

## PROJECT LEADER TIP #6

### HOW TO ADD SAMPLING UNITS

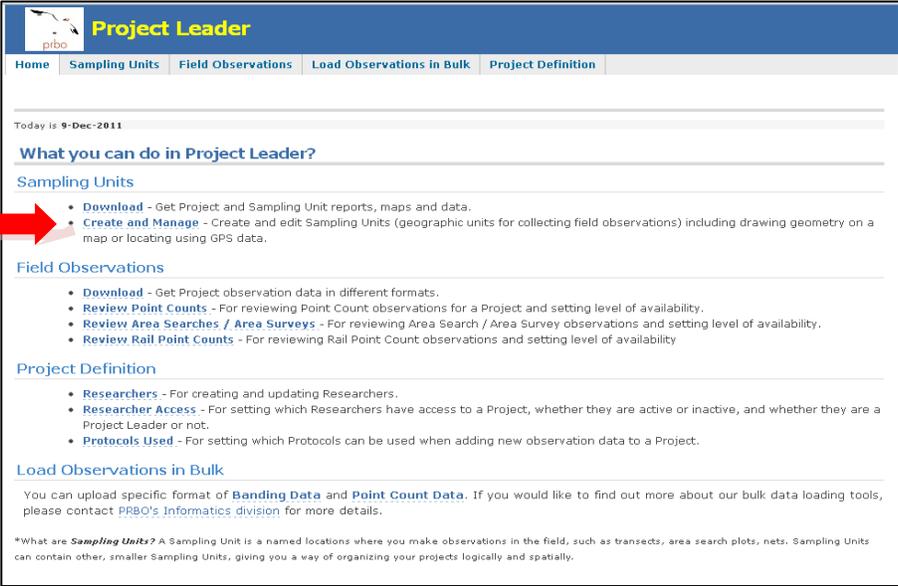
Before beginning, it is important to understand that sampling locations are set-up hierarchically. For example, Pacific Flyway Shorebird Survey the hierarchy is as follows:

1. **Project** (i.e., San Diego Shorebird Survey; SDSS)
  - a. **Study Area** (i.e., North Bay)
    - i. **Shorebird Area** (i.e., 188; aka Sampling Location or Sampling Unit)

#### TO EDIT EXISTING SURVEY LOCATIONS:

Editing/Adding Sampling Locations is a multi-step process:

1. Log-in to CADC and choose the [Project Leaders](#) application
2. Under [Sampling Units](#), select “Create and Manage”



The screenshot shows the 'Project Leader' application interface. The top navigation bar includes 'Home', 'Sampling Units', 'Field Observations', 'Load Observations in Bulk', and 'Project Definition'. Below the navigation bar, the date 'Today is 9-Dec-2011' is displayed. The main content area is titled 'What you can do in Project Leader?' and lists several categories with their respective actions:

