

AMERICAN OYSTERCATCHER (*Haematopus palliatus*) MONITORING AT
CAPE LOOKOUT NATIONAL SEASHORE

2009 SUMMARY REPORT



Old Drum Inlet filled in naturally in March 2009.

NPS Photo 2009

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Abstract

There were 61 documented nesting American Oystercatcher pairs throughout the seashore in 2009. North Core Banks had 29 pairs, South Core Banks had 22 pairs, and Shackleford Banks had 10 pairs. Egg-laying was initiated approximately on April 15th and a total of 83 nests were documented. Twenty one chicks fledged, 8 from North Core Banks, 11 from South Core Banks, and 2 from Shackleford Banks. South Core Banks was the most productive with a fledge success rate of 0.50, North Core Banks fledge success was 0.28 and Shackleford continues to be the least productive with a fledge success rate of 0.2. Overall the fledge success rate was 0.34 per nesting pair for the seashore.

Introduction

American Oystercatchers are common nesters throughout the park, primarily on the ocean beach. They are listed as a 'Bird of Special Concern' in North Carolina by the North Carolina Wildlife Resource Commission. Their choice of nesting habitat makes them particularly vulnerable to disturbance by park visitors and off-road vehicles.

Monitoring of American Oystercatcher nesting at Cape Lookout National Seashore (CALO) began in 1995. A researcher from Duke University studied nesting on South Core Banks and found low reproductive success. She also documented chick mortality caused by off-road vehicles. Since 1997 researchers from North Carolina State University (NCSU) and park staff have conducted censuses, monitored nesting success and banded birds in the park.

Site Description

Cape Lookout National Seashore is located in the southern Outer Banks of North Carolina between Ocracoke and Beaufort Inlets. With the closing of Old Drum and New Drum Inlets in the spring of 2009 the seashore is currently divided into three barrier islands. The northernmost island, North Core Banks (NCB) is now approximately 23 miles long, extending from Ocracoke Inlet to Ophelia Inlet. South Core Banks (SCB) extends southward from Ophelia Inlet almost 25 miles to Barden Inlet. The Core Banks have a northeast to southwest orientation and exhibit a low profile landscape. The third island, Shackleford Banks (SB) is 9 miles long and has an east-west orientation with a higher dune system and larger areas of vegetation. All islands in the park are subject to constant and dramatic change by the actions of wind and waves.

Methods

Management and monitoring protocols are outlined in the Interim Protected Species Management Plan/ Environmental Assessment (IPSMP/EA) 2006. Weekly surveys of nesting habitat on Core Banks began in April. Nesting on North Core Banks and South Core Banks was monitored seven days a week from April to the end of the nesting

season. Surveys of Shackleford Banks nesting birds were once a week beginning in April.

The area around the nest was closed with “Bird Sanctuary” signs if the nest was in danger of being run over by off-road vehicles or stepped on by pedestrians. Generally, nests found in the dunes were not posted. There is some concern that predators might learn to associate posts with nests. Small posted areas may also unnecessarily attract curious park visitors and cause disturbance. Nest locations were marked with either a stake or objects like sticks or shells to facilitate follow up checks.

Additional nest protection was added in 2009. A 600 foot buffer was established around each nest that allowed traffic to pass by on the beach, but prevented stopping, parking, or camping near the nest. Two sets of 18” X 18” yellow signs were placed on each side of a nest that defined the buffer zone. Pedestrian traffic was allowed along the ocean shoreline.

The locations of the nests were recorded using a GPS and the park’s mile marker system. Information about the habitat type was also noted. If one or both adults were banded, that information was recorded on the nest data sheet (Appendix 2).

Nests were checked regularly, 1 to 3 days, to monitor the status of incubation and document losses. One day before the expected time of hatch, the ocean beach in that area was closed to vehicles with traffic routed to the backroad. In areas where there is no backroad, signs warned of the presence of flightless chicks and reduced the speed limit to 15mph were placed on the beach. Chicks were monitored daily until they fledged or were lost.

Results

Sixty one pairs of American oystercatchers nested at CALO (Table 1). Counts were for pairs on or near the ocean beach and did not include marsh islands.

Table 1. American Oystercatcher Nesting Pairs- 2009

North Core Banks	29 pairs
South Core Banks	22 pairs
Shackleford Banks	10 pairs

Nesting pairs were spread throughout most of the ocean beach habitat in the park (Figures 1 & 2). The birds did not use areas adjacent to buildings and concentrations of people.

