

Restoring America's Everglades



– Conserving and Recovering Multiple Species –

Briefing for the Water Resources Advisory Commission

Key Largo, Florida

December 3, 2008



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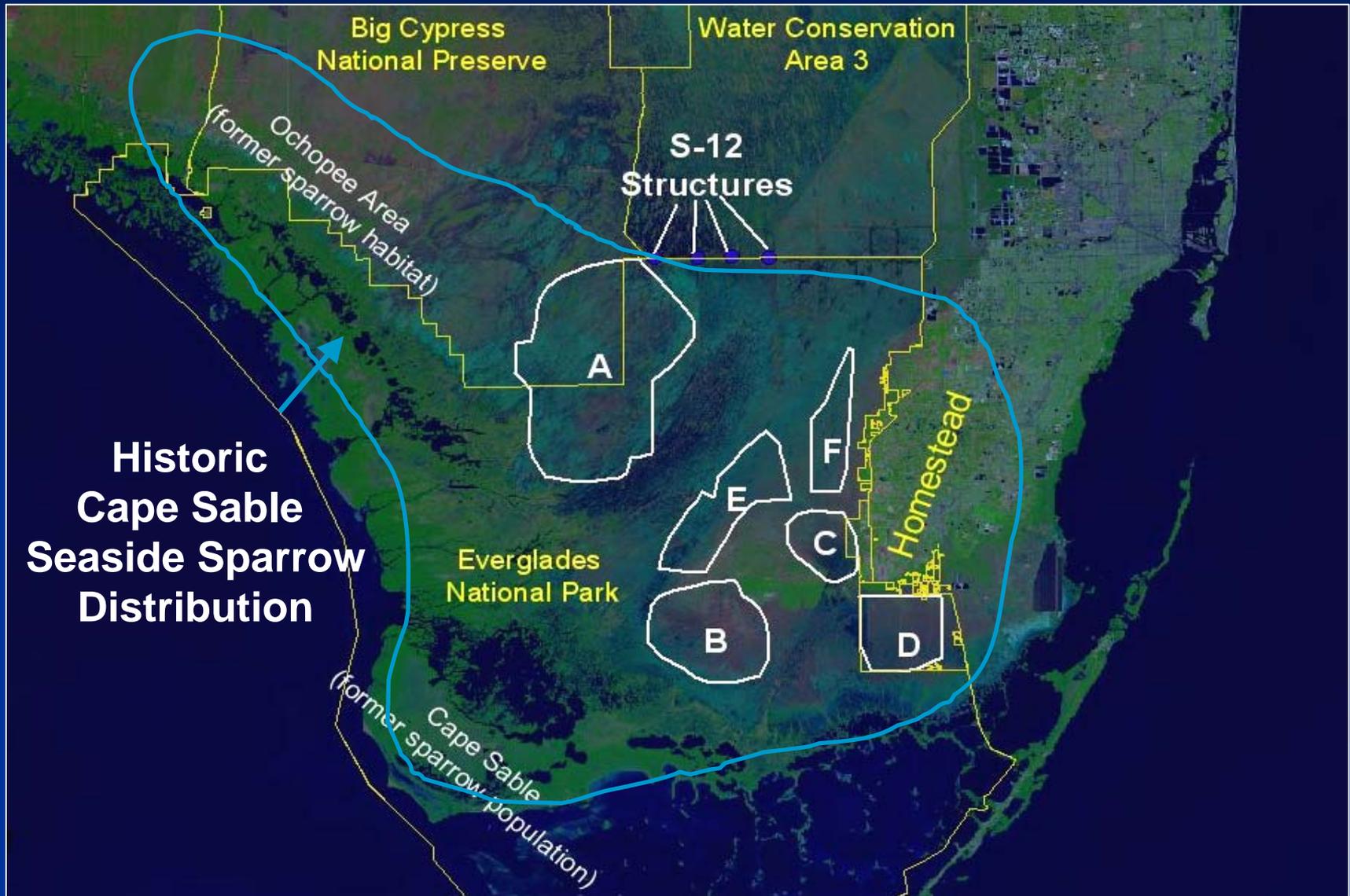
Outline of Presentation

- I. Sparrow Background and Status
- II. Snail Kite Background and Status
- III. Using the Best Available Science
- IV. The Future of Everglades Restoration and Multi-Species Conservation
- V. Challenges, Opportunities, and Next Steps
- VI. Take Home Messages



