those who like to organize their information before filling in the Web form, a link to a [worksheet](#) is also available (④). The worksheet is a Word format file (.doc) that contains the same data fields as the Web form. Users can fill out the worksheet then use their computer's copy and paste functions to add the information to the Web form.

**WARNING!!!**

Use the index tabs to navigate between sections in the Web form. Using the Web browser's back buttons will take the user out of the data entry mode and return them to the overview page. When this happens, all unsaved information will be lost.

**Study** - The **study** section is used to describe the purpose of the study, the year(s) of data collection, and references to other studies or procedures. The study section contains two subsections, the **study name** and **study description** (Figure 20).

The **study name** text box (①) is a mandatory data field (◄◄). Choose a name that is descriptive, easy to recognize, and not too long. The field accepts approximately 60 characters.

Land units with one study design will have the name of their study design automatically added to the Web forms for entering survey data. When multiple study designs are available, a list is generated containing the available study names. It is unknown if the BPCD will truncate long study names (*which could make differentiating between long names difficult*).

Figure 20. Study Designs - The **study** index tab.

The second mandatory field (◄◄) is the **start year** (②). This information is used by the BPCD to create data entry forms. **Use 4-number characters to enter year values.**

The third mandatory field (◄◄) is the **purpose** field (③). All users must select at least one purpose statement from the scrolling list. Multiple selections are accepted. These are made by using the keyboard's shift or control keys in combination with mouse.

Several optional data fields are also available. These are used to enter a Web link to information about the land unit's survey program (④), a free text field for adding additional purpose information (⑤), and citing an existing program or document the land unit used when developing their study design (⑥).

**Sampling** - The **sampling** tab describes the procedures used to determine which sites get sampled, and how often.

This section of the Web form contains three mandatory data fields, the **sampling frame type** (Figure 21, ①), **pointsampling** (②), and **season** (③).

Figure 21. Study Designs - The **sampling** tab's data fields.

The **sampling frame type** (①) is a mandatory field (◄◄) used to describe area sampled. The extent of the sampling frame is not restricted to the boundaries of the land unit. Available options are shown in Figure 22.

Next to this field is a free text field, which can be used to describe the sampling frame in more detail. Approximately 120 characters can be entered into the text box.

Figure 22. **Sampling frame types.**

The second mandatory data field (◄◄) is the **PointSampling** field (Figure 21, ②). This field contains a list of commonly used site selection methods (Figure 23). Background information on the sampling methods is available in Knutson, et. al., 2007.

Figure 23. The **PointSampling** options.

The third mandatory field (◄◄) is the **season** field (Figure 21, ③). This field is used to identify the time(s) of year sampling takes place (Figure 24).

Figure 24. The **season** options.

The last data field is the **survey frequency** (Figure 21, ④). This is used to describe how often each site is surveyed (Figure 25).



Figure 25. The **survey frequency** options.

**Field Methods** - The **field methods** tab is used to describe field procedures used to collect and record bird observations (Figure 26).

This section does not contain mandatory data fields. All entries are optional.

The **protocol** field (①) is used by the BPCD to create data entry forms. The number and type of entries are controlled by the number of observers selected in the second pull-down menu (②).

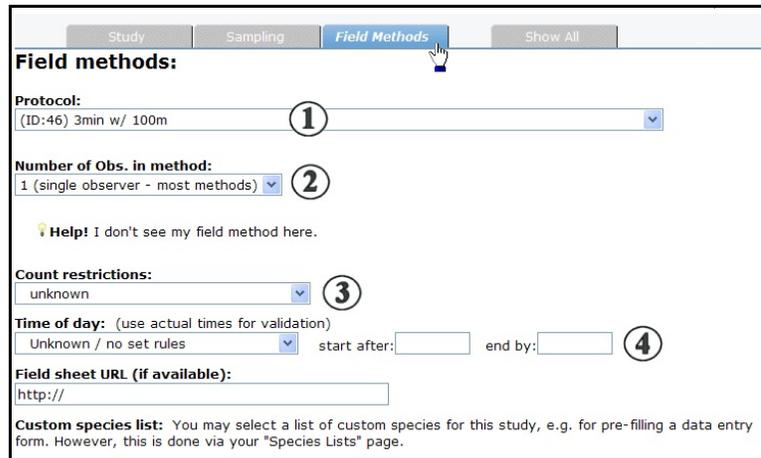


Figure 26. Study Designs - Field methods.

The protocol entries are sorted by total survey time. Users need to locate the entry which best matches their survey procedures (Figure 27).

The count restriction field (Figure 26, ③) is used to identify conditions that would cancel data collection. Options include; sky conditions (*e.g., rain or fog*), temperature (*too hot or cold*), noise (*e.g., cars/water*), or multiple restrictions.

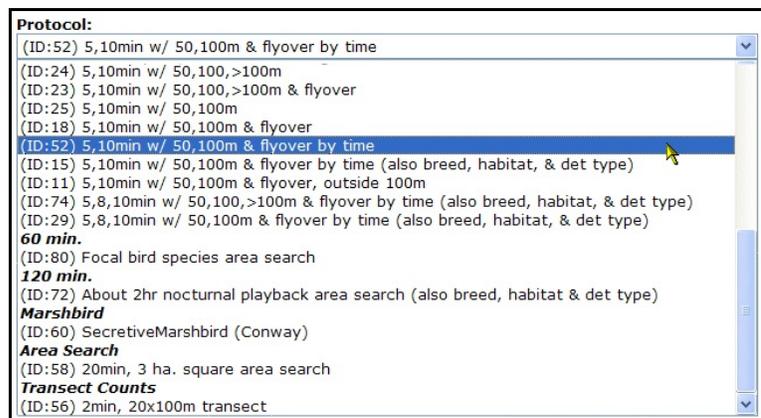


Figure 27. Available survey protocols.

If the bird surveys have a **time of day** window all surveys are to be completed within, this information can be identified (Figure 26, ④). All time entries are made using military time (*i.e.*, 24-hour day). Users are expected to (a) identify the rules associated with their time bracket (Figure 28), then (b) enter the appropriate starting and/or ending time.

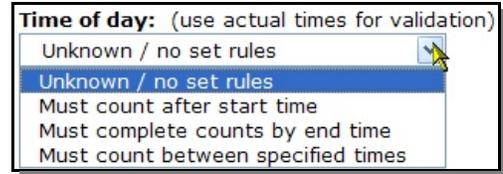


Figure 28. Available time rules.

After all the data are entered, activating the save button (Save) will take the user out of the data entry form and return them to the study design page (Figure 29).

The overview page contains a listing of information entered in the study design form. It also contains links to **editing** the study design (①) and **viewing** a summary of survey data (②), which displays a *study annual report* (page 50).

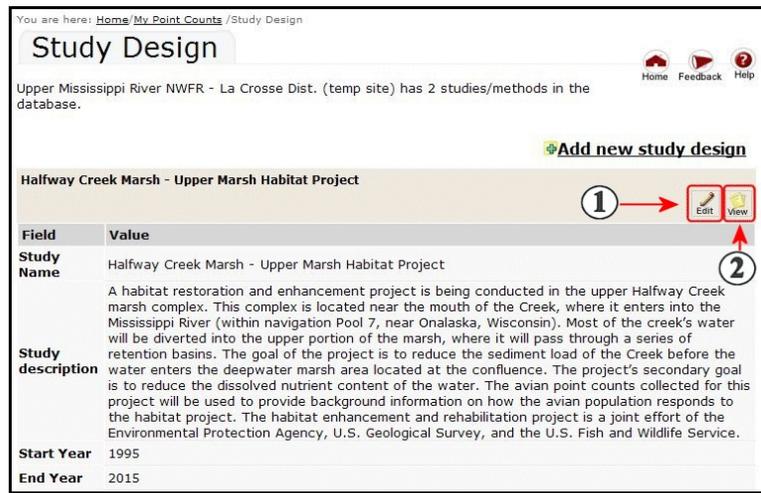


Figure 29. Accessing the edit and view function, on the **study design** page.

## Editing the Land Unit Description

The land unit description is initially created by the **Regional Coordinator**. Only an individual with **Responsible Party** login access has the ability to edit the land unit description. The edits are performed using the [land unit description](#) function, located on the [my point counts](#) page (Figure 30, ①).

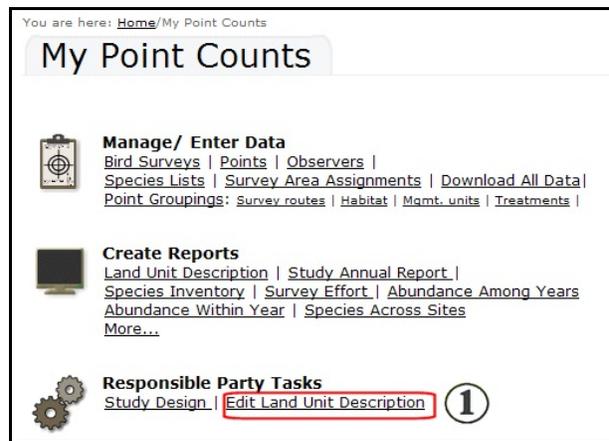


Figure 30. The **Responsible Party** tasks.

Once opened, the land unit description page allows the user to edit most of the information associated with the description (Figure 31).

The **name of your land unit** text box (①) controls how the name of the land unit is written on the Web pages and in reports.

The **state(s)/provinces(s)** pull-down menu (②) is used to list which political unit(s) are associated with the land unit (*states, provinces, and territories*). Multiple selections are allowed, when the shift or control keys are used in combination with the mouse.

Users whose land unit crosses one or more political boundaries should select all appropriate entries from this pick list. The BPCD uses this information to create pick lists on other Web pages (*e.g., identifying which state a point is located in, [B], page 19*).

The **bird conservation region** (BCR) pick list (③) is used to identify the North American Bird Conservation Initiative region the land unit is located in. Once again, this information is used by the BPCD to generate pick lists on other Web pages. If the land unit crosses BCR regional boundaries, multiple entries should be selected.

The **PIF physiographic region** pick list (④) is used to identify Partners in Flight physiographic areas. Multiple selections are also allowed in this data field.

In theory, one would expect the **notes** section (⑤) to be used to generate descriptive text for BPCD Web pages and land unit reports. However, at the time this document was prepared, *entries made in the Notes field could not be located on BPCD Web pages or reports. It appears this information is only accessible to the Responsible Party observer, on the edit landunit description page.*

If a land unit maintains a Web page or site that describes their land bird survey program, a link to the site can be recorded in the **monitoring program/land unit general web site** text box (⑥).

Changes made to a land unit's description are saved by activating the **save** button (Save).

The screenshot shows the 'Edit Landunit Description' form. At the top, it says 'You are here: Home>Edit Landunit Description'. The form has a title 'Edit Landunit Description'. Below the title are several sections: 1. 'Name of your Land Unit' with a text box containing 'Upper Mississippi River NWFR - La Crosse District'. 2. 'State(s)/Province(s)' with a pick list showing 'Washington', 'West Virginia', 'Wisconsin', 'Wyoming', and 'Yucatan'. 3. 'Bird Conservation Region' with a pick list showing '22 - Eastern Tallgrass Prairie', '23 - Prairie Hardwood Transition', '24 - Central Hardwoods', '25 - West Gulf Coastal Plain/Ouachitas', and '26 - Mississippi Alluvial Valley'. 4. 'PIF physiographic region' with a pick list showing '14 - Interior Low Plateaus', '15 - Lower Great Lakes Plain', '16 - Upper Great Lakes Plain', '17 - Northern Ridge and Valley', and '18 - St. Lawrence Plain'. 5. 'Notes' with a text area containing the text: 'This land unit is currently being used for training/documentation purposes. None of the data contained within are actual observations. Please do not download or use these data.' 6. 'Monitoring program / Land Unit general web site' with a text box containing 'http://'. At the bottom right, there are 'Save' and 'Cancel' buttons. Circled numbers 1 through 6 are placed next to each of these fields.

Figure 31. Editing options for a land unit description.

# Points

Points are used to describe the geographic location of sites where land bird surveys are conducted. Points have to be defined before survey data are entered, though their geographic coordinates are not required. Geographic coordinates can be entered at a later time. Individuals with *Responsible Party* or *Data Manage* login access have the ability to create and edit points.

## Creating Points

Points are created and managed from the [points](#) page. Links to this page are available on the [my point counts](#) page (Figure 32, ①), and in the quick links (②).

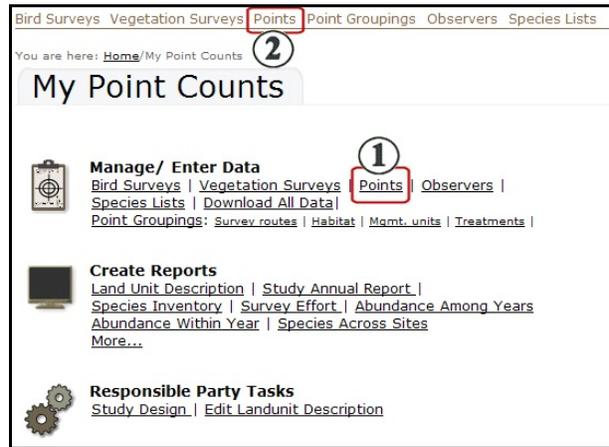


Figure 32. Locating the [points](#) functions.

If points have been associated with the land unit, they will appear in the point list section of the [points](#) page (Figure 33, ①). New points are created by activating The [create new point](#) function (②).



Figure 33. The [points](#) page.