Hatch and Fledge Success

Eighty three nests were found of which 20 hatched at least one egg. Twenty one chicks were known to survive to fledge (Table 2). Of the nests that failed, 39 nests failed due to

unknown causes, 18 were lost to predation, 2 were lost during storms, 3 abandoned and 2 were lost to human disturbance (Table 3). Raccoons (7) and undetermined mammalian (5) were found to be the main predators of oystercatcher eggs. Table 4 summarizes the reproductive success over the last fourteen years. Note that fledgling success is calculated using the known nesting pairs not breeding pairs. This allowed for cross year comparisons with variable monitoring efforts and other unknowns. In 2009 sixty one known nesting pairs produced twenty one fledglings for a fledge success rate of 0.34. Individual nest data are found in Appendix 1. Tables 5, 6, 7, and 8 summarize the reproductive success by island with known and comparable data.

Table 2. Oystercatcher Nesting by Island 2009

Island	# pairs	#Nests	# Nests Hatched	# Chicks Fledged
North Core Banks	29	40	7 (18%)	8
South Core Banks	22	30	11 (37%)	11
Shackleford Banks	10	13	2 (15%)	2
CALO Total	61	83	20 (24%)	21

Table 3. 2009 Causes of Nest Failure

Island	Predation	Flooding/ Storms	Human Disturbance	Abandoned	Unknown
North Core Banks	11	2	1	2	17
South Core Banks	7	0	0	1	12
Shackleford Banks	0	0	1	0	10
CALO total	18	2	2	3	39

Table 4. Summary of Seashore Oystercatcher Reproductive Success Data, 1995-2009

Year	Island	#Nests	#Nests Hatched	# Pairs (nesting)	#Chicks fledged
1995	South Core Banks	36	10 (28%)	--	7
1997	South Core Banks	34	4 (12%)	--	2
1998	North & South Core Banks	98	12 (12%)	--	6
1999	North & South Core Banks	114	16 (14%)	--	6
2000	North & South Core Banks	75	25 (33%)	51	9 (0.18)
2001	North & South Core Banks	109	19 (17%)	51	1 (0.02)
2002	North & South Core Banks	90	10 (11%)	45	6 (0.13)
2003	Cape Lookout N.S.	106	17 (16%)	47	8 (0.17)
2004	Cape Lookout N.S.	68	37 (54%)	53	45 (0.85)
2005	Cape Lookout N.S.	65	26 (40%)	53	18 (0.33)
2006	Cape Lookout N.S.	69	23 (33%)	53	25 (0.47)
2007	Cape Lookout N.S.	99	21(21%)	61	31 (0.51)
2008	Cape Lookout N.S.	91	17 (19%)	57	15 (0.26)
2009	Cape Lookout N.S.	83	20(24%)	61	21 (0.34)

Table 5. Summary of North Core Banks Oystercatcher Reproductive Success Data, 2000-2009

Year	Island	#Nests	#Nests Hatched	# Pairs (nesting)	#Chicks fledged
2000	North Core Banks	36	7 (19%)	29	1 (0.03)
2001	North Core Banks	52	11 (21%)	27	0 (0.00)
2002	North Core Banks	46	5 (11%)	23	5 (0.22)
2003	North Core Banks	37	7 (19%)	19	2 (0.10)
2004	North Core Banks	25	20 (80%)	22	31 (1.41)
2005	North Core Banks	20	11 (55%)	16	6 (0.38)
2006	North Core Banks	18	8 (44%)	15	5 (0.33)
2007	North Core Banks	32	8 (25%)	17	14 (0.82)
2008	North Core Banks	22	4 (18%)	14	3 (0.21)
2009*	North Core Banks *	40	7 (18%)	29	8 (0.28)

* Includes former Middle Core Banks and Ophelia Island.

Table 6. Summary of former Middle Core Banks and Ophelia Island, Mile 19 to Mile 22.5, Oystercatcher Reproductive Success Data from 2004 to 2009.