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Sparrow Background and Status

- Marl Prairies
- Characteristics of Habitat
 - *Treeless expansive prairies*
 - *Structurally diverse vegetation*
 - *Relatively short hydroperiod (2-7 months)*
 - *Not recently burned*



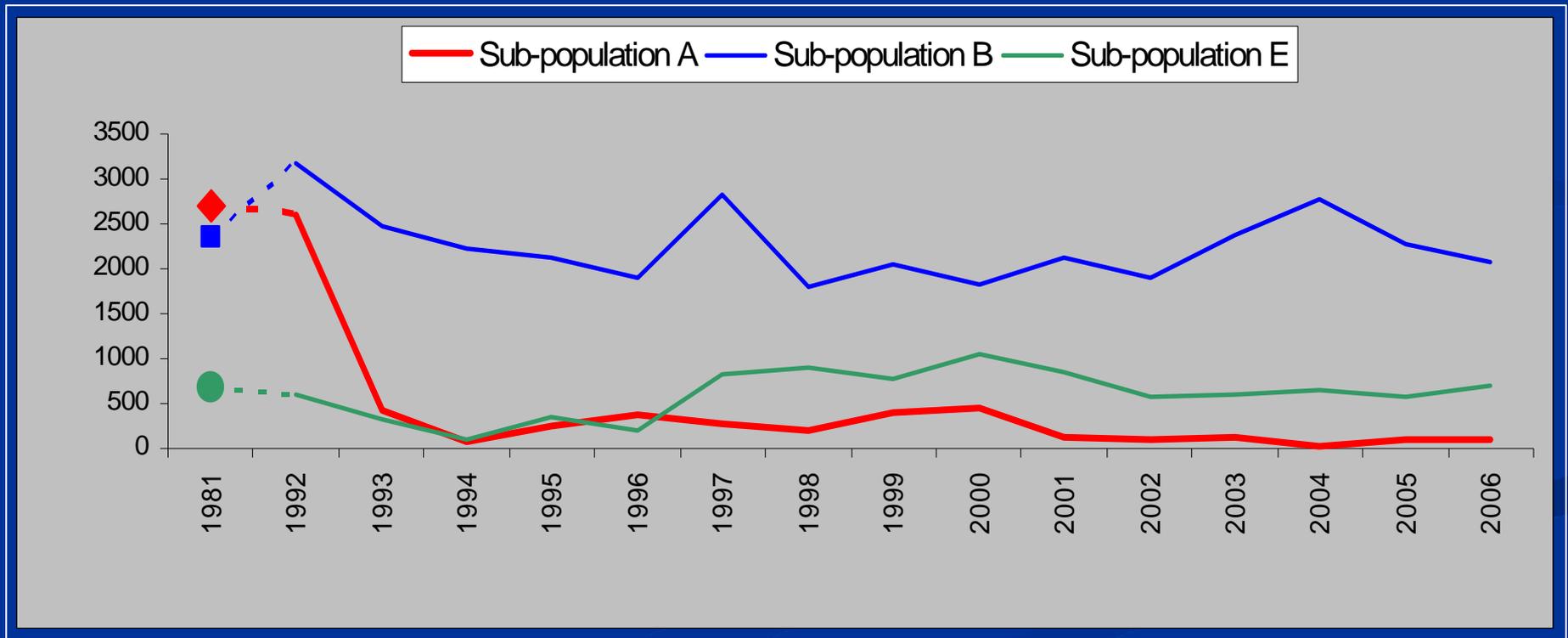


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Sparrow Background and Status

Large Sparrow Populations, 1981-2006



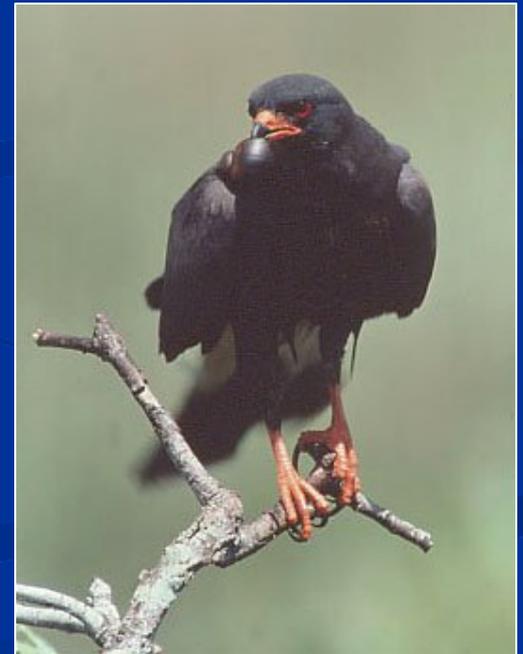


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Snail Kite Background and Status

