



Florida Coastal Everglades
Long Term Ecological Research



FCE ASM 2008

Education & Outreach



FCE II
2007-2008



Education & Outreach Working Group

- Nicholas Oehm, Coordinator
- Susan Dailey, Outreach Associate
- Teresa Casal, Curriculum Development
- Carlos Escobar, Bilingual Education
- Brenda Kilmer, K-12 Media Specialist
- Gail Clement, FIU Digital Librarian



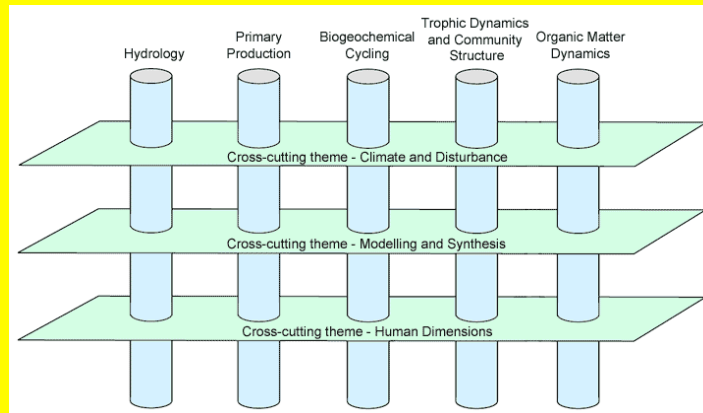
Education & Outreach

Mentors

- RET
 - Mike Ruge
 - Linda Powell
- REUs
 - Tiffany Troxler
 - Colin Saunders
 - Steve Davis
 - Rene Price
- RESSt
 - Tiffany Troxler
 - Colin Saunders
 - Serge Thomas
 - Evelyn Gaiser
 - Mike Heithaus
 - Megan Dunphy-Daly
 - Joel Trexler



Education & Outreach



Education & Outreach



Education & Outreach

Approach

- Four Divisions to Ed & Outreach
 - Curriculum Development
 - Program Development
 - Mentoring Programs
 - Community Outreach



Education & Outreach

Our Needs

- Mentors
- Ask A Scientist Experts



Education & Outreach 2007 Accomplishments



FCE II

2007-2008



Education & Outreach

What We Provide

- *“Translating Science for Society”*
- Four Approaches
 - Curriculum Development
 - Mentoring Programs
 - Community Outreach
 - Program Development



RET

Research Experience for Teachers

- Teresa Casal
 - Developed formal curriculum for mentoring RESSt interns
 - Created instructions and activities for using FCE datasets in the classroom





RET

Research Experience for Teachers

- Carlos Escobar
 - Bilingual Education
 - Translated FCE webpage into Spanish





Education & Outreach

Mentoring Program

- Research Experience
 - RET for teachers
 - REU for undergraduates
 - RESSt for secondary students
 - REMS for middle schools



Education & Outreach

REU Interns

- Regina Perry--Davis, A&M
- Tatiana Marquez--Price, FIU
- Ashley Bubp--Saunders, FIU
- Kardi Greaves--Troxler, FIU
- Jeremy Gifford --Troxler, FIU
- Jennifer Stine --Troxler, FIU
- Natalie Basma Naassan --Troxler, FIU



RESSt

Research Experience for Secondary Students



Bryan Aguilar



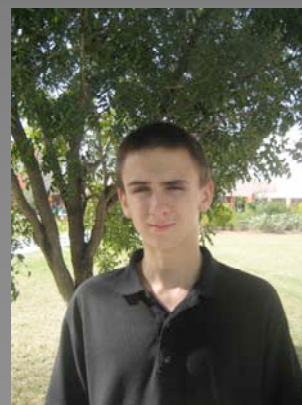
Oscar Marti



Melissa Caceres



Brittany Brave



Christopher Sanchez

Kristine
Khan



RESSt

Research Experience for Secondary Students

- Ben Giraldo
- Worked with Tiffany Troxler 2 years
- Winner 2007 ASM Poster Contest





RESSt

Research Experience for Secondary Students

Bacterial diversity indices, enzyme activity, and soil CO₂ flux along a soil P gradient in a coastal peatland, Panama

- 54th South Florida Regional Science and Engineering Fair
 - Perfect score
 - SUPERIOR, Environmental Division