Year	Island	#Nests	#Nests Hatched	# Pairs (nesting)	#Chicks fledged
2004	MCB	5	4 (80%)	5	7 (1.40)
2005	MCB	8	5 (62%)	7	9 (1.28)
2006	MCB and OI	10	8 (80%)	10	10 (1.00)
2007	MCB and OI	14	9 (64%)	13	13 (1.00)
2008	MCB and OI	8	5 (62%)	8	7 (0.88)
2009	MCB and OI	13	3 (23%)	10	1 (0.10)

Table 7. Summary of South Core Banks Oystercatcher Reproductive Success Data from 2000 to 2009

Year	Island	#Nests	#Nests Hatched	# Pairs (nesting)	#Chicks fledged
2000	South Core Banks	39	18 (46%)	22	8 (0.36)
2001	South Core Banks	57	8 (14%)	24	1 (0.04)
2002	South Core Banks	44	5 (11%)	22	1 (0.04)
2003	South Core Banks	59	9(15%)	21	6 (0.28)
2004	South Core Banks	31	13 (42%)	20	6 (0.30)
2005	South Core Banks	27	9 (33%)	22	3 (0.14)
2006	South Core Banks	31	6(19%)	19	10 (0.53)
2007	South Core Banks	41	4(21%)	21	4(0.19)
2008	South Core Banks	44	5 (11%)	24	5 (0.21)
2009	South Core Banks	30	11(37%)	22	11 (0.50)

Table 8. Summary of Shackleford Banks Oystercatcher Reproductive Success Data from 2003 to 2009

Year	Island	#Nests	#Nests Hatched	# Pairs (nesting)	#Chicks fledged
2003	Shackleford Banks	10	1 (10%)	7	unknown
2004	Shackleford Banks	7	unknown	6	At least 1
2005	Shackleford Banks	10	1 (10%)	8	0 (0.00)
2006	Shackleford Banks	11	1 (9%)	9	0 (0.00)
2007	Shackleford Banks	12	0 (0%)	10	0 (0.00)
2008	Shackleford Banks	17	3 (18%)	11	0 (0.00)
2009	Shackleford Banks	13	2 (15%)	10	2 (0.20)

Banding

Nineteen chicks were captured and banded in the park by a NCSU researcher. Park staff recorded band resights of individuals and nesting pairs in the seashore throughout the summer. Of the 61 nesting pairs 25 pairs had at least one of the pair banded, while 24 pairs were unbanded, and 12 pairs were unknown. NCB had 20 individuals banded and 23 individuals unbanded. Unfortunately NCB had 15 individuals with unknown band status. SCB had 20 individuals banded and 24 individuals unbanded. SB had one banded individual and 19 unbanded birds. See appendix 1 for nesting pair re-sight data and 2009 chick band data. Details on oystercatcher band combinations can be found at the website: <http://www.ncsu.edu/project/grsmgis/AMOY/Banding.htm>

Winter Counts

Winter flock counts of roosting American Oystercatchers will be conducted in January of 2010. There are two main roost sites of the soundside of Shackleford Banks. One is at Bottle Run Point and Whale Creek Bay area. The other soundside roost site is on the east end of Shackleford on a small marsh island. There is also a small winter roost site on SCB at the Ophelia inlet mudflats.

Discussion

Significant geological changes took place in late winter of 2009 that affected the monitoring and management of American Oystercatchers on the Core Banks. Both Old Drum Inlet and New Drum Inlet closed naturally in March. This joined the previously isolated 3.5 miles of Middle Core Banks and Ophelia Island to North Core Banks and provided for vehicle access down to Ophelia Inlet. The breeding seasons from 2000 to 2008 on Middle Core Banks experienced little recreational disturbance and reduced predation levels as a 3 mile separate island. Ophelia Island, from 2006 to 2008 breeding season, similarly was isolated for three breeding season until New Drum Inlet closed. The hatch rates and fledgling success in this area was the highest in the Seashore during those years of isolation, Table 6. In 2008 seven oystercatcher chicks fledged from mile 19 to mile 22.5 while only one chick fledged in 2009 from this same area. This oystercatcher chick was in a section of beach closed to vehicle traffic for piping plover chicks at New Drum Inlet. The two other oystercatcher nests that hatched chicks in this 3.5 mile stretch did not survive. While signs were posted to slow traffic and warn drivers of the presence of bird chicks, the chicks were routinely in tire ruts on the open beach and disappeared over time. There is not a backroad in this area and is currently unsuitable for a trail due to extensive nesting habitat behind the low primary dunes.

Additional backroad trail and ramps were created for North Core Banks in 2009 from mile 9 to mile 7 and from mile 6 to mile 4. This addition to the backroad trail facilitates traffic flow around closed sections of beach for oystercatcher chicks.

