

**Cape Lookout National Seashore Colonial Waterbird
2011 Summary**



A cluster of Royal Tern nests at Cape Point. 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 1st. 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 5th-20th. 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 as part of a military overflight disturbance study. In addition in 2011, North Carolina Wildlife Resource Commission staff helped with a walk through nest count at Cape Point. 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 13 CWB nesting sites in the seashore (Figure 1). Seven colonies were on North Core Banks (NCB) and six colonies were on South Core Banks (SCB). There were no nesting terns or skimmers on Shackleford Banks (SB). Nine single species colonies were occupied by least terns, while four colonies were mixed species. The largest colonies were at Blowfish Island at Ophelia Inlet and Cape Point during the June 5th-20th peak counts. There were 306 least terns (LETE), 6 black skimmers (BLSK), 4 Gull-Billed terns (GBTE), and 2 common terns (COTE) incubating adults counted at Blowfish Island (Appendix 1). At Cape Point there were 127 LETE, 155 BLSK, 96 COTE, 7 GBTE, and 167 ROTE nests counted. The least tern window census counted 608 breeding pairs throughout the seashore on Core Banks (Appendix 2).

Discussion

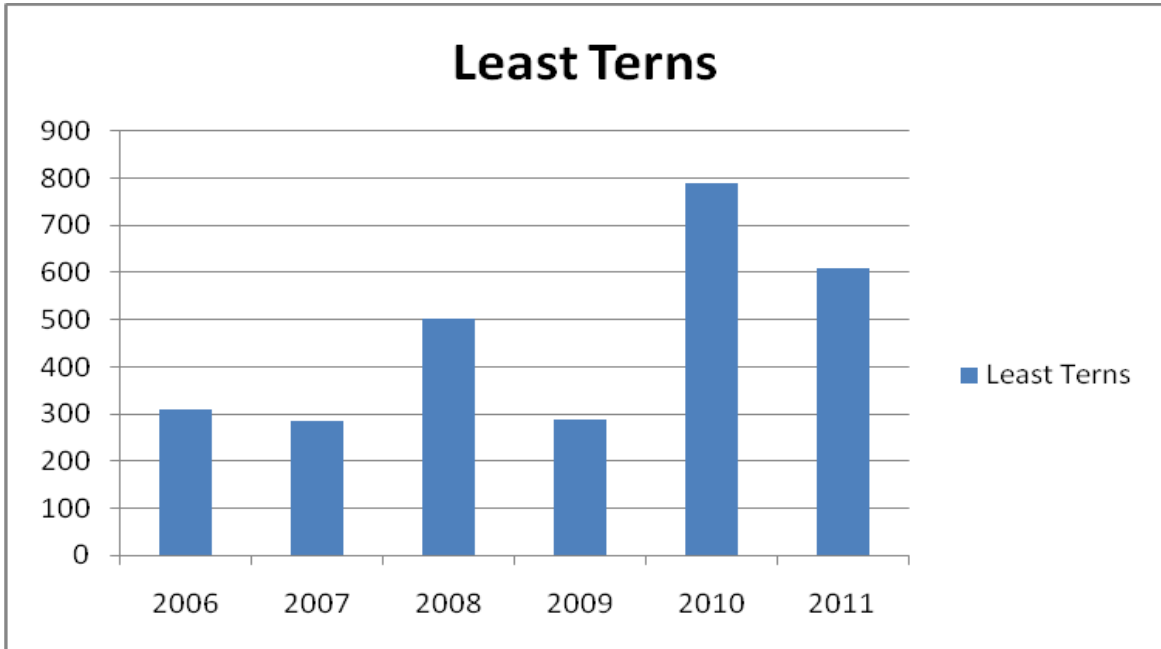
The two largest colonies were also the most productive. The Blowfish Island site is a small ephemeral island directly west of the south end of NCB at Ophelia Inlet. Initially without symbolic fencing, the colony was posted upon discovery by seashore staff. Birds that were using nearby tern colonies at Old Drum and New Drum early in the season are believed to have colonized this site in early June. Productivity at this site was rated as high. Black Skimmers were present up until Hurricane Irene hit on August 27th.

The Cape Point colony started off on May 2nd when two LETE nests were found. By May 21st multiple species were confirmed nesting including Royal Terns. 2010 was the first year ROTEs were recorded nesting in the seashore. In 2011, there were 167 ROTE nests recorded at Cape Point during the North Carolina state wide colonial waterbird census on June 16th. Unfortunately nest success was low and only 2 ROTE chicks were confirmed fledged. Disturbance may have been an issue as raccoon tracks were documented in the colony as well as the presence of an unleashed dog within the posted area. The point was closed to vehicles by Jun 14th as chicks of multiple species were observed on the beach outside of the nesting closure. The point remained closed to vehicles as Hurricane Irene approached in late August. Before the storm on August 24th there were still nine BLSK nests and 23 chicks present. No chicks or nests survived the hurricane. The nesting habitat was very good this year as the point was elongated and made a high sand flat away from the dunes. There were two BLSK chicks and one COTE chick observed predated by great black back gulls at the point in 2011.

