

FINAL PROGRAM

Keeping Our Heads Above Water: Surviving the Challenges of Sea-Level Rise in Florida

A Workshop at Archbold Biological Station, Lake Placid, Florida
January 18-20, 2010

Sponsored by the Florida Institute for Conservation Science, Inc.

Co-Sponsors: The Nature Conservancy, Florida Native Plant Society, U.S. Fish and Wildlife Service, The Jelks Family Foundation, Disney's Animal Kingdom, The University of Florida's Water Institute and Land Use and Environmental Change Institute, the Hyatt and Cici Brown Endowment for Florida Archaeology at the University of Florida, and Conservation Science, Inc.

Sunday, January 17, 2010

Arrival of long-distance travelers to Archbold or nearby lodging

Monday, January 18, 2010

9:45 Registration

10:30 Welcome to Archbold and workshop logistics
Hilary Swain, Archbold Biological Station

10:40 Introduction and statement of problem
Reed Noss, Biology, University of Central Florida

10:50 Workshop structure and facilitation
Doria Gordon, The Nature Conservancy

11:00 *Keynote Lecture: The Rising Sea*
Orrin Pilkey, Geology, Duke University

12:00 – 1:00 Lunch

Introductory Session: The Interdisciplinary Context for Climate Change and Sea-Level Rise

Moderator: Mark Brenner, University of Florida

1:00 *Palaeoecology of Florida, Late Pleistocene to Holocene*
Eric Grimm, Illinois State Museum

1:20 *Sea-level History of Florida and Sea-level Rise Scenarios for the Near Future*
Joseph Donoghue, Geology, Florida State University

1:40 *How the Experiences of Ancient Floridians Inform the Challenges of Sea Level Rise Today*
Ken Sassaman, Anthropology, University of Florida

2:20 General discussion

2:30 Break

Impacts of Sea-Level Rise to Species and Ecosystems

Moderator: Sonali Saha, Institute for Regional Conservation

2:50 *Investigating the Effects of Climate Change on Hotspots of Coastal Erosion in Florida*

Pete Adams, Geological Sciences, University of Florida

3:10 *Mapping Sea Level Rise Inundation of South Florida Using LiDAR Measurements*

Keqi Zhang, International Hurricane Research Center, Florida International Univ.

3:30 *Survey of Rare Species Threatened by Sea Level Rise in Florida*

Jon Oetting, Florida Natural Areas Inventory

3:50 *Large-scale Implications of Sea-Level Rise on Conservation Priority Areas and Human Settlement in Florida*

Tom Hoctor, GeoPlan, University of Florida

4:10 Break

4:30 *Sea Level Rise Impacts on Suites of Rare Plant Species in Three Coastal Regions of Southern Florida*

Keith Bradley, Institute for Regional Conservation

4:45 *The Difficulty of Finding Smoking Gun Evidence: High Salinity and Other Threats to the Endangered Key Tree Cactus (*Pilosocereus robinii*) in the Florida Keys*

Joyce Maschinski, Fairchild Tropical Botanical Garden

5:00 General discussion

5:25 Break and Hosted Bar

6:00 Dinner

7:00 Social and informal discussion

Tuesday, January 19

7:00 – 8:00 Breakfast

*Current Research and Conservation Activities: Panel 1
(Speakers Have 10 Minutes Each, Followed by General Questions and Discussion)*

Moderator: Jack Putz, University of Florida

8:15 – 9:15 Timothy Dixon, University of Miami

Jayantha Obeysekera, South Florida Water Management District

Gail Hollander, Florida International University
Jill Hood, University of South Florida
Laura Gesselbracht, The Nature Conservancy
Laila A. Racevskis, University of Florida

9:15 – 9:45 Questions and Discussion

9:45 Break

*Current Research and Conservation Activities: Panel 2
(Speakers Have 10 Minutes Each, Followed by General Questions and Discussion)*

Moderator: Ross Hinkle, University of Central Florida

10:00 – 11:00 Thomas Swihart, FDEP, Office of Water Policy
Leonard Pearlstine, NPS, Everglades National Park
Steve Traxler, U.S. Fish and Wildlife Service
Anne Morkill, USFWS, Florida Keys National Wildlife Refuges
Brian Keller, NOAA, National Marine Sanctuaries Program
Jim Jones, IFAS, University of Florida (proposed Climate Institute)

11:00 – 11:45 Questions and Discussion

12:00 – 1:00 Lunch

Adaptation Options for Sea-Level Rise in Florida

Moderator: Gary Mitchum, University of South Florida

1:00 *Sea Level Rise and Involuntary Migration and Resettlement*
Tony Oliver-Smith, Anthropology, University of Florida

1:30 *A Comparison of Strategies for Coastal Adaptation to Sea Level Rise*
Michael Volk, Landscape Architecture, University of Florida

1:45 *Sea Level Rise and the Law: Who--or What--Is Taking Property?*
Tom Ruppert, College of Law, University of Florida

2:00 *Initial Estimates of the Ecological and Economic Consequences of Sea Level Rise on the Florida Keys through the Year 2100*
Chris Bergh, The Nature Conservancy, Florida Keys Program

2:15 *Wrenching Choices: Managing Species and Ecosystems Threatened by Sea Level Rise in the Florida Keys*
Michael Ross, Southeast Environmental Research Center, Florida International University

2:30 Break

2:45 *Recommended New Policies for Mangrove Forest Management and Restoration With Accelerated Sea Level Rise*
Robin Lewis, Lewis Environmental Services and Coastal Resources Group, Inc.

- 3:00 *Adaptive Response to Sea Level Rise: Implications for Land Use and Public Facilities Planning*
Robert Deyle, Urban and Regional Planning, Florida State University
- 3:15 *Modeling Municipal Vulnerability to Rising Sea Level*
Randall W. Parkinson, RWParkinson Consulting, Inc.
- 3:30 *Florida's Wildlife – On the Front Line of Climate Change*
Tom Eason, Florida Fish and Wildlife Conservation Commission
- 3:45 *Structured Decision Making in the Context of Sea Level Rise in Florida*
Julien Martin, Florida Fish and Wildlife Conservation Commission
- 4:00 General Questions and Discussion
- 5:00 Break and Hosted Bar
- 6:00 Dinner
- 7:30 Social and informal discussion

Wednesday, January 20

7:00 – 8:00 Breakfast

Developing Recommendations for Science and Policy

- 8:15 Charge and instructions for break-out groups
Reed Noss and Doria Gordon
- 8:30 Break-out groups meet to develop recommendations for research priorities and policy and management actions
- 12:00 – 1:00 Lunch
- 1:00 Break-out group presentations to workshop
- 2:30 *Capstone Address – Summary of Challenges and Opportunities*
Hal Wanless, Geological Sciences, University of Miami
- 3:15 Closing comments and next steps in project
Reed Noss
- 4:00 Adjourn

Discussants and Participants (in addition to speakers and panelists listed above)

Myra Noss, Biology, University of Central Florida
 Mark Brenner, Geological Sciences, University of Florida
 Jack Putz, Biology, University of Florida
 Sonali Saha, Institute for Regional Conservation

C. Ross Hinkle, Biology, University of Central Florida
David Breininger, Kennedy Space Center
Gary T. Mitchum, Physical Oceanography, University of South Florida
Cathy Langtimm, USGS, Gainesville
Brad Stith, USGS, Gainesville
Evelyn Gaiser, Florida International University