In late 2008 and early 2009, 149 raccoons were removed from South Core Banks as part of an experimental removal and predator study by North Carolina State University. Raccoons have been a consistent nest predator over the years. This removal appeared to benefit the nesting success on SCB this year. The nest hatching success of 37% was the highest since Hurricane Isabel's effect on habitat and predators (42% success in 2004). A total of 11 fledglings were produced on SCB in 2009 (Table 7). This is the highest number of fledglings for SCB since monitoring began in 1995. Other factors beside predator removal, such as the lack of spring storm loss in 2009 and chick protection from vehicle mortality since 2005, probably contributed to this record high.

Hatch rates in 2009 varied throughout the park. Hatch success rates were 18% on North Core Banks, 37% on South Core Banks and 15% on Shackleford Banks. Predators, flooding, and human disturbance were the known causes of some nest losses. Eighteen nests were known lost to predators, 11 on North Core Banks and 7 on South Core Banks. Primary predators include raccoons, feral cats, and ghost crabs. A June high tide flooding event washed 2 nests away on NCB. The cause of failure for 39 nests was unknown. There were two human disturbance related nest failures. One nest on North Core Banks (nest 36) was disturbed when a visitor found an egg on the open beach and moved it to the top of a nearby dune. The adults abandoned the nest site. On Shackleford Banks a posted nest site was vandalized and the eggs apparently removed (nest 8). This happened over a holiday weekend on the busy west end. This same nesting pair had footprints inside their previous nesting attempt closure earlier in the season, but the nest may have been lost to other reasons so it was classified as an unknown nest loss.

There was one confirmed incidence of chick mortality due to vehicles documented on South Core Banks. Nest 20 at mile 38.51 hatched two chicks on June 8. Unfortunately signs were not posted before the hatch and a chick was found dead in a tire rut by the nest. The beach was closed with a backroad detour and the second chick survived to fledge.

Fledging success in the park was 0.34 chicks per nesting pair with a large variance by island. Fledgling success rates were 0.28 on NCB, 0.50 on SCB, and 0.20 on SB. Shackleford Banks continues to have low fledge success (Table 8). The average age of chicks fledging in 2009 from 14 broods was 42 days from the hatch date. The range of fledging age was from 36 days to 52 days (appendix 1).

Figure 1.

