User Manual

On-line Data Entry System for MA Piping Plover and Tern Census Form (PIPLODES and TERNODES)

Prepared by: Massachusetts Division of Fisheries and Wildlife & Massachusetts Audubon Society

MASS**WILDLIFE**

Mass Audubon
Protecting the Nature of Massachusetts

Table of Contents

Introduction to the PIPLODES/TERNODES

The Natural Heritage & Endangered Species Program of the Massachusetts Division of Fisheries and Wildlife has developed an on-line data entry system which allows shorebird cooperators that monitor Piping Plovers & Tern species to complete and submit state census forms through a web portal. Major benefits of this system include:

- Increases efficiency of data submission by shorebird cooperators
- Allows monitors throughout the state to submit census form data online via a structured submission process
- Creates census form documentation for the state based on a normalized set of inputs, enabling standardized reporting and new analytics
- Improves quality of quantitative and qualitative census data submitted by monitors on the census form and imported to the state database
- Facilitates the analysis of state-wide census data

The immediate goal of the PIPLODES/TERNODES is to provide an on-line solution to reporting the Piping Plover & Tern census data.   One of the goals of the system is to continue to grow with the needs of the Massachusetts shorebird cooperators.   With that effort in mind, we encourage feedback and suggestions on how to enhance and expand the system.

How to Use this Manual

This manual is primarily about work procedures and answers the question "How do I…". The document has been divided into two sections bases on the roles of "administrators" and "all users".

Each page title begins with either: **Administrators** or **All Users** to denote which users will have access to specific functionality.

Furthermore, each instructional page follows a similar layout:

> **Background:** This section explains what the instructions or system page relates to
>
> **User Level Required:** This bullet states which user level has access to the functionality discussed on the page
>
> **Steps:** This segment outlines input options and resulting data screens

This user manual contains short procedural information. For an explanation of each field please refer to the reference section within the **PIPLODES/TERNODES REFERENCE GUIDE AND DATA DICTIONARY**.

PIPLODES and TERNODES: Helpful Hints

Special Symbols in the System and the Manual:

Question Mark Symbol. This symbol is used throughout the system reminding users there is additional information hidden under the symbol which gives further information about a specific field.

Information Symbol. This symbol is used throughout the system reminding users there is additional information hidden under the symbol which gives further information about a specific field.

Exclamation Symbol. This symbol is used to remind users to review the list of causes of egg/chick loss.

Don't forget reminders.   This symbol is used within the User Manual to give helpful hints on what to remember.

Red outlined boxes. If the user tries to "save" data without completing a required field, the system will remind the user if a required field has been forgotten by outlining the field in red.   Simply fill in the required data and hit "save" for the data to be captured.

The Plus Symbol. This symbol allows the user to add a record. Anytime this symbol is displayed, the user may click on the symbol to add information such as: exclosure design information, a new nest for the site, egg losses, chick losses.

The Pencil Symbol. This symbol means the user can click on an existing record and make edits. Once a record such as an exclosure type, nest, egg or chick loss is recorded, the user may click on the pencil to edit the data.

The "X" Symbol. This symbol allows the user to delete a particular record that has already been created. The user clicks on this symbol, the system will ask the user to confirm that they want to delete that particular piece of information as a precaution. For example a pop-up box will appear asking "Are you sure you want delete this nest?". The user must select "Ok" for the deletion to occur or select "Cancel" to cancel the action.

The Magnifying Glass Symbol. Clicking on this image will allow the user to see the detail that was entered under the Nest Details, Egg Loss or Chick Loss screens.

The Map Symbol. This symbol allows you to click on the image and see the location of the nest per the nest coordinates that have been entered. Please make sure to confirm your nest location by clicking on this link to ensure the GPS coordinates were entered correctly.

Types of Field Data Capture in PIPLODES and TERNODES

There are several different types of field data capture within the system. Below is a list of the field types and the functionality behind them.

Multiple Option Boxes:

Field name:

> Text box followed by … <u>This is a multi-functional field</u>. The user should choose from the drop down list by clicking on the "…". If the selection the user is looking for is not in the drop down list, then type in to the text box directly.

Edit Buttons:

> In order to enter any data in the system, the Edit button must be selected before data will be accepted.

Save Buttons:

> The "Save" function buttons are to save entered data and are located within pop-up boxes or on upper-right hand corner of the page.

New Buttons:

> The "New" function buttons are selected to create a new record and are located on the top right-hand side of the page or at the bottom of the list of items.

Add Buttons:

> The "Add" function buttons are used to create new "nest" records to the site census report.
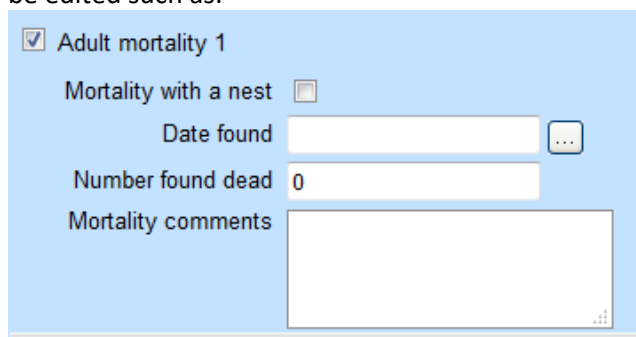
Select/Check Boxes: Field Name

> Select Box: This box simply requires a "click" in the box which will add a "check mark"
>
> Example: Found after hatching

Check Box, Then Edit:

> For some select/check boxes, once a "check" appears in the box, then the subsequent boxes can be edited such as:

> ☑ Adult mortality 1
> Mortality with a nest ☐
> Date found
> Number found dead 0
> Mortality comments

Open Text Boxes:

Nest comment

Date Fields:

There are fields that required a date to be populated in the system. Since an exact date cannot always be provided, a date range is offered. If an exact date is known, simply enter that date in the first date field. If only a range is known, then enter both dates in the corresponding fields.

Roles

There are two basic roles for each organization. Depending on the organization, there can be multiple people listed under each role.

The Organization Administrator

The Organization Administrator (Org Admin) is responsible for managing new sites and users for a specific organization. This role also includes the final approval for the PIPL and Tern Census Forms and also releases the data to the State at the end of the season.

The Organization User

The Organization User (Org User) is responsible for completing the site-specific census forms and submitting for internal review.

Administration

To ensure a level of database security and to avoid unintended or unauthorized users, there are several safeguards that have been established within PIPLODES and TERNODES.

User Authentication System

To ensure data security, each user will be issued a username and password which will be required for every system login. It is strongly advised that all users change their password upon initial entry into the system.

When users are originally established, a security level will be established dependent on which access is required for that individual. There are three user levels built into the system. Each level will hold an increasing level of access to the system.

User Access Levels

Org User:

This level will be utilized by most field monitors and allows the user to:

- Enter and edit all census form fields available for the org(s) and year(s)
- Edit person record (not email address, which is used for logging on; users must request an email address change from the Database Administrator)
- Switch "current" organization for which they are reporting to another (if assigned to more than one)
- Run queries and reports
- Approve a census form for internal review
- Set the "map ready" flag

Org Admin:

Each organization will designate an Org Admin who will be responsible for:

- All of the above, plus...
- Editing the details of organization
- Creating and editing sites for organization
- Creating and editing people (users) for organization
- Setting user permissions for people in organization
- Approving each site census form for state review

Super Admin:

This level has been created for the database manager and architect

- All of the above access, for any organization, plus...

