

## **Cape Lookout National Seashore Colonial Waterbird 2012 Summary**



*Roosting Roseate and Sandwich terns on South Core Banks.*

NPS Photo.

National Park Service  
Cape Lookout National Seashore  
131 Charles Street  
Harkers Island, NC 28531

## *Introduction*

The inlet spits, sandflats, and point of Cape Lookout National Seashore provide nesting habitat for several species of Colonial Waterbirds (CWB). The least tern (*Sternula antillarum*), common tern (*Sterna hirundo*), gull-billed tern (*Gelochelidon nilotica*), black skimmer (*Rynchops niger*), and royal tern (*Sterna maxima*) nest here in single species and mixed species colonies.

## *Methods*

Nesting habitat is posted in the spring by April 1<sup>st</sup>. Reoccurring nesting sites include Power Squadron Spit, Cape Point, Ophelia Inlet, New Drum Inlet Flats, Old Drum Inlet Flats, Kathryn-Jane Flats, Portsmouth Flats, and Ocracoke Inlet tip. Potential nesting habitat is monitored and posted as the birds colonize a site. Posted closures typically include the upper beach, interior, and/or soundside to provide a 150 foot buffer. If chicks were present on the lower ocean beach vehicles are restricted and/or detoured to avoid flightless chicks.

The annual least tern window census occurs from June 5<sup>th</sup>-20<sup>th</sup>. Breeding pairs were counted by either a perimeter count of incubating pairs or a total number adult count. Total adult counts were then divided by two to ascertain the number of breeding pairs. No correction factor was employed in the results. The assumption being that all birds present within the breeding colony site are there as breeders. Counts were conducted by staff biologist and biological technicians on South Core Banks. On North Core Banks counts were conducted by Virginia Tech research staff and park staff. A GPS point was recorded at the center of the colony. Monitoring throughout the summer included counts of adults, incubating nest/pairs, ground nest counts, number of chicks and fledglings, and buffer distance checks. Closures were posted, expanded, reduced, and removed as needed. Fledge success was observationally rated as high, medium, low, none or unknown.

## *Results*

There were 22 CWB nesting sites in the seashore (Figure 1). Eleven colonies were on North Core Banks (NCB) and eleven colonies were on South Core Banks (SCB). There were no nesting terns or skimmers on Shackleford Banks (SB). Eighteen single species colonies were occupied by least terns, while four colonies were of mixed species. The largest colonies were at New Drum Inlet, Ophelia Island, and Cape Point during the June 5<sup>th</sup>-20<sup>th</sup> peak counts. There were 346 least terns (LETE) pairs counted at New Drum Inlet (Appendix 1). There were 117 LETE, 49 black skimmer (BLSK), 24 gull-billed terns (GBTE), and 17 common tern (COTE) pairs counted at Ophelia Island. At Cape Point there were 18 LETE, 72 BLSK, 38 COTE, and 33 royal tern pairs counted. The least tern window census counted 577 breeding pairs throughout the seashore on Core Banks (Appendix 2).

## *Discussion*

The New Drum Inlet site on the middle core section (MCB) of NCB appeared to be the most productive LETE site this year with a success rating of medium. There were only three counts at this site, but 52 LETE chicks were observed on June 18<sup>th</sup> when the colony was winding down activity. The nearby Ophelia Island site, initially busy with multiple species nesting had low success due to heavy raccoon predation of BLSK and tern eggs.

The Cape Point colony started off early on April 30<sup>th</sup> when 20 LETE individuals and 50 BLSK individuals arrived on territory. By May 23<sup>rd</sup> multiple species were confirmed nesting including royal terns. This was the third year in a row that royal terns nested at the point. On May 28<sup>th</sup> 36 ROTE nests were recorded in two sub groups and five ROTE eggs were found broken with raccoon tracks in the colony. Continued predation pressure along with Tropical Storm Beryl in late May and flooding in June contributed to overall low success for the colony in 2012. Although chicks were seen throughout July, such as 22 COTE, 17 BLSK, and 2 LETE chicks on July 5<sup>th</sup>, only a few fledglings were recorded. The east and west side of the point was closed to vehicles briefly from 7/15 to 7/26 when tern chicks were out on the beach. A portion of the west side of the point was closed from 5/2 until 8/4 for American oystercatcher chicks and tern chicks. Colony nesting activity was finished by August 4<sup>th</sup>.

In 2012, Virginia Tech research staff continued band re-sights of marked terns and other shorebirds. In addition research staff counted nesting birds and recorded colony activity on NCB and the MCB section. Count data on MCB in this report is from the Virginia Tech counts exclusively.