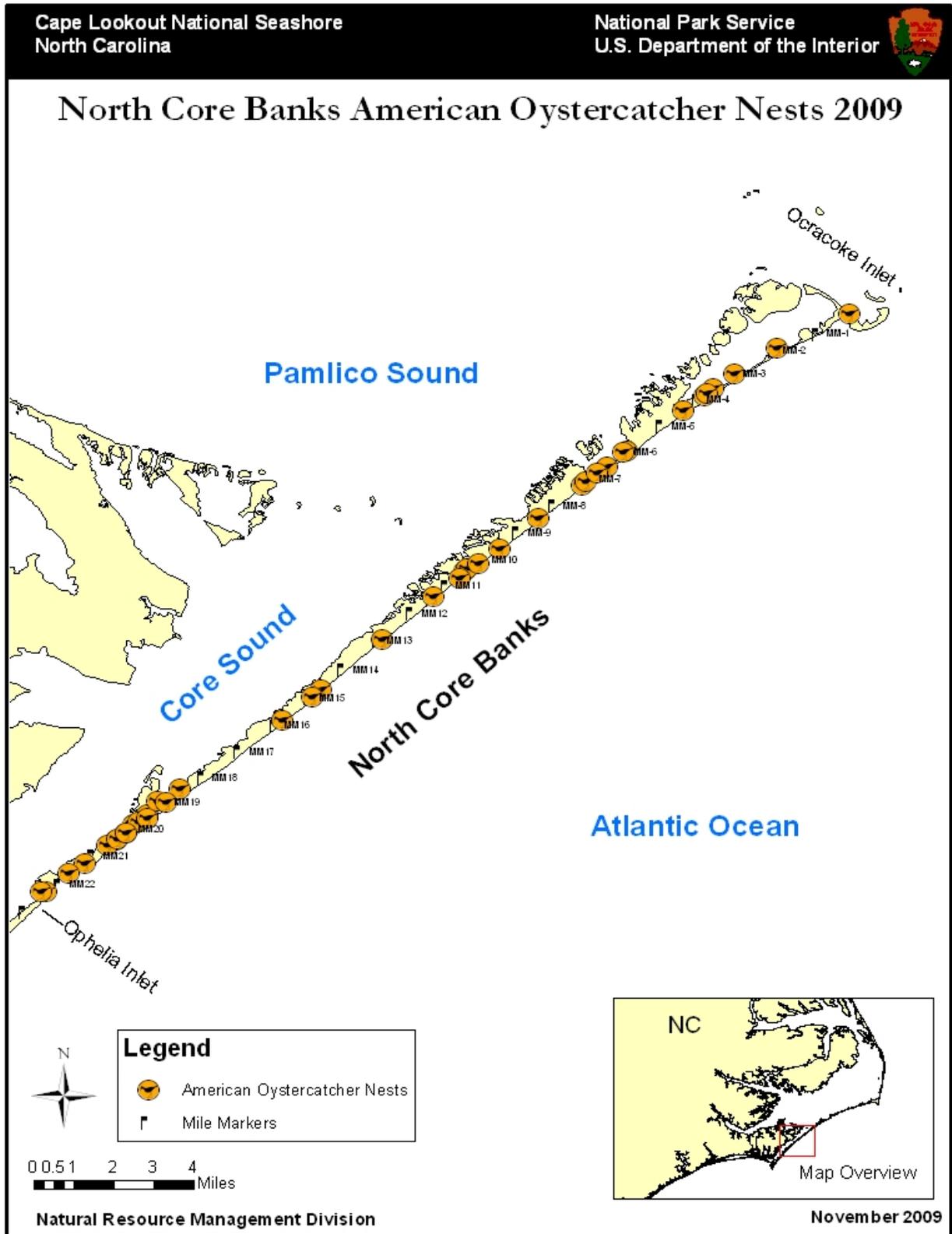
