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# Coastal Bird Conservation

Restoration of Shorebirds and  
Habitats on the Gulf Coast

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# Coastal Bird Conservation/CONSERVIAN



Coastal Bird Conservation (CBC) is a field-based science-driven program to enhance coastal bird populations and their habitats throughout the Western Hemisphere.





Through research and standardized, proven methods of management and protection, CBC collaborates with partners to monitor/protect/stabilize/restore imperiled beach-nesting and migratory shorebird populations.



# CBC Shorebird Surveys and Monitoring

- Since 2003 CBC has documented, mapped, and monitored significant shorebird populations throughout the Gulf Coast.
- CBC has led first comprehensive state-wide and region-wide shorebird survey efforts from Florida to the Laguna Madre of Mexico.



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Our surveys have documented new numbers of imperiled species throughout the Gulf



CBC Overview



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CBC is expanding conservation work into the Bahamas

## CBC monitors population status and trends of breeding and nonbreeding shorebirds:

- Conduct regular, comprehensive, standardized, surveys on breeding and non-breeding grounds.
- Conduct simultaneous, multi-species shorebird surveys, as appropriate.



CBC works to identify, monitor, protect, stabilize and restore breeding, migratory and wintering shorebird habitats:

- Work cooperatively with partners using standardized, proven methods of protection and management.
- Use methods sufficient to maintain or increase current shorebird population levels.





# CBC Current High-Priority Focal Species:

*Piping Plover*  
*Snowy Plover*  
***Wilson's Plover***  
*American*  
*Oystercatcher*  
*Red Knot*

*Roseate Tern*  
*Gull-billed Tern*  
***Least Tern***  
*Black Tern*  
*Black Skimmer*  
*Reddish Egret*



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Snowy Plover

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**Wilson's Plover**



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American Oystercatcher

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Piping Plover



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Reddish Egret

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Red Knot

# Major range-wide cause of declining shorebird populations on the Gulf:

Ongoing degradation and loss of habitat due to severe, human-created pressures



## Human-created Impacts



# Unrelenting Coastal Development



# ORV Use in nesting habitat





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# Range-wide Coastal Alteration



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Beach Raking





Sea Level Rise

High levels of human disturbance on breeding, migratory and wintering grounds.



Human-created Impacts

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April 20, 2010



# BP Deepwater Horizon Oil Spill Impacts

NRDA estimates over 1000 linear miles of coastal habitat were impacted by the Deepwater Horizon oil spill and related clean-up operations in 2010



# Shorebird Populations in the Impact Zone

The “**oil impacted zone**” spans over 150 coastal nesting sites throughout the Florida Panhandle, Alabama, Mississippi, Louisiana and north Texas

The region supports over 15,000 beach-nesting birds and includes 14 different species.



# Gulf Coast Plover Populations

- The Gulf Coast is home to nearly 75% of the U.S. breeding population of Wilson's Plovers (Wilson's Plover Conservation Plan, M. Zdravkovic in prep).
- More than half of the nonbreeding (federally-listed) Piping Plover population winters on the U.S. Gulf Coast, spending up to 9 months of its annual cycle in the region.



# CBC Conservation Actions: 2010

- Past CBC Gulf Coast data informed federal and state agencies on where to focus immediate protective efforts for beach-nesting birds.
- CBC 2010 surveys documented Gulf Coast beach-nesting bird populations before oil made landfall.
- Throughout the spill CBC was on the ground documenting, monitoring and raising awareness of pre and post-spill damage and disturbance to shorebirds





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# Impacts to Beach-nesting birds -2010

Direct  
Oiling



Oiled male Wilson's Plover, MS Delta 2010





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## Direct Oiling



Oiled female Wilson's Plover, MS Delta 2010

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# BP Deepwater Horizon Gulf Impacts -2010

Oiled  
Habitat



Impacts to Shorebird Habitat





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## Oiled Habitat



Oil pushes into back beach habitat



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## Oiled Habitat



Oil buried by Hurricane Alex, July 2010

# Increased human-caused disturbance

Impacts  
to  
Habitat



Inlet and bayou closings across the Gulf



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# Impacts to Habitat



Boom placement in nesting habitat



# Impacts to Habitat



Displaced Snowy Plover chick

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# Impacts to Habitat



High levels of human-caused disturbance



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# Impacts to Habitat



Chick-trapping ruts in foraging habitat



# BP Deepwater Horizon Impacts -2011

Oil clean-up operations brought continued increases in human-caused disturbance to beach-nesting birds on the Gulf Coast.



Continued Increased Threats



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Clean-up operations - May 2011



