

Main Menu

Click to open the Data Entry form. Allows users to enter new survey or observation data, or to edit observation data from previous surveys.

Click to open the Plot Details form. Allows users to edit plot details (e.g., alternate name, parent site, lat/long, etc), or to add new sites or plots to the plot lookup table (tluPlots).

Click to open the Export Data form. Allows users to export all counts from a refuge, with options to filter by year, site, plot, species, and/or entity.

Allows users to preview or export a summary table of the total number of birds counted per index plot per year.

(@Jes/Micheal: this form [and it's associated queries] is holdover from the AKM model database, modified to fit the new data structure; can be retained, if useful, or deleted.)

Main Menu

U.S. Fish and Wildlife Service
Alaska National Wildlife Refuges
Seabird Observations and Monitoring Database

Enter or Edit Data

- Enter New Data or Manage Existing Data
- Enter Incidental Observations
- Add Plots or Manage Plot Details

View or Export Existing Data

- View or Export Existing Records
- View Data for All Index Plots
- Index Plot Totals by Year
- View Incidental Observations

Contact Database Manager Exit Database

Click to open the Data Entry form for incidental observations. Allows users to enter seabird/marine mammal observations that are casual (i.e., not on a transect or plot) or non-quantitative (i.e., categorical abundances).

Opens a view-only table of all counts performed on all index/required plots at a given refuge. Includes species, entity type (colony, nest, or animal's development stage), count, replicate number, plot name, site name, date, and survey ID.

Allows users to view a table of all incidental observations recorded for their refuge, with option to filter by species.

Survey/Observation Data Entry Form

Main Menu > "Enter New Data or Manage Existing Data"

Allows user to select and edit survey and observation data from previous surveys. Surveys are sorted by refuge, then by date. **Any changes made to these records WILL BE REFLECTED IN THE DATABASE.** If you only wish to **view** records, use the [Data Export Form](#) to export a **copy** of the records.

U.S. Fish and Wildlife Service - Alaska National Wildlife Refuges

Seabird and Marine Mammal Data Entry

Find Existing Survey:

Enter New Data:

Refuge Unit: Site/ Island:

Survey ID: (3-character refuge code + 6-digit date, e.g., AKP062512)

Survey Date (mm/dd/yyyy): Start Time (24:00 hr): Stop Time (24:00 hr):

Survey Notes:

Survey Protocol: Survey Platform: Survey Type:

☐ Survey Includes Marine Mammal Observations

☐ Exclude Survey from Analyses and Summaries

Excludes the specified survey from built-analyses or summary reports. "Excluded" surveys will still be included in the general [Existing Data Export](#) table, but their status (Excluded? yes/no) will be noted.

Seabird Observations

Plot Name	Plot ID	Series	Observer Initials	Time (24:00)	Species	Entity	Count	Survey Conditions	Sea Conditions	Wind Direction	Wind spd (knots)	Notes	Exclude From Analysis	Reason
<input type="text"/>	<input type="text" value="0"/>	<input type="text" value="1"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	<input type="text"/>

[New Plot?](#)

If you begin entering data and realize that a plot in your survey is not on the list, you can access the [Add/Edit Plots](#) Form directly from the Data Entry Form. See [below](#) for details.

Record: Search

[Save Current Survey and Create New Survey](#) [Delete the Current Survey](#) [Return to Main Menu](#)

Adding Marine Mammal Observations to Your Survey

Seabird and Marine Mammal Data Entry

Find Existing Survey:

Enter New Data:

Refuge Unit Site/ Island

Survey ID (3-character refuge code + 6-digit date, e.g., AKPO610101)

Survey Date (mm/dd/yyyy) Start Time (24:00 hr) Stop Time (24:00 hr)

Survey Notes

Survey Type

☒ Survey Includes Marine Mammal Observations
☐ Exclude Survey from Analyses and Summaries

1. Click the "Survey Includes Marine Mammal Observations" check box. A new subform will appear below the seabird observation form, and a message box will prompt you to enter your marine mammal observation data in this bottommost form.

Seabird Observations

Plot Name	Plot ID	Series	Observer Time (24:00)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

New Plot?

Microsoft Access

Please enter marine mammal observations in the bottommost form.

2. Click "OK." The message box will disappear.

3. Enter your marine mammal observation data in the bottommost form, just as you did for the seabird observation data above. There is no "exclude" option because marine mammal data are not included in index plot summaries or analyses.