- Wide Ranging Everglades Indicator
- Population Decline from About 3,000 in the Year 2000 to About 700 in the Year 2008
- Two-Year Droughts
- Degradation of Habitat from Water Infrastructure of the 20th Century
- The Importance of Apple Snails





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Primary Nesting Habitats

Willow or
Cypress Stands



Isolated
Shrubs or Trees



Thick
Herbaceous
Vegetation

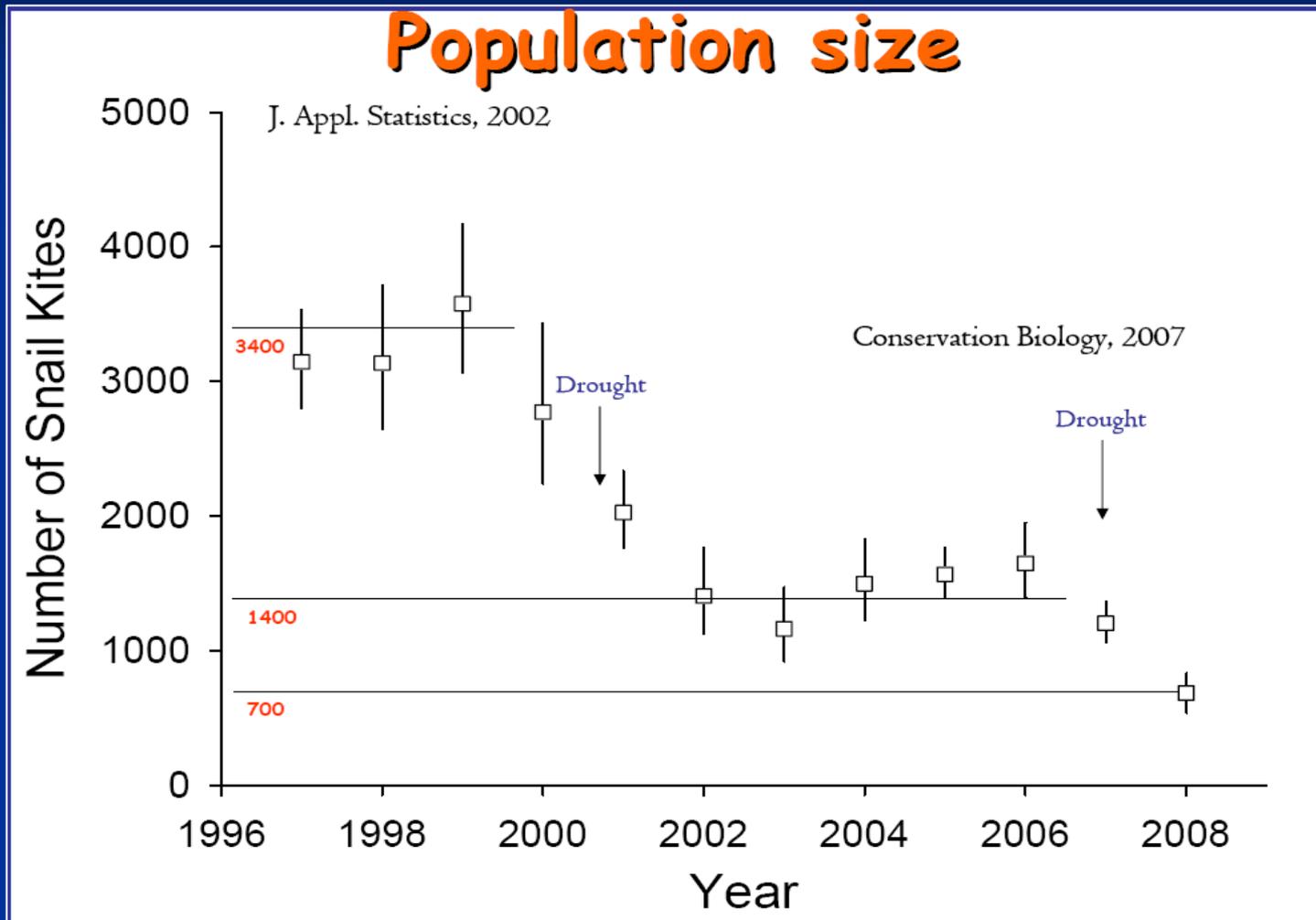


Source: Dr. Wiley Kitchens, 2008, USGS



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Using the Best Available Science