- Create new organizations
- Review completed census forms from all organizations

All Users: System Layout

The user interface or menu bar is located on the left-hand side of the screen and contains eight selectable commands and options which allows the user to access different aspects of the system. Dependent on the user's access level, access to some options may be limited.
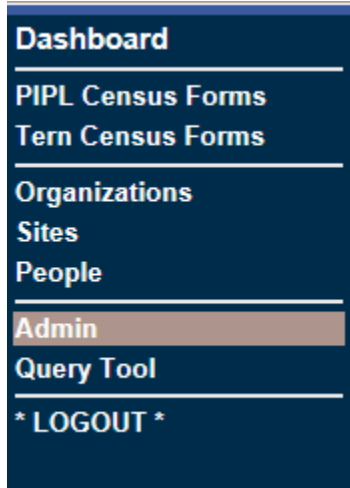
Menu Options	Access Level Required
Dashboard	All levels
PIPL Census Forms	All levels
TERN Census Forms	All levels
Organizations	Org Admin and Super Admin
Sites	Org Admin and Super Admin
People	Org Admin and Super Admin
Admin	Org Admin and Super Admin
Query Tool	Super Admin

All Users: How to Log In

Prior to user access being obtained, an ID and password will be generated by each organization's PIPLODES and TERNODES administrator. After gaining access, the user will be able to change their password.

Web portal address: https://piplodes.massaudubon.org/home.php

On-line Data Entry System for MA Piping Plover and Tern Census Form (PIPLODES and TERNODES)

All Users: The Dashboard

Background: The Dashboard Screen is the first screen the user will see after logging onto the system and is split into six sections.

User Level Required: All User Levels

Screenshot of Dashboard:

User specifics:	Special announcement:
• Session start & expire time* • User level (Role) • Organization • Edit my record^	• Notices from Natural Heritage • Alerts on new system rollouts
Recently edited PIPL census forms: • Partial list of PIPL census forms recently edited	Recently edited tern Census Forms: • Partial list of tern census forms recently edited
PIPL nests and tern counts by town • PIPL nests and tern counts by town	Logged-In Users • List of users currently on the system associated with your organization

*Sessions will expire after two hours of no activity
^ Allows user to review Person Details page, change password and view permission levels

Administrators: Organization Details Page

Background: This page reviews all an organization's detail information as listed below in the layout.

User Level Required: Org Admin or Super Admin

Layout: This page is broken into four sections:

1. Organization Details: organization contact details
2. Sites: a list of sites the organization represents
3. Staff/volunteers: a list of authorized users for the organization
4. Permissions: the access level for each user

The Org Admin user will be able to update their specific organization's contact details. This is accomplished by selecting the "Edit" button in the upper right hand corner of the screen.

Steps: Click on the Organizations button on the left panel to view the list of organizations. Click the "New" button at the bottom of the page to open the Organization Details page and complete the form provided.

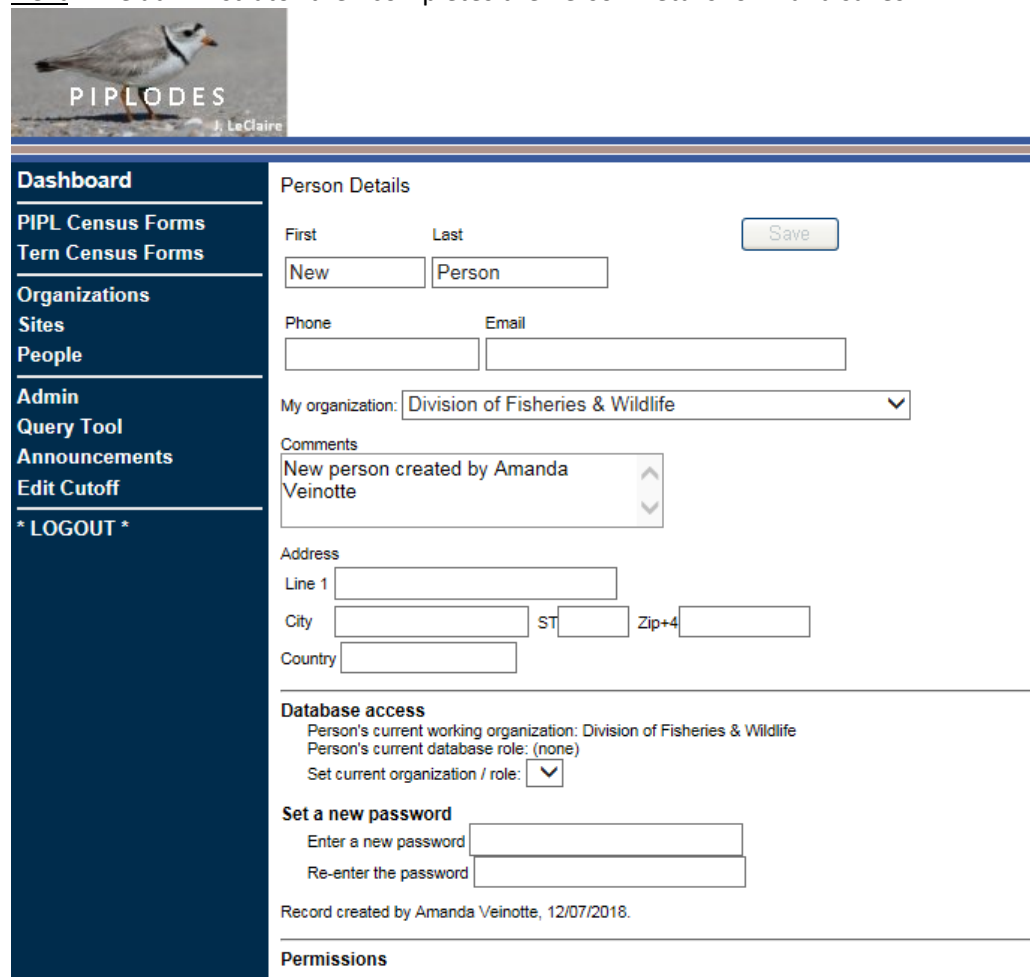Screenshot of a new Organization Detail:

Administrators: How to Add New Users

Background: Before a user can access the system, the person must be added under a specific organization.

User Level Required: Org Admin or Super Admin

Steps: Click on the People button in the Menu Bar. The screen will indicate if any users are registered to the organization. If there are no current users, then the screen will show "No people found.". The next step is to click the "New" button to add an individual.

Next: The administrator then completes the Person Details form and saves.

Administrators: How to Assign a User's Access Level

Background: After a user is established in the system, the Administration can then set the users access level.