RESSt

Research Experience for Secondary Students

- Michael Fins
- Works with Mike Heithaus & Megan Dunphy-Daly





RESSt

Research Experience for Secondary Students

*The influence of predation risk on habitat use of the red eared slider (*Trachemys scripta elegans*)*

- 54th South Florida Regional Science and Engineering Fair
 - Top score in Zoology
 - SUPERIOR, Zoology



RESSt

Research Experience for Secondary Students

- Two more FCE Students to compete
 - 54th State Science and Engineering Fair of Florida, Lakeland April 16-18





REMS

Research Experience for Middle Schools

- Developed “Mission: Everglades Restoration” activity
- Theme based on “Mission: Impossible”
- Presented at Hammocks Middle School to over 150 students
- Will be adapted for FCE website





Community Outreach

- Community Programs & Presentations
- Academic Collaborations
- Community Collaborations



Community Outreach

Community Programs & Presentations

- Aquarius Broadcast with FCE's Patrick Gibson
 - 75 local high school students
- MDC
 - Carlos Coronado working with Maria Guerrero on Earth Day Presentation at MDC Interamerican Campus
- Dade County Science Teachers Association
 - Teresa Casal presented FCE activities to local teachers
- Miami Dade County Public Schools
 - Teresa will present FCE activities at Annual Science Department Chair meeting
- John Pennekamp State Park, Key Largo
 - “Delicate Balance of Nature” lecture series



Community Outreach Academic Collaborations

- LTER
 - FCE videos
 - *Coastlines* iTEST grant
 - SBC, MCR, VCR, FCE
 - GCE-FCE comparison video
- Non LTER
 - Miami Dade County Public Schools
 - Developing Research Class that incorporates use of FCE data through Teresa's work
 - Felix Varela Senior High School Global Studies Academy
 - First school in MDCPS to incorporate GIS into curriculum
 - Revise



Community Outreach Community Collaborations

- CEMEX
 - Victoria Tomas
 - Represents Rinker and other mining operations in west Dade
 - Habitat restoration as mining abatement
 - Classrooms



Education & Outreach Goals



FCE II

2007-2008



Education & Outreach

Goals for Mid Term Review

- Continue Research Experience Programs
 - Requested funds for:
 - Two RETs
 - Three REUs
 - Continue
 - RESSt program
 - Developing REMS program by implementing GIS curriculum



RET

Research Experience for Teachers

- Catherine Laroche
 - Participate and use *Coastlines* activities to develop three part, interdisciplinary GIS for sciences (earth science, biology, chemistry)
 - Work to developing Global Studies curriculum using GIS for FVHS





RET

Research Experience for Teachers

- Teresa Casal
 - Participate and use *Coastlines* to develop three part, inter-disciplinary GIS curriculum
 - Disseminate FCE products through MDCPS annual Department Chair meeting
 - Work with MDCPS to develop Research Course that includes FCE datasets





RET

Research Experience for Teachers

- Brenda Kilmer
 - Lectures and collaborative projects with Everglades Digital Library
 - Help to revise “Ask a Scientist” and develop “Ask an Everglades Expert”
 - Podcasting

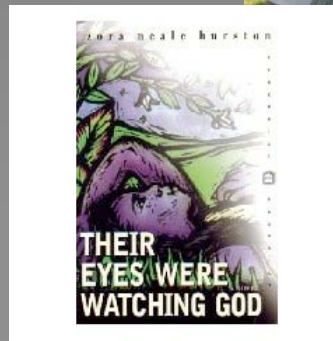
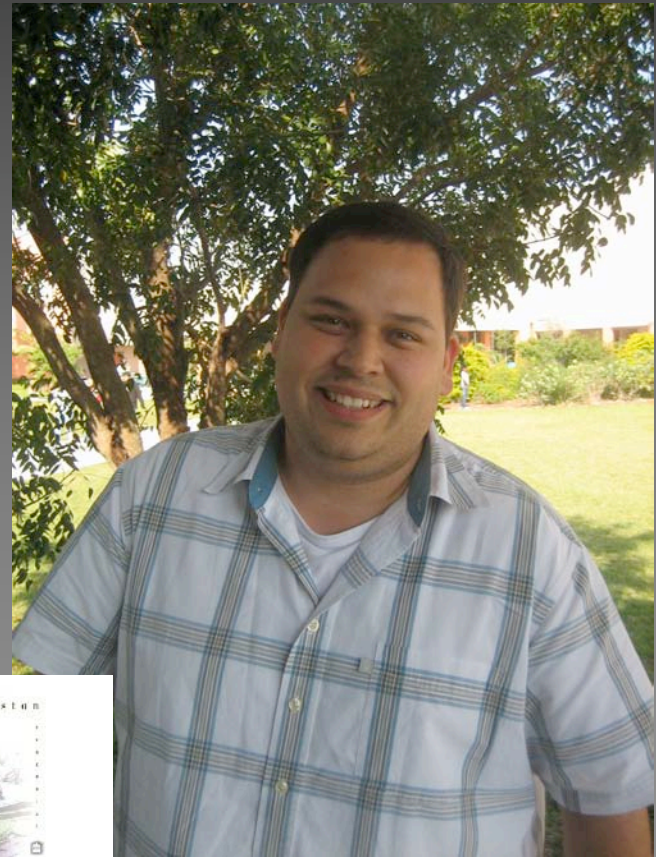