## Common Point Features

The first set of data fields are used to define common features. These allow the user to create more than one point feature without re-entering these data for each point. The common features apply to the current data entry session only. *Once the user leaves the Web page that contains the data form used to enter point names, they will need to re-define the common features before adding additional points.*

The common features page contains three types of data; information contained in the land unit description (Figure 34, ①), information used to associate a point feature with the data entry pages (②), and information describing the method used to record geographic coordinates (③).

Information stored in the land unit's description file (▶, page 17) is used to create the section ① pick lists.

Whichever states or provinces (**state/prov**), bird conservation region(s) (**BCR**), or Partner in Flight (**PIF**)

**physiographic regions** were selected in the land unit's description file, those entries will appear in these pick lists. Therefore, if the land unit crosses boundaries and the user cannot locate the appropriate state, BCR, or PIF option, the *Responsible Party* observer will need to update the land unit's description file. All section ① data fields are mandatory fields (◀◀).

The **first year surveyed** field (②) is also a mandatory data field (◀◌). *Use 4-number characters to enter year values.*

Figure 34. The **common features** page.

## Identifying Geographic Coordinates

The optional data fields are used to describe geographic coordinates (Figure 34, ③ and Figure 35). While these fields are optional, it is recommended the user defines their coordinate system at the time their points are defined, so the appropriate data fields are available when needed.

Figure 35. The geographic coordinate fields.

The **coordinates** field (①) is used to identify the geographic projection of the data. By default, most GPS receivers come from the factory configured to collect data in geographic coordinates (*the coordinate system used by the satellites*). Depending upon the brand and model of receiver, the coordinates may be displayed in either decimal degrees or degree minute second values.

*Background information on geographic coordinates is available in the section title [What are Decimal Degrees and Degrees, Minutes, Seconds](#) (▶▶ page 61).*

***It is recommended that Fish and Wildlife Service employees use decimal degrees to enter their data.*** At the time this document was prepared, the Web site was having difficulties processing degree, minute, second values. Also, ***the ArcGIS toolbox was created to help FWS employees access their data requires decimal degrees.***

The Datum field (②) is used to identify a mapping datum (*e.g., earth shape model*). ***Fish and Wildlife Service employees should use either NAD83 or WGS84 mapping datums.*** These datums are also ArcGIS toolbox requirements.

## Entering Data Points Manually

If no coordinate information was defined, the data entry page will look like Figure 36. The data entry fields normally used to enter coordinate information will be identified as not available (①).

The screenshot shows the 'Add Points - Data Entry' form. The 'Point Name' field is required. The 'Coordinates' field is marked as 'N/A' and circled with a red box and the number 1. The 'Add More Points..?' field has a value of 1 and a 'GO' button. A 'Note' section at the bottom provides instructions for Slope, Aspect, Elevation, and Precision.

Figure 36. Entering point data when a coordinate system is not defined.

However, if a coordinate system is defined, the data entry page will look like Figure 37. The coordinate fields (①) will be labeled, though the data are not required at this time (nonmandatory data).

The screenshot shows the 'Add Points - Data Entry' form with geographic coordinates defined. The 'Point Name' field is required and circled with a red box and the number 2. The 'Coordinates' field is labeled 'Lat 0 To 80', 'Lon -40 To -165', and 'GPS Prec' and circled with a red box and the number 1. The 'Add More Points..?' field has a value of 1 and a 'GO' button, circled with a red box and the number 3. A 'Note' section at the bottom provides instructions for Slope, Aspect, Elevation, and Precision.

Figure 37. Entering a point system when geographic coordinates are defined.

The only one mandatory data field (◄◄) is the **point name** (②). Users should take care when naming their points, so they can be easily recognized. ***Bird Point Count data are stored in the same database as the Marsh Bird points. All***

*points are accessible by both Web sites.*

After the data are entered, pressing the **save** button (  Save ) will take the user out of the data entry mode and return them to the [points](#) summary page.

However, if other points exist that share the same common features, the **add more points** function (Figure 37, ) can be used to add additional data rows to the Web form.

In Figure 38, three additional points were added to the data entry page. This was accomplished by (a) entering a number in the **add more points** data box (, then (b) activating the **go** button (  ).

This process can be repeated multiple times during the same data entry session.

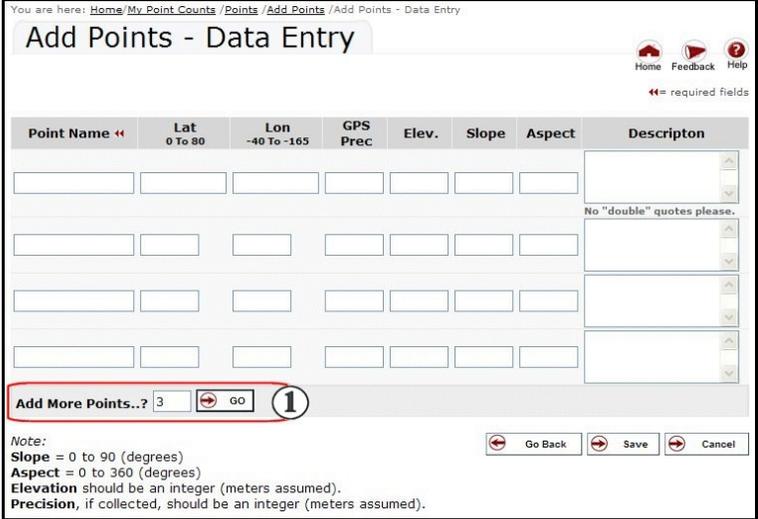


Figure 38. The data entry page after additional points were added.

## Pasting Data from a File

The computer's copy and paste functions can be used to enter point data. This function is accessed from the common features page, using the **paste from file** button (Figure 39, )

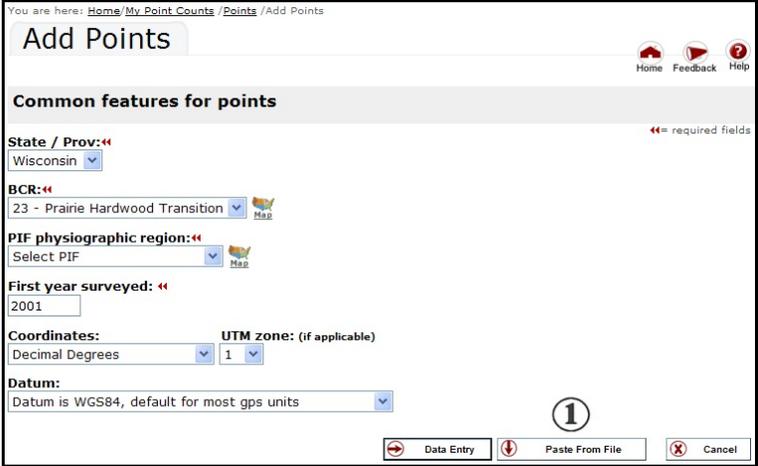


Figure 39. Adding points from a file, opening the **paste from file** Web page.

At first glance the **add points - paste from file** page contains little more than a data entry box (Figure 40). However, toward the bottom of the page are a series of pick lists used to describe the data fields (1).

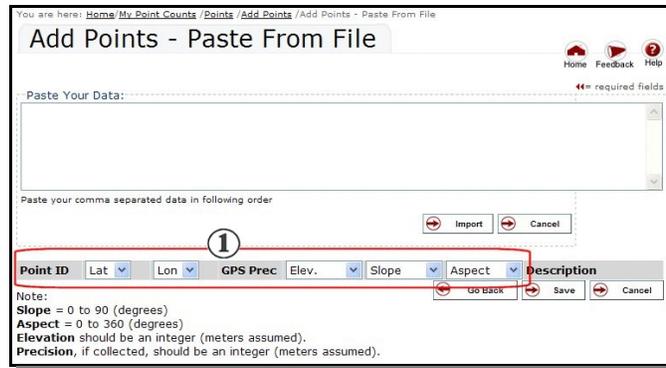


Figure 40. Adding points from a file, the data entry page.

Information entered on the **common features** page (Figure 34) are used to determine which data fields are selected in the pick lists (Figure 41). It is recommended that the entries are used “as is” (*i.e., without alteration*), as these entries are the ones the BPCD is expecting.



Figure 41. Adding points from a file, the attribute field pick lists.

The text files should be created using the following recommendations.

- Each data point is stored in an individual row of text.
- Each row should contain 7 data fields.
- Each field is separated from the others by a comma.
- Use the inputs on the common features page (Figure 34) to determine which fields are populated, and the order of data entry (Figure 41).
- ***Fish and Wildlife Service employees should use decimal degrees coordinates*** (Figure 34, 3), the projection requirement of the ArcGIS toolbox functions.
- Double quotes and commas cannot be used in the data fields.

An example of a text file that contains point names, geographic coordinates, and site descriptions, is shown in Figure 42.

Since GPS precision, elevation, slope, and aspect data are not included, the blank data fields are identified by a series of commas.

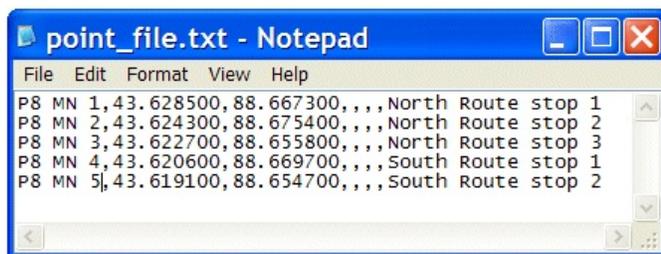


Figure 42. Adding points from a file, example data file.

## Viewing and Editing Points

Once the points are entered and saved, a listing of available points is displayed (Figure 43).

Some of the attributes associated with the point are displayed in the list. The rest can be accessed by pressing the **edit** button (  , ① ).



Figure 43. The list of points.

The **edit point** page (Figure 44) contains a listing of the attribute data associated with the selected point. The user has the ability to update the data fields and **save** their work (  Save ) or return to the **points** page without making changes (  Go Back ).

## Deleting Points

The **points** page also contains a function to delete (  ) a point (Figure 43, ② ). When this function is activated, the user is presented with the point's background information so they can confirm the correct point is selected.

If the user decides to delete the point, they can do so by activating the **delete** button (  Delete ).

If the point is not related to a bird survey or point groups, all traces of the point should be removed from the database. However, if the point is linked to bird surveys or a point group, it will only be hidden from view. This is done so data linked to the point will not be lost.

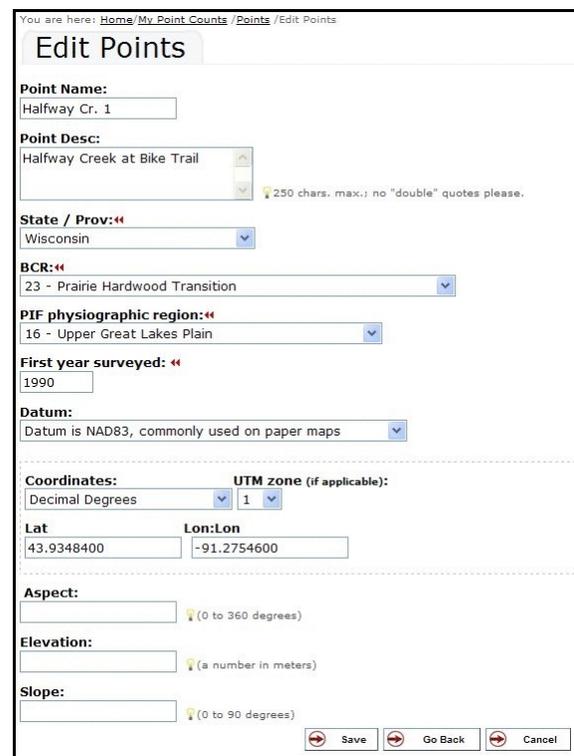


Figure 44. The edit point page.

*Note: At the time this documentation was prepared, the complete deletion option had not been implemented. All “deleted” points were only being hidden from view. As result, the name of a deleted point could not be reused. The “deleted” points would also appear in several pick lists after their deletion (e.g., the point grouping pick list).*

## Habitat Descriptions

At the time this document was created, the BPCD habitat functions were not available. Future plans for the BPCD include adding a habitat component.

## Point Groupings

Point groups are used to sort and organize survey points (*i.e.*, the location where bird surveys are conducted). Point groups serve two purposes (*a*) assist with data entry and (*b*) organizing report data. Four categories of point groups are available; **survey routes**, **habitats**, **management units**, and **treatments**.

The number and types of point groups are determined by (*a*) the land unit's survey protocols, (*b*) the requirements of the study design, and (*c*) the reporting requirements.

The [point groupings](#) function is available on the [my point counts](#) page, in the [manage/enter data](#) section (Figure 45, ①).

## The Point Groupings Function

When activated, the [point groupings](#) function takes the user to an overview page (Figure 46).

If individuals working with the land unit have created point groups, their name(s) will appear in the summary section of the Web page (①). New groups are created by activating one of the new group functions; [survey routes](#), [habitat](#), [management units](#), or [treatments](#) (Figures 45 and 46, ②).

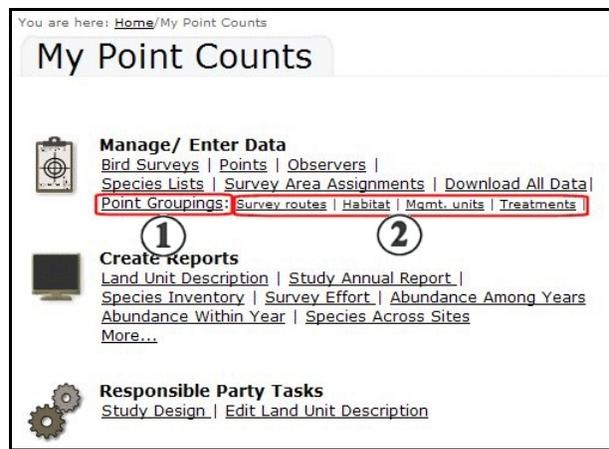


Figure 45. The [point groupings](#) function.