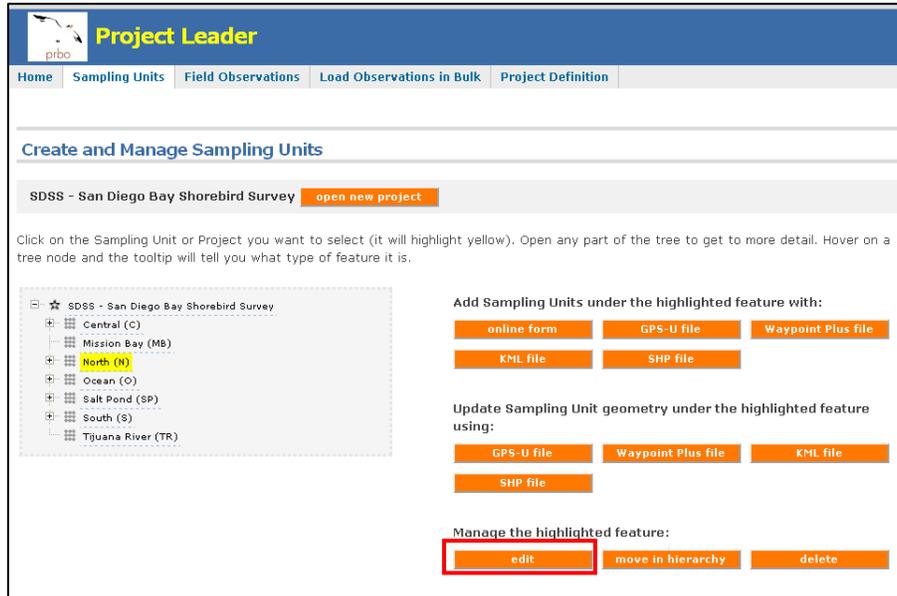
- Sampling Units**
  - Download** - Get Project and Sampling Unit reports, maps and data.
  - Create and Manage** - Create and edit Sampling Units (geographic units for collecting field observations) including drawing geometry on a map or locating using GPS data.
- Field Observations**
  - Download** - Get Project observation data in different formats.
  - Review Point Counts** - For reviewing Point Count observations for a Project and setting level of availability.
  - Review Area Searches / Area Surveys** - For reviewing Area Search / Area Survey observations and setting level of availability.
  - Review Rail Point Counts** - For reviewing Rail Point Count observations and setting level of availability.
- Project Definition**
  - Researchers** - For creating and updating Researchers.
  - Researcher Access** - For setting which Researchers have access to a Project, whether they are active or inactive, and whether they are a Project Leader or not.
  - Protocols Used** - For setting which Protocols can be used when adding new observation data to a Project.
- Load Observations in Bulk**
  - You can upload specific format of **Banding Data** and **Point Count Data**. If you would like to find out more about our bulk data loading tools, please contact [PRBO's Informatics division](#) for more details.

\*What are **Sampling Units**? A Sampling Unit is a named locations where you make observations in the field, such as transects, area search plots, nets. Sampling Units can contain other, smaller Sampling Units, giving you a way of organizing your projects logically and spatially.

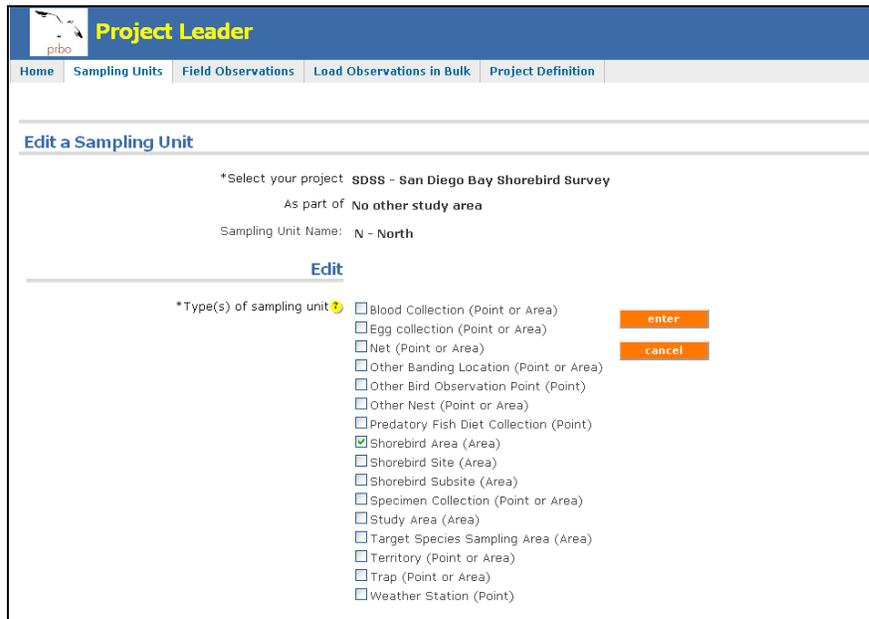
3. On the following screen, choose your project of interest
4. Locate the Study Location or Sampling Unit you want to edit from the expandable tree and click on it. It should highlight yellow.

**Note:** Consider project hierarchy to find the correct Sampling Location. Some projects have all of the Sampling Locations displayed in one list. Other projects have Sampling Locations grouped into Study Areas. This distinction is important in step 6.

- Click the orange “edit” button under Manage the highlighted feature on the right.



- Next, select the correct type of Sampling Unit then click the enter button. You will use “Shorebird Area” or “Shorebird Site”. See the hierarchy at the top of the protocol for correct sampling unit types.