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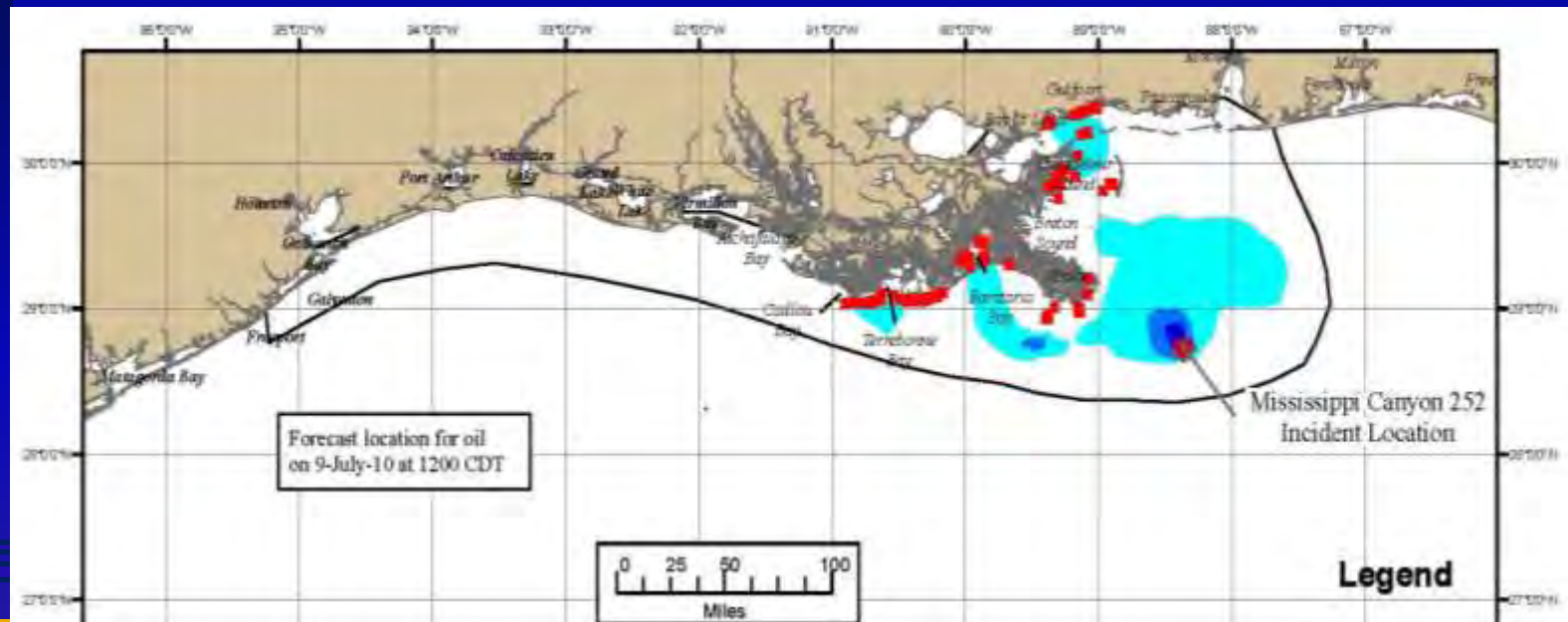
Weathered oil – June 2011



# Continuing Oil-related Impacts

Oil-related clean-up operations continued throughout AL, MS and LA in 2012

Planned land restoration activities on the Gulf will continue to cause increased disturbance in to the future.



## Continuing Increased Threats

## CBC Conservation Actions:

- To increase beach-nesting bird populations and habitat quality, CBC employs specific proven methods of restoration.



S. Maddock



*How do we address threats?*

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# CBC Conservation Actions :

Work cooperatively with partners to implement protective and restorative measures

Proven  
Methods





# CBC Conservation Actions: Site-specific recommendations

## Assess Sites



Area closures and ORV corridors

# CBC Conservation Actions:

Provide on-the-ground staff and assistance for shorebird protection related issues



Site monitoring

# CBC Conservation Actions : Symbolic Fencing



Posting, signing and roping to protect nesting areas





## CBC Conservation Actions: 2011-2012

- Keep site managers updated on current nest locations throughout the breeding season
- Help site managers protect nesting areas from human disturbance
- Limit further damage to beach-nesting birds and habitat

