



Shorebird Management Program

Welcome and Overview George Price, Superintendent

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Questions

Cape Cod National Seashore

National Park Service
U.S. Department of the Interior



Why:

Productivity affected by beach and predator issues

What:

Engaged USFWS in consultation

How:



Flexible management and selective predator management

Next Steps:

Evaluate pilot selective predator management

Cape Cod National Seashore

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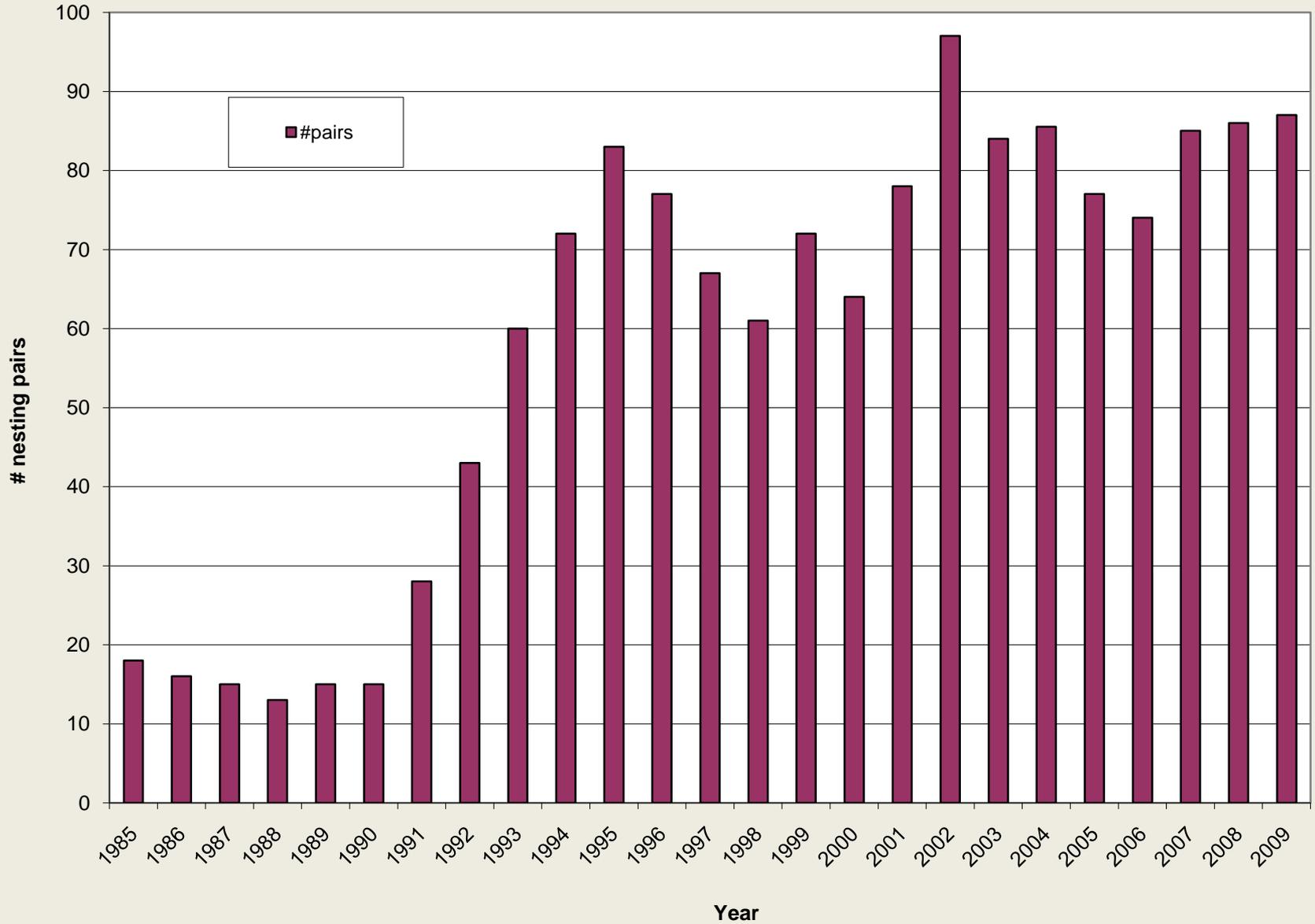


