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”

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

6. 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.

7. Next, edit the Sampling Unit attributes.
   a. **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, 7th Street Pond
   b. **Sampling Unit Short Name**: this is the short version of the sampling unit used for reports, maps, dataforms etc. e.g. RTX00120, 7TP
   c. **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**

![Project Leader](image)

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### Edit a Sampling Unit

*Select your project:

**SDSS - San Diego Shorthead Survey**

As part of:

**No other study area**

**Sampling Unit Name:** **N - North**

**Edit**

*Type(s) of sampling unit:*
- Blood Collection (Point or Area)
- Egg collection (Point or Area)
- Nest (Point or Area)
- Other Banding Location (Point or Area)
- Other Bird Observation Point (Point)
- Other Nest (Point or Area)
- Specimen Collection (Point or Area)
- Study Area (Area)
- Target Specie Sampling area (Area)
- Territory (Point or Area)
- Trap (Point or Area)
- Weather Station (Point)

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5. **Next, add the Sampling Unit attributes.**
   
   a. **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.
   
   b. **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.
   
   c. **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. 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 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.
TO ADD SAMPLING UNITS USING A GIS SHAPEFILE:

Before beginning in CADC 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 CADC will not sort properly, i.e “001” NOT “1”

ii. **CADC_SN**: designates the CADC short name. Shortnames are project specific and should include the area short name and sampling location number.

iii. Send all shapefile components to to 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 CADC_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.