- Next, edit the Sampling Unit attributes.
  - Sampling Unit Long Name:** this is a long name for the sampling units unit and includes the most description e.g. Road Transect001 Pt 20, 7<sup>th</sup> Street Pond
  - Sampling Unit Short Name:** this is the short version of the sampling unit used for reports, maps, dataforms etc. e.g. RTX00120, 7STP
  - Description:** Any information about the Sampling Location.

- d. **Geometry:** This launches a google maps application that allows you to draw and save the geometry of the sampling area or unit. Please see “How to Digitize Sampling Units” for more information on this topic.

8. When finished, click “update”

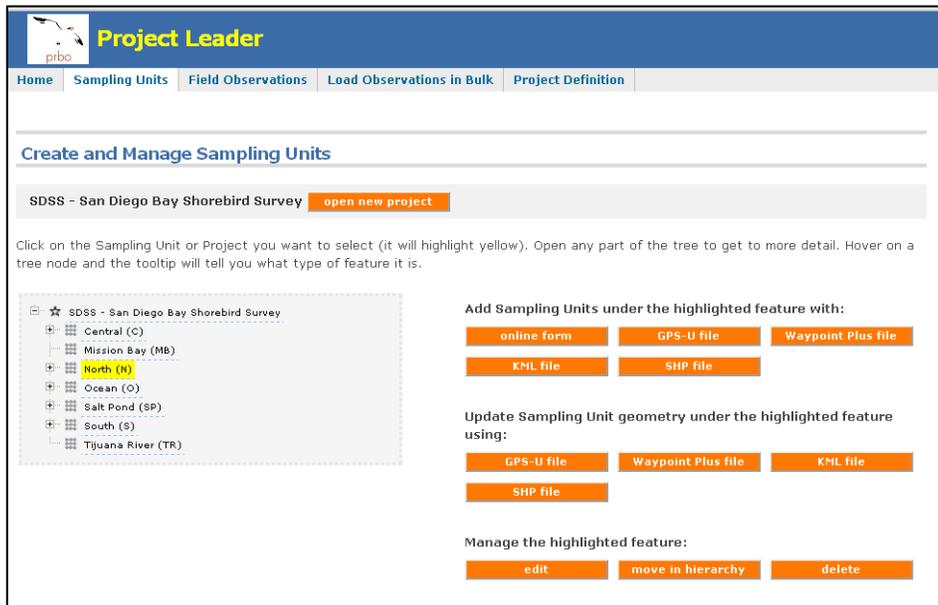
**Note:** For editing greater than 10 Sampling Locations or adding geometries please contact the CADC-Webmaster for bulk options.

**TO ADD NEW SURVEY LOCATIONS:**

1. Follow steps 1 through 4 above.
2. Click the Project or Study Area in the expandable tree of survey locations where you would like to add another Study Area or Survey Location. It should highlight yellow.

**Note:** Consider project hierarchy to find the correct sampling location. Some projects have all of the Sampling Locations displayed in one list. Other projects have Sampling Locations grouped into Study Areas. This distinction is important when creating new sampling units.

3. There are several ways of adding Sampling Units. These are listed under the “Add Sampling Units...” on the right. The most common way is to use the Online Form. However, when creating many surveys areas or survey locations, it may be useful to use one of the other options.



4. Next, select the correct type of sampling unit and click enter. See hierarchy at the top of the protocol.
  - a. For example, individual survey locations in PFSS projects will be Shorebird Area

- b. For a group labeling of sampling units, this will be Study Area

The screenshot shows the 'Project Leader' web application interface. At the top, there is a navigation bar with tabs for 'Home', 'Sampling Units', 'Field Observations', 'Load Observations in Bulk', and 'Project Definition'. The main content area is titled 'Edit a Sampling Unit'. It displays the following information:

- \*Select your project: SDSS - San Diego Bay Shorebird Survey
- As part of: No other study area
- Sampling Unit Name: N - North

Below this information is an 'Edit' button. Underneath, there is a section for '\*Type(s) of sampling unit' with a dropdown menu. The dropdown is open, showing a list of options with checkboxes:

- Blood Collection (Point or Area)
- Egg collection (Point or Area)
- Net (Point or Area)
- Other Banding Location (Point or Area)
- Other Bird Observation Point (Point)
- Other Nest (Point or Area)
- Predatory Fish Diet Collection (Point)
- Shorebird Area (Area)
- Shorebird Site (Area)
- Shorebird Subsite (Area)
- Specimen Collection (Point or Area)
- Study Area (Area)
- Target Species Sampling Area (Area)
- Territory (Point or Area)
- Trap (Point or Area)
- Weather Station (Point)

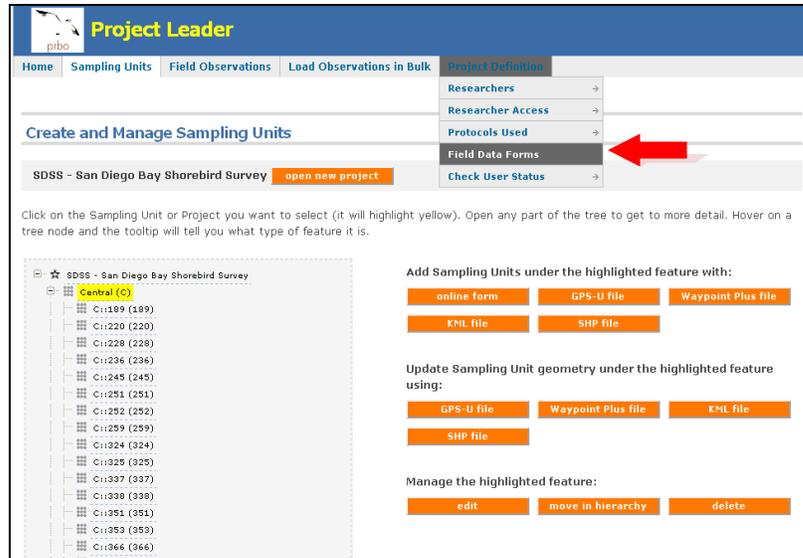
To the right of the dropdown menu are two orange buttons: 'enter' and 'cancel'.

5. Next, add the Sampling Unit attributes.

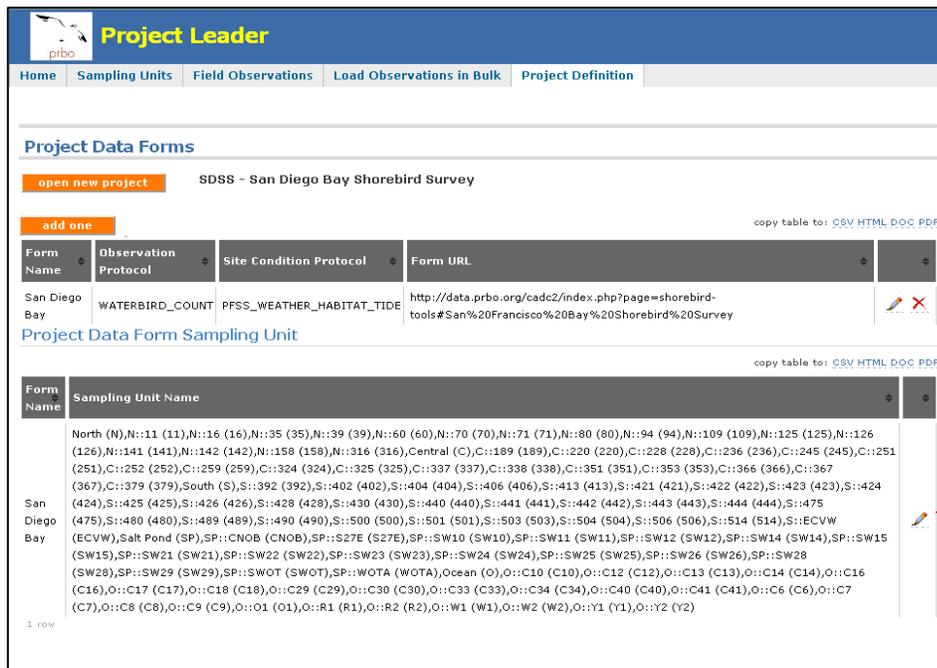
- Sampling Unit Long Name:** this is a long name for the sampling units unit and includes the most description. This should include the full name of the Area/Site and the sampling Location name.
- Sampling Unit Short Name:** this is a short version of the sampling unit used for reports, on dataforms etc. This can be only the sampling unit name in the above.
- Description:** Any information about the sampling location.
- Geometry:** This launches a google maps application that allows you to draw and save the geometry of the sampling area or unit. Geometry can also be added later using an ArcGIS shapefile. Please see "How to Digitize Sampling Units" for more information on this topic.