EXPERIENCE YOUR AMERICA

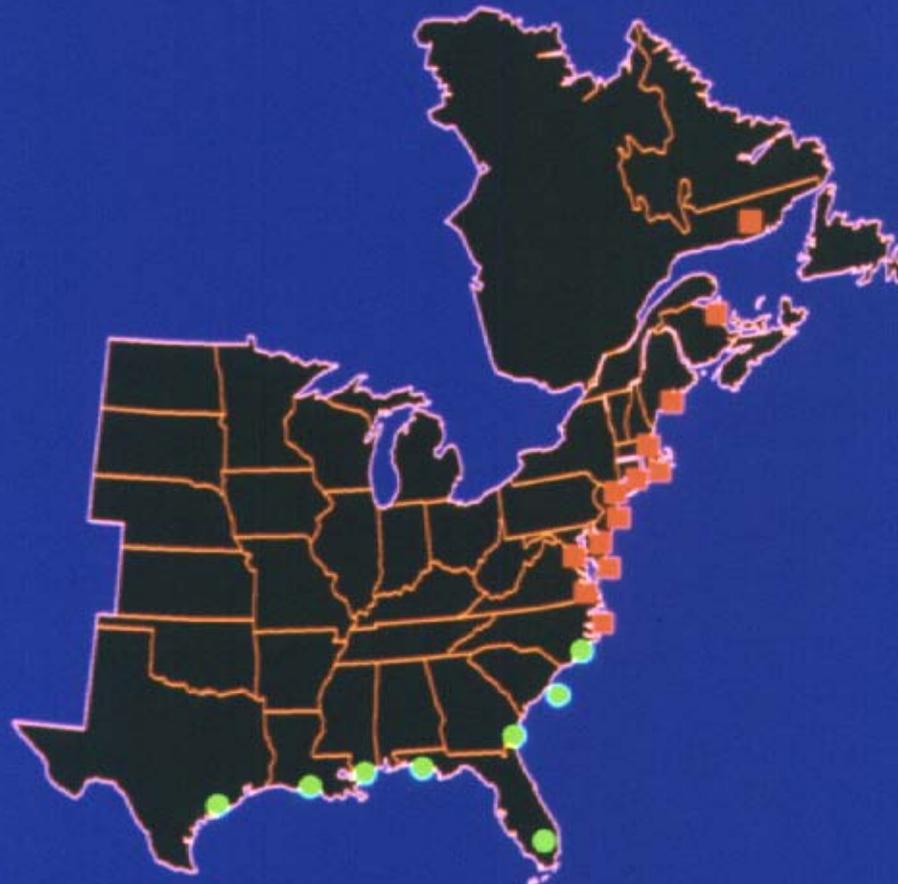
- The piping plover was listed as a federally threatened species in 1986.
- Since being listed, the Atlantic coast population has recovered from approximately 750 pairs to approximately 1900 pairs in 2008.
- In the Seashore, we had fewer than 20 nesting pairs in the 1980's, and currently experience between 80 – 90 nesting pairs.
- The Seashore provides nesting, feeding and roosting habitat for approximately 15% of the MA state population of piping plovers.



Nesting Pairs of Piping Plover at Cape Cod National Seashore 1985 - 2009



ATLANTIC COAST PIPING PLOVER – SUMMER (BREEDING) AND WINTER AREAS



■ SUMMER AREAS

● WINTER AREAS































AREA CLOSED
BIRD USE AREA

NO BIRDS NO BIRDS

DISURBANCE MAY CAUSE LOSS OF EGGS AND FOOD OR LOSS OF IMMATURE ADULTS. ENTERING AREA VIOLATES STATE AND FEDERAL LAW.

NO VEHICLES NO BIKES NO ENTRY

National Park Service
U.S. DEPARTMENT OF THE INTERIOR













NO BEACH
CROSSING

NO BEACH
CROSSING





Notice

To protect nesting shorebirds, the beach beyond this point is closed today (6/18) from 8:00am - 11:00am

At the time of this closure, please take the Nauset Marsh trail detour

Thank-you





NO PETS
BEYOND THIS POINT

NO PETS
BEYOND THIS POINT

NO PETS
BEYOND THIS POINT

NO BITE PL. PLS.
FIND BITE OR BE BITE
IMMEDIATELY

NO PETS
BEYOND THIS POINT





Marconi Beach - Mid August.

