



Florida Keys National Wildlife Refuges: Backcountry Management

Anne Morkill
Wildlife Refuge Manager
U.S. Fish & Wildlife Service

Florida Keys National Marine Sanctuary Advisory Council
Duck Key, FL
February 21, 2012



Outline

- Overview of National Wildlife Refuge System
- History of FL Keys Refuges
- Backcountry Management
- Refuge vs. Sanctuary zones
- Challenges & Opportunities
- Q&A/Discussion

National Wildlife Refuge System Improvement Act (1997)

National network of lands and waters for the conservation, management, and restoration of fish, wildlife and plants and their habitats for the benefit of present and future generations

- “Wildlife comes first”
- Priority public uses are allowed if they are *compatible with refuge purposes and dependent on wildlife*:
 - hunting & fishing
 - wildlife observation & photography
 - interpretation & environmental education

National Wildlife Refuge System

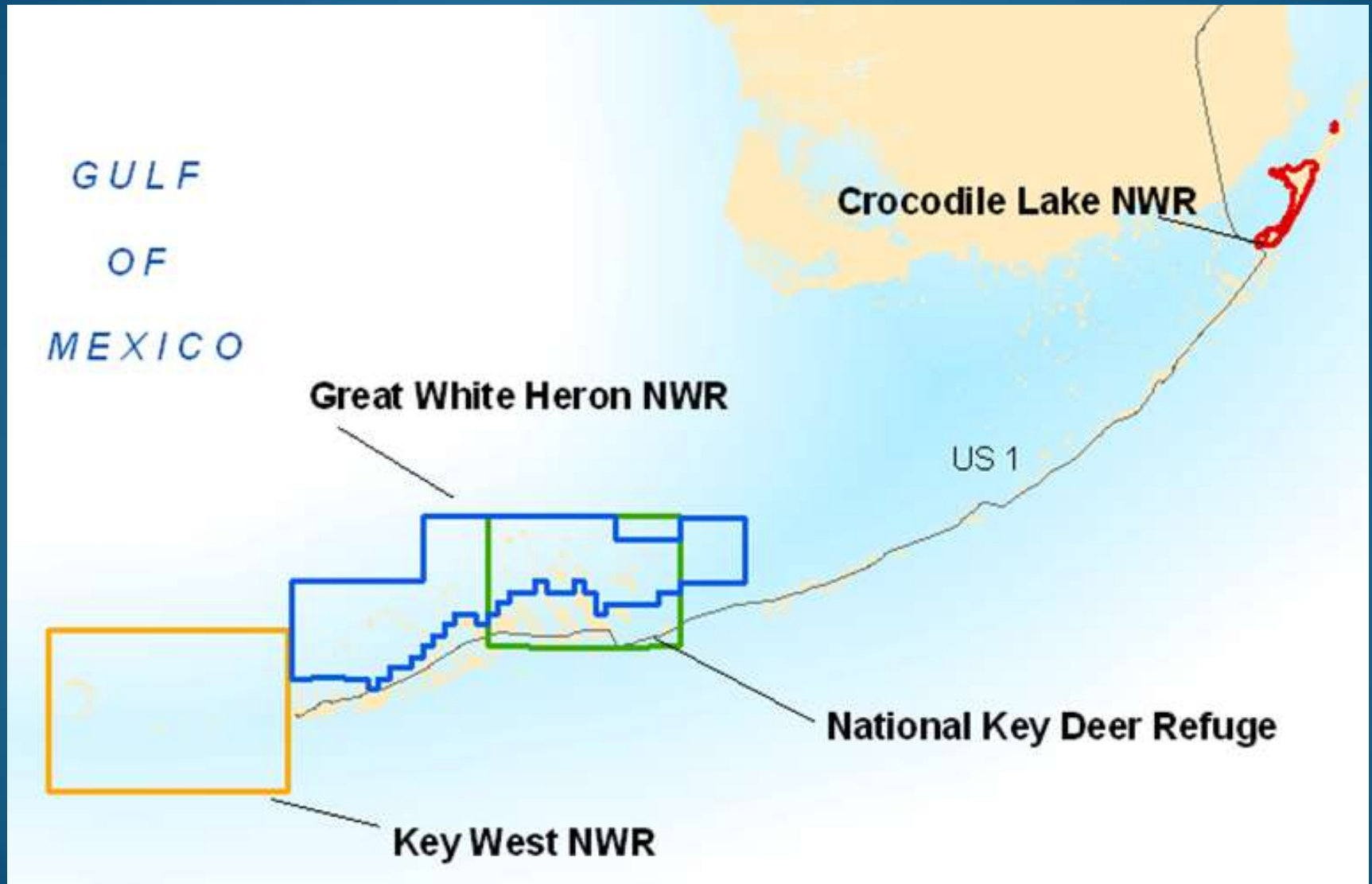


U.S. Fish & Wildlife Service
National Wildlife Refuge System
International Boundary
National Wildlife Refuge



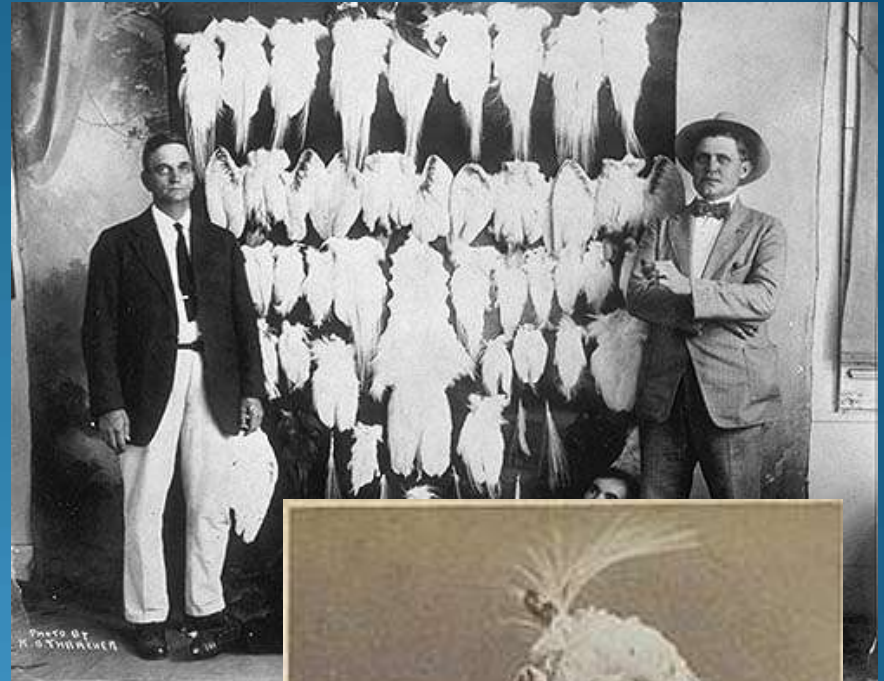


Florida Keys National Wildlife Refuges





(c) Charles Lee



Key West NWR



- Established in 1908
- 208,308 acres
(2,019 land acres)