The least tern window census in 2012 recorded 577 breeding pairs, a decrease from last year (Chart 1.). The 2011, 2010, 2009, 2008, 2007 and 2006 counts recorded 608, 789, 288, 502, 285 and 310 breeding pairs, respectively. Least terns were widely scattered in multiple small nesting groups this year and that seems to account for the increase from 13 colonies in 2011 to 22 colonies in 2012.

Chart 1. Least Tern window census, June 5<sup>th</sup>-20<sup>th</sup>, counts from 2006 to 2012.

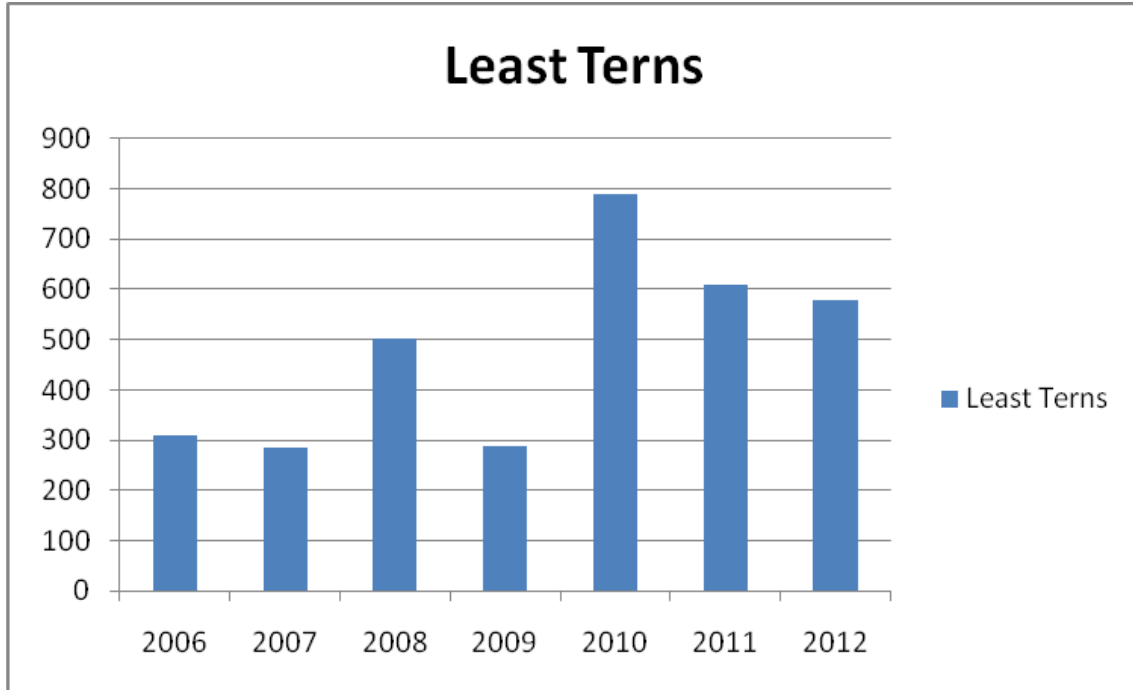
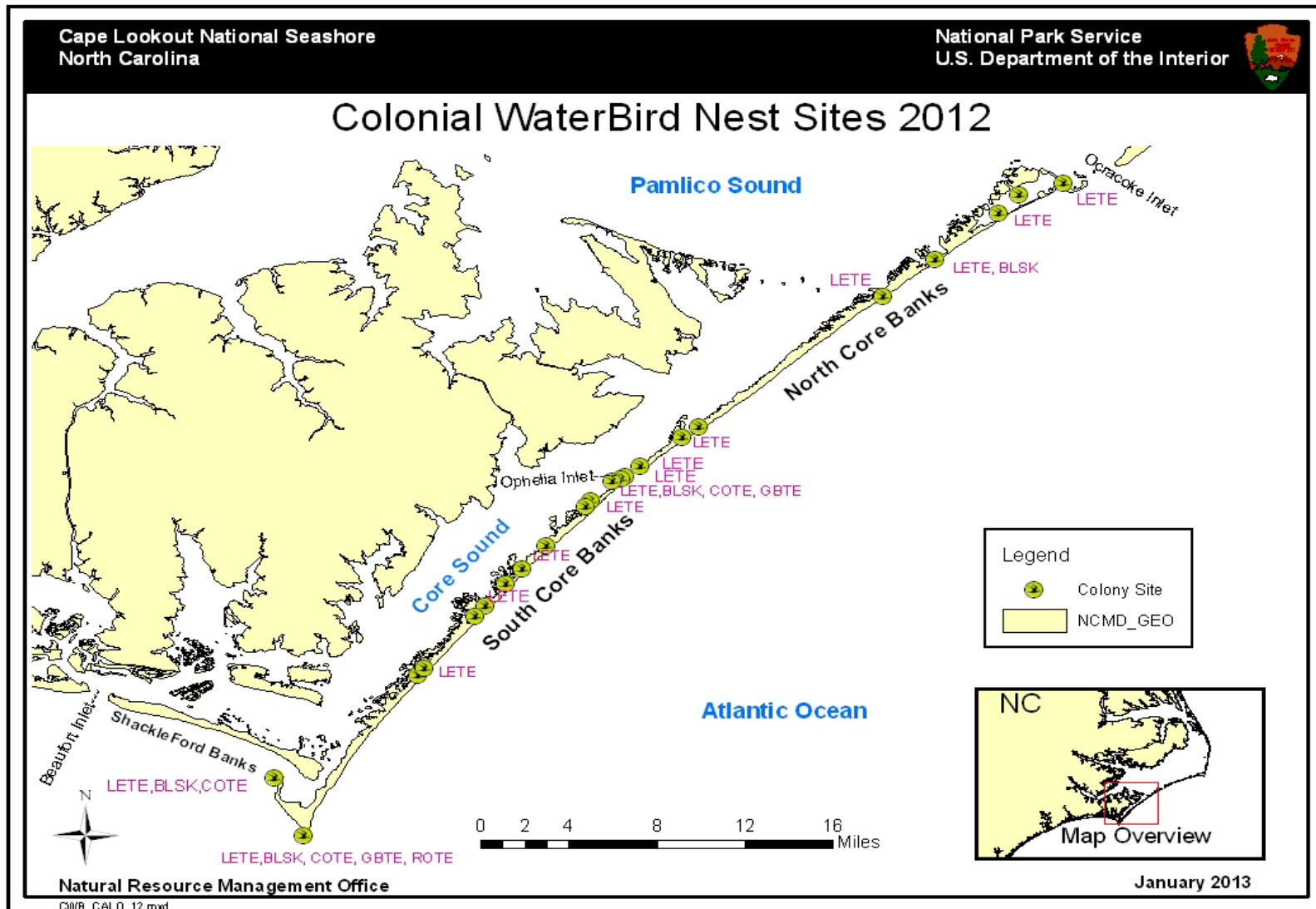