Shorebird Nesting Area









- The amount of time and supplies needed to maintain this level of protection, as well as the strain on staffing was significant.

- Exploring Solutions

Flexible Shorebird Management

- Improve balance between protection and visitation.
- Less protection at selected, high visitation beaches.
- Only a few pairs maximum affected.
- Consultation with U. S. Fish and Wildlife Service.



- Short-term displacement of a very limited number of nesting birds.

- To maintain population, will compensate by increasing productivity elsewhere.

- Best opportunity to increase productivity is to reduce predation.

- Selective predator management – in consultation with USDA.



Selective Predator Management

- Removal of *specific individuals* – not populations.
- Scientifically-based and tested.
- Successfully implemented for years.
- Has helped in the recovery of endangered shorebird species at many sites on Atlantic coast.
- Identified in the USFWS piping plover recovery plan as a critical component to shorebird management .
- Several predator species (birds and mammals) and different methods used.

Benefits of Selective Predator Management

- Will only remove individuals impacting nesting shorebirds.
- Crows eating eggs within piping plover nesting habitat will be removed.
- Only a handful of animals may be removed (10 – 12 individuals).
- Likely to allow successful first nesting attempts and early fledging of young.
- Reduce adult mortality and increase productivity.
- Implemented for years in many Atlantic coast parks that support nesting shorebirds with positive results including:

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- Cape Hatteras National Seashore, North Carolina
 - Assateague Island National Seashore, Maryland
 - Cape Lookout National Seashore, North Carolina
 - Gateway NRA, Sandy Hook and Breezy Point Units

Additional Sites in Massachusetts include:

- Crane's Beach, Ispwich
- Plymouth Long Beach
- Sandy Point State Reservation on Plum Island, Ispwich
- Monomoy National Wildlife Refuge

Over the past ten years, predation was the number one cause of piping plover nest loss.



Over the past ten years, crow predation was the leading cause of nest loss (35%)



Human actions have lead to unnaturally large crow populations





Beaches on Cape Cod no longer represent natural conditions















Increased nesting density due to habitat loss



Concentration of plovers more attractive to predators



DUCK HARBOR



- March - May
- Closed to the public with signs and fencing
- Bait stations
- Pre-baiting
- NPS will monitor eggs daily.
- USDA to replace pre-bait with eggs containing avicide DRC-1339.
- Targets individual crows consuming eggs in plover nesting areas.





Why DRC-1339?

- Selectively toxic to starlings, blackbirds, and crows.
- Only slightly affects most other birds and mammals.
- Metabolizes and breaks down quickly in the environment.
- Secondary poisoning very unlikely.
- Effects extensively researched.
- Raptors and mammals fed poisoned birds did not show any symptoms of poisoning or deaths.
- Crows generally die in a secluded location away from humans within 1-3 days.
- No other substances have been shown to be both safe and effective in actual use.

Safety and Selectivity of DRC-1339

- Total amount used 1/20th oz (less than ½ packet of sugar).
- One egg to kill a crow, 300-700 to kill a mouse.
- Application method makes consumption by non-target species unlikely.
- 90% metabolizes into less toxic substance in 2 hours.
- Half-life of 25 hours in environment. Which means the concentration in the environment reduced by roughly half each day.
- Not persistent in the environment.



Why not just a distasteful or vomit inducing substance?

- Mesurol/Methiocarb is only product registered in US for this use.

Mesurol is:

- A POISON with much broader toxicity and persistence.
- More likely to affect non-target species, contaminates water.
- Carcinogenic.
- USDA has worked with both substances and prefers DRC-1339 as safer and more effective.
- Other potential aversive agents are not yet proven safe and effective, they are just ideas that have not been researched.

Summary

- The Seashore will continue working with USFWS and is optimistic in developing a more flexible approach to our piping plover management program which would benefit both the birds and visitors.



- The Seashore will evaluate the success of these pilot projects after the 2010 field season.



For more information:

<http://www.nps.gov/caco/index.htm>



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