6. When finished, click "save"

7. After creating all of the sampling units you want to, click the "Field Data forms" from the Project Definition tab at the top of the screen



8. On the following screen, choose your project of interest. This should be the same project where you were just creating the sampling units.
9. Click the pencil icon next to the list of Sampling Units names on the next screen



10. The next screen will show all sampling units that have been created for the project. Only those that have a check mark next to them will appear in the data entry application. Click in the box next to the sampling unit to add a green check mark. Make sure to place a green check next to newly created sampling units and any units you would like to appear in the data entry application.

<input checked="" type="checkbox"/>	O::C34(C34)	120579
<input checked="" type="checkbox"/>	O::C40(C40)	120580
<input checked="" type="checkbox"/>	O::C41(C41)	120581
<input checked="" type="checkbox"/>	O::C6(C6)	120582
<input checked="" type="checkbox"/>	O::C7(C7)	120583
<input checked="" type="checkbox"/>	O::C8(C8)	120584
<input checked="" type="checkbox"/>	O::C9(C9)	120585
<input checked="" type="checkbox"/>	O::O1(O1)	120586
<input checked="" type="checkbox"/>	O::R1(R1)	120587
<input checked="" type="checkbox"/>	O::R2(R2)	120588
<input checked="" type="checkbox"/>	O::W1(W1)	120589
<input checked="" type="checkbox"/>	O::W2(W2)	120590
<input checked="" type="checkbox"/>	O::Y1(Y1)	120591
<input checked="" type="checkbox"/>	O::Y2(Y2)	120592
<input type="checkbox"/>	Tijuana River (TR)	120732
<input type="checkbox"/>	Mission Bay(MB)	120733
<input type="checkbox"/>	SP::SW27(SW27)	120734
<input type="checkbox"/>	SP::SW20(SW20)	120736
<input type="checkbox"/>	SP::SW13W(SW13W)	120737
<input type="checkbox"/>	SP::SW13W(SW13W)	120737
<input type="checkbox"/>	N::188(188)	120738
<input type="checkbox"/>	S::488(488)	120739
<input type="checkbox"/>	S::487(487)	120740
<input type="checkbox"/>	S::486(486)	120741
<input type="checkbox"/>	S::WCVW(WCVW)	120742

save    cancel

#### TO ADD SAMPLING UNITS USING A GIS SHAPEFILE:

Before beginning in CADK please make sure that each shapefile has the following two columns:

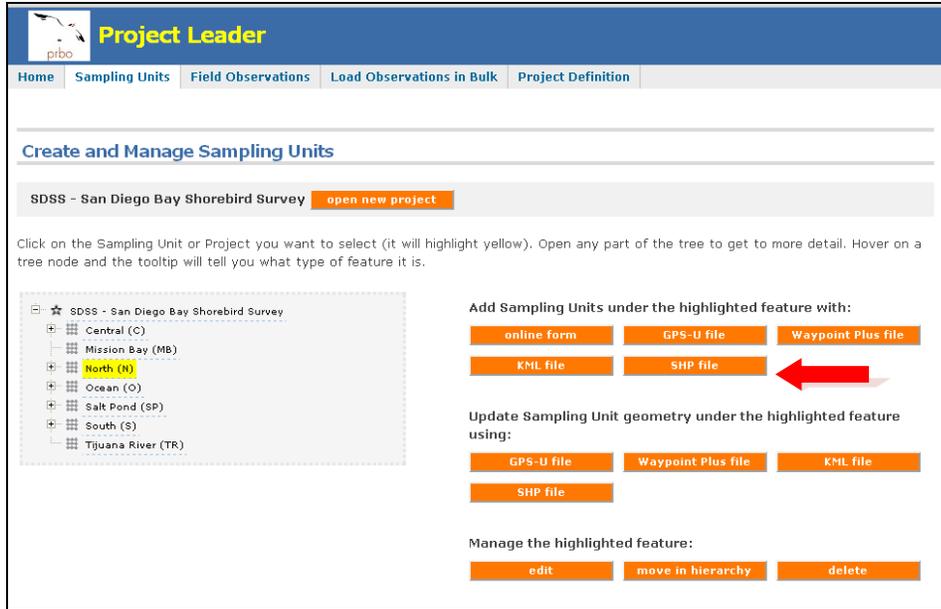
- i. **CADC\_pt**: designates the sampling location. This must include a "0" before the number or CADK will not sort properly, i.e "001" NOT "1"
- ii. **CADC\_SN**: designates the CADK short name. Shortnames are project specific and should include the area short name and sampling location number.
- iii. Send all shapefile components to a zipped folder and remember the location.