User Level Required: Org Admin or Super Admin

Steps:
- Click on the Admin tool in the Menu Bar.
- Click User Administration page
- Click the blue bar with your organizations name to expand the options available
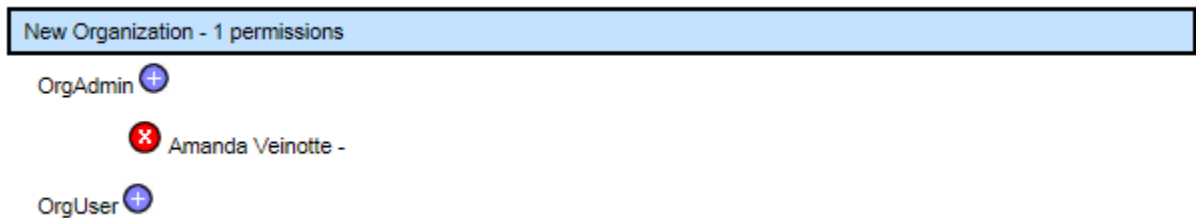
- Any users already established will appear under the Access Level to which the person has been assigned.
- Click the blue plus button to add users to your organization (either as User or Admin), all the organization's currently registered users will appear.   Simply click the person's name you wish to grant access to and the name will then appear under that Access Level and the pop-up box will automatically close. Do this for each employee that you would like to assign an access level for.

Administrators: How to Change or View a User's Access Level

Background: The User Admin page allows one to view the status of all the personnel in an organization that have been given access to the system and shows each user's access level.

User Level Required: Org Admin and Super Admin

Steps: Click on the Organization name to view all users with access to the system.

To remove an employee from an access level, click on the next to their name

 Note that in order to change an employee's user status, the employee first needs to be removed from their existing status and then added into the new status.
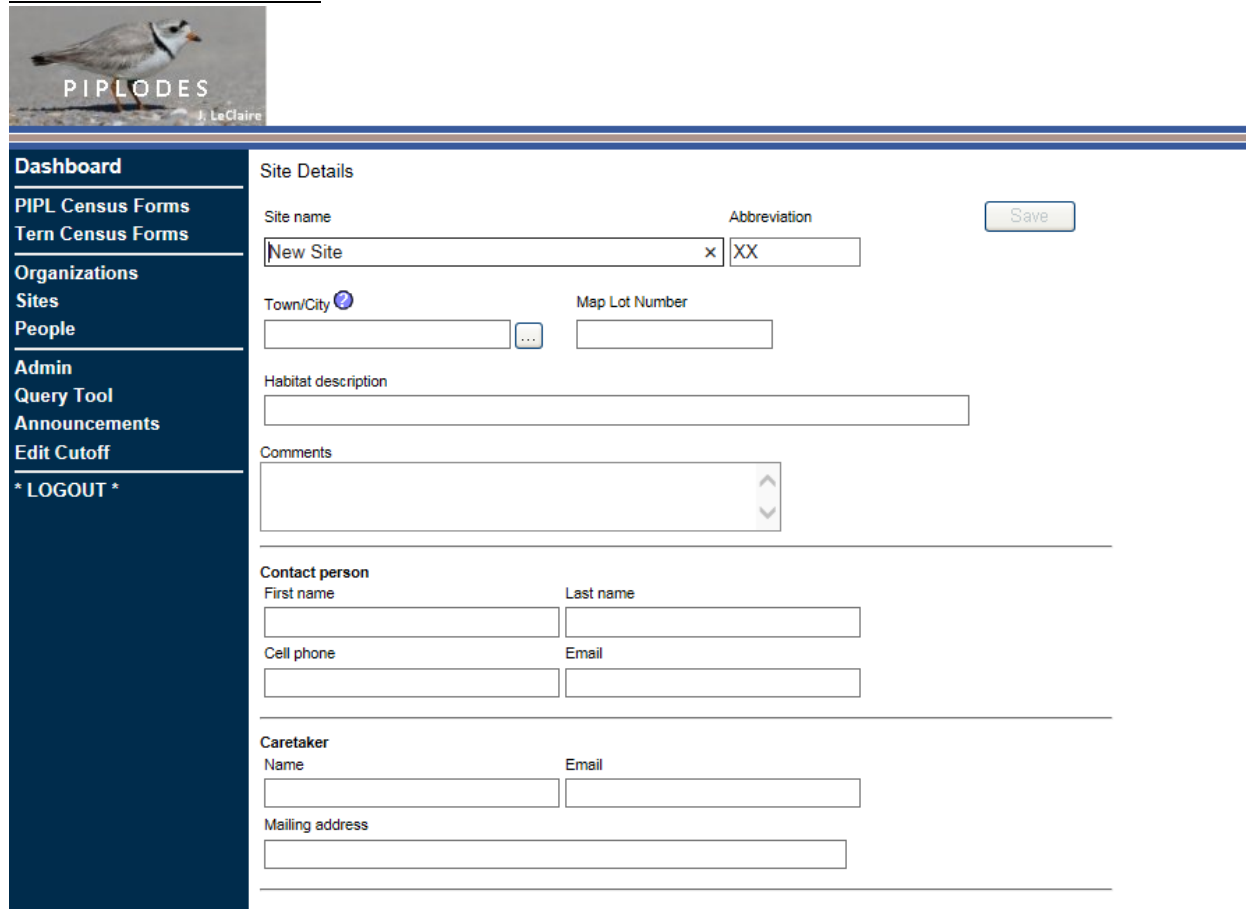
Administrators: How to Create a New Site

Background: Before a census form can be created, the site must be listed under the correct organization. This step allows the Organization Administrator to manage and maintain the sites for their specific organization.

User Level Required: Org Admin or Super Admin

Steps: Click on the Sites button on the left panel to view the list of Sites. Click the "New" button at the bottom of the page to open the Sites Details page and complete the form provided. There are two different contact details which may be captured: The Contact Person and the Caretaker.

Screenshot of Site Details:

To delete a site from the "Site List" for an organization, simply click on the "Sites" tab to view the list for your organization and click on the ⊗ symbol to the right of the site name. Note: A Site cannot be deleted if it has a Census form associated. This symbol will only appear fi there are no Census forms associated with the Site.
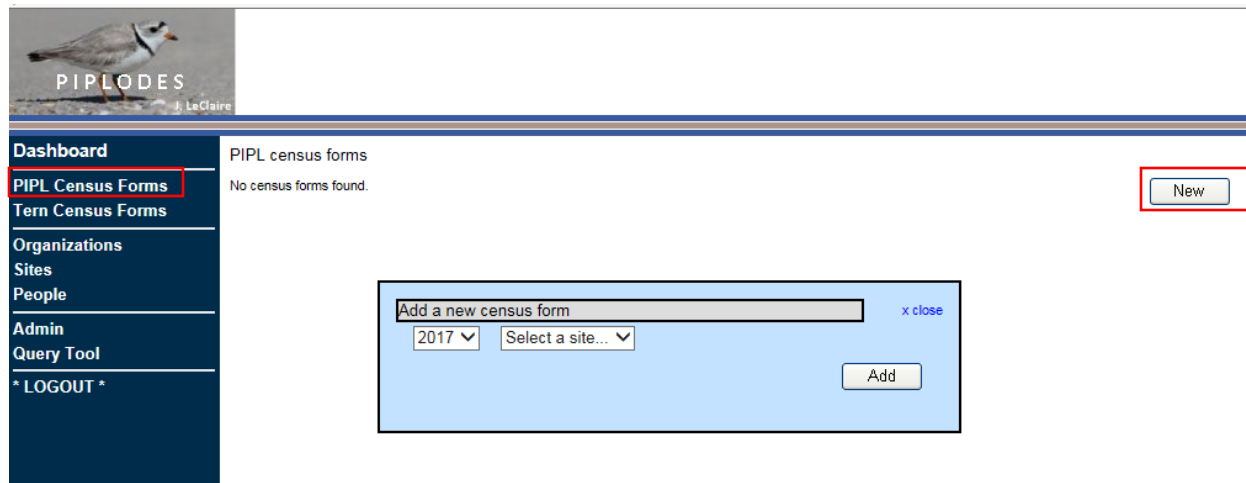
PIPLODES

Administrators: How to Create a New PIPL Census Form

Background: Before a census form can be completed, the form must be created. This ensures that multiple forms are not created for the same site in the same year.