- ...as a preserve and breeding ground for native birds

Great White Heron NWR



- Established in 1938
- 207,946 acres
(6,300 land acres)
- ...as a refuge and breeding ground for great white herons, other migratory birds and other wildlife

National Key Deer Refuge



- Established in 1957
- 84,836 acres
(8,983 land acres)
- ...to protect and preserve the Key deer and other wildlife resources in the Florida Keys

Crocodile Lake NWR



- Established in 1980
- 6,600 land acres
- ...to protect habitat for the American crocodile and other federally listed species

Florida Keys Wilderness Area



- Designated in 1975
- 6,200 land acres
- All islands in Key West NWR and several islands in Great White Heron NWR & National Key Deer Refuge

Federal Threatened & Endangered Species in the Florida Keys

Mammals

Key deer
Key Largo cotton mouse
Key Largo woodrat
Lower Keys marsh rabbit
Silver rice rat
West Indian manatee

Birds

Piping plover
Roseate tern
Red knot (C)

Reptiles

American crocodile
Eastern indigo snake
Green sea turtle
Hawksbill sea turtle
Leatherback sea turtle
Loggerhead sea turtle

Invertebrates

Schaus swallowtail butterfly
Stock Island tree snail
Elkhorn coral
Staghorn coral
Bartram's hairstreak butterfly (C)
Florida leafwing butterfly (C)
Miami blue butterfly

