

Reference Manual

Piping Plover & Tern On-line Data Entry System (PIPLODES/TERNODES)



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



This Reference Manual provides a definition for each field in the Piping Plover & Tern Online Date Entry System.

Each Table contains the following:

Field Name – the name of the fields as seen in the system, **any fields in red are required**.

Field Length/Type – indicates the type of field (i.e. date), how many characters a field can hold, or indicates that it is a text field with sufficient space available for the type of information requested.

Comments section – definitions/explanations of the field's purpose

Organization & Site Information

Organization Information

Field Name	Field Length/Type	Comments
Organization Name	100	
Primary Contact Name	100	This usually is the administrator that is responsible for submitting PIPL census forms to the Massachusetts Natural Heritage & Endangered
Phone	50	Main contact number of the organization or for the administrator
Email	100	Main email address of the organization or for the administrator
Address	50	
City	50	
State	2	
Zip+4	15	
Country	40	

People

Field Name	Field Length/Type	Comments
First	50	first name of user
Last	50	last name of user
Comments	200	additional comments for user
Phone	25	This is usually user's organization phone number
Email	500	Usually the user's email at their associated organization
Line 1	50	The user's organizational address
City	50	city where organization is located that user is associated with
ST	2	state where organization is located that user is associated with
Zip+4	15	zip code for person's organization
Country	40	country where organization is located
Set a new password. Enter a new password; Re-enter the password	32	Passwords are generic when first created. All users are requested to change their password upon entry into the system. This can be done from the link on the Dashboard page.
Set working organization	10	

Sites

Field Name	Field Length/Type	Comments
Abbreviation	10	abbreviated name for site, typically first characters represent first letter of town site is located; often an acronym
Site Name	50	please use the site name that is most appropriate for your site; use historical names. If the site is combined between two or more sites, be sure to put both sites together, for example "Shifting Lots-Ellisville State Beach" or "Little Beach-Barney's Joy" or "Wychmere-Merkel-Bank Street". Do this when you believe the pairs act as one unit across 2+
Town/City	100	name of town/city for the site
Habitat Description	50	description of habitat on site
Map Lot Number	50	
First Name	30	first name of contact for site; this contact is the who MassWildlife will contact with follow up questions
Last Name	30	last name of contact for site
Cell Phone	30	Please enter the most appropriate phone number for being contacted about this site
Email	50	Please enter the most appropriate email address for being contacted
Comments	50	Name of caretaker for the site
Mailing Address	60	mailing address for caretaker
Caretaker Phone Number	40	email address for caretaker
Comments	mediumtext	additional comment for site

PIPLODES

Census Form

Field Name	Field Length/Type	Comments
Observer names	300	List the observer FULL NAMES for the season; only list those who would be relevant to any questions in the future; do not list, for example, people that only monitored the site once.
Contact Name	80	full name of contact for site
Email	100	e-mail for site contact
Index Count (Number of Pairs)	10	<p>All pairs and unpaired adults for which you can account for being present ANY time during June 1-9. INCLUDE ZEROES FOR BOTH PAIRS AND ADULTS.</p> <p>Be sure not to double count any index count pairs that may have moved during the window to an adjacent beach; talk to your neighboring monitors if you suspect this is the case.</p> <p>Examples: a) if you found a 4 egg nest on June 12 but had never observed the nest or pair prior to this date, you would include this pair in the index count, because they had to have been present (it takes at least 6-7 days to lay 4 eggs). b) If you last saw a pair and a 4 egg nest lost on May 31, but found the nest lost June 1 and never saw the pair again, then it would NOT be included in the census count. c) If the pair was present and scraping any time during June 1-9, that SHOULD be included in the census count, even if the pair never nested. d) if you saw an unpaired adult between Jun 1-9 that appeared tied to the site (territorial, scraping, etc.) that WOULD be included under “unpaired adult”</p>
Index Count (Unpaired Adults)	10	Number of unpaired adults for index count