Marine Mammal Observations

Plot Name	Series	Observer Time (24:00)	Species	Entity	Count	Survey Conditions	Sea Conditions	Wind Direction	Wind spd (knots)	Notes
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Record: 1 of 1

No Filter Search

Save Current Survey and Create New Survey Delete the Current Survey Return to Main Menu

Adding Plots From in the Data Entry Form

If you begin entering data and realize that a plot in your survey is not on the list, you can access the [Add/Edit Plots](#) Form directly from the Data Entry Form. To do so, click the “New Plots?” button below the drop-down plot list in the observations subform. First, you will see the following message: “New plots must be added via the 'Add/Edit Plots form on the Main Menu. Would you like to go there now?" **Click yes** to proceed to the Add/Edit Plots form. **Select the appropriate refuge**, and then **add your new plots or sites**.

The screenshot shows the 'Seabird and Marine Mammal Data Entry' form. At the top, there are buttons for 'Save Current Survey and Create New Survey' and 'Delete the Current Survey'. Below these are fields for 'Find Existing Survey' (Alaska Peninsula National Wildlife Refuge), 'Refuge Unit' (Alaska Peninsula National Wildlife Refuge), 'Site/ Island' (Puale Bay), 'Survey Protocol', 'Survey Platform', 'Survey Type', 'Survey Date' (6/15/2002), 'Start Time' (13:37), 'Stop Time' (14:33), and 'Survey Notes'. A 'Microsoft Access' dialog box is open in the foreground, displaying the message: 'New plots must be added via the 'Edit Plot Details' form on the Main Menu. Would you like to go there now?'. The 'Yes' button is circled in red. At the bottom right of the form is a 'Save and Return to Main Menu' button.

The screenshot shows the 'Add New Plots' form. At the top, there is a 'Refuge' dropdown menu, which is circled in red. To its right is a 'View Existing Site and Plot List' button. Below the 'Refuge' dropdown is a table with columns: 'Site or Island Name', 'Historic Name(s)', 'Index Plot?', 'Plot Type', 'Latitude', 'Longitude', 'Transect Area (sq km)', 'Datum', 'Notes', and 'order display'. The table contains one row with a 'Point' plot type at coordinates 0, 0. Below the table is a section titled 'Edit Existing Plots -- Select a Site:' with a dropdown menu. At the bottom of the form, there are two buttons: 'Add New Plot(s) to Current Data Entry Session' and 'Save Plots/Sites and Close Form'. A red note at the bottom states: 'Use this form ONLY to customize which plots are displayed and the order of plot display in the data entry form. Do NOT edit plot information unless instructed by your supervisor. To add location data, click the "add new sites or plots" button on the form header, and a separate form for new plots/sites will appear below.'

The “Add New Plots/Sites” subform will appear below the “Edit Existing Plots” subform, and the information for your new plot will be entered there:

U. S. Fish and Wildlife Service - Alaska Wildlife Refuges

Plot Details

Refuge [View Existing Site and Plot List](#)

Add New Plots:

Site or Island Name	Plot Name	Historic Name(s)	Index Plot?	Plot Type	Latitude	Longitude	Transect Area (sq km)	Datum	Notes	order	display
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>	Point	0	0	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/>

If you are adding plots to an existing site, select the site from the “Site or Island Name” drop down field. To assign a new plot to a new site, simply type the new site name into the “Site or Island Name” field.

Check this box if your new plot is an index (required) plot within your refuge’s monitoring program. If you are unsure, ask your supervisor.

If your new plot is a transect, you will be asked to enter additional information, including end coordinates and an estimated transect area in km² (i.e., plot length x observation width).

If you are entering new plots while currently in a data entry session (i.e., while the Data Entry Form is open), you must click the “Add New Plot(s) to Current Data Entry Session” button for the new plots to appear in your current session. If you do not, the plots **will be saved, but you **will not be able** to see them until you create a new survey record.**

Record: 1 of 1 | No Filter | Search

[Add New Plot\(s\) to Current Data Entry Session](#) [Save Plots/Sites and Close Form](#)

Close the ‘Edit/Add Plots’ Form when you are done.

