Update on American Oystercatcher Breeding Distribution and Population Estimate in North Carolina

Sue Cameron NC Wildlife Resources Commission

Introduction

- State listed as significantly rare and proposed for upgrade to species of special concern
- Only just beginning to collect coast-wide population and distribution data
 - first coast-wide survey conducted in 2004
 - second survey conducted in 2007
- Prior to 2004, breeding surveys have been focused at just a few sites
 - complete surveys along Cape Hatteras National Seashore beginning in 1999
 - complete surveys along Cape Lookout National Seashore beginning in 1998

Methods

- ➤ Conducted in conjunction with this year's colonial waterbird surveys and piping plover surveys (from late April mid June)
- Covered barrier island beaches and estuarine islands
- Counted all pairs and individual birds
- Large effort by biologists from several agencies and organizations (NCWRC, NC Audubon, NPS, USFWS)

General Description of Coast

- NC's coastline extends approximately 311 miles from VA to SC
- > NC has distinct northern and southern regions
 - North of Cape Lookout characterized by large back barrier sounds and long barrier islands with few inlets
 - South of Cape Lookout characterized by small back barrier sounds and short barrier islands with numerous inlets
- ➤ From Morehead City south is a chain of dredge islands created during the construction on the AIWW in the 1930s
- Groups of dredge islands also clustered around inlets and in the Cape Fear River
- Shell rakes present along estuaries south of Morehead City

2007 Survey Results

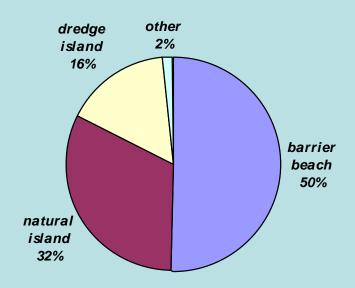
- > A total of 717 birds counted
 - ➤ 339 pairs (318 territorial pairs, 21 non-territorial pairs)
 - ➤ 39 individuals (including flock of sub-adults at mouth of Shallotte River)

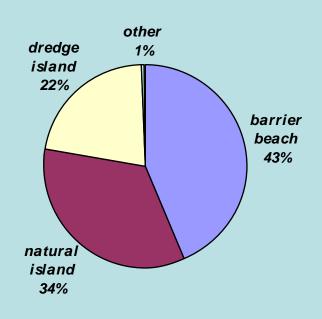
American Oystercatcher Population Estimates, 2004 and 2007