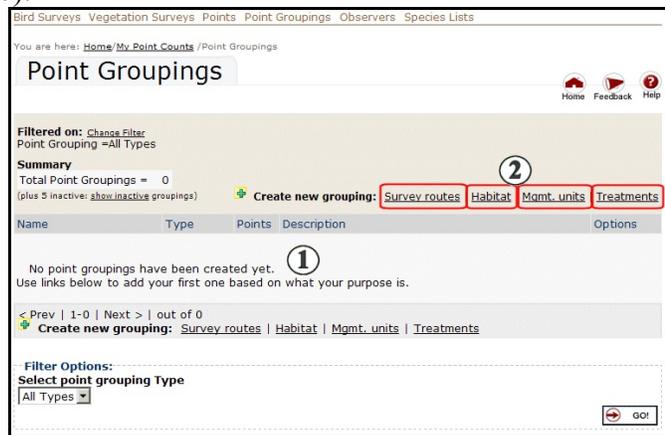


Figure 46. The [point groupings](#) overview page.

## Types of Groups

The BPCD allows for four different types of point groups; **survey routes**, **habitat groups**, **management units**, or **treatments** (Figure 46, ②). The data input pages for the group types are very similar. What makes them unique is how the BPCD report functions access, display, and summarize their data.

There are no known limits to the number of groups a single land unit can create. Nor are their known limits to the number of point groups a single survey point can be associated with. The creation of multiple point groups provides resource managers with a variety of options for analyzing and viewing their data.

## Creating Point Groups

The point groups page contains four functions for creating point groups; [survey routes](#), [habitat](#), [management units](#), or [treatments](#) (Figure 46, ②).

The data entry forms used to create [survey routes](#) and [treatment](#) groups are almost identical, except for their page titles (Figure 47, ①). The [management unit](#) data form is similar, except it lacks a field for recording descriptive text (②).

The Web form used to create [habitat](#) groups is the most variable as it contains data fields for identifying specific vegetation classes and codes (Figure 48, ①).

*At the time this document was created the functions used to associate habitat information with survey points were still being developed.*

Eventually the **formation** and **alliance** fields will correspond to [National Vegetation Classification Standard](#) data fields.

Figure 47. The data entry form for a survey route.

Figure 48. The data entry form for a habitat group.

All four Web forms contains two mandatory data fields (◀◀), a name for the survey group (Figure 49, ①) and the first year of use (②).

It is recommended the group names be kept **short** and **descriptive**, so they can be easily located in BPCD pick lists and reports.

Points are added to the groups using the pick lists and arrow keys located at the bottom of the Web form (③).

The pick list on the left contains a listing of all available points. The right-hand window contains a list of points in the point group. Points are moved between lists using the arrow buttons.

Figure 49. Creating a point grouping.

The single arrows (>, <) move **selected points** between lists. Both individual and multiple selections are allowed. The double arrows (>>, <<) move **all points** from one list to another.

## Editing Point Groups

The point group **editing** function is located on the [point groupings](#) page (Figure 50), next to each point group (①, )

The edit page looks like the page used to create the point group (Figure 49), only this time the data entry fields contain the current information associated with that group. The user can update any or all of the definition fields, then save ( Save) their work.

Name	Type	Points	Description	Options
Halfway Cr. Bike Trail	Survey	4	Survey Points located along the Great River Bike Trail	
Halfway Cr. HREP Dikes	Survey	6	Survey points located on and near the sediment catchment...	
Halfway Cr. Upper Natural Marsh	Survey	4	Natural Marsh area located downstream of the sediment di...	

Figure 50. The edit functions for point groups.

## Deleting a Point Group

A **delete** function is also available (Figure 50,  ②). *It should be noted that point groups are never fully deleted.* Instead, when activated, the delete function will classify the point group “inactive.” This happens even when no survey data are associated with the points in the point group.

Inactive point groups (*i.e., deleted points groups*) can be viewed and edited using the **show inactive** function (Figure 50, ③).

## Species Lists

The creation and use of species lists is optional. The BPCD uses species lists to create data entry forms for bird surveys. They’re designed to help speed the data entry process, by automatically adding a list of commonly seen birds to the BPCD data entry forms.

The [species lists](#) function is located on the [my point counts](#) page, in the section titled manage/enter data (Figure 51, ①) as well as the quick links (②).

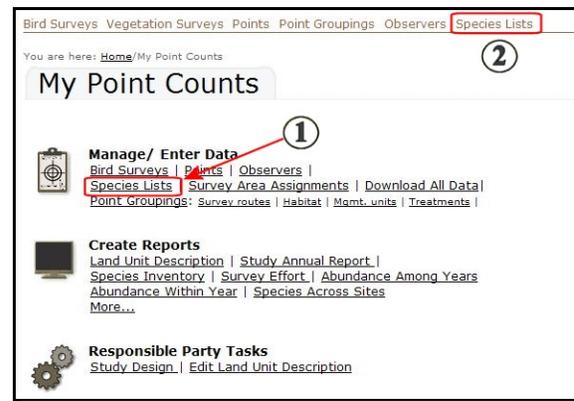


Figure 51. The [species lists](#) function.

## Creating a Species List

When activated, the species list function opens the [my species list](#) Web page (Figure 52).

If any species lists have been created for the land unit, their name will appear in the summary section (①). New lists are created by activating the [create new list](#) function (②).

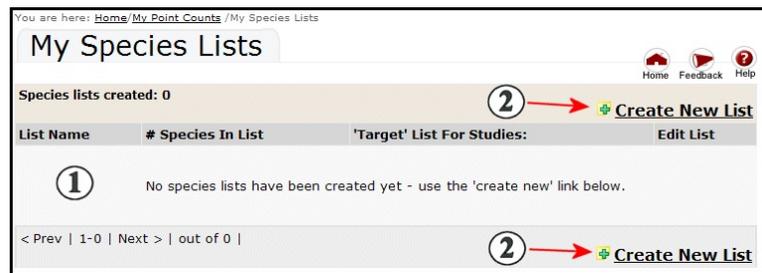


Figure 52. The [My Species Lists](#) Web page.

When activated, the [create new list](#) function opens the Web form for building species lists (Figure 53).

The form contains one mandatory data field (◀◀), the **list name** (①).

The **for use with studies** field (②) is used to identify which study design(s) the bird list is associated with. This is an

optional field. Multiple selections are not allowed, nor can multiple lists be associated with the same study. Fortunately this data limitation does not limit the use of the list(s). The data entry form used to enter survey data will allow for the use of any species list (▶▶, page 40).

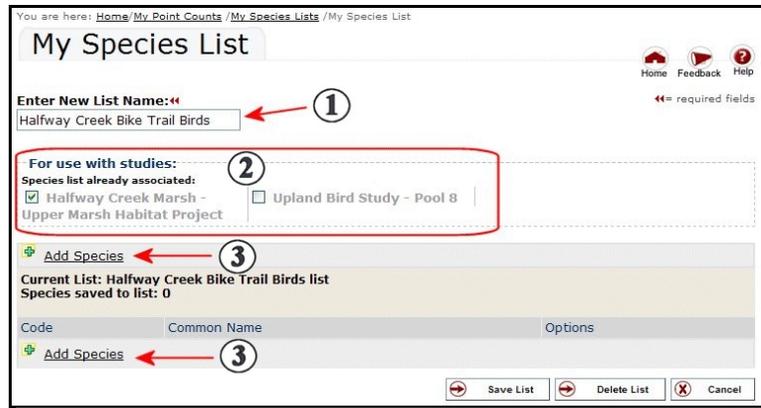


Figure 53. Creating a species list.

## Adding Species

The **add species** function (Figure 53, ③) is used to open a search window containing a list of available species (Figure 54, ①).

The species list is ordered taxonomically, following the format commonly used in field guides. Individual species can be located using the window's scroll bars (located on the right-hand side), or by entering a 4-character species code or a common name in the search box (②).

When the computer's mouse (left-hand button) is used to select a species in the search window (③), the name of that species is entered into the species list (④). Multiple entries are allowed. The user needs to keep scrolling or performing name searches,

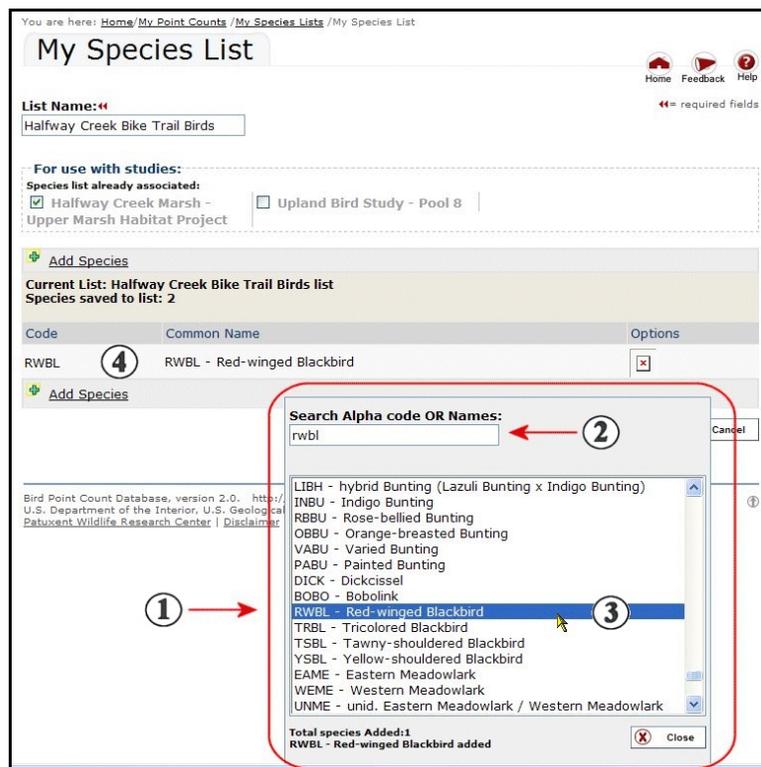


Figure 54. The species search window.

followed by selecting the names using the computer's mouse.

After all of the species have been added to the species list, the add species window is closed by pressing the **close** button (  ). The species list is then saved and taken out of the editing mode by pressing the **save list** button (  ).

## Editing a Species List

Species lists can be edited using the **edit** function located on the [my species list](#) page (Figure 55, **1**).

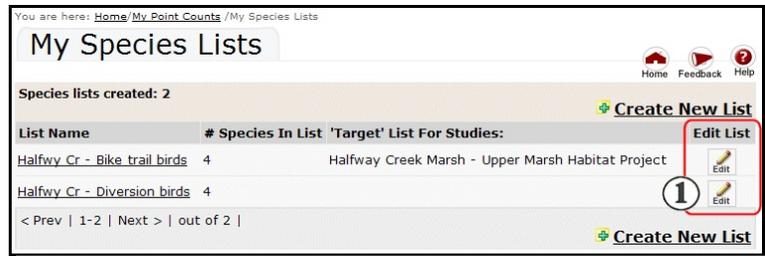
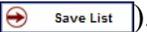


Figure 55. Locating the edit function for species lists.

The edit function opens the Web form used to create the species list. Users have the ability to **delete** entries (Figure 55, **1**), add species (**2**), or deleting the entire list (**3**). Once all edits are made, the list is taken out of the editing mode and **saved** (  ).

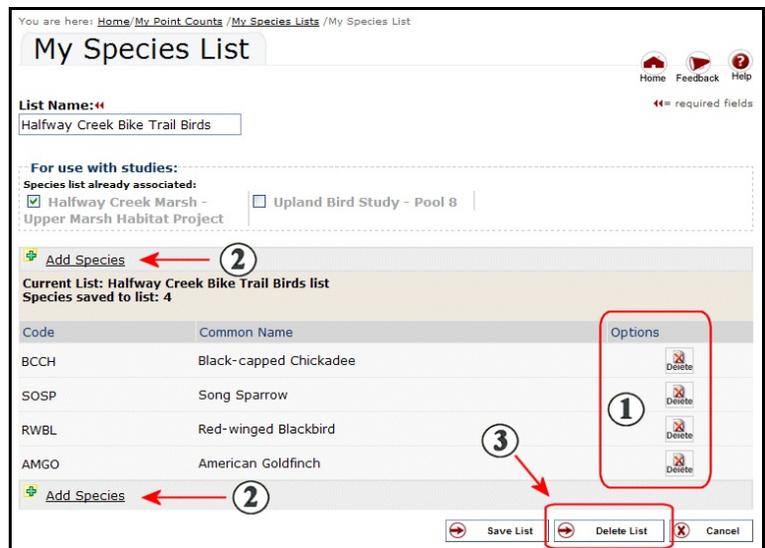


Figure 55. Locating the edit function for species lists.

## Using Bird Surveys to Create or Edit Species Lists

Species lists can also be created or edited using information contained in bird surveys. The function used to perform this task is located on the **verify entry** pages. The documentation on the function's use is located in the section on editing and verifying data (  , page 46).

# Observers

Observers are individuals who have login access to the Bird Point Count Database (BPCD). Five levels of login access are available,

1. *Regional Coordinator*
2. *Responsible Party*
3. *Data Manage*
4. *Data Entry*
5. *Observer Only*

## Available Security Levels

**Regional Coordinator** - The *Regional Coordinator* is the person a land unit contacts when they wish to start entering data into the BPCD. The *Regional Coordinator* will;

1. Create an entry in the BPCD for their land unit.
2. Assign the *Responsible Party* login access.
3. Begin entering the land unit description.