Incidental Observation Data Entry Form

[Main Menu](#) > [“Enter Incidental Observations”](#)

The Incidental Observations form allows users to record observations of seabirds, marine mammals (or other birds or mammals) that did not occur as a part of a formal survey. For example, technicians may have observed a few seals between surveys, or counted 22 glaucous-winged gulls on a large cliff face near camp. Still other refuges collect a considerable amount of categorical abundance data—i.e., recording whether certain species were uncommon, common, or abundant in a given area. These secondary but useful data can be recorded in this database as “incidental” observations.

U.S. Fish and Wildlife Service - Alaska National Wildlife Refuges									
Incidental Observations									
Refuge	<input type="text"/>	Platform	<input type="text"/>	Survey Type	<input type="text" value="Point"/>				
Location	<input type="text"/>	Date (mm/dd/yyyy)	<input type="text"/>	Latitude	<input type="text" value="0"/>				
		Time (24:00 hr)	<input type="text"/>	Longitude	<input type="text" value="0"/>				
Species	<input type="text"/>	Entity	<input type="text" value="Adult"/>	Count	<input type="text"/>	OR	Categorical Abundance	<input type="text"/>	

Save and Return to Main Menu

'Add/Edit Plots' Form

Main Menu > "Add Plots or Manage Plot Details"

The 'Add/Edit Plots' form can be accessed via the main menu, or from the Data Entry form, if you are entering data and realize that your plot is not yet listed in the plots lookup table. For details on the latter situation, see the "[Adding Plots From within the Data Entry Form](#)" section above. Below, we describe how to edit existing plots/sites or create new ones.

***** Make edits to plot details ONLY if instructed by your supervisor. *****

One may wish to edit plot details for a number of reasons: you may have recorded coordinates for a plot previously missing lat/long data, or you may change the name of a plot, or you may wish to add notes about a part of a rock face at the plot that has since fallen into the sea. The fields on this form are self-explanatory. Simply click the "Save Plots/Sites and Close Form" button when you are finished making edits.

U. S. Fish and Wildlife Service - Alaska Wildlife Refuges

Plot Details

Refuge:

Add New Plots:

You must first select the refuge in which the plots to be edited exist. Next, select the site at which these plots occur. (The site drop-down list will include all sites that occur within the selected refuge.)

Record: 1 of 1 | No Filter | Search

Edit Existing Plots -- Select a Site:

Plot Name	Historic Name(s)	Index Plot?	Plot Type	Latitude	Longitude	Transect Area (sq km)	Datum	Notes	order	display
EP3		<input type="checkbox"/>	Point	0	0			Mswain: "We don't have coc		<input type="checkbox"/>
DC2	DC Point (Ze	<input type="checkbox"/>	Point	58.6329	162.1191			coordinates of tie-in from Ap		<input type="checkbox"/>
DC3	DC Point (Ze	<input type="checkbox"/>	Point	58.6327	162.1195			coordinates of tie-in from Ap		<input type="checkbox"/>

Record: 1 of 1 | No Filter | Search

Use this form to edit existing plots. To add new plots, click the "add new sites or plots" button on the form header, and a separate form for new plots/sites will appear below.

Upon selecting a site, the list will be automatically populated with all plots that occur within the selected site.

View or Export Existing Data

Data Export Form

[Main Menu](#) > [“View or Export Existing Records”](#)

This function allows users to export existing monitoring and/or transect data from their refuge. Exported records can further be filtered by observation year, species observed, site, and plot. The option to ‘preview’ results will open a read-only table in the MS Access window, while the ‘export’ function exports this table as an XLS to a directory of the user’s choosing. If no records exist for the criteria the user selects, a pop up box will notify them of this.

U.S. Fish and Wildlife Service - Alaska Wildlife Refuges

Export Existing Observation Records

Select Refuge:

Filter By (Optional):


Year


Species


Entity

Site

Plot

Preview 

Export to Excel 

Close 

U.S. Fish and Wildlife Service - Alaska Wildlife Refuges

Export Existing Observation Records

Select Refuge:

Filter By (Optional):