<p>Total Count (Number of Pairs)</p>	<p>10</p>	<p>Refers to all pairs and unpaired adults for which you can account for being present and showing signs of territoriality, courtship or breeding behavior for > 2 weeks. INCLUDE ZEROES FOR BOTH PAIRS AND ADULTS. If you suspect pair movement to another site at another point and subsequent reneating at that site, but could still include it in the total count because it was present for > 2 weeks, be sure to only include it on one census form. List the pair as present and breeding in the "total Count", but be clear not to double count any total count pairs that may have moved during the window to an adjacent beach; talk to your neighboring monitors if you suspect this is the case. We recommend that regardless of whether you count the pair or not, an * is placed next to your number, and clarify the asterisk in "Census remarks", for example: *Though we list 3 pairs in the total count, there were actually 4 pairs. However, this pair first nested at Town Neck on May 25, failed June 6, and was first observed on Spring Hill Jun 13. We count the pair on the total count for Town Neck instead (see Town Neck census form 2013).</p>
<p>Total Count (Unpaired Adults)</p>	<p>10</p>	<p>number of unpaired adults for total count</p>
<p>April 1st - 15th</p>	<p>20</p>	<p>number of site visits between April 1-15</p>
<p>April 16th - EOM</p>	<p>20</p>	<p>number of site visits between April 16-30</p>
<p>May 1st - 15th</p>	<p>20</p>	<p>number of site visits between May 1-15</p>
<p>May 16 - EOM</p>	<p>20</p>	<p>number of site visits between May 16-31</p>
<p>June 1st - 15th</p>	<p>20</p>	<p>number of site visits between June 1-15</p>
<p>June 16th - EOM</p>	<p>20</p>	<p>number of site visits between June 16-30</p>
<p>July 1st - 15th</p>	<p>20</p>	<p>number of site visits between July 1-15</p>
<p>July 16th - EOM</p>	<p>20</p>	<p>number of site visits between July 16-31</p>

Census remarks	longtext	Use this section to clarify or explain aspects of your census results. Dates/notes on behavior of pairs that did not nest but were included in the index or total count; *notes regarding pairs that were counted on another census form (at another site); Any information regarding "confusing" pairs; i.e. pairs for which you believed nested but never found the nest, or strange behavior; Any incidents of double brooding, or courtship after fledging chicks; If you only visited a site <5 times, please include dates and notes; If weather impacted your ability to obtain an accurate index count, please list it here
For unpaired birds, list dates present and any territorial activity	longtext	For unpaired birds, list dates present and any territorial activity
For non-nesting pairs, list pair number, dates present and any territorial activity	longtext	For non-nesting pairs, list pair number, dates present and any territorial activity
List pairs not present during the index count period	300	List the total number of pairs and then the specific pair numbers in this field
Additional Comments	longtext	Any additional comments
No Piping plovers detected at this site.	check box (yes/no)	If no Piping Plovers detected at site, check the box.
Symbolic fencing	longtext	Please indicate whether symbolic fencing was used to protect nests and provide chick refuge areas, and when fencing was erected.
Habitat Assessment	longtext	Any details about the habitat on site.
Exclosures	longtext	Any details with exclosures that were not captured in the exclosure table, why erected (particular predator), how effective
Predator fencing	longtext	Additional fencing beyond symbolic fencing (include dog lines, triple fencing)
Electric fencing	longtext	If electric fencing was used, when, how many panels, average voltage, height of fence, if scent caps were used etc.
Lethal Predator control	longtext	If lethal action was taken, what, where, when, how and duration
Non-Lethal predator control	longtext	If non-lethal action was taken, what, where, when, how and duration

Predator & potential predator activity at site	longtext	Specifics on which predators were present during season and/or responsible for egg/chick loss, tracks, observations
Signage	longtext	Specific type of signage used at site and any special signs (No Dogs, Stay off Dunes, No Landing, educational placards etc)
Public Outreach	longtext	Any special education or outreach that occurred (also include if materials used). Also can include general overall interactions with the public.