Restoration and Recovery Review

- Cape Sable Seaside Sparrow
- Snail Kite
- Wood Stork
- Roseate Spoonbill





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Restoration and Recovery Review 2007

Sustainable Ecosystems Institute

- The Charge:
Conduct an Independent Review of the Best Available Science
- Key Question:
How to Advance Restoration and Recovery and Address Uncertainty?
- Multi-Faceted Approach:
 - *Create Independent Panel of Scientists*
 - *Open Forum – Species and Hydrology*
 - *Prepare Recommendations – Peer Review*





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Restoration and Recovery Review 2007

Independent Panel of Scientists

Dr. Barbara Bedford, Cornell University

Dr. Virginia Burkett, USGS National Wetlands
Research Center

Dr. Mike Collopy, University of Nevada

Dr. Scott Derrickson, Smithsonian Institution

Dr. Chris Elphick, University of Connecticut

Dr. Randy Hunt, USGS, Middleton, Wisconsin

Dr. Ken Potter, University of Wisconsin-Madison

Dr. Jim Sedinger, University of Nevada

Dr. Jeff Walters, Virginia Tech



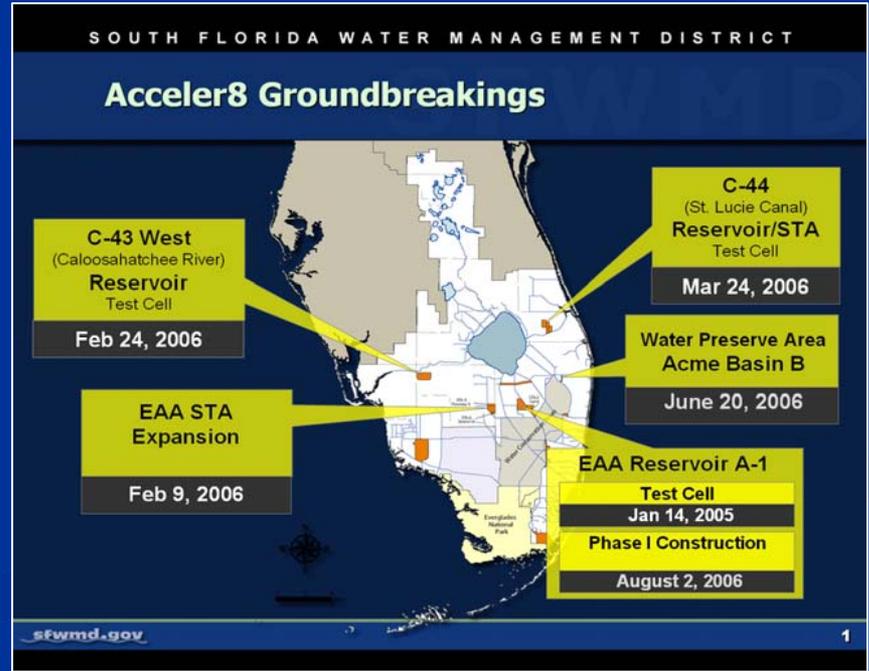


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Restoration and Recovery Review 2007

- August 13-15, 2007
Florida International University
 - *Restoration Hydrology*
 - *Species Condition and Response to Restoration*
 - *Addressing Uncertainty*
- Public Forum
- 100 People Attended
- Web Cast





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Restoration and Recovery Review 2007

Presentations by Leaders in the Scientific Community

Rebecca Boulton and Phillip Cassey, Rutgers University

Phil Darby, University of West Florida

Peter Frederick, University of Florida

Dale Gawlik, Florida Atlantic University

Wiley Kitchens, USGS

Jerry Lorenz, Audubon of Florida

Stuart Pimm, Duke University

Will Post, Charleston Museum

Colonel Terry Rice, Miccosukee Tribe

Mike Ross, Florida International University

Jay Sah, Florida International University

...And Many Others...