Figure 1



Appendix 1. 2012 Colonial Waterbird Data

ID	Island	Mile	Site Description	Latitude	Longitude	Dates Active	Count date
1	NCB	0.12	Ocracoke Inlet	35.06059	-76.03718	10-Jun to 19 Jul	10-Jun
2	NCB	2	North Portsmouth Flats	35.05233	-76.06628	27-May to 29-Jun	10-Jun
3	NCB	3.14	South Portsmouth Flats	35.03834	-76.07946	27-May to 26-Jul	11-Jun
4	NCB	6.33	Kathryn-Jane Flats	35.00545	-76.12074	29-May to 12-Aug	10-Jun
5	NCB	9.01		34.97894	-76.15508	25-May to 5-Jun	5-Jun
6	NCB	18.5	Old Drum Inlet north	34.88461	-76.27619	25-May to 30-Jun	17-Jun
7	NCB	19	Old Drum Inlet south	34.87699	-76.28739	28-May to 19-Jun	18-Jun
8	NCB	21.3	New Drum Wash	34.85632	-76.31476	28-May to 18-Jun	7-Jun
9	NCB	22	New Drum Inlet	34.84882	-76.32462	28-May to 18-Jun	7-Jun
10	NCB	22.3	Ophelia Island	34.84703	-76.32665	28-May to 18-Jun	7-Jun
11	NCB	22.5	Blowfish site	34.84568	-76.33321	28-May to 18-Jun	7-Jun
12	SCB	23.8	Plover Inlet	34.83076	-76.34686	9-May to 1-Aug	7-Jun
12	SCB	24.31	Plover Inlet	34.8272	-76.35021	7-Jun to 12-Aug	14-Jun
14	SCB	26.75	behind dune	34.79884	-76.37592	22-May to 19-Jul	14-Jun
15	SCB	28.3	upper beach	34.78203	-76.39234	5-May to 23-May	na
16	SCB	29.09	upper beach	34.77079	-76.40247	4-May to 2-Jun	na
17	SCB	30.45	toe of dunes	34.75559	-76.41589	21-Jun to 17-Aug	na
18	SCB	31.13	interdunal sand flats	34.74753	-76.42318	12-May to 1-Sep	14-Jun
19	SCB	34.71	interdunal sand flats	34.70532	-76.46062	12-May to 21-Jun	14-Jun
20	SCB	34.25	interdunal sand flats	34.7104	-76.45602	11-May to 13-Jul	14-Jun
21	SCB	44	Cape point	34.589	-76.53527	30-April to 4-Aug	14-Jun
22	SCB	47.4	Power Squadron Spit	34.63075	-76.55435	9-May to 17-Aug	13-Jun