Plants

Garber's spurge
Key tree-cactus
Big Pine partridge pea (C)
Blodgett's silverbush (C)
Florida indigo (C)
Florida semaphore cactus (C)
Sand flax (C)
Wedge spurge (C)

Fish

Smalltooth sawfish
Key silverside (SSP)
Mangrove rivulus (SSP)

(C) = USFWS Candidate for listing
(SSP) = NOAA Species of Special Concern

Pine rockland forest, freshwater solution holes & freshwater marsh



Tropical hardwood hammock



Michelle Wisniewski



Salt marsh & buttonwood woodland ecotone



Michelle Wisniewski



Michelle Wisniewski



Craig Falhauber

Lagoons and salt ponds



Chuck Getter



Michelle Wisniewski



Chuck Getter

Beach dunes, beach ridge hammock & coastal rock barrens



COPYRIGHT 12 5 06 Paula Cannon

Michelle Wisniewski



COPYRIGHT 12 5 06 Paula Cannon



mongabay.com

Mangrove forest islands, tidal creeks & tidal flats



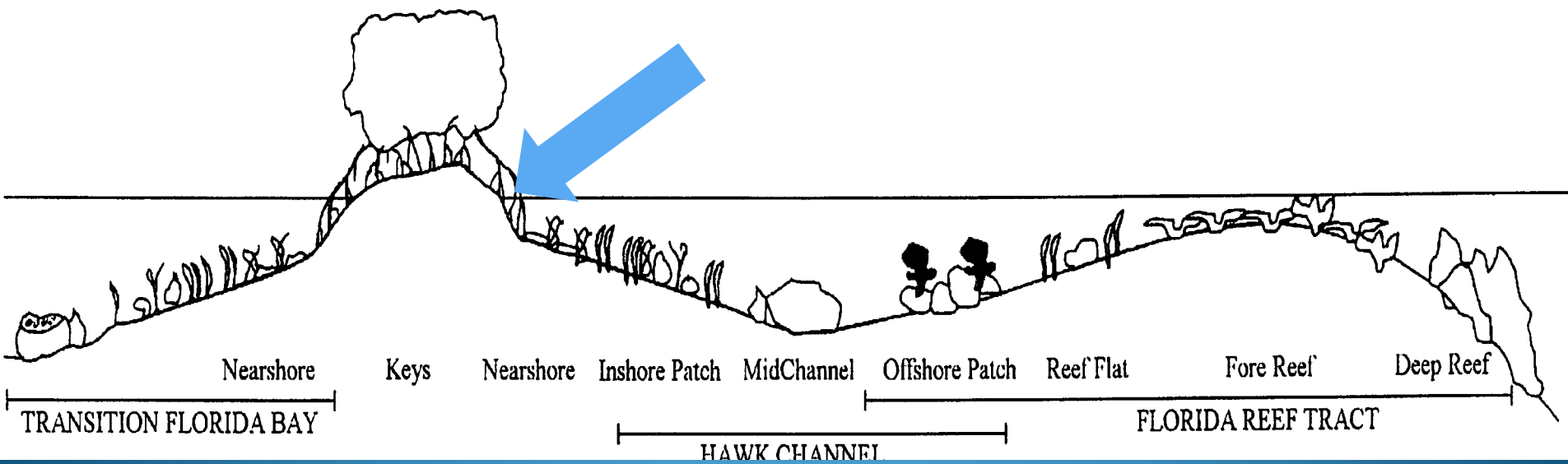
Michelle Wisniewski



Michelle Wisniewski

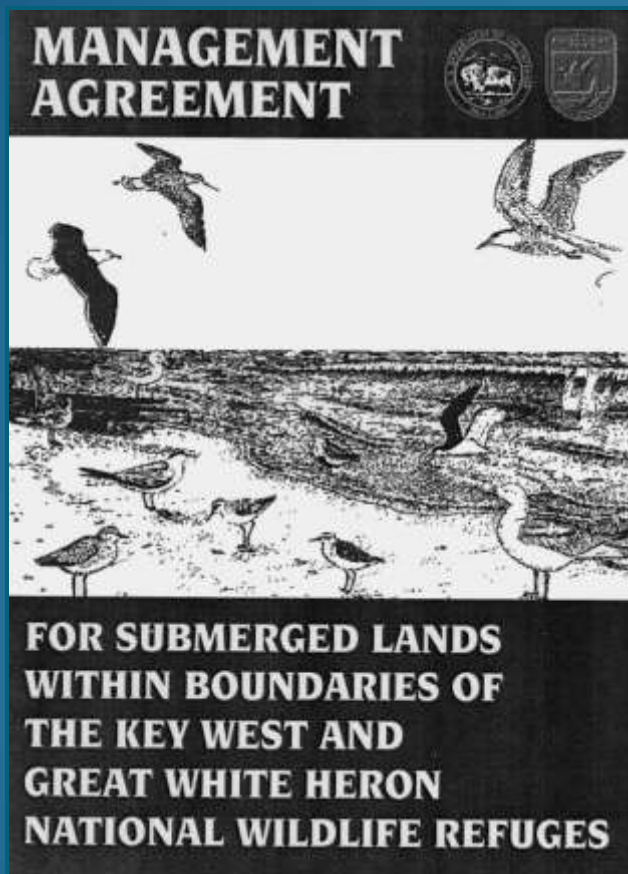


Florida Keys Ecosystem



Submerged Lands Agreement

“Backcountry Management Plan”



- Agreement between State of Florida and USFWS
- Signed in 1992
- Grants USFWS the authority to manage certain State submerged lands and waters to minimize impacts of expanding public uses on wildlife and wilderness values

Submerged Lands Agreement

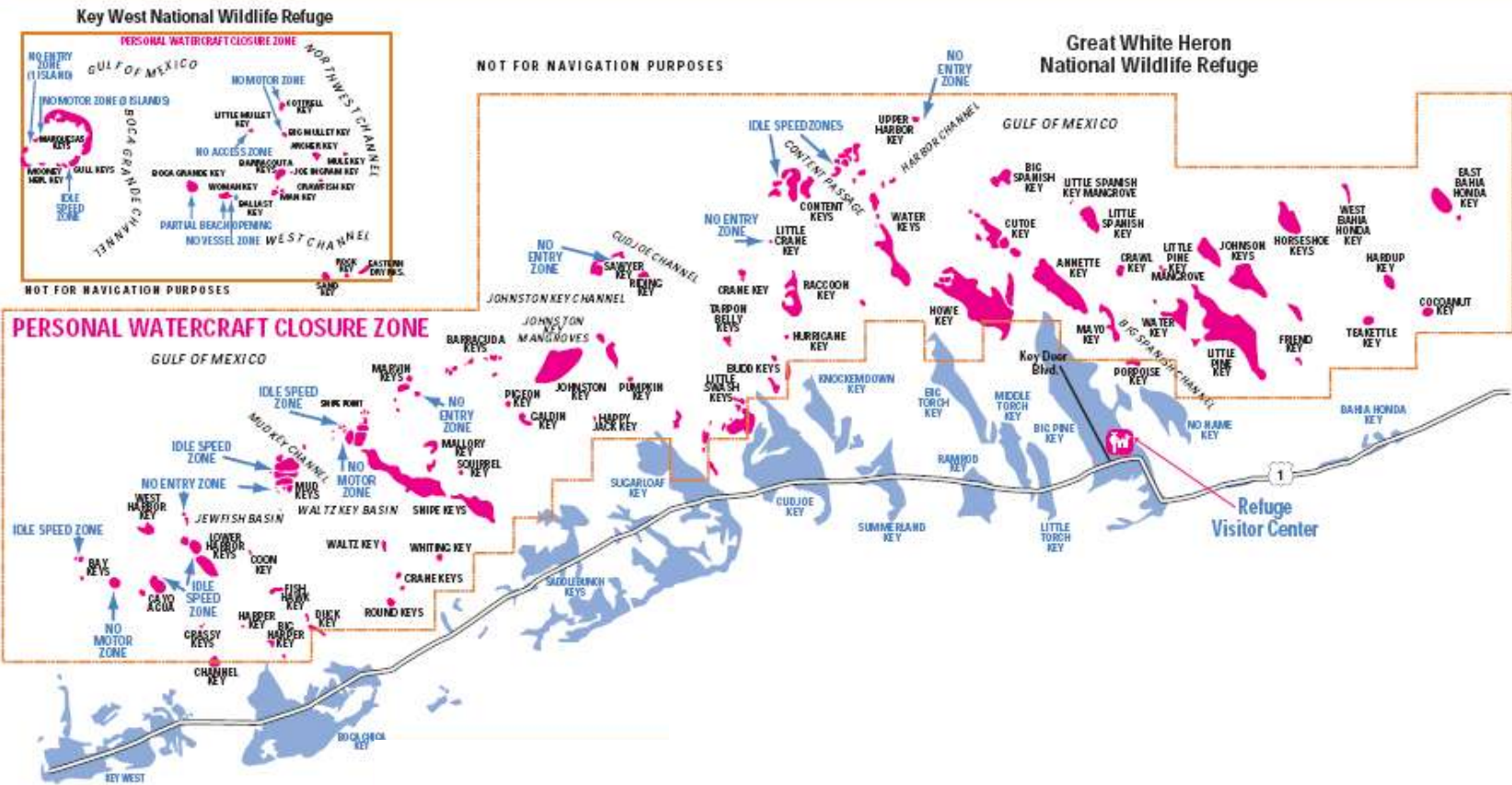
“Backcountry Management Plan”



