

## 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 1<sup>st</sup>. 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 5<sup>th</sup>-20<sup>th</sup>. 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 5<sup>th</sup>-Jun 22<sup>nd</sup>) 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*

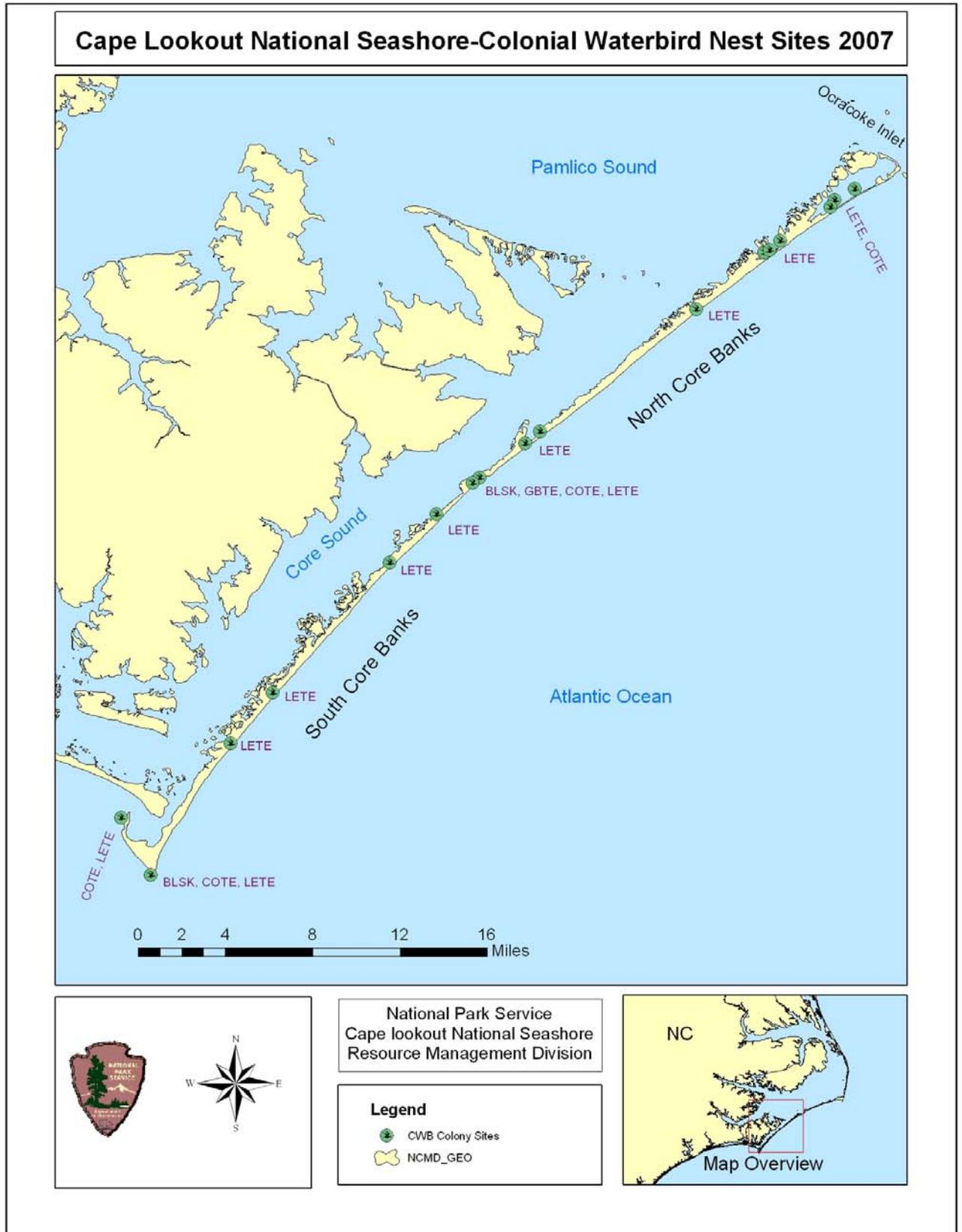
There were 17 CWB nesting sites on the core banks (Figure 1). No CWB sites were recorded for Shackleford Banks. 13 single species colonies were occupied by least terns, 5 colonies were mixed species. The largest and most productive mixed species colony was at New Drum Inlet Spit. There were 169 black 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.

| <b>ID</b> | <b>Island</b> | <b>Mile</b> | <b>Site Description</b> | <b>Latitude</b> | <b>Longitude</b> | <b>Dates Active</b> | <b>Count date</b> |
|-----------|---------------|-------------|-------------------------|-----------------|------------------|---------------------|-------------------|
| 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)

| <b>ID</b> | <b>Peak Counts</b>              | <b>Count Type</b>    | <b>Success</b> | <b>Comments</b>                                                           |
|-----------|---------------------------------|----------------------|----------------|---------------------------------------------------------------------------|
| 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