Update on American Oystercatcher Reseach and Conservation in New Jersey - 2007

Todd Pover, New Jersey Division of Fish and Wildlife - Endangered and Nongame Species Program

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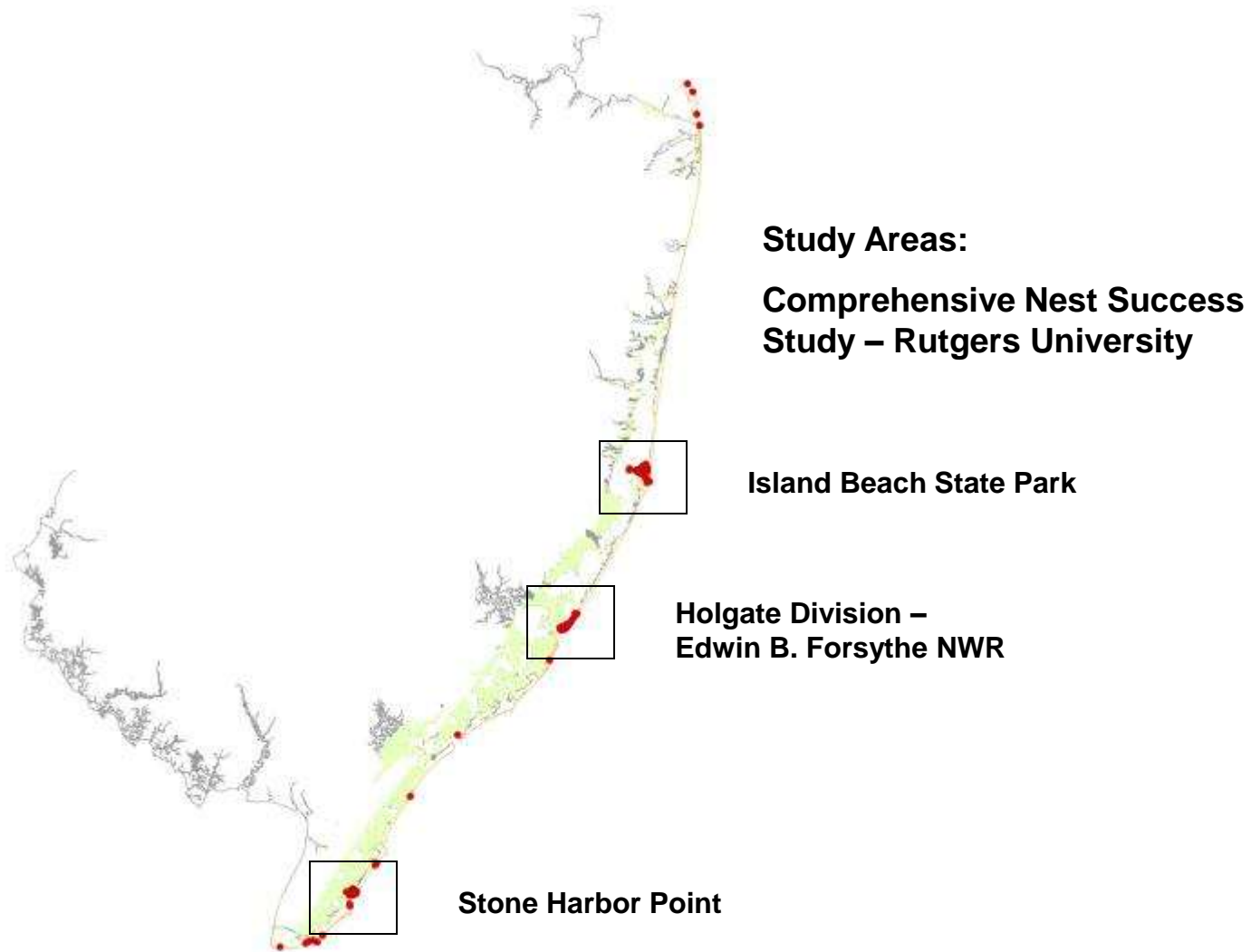
New Jersey's AMOY Efforts to Date

- Breeding surveys, including productivity monitoring, for all barrier beach strand pairs (2003-2007).

