North Carolina 2023 Update



LINDSAY ADDISON COASTAL BIOLOGIST

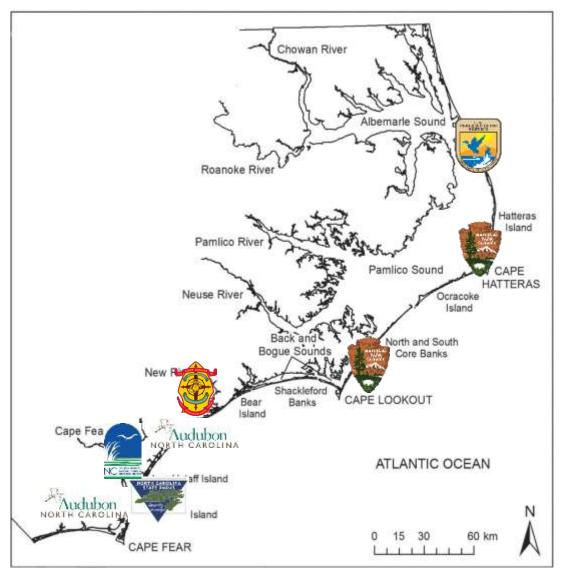




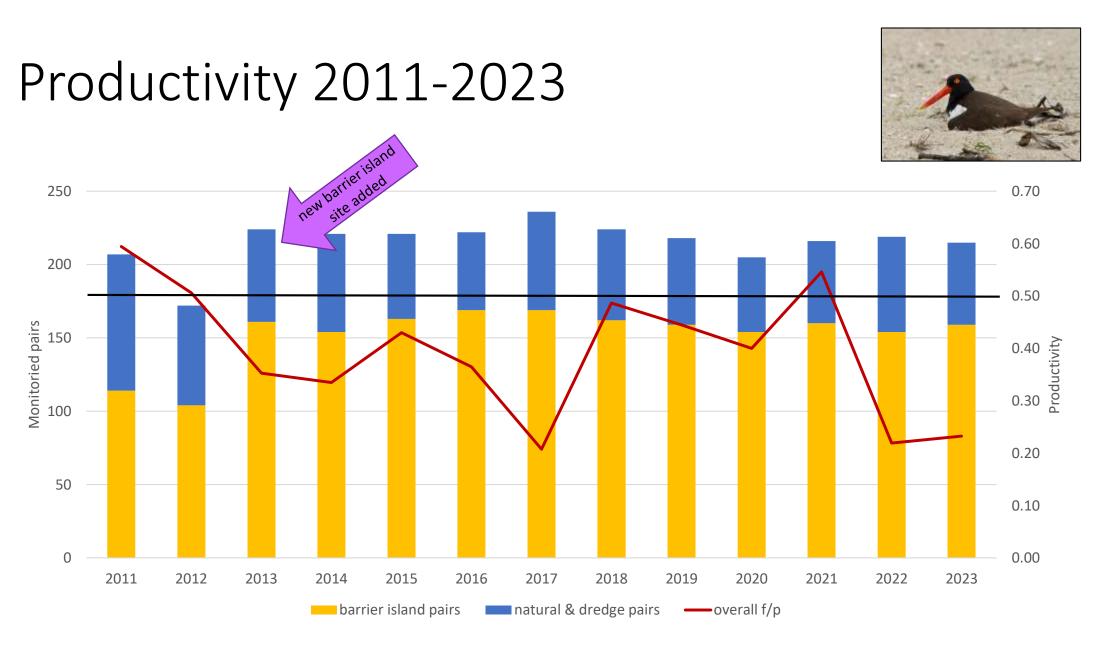
AMOY Partners in NC



Annual Productivity Monitoring

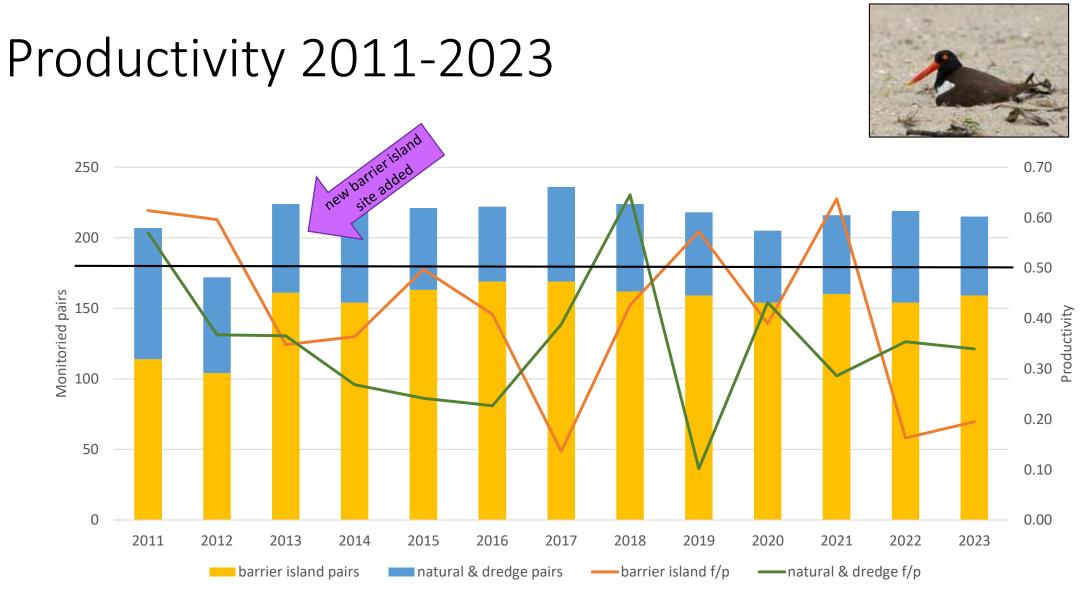


- Pea Island National Wildlife Refuge
- Cape Hatteras and Cape Lookout National Seashores
- Hammocks Beach State Park (Bear Island)
- Onslow Beach
- Lea-Hutaff Island, Inlets and Wrightsville Beach
- Masonboro Island
- Fort Fisher State Recreation Area
- Cape Fear River Islands



Across all years: mean pairs monitored = 215 / mean productivity = 0.39

10



Across all years:

mean barrier pairs monitored = 152 mean other pairs monitored = 63 mean barrier productivity = 0.41 mean other productivity = 0.35

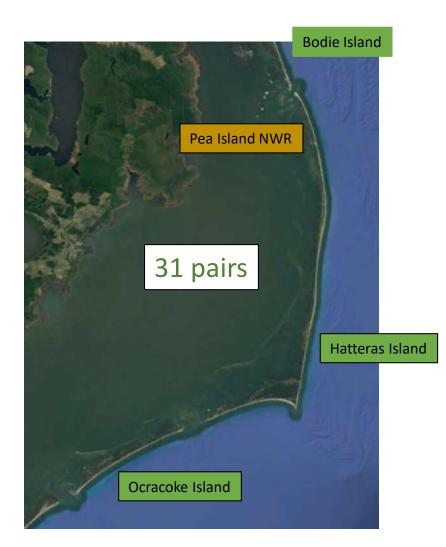
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Cape Lookout National Seashore



- 20% increase in breeding confirmed pairs (45 -> 55) and additional prospecting pairs
- Possibly dividends from bumper 2021 season
- Coyotes a major problem on Shackleford and South Core