A listing of available *Regional Coordinators* is available in the [Contact Us](#) portion of the BPCD.

**Responsible Party** - Individuals with a *Responsible Party* login have the ability to;

1. Manage login access to the land unit's data (i.e., the list of [Observers](#)).
2. Enter and/or edit a [study design](#).\*
3. Enter and/or edit **point** data (all).
4. Create **point** groupings.
5. Create **species lists**.
6. Enter and/or edit **survey** data (all).
7. Review and validate **survey** data.
8. Generate **reports**.
9. Perform limited customizations of the database.

\* An individual with *Responsible Party* login access is the ONLY person able to enter and/or edit a **study design**.

It is recommended that only one person per land unit be assigned the *Responsible Party* login access. This person is expected to oversee and coordinate all data entry. The *Responsible Party* has the ability to distribute the duties of data entry, data management, and report generation to other *Observers*. Deciding who has access to their land unit's data and the security level of each *Observer* is the initial responsibility of the *Responsible Party*.\*\*

**\*\*Observers** with an access level of **Data Manage** will also have the ability to edit and update their land unit's list of **Observers**.

**Data Manage** - Individuals with the **Data Manage** login can;

1. Manage login access to the land unit's data (i.e., the list of **Observers**).
2. Enter and/or edit **point** data (all).
3. Create **point** groupings.
4. Create **species lists**.
5. Enter and/or edit **survey** data (all).
6. Review and validate **survey** data.
7. Generate **reports**.
8. Perform limited customizations of the database.

It is possible for multiple **Observers** to be assigned an access level of **Data Manage**. The **Responsible Party** may decide each Study should have their own **Data Manage** contact. **Data Manage** contacts can also oversee multiple studies, or the **Responsible Party** may decide to perform all data entry and editing functions themselves. How each land unit distributes their data entry and management duties is the decision of the **Responsible Party**.

**Data Entry - Observers** with **Data Entry** login access have the ability to;

1. Enter and/or edit survey information.
2. Review survey data.
3. Generate reports.

It is possible for multiple observers to be assigned an access level of **Data Entry**. The **Responsible Party** and/or **Data Manage** may decide to assign this level of access to all field personnel who conduct surveys, so they can enter their own field data. This way, the **Responsible Party** and/or **Data Manage** contacts will only need to review and verify the survey data.

*Note: The BPCD online help pages lists the **Data Entry** observer as only being able to edit or verify data that was entered during the previous two months. At the time this documentation was created, no such time limits were noticed.*

**Observer Only** - The **Observer Only** login is only used to add an individual's name to the system so their participation in field work can be recorded. The Observers are not granted data entry or editing access. Their access to the BPCD data and reporting functions are the same as the general public.

## A Land Unit's Observers List

Users with a security level of **Responsible Party** or **Data Manage** have the ability to edit a land unit's list of **observers**. On the BPCD home page, this link can be found underneath the topic of **my point counts** (Figure 56, ①).

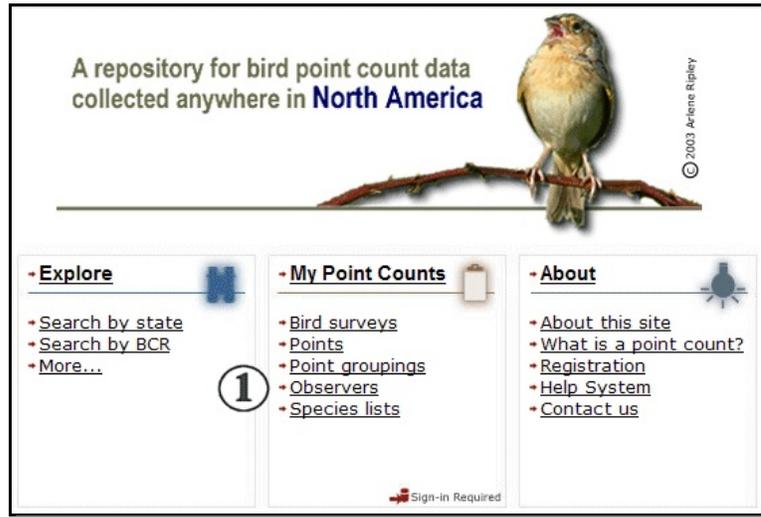


Figure 56. Locating the **observers** link on the BPCD home page.

The **observers** function is also located on the **my point counts** Web page, in the section titled Manage/Enter Data (Figure 57, ①) and in the quick links (②).



Figure 57. Accessing The **observers** link on the **my point counts** page.

The [observers](#) Web page (Figure 58) contains a listing of the individuals registered as observers for the land unit (①). Options for adding additional observers (②) and editing the list (③) are also available.

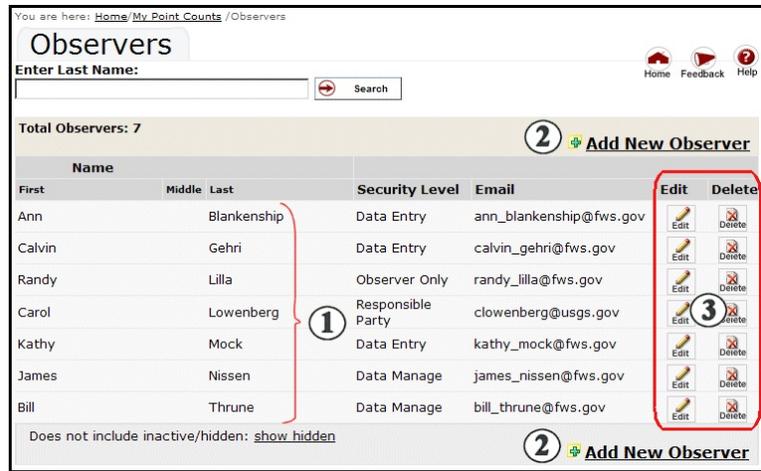


Figure 58. The [Observers](#) Web page.

## Adding Observers

When the [add new observer](#) function is activated (Figure 58, ②), the user is taken to a web form used to enter the observer’s contact information (Figure 59).

The mandatory data entry fields (◄◄) include; the observer’s first name (①) and last name (②). While the Email address (③) is listed as a mandatory field, only observers that need login access are required to enter their Email address. *Observer Only entries are not required to have an Email address.*

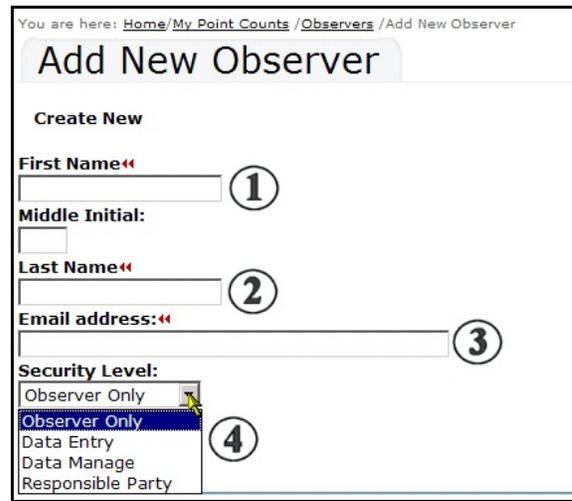


Figure 59. The [Add New Observer](#) Web form.

By default, all new observers are assigned **Observer Only** access (▶▶, page 31), unless a different level is selected from the pull-down list (④).

Once the information is **saved** (Save), a confirmation notice is displayed (Figure 60).



Figure 60. The confirmation notice associated with adding or editing a land unit’s list of observers.

When the confirmation notice is closed (Figure 60, ①), the new observer is added to the land unit's list of observers (Figure 61, ①).

Most observers are then sent an Email from the BPCD computer, containing their login name and password.

*However, when two or more observers share the same Email address, the Email function may associated an incorrect observer name with the Email address.*

Name			Security Level	Email	Edit	Delete
First	Middle	Last				
Ann		Blankenship	Data Entry	ann_blankenship@fws.gov	Edit	Delete
Calvin		Gehri	Data Entry	calvin_gehri@fws.gov	Edit	Delete
Jessica		Larson	Data Manage	jessica_larson@fws.gov	Edit	Delete
Randy		Lilla	Observer Only	randy_lilla@fws.gov	Edit	Delete
Carol		Lowenberg	Responsible Party	clowenberg@usgs.gov	Edit	Delete
Kathy		Mock	Data Entry	kathy_mock@fws.gov	Edit	Delete
James		Nissen	Data Manage	james_nissen@fws.gov	Edit	Delete
Bill		Thrun	Data Manage	bill_thrun@fws.gov	Edit	Delete

Figure 61. The updated list of observers.

## Editing the Observers List

The list of **Observers** can be modified to change user information, security access levels, or to remove an individual the land unit's list of observers. These functions are accessed by clicking on the Web buttons located to the right of each observer's Email address (Figure 62, ①).

Name			Security Level	Email	Edit	Delete
First	Middle	Last				
Ann		Blankenship	Data Entry	ann_blankenship@fws.gov	Edit	Delete
Calvin		Gehri	Data Entry	calvin_gehri@fws.gov	Edit	Delete
Jessica		Larson	Data Manage	jessica_larson@fws.gov	Edit	Delete
Randy		Lilla	Observer Only	randy_lilla@fws.gov	Edit	Delete
Carol		Lowenberg	Responsible Party	clowenberg@usgs.gov	Edit	Delete
Kathy		Mock	Data Entry	kathy_mock@fws.gov	Edit	Delete
James		Nissen	Data Manage	james_nissen@fws.gov	Edit	Delete
Bill		Thrun	Data Manage	bill_thrun@fws.gov	Edit	Delete

Figure 62. Locating the edit options for the list of **Observers**.

If the desired change is to **edit** an observer entry (📝), a form similar to one used to add a new observer is displayed (Figure 63).

The observers current background information is displayed (①), as well as their security level (②). The **Responsible Party** and **Data Manage** observers do not have access to the observer’s user name and password.

Once the appropriate changes are made the information needs to be saved (💾 Save). Once saved, another confirmation notice is displayed (Figure 60).

Figure 63. Editing observer information.

## Deleting Observers

If the desired change is to remove an observer, use the **delete** button located on the [observers](#) page (Figure 62, ①, 🗑️).

A confirmation window containing the observer’s background information will be displayed (Figure 64). If the information appears correct, press the **delete** button (①). Otherwise, you can abort the deletion process by clicking on the **go back** option (②).

Field	Value
First	CAROL
MI	
Last	LOWENBERG
Email	clowenberg@usgs.gov

Figure 64. Deleting observers.

**Note:** *If you delete an observer from the list, all references to that name will be removed from the database. Any point surveys, editing records, or verification changes made by the deleted observer will no longer contain a record of that observer’s involvement.*

# Entering Survey Data

## Pre-entry Tasks

Before survey data are entered, the following steps need to be performed.

1. The study design needs to be entered (▶▶, page 11).
2. The survey points need to be established (▶▶, page 18).
3. Point groups need to be created, when appropriate (▶▶, page 24).
4. The observers need to be identified (▶▶, page 30).
5. Species lists need to be created, when appropriate (▶▶, page 27).

The above tasks are discussed in this document, underneath the heading Describing A Land Bird Survey Program.

Task 1 is used to create the Web site's data entry forms (*mandatory*, ◀◀). The field methods section must be filled in correctly, if the BPCD Web forms are to match the data sheets used by the field crews. Task 2 is used to identify which sites are sampled (*mandatory*, ◀◀). Task 3 is used to identify a subset of sampling points, reducing the number of entries located in pull-down menus in the data entry forms. This will make the forms complicated and easier to work with (*optional*).

## Entering Data

The [bird surveys](#) function is accessible from the BPCD home page (Figure 65, ①), but only to those individuals who have login access (②).



Figure 65. Locating the bird survey option on the home page.

The [bird surveys](#) function is also available in the manage/enter data section of the [my point counts](#) Web page (Figure 66, ①), and in the quick links (②).



Figure 66. Locating the [Bird Survey](#) links on the [My Point Counts](#) page.

If bird surveys have been entered for the land unit, summary information is displayed (Figure 67, ①). New entries are made by activating the [add new bird survey](#) function (②).



Figure 67. The Bird Survey page.

## The Bird Survey Forms

The Web forms used to enter survey data are divided into two sections, the **survey header** and the **sighting entry** sections.

The **survey header** contains background information like the name of the bird study, location, time of day, weather conditions, the individual(s) who conducted the survey, and person who automated the data. The **sightings entry** section contains the Web form used to record the bird observations.

## The Survey Header Page

The survey header is used to insert information on who conducted a survey, when, and where (Figure 68). The survey form contains several mandatory data entry fields (◀◀), all of which have to be filled in before the user can proceed to the data entry form.

The **study** field (①) is used to identify which set of survey protocols were used to conduct the survey. While this field is not labeled as a mandatory data field (◀◀), users cannot proceed to the data entry form until a study has been identified. Background information on how to define a study in the BPCD is contained in the section titled **Adding a Study Design** (▶▶, page 11). The pull-down list (①) contains a listing of all study designs created for the land unit.