User Level Required: Org Admin or Super Admin

Steps: Click on "PIPL Census Forms" in the left panel. Then click the "New" button in the upper right-hand corner.

A pop-up box will appear which will have two drop down boxes. The first will list the year and the second box will list all the sites that have been created for your organization.

Select the Year and Site you would like to create a census form for then click on "Add".

 If a site does not appear on the site drop down list that means the site has not been created in the system.

 If you receive an error message, that means a census form has already been created for that particular year and site. Please review the list again and simply click on the correct site name to access the census form.

On-line Data Entry System for MA Piping Plover and Tern Census Form (PIPLODES and TERNODES)

Screenshot of a Census Form:

Census Form Details

Remember the question mark symbol ⓘ. This system tells the user that a "hover tip" is available. Simply move your cursor over the symbol and a helpful hint will be display with further information on that particular field.

All Users: Census Forms

Background: The PIPL Census Forms screen lists all census forms that have been created for each year, alphabetically by site.
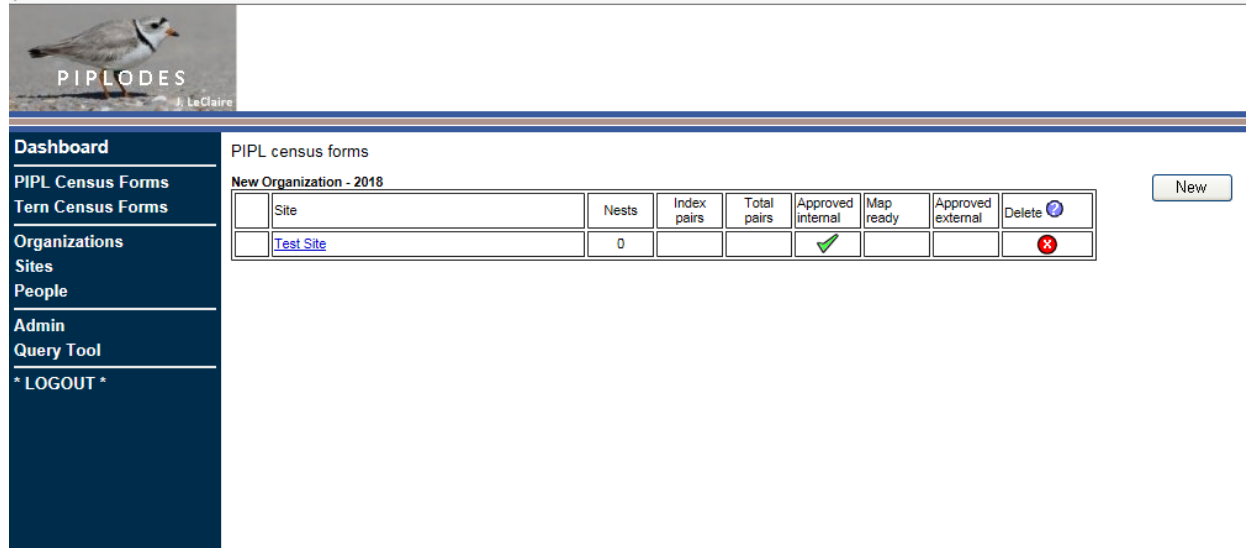
Each site has the following
- A running total of nests that have been entered
- Index pairs
- Total pairs.

In addition, there are three status boxes that allow the viewer to see the current status of census form. All data that appears in the six boxes is populated by fields on the site-specific census form. This allows the Org Administrator to have an overview of each site and see what has been entered. Also, if no data has been entered the user has the option to delete the census form.

On-line Data Entry System for MA Piping Plover and Tern Census Form (PIPLODES and TERNODES)

Screen shot of Census Form page:

Check Boxes: There are three check boxes that appear for each site that appear on the Census Form Overview page. This data is captured at the end of each individual Site Census Form page and displayed here. This allows the Org Admin to review the form prior to submittal to the State. See All Users: Census Form: Approvals and Updates.

All Users: Entering Data into PIPL Census Form
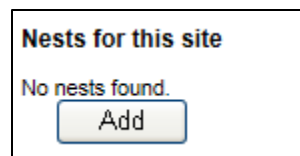
Background: A new census form will allow you to see some of the fields available for capture however none are accessible until the user selects the edit button.

User Level Required: All User Levels

Steps: The new census form has an "Edit" button in the upper right-hand corner. This button needs to be selected so data may be entered onto the form.

Results: After the clicking on the "Edit" button, a ⊕ (plus) button will appear in the Exclosure Design section and an Add button will appear under the "Nests for this Site" section at the bottom of the screen.

All Users: PIPL Short Form

Background: Preliminary census numbers are typically requested in late July. The PIPL Short Form allows users to record preliminary information per site.

User Level Required: All User Levels

Steps: Click on the Short Form link and enter data.

Census Form Details

Short form

The short form is for compiling preliminary data and is not a replacement for the full Census report.

PIPL Short Form

Site: Test Site

PIPL Short Form

No. Unpaired Adults

Index Count

Total Count

Fledged

Unfledged Chicks

No. Pairs With Productivity Data

Save Data

No. unpaired adults - Includes only unpaired birds present for ≥2 weeks and exhibiting evidence of territoriality and/or breeding behavior; it does not include birds that were only foraging or loafing at site.

No. pairs with productivity data - Includes all pairs for which you were able to determine number of chicks fledged, including pairs that were present for ≥2 weeks but did not nest, and pairs that failed to hatch any eggs or fledge any chicks. For instance, if you knew a pair fledged no chicks, it does get counted in this column; however, if you are unsure if a pair fledged chicks or not, it does not get counted in this column.

Return to Census Form

When complete, click on "Save Data".

All Users: Required Fields

There are required fields in the Census form. The Census results require the following:
- Observer names
- Contact name and email
- Number of pairs (index and total count) – enter a number (including zero) or ND (no data)
- Unpaired adults (index and total count) – enter a number (including zero) or ND (no data)

These are shown as required with a red asterisks.

If no piping plovers nested at the site simply check the box and submit the Census report.

Note: Nest required fields will be discussed in the Nests section.

All Users: How to Create an Exclosure Design

Background: Many different exclosure designs are used throughout Massachusetts so the system allows the user to create three distinct types of exclosures for a site. After the Exclosure Design is created, the user would reference if Design A, B or C was used for a particular nest when populating the Nests for this Site.

User Level Required: All User Levels

Steps: Click on the blue plus symbol at the bottom of the Exclosure Box.

Exclosure design	A	B	C
Shape			
Diameter/Length of side			
Size of wire mesh			
Total Height			
Height above ground			
Depth buried			
Cover material			
Cover spacing/mesh size			
	⊕		

A Pop-Up box will be displayed on the screen and allow the user to select the dimensions of the exclosure. Once the form is completed, the user clicks "Save" at the bottom of the pop up window (or close without saving by clicking "close" in the upper right corner of the window).