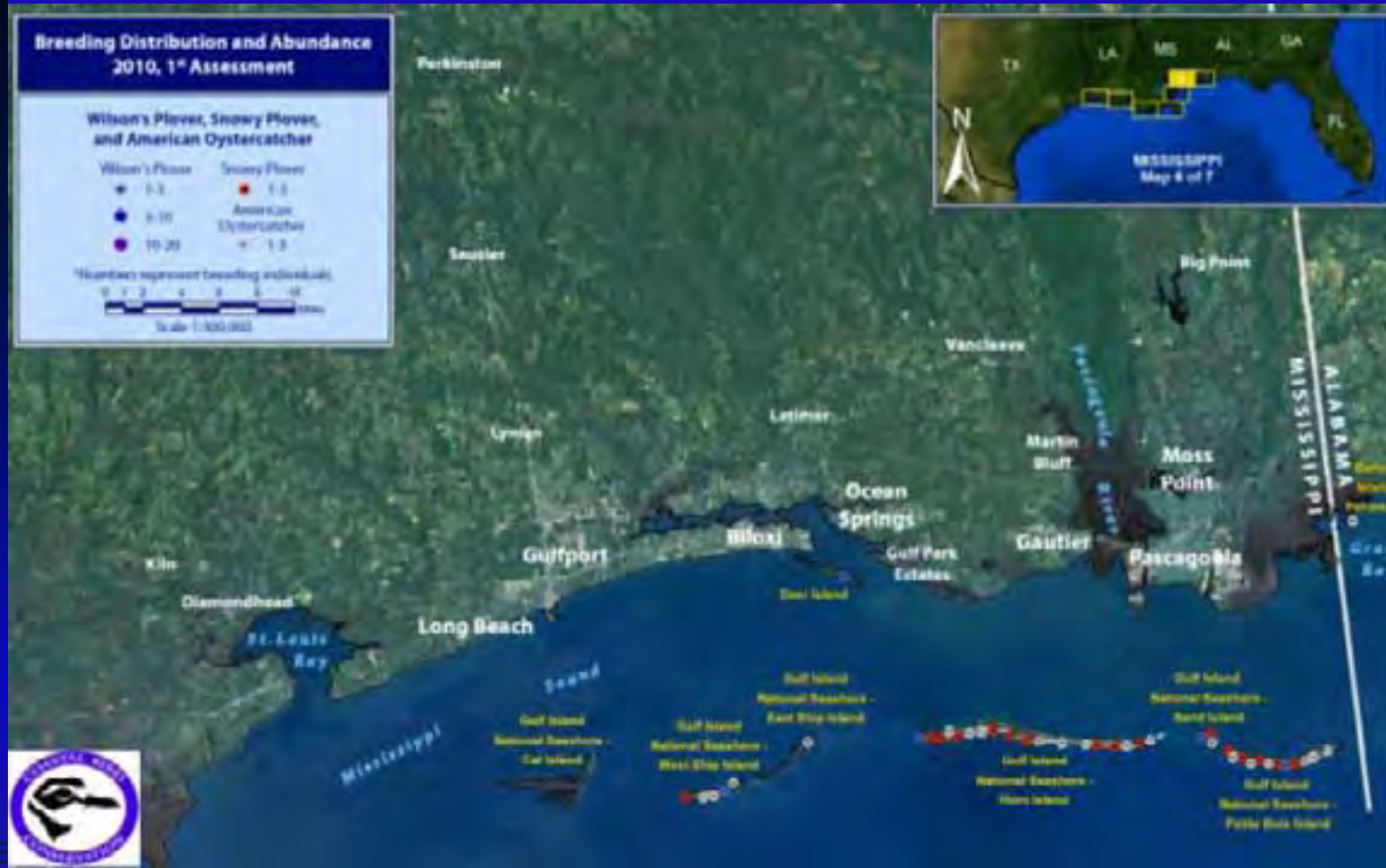


Nest monitoring



# CBC Conservation Actions :

## Monitor beach-nesting bird populations



Conduct regular state-wide breeding surveys



## CBC Conservation Actions :

In 2013 Conservian will complete a Gulf Coast Beach-nesting Bird Assessment and Management Guidelines to assist land managers to stabilize and increase shorebird populations throughout the Gulf.