Construction/project/event management	longtext	Describe any dune building projects or construction that occurred
Banded bird notes – Be sure to report flagged birds to appropriate banders!	longtext	Please enter band codes and descriptions of any banded PIPLs seen at this site. The order to capture bands is as follows: Upper Left, Middle Left, Lower Left, Upper Right, Middle Right, Lower Right. For each position provide band type (metal band, metal USGS band, metal field-readable band, plastic colorband, plastic field readable band, leg flag, other), color (for non-metal bands) and code information. Also, please provide any information about problems with the bands. For more information, see: https://www.fws.gov/northeast/pipingplover/report_bands.html
Research	longtext	Any additional projects that occurred at this site.
Other	longtext	Recommendations (To help PIPLs be more successful in future years); Incidents/Violations (Any recurring problems or incidents recorded on the incident log); Accretion and Erosion (How has the beach changed since the beginning of the season?); Monitoring (Date first started monitoring, date last monitored); Other species (bird species seen frequently throughout the season)

Nests

Field Name	Field Length/Type	Comments
Pair Number	5	number assigned to the pair
Nest attempt	8	letter, "a"= first nest attempt, "b"=second nest attempt, etc. Options available in dropdown: A, B, C, D, E, Unknown. If you are describing a continuation nest, use "-cont" in the pair/nest number, for example, 01B-cont.
Observer	100	Name of individual who found nest

latitude	20	latitude of nest location; no "..." or other characters in the latitude or longitude columns (i.e. no words) Each GPS point should be in decimal format - there should be no degree symbol, ", or N · Incorrect: 41°33'30.91"N · Correct: 42.373825
longitude	20	longitude of nest location; Each longitude should have a negative ("-") in front of it. No "..." or other characters in the latitude or longitude columns (i.e. no words) Each GPS point should be in decimal format - there should be no degree symbol, ", or N/W · Incorrect: 70°56'6.63"W · Correct: -70.969888
Lat/Long Source	50	source of GPS point associated with nest attempt; Options available in dropdown: Handheld GPS, Google
Date Nest Found	date	Exact date nest was found
# of Eggs when clutch found	10	number of eggs when nest found; Options available in dropdown are: 1, 2, 3, 4, 5, 6, unknown
Date clutch completed	date/date range	date clutch completed; Options available April 1 through July 31; Choose one date or a range of dates or Unknown
Clutch complete backdated	check box (yes/no)	Check if clutch was complete when nest found and completed date was calculated based on hatch date.

Number Of Eggs Laid	10	<p>total number of eggs laid; Options available in dropdown are: 0, 1, 1+, 1-2, 1-3, 1-4, 2, 2+, 2-3, 2-4, 3, 3-4, 4, Unknown, or range. The number of eggs can be a range if the nest was not observed prior to hatching or loss. Only record what you observed: For example, if you saw 3 eggs but the bird was on the 6th day of laying, and the nest was lost, record >3 in the “eggs” column because you do not know whether a 4th egg was laid. Or, if you know 4 eggs were in the nest bowl, but only ever saw 2 chicks, record 2-4 in the “number of chicks hatched” column</p> <p>If you aren’t sure record a range. Then use Nest Comments to reference explanations of uncertainty and why.</p>
Nest Fate	20	Fate of nest; Options available in dropdown Hatched, Failed, Unknown
Date Nest Fate Determined	date	Exact date is was determined a nest hatched or failed
Date Nest Last Observed Active	date	Last date observed incubation or eggs believed not to be abandoned.
Found after hatching	checkbox (yes/no)	A check means "yes" chicks were found after hatching
Age range (days)	30	approximate age of chicks as first observed; Use this section when no nest discovered prior to observing chicks
Number of eggs hatched	10	<p>total number of eggs hatched; Options available in dropdown are: 0, 1, 1+, 1-2, 1-3, 1-4, 2, 2+, 2-3, 2-4, 3, 3-4, 4, Unknown, or range. The number of eggs can be a range if the nest was not observed prior to hatching or loss. Only record what you observed: For example, if you saw 3 eggs but the bird was on the 6th day of laying, and the nest was lost, record >3 in the “eggs” column because you do not know whether a 4th egg was laid. Or, if you know 4 eggs were in the nest bowl, but only ever saw 2 chicks, record 2-4 in the “number of chicks hatched” column as you saw 2 however 4 could have hatched and now only 2 survive but the observer didn't see the loss of the other 2.</p>