Exclosure details		x close
Shape	(new) × ...	
Diameter	feet	
Mesh size	...	
Total height	inches	
Height above ground	inches	
Depth	inches	
Cover material	...	
Cover mesh size	...	
	Save	

The Exclosure Box will now display the credentials of the Exclosure Design A. If there are multiple exclosure designs for one site, then the user may continue completing additional design forms (i.e. click the blue plus button under B and then C).

| Exclosure design	A	B	C
Shape	Round		
Diameter/Length of side	4		
Size of wire mesh	2x4		
Total Height	4		
Height above ground	3		
Depth buried	1		
Cover material			
Cover spacing/mesh size			
	✏️ ❌	➕	

All Users: How to Enter Nest Details

Background: After the user has selected the   button under the "Nests for this Site" section at the bottom of the screen a Nest Details pop-up screen will appear. This page will allow the user to enter all the details of the nest.

User Level Required: All User Levels

Steps: Enter applicable data. Note that this information be can entered as the season progresses so nest data can be entered the day the nest is discovered and then later, additional data can be entered. Required fields must be completed before it can be marked approved for external review.

- Hover over the ⑦ icon to learn about a particular field
- For continuation nests, enter the nest number followed by "cont." For example: 2A cont.
- GPS coordinates: Captured in decimal format (don't forget the "-" sign!)
- Exclosure Types: The drop down options refer to what was established in the Exclosure Design section under the Site Details screen

Nest Details: Initial Required Fields

In order to save a nest detail you must fill in the top six fields:
- Pair number
- Nest attempt
- Observer
- Latitude
- Longitude
- Lat/Long Source

After the initial six fields are filled in the nest details can be edited and saved at any time without needing to fill in the remaining required fields.

After the user has entered the Nest Details and closes the pop-up box, the new nest will be captured in the Nest for this Site section. This detail section can be edited as additional information becomes available (such as hatching success or nest loss).

To edit the details section click on the edit button at the top of the Census Form details to activate these option symbols:

Use the Pencil to edit the nest details and X to delete.

The magnify icon (to review) will show if the Census form is not in Edit mode:

Nest Details: Survivorship/Brood Required Fields

In order to complete a nest, these additional fields are required:
- Date Nest Found
- #of Eggs when clutch found
- Date clutch completed
- Nest fate
- Date Nest Fate Determined
- Date nest Last Observed Active

If the nest hatched, the following fields are required:
- Date Brood First Observed
- Brood Fate
- Date Brood Fate Determined
- Date Unfledged Brood Last Present

Please pay close attention to the question mark hover help language. All required fields are denoted with a red asterisk.

All Users: How to Enter Egg Loss Details, Chick Loss Details & Undetermined Chick/Egg Loss Details

Background: After nest data has been entered into the "Nest Details" page, then Egg Loss or Chick Losses may be entered. This can be found at the bottom of the Nest Detail Form. The system will default to "No Egg Loss", "No Chick Loss", "No undetermined chick/Egg losses found" until the user enters data.

"No undetermined chick/Egg losses found" allows you to enter information when it is unclear if the egg was lost or if the egg hatched and the chick was lost.

User Level Required: All User Levels

Steps: Click on the blue plus button located at the bottom of the Nest Details page for a particular nest and complete the pop-up window.   Be sure to click on the exclamation point to read the definitions of egg loss causes.

The + sign next to the "Cause of loss" field allows the user to select more than one option. If the loss is due to a predator, then a new drop down box appears titled "Specific Cause" which allows the user to select the appropriate predator.

All Users: Files for the Site (i.e. Maps)

Background: This section allows the site monitor to add additional files for the site. *Maps are required for all Census Reports. Please use this function to upload your map.*

User Level Required: All User Levels

Steps: Click "Add" and then upload the appropriate file by browsing your desktop to find the file you would like to append. Also add a description and date of the file before clicking "Add".

Files for this site

No files found.

Add

File details   x close

Original filename

Browse...

Stored filename

Description

File date

Add

All Users: Census Form: Management Research Action and Needs

Background: This section allows the site monitor to report on specific issues regarding fence maintenance, predators, signage utilized, public interactions and other pertinent information. This section is the historical record for the site and used for many years to come so it is important to capture all relevant facts that the State and future monitors should know when working at the site.

User Level Required: All User Levels

Steps: Complete all relevant boxes and select "Save" after entering information.

Management Research Action and Needs

Symbolic fencing

Habitat Assessment

Exclosures

Predator fencing

Electric fencing

Lethal predator control

Non-Lethal predator control

Predator & potential predator activity at site

All Users: Census Form: Approvals and Updates

Background: To ensure that the proper review has occurred, each site census form has an approval section on the bottom of the census page. This section then will populate the checkmarks found on the Census Form tab (see below images).

Steps: Click on appropriate boxes

Approvals and updates
☐ Approved for internal review
☐ Map ready

Mark Approved For External Review

Checklist/Button	Authorization	Definition
Approved for internal review	Org User	Checked when form has been completed for the monitoring season and is ready for internal review before being submitted to the State.
Map ready	Org User or Org Admin	Checked when site map incorporating all PIPL nests is completed. Map creation occurs outside of PIPLODES and is uploaded through the "Files for this Site" section.
Mark Approved for External Review Button	Org Admin	Internal review has been completed and authorization is given to release data to the State. The system will run a scan to assure all required fields have been filled in, user will receive a list of missing fields if applicable.

All Users: Audit of Required Fields

As Users check off "Approvals and updates" the Census forms on the home page grid will update with green check marks.

TERNODES

### Administrators: How to Create a New Tern Census Form

Background: Before a census form can be completed, the form must be created. This ensures that multiple forms are not created for the same site in the same year.

User Level Required: Org Admin or Super Admin

Steps: Click on "Tern Census Forms" in the left panel. Then click the "New" button in the upper right-hand corner.

A pop-up box will appear which will have two drop down boxes. The first will list the year and the second box will list all the sites that have been created for your organization.
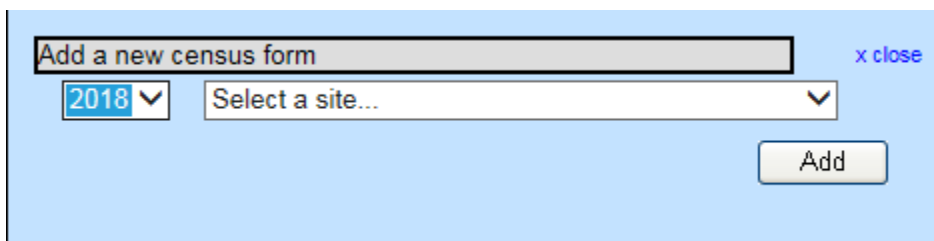
Select the Year and Site you would like to create a census form for then click on "Add".

If a site does not appear on the site drop down list that means the site has not been created in the system.

On-line Data Entry System for MA Piping Plover and Tern Census Form (PIPLODES and TERNODES)

✍ If you receive an error message, that means a census form has already been created for that particular year and site. Please review the list again and simply click on the correct site name to access the census form.

Screenshot of a Census Form:

Tern Census Form Details

Short form
The short form is for compiling preliminary data and is not a replacement for the full Census report.

Create your colonies first and then click on the short form link to enter your preliminary data.