## CBC Conservation Actions :

Gulfwide Breeding American Oystercatcher  
Population Estimates by State

STATE	AMERICAN OYSTERCATCHER PAIRS
TEXAS	150-175 pairs
LOUISIANA	100-125 pairs
MISSISSIPPI	25-32 pairs
ALABAMA	15-18 pairs
FLORIDA	380-425 pairs
GULF-WIDE RANGE ESTIMATE	700-775 pairs



## CBC Conservation Actions :

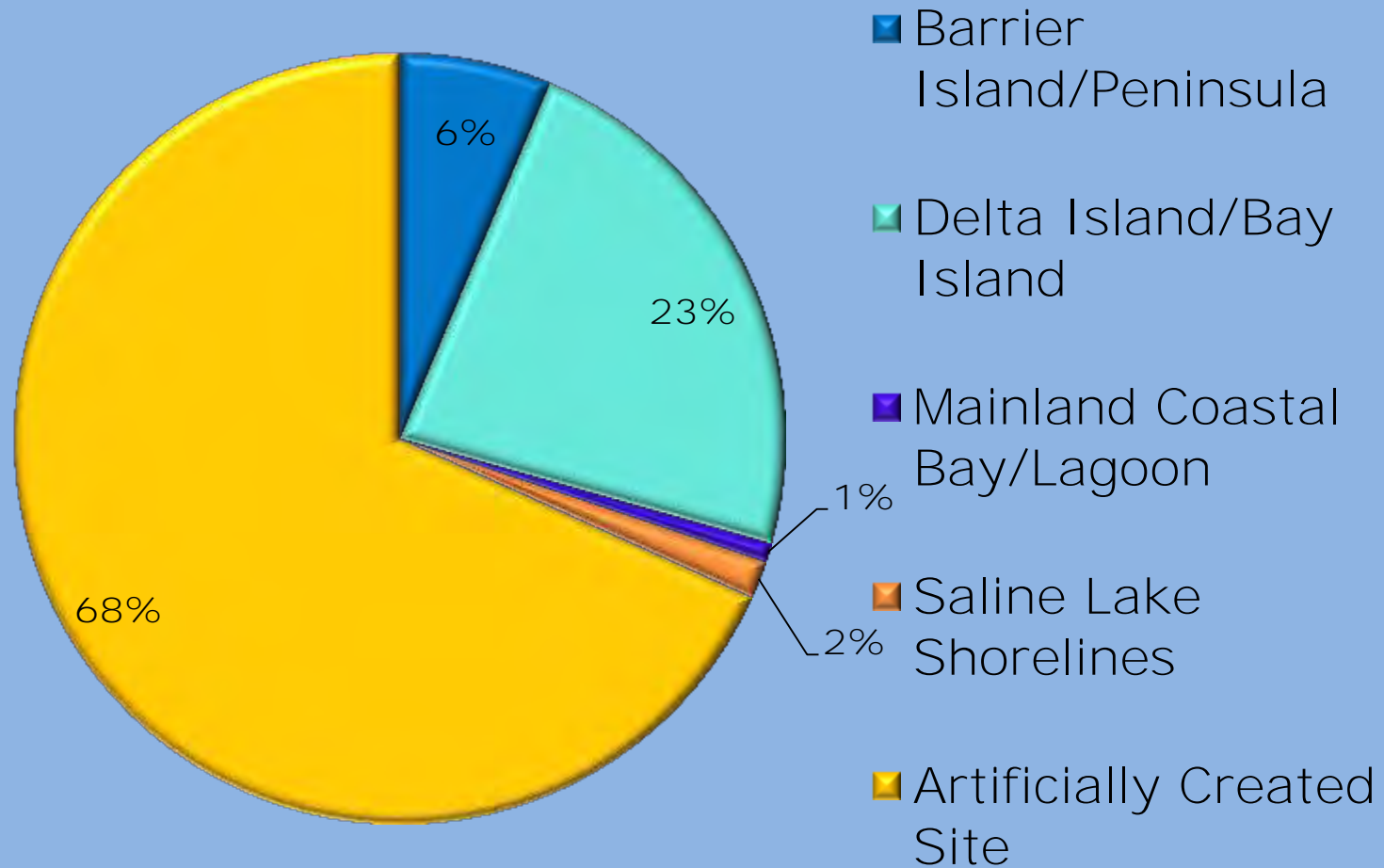
### Gulfwide Breeding American Oystercatcher Population Estimates