ID	Peak Counts	Count Type	Count 1	Count 2	Success
1	3 LETE	pair	7 incubating LETE on 6/28	1 incubating LETE on 7/16	none
2	5 LETE	pair	39 LETE pairs on 6/2	0 LETE on 6/11	none
3	10 LETE	pair	18 LETE pairs on 5/27	5 LETE incubating pairs on 7/8	none
4	8 LETE	total	25 LETE pairs, 1 BLSK pair on 6/24	1 pair LETE , 2 chicks on 8/6	low
5	4 LETE	pair	0 LETE on 6/16		none
6	5 LETE	pair	3 LETE pair on 6/22		none
7	20 LETE	pair	6 LETE pair and 1 chick on 6/7	11 LETE pair on 6/19	low
8	6 LETE	pair	16 LETE pair	6/18 no LETE	none
9	346 LETE	pair	344 LETE incubating on 5/28	28 LETE pair and 52 chicks on 6/18	medium
10	117 LETE, 49 BLSK, 24 GUTE, 17 COTE	pair	108 BLSK, 18 COTE, 13 GUTE, 5 LETE on 6/18		low
11	1 LETE	pair	8 LETE pair and 1 chick on 5/28	15 pair LETE and 5 chicks on 6/18	low
12	10 LETE, 2 chicks	pair	38 LETE individuals on 7/9		low
12	10 LETE	pair	6/22 20 pairs LETE, 1 fledge, 1 chick		low
14	7 LETE	pair	8 LETE pairs on 6/28		none
15	na	na	12 LETE pairs, 4 nest on 5/5	0 pairs on 5/23	none
16	na	na	10 LETE pairs, 3 nests on 5/17		none
17	na	na	6 LETE pairs on 6/21	10 LETE pairs, 2 BLSK pairs on 7/4	none
18	2 LETE	pair	12 LETE pairs on 5/24	1 chick/fledgling on 8/22	low
19	1 LETE	individual	15 LETE pairs and 5 nests on 5/31		none
20	3 LETE	pair	15 LETE pairs and 3 nests on 5/17	3-4 pairs LETE on 6/28	none
21	18 LETE, 72 BLSK, 38 COTE, 33 ROTE,	pair	392 BLSK, 18 LETE, 7 GBTE, 45 COTE, 80 ROTE total on 5/23	96 LETE, 30 COTE, 111 BLSK, 1 ROTE pairs on 7/5	low
22	5 LETE, 10 COTE, 19 BLSK	pair	5 LETE, 1 COTE pairs on 5/23	3 LETE pairs, 2 chicks on 7/12	low

ID	Comments
1	removed closure on 7/27
2	raccoon tracks all over on 6/11
3	areas washed out by T.S. Beryl on 6/2 and 6/3
4	
5	back beach on shelly area
6	removed closure on 7/19
7	
8	
9	
10	heavy raccoon predation once BLSK arrived in late June
11	
12	raccoon tracks all over on 6/17 and 6/22
12	
14	ramp 26b closed 6/24, signs removed on 7/28
15	closure removed on 5/23
16	closure removed on 6/2
17	closure removed on 8/22, raccoon tracks observed on 6/21
18	closure removed on 9/1
19	closure removed 6/28
20	closure removed on 7/14
21	raccoon predation on 5/28, tropical storm Beryl on 5/30, flooding on 6/4-6/6
22	flooding on 6/4-6/6,

NCB= North Core Banks  
SCB= South Core Banks

LETE= least tern  
GBTE= gull-billed tern

COTE= common tern  
BLSK= black skimmer

ROTE= royal tern



Appendix 2.

2012 Least Tern Window Census  
June 5-20

North Core Banks: 521 breeding pairs

South Core Banks: 56 breeding pairs

Shackleford Banks: No breeding pairs

CALO Total= 577 breeding pairs