* Denotes a required field   Print   **Edit**

Division of Fisheries & Wildlife
Test Site - 2019
Contact information: Andrew Vitz - 508-389-6394 - andrew.vitz@state.ma.us

Monitoring effort ❓	1st - 15th	16th - EOM
April		
May		
June		
July		
August		
September		

* Observer names ❓

First Date Site Visited

Last Date Site Visited

☐ **No terns, laughing gulls, or black skimmers nested at this site**

Colonies at this site

north site   north of the beach

Species chronology and productivity

Species Code	Colony	Pre-A Count ❓				A Count ❓				B Count ❓		
		Date	No. Pairs	Method of survey ❓	Quality of survey ❓	Date	No. Pairs	Method of survey ❓	Quality of survey ❓	Date	No. Pairs	M
ARTE ⚑	north site											

Note: The Contact Information on the top of the page will reflect the "Organization" contact details. In this case the organization is "Division of Fisheries & Wildlife", the site is "Test Site" and the organization contact information is below.

❓ Remember the question mark symbol. This system tells the user that a "hover tip" is available. Simply move your cursor over the symbol and a helpful hint will be display with further information on that particular field.

All Users: Tern Census Forms

Background: The Tern Census Forms Screen lists all census forms that have been created for each year, alphabetically by site.

Each site has a list of the colonies that have been entered for that site.

In addition, there are two status boxes that allow the viewer to see the current status of a census form. All data that appears in the three boxes is populated by fields on the site-specific census form. This allows the Org Administrator to have an overview of each site and see what has been entered. Also, if no data has been entered the user has the option to delete the census form.

Screen shot of Census Form page:

Check Boxes: There are two check boxes that appear for each site that appear on the Census Form Overview page. This data is captured at the end of each individual Site Census Form page and displayed here. This allows the Org Admin to review the form prior to submittal to the State. See section: All Users: Census Form: Approvals and Updates

All Users: TERN Short Form

Background: Preliminary census numbers are typically requested in late July. The TERN Short Form allows users to record preliminary information per site.

User Level Required: All User Levels

Steps: Before completing the Short Form, you must first create your colonies. See All Users: Creating a Colony

Once the colonies are created, click on the Short Form link and enter data for each species per Colony.

TERN Short Form

Site: Test Site

Colony: north site

Roseate Tern

A-period No. Pairs	B-period No. Pairs	Tern Productivity	Tern Notes
53	2	Good	Hi!

Common Tern

A-period No. Pairs	B-period No. Pairs	Tern Productivity	Tern Notes
0	0	2	2

Arctic Tern

A-period No. Pairs	B-period No. Pairs	Tern Productivity	Tern Notes
2	2	3	3

Least Tern

A-period No. Pairs	B-period No. Pairs	Tern Productivity	Tern Notes
4	4	4	4

Black Skimmer

A-period No. Pairs	B-period No. Pairs	Tern Productivity	Tern Notes
5	5	5	5

Laughing Gull

A-period No. Pairs	B-period No. Pairs	Tern Productivity	Tern Notes
6	6	6	6

Save Data

A-period number of pairs is the estimate of pairs nesting at the site from 5-20 June.

B-period number of pairs is the estimate of pairs nesting at the site after 20 June.

Productivity codes: U=unknown or not finished nesting, 0=no productivity, P=poor, F=fair, G=good, E=excellent

Return to Census Form

When complete, click on "Save Data".

All Users: Entering Data into Tern Census Form

Background: A new census form will allow you to see some of the fields available for capture however none are accessible until the user selects the Edit button.

On-line Data Entry System for MA Piping Plover and Tern Census Form (PIPLODES and TERNODES)

User Level Required: All User Levels

Steps: The tern census form has an "Edit" button in the upper right-hand corner. This button needs to be selected so data may be entered onto the form.

The top left box shows the site name, year and contact information as well as observers who monitored the site and the tern colonies present at this site for that year.

The top right box shows the monitoring effort, which should reflect the number of times a site was visited during the given dates.

Users should also report their First Date Site Visited and Last Date Site Visited. If no terns, laughing gulls, or black skimmers nested at the site simply check the box and submit the Census report.

☐ No terns, laughing gulls, or black skimmers nested at this site

The bottom box is where the Species chronology and productivity table will appear once colony data has been added.

All Users: Required Fields

There are required fields in the Census form. The Census results require the following:
- Observer names
- Contact name and email

Red boxes will surround the boxes to show what needs to be entered before Save or approved for review can be selected.

Note: Chronology and Productivity required fields will be discussed in the that section.

All Users: Creating a Colony

Background: Before colony data can be entered, "Colonies at this site" needs to be populated.

User Level Required: All User Levels

Steps: To add a new colony, click the "Add" button (Reminder: this Add, Edit, and Remove buttons will appear after clicking the Edit button in the previous step).

A pop up box entitled "Colony details" will be displayed on the screen and allow the user to name and describe a colony for the site. Click "Save" and then "close" after the information is added.

Note: Colony names should reflect the names of discrete aggregations of nesting birds at the site. The description should be of the colony location within the site, using micro site names when applicable.

All Users: How to Edit "Colonies at this site"

Background: The user has the ability to edit colony name and description information that have already been created.