- North Core continues to present access issues and challenges for chick management but improved habitat

Cape Hatteras National Seashore



- Coyote depredation main cause of egg and chick loss, plus mesopredators and ghost crabs
- More frequent storms and high tide events combined with erosion and pooling
- Other challenges:
 - Fishing line
 - Large daily chick movements, likely from pedestrian approach
 - Hwy. 12 vehicle strikes on chicks—do others have road-adjacent chicks?

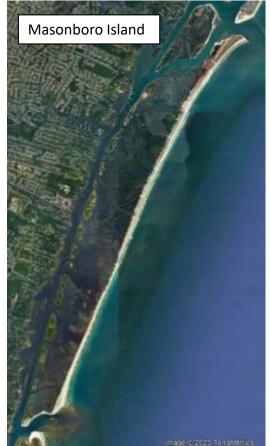


Pea Island National Wildlife Refuge



- Similar difficulties with coyotes, which impacted 50% of pairs
 - Management actions implemented in August to continue through the winter
- Storms also impacted nesting
- Continuing to have "floating pairs" with no nest found
- One pair tended a scrape for 55 days

Southern Barrier Islands



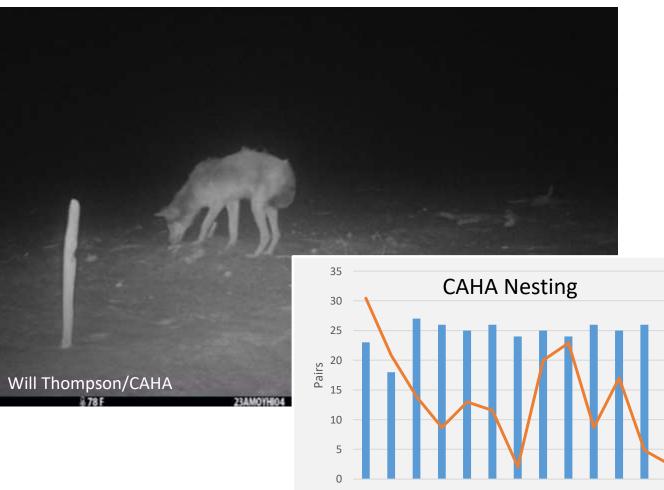


25 pairs

- Majority of nests also lost to coyotes
- Raccoons a problem when coyotes aren't
- Continuing ghost crab removal on Lea-Hutaff Island
- Eight additional pairs on other barrier islands produced no chicks