In 2011, Virginia Tech research staff continued a military overflight disturbance study in cooperation with Cherry Point Marine Corp Air Station. In addition to audio and video monitoring, research staff counted nesting birds and recorded colony activity. Count data on NCB in this report is from the Virginia Tech counts. 2011 was the last year of this study.

The least tern window census in 2011 recorded 608 breeding pairs, a decrease from last year (Chart 1.). The 2010, 2009, 2008, 2007 and 2006 counts recorded 789, 288, 502, 285 and 310 breeding pairs, respectively.

Chart 1. Least Tern window census, June 5th-20th, counts from 2006 to 2011.



Appendix 1.
2011 Colonial Waterbird Data

ID	Island	Mile	Site Description	Latitude	Longitude	Dates Active	Count date
1	NCB	3	Portsmouth Flats	35.04022	-76.07487	11-May to 25-Jul	6/15/2011
2	NCB	6	High Hills	35.00815	-76.11678	18-May to 11-Jul	6/15/2011
3	NCB	19	Old Drum Inlet	34.88177	-76.2797	2-May to 20-Aug	6/16/2011
4	NCB	19	Old Drum Inlet-South	34.87329	-76.29034	1-Jun to 15-Jul	6/16/2011
5	NCB	21	Dune Shell Beds	34.85736	-76.31092	7-May to 6-Jul	6/16/2011
6	NCB	22	New Drum Inlet	34.85035	-76.32037	3-May to 6-Jul	6/16/2011
7	NCB	22.5	Blowfish Island	34.84837	-76.33361	11-Jun to 27-Aug	6/17/2011
8	SCB	23	North Tip	34.84167	-76.33732	24-Apr to 13-May	6/13/2011
9	SCB	28.2	High beach	34.78122	-76.39258	14-Jun to 28-Jul	6/14/2011
10	SCB	30.86	shell flat	34.75019	-76.41992	16-May to 22-Jul	6/18/2011
11	SCB	34.22	shell flat	34.7108	-76.45471	16-May to 4 Aug	6/18/2011
12	SCB	34.44	high beach	34.70839	-76.45663	3-May to 14-Jul	6/18/2011
13	SCB	44	Cape Point	34.5869	-76.53619	29-Apr to 24-Aug	6/16/2011

ID	Peak Counts	Count Type	Count 1	Count 2	Success
1	36 LETE	incubating bird	51 incubating LETE on 5/26		Medium
2	5 LETE	incubating bird	8 incubating LETE on 6/6		low
3	44 LETE	incubating bird	177 incubating LETE on 5/24, 2 COTE on 7/13	10-15 BLSK nests 8/2, 1 GBTE 5/19	Medium
4	1 LETE	incubating bird	6 LETE on 7/1		low
5	5 LETE	incubating bird			low
6	36 LETE	incubating bird	78 LETE and 4 BLSK incubating on 5/25		low
7	306 LETE, 6 BLSK, 4 GBTE, 2 COTE	incubating bird	25 BLSK pairs on 8/6, 2 pairs on 6/11	4 GBTE pairs on 6/22	High
8	5-10 LETE	adult	15 LETE with nests on 5/30		none
9	1 LETE	pair	2 pairs LETE on 7/4	2 fledglings LETE on 7/28/2011	low
10	16 LETE, 2 chicks	pair	2 pair and 1 fledgling on 7/14		low
11	13 LETE, 3 chicks	pair	8-10 birds in area, 1 fledge on 7/7		low
12	13 LETE, 2 chicks	pair	1 LETE pair, 3 fledges, 5 chicks on 7/1		Medium
13	127 LETE, 96 COTE, 7 GBTE, 155 BLSK, and 167 ROTE	nest	1 LETE chick, 46 COTE chicks, 73 BLSK chicks, 2 ROTE chicks on 7/11	9 BLSK nest, 23 chicks on 8/24	High

ID	Comments
1	
2	
3	raccoons predated BLSK nests, chicks still present before hurricane, no chicks afterward
4	
5	
6	
7	low sandbar island just west of Ophelia Island, BLSK assumed active until Hurricane Irene on 8/27
8	6/13- 5-10 adults, no nest or scrapes, colony appears abandoned
9	
10	
11	bird false incubating shell
12	full beach closure
13	point closed as of 6/14 for chicks, COTE chick killed by GBBG on 7/5, 2 BLSK chicks killed by GBBG on 8/24

NCB= North Core Banks

SCB= South Core Banks

LETE= least tern

BLSK= black skimmer

COTE= common tern

GBTE= gull-billed tern

ROTE= royal tern

Appendix 2.

2011 Least Tern Window Census
June 5-20

North Core Banks: 433 breeding pairs

South Core Banks: 175 breeding pairs

Shackleford Banks: No breeding pairs

CALO Total= 608 breeding pairs