

Cape Lookout National Seashore Colonial Waterbird 2007 Summary

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 (*Sterna antillarum*), common tern (*Sterna hirundo*), gull-billed tern (*Sterna nilotica*), and black skimmer (*Rynchops niger*) 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, Plover Inlet, Ophelia Island, New Drum Inlet Spit, Old Drum Inlet, Kathryn-Jane Flats, Whalebone Flats, and Portsmouth Flats. 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 are 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 are counted by either a walk through nest count or a perimeter count of incubating pairs. Total number adult counts may also be used in certain circumstances. In 2007 with cooperation with North Carolina Wildlife Resource Commission biologists we conducted peak season counts (June 5th-Jun 22nd) of all colonies in the seashore. A GPS point is recorded at the center of the colony. Monitoring throughout the summer included counts of incubating pairs, number of chicks and fledglings, and buffer distance checks. Closures are posted, expanded, reduced, and removed as needed.

Results

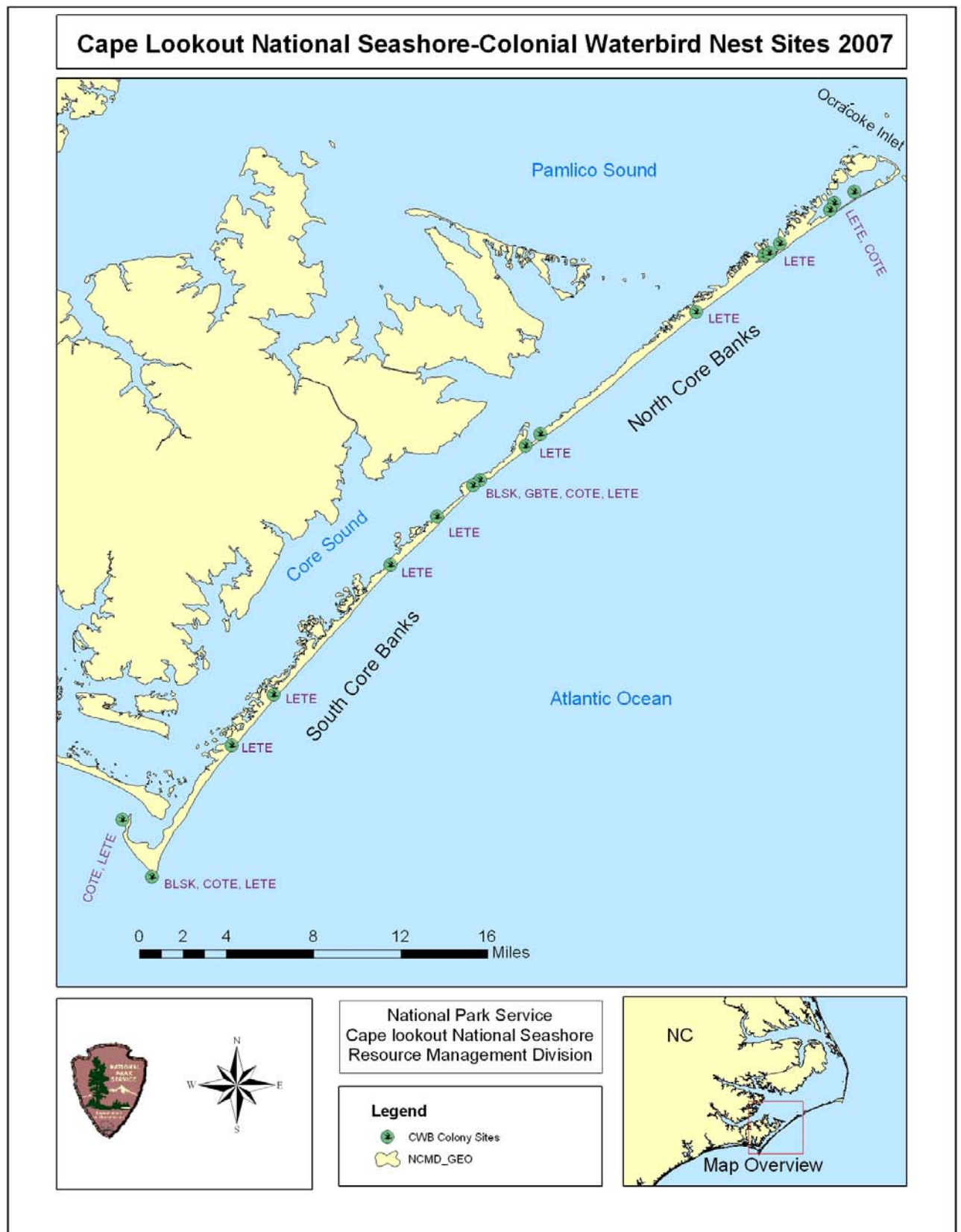
There were 17 CWB nesting sites on the core banks (Figure 1). No CWB sites were recorded for Shackleford Banks. 13 single species colonies were occupied by least terns, 5 colonies were mixed species. The largest and most productive mixed species colony was at New Drum Inlet Spit. There were 169 black skimmer, 191 least tern, 71 common tern, and 59 gull-billed tern breeding pairs counted (Appendix 1). Fledgling success appeared high here and at a near by least tern colony of 40 pairs. A mixed species colony at the Cape Point initially appeared promising, but repeated predation by raccoons and flooding decimated the colony and no fledgling success occurred. At Kathryn-Jane flats moderate success was reported for least terns on North Core Banks. At mile 26.7 and mile 34.16 on shell flats behind the dunes least terns had moderate success on South Core Banks. The other sites had low to no success (Appendix 1). The least tern window census counted 285 breeding pairs throughout the seashore (Appendix 2).