The screenshot shows the 'Bird Survey' Survey Header page. It includes a breadcrumb trail: 'You are here: Home / My Point Counts / Bird Surveys / Bird Survey'. The page title is 'Bird Survey' and the current section is 'Survey Header' with a sub-section 'Sighting Entry'. There are navigation icons for Home, Feedback, and Help. A note indicates that fields with a double arrow (◀◀) are required. The form contains the following fields and callouts:

- ① **Study:** A pull-down menu with 'Halfway Creek Marsh - Upper Marsh Habitat Project' selected.
- ② **Point:** A pull-down menu with 'Halfway Cr. 10' selected.
- ③ **Observer(s):** A pull-down menu with 'Jessica Larson' selected and an 'Add' button.
- ④ **Survey date:** A date field with '06/08/06' and a calendar icon.
- ⑤ **Time:** A time field with '08:15' and a note '(e.g., '13:42')'.
- ⑥ **Temp:** A temperature field with '45' and radio buttons for 'C°' and 'F°', plus a 'save preference' checkbox.
- ⑦ **Weather Conditions:** A section with dropdown menus for 'Sky not recorded', 'Wind not recorded', 'Wind direction not recorded', and 'Tide not recorded'.
- ⑧ **Enter species using...:** A text field with 'Blank form' selected and a note 'Or (faster) enter codes here: (e.g., "BHCO,WAV1,YWAR,COHA")'.
- ⑨ **Survey Notes:** A text area with '(150 char. max):' and a '9' callout.

At the bottom, there are navigation buttons: '<< Cancel / return to list', 'Next', and 'Cancel'.

Figure 68. The survey header section.

The secondary mandatory data field (◀◀) is the **point** field (②). This is the location where the survey was conducted. By default all points associated with the point field will be listed in the point pull-down menu. However, if a selection is made in the **survey route** field, then only the points in that route will be listed in the point pull-down menu.

The names of the **observers** who **conducted the survey and entered data into the BPCD** must be identified (◀◀, ③). If the observer(s) name is not available in the pull-down menu, individuals with **Responsible Party** or **Data Manage** logins can add the person(s) name to the system using the **add** button (Add). Observers whose names are added to the system at this site will be assigned **Observer Only** access. Changing their access level requires updating their user profile using the **Observer** function (▶▶, page 30).

The **survey date** (④) is also a mandatory data field (◀◀). The date can be entered using the computer's keyboard and a **mm/dd/yy** date format, or by using the calendar function (Date).

The **calendar button** (Figure 68, ④, ) opens a separate window containing a calendar (Figure 69). Arrows located at the top and bottom of the calendar are used to change the displayed month (①) and year (②). Once the correct page is located, the date is selected by using the computer's mouse to select that date (③).



Figure 69. The calendar window.

The **time of day** the survey was conducted is also a mandatory data field (◀◀). Values can be entered using the computer's keyboard (Figure 68, ⑤). The BPCD requires the use of 24-hour time values (*i.e., military time*), and 4 number characters (*hh:mm*).

Surveys conducted before 10:00 a.m. must be entered using a zero as the first hour number.

The air temperature is an option data field (Figure 68, ⑥). These data can be entered using either Celsius or Fahrenheit values. Temperatures entered using Fahrenheit values will be automatically converted to Celsius values by the BPCD. If a land unit entered their temperatures using Fahrenheit values, the Reviewer's Web pages will display both Celsius and Fahrenheit values.

The **weather conditions** are entered using four different pull-down menus (Figure 68, ⑦).

The first pull-down menu is used to identify cloud cover and precipitation (Figure 70).

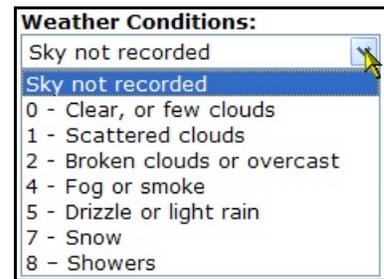


Figure 70. Entering cloud cover and precipitation information.

The second menu is used to record wind speed (Figure 71).

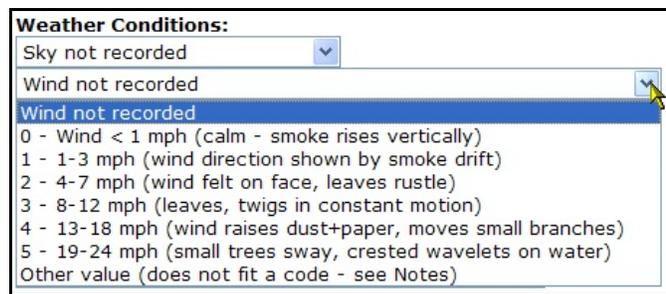
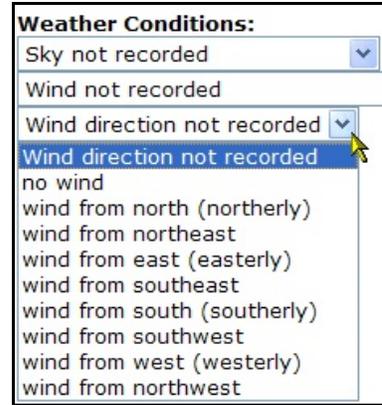


Figure 71. Recording wind speed.

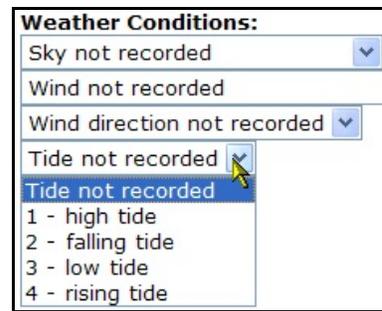
The third menu is used to record wind direction (Figure 72).



The screenshot shows a 'Weather Conditions' menu with several dropdown options. The 'Wind direction not recorded' option is selected, and a list of wind directions is displayed below it. The options are: no wind, wind from north (northerly), wind from northeast, wind from east (easterly), wind from southeast, wind from south (southerly), wind from southwest, wind from west (westerly), and wind from northwest.

Figure 72. Recording the wind direction.

And the fourth menu is used to record ocean tide levels (Figure 73).

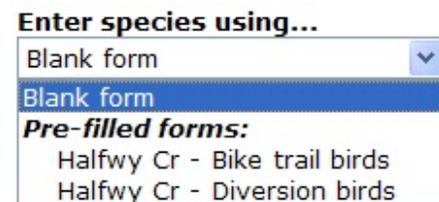


The screenshot shows the 'Weather Conditions' menu with the 'Tide not recorded' option selected. A list of tide levels is displayed below it: 1 - high tide, 2 - falling tide, 3 - low tide, and 4 - rising tide.

Figure 73. Ocean tide levels.

The last two sections are used to begin filling in the data entry forms (Figure 68, ⑧) and recording comments (Figure 68, ⑨).

If one or more species lists have been developed for the land unit (▶▶, page 27), this information can be used to add the names of those species to the data entry form.



The screenshot shows the 'Enter species using...' menu. The 'Blank form' option is selected. Below it, under the heading 'Pre-filled forms:', there are two options: 'Halfwy Cr - Bike trail birds' and 'Halfwy Cr - Diversion birds'.

Figure 74. Using a species list to add species names to a data entry form.

The **enter species using** pull-down menu contains a list of the species lists created for the land unit (Figure 74). If a species list is selected, then the **sighting entry** Web page will automatically have those species listed (Figure 76, ③).

A second option is also available for pre-enter species names, the **enter codes here** option (Figure 75, ①). This text box is used to enter a list of the 4-character species codes separated by commas. The species entered here will be added to the Web form on the sighting entry page (Figure 76, ③).



The screenshot shows the 'Enter species using...' menu. The 'Blank form' option is selected. Below it, there is a text box labeled 'Or (faster) enter codes here: (e.g. "BHCO,WAVI,YWAR,COHA")'. A circled '1' is placed over the text box.

Figure 75. Manual pre-entry of bird species.

## The Sighting Entry Page

The **sighting entry** page is used to enter bird observation data. The page contains an overview of information entered on the survey header page (Figure 76, ①), as well as the **data fields** associated with the selected survey protocol (②).

If the Web page's data fields do not match the data sheet used by the field crew, an incorrect study design was selected on the survey header page (Figure 68, ①) or an incorrect survey protocol is associated with the study design (▶▶, page 15).

If a species list or species codes were identified on the survey header page, those species will already have their name(s) entered (Figure 76, ③). Otherwise, blank entry boxes will appear in the **common name** field.

Additional species rows can be added to the form using the **add row** button (▶▶ Add row, ④). Unused rows can be removed using the **delete** buttons (Delete, ⑤).

To add the name of a bird species into a **CommonName** data box (or change an existing name), select the box using the computer's mouse. A window will be opened containing available species names (Figure 77).

The species are listed alphabetically, by their 4-character species code. Individual entries can be located by using the window's scroll bars (①) or by using the computer's keyboard to enter a species code. (②)

As keys are pressed on the computer's keyboard, characters are entered in the CommonName box. At the same time the display in the species window will update, highlighting species names (②). When the correct

Figure 76. A sighting entry Web page.

Figure 77. Adding a species name to the sighting entry form.

species name is located, selecting the name with the mouse or pressing the enter key will complete species selection. The search window will close and the 4-character species code and the bird's common name will be written in the CommonName field.

*Note: Information printed on the top of the search window makes it appear that keyboard searches can be performed on a specie's common name. At the time this document was prepared, only 4-character specie codes were recognized.*

If a species list was used to create the sighting entry form and some of the rows go unused, the extra rows can be removed by activating a **delete** button (Figure 75, ⑤). The use of the delete buttons (Delete) is optional.

After data entry is complete and the **save** button is pressed (Save), if an empty row exists in the Web form the BPCD will want to delete it. A message is sent to the user asking them if the row should be removed (Figure 78).

If the **OK button** (OK) is pressed, the extra row is deleted, the Web form is closed, and the data are saved. If the **cancel button** (Cancel) is pressed, the attempt to end data entry is ignored and the user is returned to data entry.

Once data entry is complete, the user is returned to the survey header page and a message is displayed to confirm successful data entry (Figure 79, ①).

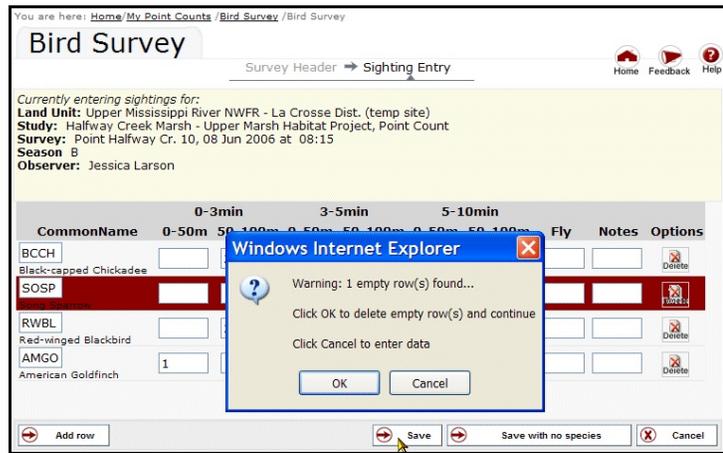


Figure 78. During the data save process, the BPCD will want to delete empty species rows.

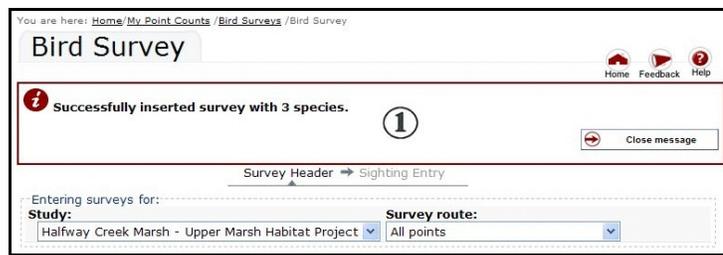


Figure 79. Confirmation of successful data entry.

## Repeating Header Values

Once a land unit has entered at least one bird survey into the BPCD, they will be able to use the last set of header values to begin entering data for their next entry.

If a bird survey has been recently entered, a **repeat values** button (1) will appear on the survey header page (Figure 80, 1), followed by the survey date of the last survey entered (*the entry whose data can be used to fill in the form*, 2).

If the user presses the repeat button, most of the data fields will be filled in. Items like the survey **point** (3) and **time** (4) will probably require updating. Fields which require manual updates are the species fields (5).

The repeat values button will not populate the species fields (5), even if values were added to them for the last survey entered.

The screenshot shows the 'Bird Survey' form with the following fields and annotations:

- Survey Header:**
  - Point:** (3) Halfway Cr. 10 (recent entry) [Add]
  - Repeat values:** (1) [Repeat values button]
  - Survey date:** (2) 06/08/2006 [Date]
  - Time:** (4) 08:15 [Time]
- Observer(s):** Jessica Larson [Add], 2nd Observer (if appropriate) [Add]
- Data Entry:** Carol Lowenberg [Add]
- Survey date:** 06/08/2006 [Date]
- Temp:** 45 [C/F], [save preference]
- Weather Conditions:** 1 - Scattered clouds, 2 - 4-7 mph (wind felt on face, leaves rustle), wind from north (northerly), Tide not recorded
- Enter species using...:** Blank form [Add]
- Or (faster) enter codes here:** (e.g., "LCO,WAVI,YWAR,COHA")

Annotations 1-5 are circled in red and point to the Repeat values button, the survey date field, the Point field, the Time field, and the species fields respectively.

Figure 80. Entering a new survey header using the repeat values function.

# Reviewing and Editing Surveys

After the survey data are entered a review is conducted to finalize data entry. The reviewer is expected to compare the field crew's data sheets to the data stored in the Web site, then make any needed updates or changes.

The reviewer is preferably someone other than the person who entered the data. **Responsible Party** or **Data Manage** observers have the ability to review all bird surveys. **Data Entry** observers can access surveys **entered** during the previous **two months**.

## Locating a Survey

Some of the Web tools used to enter data are also used to perform reviews and updates. Reviews are initiated by accessing the [bird surveys](#) function, available on the [my points count](#) page (Figure 81, ①) and in the quick links toolbar (②).