- Statewide surveys needed for Florida and Texas
- CBC will conduct statewide beach-nesting bird surveys in Texas 2013 to include AMOY



# American Oystercatcher Habitat Use:

Breeding American Oystercatcher  
Macrohabitats in Texas



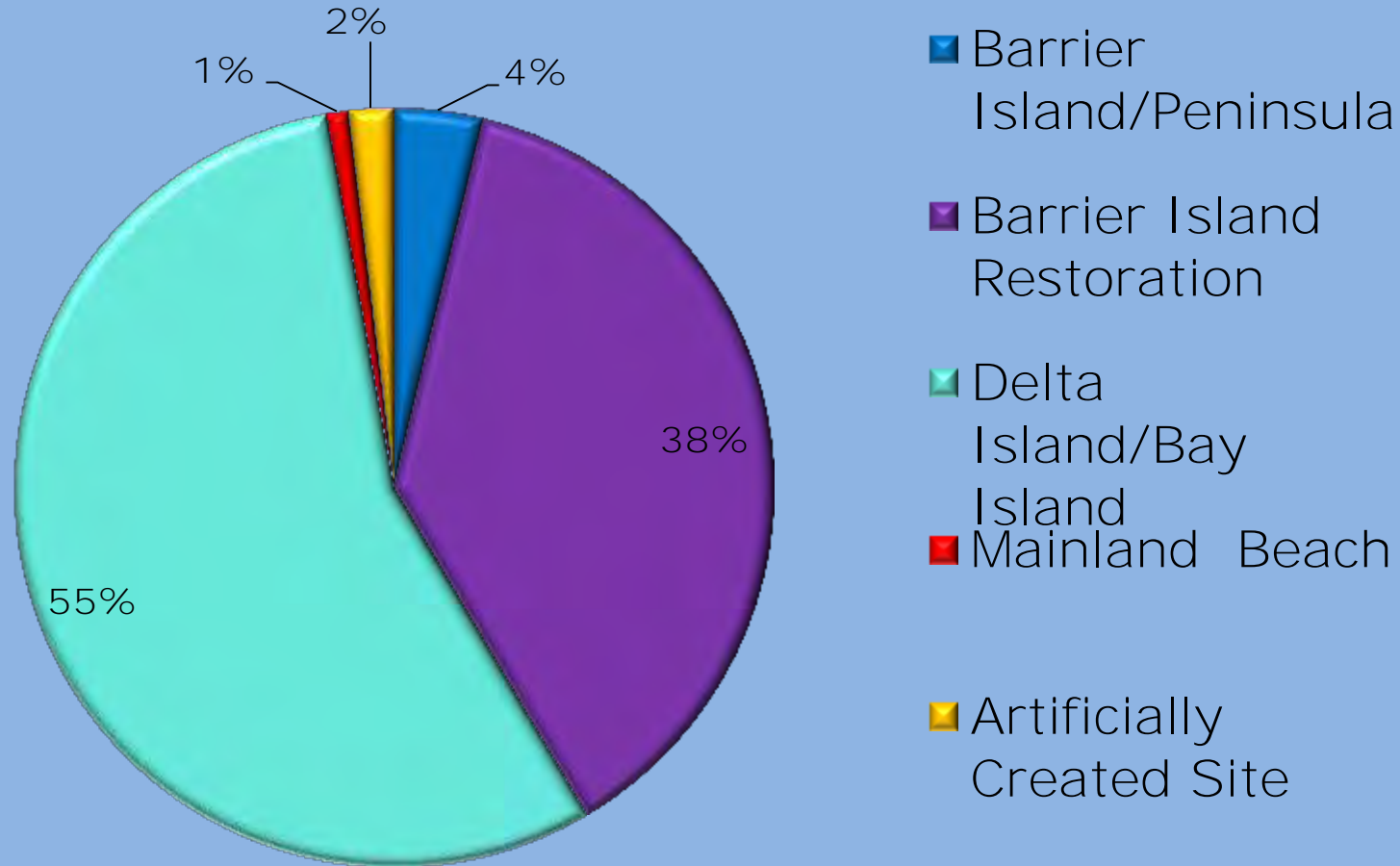
TX Macrohabitat Use #1 = Artificial





# American Oystercatcher Habitat Use:

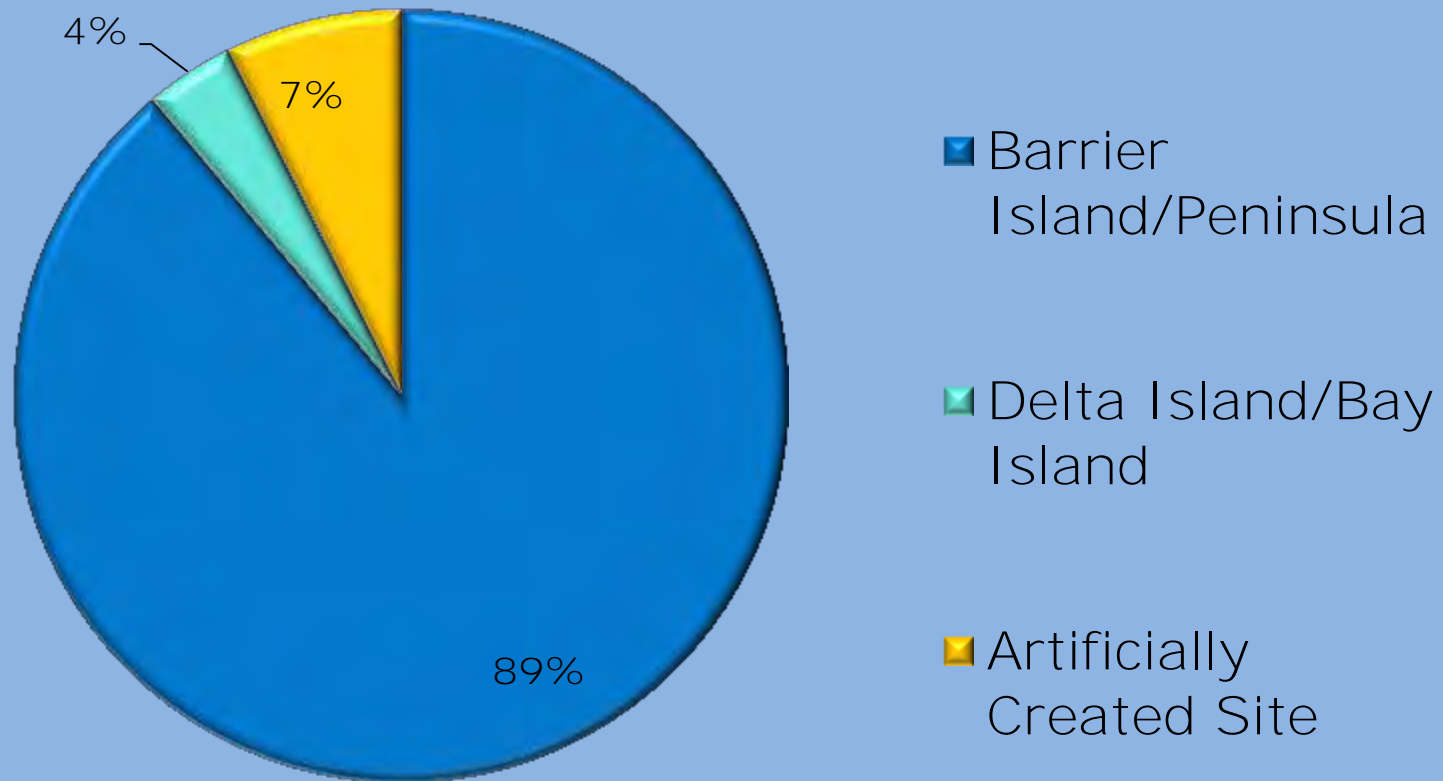
Breeding American Oystercatcher  
Macrohabitats in Louisiana