User Level Required: All User Levels

Steps: To edit a colony that already exists, click on the colony in the box, then the "Edit" button.
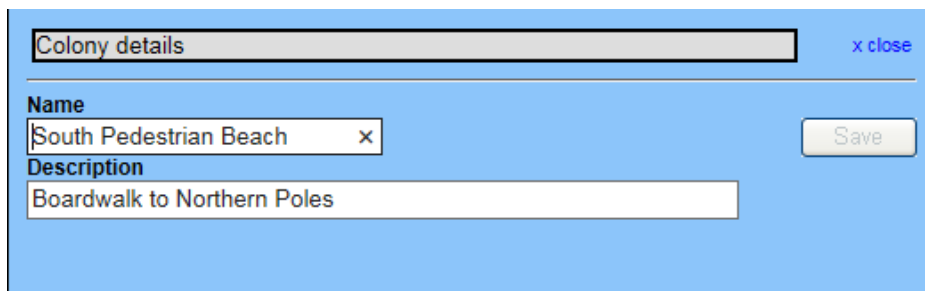
A pre-populated pop-up box will appear. The user can make changes to the "Colony details" box. Make sure to click "Save" and "close" after editing.
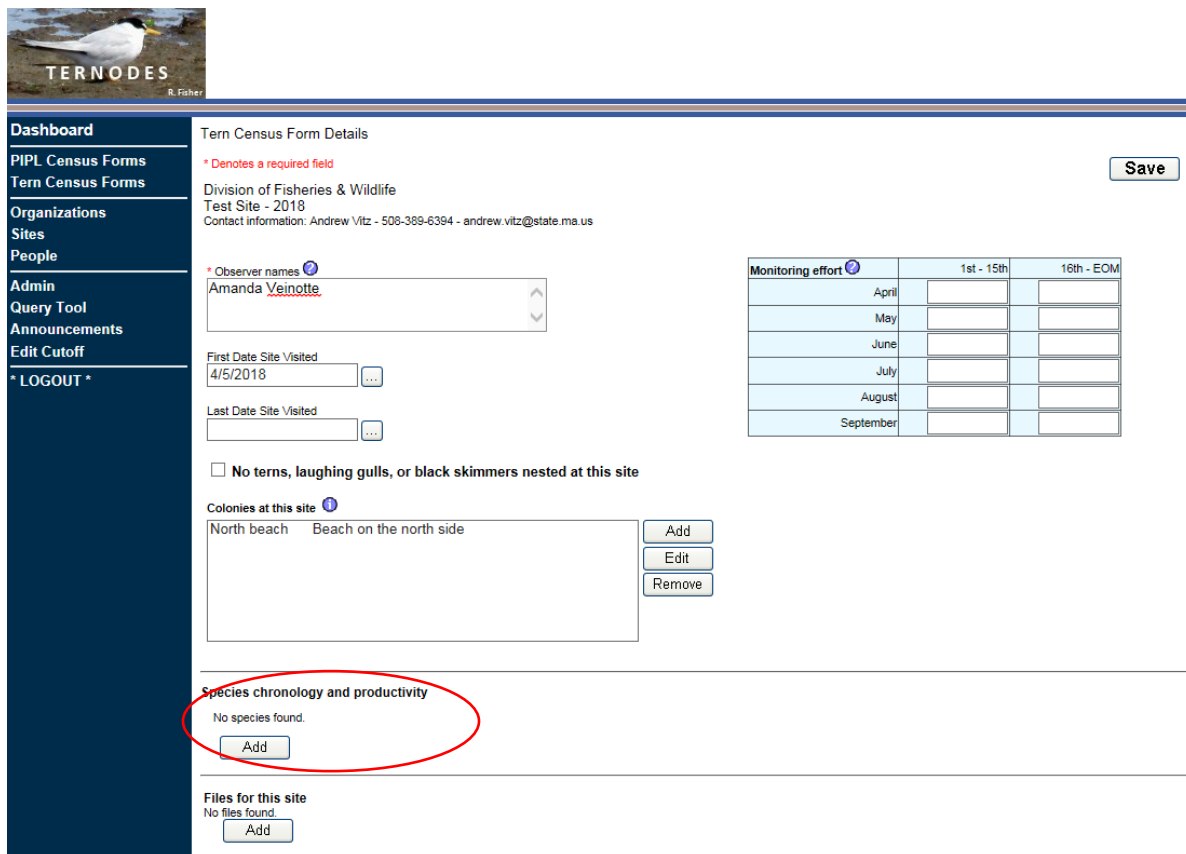
All Users: How to Add Species Chronology and Productivity Details for a Colony

Background: This section allows the user to add details about the productivity of each colony.
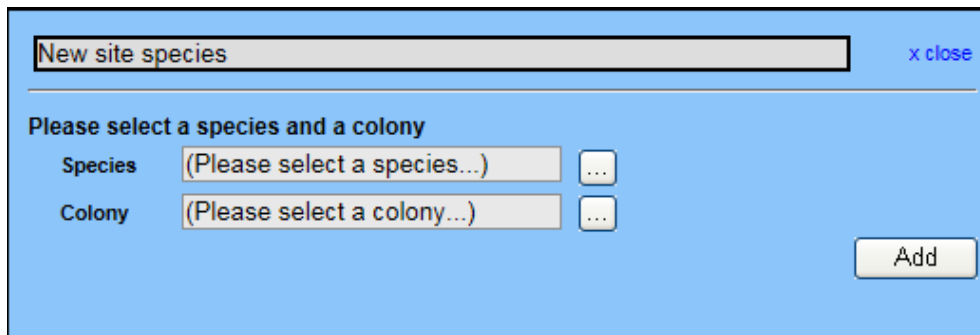
User Level Required: All User Levels

Steps: Click on the "Add" button under "Species chronology and productivity"

A pop up box will appear. Select the species of the colony from the pre-determined drop down options. Then select the colony (this section is populated with the colonies form the "Colonies at this site" section). Next, click "Add". By doing so, another pop-up box will appear.

Note: The user can only add a colony once a colony has been added to the "Colonies at this site" portion.

All Users: Species Details

Background: The "Species details" box appears after clicking "Add" on the "New site species" box.

User Level Required: All User Levels

Steps: There are three sections of this pop-up box.

Box 1: Allows the user to enter data for Pre-A, A and B counts.

Box 2: Allows the user to add dates for important events associated with nesting.

Box 3: Allows the user to fill out the productivity estimates and fledge numbers.

Note: The data in the bottom boxes is non-census specific and should reflect the overall statistics of the colony as a whole.
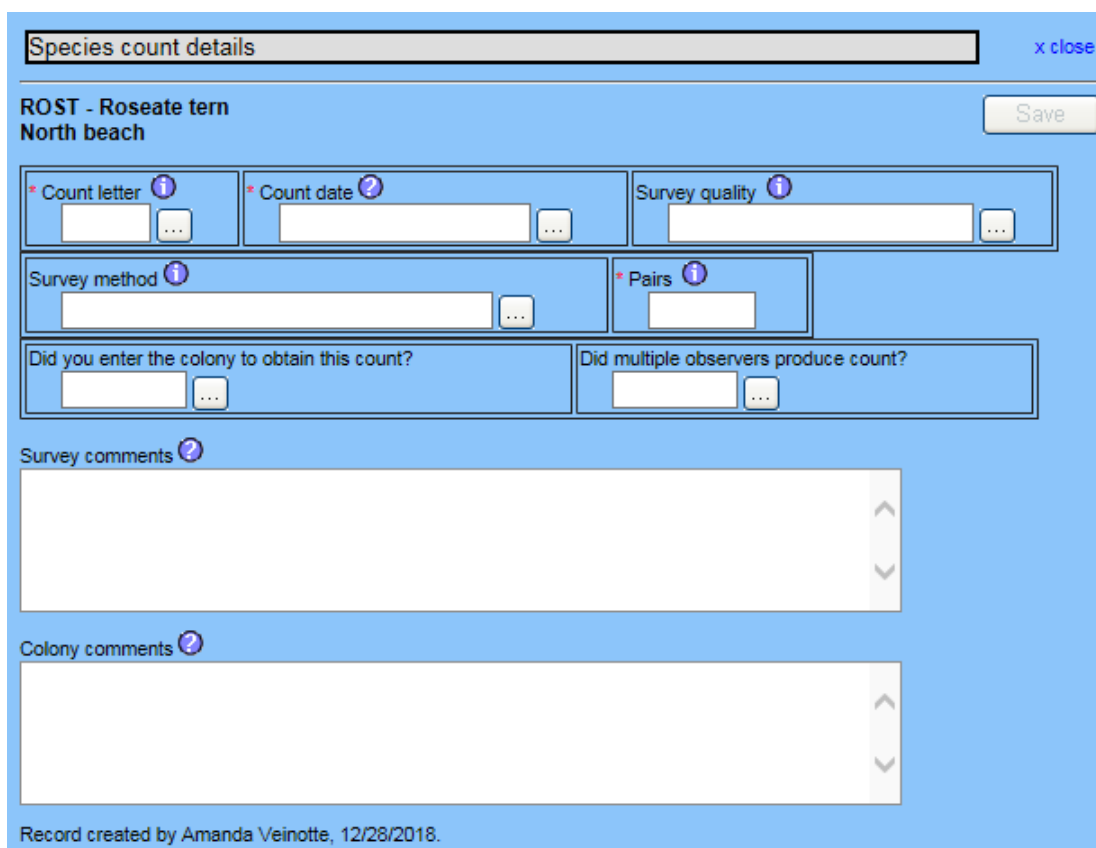
Note: Please remember to hover or click on ⑦ or ⓘ for more information or definitions for fields.