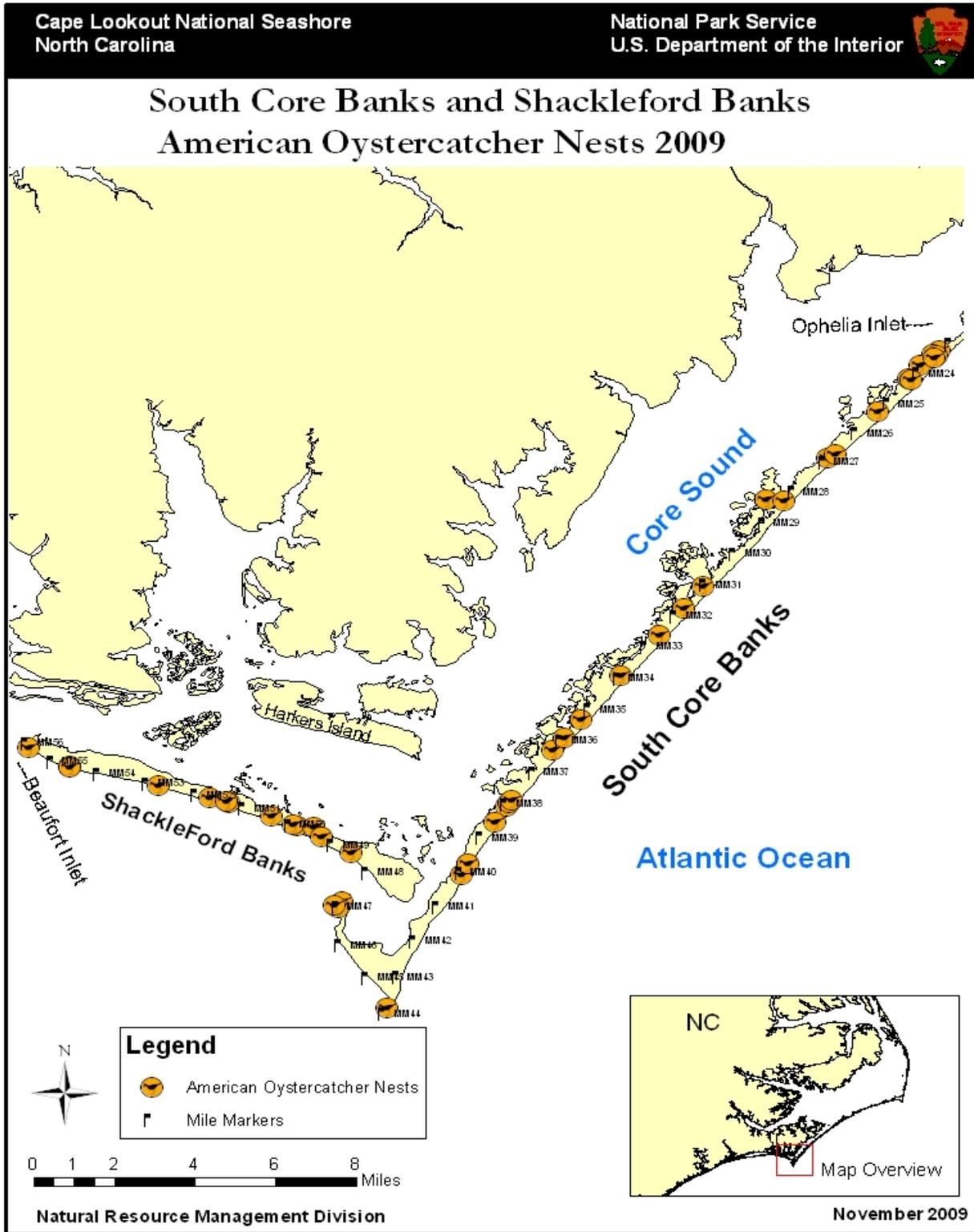