34 pairs

Coyotes: Can't Beat 'em, Study 'em



2011201220132014201520162017201820192020202120222023

pairs — f/p

1.40

1.20

1.00

0.80

0.60

0.40

0.20

0.00

f/p

- Coyotes are a significant cause of loss on all monitored barrier islands and appear to be on unmonitored barrier islands as well
- National Park Service and Pea Island NWR are partnering with NCSU to study coyotes
- Goals: population density and movement
- Radio collars at Cape Lookout National Seashore
- Capture-mark-recapture using eDNA at all sites
- (Stay tuned for other AMOYrelated science)

Non-barrier Islands



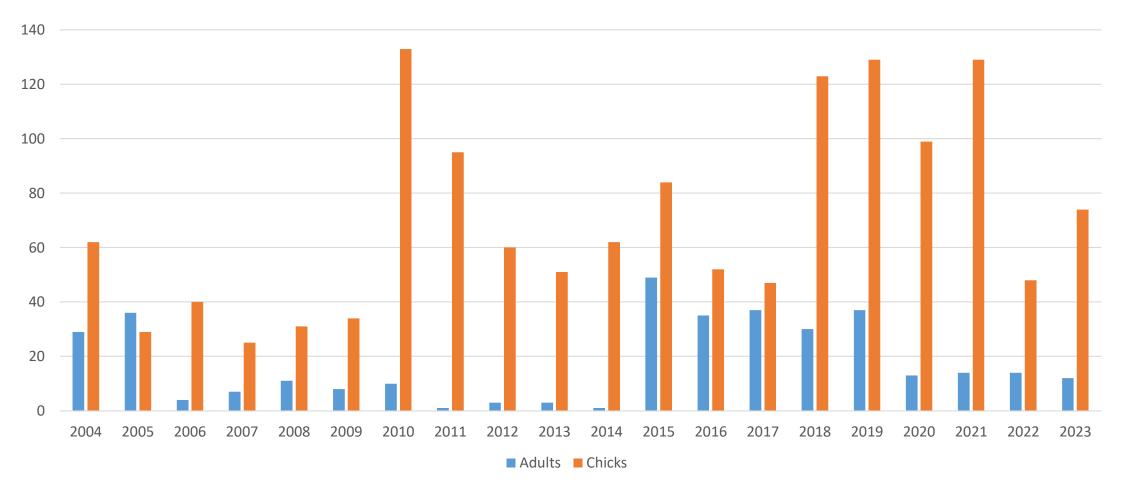


- Flooding on natural islands
- Depredation on dredge islands, but better success





Statewide Banding: 2004-2023

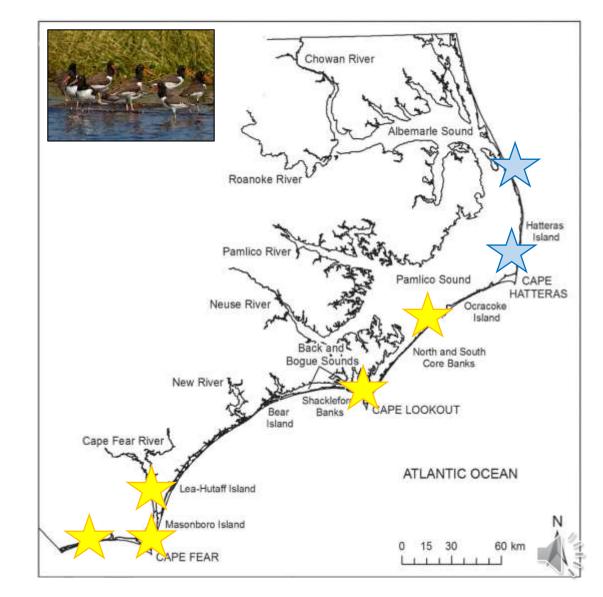


1,861 total AMOY banded in NC since 1997



Non-breeding Surveys

- Post-breeding and winter resighting on Pea Island NWR and Cape Hatteras NS
- High-tide roost surveys at five sites by Cape Lookout National Seashore, NC Coastal Reserve, and Audubon North Carolina
 - North Core Banks
 - Back Sound/Beaufort Inlet
 - Masonboro Island/Sound
 - Cape Fear River
 - Brunswick County ICW and Inlets
- Once a month Aug./Sept.-Feb./Mar.



Questions about this or the American Oystercatcher Band Database: laddison@audubon.org