- More comprehensive (but still not statewide) survey of all Atlantic coast habitats (May 10 - June 10, 2007).

- Rutgers University (Tom Virzi) nest success study, including factors influencing productivity, across all habitat types at state's three known major breeding areas (2004-2007).

- Color banding, primarily breeding adults/fledges, following protocol of AMOY Working Group (2005-2007).

- Winter population surveys (2002, 2004, 2005, 2006).

- Protection (i.e. fencing, signage, beach closures, stewards) at breeding sites where other beach nesting birds (i.e. piping plovers, least terns) are present.

- Inclusion of GIS mapping data in state's Landscape Project - regulatory implications.
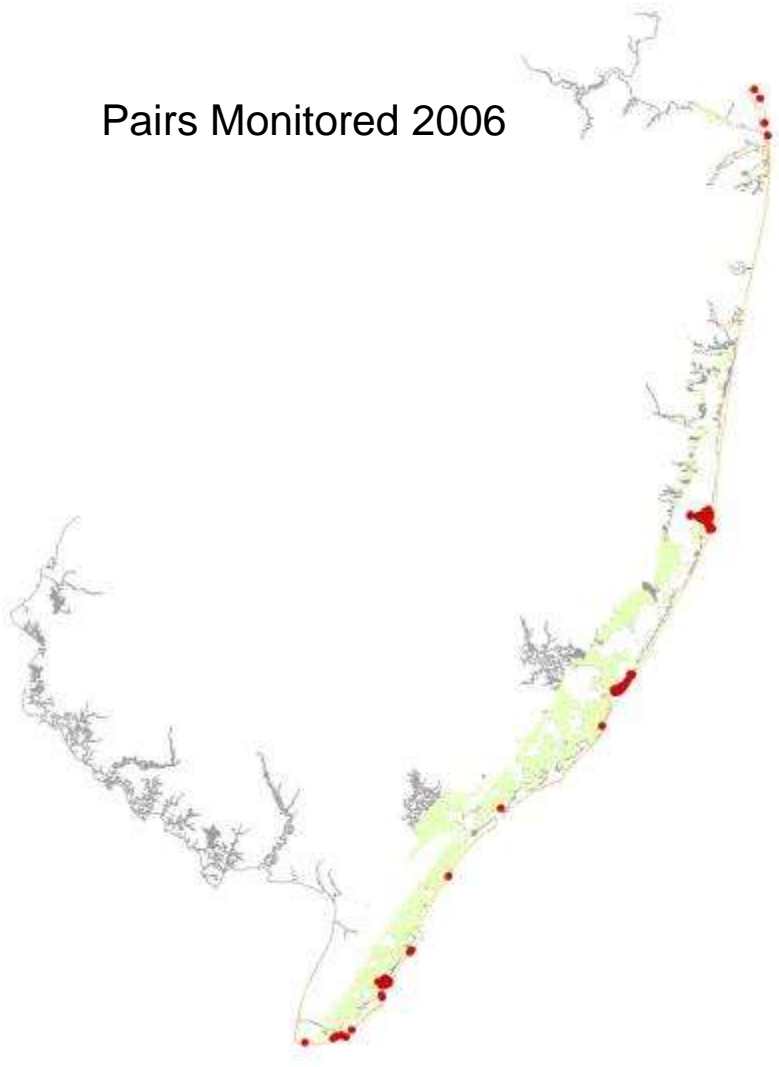
Barrier Beach Strand Breeding Population 2003-2007

	2003	2004	2005	2006	2007	AVG.
# Pairs	53	55	59	59	60	57
# Pairs Hatched	11	18	16	15	14	15
# Chicks Fledged	15	17	15	15	13	15
Pair Hatch Success	21%	33%	27%	25%	23%	26%
Fledge Rate (per pair)	.28	.31	.25	.25	.22	.26
# Sites	22	22	21	19	19	21

Oystercatcher Pairs Monitored 2006

Study Areas:

Comprehensive Nest Success Study – Rutgers University

Island Beach State Park

Holgate Division – Edwin B. Forsythe NWR
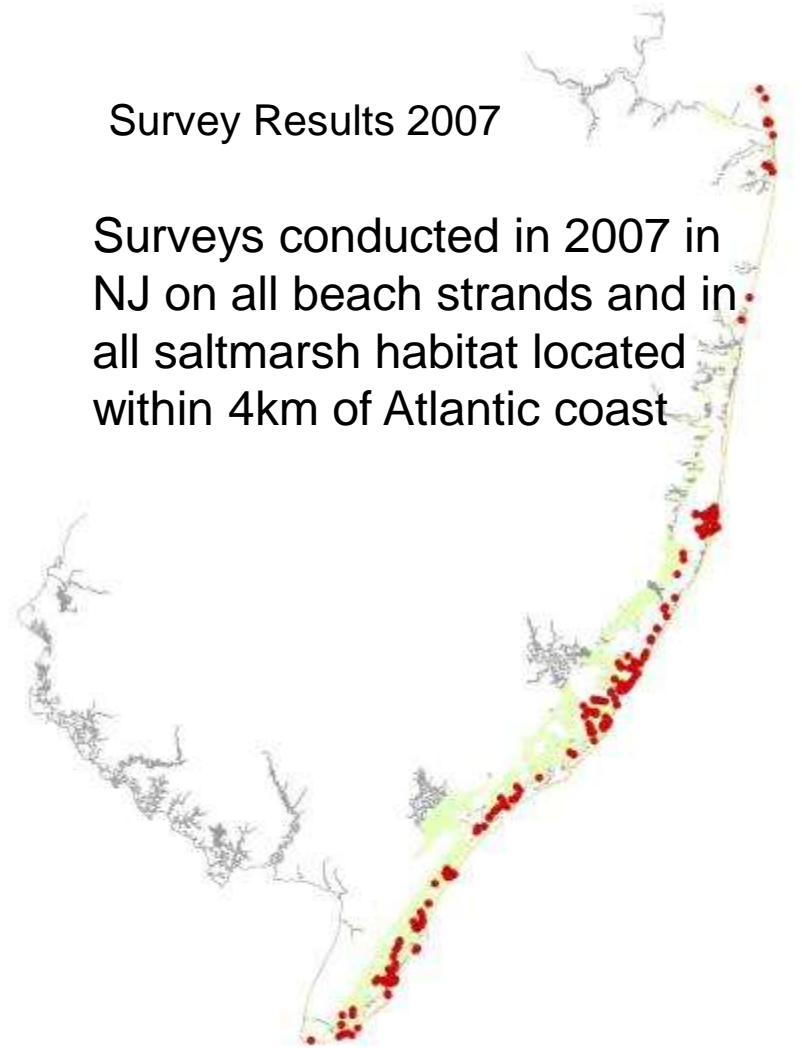
Stone Harbor Point