Discussion

The site at New Drum Inlet Spit not only was the most productive CWB colony in the seashore it also contained the highest number of the state threatened gull-billed terns in the state, 59 pairs. The nesting habitat is a large shell/sand flat with some low dunes. There was little recreational disturbance and there were no signs of raccoon predation. These factors contributed to a good success this year. Colonies at sites such as Cape Point, Old Drum Inlet, Portsmouth Flats, and Power Squadron Spit that have done well in the past had little to no success this year. Predation, flooding, and human disturbance were noted as problems. The least tern window census in 2007 recorded 285 breeding pairs, a decline from the 2006 count of 310 breeding pairs.

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Figure 1.



Appendix 1.

ID	Island	Mile	Site Description	Latitude	Longitude	Dates Active	Count date
1	NCB	2.5-4	Portsmouth Flats	35.03914	76.08136	22 May to 2 July	17-Jun
2	NCB	"3.46	Portsmouth Flats	35.0345	76.08437	17 June to 13 Aug	20-Jun
3	NCB	"2.3	Portsmouth Flats	35.0464	76.06802	17 June to 15 Aug	19-Jun
4	NCB	6	High Hills Flats	35.01218	76.11775	23 May to 17 July	6-Jun
5	NCB	7	Katherine Jane Flats	35.00434	76.12807	6 June to 19 June	6-Jun
6	NCB	6.48	Katherine Jane Flats	35.00589	76.1248	23May to 30 July	6-Jun
7	NCB	10.35	shell flat behind dune	34.9666	76.17319	23 May to 30 July	13-Jun
8	NCB	18.49	Old Drum Inlet spit	34.88504	76.27704	13 June to 12 July	13-Jun
9	MCB	19	Old Drum Inlet spit	34.8775	76.28668	unknown	
10	MCB	21.6	New Drum Inlet Spit	34.85473	76.31697	15 May to 14 Aug	15-Jun
11	MCB	21.8	New Drum Inlet Spit	34.85111	76.32179	7 June to 5 July	7-Jun
12	SCB	23.9	Ophelia Inlet flat	34.8302	76.3456	28 May to 4 July	1-Jun
13	SCB	26.7	shell flat behind dune	34.798	76.3767	6 June to 2 Aug	6-Jun
14	SCB	34.16	shell flat behind dune	34.71179	76.45451	16 May to 26 July	1-Jun
15	SCB	36.9	toe of dune	34.67811	76.48236	22 July to 1 Aug	22-Jul
16	SCB	43.7	Cape Point	34.59022	76.53529	25 May to 14 July	8-Jun
17	SCB	47.1	Power Squadron Spit	34.62852	76.5549	28 May to 5 July	5-Jun

NCB=North Core Banks
 MCB=Middle Core Banks
 SCB=South Core Banks

BLSK=black skimmer
 LETE=least tern
 COTE=common tern
 GBTE=gull-billed tern

Appendix 1. (Continued)

ID	Peak Counts	Count Type	Success	Comments
1	74 LETE	Total Adult	none	BLSK and COTE were present before storm, egg were washed about, abandoned
2	40 LETE	Total Adult	low	probable some birds from above colony
3	40 LETE, 6 COTE	Total Adult	low	behind dunes, probable some birds from above 1st colony
4	30 LETE	Total Adult	none	active colony, adults aggressive
5	10 LETE	Total Adult	none	active colony, adults aggressive
6	30 LETE	Total Adult	medium	active colony, chicks spotted
7	20 LETE	Total Adult	medium	active colony
8	15 LETE	Perimeter/incubating	none	
9	unknown		unknown	Active colony, on 6/18 LETE chicks
	169 BLSK, 191 LETE, 71 COTE, 59			
10	GBTE	Walk through nest	High	best colony in the seashore, some chicks, surveyed with NCWRC
11	40 LETE	Perimeter/incubating	High	small LETE colony further out on spit, nests only on this date
12	2 LETE	Walk through nest	none	nests lost to raccoons
13	20 LETE	incubating pair	medium	nests on count date, multiple chicks later in summer
14	12 LETE	incubating pair	medium	chicks went out to open beach, which was closed for AMOY chicks
15	1 LETE	incubating pair	none	nest
16	26 LETE, 5 COTE (9 LETE nest)	Total Adult/ Walk	none	raccoons repeatedly snacked on eggs of all CWBs
17	13 LETE, 4 COTE	incubating pair	low	nests

Appendix 2.

2007 Least Tern Window Census
June 5-20

North Core Banks: 97 breeding pairs

Middle Core Banks: 131 breeding pairs

Ophelia Island: No breeding pairs

South Core Banks: 57 breeding pairs

Shackleford Banks: No breeding pairs

CALO Total= 285 breeding pairs