RET

Research Experience for Teachers

- Carlos Escobar
 - Bilingual Education
 - Develop FCE curriculum for “Their Eyes were Watching God” by Zora Neale Hurston
 - Suggested novel by College Board for AP Literature





Education & Outreach

Goals for Mid Term Review

- Expand Community Outreach
 - Collaborations
 - Community Partnerships
 - Bilingual Outreach



Expand Community Outreach

LTER Network Collaborations

- GCE
 - Susan produce video comparing GCE with FCE
- NSF iTEST grant *Coastlines*
 - 3 year program teaching K-12 teachers GIS
 - Rotate between FCE, VCR, and SBC/MCR sites
 - Develop and implement GIS instruction into curriculum using LTER data



Expand Community Outreach

University Collaborations

- Center for Diversity in Engineering and Computing, FIU Engineering
 - Department of Diversity and Minority Programs
 - ENLACE-Miami
 - The Children's Trust
 - Motorola
 - Looking for NSF STEM grants



ENLACE-Miami

- Engaging Latino Communities for Education
 - Youth and Education Grant by W.K. Kellogg Foundation



ENLACE Partners

- Aspira of Florida, Inc.
- CAMACOL (Latin Chamber of Commerce)
- K-Parents
- Institute of Electrical and Electronic Engineers
- Miami Dade County Public Schools
- Puello and Associates
- The Non-Violence Project
- WLRN Public Television
- Yaeger Foundation
- Youth Co-Op, Inc.



The Children's Trust



- Proposal with FIU Engineering to pay students for internships--FREE to FCE!!!
 - Research based RESSt internships
 - Non-research based internships
 - Clerical and office work
 - Lab technician
 - Data entry
 - Up to 35 hours/week @ \$7/hour
 - Mid-June-September 1



Motrola

- Submitted proposal with Engineering for 100K to fund 7-10 RESSt interns and mentors



Expand Community Outreach

University Collaborations

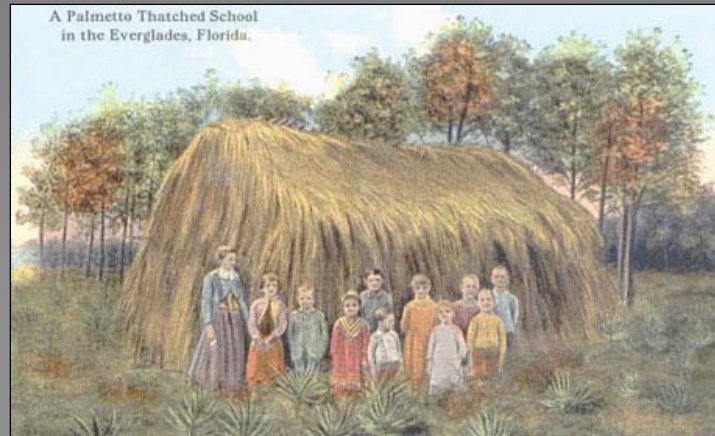
- Everglades Digital Library
 - Currently working with Gail Clement to join forces to combine FCE's "Ask A Scientist" and "Ask An Everglades Librarian"



Ask An Everglades Expert!