Oystercatcher Pairs Identified During Coastal Surveys 2007
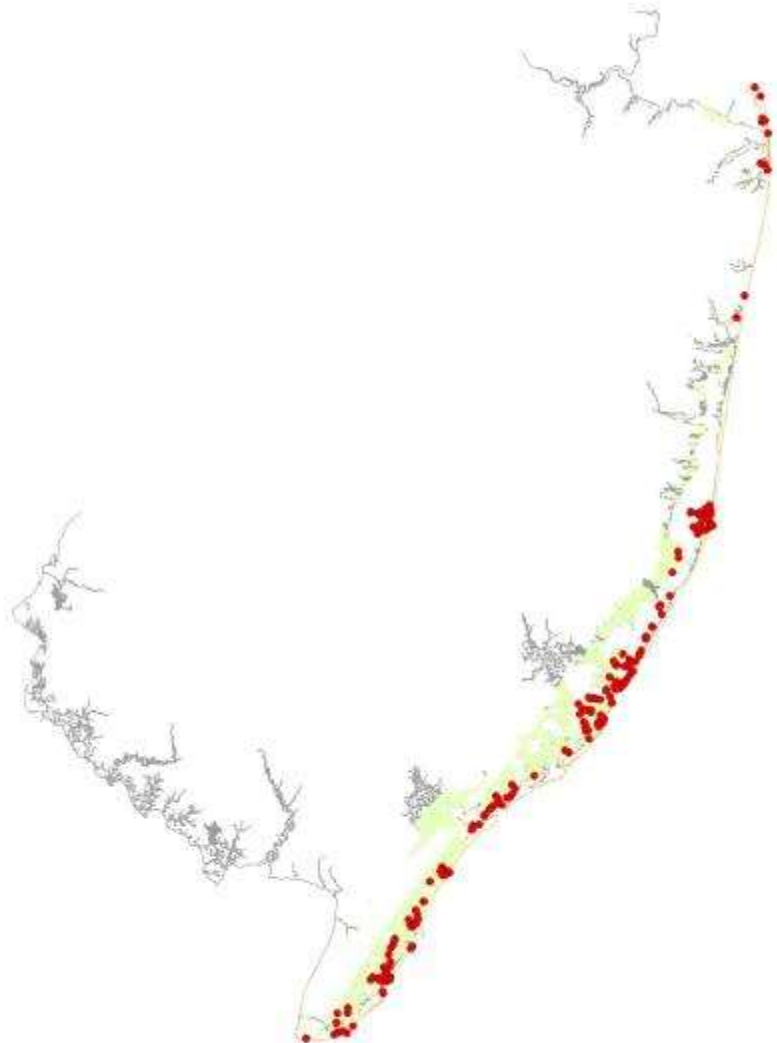
Pairs Monitored 2006

Survey Results 2007

Surveys conducted in 2007 in NJ on all beach strands and in all saltmarsh habitat located within 4km of Atlantic coast

Results of 2007 Coastal Oystercatcher Surveys

- •212 Breeding pairs identified during 2007 surveys

- •120 Pairs already monitored by ENSP and Rutgers University

- •332 Total breeding pairs identified to date in NJ

- •An additional 68 floaters or juveniles also observed

- •Most oystercatchers in NJ are breeding in saltmarsh, back-bay islands or inlet beaches (79%)

Comprehensive Nest Success Study – Rutgers University

Results of Rutgers University
Nest Success Study 2004-2007

- Monitored oystercatcher nests at 3 study sites
  - Island Beach, Holgate, Stone Harbor

- 334 Nests monitored over entire period

- Data analyzed in Program MARK
  - Stage-specific models (incubation & nestling)
  - Results reported here based on constant daily survival probabilities across years
  - Hatch success rates based on 28 day incubation period
  - Brood success rates based on 42 day fledging period
  - Nest success rate = hatch rate x brood rate