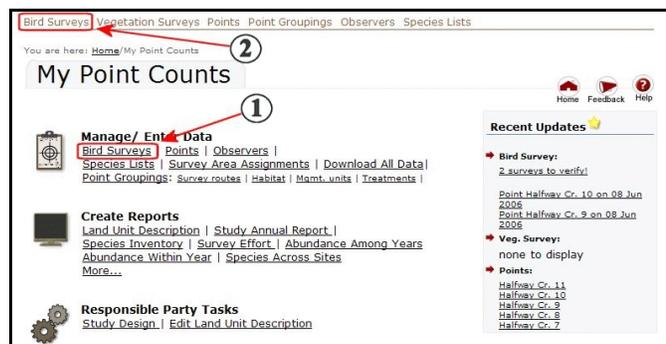


Figure 81. The [bird surveys](#) function is also used to review and verify survey data.

By default the [bird surveys](#) page will only display data entered during the previous two months (Figure 82, ①).

If the desired survey does not appear in the list, additional search options are available towards the bottom of the Web page.

Users can search for all unverified data or surveys conducted during a specific month or year (②). Options for refining the search are also available, to locate surveys conducted at a particular location (*via. point group*), by a particular observer, or for a particular study (③).

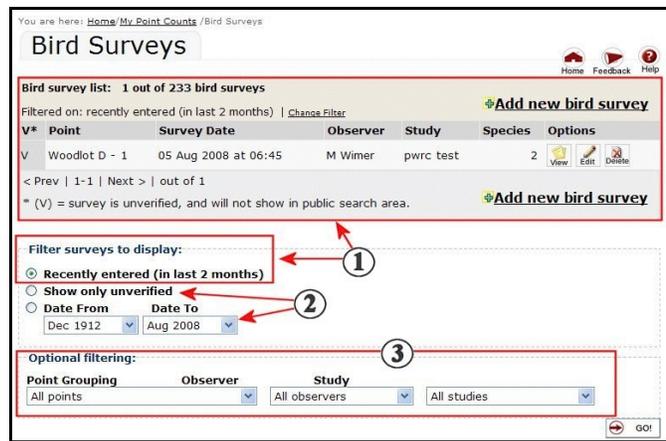


Figure 82. Search options for locating bird surveys.

To make it easier for reviewers to locate unverified data, a link to unverified data is also available on the [my point counts](#) page (Figure 84).



Figure 84. Accessing unverified surveys from the my point counts page.

The survey list contains background information for each survey (Figure 85, ①) as well as the survey’s review status (②).

If a survey has been reviewed for accuracy, the data are considered **verified**. If a “V” appears in the “V” field on bird surveys page (②), the data are **not** verified. Blank entries in the “V” field identifies surveys that are verified.

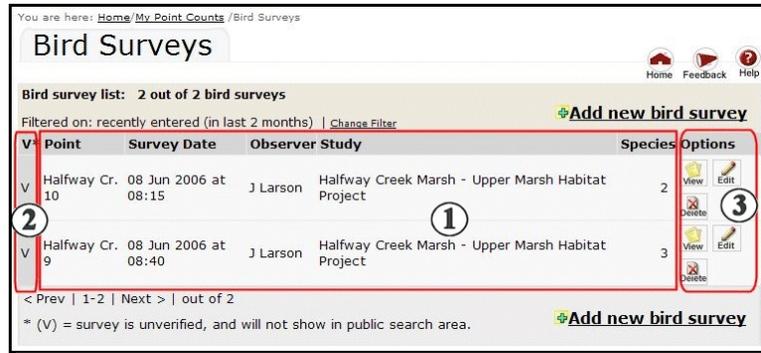


Figure 85. A summary of surveys entered during the previous two months.

Options for reviewing and editing the data are also available, to the right of the survey summaries (③). The **view** button (View icon) is used to initiate the verification process.

## Viewing a Survey Report

The **survey reports** are accessed by activating the **view buttons** (View icon), located on the right-hand side of the [bird surveys](#) page (Figure 85, ③).

The survey report (Figure 86) contains an overview of the information entered into the survey header (①) and the sighting entry (②) forms. The review status of the survey is listed (③) along with options to verify or edit the data (④).

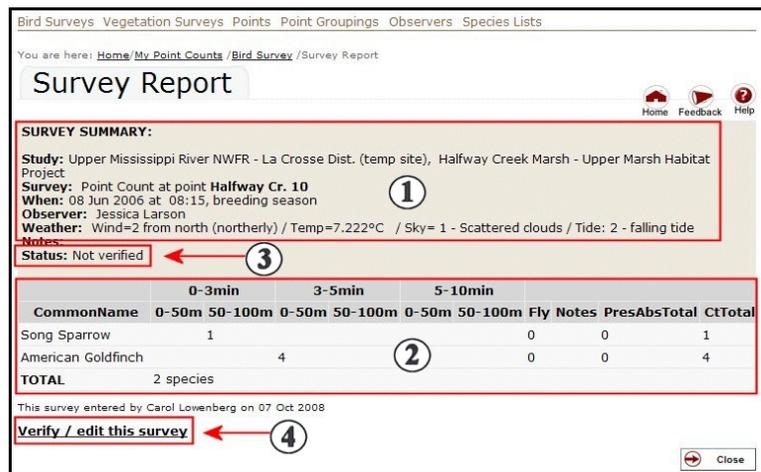


Figure 86. A survey report.

## Editing a Survey

Once the **verify/edit this survey** function is activated (Figure 86, ④), the **verify entry** page is opened (Figure 87).

The Web page contains two **edit buttons**, used to access information stored in the **survey header** (①, [page 38](#)) and the **sighting entry** pages (②, [page 41](#)). Pressing these buttons will return the user to the data entry pages.

## Updating Species Lists

Individuals who use species lists have the ability to create a new list or update an one by using the information contained in a survey.

When the **save species to custom list** button ([Save species to custom list](#)) is activated, (Figure 87, ③), a new window is opened that contains a listing of the species identified in the bird survey (Figure 88, ①). Users have to option to create a new species list using these data (②) or to add those species to an existing list (③).

*Unfortunately, at the time this document was prepared, this function was not working properly. The species list function was having difficulties referencing the survey that contained the species data.*

You are here: [Home](#) / [My Point Counts](#) / [Bird Survey](#) / [Verify Entry](#)

### Verify Entry

Home Feedback Help

**SURVEY SUMMARY:**  
**Study:** Upper Mississippi River NWFR - La Crosse Dist. (temp site), Halfway Creek Marsh - Upper Marsh Habitat Project  
**Survey:** Point Count at point **Halfway Cr. 10**  
**When:** 08 Jun 2006 at 08:15, breeding season  
**Observer:** Jessica Larson  
**Weather:** Wind=2 from north (northerly) / Temp=7°C (45°F) / Sky= 1 - Scattered clouds / Tide: 2 - falling tide  
**Notes:**  
**Status:** Not verified  
 This survey entered by Carol Lowenberg on 07 Oct 2008

CommonName	0-3min		3-5min		5-10min		Fly Notes	PresAbsTotal	CtTotal
	0-50m	50-100m	0-50m	50-100m	0-50m	50-100m			
Song Sparrow	1						0	0	1
American Goldfinch			4				0	0	4
<b>TOTAL</b>	2 species								

Verify survey:  
**FLAGS / Potential errors:** (use edit links above if needed)  
 No general flags regarding weather, etc.  
 No species flags!  
 Verify all as correct  
 Not verified because: 1 - Not verified

Cancel Save

Figure 87. Verifying a survey report.

### Save Custom Species List

Create New ②

Add to existing list:

- Halfwy Cr - Bike trail birds
- Halfwy Cr - Diversion birds

③

**Species List to save:**

Alpha	Common Name
AMGO ①	American Goldfinch
SOSP	Song Sparrow

Save Cancel

Figure 88. Using a survey to build a species list.

## Verifying a Survey

The verification functions are located towards the bottom of the **verify entry** page (Figure 89).

If the data were correctly entered, the information can be **verified as correct** (1). This will make the data available to the public search pages, as well as other land units.

If the reviewer would like the survey to retain unverified, several options are available to explain why (2).

Selecting one of the **not verified because** options (Figure 89, 2) will update the status message displayed in the survey report (old message = Figure 89, 3, new message = Figure 90, 1).

You are here: [Home/My Point Counts / Bird Survey / Verify Entry](#)

### Verify Entry

**SURVEY SUMMARY:**  
**Study:** Upper Mississippi River NWFR - La Crosse Dist. (temp site), Halfway Creek Marsh - Upper Marsh Habitat  
**Project:**  
**Survey:** Point Count at point **Halfway Cr. 10**  
**When:** 08 Jun 2006 at 08:15, breeding season  
**Observer:** Jessica Larson  
**Weather:** Wind=2 from north (northerly) / Temp=7°C (45°F) / Sky= 1 - Scattered clouds / Tide: 2 - falling tide  
**Notes:**  
**Status:** Not verified  
 This survey entered by Carol Lowenberg on 07 Oct 2008

CommonName	0-3min		3-5min		5-10min		Fly Notes	PresAbsTotal	CtTotal
	0-50m	50-100m	0-50m	50-100m	0-50m	50-100m			
Song Sparrow	1						0	0	1
American Goldfinch			4				0	0	4
<b>TOTAL</b>	2 species								

Verify survey:  
**FLAGS / Potential errors:** (use edit links above if needed)  
 No general flags regarding weather, etc.  
 No species flags!

Verify all as correct  
 Not verified because:
 

- 1 - Not verified
- 2 - Awaiting correction of data
- 3 - Non-public data, temporarily
- 4 - Cannot be verified (survey should be deleted)

Buttons: Cancel, Save

Figure 89. Verifying a survey or identifying why it should be left unverified.

You are here: [Home/My Point Counts / Bird Survey / Survey Report](#)

### Survey Report

**SURVEY SUMMARY:**  
**Study:** Upper Mississippi River NWFR - La Crosse Dist. (temp site), Halfway Creek Marsh - Upper Marsh Habitat  
**Project:**  
**Survey:** Point Count at point **Halfway Cr. 10**  
**When:** 08 Jun 2006 at 08:15, breeding season  
**Observer:** Jessica Larson  
**Weather:** Wind=2 from north (northerly) / Temp=7.222°C / Sky= 1 - Scattered clouds / Tide: 2 - falling tide  
**Notes:**  
**Status:** Non-public data, temporarily

CommonName	0-3min		3-5min		5-10min		Fly Notes	PresAbsTotal	CtTotal
	0-50m	50-100m	0-50m	50-100m	0-50m	50-100m			
Song Sparrow	1						0	0	1
American Goldfinch			4				0	0	4
<b>TOTAL</b>	2 species								

This survey entered by Carol Lowenberg on 07 Oct 2008

[Verify / edit this survey](#)

Buttons: Close

Figure 90. A survey report updated to display the reason why the data have not been verified.

# Creating Reports

The BPCD contains several options for creating reports. These are accessed from the [my point counts](#) Web page. The available options are:

**Land Unit Description:** *Presents a summary of the information contained in the land unit description and each study design.*

**Study Annual Report:** *Calculates and presents summary information for the number of observed species and surveys conducted during a given year.*

**Species Inventory:** *Presents a list of all species observed at a land unit, the numbers of individuals seen, and the number of sites where surveys have taken place. These reports are also used to create individual species observation reports.*

**Survey Effort:** *Summary of the number of points surveyed in a year, surveys conducted at each site, and the number of species observed. Results are presented by point groupings.*

**Abundance Among Years:** *Produces a summary table of all species observed at the land unit for one, two, or three years of study, as well as summary data for all years.*

**Abundance Within Year:** *Produces a summary table of all species observed at the land unit, abundance information for one year of study, as well as summary data for all years. This report differs from Abundance Among Years as frequency data are also included.*

**Species Across Sites:** *Produces a summary table of all species observed at the land unit, sorted by point groupings.*

# Land Unit Description

A land unit description report (Figure 91) contains; a summary of information in the [land unit description](#) (①), data associated with the land unit's study designs (②), even study designs associated [marsh bird](#) studies (when applicable, ③).

*It should be noted that the BPCD reporting options should not be used to generate reports for marsh bird data. Not all marsh bird data are accessible through the BPCD. The land unit used to generate these graphics had several years of marsh bird data*

*entered, though only one year's worth of data were accessible. Eventually the marsh bird Web site will contain its own reporting functions.*

The land unit description report also contains Web links used to access the [species inventory report](#) (④), the land unit's [points](#) page (⑤), and links to each study design's [study annual report](#) (⑥).

You are here: [Home](#) / [My Point Counts](#) / [Reports](#) / Land Unit Description

## Land Unit Description

Home Feedback Help

**Name:** Horicon NWR  
**Type:** National Wildlife Refuge  
**State:** WI  
**Survey sites:** 61  
**BCR:** Prairie Hardwood Transition  
**PIF Physiogr. Reg.:** Upper Great Lakes Plain  
**Survey Years:** 1995-2006  
**Contact:** [Wendy Wojczyk](#)  
**Studies:** 2  
**More:** [Inventory](#) [List of Points with Coordinates](#)

**Studies** ④ ⑤

Study name: [Landbird Monitoring](#) ⑥  
 Start year: 1995  
 Purpose:  
 Field Method: 5,10min w/ 50,100,>100m & flyover  
 Surveys: ②

Survey year	Points surveyed	Surveys
1995	35	1.00 per point
1996	35	1.00 per point
1997	38	1.00 per point

Study name: [Marshbird Survey](#) ③  
 Start year: 2001  
 Purpose:  
 Field Method: SecretiveMarshbird (Conway)  
 Surveys:

Survey year	Points surveyed	Surveys
2006	4	1.00 per point

Figure 91. A land unit description report.