Year


Species


Entity


Site

Plot

Preview 

Export to Excel 



 View Incidental Observations

Microsoft Access

No records for the selected criteria

OK

ExistingRecords										
refuge_lit	SurveyDate	SurveyID	Site	PlotName	Species	Entity	Count	Replicate	ExcludedSurv	
Becharof National Wildlife Refuge	7/19/1989	BCH071989	Oil Creek	1	UNMU	Colony (Total)	160	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	7/19/1989	BCH071989	Oil Creek	2	UNMU	Colony (Total)	423	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	7/19/1989	BCH071989	Oil Creek	3	UNMU	Colony (Total)	278	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	7/19/1989	BCH071989	Oil Creek	4	UNMU	Colony (Total)	344	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	7/19/1989	BCH071989	Oil Creek	5	UNMU	Colony (Total)	268	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	7/19/1989	BCH071989	Oil Creek	6	UNMU	Colony (Total)	174	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	7/19/1989	BCH071989	Oil Creek	7	UNMU	Colony (Total)	380	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	7/19/1989	BCH071989	Oil Creek	8	UNMU	Colony (Total)	512	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	7/19/1989	BCH071989	Oil Creek	9	UNMU	Colony (Total)	580	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/2/1989	BCH080289	Oil Creek	1	UNMU	Colony (Total)	204	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/2/1989	BCH080289	Oil Creek	2	UNMU	Colony (Total)	164	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/2/1989	BCH080289	Oil Creek	3	UNMU	Colony (Total)	369	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/2/1989	BCH080289	Oil Creek	4	UNMU	Colony (Total)	911	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/2/1989	BCH080289	Oil Creek	5	UNMU	Colony (Total)	252	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/2/1989	BCH080289	Oil Creek	6	UNMU	Colony (Total)	392	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/2/1989	BCH080289	Oil Creek	7	UNMU	Colony (Total)	438	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/2/1989	BCH080289	Oil Creek	8	UNMU	Colony (Total)	490	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/2/1989	BCH080289	Oil Creek	9	UNMU	Colony (Total)	443	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/20/1989	BCH082089	Oil Creek	1	UNMU	Colony (Total)	1915	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/20/1989	BCH082089	Oil Creek	2	UNMU	Colony (Total)	1087	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/20/1989	BCH082089	Oil Creek	3	UNMU	Colony (Total)	317	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/20/1989	BCH082089	Oil Creek	4	UNMU	Colony (Total)	914	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/20/1989	BCH082089	Oil Creek	5	UNMU	Colony (Total)	543	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/20/1989	BCH082089	Oil Creek	6	UNMU	Colony (Total)	620	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/20/1989	BCH082089	Oil Creek	7	UNMU	Colony (Total)	600	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/20/1989	BCH082089	Oil Creek	8	UNMU	Colony (Total)	740	1	<input type="checkbox"/>	
Becharof National Wildlife Refuge	8/20/1989	BCH082089	Oil Creek	9	UNMU	Colony (Total)	405	1	<input type="checkbox"/>	

Record: 1 of 286 No Filter Search

Index Plot Data Table

[Main Menu](#) > “[View Data for All Index Plots](#)”

This feature allows the user to view all observations that have occurred on all index plots in a given refuge:

refuge_lit	tblObservatic	site	survey_da	plot_name	obs_specie	entity_type	obs_count	count_num	tblObservations.exclude	tblSurveys.exclude
Becharof National Wildlife Refuge	BCH071989	Oil Creek	7/19/1989	10	UNMU	Colony (Total)	313	1		
Becharof National Wildlife Refuge	BCH071989	Oil Creek	7/19/1989	13	UNMU	Colony (Total)	313	1		
Becharof National Wildlife Refuge	BCH071989	Oil Creek	7/19/1989	14	UNMU	Colony (Total)	1178	1		
Becharof National Wildlife Refuge	BCH071989	Oil Creek	7/19/1989	3	UNMU	Colony (Total)	278	1		
Becharof National Wildlife Refuge	BCH071989	Oil Creek	7/19/1989	4	UNMU	Colony (Total)	344	1		
Becharof National Wildlife Refuge	BCH071989	Oil Creek	7/19/1989	5	UNMU	Colony (Total)	268	1		
Becharof National Wildlife Refuge	BCH071989	Oil Creek	7/19/1989	8	UNMU	Colony (Total)	512	1		
Becharof National Wildlife Refuge	BCH071989	Oil Creek	7/19/1989	9	UNMU	Colony (Total)	580	1		
Becharof National Wildlife Refuge	BCH072189	Jute Peak	7/21/1989	1	UNMU	Colony (Total)	454	1		
Becharof National Wildlife Refuge	BCH072189	Jute Peak	7/21/1989	2	UNMU	Colony (Total)	538	1		
Becharof National Wildlife Refuge	BCH072189	Jute Peak	7/21/1989	3	UNMU	Colony (Total)	299	1		
Becharof National Wildlife Refuge	BCH072189	Jute Peak	7/21/1989	4	UNMU	Colony (Total)	542	1		
Becharof National Wildlife Refuge	BCH072189	Jute Peak	7/21/1989	5	UNMU	Colony (Total)	1193	1		
Becharof National Wildlife Refuge	BCH072189	Jute Peak	7/21/1989	6	UNMU	Colony (Total)	343	1		
Becharof National Wildlife Refuge	BCH072189	Jute Peak	7/21/1989	8	UNMU	Colony (Total)	551	1		
Becharof National Wildlife Refuge	BCH080289	Oil Creek	8/2/1989	10	UNMU	Colony (Total)	366	1		
Becharof National Wildlife Refuge	BCH080289	Oil Creek	8/2/1989	13	UNMU	Colony (Total)	512	1		
Becharof National Wildlife Refuge	BCH080289	Oil Creek	8/2/1989	14	UNMU	Colony (Total)	688	1		
Becharof National Wildlife Refuge	BCH080289	Oil Creek	8/2/1989	18	UNMU	Colony (Total)	1026	1		
Becharof National Wildlife Refuge	BCH080289	Oil Creek	8/2/1989	19	UNMU	Colony (Total)	167	1		
Becharof National Wildlife Refuge	BCH080289	Oil Creek	8/2/1989	3	UNMU	Colony (Total)	369	1		
Becharof National Wildlife Refuge	BCH080289	Oil Creek	8/2/1989	4	UNMU	Colony (Total)	911	1		
Becharof National Wildlife Refuge	BCH080289	Oil Creek	8/2/1989	5	UNMU	Colony (Total)	252	1		
Becharof National Wildlife Refuge	BCH080289	Oil Creek	8/2/1989	8	UNMU	Colony (Total)	490	1		
Becharof National Wildlife Refuge	BCH080289	Oil Creek	8/2/1989	9	UNMU	Colony (Total)	443	1		
Becharof National Wildlife Refuge	BCH081889	Jute Peak	8/18/1989	1	UNMU	Colony (Total)	18	1		
Becharof National Wildlife Refuge	BCH081889	Jute Peak	8/18/1989	10	UNMU	Colony (Total)	540	1		
Becharof National Wildlife Refuge	BCH081889	Jute Peak	8/18/1989	11	UNMU	Colony (Total)	737	1		

Record: 1 of 975 Unfiltered Search

Index Plot Summary Form

[Main Menu](#) > “[Index Plot Totals by Year](#)”

This function allows users to export a table of the *total average count* of each species on each index plot at each site in a given refuge. Unlike the general ‘Existing Data’ export form, the year, site, species, and entity filters are mandatory. The result is a cross-tab query with the relevant index plots as rows and the range of survey dates listed in the column header. The total average count for each index plot is calculated as the average count of all average counts that occurred on the specified plot during the specified year. The option to ‘preview’ results will open a read-only table in the MS Access window, while the ‘export’ function exports this table as an XLS to a directory of the user’s choosing.

Numbers of seabirds counted on index plots

U.S. Fish and Wildlife Service - Alaska Wildlife Refuges

Total Index Plot Counts, By Year

Refuge:

Year:

Site:

Species:

Entity:

Preview 

Export to Excel 

Close 

U.S. Fish and Wildlife Service - Alaska Wildlife Refuges

Total Index Plot Counts, By Year


Refuge:


Year:


Site:

Species:

Entity:

Preview 

Export to Excel 

Close 

NumCount

plot_name	7/19/1989 - 8/20/1989
10	300
13	810
14	1202
18	706
19	199
3	321
4	723
5	354
8	581
9	476