Year	# Pairs	# Singles	Total Birds
2004	337	27	701
2007	339	39	717

American Oystercatcher Distribution by Habitat

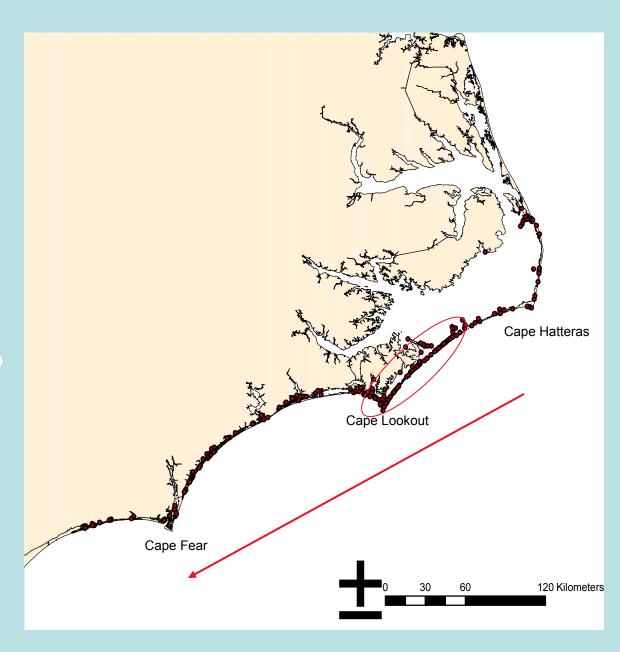




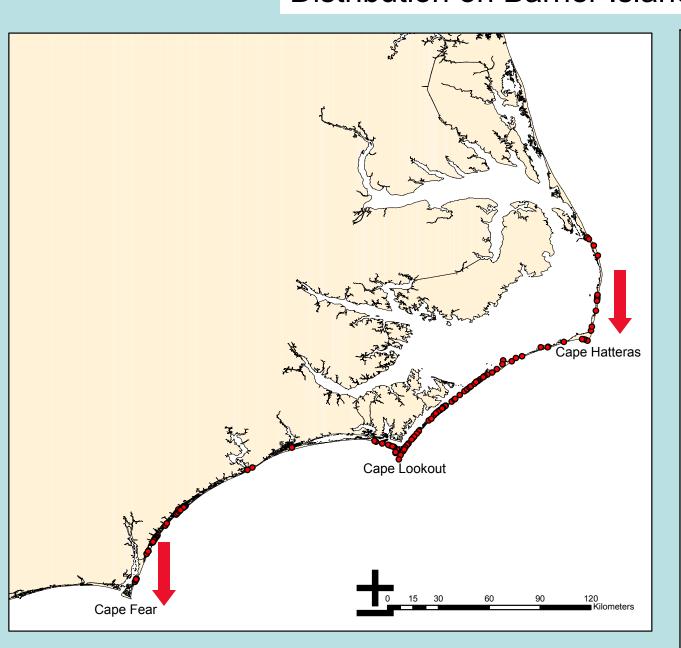


Distribution

- Majority found from Carteret Co. South
- ➤ 40% on remaining undeveloped barrier islands with nearly 20% on Cape Lookout National Seashore
- ≻Concentrated near inlets



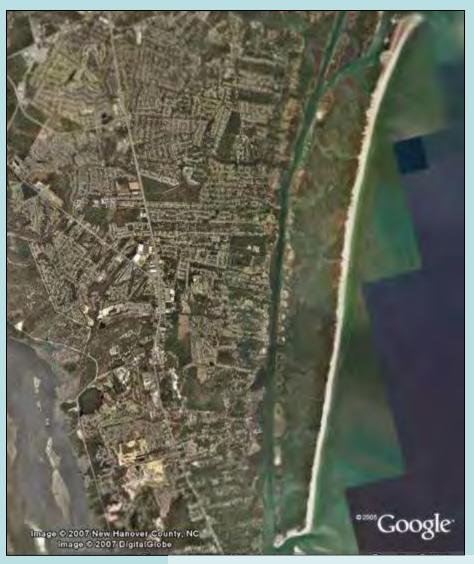
Distribution on Barrier Islands



Bodie Island		2
Hatteras Island CHNS		20
Ocracoke Island	7	
North Core Bank	19	
Middle Core Ban	13	
South Core Bank	22	
Shackleford Ban	10	
Bogue Banks	1	
Bear Island	0	
Onslow Beach	2	
Topsail Island	0	
Lea/Hutaff Island	12	
Figure 8 Island	3	
Wrightsville Bead	4	
Masonboro Islan	15	
Ft. Fisher/Bald H	•	
Island	8	
Oak Island	0	
Holden Beach	0	
Ocean Isle	0	
Sunset Beach	0	
Total	138	

Masonboro Is.