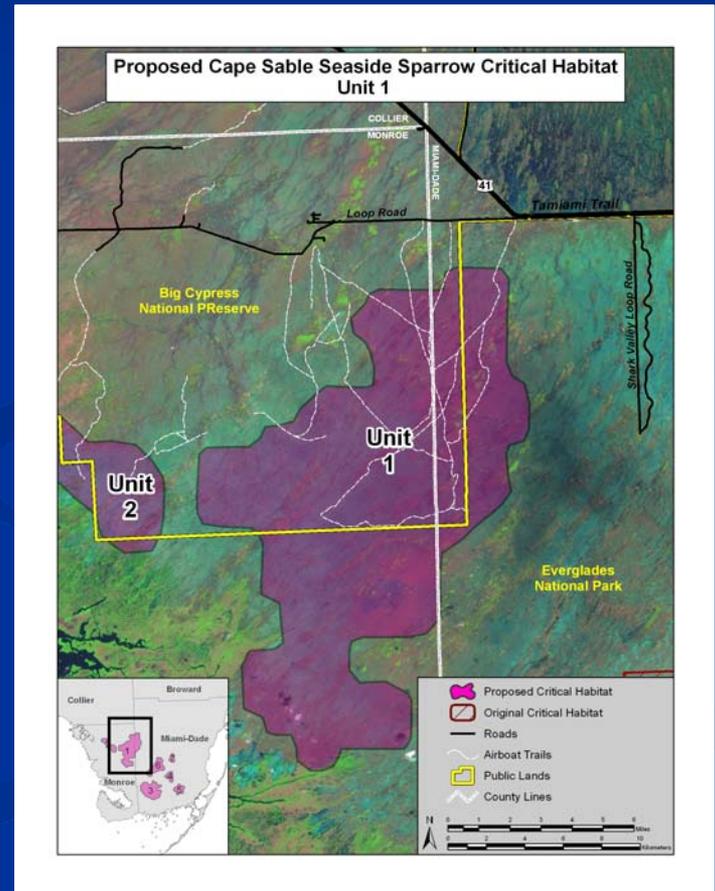
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Sparrow Critical Habitat Review

Critical Habitat

- First Completed in 1977
- Petition to Revise in 1999
- Court Order to Publish Proposal by October 2006
- Court Order to Complete Rule by October 2007
- Independent Peer Review
- Economic Analysis
- Excluded Subpopulation A





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Critical Habitat – Best Available Science

- Five Peer Reviewers
- Two Public Comment Periods
- Public Hearing
- Detailed Reviews from Everglades Restoration Partners: FWC, FDEP, USACE, SFWMD, Miccosukee Tribe
- Concern: Fixed Line on Map in a Restoring Environment, Particularly in Subpopulation A
- New Paleo Science