Number of chicks fledged	10	total number of chicks fledged; Options available in dropdown are: 0, 1, 2, 3, 4, 5, 6 or range. Chicks are considered "fledged" if they are >25 days old or are observed in flight for >50 ft., whichever occurs first.
Comments on fledged chicks	mediumtext	additional comments for fledged chicks
Date Brood First Observed	date	only required if nest hatched
Brood Fate	date	only required if nest hatched
Date Brood Fate Determined	30	only required if nest hatched
Date Unfledged Brood Last Present	date	If no chicks fledged, last date at least one chick observed. If >= 1 fledgling, date brood last observed unfledged; only required if nest hatched
Nest Comment	longtext	additional comments for nest attempt
Pair left site during nesting season (if applicable)	checkbox (yes/no)	
Date pair last seen	date	
Adult mortality 1	checkbox (yes/no)	Check box if there was an adult mortality
Mortality with a nest	checkbox (yes/no)	Check box if there was an adult mortality associated with a particular nest; unless this box is checked, the associated boxes are not accessible
Date found	date	Date the mortality was found
Number found dead	6	How many adults were found dead
Mortality comments	mediumtext	Comments about the mortality
Adult mortality 2	checkbox (yes/no)	Check box if there was a second adult mortality
Mortality with a nest	checkbox (yes/no)	Check box if there was a second adult mortality associated with a particular nest
Date found	date	Date the second mortality was found
Number found dead	6	How many adults were found dead
Mortality comments	mediumtext	Comments about the second mortality

Exclosure Type	10	type of exclosure; Choice from site list specified under exclosure description
Exclosure Date Installed	date	date exclosure installed; Options available April 1 through July 31
Exclosure Date Removed	date	date exclosure removed
Exclosure Reason Removed	100	reason exclosure removed prior to hatching

Chick Loss

Field Name	Field Length/Type	Comments
Number of chicks lost	15	Select number from dropdown or type in. Type in a range if unsure of number of chicks lost.
Date of loss	30	Can be a range of dates from time chick last observed to day chick discovered as missing. If a single date is not certain, enter a date range. If the date that a chick was lost is not known precisely (and it often is not!), please give the range of dates within which the loss occurred. For example, you last saw the chick on 6/2, and the site was checked 6/6; a range of 6/2-6/6 is appropriate. Rule of thumb - If your last visit was in the AM, then that date should be included in the range. If your last visit was in the PM, that should not be included in the date range.
Chick found dead?	checkbox (yes/no)	Only check off if body of chick was found
Describe evidence of known or suspected loss	mediumtext	List suspected predators, report in detail any observations or evidence of causes of chick mortality. While causes of chick loss can often be determined fairly reliably from tracks or other signs, causes of chick mortality are usually difficult to determine with any degree of certainty. Please be as specific and detailed as possible as to the actual evidence on which reported causes of egg or chick loss are based.

Egg Loss

Field Name	Field Length/Type	Comments
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Number of eggs lost	15	Select number from dropdown or type in. Type in a range if unsure of number of eggs lost.
Date of loss	date/date range	If a single date is not certain, enter a date range. If the date that an egg was loss is not known precisely (and it often is not!), please give the range of dates within which the loss occurred. For example, you last saw the nest on 6/2, and the site was checked 6/6; a range of 6/2-6/6 is appropriate, unless you have data to suggest otherwise (for example, presence of fresh tracks and yolk after rain the night before would suggest the egg was in fact lost that night). If so, back up your dates with these remarks. Rule of thumb - If your last visit was in the AM, then that date should be included in the range. If your last visit was in the PM, that should not be included in the date range.
Cause of loss	50	Click on the "+" sign to select one or more causes of loss. The exclamation point provides definitions of all options - PLEASE read!
Specific cause	50	If predator was selected as the cause of loss, then a predator drop down becomes available. An extensive list of predators with an option of "other" is available or type in predator if option not available.