Figure 2.



APPENDIX 1A

AMERICAN OYSTERCATCHER NESTS- NORTH CORE BANKS-2009

Nest #	Pair #	BANDS	MILE	LOCATION	FOUND	EGGS	POSTED	COMMENTS
1	1	G(04):G(73)	9.18	open beach	4/28/2009	3	yes	7/2 two chicks banded G (CC) and G (CF), fledge 42 days
2	2	UNB:UNB	22.34	shell flat in dunes	4/28/2009	2	yes	chick not banded, 38 day fledge
3	3	unknown	19.48	shell flat in dunes	4/29/2009	3	no	5/11 nest lost, unknown, scrape disturbed by predator?
4	4	UNB:UNB	7.24	toe of dune	4/29/2009	2	yes	5/10 nest lost, unknown, scrape filled in by wind
5	5	G(C1):G(F3)	5.96	shelly flat	5/4/2009	3	yes	7/2 chicks banded G (CE) and G (CH), fledge 44 days
6	6	G(AO):R,S	6.06	shelly flat	5/4/2009	3	yes	7/7 banded one chick G (CJ), fledge 45 days
7	7	unknown	19.13	soundside beach	5/5/2009	3	no	5/30 nest failure, unknown
8	8	UNB:?	20.39	toe of dune	5/5/2009	3	yes	5/7 nest lost to raccoon
9	9	UNB:?	18.56	soundside beach	5/5/2009	3	yes	6/6 nest lost, avian predation
10	10	G(37):S,B	3.82	shelly flat	5/6/2009	3	yes	5/30 nest sanded in, no eggs, unknown
11	11	UNB:G(F1)	3.59	shelly flat	5/6/2009	3	yes	6/2 nest failure, unknown
12	12	UNB:UNB	21.28	shelly flat	5/7/2009	3	yes	chicks at surf line and in traffic/ tire ruts, by 7/2 chicks lost
13	13	UNB:UNB	19.87	shell flat in dunes	5/7/2009	3	no	5/20 nest lost, unknown
14	14	UNB:UNK	19.74	shell flat in dunes	5/7/2009	3	no	nest lost by 5/20, unknown
15	15	G(F5):UNB	6.53	shelly flat	5/11/2009	3	yes	5/26 nest lost, unknown
16	16	UNB:UNB	20.62	shell flat in dunes	5/11/2009	3	no	nest lost by 5/26, crushed egg shells in scrape, predator
17	17	G(?):UNB	3.03	shelly flat	5/12/2009	3	yes	nest confirmed lost by 5/21
18	18	G(AU):r,S	11.4	behind dune	5/13/2009	3	no	6/2 nest lost to raccoon
19	19	G(H3):UNB	10.5	beside backroad	5/13/2009	2	no	5/23 nest lost, unknown
20	20	UNB:UNB	22.43	on sand hump	5/14/2009	3	no	5/22 nest lost to raccoon
21	21	unknown	14.7	toe of dune	5/16/2009	1	yes	5/17 egg gone, unknown
22	22	UNB:G(HI)	4.42	open beach	5/19/2009	2	yes	6/2 egg yolk in sand raccoon tracks or cat tracks near nest
23	4	UNB:UNB	7.1	open beach	5/19/2009	2	yes	6/5 0 eggs, ghost crab, hole near nest and egg shell
24	23	G(30):UNB	10.4	beside backroad	5/20/2009	3	no	5/23 nest lost, nutria tracks in and around nest, unknown
25	8	UNB:UNB	20.37	toe of dune	5/21/2009	3	yes	6/14 chicks lost, unknown, open traffic area
26	24	unknown	21.7	soundside beach	5/21/2009	3	yes	6/21 sand in nest, no adult attention, nest abandoned
27	25	G(F4):S	8.4	toe of dune	5/23/2009	3	yes	6/7 predated, predator unknown
28	23	G(30):UNB	10.3	shell flat in dunes	6/1/2009	3	no	6/16, nest loss to unknown predation
29	26	G(F6):UNK	0.18	shelly flat	6/2/2009	2	yes	6/3 lost unknown
30	27	UNB:UNB	2.71	shelly flat	6/2/2009	2	yes	6/10 lost by, unknown
31	13	UNB:UNK	20.1	open beach	6/4/2009	1	yes	6/25 1 egg sanded in, nest abandoned
32	15	unknown	6.78	shelly flat	6/7/2009	3	yes	6/15 lost to feral cat , cat tracks in nest scrape, eggs gone