LA Macrohabitat Use 1# = Delta/Bay Islands

# American Oystercatcher Habitat Use:

American Oystercatcher  
Breeding Macrohabitats in Mississippi

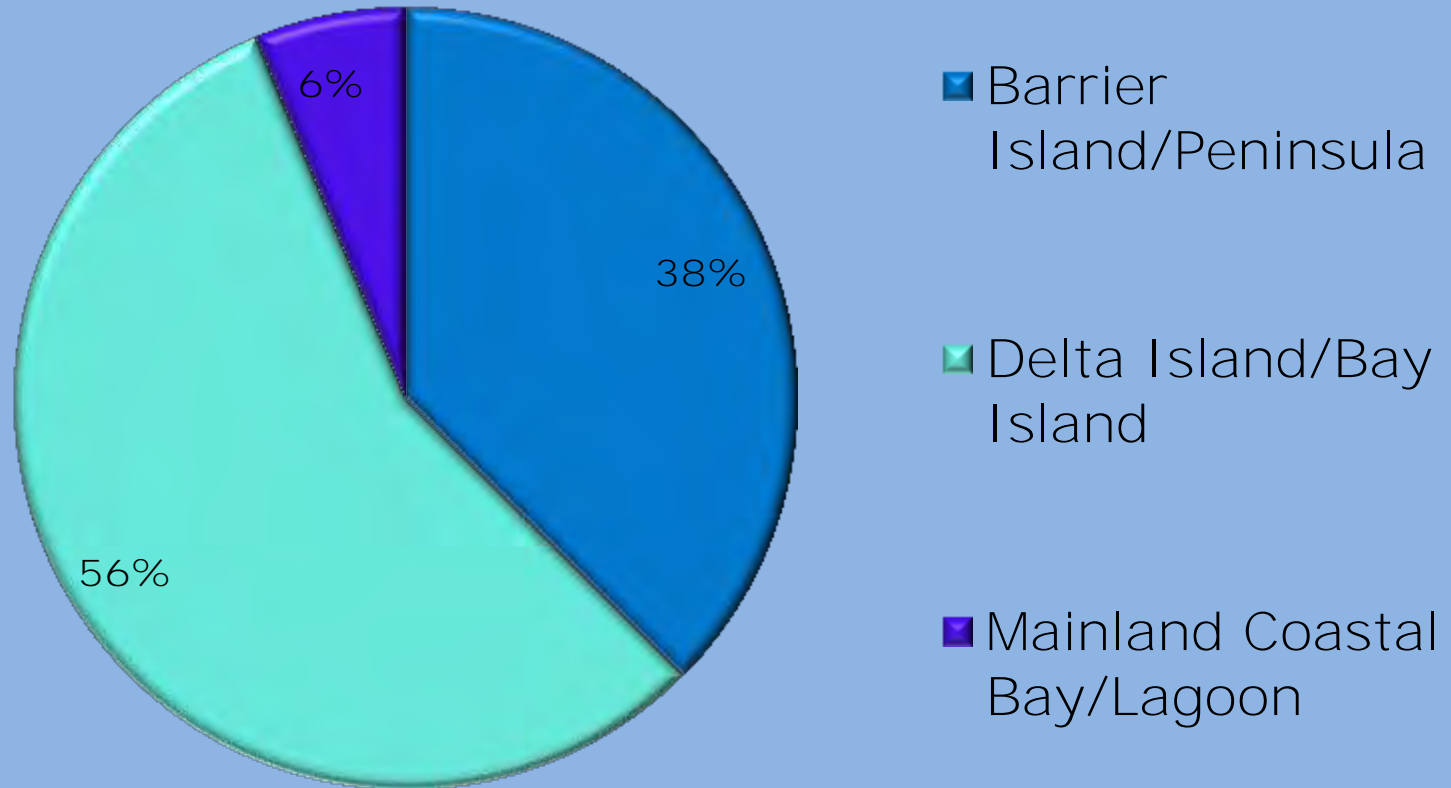


MS Macrohabitat Use #1 = Barrier Island



# American Oystercatcher Habitat Use:

Breeding American Oystercatcher  
Macrohabitats in Alabama



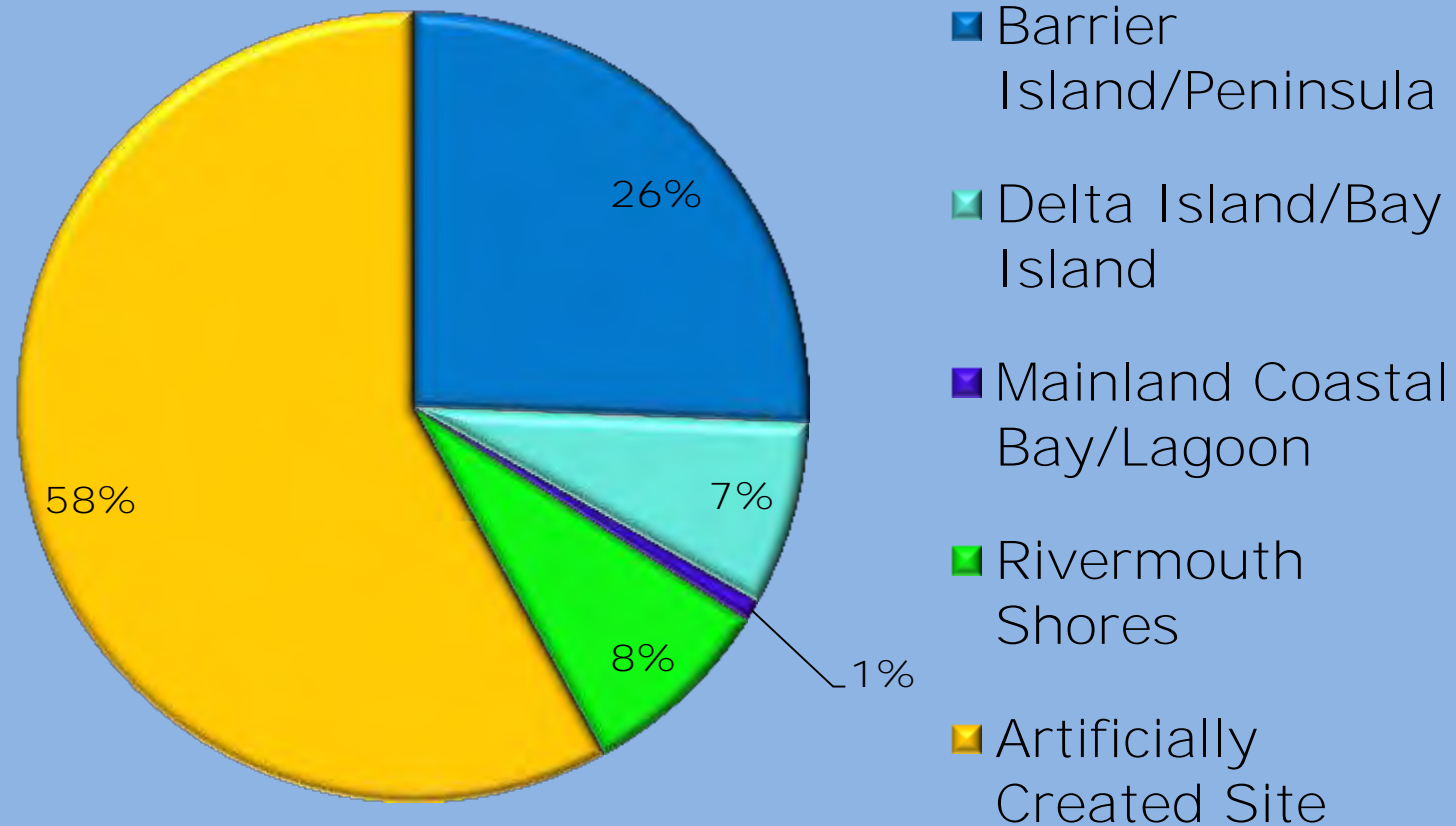
AL Macrohabitat Use #1 = Delta/Bay Islands