<p>Comment</p>	<p>mediumtext</p>	<p>Report in detail any observations or evidence of causes of egg or chick mortality. While causes of nest loss can often be determined fairly reliably from tracks or other signs, causes of chick mortality are usually difficult to determine with any degree of certainty. Please be as specific and detailed as possible as to the actual evidence on which reported causes of egg or chick loss are based. Examples: “<u>Nest 2B</u> - fox predation; fox tracks approached to within 1 foot of nest scrape, all 4 eggs gone”. “<u>Nest 1A</u> - crow predation suspected; crow tracks abundant on beach and as close as 20 feet from nest, but gravelly substrate closer to nest made it impossible to confirm tracks at the nest itself. All eggs gone, no eggshell fragments observed.” “<u>Nest 5A</u> - abandoned June 2 or 3, cause unknown; both members of pair believed still alive /present for at least 2-3 days post-abandonment.”</p> <p>REMEMBER: If you don’t know the cause of loss, report UNKNOWN. Do not hesitate to list multiple predators in the area if you are unsure, for example “crow tracks surrounding the nest bowl within 1 inch, with yolk and shell fragments in the area; striped skunk tracks also observed leading directly to the nest bowl within 3”; not clear whether the skunk or crow was the primary predator; it appears that one may have come in after the other had already preyed on the nest. If you had not visited a nest for multiple days that you often will not be able to determine what happened to it; for example: Nest was last observed 5/20, and on 5/25 was observed lost. “A high tide wrackline was found 1m above the former nest location, and the bowl was gone. No eggs were found in the wrackline. Unknown as to cause of loss.” If there is additional documentation (photos, reports) please note it in the Comments Section.</p>
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Undetermined Egg or Chick Loss

Field Name	Field Length/Type	Comments
numberOfUnknownLost	15	Select number from dropdown or type in. Type in a range if unsure of number of eggs/chicks lost.

dateOfUnknownLoss	date/date range	If a single date is not certain, enter a date range. If the date that an egg was loss is not known precisely, please give the range of dates within which the loss occurred.
causeOfUnknownLoss	50	Click on the "+" sign to select one or more causes of loss. The exclamation point provides definitions of all options - PLEASE read!
unknownLossOther	50	If predator was selected as the cause of loss, then a predator drop down becomes available. An extensive list of predators with an option of "other" is available or type in predator if option not available.
unknownLossComment	mediumtext	Report in detail any observations or evidence of causes of egg or chick mortality. While causes of nest loss can often be determined fairly reliably from tracks or other signs, causes of chick mortality are usually difficult to determine with any degree of certainty. Please be as specific and detailed as possible as to the actual evidence on which reported causes of egg or chick loss are based.If there is additional documentation (photos, reports) please note it in the Comments Section.

Enclosures

Field Name	Field Length/Type	Comments
Shape	11	shape of enclosure; Options available in dropdown: round, square, rectangular, triangular, other - Note: if appropriate option is not available in the dropdown please type into this field
Diameter	double	diameter of enclosure (feet)
Mesh size	10	size of mesh in netting (inches); 2" x 2", 2" x 4", other - Note: if appropriate option is not available in the dropdown please type into this field
Total height	double	height of enclosure (inches)
Height above ground	double	height of enclosure above ground (inches); Height of enclosure above ground after installing enclosure. Note the above ground and below ground measurements need to equal the total height of the enclosure.

Depth	double	depth of exclosure buried (inches); Depth of exclosure below ground after installing exclosure. Note the above ground and below ground measurements need to equal the total height of the exclosure.
Cover material	30	What materials was used to cover the exclosure to prevent predators from accessing from above the exclosure; Options available in dropdown: bird netting, string. Note: if appropriate option is not available in the dropdown please type into this field
Cover mest size	10	What mesh size was the material that was used as the cover material; Options available in dropdown: 3/4" x 3/4", 3/4" x 5/8" Note: if appropriate option is not available in the dropdown please type into this field

TERNODES

Census Form

Field Name	Field Length/Type	Comments
Observer names	300	
First Date Site Visited	datetime	
Last Date Site Visited	datetime	
No terns, laughing gulls, or black skimmers nested at this site	check box (yes/no)	
April (1st - 15th)	20	number of site visits between April 1-15; If a site was visited <5 times, please give actual dates.
April (16th - EOM)	20	number of site visits between April 16-30; If a site was visited <5 times, please give actual dates.
May (1st - 15th)	20	number of site visits between May 1-15; If a site was visited <5 times, please give actual dates.
May (16th - EOM)	20	number of site visits between May 16-31; If a site was visited <5 times, please give actual dates.
June (1st - 15th)	20	number of site visits between June 1-15; If a site was visited <5 times, please give actual dates.
June (16th - EOM)	20	number of site visits between June 16-30; If a site was visited <5 times, please give actual dates.
July (1st - 15th)	20	number of site visits between July 1-15; If a site was visited <5 times, please give actual dates.
July (16th - EOM)	20	number of site visits between July 16-31; If a site was visited <5 times, please give actual dates.
August (1st - 15th)	20	number of site visits between August 1-15; If a site was visited <5 times, please give actual dates.
August (16th - EOM)	20	number of site visits between August 16-31; If a site was visited <5 times, please give actual dates.
September (1st - 15th)	20	number of site visits between September 1-15; If a site was visited <5 times, please give actual dates.
September (16th - EOM)	20	number of site visits between September 16-30; If a site was visited <5 times, please give actual dates.
Symbolic fencing	longtext	whether symbolic fencing was used to protect nests and provide chick refuge areas and when fencing was erected
Predator fencing	longtext	Additional fencing beyond symbolic fencing (include dog lines, triple fencing)