Ft. Fisher SRA





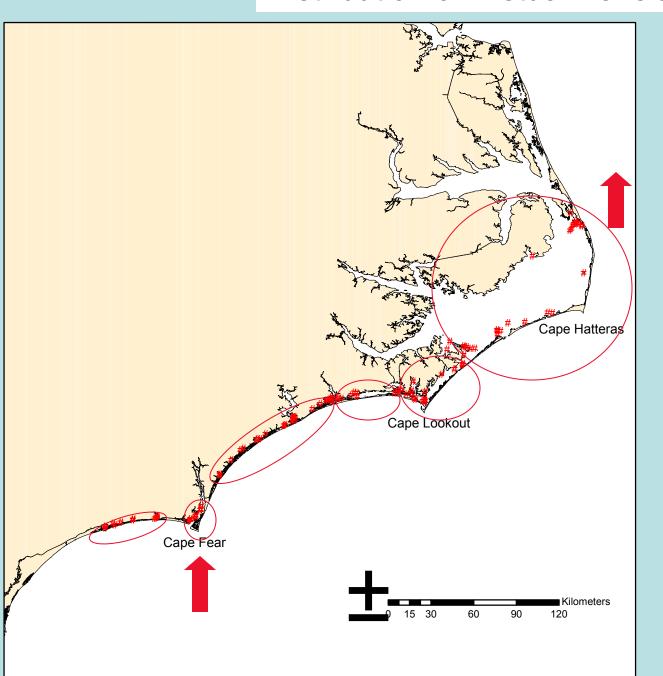
Declines as Masonboro Is. and Ft. Fisher State Recreation Area

- ➤ human disturbance, mammalian predators
- ➤ birds done nesting by 1st week in June

Predator Control at State Parks/NERRs Sites

- ➤ Camera monitoring @ Ft. Fisher
- ➤ Possible management next year

Distribution on Estuarine Islands



Pamlico/Croatan Sound	41
Core/Back Sound	32
Bogue Sound	21
AIWW Onslow - Pender Co.	31
Cape Few River	37
AIWW Brunswick County	15
Total	177

Future Work

- Repeat coast-wide surveys every three years so can begin assessing state-wide trends in abundance and distribution
- Continue habitat management
 - ➤ Barrier islands
 - ➤ Improve quality of habitat
 - ➤ Work with towns to minimize/mitigate impacts of beach stabilization projects

Beach Stabilization Projects

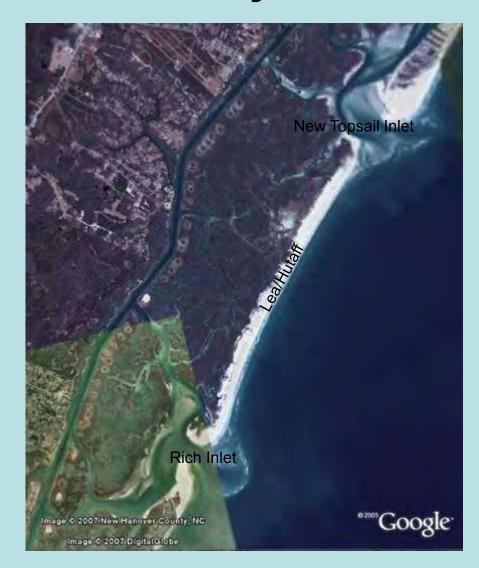
- Seeing an increase in projects that will impact inlets
- Past channel relocation projects at Bogue Inlet and Mason Inlet
 - Potential benefits mitigation for both of these projects
 - N. end Wrightsville Beach managed by NC Audubon4 prs. AMOYs





Beach Stabilization Projects

- In the works channel relocation projects at New River Inlet and Rich Inlet
- Towns also looking at inlets as sand sources – New Topsail Inlet, mouth of Cape Fear, etc.
- Concerned about impacts to adjacent areas (e.g. Lea/Hutaff bounded by Rich and New Topsail Inlets)



Future Work

- Repeat coast-wide surveys every three years so can begin assessing state-wide trends in abundance and distribution
- Continue habitat management
 - > Barrier islands
 - > Improve quality of habitat on barrier beaches
 - ➤ Work with towns to minimize/mitigate impacts of beach stabilization projects
 - ➤ Dredged-material islands
 - ➤ Work with US Army Corps of Engineers to direct timing and placement of material



Management of dredged-material islands



Acknowledgments

- We are especially grateful to Walker Golder and staff with NC Audubon for all of their help with this summer's breeding surveys
- Special thanks to biologists at Cape Hatteras National Seashore and Cape Lookout National Seashore and to Shiloh Schulte of NC State University for providing their breeding data
- Many thanks also to staff of various State Parks, USFWS, NCWRC and to the many volunteers who contributed to survey efforts