## Study Annual Report

Initially, when a user accesses the study annual report, no data are displayed. This happens because the user must select a year and a study design (Figure 92, ①).

After the go button is pressed (GO), the report is created. The report contains information on the filter options (②), the number of species observed (③), the numbers of surveys conducted (④), in which season (⑤).

The available Web links are used to access the **species inventory** report (*list of species*), the **abundance among years** report (*annual abundance*), a **summary list of bird surveys** conducted during that year (*list of surveys*), and a link to the land unit's **points** page (*list of count sites*).

You are here: [Home](#) / [My Point Counts](#) / [Reports](#) / Study Annual Report

### Study Annual Report

Home Feedback Help

#### Horicon NWR

Filtered on: Study "Landbird Monitoring" All groupings in 1997 [Change Filter](#) ②

Responsible Party: Wendy Woyczik Caroline Hartzler

#### SPECIES

Total number of species:	74
Species seen as flyovers only:	951
Total number of Individuals:	764

③

[List of species](#)  
[Annual abundance](#)

#### EFFORT

Total point surveys:	38
Number of points surveyed:	38
Date range:	02 Jun 1997 to 11 Jun 1997
Distribution	Number of surveys
June	38

④

⑥ [List of surveys](#)  
[List of count sites](#)

#### METHODS

Breeding:	38
Migration:	0
Vegetation:	0

⑤

#### OBSERVERS

Diane Penttila	38 surveys
----------------	------------

Optional filtering:

Year: 1997 Study: Landbird Monitoring ①

GO

Figure 92. A study annual report.

## Species Inventory Report

The species inventory report contains a listing of various species observed and the number of times (*i.e.*, surveys) each has been seen (Figure 93).

Users have the ability to customize the list by requesting specific point groups (*if desired*), individuals years (*if desired*), and specific study designs (*if desired*, ①).

Once the go button is pressed (GO), the list of species is presented in taxonomic order (②). The list totals the number of surveys in which each species was observed, organized by season. The number of surveys used to create this list is also presented, organized by month of year and season (③).

In case a land unit's species list is long enough it cannot be viewed without using the window's scroll bars, the report contains options for printing the list (④) or downloading the list to a database file (*using a Web browser's print function will only print the visible portion of the list*).

The **print** function (④) will send all information on the Web page (*including the entire species list*) to a printer. Some users can also use this function to send the Web page's information to PDF files, if their computer is configured to "print to a PDF file."

The **download** option (⑤) will take the information stored in the species list (②) and save it in a database table accessible by software programs like Excel. The table will contain the list of observed species and the number of surveys sorted by season.

You are here: [Home](#) / [My Point Counts](#) / [Reports](#) / Species Inventory

### Species Inventory

Home Feedback Help

#### Species seen on surveys at Horicon NWR

Filtered on: Study Landbird Monitoring  
in all years [Change Filter](#)  
83 matches found.

Print Download

Species	Number Of Surveys		
	Breeding	Migration	Winter
Canada Goose	12		
Wood Duck	4		
Gadwall	6		
American Wigeon	2		
Mallard	53		
Blue-winged Teal	40		
Redhead	1		
Hooded Merganser	1		
Ring-necked Pheasant	16		
Pied-billed Grebe	7		
Double-crested Cormorant	9		
American Bittern	2		
Great Blue Heron	28		
Great Egret	23		
Black-crowned Night-Heron	8		
Northern Harrier	6		
Red-tailed Hawk	12		

Surveys used in inventory:

Month	Surveys (Breeding, Migration, Winter)
May	7 (B)
June	101 (B)

Generated on 10/09/2008

Optional filtering:

Point Grouping: All points  
Years: All Years  
Study: Landbird Monitoring

GO

NOTE! If you have marshbird surveys in the Marsh Birds database, those data will be included here if you select "all studies". This is intentional due to the nature of an inventory.

Figure 93. The species inventory report.

## Species Observations

The species names listed in the **species inventory** reports (Figure 93, ⑥), are links used to access **species observation** reports (Figure 94).

The species observations report contains a listing of all surveys and sites used to create the **species inventory** report (Figure 93). As a result, this page will not contain a complete list of observations, unless all data were used to create the species inventory (*i.e., if the inventory was created from a subset of available data, this page is also a subset*).

The **species observations** report (Figure 94) contains a listing of the study designs used to generate this report (①). The name of the study design are also Web links, used to access the land unit's **study design** page (*Study design pages are used to list, access, and edit all study designs associated with a land unit. All users can view the study designs, only Responsible Party observers can edit one.*).

A listing of each study used to create the species inventory is presented (②), along with links to each survey's **survey report** (*survey reports are used to review, edit, and verify survey data*).

A list of the sites (*i.e., points*) where observations were made is presented (③), as well as links to each sites **edit points** page (*used to view and/or update data associated with each point*).

Lastly, if the species appears in any species lists, those are listed as well (④).

You are here: [Home](#) / [My Point Counts](#) / [Reports](#) / Species Observations

### Species Observations

Home Feedback Help

#### Summary report for :Wood Duck

Studies containing Wood Duck

1 matches found

Study Name	Study Desc	Start Year	End Year	Season	Options
<a href="#">Landbird Monitoring</a>		1995		1	<a href="#">View</a>

Surveys containing Wood Duck

4 matches found

SurveyDate	Point	Observer	Verified	Options
<a href="#">03 Jun 1995 at 05:25</a>	8	Roma Lenehan	No	<a href="#">View</a>
<a href="#">04 Jun 1996 at 08:00</a>	21	Diane Penttila	No	<a href="#">View</a>
<a href="#">05 Jun 1996 at 08:00</a>	14	Diane Penttila	No	<a href="#">View</a>
<a href="#">11 Jun 1997 at 08:00</a>	6	Diane Penttila	No	<a href="#">View</a>

Points where Wood Duck were found

4 matches found

Point	YrEstab.	Survey Route	Habitat	Treatment	Coords: Lat/Lon Or UtmX/Y	Desc	Options
<a href="#">14</a>	0	1	0	0	43.64/ -88.64	eeded Native Grasses	<a href="#">View</a>
<a href="#">21</a>	1		0	0	43.60/ -88.62	eeded Native Grasses	<a href="#">View</a>
<a href="#">6</a>	0	1	0	0	43.57/ -88.70	eeded Native Grasses	<a href="#">View</a>
<a href="#">8</a>	0	1	0	0	43.63/ -88.68	eeded Native Grasses	<a href="#">View</a>

Species List containing Wood Duck

0 matches found

Species List Name	Options
	<a href="#">View</a>

Figure 94. A species observation summary.

## Survey Effort

Survey effort reports are used to summarize the number of surveys conducted at each sampling site (*i.e.*, *points*) and the number of species observed (Figure 95).

When a survey effort report is first opened, no data are displayed. The user must identify filter values (①), then press the **go** button (①).

Group Of Points	Surveys	Points	Species
2701	30	30	57
3901	5	5	28

Figure 95. A survey effort report.

The results are sorted by point groups (②). The number of sampling sites associated with the groups are displayed (*points*), as well as the number of surveys (*surveys*) and species (*species*).

Survey effort reports are similar to species inventory reports, in that both contain options to print or download the summary lists. If the land unit's list of point groups is long enough it cannot be viewed without using scroll bars, the entire list can be sent to a printer using the **print** function (③).

The **download** option (④) will take the information stored in the table (②) and save it as a database file accessible by software programs like Excel. The table will contain the list of point groups, the number of points in each group, the number of surveys conducted, and the number of species observed.

Survey effort reports can only be generated for one year at a time. Tables containing data for multiple years can be created, using software programs like Excel.

When combining multiple tables, bring one table into a program like Excel. Add extra (*i.e.*, *blank*) fields to the table. Open a second table and copy the data fields that will be added to the first table. Paste the new fields into the first table. It is recommended that the list of point groups are copied at the time the summary information is copied, to make sure the correct summary values are associated with the correct point group. After the checks are complete, the extra point grouping field can be deleted and the field headers updated (*if needed*).

*Note: At the time this document was created, the data download function was having difficulties exporting the user's search parameters. Only the BPCD default display was being exported.* Users can get around this limitation by copying and pasting data directly from the Web tables into an Excel file.

## Abundance Among Years

The **abundance among years** report allows users to compare the number of individuals observed in one to three years against the numbers observed overall (Figure 96).

When an **abundance among years** report is first opened, no data will appear in the species table (①). Filter parameters must first be identified (②) and the go button activated (GO). The results of the search will be displayed in the species table (①).

The **abundance among years** report contains customization options previously unavailable in other reports. Users have the ability to sort the species list either alphabetically or taxonomically (③), and to select up to three years worth of data (②).

You are here: [Home](#) / [My Point Counts](#) / [Reports](#) / [Abundance among years](#)

### Abundance among years

Home Feedback Help

Filtered on: [change Filter](#)  
 Years = 1995,1996,1997 ; Study = "Landbird Monitoring" ; Point Grouping = ALL points  
 83 species found.

Print Download

Species	1995			1996			1997			All Years: (1995 - 2006)	
	Points	Birds	Birds/Pt-Surv.	Points	Birds	Birds/Pt-Surv.	Points	Birds	Birds/Pt-Surv.	Tot. Pts	Avg Bird
Canada Goose	4	33	0.94	4	0	0.00	4	0	0.00	10	0.
Wood Duck	1	1	0.03	2	0	0.00	1	0	0.00	4	0.
Gadwall	5	7	0.20	1	0	0.00	0	0	0.00	6	0.
American Wigeon	2	2	0.06	0	0	0.00	0	0	0.00	2	0.
Mallard	19	41	1.17	18	2	0.06	16	5	0.13	34	0.
Blue-winged Teal	17	29	0.83	9	3	0.09	14	0	0.00	26	0.
Redhead	1	4	0.11	0	0	0.00	0	0	0.00	1	0.
Hooded Merganser	1	1	0.03	0	0	0.00	0	0	0.00	1	0.
Ring-necked Pheasant	9	9	0.26	2	0	0.00	5	0	0.00	14	0.
Pied-billed Grebe	2	2	0.06	2	0	0.00	3	0	0.00	6	0.
Double-crested Cormorant	1	1	0.03	6	0	0.00	2	0	0.00	8	0.
American Bittern	1	1	0.03	1	0	0.00	0	0	0.00	2	0.
Great Blue Heron	8	10	0.29	9	0	0.00	11	1	0.03	20	0.
Great Egret	3	3	0.09	11	1	0.03	9	0	0.00	18	0.

Optional Filtering:

Point Grouping: All points

Year (select upto 3): 2002, 2001, 1997, 1996, 1995

Study: Landbird Monitoring

Output sort order:  alphabetical  taxonomic

GO!

Figure 96. The abundance among years report.

Since the species lists can get rather lengthy, options are available for printing the entire species list (④) or downloading the abundance table (①) to a database file (⑤). The database files are accessible using software programs like Excel.

Each table produced will contain a list of all species observed at the land unit. If the same output order (*alphabetical or taxonomic*) is used to produce multiple lists, users have the ability to use software programs like Excel to create tables that contain data for more than three years.

When combining multiple tables, bring one table into a program like Excel. Add extra (*i.e., blank*) fields to the table. Open a second table that contains the data to be added to the first. Copy the data fields (*including the species list*) from the second table and paste them into the first. If the two species lists match each other, the data should be correctly aligned. The extra species list can then be deleted and the field headers updated (*if needed*).

*Note: At the time this document was created, the data download function was having difficulties exporting the user's search parameters. Only the BPCD default display was being exported.*

Users can get around this limitation by copying and pasting data directly from Web tables into an Excel file. Again it is recommended the species list is copied along with data entries, to make sure the new data are associated with the correct species.

## Abundance Within Year

The **abundance within year** report is used to compare the number of individuals observed in a single year to the number of individuals overall (Figure 97, ①). This report differs from the abundance among years reports in it also contains frequency data.

The filter options (②) are used to determine which year's worth of data will be analyzed, as well as any additional subsets (*point groups or study designs*). Since the list of species can get quite long, a print option (③) is available for sending the entire species list and other Web page material to a printer. The summary table (①) can also be downloaded to a database file (④), accessible to software programs like Excel.

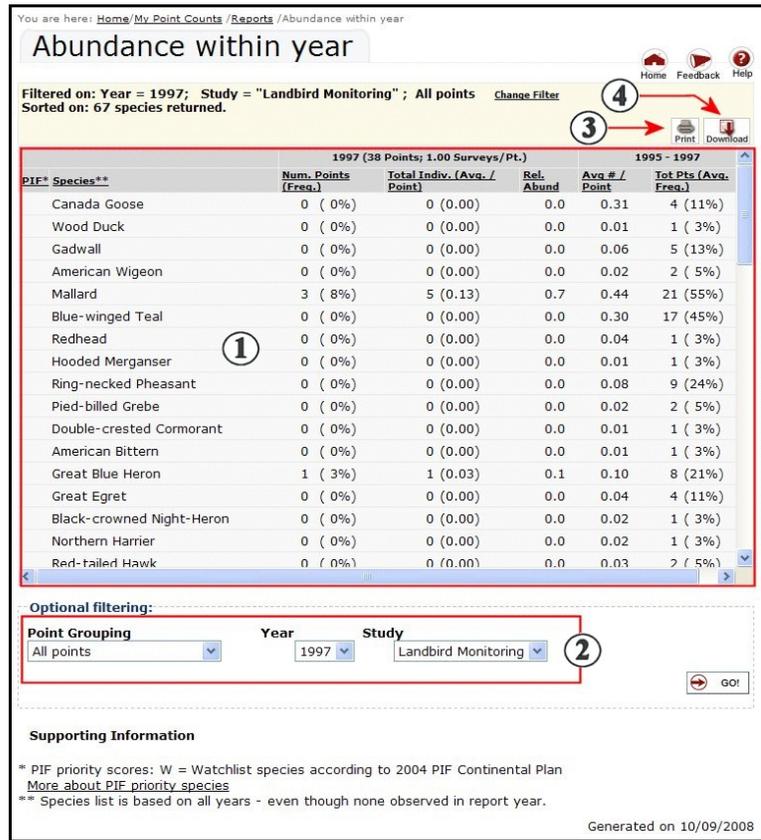


Figure 97. The abundance within year report.