Electric fencing	longtext	If electric fencing was used, when, how many panels, average voltage, height of fence, if scent caps were used etc.
Lethal predator control	longtext	If lethal action was taken, what, where, when, how and duration
Non-Lethal predator control	longtext	If non-lethal action was taken, what, where, when, how and duration
Predator & potential predator activity at site	longtext	Specifics on which predators were present during season and/or responsible for egg/chick loss, tracks, observations
Signage	longtext	Specific type of signage used at site and any special signs (No Dogs, Stay off Dunes, No Landing, educational placards etc)
Public outreach	longtext	Any special education or outreach that occurred (also include if materials used). Also can include general overall interactions with the public
Construction/project/event management	longtext	Describe any dune building projects or construction that occurred
Research	longtext	Any additional projects that occurred at the site
Banded bird notes – Be sure to report flagged birds to appropriate banders!	longtext	Please enter band codes and descriptions of any banded birds encountered at colony or, for large numbers of banded birds, indicate species and approximate numbers of banded birds encountered.
Other management notes	longtext	other management notes
Comments	longtext	Comments

Colonies

Field Name	Field Length/Type	Comments
Name	100	Colony names should reflect the names of discrete aggregations of nesting birds at the site.
Description	100	Description of the colony location within the site, using micro site names when applicable

Species chronology and productivity

Field Name	Field Length/Type	Comments
Species	select from list	Choose species to report from the list
Colony	select from list	Choose colony from list
Date Adults First Observed	datetime/date range	Date adult was first observed, enter specific date if known, otherwise use a date range.
Date First Eggs Laid	datetime/date range	date first eggs were laid, enter specific date if known, otherwise use a date range.

Date First Eggs Hatched	datetime/date range	date first eggs were hatched, enter specific date if known, otherwise use a date range.
Date of First Fledging of Young Hatched at Site	datetime/date range	Date first bird(s) fledged
Date Last Fledgling Observed	datetime/date range	Date last young were present at site
No Fledgling Observed	check box (yes/no)	
All Fledglings Observed Hatched at Other Sites	check box (yes/no)	
Number of Fledglings	50	Number of fledglings produced by colony during season, if estimated. Alternatively, "fledglings/nest" or "fledglings/pair" can be reported.
Fledglings Observed from other sites	255	
Productivity Qualitative Estimate	200	None = No pairs produced fledglings. Poor = Very few pairs appear to have produced fledglings. Fair = A moderate number of pairs (less than half) produced fledglings; productivity exceeds "poor." Good = A majority (more than half) of pairs appear to have produced fledglings; productivity falls short of being "excellent". Excellent = Most pairs appear to have produced fledglings.
Productivity Quantitative Estimate	200	Number of fledglings per nest or per pair, generally determined through detailed study of individual nests and/or pairs.
Productivity Method	longtext	Enter specifics on how productivity was assessed. Examples: (1) Spent 1 hour at site 2x/wk counting fledglings or (2) 60 nests enclosed in fencing or (3) Chicks weighed every other day
Comments on Productivity	text	