33	21	unknown	14.9	open beach	6/7/2009	2	yes	6/15 nest lost, unknown, one adult band might be G (F1)
34	28	G?:UNK	12.9	open beach	6/11/2009	1	yes	6/24 lost to tide wash out
35	19	G(H3):UNB	10.68	open beach	6/11/2009	2	yes	chick not banded, fledge 52 days
36	29	unknown	15.85	open beach	6/11/2009	1	no	6/11 visitor found egg in tire rut, moved it to dune
37	3	unknown	19.55	open beach	6/17/2009	1	yes	lost by 6/21, unknown
38	11	G(F1):UNB	3.77	open beach	6/18/2009	3	yes	6/23 lost to tide wash out
39	9	UNB:?	18.97	shelly flat	6/20/2009	3	yes	6/22/ lost unknown,
40	23	G(30):UNB	10.14	open beach	7/8/2009	1	yes	7/25 egg gone, ghost crab tracks and bit of shell

29 nesting pairs, 40 nests, 7 hatched, 8 chicks fledged

APPENDIX 1B

AMERICAN OYSTERCATCHER NESTS- SOUTH CORE BANKS-2009

Nest #	Pair #	BANDS	MILE	LOCATION	FOUND	EGGS	POSTED	COMMENTS
1	1	G (I6): UNB	43.83	small dune	4/15/2009	3	yes	6/8 banded chick G(CP), closure west side of point, 44 day
2	2	G(R8):O,O,S	38.06	small dune	4/23/2009	3	yes	6/20 chick banded G(CY), 40 day fledge
3	3	UNB : UNB	40.03	toe of dune	4/23/2009	3	yes	6/24 chicks banded G(HP) and G(HR), 42 day fledge
4	4	G(AP):G(AR)	33.93	shell flat behind dunes	4/24/2009	3	no	chick lost 6/30, raccoon tracks with AMOY tracks on beach
5	5	G (AJ) : UNB	28.28	unknown	4/26/2009	1	no	4/28 raccoon predation
6	6	UR-R : UNB	36.32	west of backroad	4/27/2009	3	no	UR-R is female, 5/17 lost to raccoon predation
7	7	UNB : UNB	23.3	overwash pass/ flat	4/28/2009	3	yes	6/18 chick lost unknown
8	8	G(AL):G(AK)	23.46	overwash pass/flat	4/28/2009	3	yes	5/6 nest lost unknown
9	9	UNB : UNB	47.17	on dune	5/1/2009	3	yes	5/16 nest lost, unknown
10	10	UNB : UNB	23.85	shell flat	5/2/2009	4	yes	5/30 nest lost, mammalian depredation
11	11	G(AM):G(AN)	32.61	toe of dune	5/4/2009	2	yes	6/24 chicks lost, mink tracks at dune with AMOY tracks
12	12	G (33) : UNB	24.26	shell flat	5/5/2009	2	yes	5/23 nest lost, yolky sand near nest, raccoon tracks in area
13	13	G (K0) : UNB	31.7	behind dune	5/5/2009	3	no	6/6 nest/chicks? Lost, unknown
14	14	UNB : G (L2)	39.73	toe of dune	5/6/2009	3	yes	5/19 nest lost, very windy, no tracks
15	15	G (J9) : UNB	37.94	toe of dune	5/6/2009	3	yes	5/27 nest lost, broken egg at tideline, avian predation?
16	16	UNB : UNB	47.03	on dune	5/8/2009	3	yes	5/18 nest lost, unknown
17	17	G(M1):G (J0)	35.34	behind dune	5/8/2009	3	no	7/8 chicks banded, G (UA) and G (UC), 37 day fledge
18	18	UNB : UNB	26.89	shell flat behind dunes	5/10/2009	3	no	6/1 nest lost, unknown
19	19	G(P4):G(J3)	25.32	west of backroad	5/12/2009	2	no	5/17 nest lost, unknown
20	20	UNB : UNB	38.51	toe of dune	5/12/2009	2	yes	6/8 1 chick dead in tire track, 1 chick G (UE),41 day fledge
21	21	UNB : UNB	31.08	shell flat behind dunes	5/14/2009	3	no	7/17 banded chick G (UF),39 day fledge
22	22	O,B,B/S:UNB	28.3	behind dune	5/14/2009	2	no	6/4 raccoon predation
23	6	UR-R : UNB	35.9	behind dune	5/25/2009	3	yes	7/25 2 chicks banded G(UJ) and G (UK), 40 day fledge
24	8	G(AL):G (AK)	23.41	toe of dune	5/30/2009	3	yes	6/9 broken in half egg, ghost crab hole in remains of nest
25	16	UNB : UNB	47.13	on dune	6/3/2009	2	yes	6/14 nest lost, unknown, no predator tracks near nest
26	14	G (L2) : UNB	39.73	dune shelf	6/5/2009	2	yes	6/30 1 egg ate by gull, chick banded G (UL), 36 day fledge
27	12	G (33) : UNB	24.24	toe of dune	6/9/2009	2	yes	6/16, eggs sanded in, abandoned
28	15	G (J9) : UNB	37.87	toe of dune	6/11/2009	2	yes	6/24 eggs gone, sanded over, raccoon tracks over area
29	10	UNB : UNB	23.5	front shell flat	6/13/2009	3	yes	6/18 nest lost, unknown
30	18	UNB : UNB	26.7	open beach	6/13/2009	3	yes	6/17 nest lost, unknown

22 nesting pairs, 30 nests, 11 nests hatched, 11 chicks fledged

APPENDIX 1C

AMERICAN OYSTERCATCHER NESTS- SHACKLEFORD BANKS-2009

Nest #	Pair #	BANDS	MILE	LOCATION	FOUND	EGGS	POSTED	COMMENTS
1	1	UNB:UNB	55.91	shell flat	4/24/2009	3	yes	5/26 only 1 egg in nest, no chicks seen, holiday weekend, camper 300 feet away.
2	2	UNB:UNB	52.86	dune shelf	4/24/2009	3	no	6/19 banded chicks G (CX) and G (CW)
3	3	UNB:UNB	51.37	shell flat	4/24/2009	3	no	5/1 nest lost, unknown
4	4	G(E8):UNB	54.68	shell flat	5/1/2009	3	yes	5/8 nest lost unknown, footprints in posted area
5	5	UNB:UNB	49.92	shell flat	5/1/2009	3	no	5/8 nest lost unknown
6	6	UNB:UNB	51.79	shell flat	5/8/2009	2	no	5/15 nest lost unknown
7	7	UNB:UNB	49.5	soundside	5/8/2009	3	no	6/19 nest lost unknown
8	4	G(E8):UNB	54.67	shell flat	5/15/2009	3	yes	5/26 after holiday weekend, posted signs turned around 180 degrees, human footprints near nest scrape, no eggs, no yolky sand, no adults at site
9	8	UNB:UNB	49.68	shell flat	5/22/2009	3	no	6/5 went from 3 eggs to 2ggs, human footpath by nest, 6/26 no chicks
10	9	UNB:UNB	48.64	interior grassy flat	5/26/2009	2	no	6/5 nest lost, unknown
11	5	? :UNB	49.99	shell flat	5/26/2009	3	no	6/5 nest lost, unknown
12	10	UNB:UNB	50.48	shell flat	5/26/2009	1	no	6/5 nest lost, unknown
13	3	UNB:UNB	51.44	behind dune	5/26/2009	1	no	6/5 nest lost, unknown

10 nesting pairs, 13 nests, 2 nests hatched, 2 chicks fledged