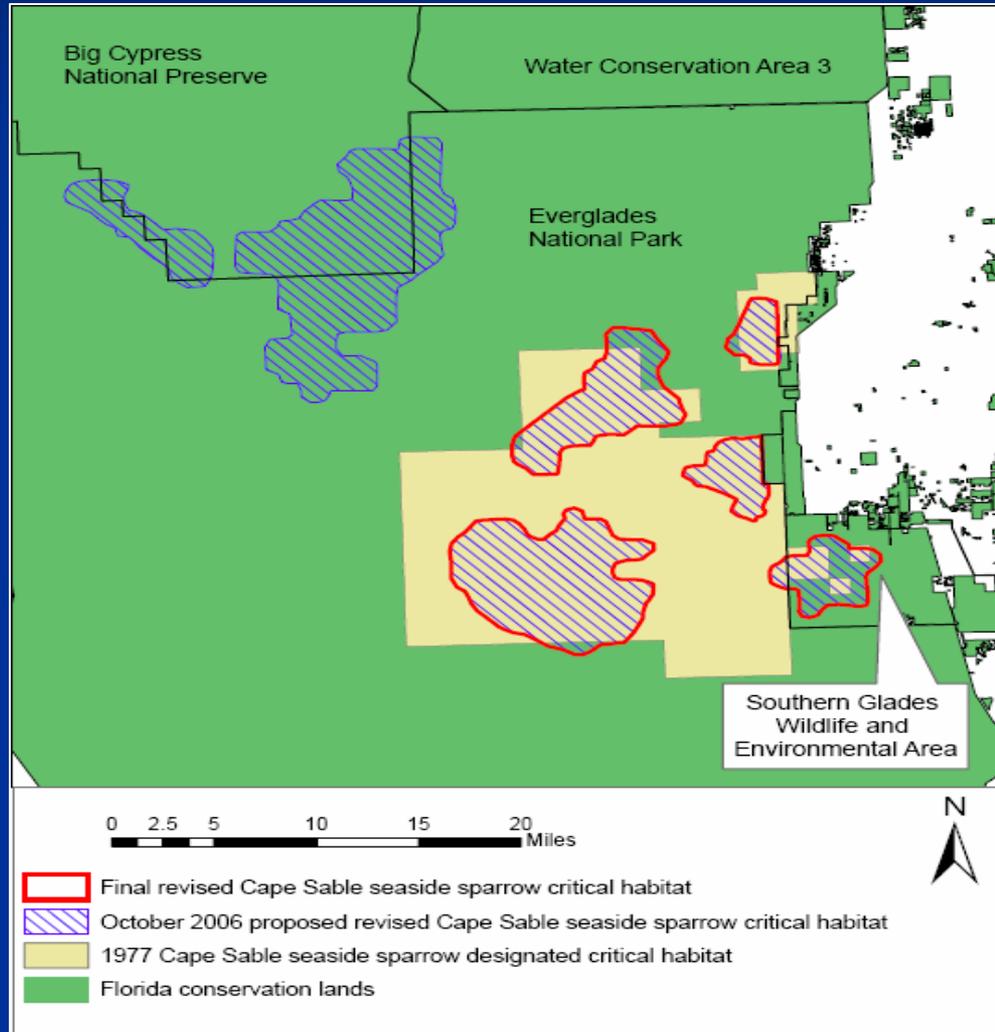




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Final Critical Habitat 2007



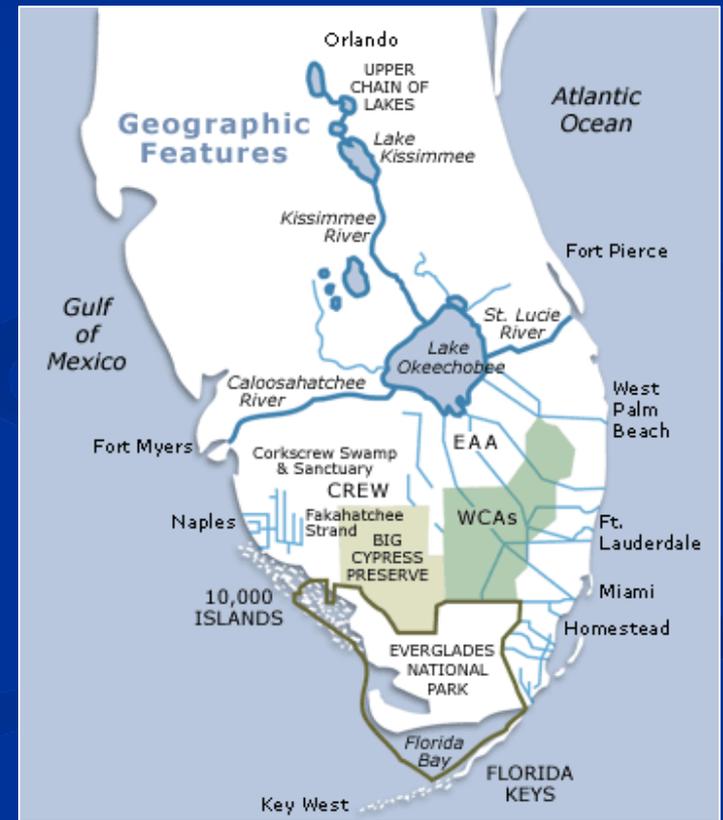


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The Future of Everglades Restoration and Multi-Species Conservation

- We Need Restoration ASAP: *National Academy of Sciences*
- Incremental Improvements to WCA3
- Combined Structural and Operational Plan
- Decompartmentalization
- C-111 Projects
- System Operating Manual





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Challenges, Opportunities, and Next Steps

- Current Constraints and Continued Emergency Room Management
- We Need Central and Southern Restoration ASAP
- Maximizing Ecosystem Restoration Is Priority #1
- Best Available Science Suggests Everglades Will Benefit Multiple Species
- Safeguarding Species in the Transition
- Adaptively Manage to Maximize Overall Goals

We Will Move Past All Challenges in Partnership!