# American Oystercatcher Habitat Use:

Breeding American Oystercatcher  
Macrohabitats in Florida

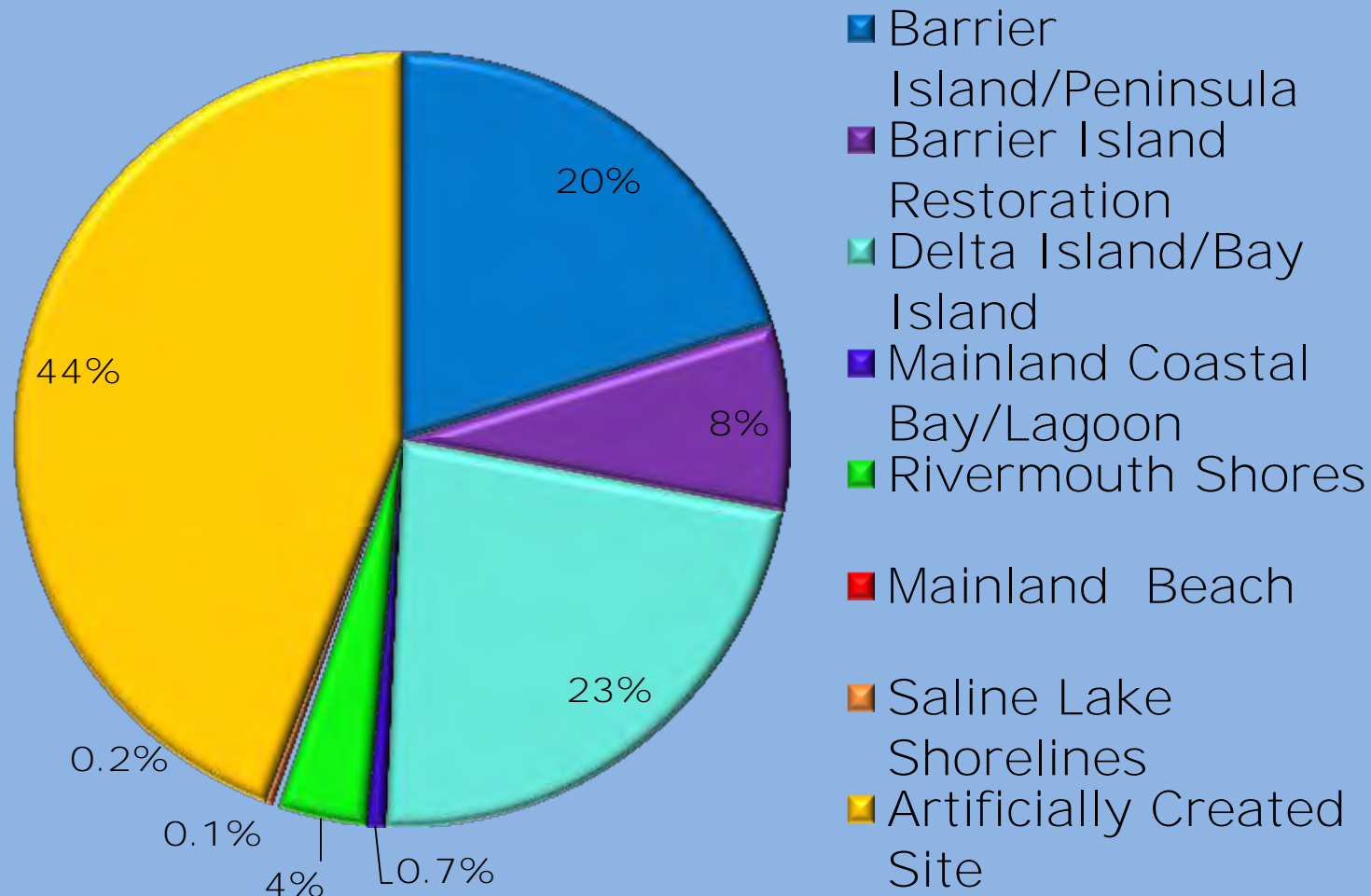


FL Macrohabitat Use #1 = Artificial



# American Oystercatcher Habitat Use:

## Gulfwide Breeding American Oystercatcher Macrohabitats



Gulfwide Macrohabitat Use #1 = Artificial

# CBC Conservation Actions: Manomet/NFWF project **Wilson's Plover Conservation Plan**



**Proposes federal listing for the Wilson's  
Plover**





## CBC Conservation Actions:

### **Wilson's Plover Conservation Plan**

- Low and declining population, and contracting species range
- US population under 8,600 breeding individuals
- High level of human-induced threats on breeding and nonbreeding grounds



# CBC Conservation Actions:

## **Wilson's Plover Conservation Plan**

- Nearly 75% of the U.S. population breeds on the Gulf
- **Wilson's Plover** uses the widest range of breeding macrohabitats compared to other BNBs
- Listing will provide an umbrella of protection for BNBs
- Increase shorebird conservation on the Gulf for the long-term



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# CBC Restoration Actions

## *Are Protective Measures Effective?*





## CBC Conservation Actions = Restoration

BNBs  
respond  
positively  
to  
protective  
measures

Breeding Site	Snowy Plover Breeding Pairs*				Protective Measures Implemented			
	1989	2002	2006	2007	2008	2009	2010	2011
Topsail Hill Preserve State Park	8	3	0	0	0	0	1	0
Grayton Beach State Park	*combined w/ Deer Lake SP	0	0	0	0	1	1	1
Deer Lake State Park	8*	2	2	1	2	3	3	4
Watersound Conservation Area	*combined w/ Deer Lake SP	0	0	0	2	3	3	3
Camp Helen State Park	4	3	2	2	3	4	4	4
TNC John S. Phipps Preserve	3	0	1	1	1	1	2	4
St. Vincent National Wildlife Refuge	5	3	11	6	12	11	12	11
PAIR TOTALS	28	11	16	10	20	23	26	27