Record: 1 of 10 No Filter Search

Key to Database Fields

Field Name	Source Table	Data Type	Description
obs_id	tblObservations	AutoNumber	Primary Key - Autonumber
survey_id	tblObservations	ShortText	Primary Key; unique alphanumeric identifier consisting of 4-letter NWR code, and 6-digit MM/YYYY date
plot_id	tblObservations	Number	Unique plot identifier; AutoNumber/Primary Key in the tluPlots table
plot_name	tblObservations	ShortText	Designated plot name
plot_area	tblObservations	Number	Plot area in sq km; most relevant for NPPSdb-compatible transect-based surveys
area_desc	tblObservations	ShortText	description of the plot area
count_num	tblObservations	Number	Index number for the number of counts that were performed for the selected plot
obs_name	tblObservations	ShortText	Initials of the observer who performed the count
obs_species	tblObservations	ShortText	Four-letter code representing the species surveyed
entity_type	tblObservations	ShortText	The development stage of the species surveyed: Adult, Chick, Fledgling, Nest, Immature
obs_time	tblObservations	Date/Time	Time the count was performed (24:00)
obs_count	tblObservations	Number	The number of birds or nests (or other entity type) counted in the plot
egg_count	tblObservations	ShortText	Egg count, or notes on egg presence, where relevant
vis	tblObservations	ShortText	Generalized visibility condition (selection) during observation: Excellent, Good, Fair, Poor
seacond	tblObservations	Number	Sea surface conditions at the time of the survey (selection): 1 = calm, 2 = light chop, 3 = moderate to heavy chop
winddir	tblObservations	ShortText	Wind direction (selection_: N, S, E, W, NE, NW, SE, SW, VRB (variable)
windspd	tblObservations	ShortText	Wind speed (knots)
genweather	tblObservations	ShortText	General notes on weather not captured by sea conditions or wind speed/direction
obs_notes	tblObservations	ShortText	General notes about the observation
db_notes	tblObservations	Short Text	Notes field for the person aggregating data
exclude	tblObservations	Yes/No	Exclude plot? (Appears in tblObservations as "exclude")
exclude_r	tblObservations	ShortText	Reason for excluding plot (Appears in tblObservations as "exclude_r")
refuge_unit	tblSurveys	ShortText	Refuge unit, where specified; otherwise, full refuge name
site	tblSurveys	ShortText	Designated site or island surveyed
survey_protocol	tblSurveys	ShortText	Protocol type (selection): Plot or Circumnavigation
survey_platform	tblSurveys	ShortText	Platform from which observations were made (selection): Land, Boat, Aerial
survey_type	tblSurveys	ShortText	Basis of record for the observations (selection): Visual, Handheld camera, Fixed camera
survey_date	tblSurveys	Date/Time	Date of the survey
start_time	tblSurveys	Date/Time	Time the survey started
stop_time	tblSurveys	Date/Time	Time the survey ended
replicate	tblSurveys	Number	Replicate number of the survey, where relevant
survey_notes	tblSurveys	ShortText	General notes about the survey
source	tblSurveys	ShortText	Name of the source from which the record is derived
exclude	tblSurveys	Yes/No	Exclude plot? (Appears in tblSurveys as "exclude")
exclude_r	tblSurveys	ShortText	Reason for excluding plot (Appears in tblSurveys as "exclude_r")

Key to Database Fields

Field Name	Source Table	Data Type	Description
plot_type	tluPlots	ShortText	Type of plot (selection): Point or Transect
plot_group	tluPlots	ShortText	Plot grouping
location_index	tluPlots	ShortText	Internal (office or refuge) reference code for given site or plot
Latitude	tluPlots	Number	Latitude (DD) of point plot, or beginning of transect
Longitude	tluPlots	Number	Longitude (DD) of point plot, or beginning of transect
End_Lat	tluPlots	Number	Latitude (DD) of end of transect, when relevant
End_Long	tluPlots	Number	Longitude (DD) of end of transect, when relevant
transect_length	tluPlots	Number	Length (km) of transect
historic_plot_name	tluPlots	ShortText	Prior name of plot (e.g., if split into multiple plots or renamed)
required/index	tluPlots	Yes/No	Required or index plot? (Currently only indicated in the Becharof NWR data)
est_year	tluPlots	ShortText	Year the plot was established, if known
COMMONNAME	tluSpp	ShortText	common species name, as described by NPPSD taxonomy
SCINAME	tluSpp	ShortText	scientific species name, as described by NPPSD taxonomy
TSN	tluSpp	Number	Integrated Taxonomic Information System (ITIS) (2013) Taxonomic Serial Number
TaxCode	tluSpp	Number	National Oceanographic Data Center (NODC) (1996)
Source	tluSpp	ShortText	source of species code, including AKM, BirdPop, and NPPSD