Species Counts

Field Name	Field Length/Type	Comments
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<p>Count Letter</p>	<p>10</p>	<p>Pre-A=Number of pairs estimated for site prior to Jun 5. A = Number of pairs estimated for site between June 5 – 20. B = Number of pairs estimated for site if there is a significant change from the A-period (e.g., 50% difference) or if nesting did not occur in the A-period.</p> <p>ROST - B counts should be captured exactly 25 days after A count was performed. ARTE and BLSK – B counts should reflect any additional pairs that appear after June 20. For all Pre A, A, and B, If multiple counts were performed, use the greatest number that you believe accurately reflects the number of pairs attempting to nest at the site. Birds that are only foraging, resting, or transiting through the site are not included. In addition to pairs that have nests, those that show nesting behavior (courting and/or territorial behavior) generally would be counted even if no nests are found.</p>
<p>Count Date</p>	<p>datetime/date range</p>	<p>Date of count producing the number of pairs estimated for the pre-A, A, or B periods. A range of dates is appropriate for a count performed over multiple days.</p>
<p>Survey Quality</p>	<p>200</p>	<p>Low Confidence (LC) - This could be due to difficulty counting (poor conditions/visibility; large, dispersed colony; density of vegetation), timing, number or experience of counters, limited effort, or other factors. Reasonable Confidence (RC) - Survey reasonably thorough and conditions not significantly detracting from counting. High Confidence (HC) - Survey thorough, nests or adults highly detectable with methodology used, conditions favorable for counting.</p>

<p>Survey Method</p>	<p>50</p>	<p>The method or methods used to determine number of pairs.</p> <p>Incubation count - A count of incubating adults in the colony. Each incubating adult represents 1 pair of terns.</p> <p>Nest count - a count of the number of nests in the colony. Each nest represents one pair of terns. Nests or scrapes should contain at least one egg in order to be counted. A nest should be counted if it is apparent that eggs have hatched and/or the chicks are away from the nest. Do not count empty scrapes or nests that are obviously abandoned.</p> <p>Partial (extrapolated) nest count - A total nest count is extrapolated from a count of a subset of nests. Each nest represents one pair of terns. A partial count might be conducted due to lack of time or staff to conduct a full count, inaccessibility of a portion of the site, or sensitivity of the birds to disturbance.</p> <p>Adult count - Count of number of adults within or flying near the immediate vicinity of the colony. The number of adults then is multiplied by 0.8 to estimate number of pairs in the colony. Birds that are only foraging, resting, or transiting through the site are not included. In addition to pairs that have nests, those that show nesting behavior (courting and/or territorial behavior) generally would be counted even if no nests are found. Note that multiple visits to the site help to sort out how many adults are nesting vs. only resting, foraging, or transiting through the site.</p>
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<p>Pairs</p>	<p>10</p>	<p>The pair number is calculated dependent on survey method.</p> <p>Incubation count - A count of incubating adults in the colony. Each incubating adult represents 1 pair of terns.</p> <p>Nest count - a count of the number of nests in the colony. Each nest represents one pair of terns. Nests or scrapes should contain at least one egg in order to be counted. A nest should be counted if it is apparent that eggs have hatched and/or the chicks are away from the nest. Do not count empty scrapes or nests that are obviously abandoned.</p> <p>Partial (extrapolated) nest count - A total nest count is extrapolated from a count of a subset of nests. Each nest represents one pair of terns. A partial count might be conducted due to lack of time or staff to conduct a full count, inaccessibility of a portion of the site, or sensitivity of the birds to disturbance.</p> <p>Adult count - Count of number of adults within or flying near the immediate vicinity of the colony. The number of adults then is multiplied by 0.8 to estimate number of pairs in the colony. Birds that are only foraging, resting, or transiting through the site are not included. In addition to pairs that have nests, those that show nesting behavior (courting and/or territorial behavior) generally would be counted even if no nests are found. Note that multiple visits to the site help to sort out how many adults are nesting vs. only resting, foraging, or transiting through the site.</p>
<p>Did you enter the colony to obtain this count?</p>	<p>yes/no</p>	
<p>Did multiple observes produce count?</p>	<p>yes/no</p>	
<p>Survey Comments</p>	<p>longtext</p>	<p>Provide comments on survey method selected, quality of survey and appropriateness of timing. Adult count used instead of nest count, as all nests were predated the day prior to the planned census, but most of the pairs still appeared to be at the colony site.</p>
<p>Colony Comments</p>	<p>longtext</p>	<p>Comments on factors influencing colony abundance or productivity, including predation, washover, disturbance, habitat, etc.</p>

Other Site Uses

Field Name	Field Length/Type	Comments
Species	50	Choose a species to report (or type in if species not in list)
Date(s)	datetime/date range	date or date range species observed
Activity	50	Choose the activity observed: Loafing, Staging, Foraging, Roosting, Overnight roosting
Use Comments	longtext	Any additional comments