All Users: How to add Species Count Details

Background: The "Species count details" allows the user to add the information for the Pre-A, A and B Count Sections of the "Species chronology and productivity" table.

User Level Required: All User Levels

Steps: Click on the "Add" button just below the "Species Counts" table. A new pop-up form will appear. Enter applicable data (not the fields with the red asterisks are required). Click "Save" and then "Close" after data has been entered. Click "Add" again to enter another Count.

All Users: Required Fields

The following are required fields in the Species chronology and productivity form IF a form is created:

Species counts:
- Count letter
- Count date
- Pairs

Productivity, EITHER:

- Productivity Qualitative Estimate OR
- Productivity Quantitative Estimate AND Productivity Method

Red boxes will surround the boxes to show what needs to be entered before Save or approved for review can be selected.

All Users: What a completed Tern Census Form Looks Like

Background: This is what the Tern Census Form looks like after colony, observer and monitoring effort data are entered into the system.

User Level Required: All User Levels

Screen shot of a completed tern census form page:

All Users: A Detailed Look at a Completed Species Chronology and Productivity Table

Background: The "Species chronology and productivity" table reflects the data entered in the "Species count details" section.

User Level Required: All User Levels

Steps: The "Species chronology and productivity" table is broken up into multiple parts.

On-line Data Entry System for MA Piping Plover and Tern Census Form (PIPLODES and TERNODES)

Species chronology and productivity

Species Code	Colony	Pre-A Count				A Count				B Count				p	Fledg
		Date	No. Pairs	Method of survey	Quality of survey	Date	No. Pairs	Method of survey	Quality of survey	Date	No. Pairs	Method of survey	Quality of survey		
COTE	All					06/05/2018	0	AC	HC					None	0
LETE	North Pedestrian Beach					06/05/2018	1.6	AC	HC	06/19/2018	16	AC	HC	None	0
LETE	South Pedestrian Beach					06/05/2018	1.6	AC	HC	06/18/2018	8	AC	HC	None	0
LETE	Second Crossover					06/05/2018	4	AC	HC	06/23/2018	56	AC	HC	Fair	18
LETE	Third Crossover					06/05/2018	7.2	AC	HC	06/30/2018	52	AC	HC	Good	26
LETE	South of 3rd Crossover					06/05/2018	1.6	AC	HC	07/13/2018	8.8	AC	HC	Fair	8
LETE	Gurnet					06/05/2018	11.2	AC	HC					Good	11

Species Code and Colony

Each species and its corresponding colony can be found in the first two columns.

Note: Remember you can have multiple species in a colony

Species Code	Colony
COTE	Small Island Colony
COTE	Big Island Colony
LETE	Small Island Colony
LETE	Big Island Colony

For this example there were both Least Terns and Common Terns at both colonies. Therefore a record was added for each one.

Pre-A Count, A Count, B Count

Pre-A Count				A Count				B Count			
Date	No. Pairs	Method of survey	Quality of survey	Date	No. Pairs	Method of survey	Quality of survey	Date	No. Pairs	Method of survey	Quality of survey
5/24/2017-6/4/2017	4-5	NC	HC	6/5/2017-6/20/2017	12-15	NC	HC	6/28/2017-7/25/2017	2	NC	HC
5/24/2017-6/2/2017	11-12	NC	HC	6/8/2017-6/17/2017	22-25	NC	HC	6/26/2017-7/8/2017	10-11	NC	HC
				06/14/2017	11-13	*	HC	6/28/2017-7/12/2017	7-10	*	HC
5/22/2017-5/31/2017	5-10	NC	HC	6/5/2017-6/20/2017	35-40	*	HC	6/26/2017-6/27/2017	12	*	HC

The **"Pre-A Count"** section may or may not have data entered depending on when the terns arrived at the site. The "Pre-A Count" is to be filled out for a count of a specific colony taken before the census period

The **"A Count"** is completed from June 5th to June 20th each year.

The "A-Count" portion has the same format as the "Pre-A Count" portion. The A-Count should be filled out with data from a date within the census window and the B-Count from a date after the census window.

The **"B Count"** should be filled out when there is a significant change in the tern colony population after the A Count window has closed (June 20th).

Productivity Estimates and Fledge Numbers

The Productivity and Fledging data is captured in the last portion of the "Species chronology and productivity" chart. This data reflects counts for the colony as a whole rather than during a particular census period.

This section captures productivity estimates (P) and fledge numbers (Fledge) for the entire colony. These values are tied to a specific colony, not a specific time period.

P	Fledg
Poor	less than 10 estimated
Good	30-35 rough estimate
Poor	none
Poor	10 approximately

All Users: To append additional documentation

Background: This section allows the site monitor to add additional files for the site.

User Level Required: All User Levels

Steps: Click "Add"

Files for this site
No files found.
    Add

Use the "Browse" button to navigate to the appropriate file on your computer that you would like to append. Also add a description and date of the file before clicking "Add".

File details   x close

Original filename
                            Browse...
Stored filename

Description

File date

                                                Add

All Users: Management Research Action and Needs

Background: This section allows the site monitor to report on specific issues regarding fence maintenance, predators, signage utilized, public interactions and other pertinent information. This is the historical record for the site and used for many years to come so it is important to capture all relevant facts that the State and future monitors should know when working at the site.

User Level Required: All User Levels
Steps: Complete all relevant boxes and select "Save" after entering information.

Note: Please remember to hover over 🔵 for more information or definitions for fields.

Management Research Action and Needs

Symbolic fencing 🔵

Exclosures 🔵

Predator fencing 🔵

Electric fencing 🔵

Lethal predator control 🔵

Predator harrassment 🔵

Signage 🔵

Public outreach 🔵

Construction/project/event management 🔵

Banded bird notes 🔵

Research 🔵

Other 🔵

All Users: Other Bird Species that Utilized the Site

Background: This section allows the site monitor to record when other species were using the site and how they were utilizing it.

User Level Required: All User Levels

Steps: Click on "Edit", a details box will appear

Steps: Use the drop down menus to fill out empty fields. Select "Save" after completing the section.

All Users: Census Form: Approvals and Updates

Background: To ensure that the proper review has occurred, each site census form has an approval section on the bottom of the census page. This section then will populate the checkmarks found on the Census Form tab (see below images).

Steps: Click on appropriate boxes and when complete, click "Mark Approved for External Review"

Checklist/Button	Authorization	Definition
Approved for internal review	Org User	Checked when form has been completed for the monitoring season and is ready for internal review before being submitted to the State.
Map ready	Org User or Org Admin	Checked when site map incorporating all PIPL nests is completed. Map creation occurs outside of PIPLODES and is uploaded through the "Files for this Site" section.
Mark Approved for External Review Button	Org Admin	Internal review has been completed and authorization is given to release data to the State. The system will run a scan to assure all required fields have been filled in; user will receive a list of missing fields if applicable.

All Users: Audit of Required Fields

The "Mark Approved for External Review" Button will run a scan to assure all required fields have been filled in; user will receive a list of missing fields if applicable.

As Users check off "Approvals and updates" the Census forms on the home page grid will update with green check marks.