Each table produced using this function will contain a list of all species observed at the land unit. Users have the ability to use software programs like Excel to create tables that contain data for more than one search result.

When combining multiple tables, bring one table into a program like Excel. Add extra (*i.e., blank*) fields to the table. Open a second table and copy the data fields that will be added to the first table. Paste the new fields into the first table. It is recommended that the species list is copied to the new table at the same time data fields are copied (*i.e., one copy and past that contains multiple table fields*), so a double check can be performed. If the two species lists match each other, the data should have been correctly aligned as well. The extra species list can then be deleted and the field headers updated (*if needed*).

*Note: At the time this document was created, the data download function was having difficulties exporting the user's search parameters. Only the BPCD default display was being exported.*

Users can get around this limitation by copying and pasting data directly from Web tables into an Excel file. Again it is recommended the species list is copied along with data entries, to make sure the appropriate data entry is associated with the correct species.

## Species Across Sites

The **species across sites** report uses **point groupings** to summarize species observations.

When activated, this report generates a list of all species observed in the land unit (Figure 98, ①). The available point group are then added to the table as data fields (e.g., 2701 and 3901). The BPCD calculate the number of specie observations for each point group, then adds the information to the table.

The filter options are located at the bottom of the Web page (②). This report allows for only one year selections. *Unlike other reports, the search year is not listed in the table's field headers* (e.g., field names). Users planning to bring the data table into a software program like Excel will need to update the field headers themselves, so the appropriate year (and other search parameters) are identified.

This report also differs from other reports in the table's data are not stored in a scrolling window. The Web browser's print function can be used to send the entire table to a printer. A print function is still available (③), as well as a download option used to create database files (④).

Each table contains a list of all species observed at the land unit. Since all tables contain all species, it is fairly easy to use a software program like Excel to create tables that contain data for more than one search result.

You are here: [Home](#) / [My Point Counts](#) / [Reports](#) / Species across sites

### Species across sites

Filtered on: Study = "Landbird Monitoring", Groupings = "Survey" in 1997 [Change Filter](#)  
74 species returned.

Print Download

Species	Total Individuals By Grouping	
	2701	3901
Canada Goose	0	0
Wood Duck	0	0
Mallard	4	1
Blue-winged Teal	0	0
Ring-necked Pheasant	0	0
Pied-billed Grebe	0	0
Double-crested Cormorant	0	0
Great Blue Heron	1	0
⋮		
Bobolink	37	0
Red-winged Blackbird	86	14
Eastern Meadowlark	7	0
Yellow-headed Blackbird	27	0
Common Grackle	3	0
Brown-headed Cowbird	28	22
Baltimore Oriole	4	0
Purple Finch	0	0
American Goldfinch	45	4

Optional filtering:

Point Grouping: Survey groupings (2) Year: 1997 Study: Landbird Monitoring

GO!

Figure 98. The species across sites report.

When combining multiple tables, bring one table into a program like Excel. Add extra (*i.e., blank*) fields to the table. Open a second table that contains the second set of search data. Copy the new data fields from the second table and paste them into the first. It is recommended that the species list is also copied along with the data fields, so a double check can be performed to make sure the correct summary data are associated with the correct species. After the data have been checked for accuracy, the extra species list can be deleted.

*Note: At the time this document was created, the data download function was having difficulties exporting the user's search parameters. Only the BPCD default display was being exported.*

Users can get around this limitation by copying and pasting data directly from Web tables into an Excel file. Again it is recommended the species list is copied along with data entries, to make sure the appropriate data entry is associated with the correct species.

# Check-off Lists

## Setting Up a New Land Unit

### Land Unit Manager Tasks

1. Decide who will be your landunit's **Responsible Party** (☞, page 30).
2. Either the **landunit's Manager** (e.g., refuge manager, district manager, or project leader) or the **Responsible Party** needs to send an Email to the land unit's BPCD **Regional Coordinator** (☞, page 10). Include the following information.
  - a. The **Name** of the land unit (e.g., National Wildlife Refuge, WMD).
  - b. The **State(s)** associated with the land unit.
  - c. The **Name** of the land unit's **Responsible Party**. Be sure to include,
    - i. First Name
    - ii. Middle Initial
    - iii. Last Name
    - iv. Email address

### Responsible Party Tasks

#### Before logging into the BCPD Web site . . .

1. Fill out your **Study Design** worksheet(☞, page 11).
2. Develop your **List of Observers**. You will need to know;
  - a. First name
  - b. Middle Initial
  - c. Last Name
  - d. Email address
3. Decide how you want to distribute your (a) data entry, (b) editing, and (c) verification duties amongst your Observers (☞, page 30).
4. Assign **Security Levels** to your Observers.

#### Log onto the BPCD and perform the following

1. Enter your first study design (system requirement) (☞, page 11).
  - a. Enter any additional study designs, or move onto step 2.
2. Enter your list of Observers (☞, page 33).

# Before Entering Survey Data

Responsible Party, Data Manage, and/or Data Entry Tasks

## Before logging onto the BPCD Web site . . .

1. Create a list of your survey Points (▶▶, page 18). You will need to know
  - a. First year surveyed
  - b. Coordinate Information
    - i. Point ID (*aprox. 100 character available*)
    - ii. Latitude (*e.g., Northing, Y*) - **use decimal degrees, NAD83 or WGS84 coordinates**
    - iii. Longitude (*e.g., Easting, X*) - **use decimal degrees, NAD83 or WGS84 coordinates**
    - iv. GPS precision (*optional*)
    - v. Elevation (*optional*)
    - vi. Slope (*optional*)
    - vii. Aspect (*optional*)
    - viii. Description (*optional*)
2. If necessary, group your points by the following categories (*if your study area crosses these boundaries*).
  - a. State
  - b. BCR (*Partners in Flight - Bird Conservation Regions*)
  - c. PIF (*Partners in Flight - Physiographic Regions*)

## Long onto the BPCD Web site . . .

3. Use the **Points** function to enter your survey locations (*i.e., Points*, ▶▶, page 18).
4. Define your **Point Groupings** (*if applicable*, ▶▶, page 24).
5. Create any **Species Lists** you may need (▶▶, page 27).

# Enter Your Survey Data

*Responsible Party, Data Manage, and/or Data Entry Tasks*

## Field Crew and/or Data Entry Tasks

1. Enter the Survey Header information ([▶▶](#), page 38).  
*use 4-number characters for years*
2. Select method for filling in the Species Codes ([▶▶](#), page 40).
3. Enter the bird sightings ([▶▶](#), page 41).
4. Save your work.

## Verifying Party Tasks

*(preferably someone other than the data entry person)*

1. Activate the **Bird Surveys** link, locate the surveys marked with a “V” in the summary list ([▶▶](#), page 45). (*V = Needs to be verified*)
2. **View** each survey, review the data contained within ([▶▶](#), page 45).
3. Activate the [Verify / edit this survey](#) link ([▶▶](#), page 45).
4. If you're pleased with the display, verify the data. Otherwise, make the appropriate edits before verifying ([▶▶](#), page 47).

# Coordinate Information

## What are Decimal Degrees and Degrees, Minutes, Seconds

Decimal degrees and degree, minute, second coordinates are both used to represent “geographic coordinates;” its just decimal degree numbers use a base 10 numbering system while degree, minute, second measurements use base 60 numbers. Most computers and software are designed to recognize and process base 10 numbers, very few are designed to process base 60 numbers.

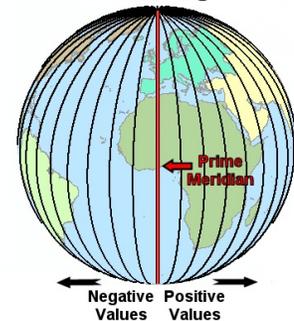
Base 60 numbers have a long history that date back to the Babylonians and Sumerians, approximately 4,000 BC. The base 60 numbering system was developed to help the cultures communicate with each other. The base 60 counting process utilizes all 10 fingers as well as each knuckle joint. Base 60 numbers have been used historically to classify and subdivide a variety of items, including the clock (*which in turn impacts how geographic coordinates are calculated*). One hour is comprised of 60 minutes. Each minute is comprised of 60 seconds.

When mariners began sailing the oceans they needed a way to estimate their position the globe. The compass and the stars were useful in determining their north and south position, unfortunately calculating their east/west position wasn't as easy. The early mariners tried counting the number of days they traveled in a given direction. Unfortunately the length of a day increases or decrease as one moves east or west, and north or south. These problems were resolved with the development of a clock that would keep accurate time while traveling on the ocean (*i.e., a wind-up clock that does not require a pendulum*).

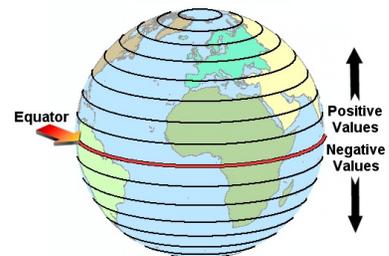
If a mariner always knew the time at a fixed location on the earth (*i.e., Greenwich, England*), they could use this information against the rising and setting of the sun to determine how far east or west they were from the known location. The earth was divided into 360 sections (*i.e., degrees*), which corresponded to the 360 divisions on a compass (*side note, the first Sumerian calendar contained 360 days, or 6 sets of 60*). The clock was used to determine one's position east or west within each degree section, resulting in each degree being divided into 60 minutes and each minute into 60 seconds.

Degrees, minutes, and seconds are used to describe angles measured out from the center of the earth. The equator and the prime meridian (*which passes through Greenwich, England*) are the reference lines associated with this coordinate system. All longitude measurements east of the prime meridian to the 180 degree longitude mark are written using positive numbers. Longitude values located west of the prime meridian (*to the 180 degree longitude mark*) are negative measurements. Likewise positive latitude numbers are used in measurements made north of

**Lines of Longitude**



**Lines of Latitude**



the equator, negative latitude numbers are used to the south.

The latitude and longitude measurements describe geographic locations in relation to these reference lines (*i.e., the prime meridian and the equator*).

Since most computers and software programs are not designed to process base 60 numbers, decimal degrees are the preferred coordinate values. Decimal degrees are base 10 equivalents of the base 60 degree, minute, and second measurements. The mathematical equation used to convert degree, minute, second values to decimal degrees is

$$\text{Decimal Degrees} = \text{Degrees} + \text{Minutes}/60 + \text{Seconds}/3600$$

The individuals who designed the BPCD built this equation into the [create new point](#) function, so users wouldn't have to perform their conversions manually ([☞](#), page 19).

*Note: At the time this document was prepared, the BPCD was having difficulties if some point coordinates were entered using one coordinate scheme and others were entered using a different one.*

*If a land unit entered some of their point coordinates using decimal degrees and others in degree, minute, seconds, the conversions would take place in the database but the Web page displays sometimes show only some of the coordinates. Those entered using the second system would sometimes display as blank. It is unknown how extensive of a problem this could be, as it occurs only sometimes. To avoid potential problems, it is recommended that land units enter all of their coordinates using the same numbering scheme (i.e., whichever system you choose, use that same system for all).*

# Index

ArcGIS toolbox		
coordinate requirements	Page 20	
requirement	Page 20	
Check-off lists		
before entering survey data	Page 59	
entering data	Page 60	
setting up a new land unit	Page 58	
verifying data	Page 60	
Coordinates		
recommended	Page 20	
what are decimal degrees	Page 61	
what are longitude/latitude	Page 61	
Entering survey data		
entering weather data	Page 39	
identifying a species	Page 41	
identifying the study design	Page 38	
Land units		
about	Page 1, Page 8	
access level	Page 30, Page 31	
adding states and prov.	Page 17	
changing	Page 7	
describing	Page 16	
description report	Page 49	
responsible party	Page 9, Page 10	
Logging in		
about	Page 5, Page 7	
changing access level	Page 35	
difficulties	Page 7	
passwords	Page 5	
Management Units		
creating point groupings	Page 24	
Observers		
changing access levels	Page 35	
list of available	Page 33	
login levels-available tasks	Page 30	
Passwords		
changing	Page 6	
forgotten	Page 5	
Point groupings		
deleted vs. hidden	Page 27	
Points		
access level	Page 18	
creating	Page 18	
deleted vs. hidden	Page 23	
geographic coordinates	Page 19	
marsh bird points	Page 20	
Reports		
abundance among years	Page 54	
land unit description	Page 49	
no. species/site/year	Page 56	
species abundance/year	Page 54, Page 55	
species across sites	Page 56	
species inventory	Page 51	
species observations	Page 52	
species/season/year	Page 51	
study annual	Page 50	
survey effort	Page 53	
surveys and species/year	Page 50	
surveys/route/year	Page 53	
Species lists		
adding names	Page 28	
creating	Page 27, Page 46	
State names		
adding names to menus	Page 17	
Study design		
about	Page 11	
access level	Page 30	
creating	Page 11	
deleting	Page 12	
worksheet	Page 12	
Survey routes		
creating point groupings	Page 24	
Verifying survey data		
adding status messages	Page 47	
data entry access	Page 31	
verify as correct	Page 47	