- Established idle speed, no motor, and no access zones at specific islands
- Prohibits personal watercraft (jetskis), airboats, hovercraft, aircraft landing, and water skiing throughout all of Key West NWR and the vast majority of Great White Heron NWR

Submerged Lands Agreement “Backcountry Management Plan”

U.S. Fish and Wildlife Service



Florida Keys National Marine Sanctuary

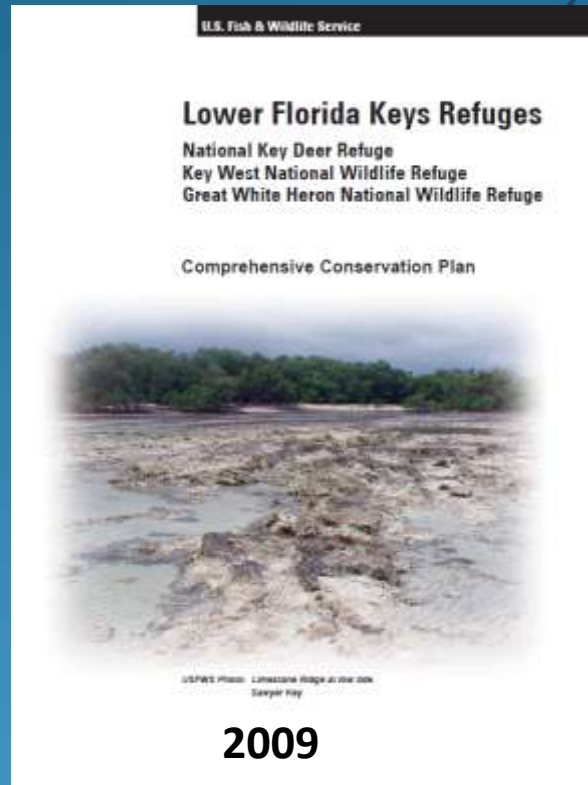


- Encompasses entire Florida Keys ecosystem
- Recognizes Florida Keys NWRs as “Existing Management Areas”
- Incorporates Backcountry Management Plan’s restricted areas into sanctuary zones known as “Wildlife Management Areas”



Comprehensive Conservation Plan (CCP)

- Vision
 - Goals
 - Objectives



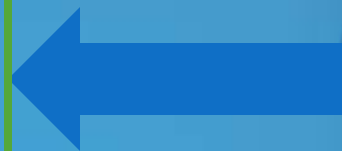
Habitat Restoration Plan

Prescribed Fire Plan

Species Recovery Plans

Land Acquisition Plan

Backcountry Mgmt. Plan



Step-Down Management Plans

- Objectives
 - Strategies
 - Action Items

Habitat damage & wildlife disturbance



Trespass & prohibited uses



Water-based commercial activities – on or off refuge?