Results of Rutgers University
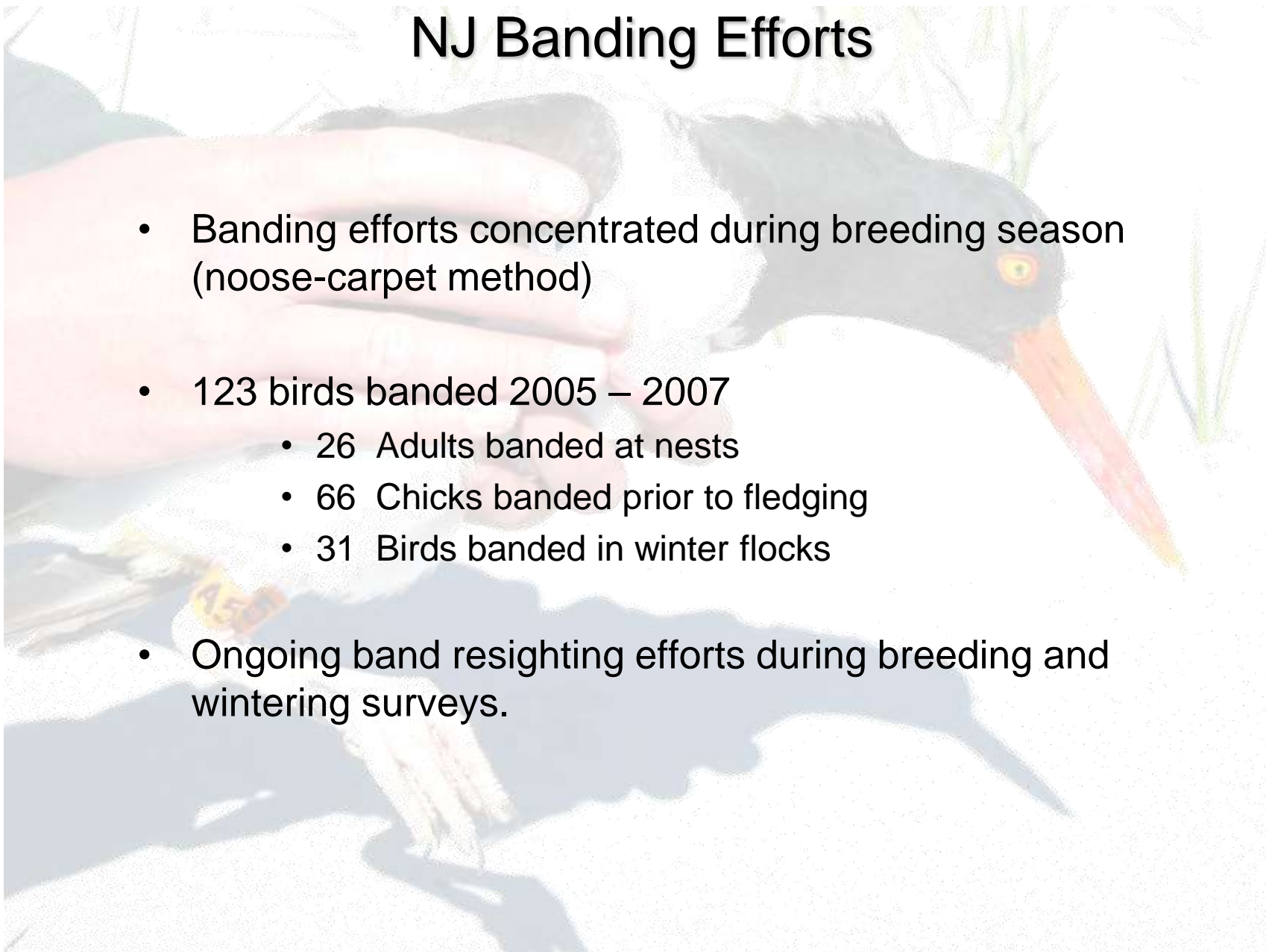## Nest Success Study 2004-2007

	2004	2005	2006	2007
Hatch Success	7.4%	20.0%	14.0%	14.9%
Brood Success	n/a	36.2%	57.3%	56.6%
Nest Success	n/a	7.2%	8.0%	8.4%

NJ Banding Efforts

NJ Banding Efforts

- Banding efforts concentrated during breeding season (noose-carpet method)

- 123 birds banded 2005 – 2007
  - 26 Adults banded at nests
  - 66 Chicks banded prior to fledging
  - 31 Birds banded in winter flocks

- Ongoing band resighting efforts during breeding and wintering surveys.

Winter Population Surveys
(Barnegat Inlet to Cape May Inlet)

Date	Year	Count	Type
Nov. 25	2002	973	aerial
Dec. 3	2004	840	aerial
Dec. 7-17	2004	807	ground
Dec. 6-16	2005	493	ground
Dec. 10-15	2006	636	ground

Significant Winter Flocks:
Absecon Inlet, Atlantic Co. (196-336 birds)
Hereford Inlet, Cape May Co. (193-370 birds)

What's Next in New Jersey?

- Comprehensive statewide breeding survey? (What year)?
- Banding efforts will be substantially increased during 2008 breeding season by Rutgers University.
- Continuation of research by Rutgers University beyond 2008?
- Research ideas: foraging studies; better understanding of dynamics of winter population.
- Protection of important breeding sites in back bay/salt marsh habitat. Protection of vulnerable migratory and wintering sites from human disturbance (especially vehicles and boats/pwc).
- Inclusion of wintering roost sites in state's Landscape Project and as part of critical coastal wildlife habitat designation.
- Keeping AMOY a priority for funding. With 50/50 match for SWG funding, budgets/projects getting closer scrutiny.

Questions? Comments?