1. Follow steps 1 through 4 above.

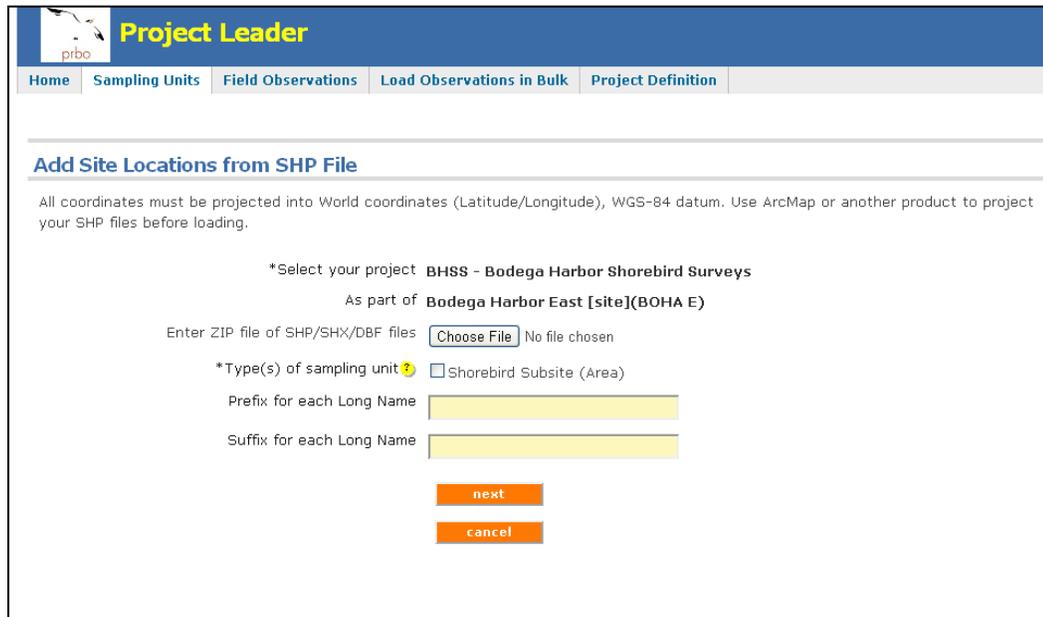
2. Click the Project or Study Area in the expandable tree of survey locations where you would like to add new Study Areas or Survey Locations. It should highlight yellow.

**Note:** Consider project hierarchy to find the correct sampling location. Some projects have all of the Sampling Locations displayed in one list. Other projects have Sampling Locations grouped into Study Areas. This distinction is important when adding new locations.

3. Under Add Sampling Units..., choose the orange "SHP file"



4. Navigate to the zipped folder that contains your shapefile components when asked to “Choose folder”
  - a. **Prefix for each Long Name:** Include the full “Shorebird Area” name (from screenshot below this would be “Bodega Harbor East\_”) and any other necessary information to complete the Long Name using the CAD\_C\_pt field in the Arc GIS shapefile.
  - b. **Suffix for each Long Name:** not needed



5. On the following screen, choose **CADC\_pt** for the Long name and **CADC\_SN** for the short name.
6. The next screen should show all possible locations with attributed names. Select all of these and click “Add” and the locations will be added to the box on the right. After all sampling

locations have been added, click “Process”. The points will be added and you will be taken back to the project home screen. You should now see the points listed in the Sampling Location tree.

Sample unit geometry is automatically created when creating sampling units with an Arc GIS shapefile.