Hurricanes



Boca Grande Key



Little Crane Key



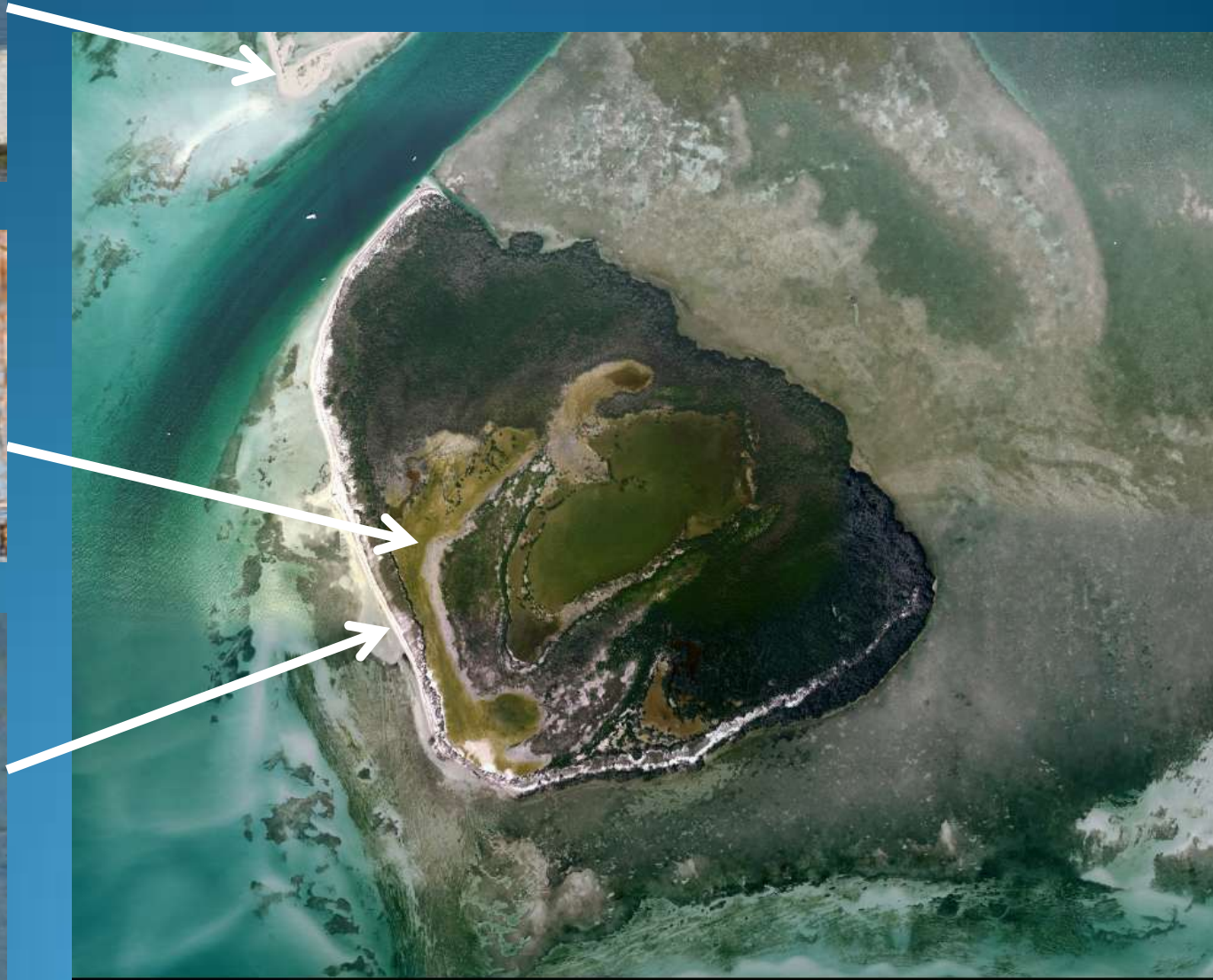
Little Pine Key

Wilma Key (2007)



Sand island created near Boca Grande Key, Key West NWR, by Hurricane Wilma in October 2005

Migratory bird diversity at Boca Grande Key,
Key West NWR





Thank you!

Anne Morkill

Florida Keys National Wildlife Refuges Complex

U.S. Fish and Wildlife Service

28950 Watson Boulevard

Big Pine Key, FL 33043

anne_morkill@fws.gov