## CBC Conservation Actions = Restoration

BNBs  
respond  
positively  
to  
protective  
measures

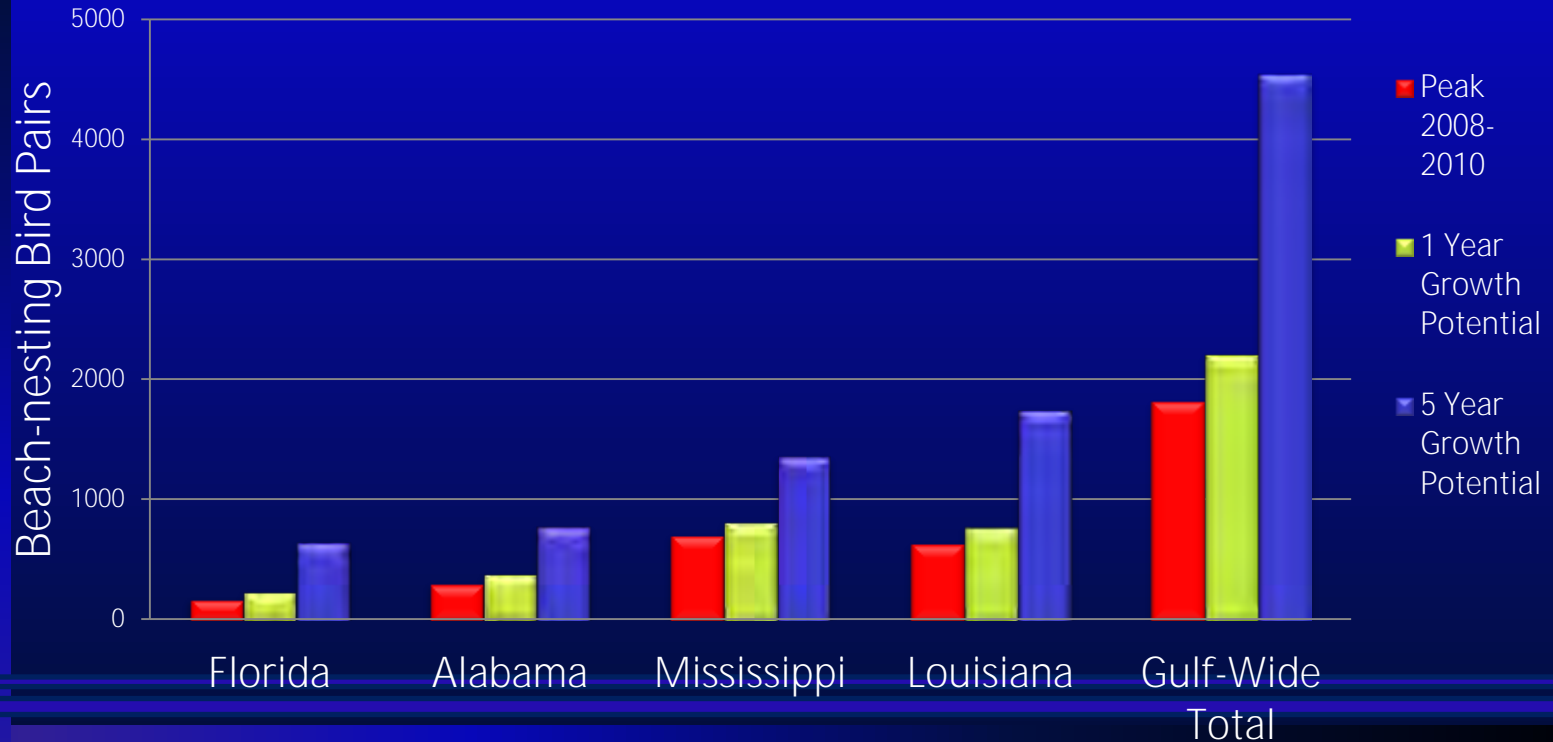
Breeding Site-b	AMOY Pairs 2007	AMOY Pairs 2008	AMOY Pairs 2009	AMOY Pairs 2010	AMOY Pairs 2011	WIPL Pairs 2007	WIPL Pairs 2008	WIPL Pairs 2009	WIPL Pairs 2010	WIPL Pairs 2011
St. Vincent National Wildlife Refuge	2	2	2	5	0	0	0	0	0	1
TNC John S. Phipps Preserve	2	3	2	3	3	5	4	7	8	9



Expand CBC  
protective  
measures

# CBC Conservation Actions: Future Restoration on the Gulf Impact Zone Restoration

CBC Projected Gulf Coast Beach-nesting Bird Growth  
after Proposed Restorative and Protective Measures



Increase shorebird conservation on Gulf for the long-term





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*Conserving Coastal Birds and  
their Habitats throughout  
the Western Hemisphere*



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\*This presentation contains original data and photos which may not be used or re-interpreted without express written consent of the CBC. For questions, please contact: Margo Zdravkovic, Coastal Bird Conservation program Director at [MargoZ@COASTALBIRD.ORG](mailto:MargoZ@COASTALBIRD.ORG)



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Maps: NOAA

Graphic Design/PowerPoint:

Maureen Lilla





Coastal Bird Conservation/Conservian funding  
and in kind support:

National Fish and Wildlife Foundation:

Power of Flight

Shell Marine Habitat Restoration

Barrataria-Terrebonne National Estuary Program

Mobil Bay National Estuary Program

South Texas Refuge Complex

Laguna Atascosa NWR

Santa Ana NWR

Padre Island National Seashore

US Ecological Services Corpus Christi

Florida Keys NWR

Florida Keys Audubon Society

National Audubon Society

Louisiana DWF

Rockefeller WR

Breton NWR

USEWS

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W.

American B



Gulf Coast Joint Venture

Alabama DNR

Mississippi DNR



*Thank you to CBC su*  
Margo Zdravkovic  
Director, CBC