Possible collaboration between the
Florida Coastal LTER Ask A Scientist
&

Everglades Digital Library's Ask An Everglades Librarian





Benefits of Collaboration

- Share resources and responsibility
- Establish “triage” and tier questions
 - Scientists time is precious resource and help only when librarian is stumped
 - Plant names, references



Benefits of Collaboration

- Take advantage of customer service and reference skills of Librarians
 - Deal with repeat questions
 - Better serve heterogeneous pool of users/knowledge across levels
 - Provide appropriate degree of assistance to test-takers vs. assignments
 - Reach a broader pool of users



“Ask An...” Environment

- Questions posted and answered
 - By one or more experts
 - Successive questions are nicely threaded together
- Topics can be searched or browsed by phrases, e.g.,
 - “Wading birds”
 - “Botany”
 - “Everglades restoration”
- Each ‘expert’ has his/her own profile with customizable features.
- Live discussions
- Shared documents via wiki
- Tiered service
 - First response to question could come from librarians/core staffers, with referrals to scientists as needed (users don’t talk with scientists directly unless scientist wants to engage)
- Users can join site as guests and post questions
- Knowledgebase of previously asked and answered questions, built over years
- Useful usage data on what kinds of information people need

- Check Mail
- Inbox
- Compose
- Folders
- Search
- Address Book
- Preferences
- Options
- Trash
- External Mail
- Help
- Logout
- Legend**
- Unread
 - Read
 - Answered
 - Attachment
 - Subscribed
 - Highest
 - High
 - Low
 - Lowest

SentMail Jul 2004	0	16		
SentMail Jul 2005	0	3		
SentMail Jul 2006	0	5		
SentMail Jul 2007	0	9		
SentMail Jun 2003	0	31		
SentMail Jun 2004	0	17		
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SentMail Mar 2004	0	39		
SentMail Mar 2005	0	12		
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SentMail Mar 2007				
SentMail Mar 2008				
SentMail May 2003				
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SentMail Oct 2004				
SentMail Oct 2005				
SentMail Oct 2006				
SentMail Oct 2007				
SentMail Sep 2003	0	17		
SentMail Sep 2004	0	11		
SentMail Sep 2005	0	8		
SentMail Sep 2006	0	6		
SentMail Sep 2007	0	10		
Thanks	0	132		

From email silos...

SentMail May 2006 Quota: 46.87% of 300 MB

Delete Mark Read Move Copy Inbox

Select/Clear All 1 to 13 of 13 <First Prev Next Last>

Msg Received

1 May 03, 2006 11:15 3k glades@fiu.edu

2 May 05, 2006 11:02 2k glades@fiu.edu

3 May 06, 2006 11:37 3k glades@fiu.edu

4 May 06, 2006 11:12 2k glades@fiu.edu

5 May 11, 2006 14:53 3k glades@fiu.edu

6 May 15, 2006 13:33 2k glades@fiu.edu

7 May 18, 2006 12:28 6k glades@fiu.edu

8 May 18, 2006 10:23 5k James, Essex J

9 May 22, 2006 15:38 2k glades@fiu.edu

10 May 23, 2006 15:43 3k glades@fiu.edu

11 May 31, 2006 11:52 2k glades@fiu.edu

12 Nov 08, 2006 10:17 4k Ask An Everglades Lib...

13 Nov 08, 2006 10:20 3k Ask An Everglades Lib...

USA TODAY: request for information

Re: Brion Family of Arch Creek, Dade County, Florida

Re: USA TODAY: request for information

Everglades photos

Re: rain

Re: pink waterlilies in the Everglades? Help asap, thank...

Fwd: Picayune and Fakahatchee Strand map

Picayune and Fakahatchee Strand map

Re: Alligators and crocodiles

Re: Hole-in-the-donut restoration

Re: Marshall Plan

USA TODAY: request for information

Writer for the Smithsonian

This Question is **Answered** 1 "correct" answer available (4 pts) 2 "helpful"

- Actions**
- Edit thread
 - Lock thread

3 Replies Last post: Mar 10, 2008 3:20 PM by Gail Clement



Gail Clement
8 posts since Mar 3, 2008

Mar 10, 2008 1:37 PM
Hammock info, please

Hi,
I am working on the novel, The Missing Gator of Gurr about the push and hold back mentioned in the story see online? I have searched all the sites I can think

Thanks.
Miss Frizzle, Gr. 6/7
Magic Bus Elementary School
Vancouver, B.C., Canada



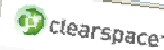
Gail Clement
8 posts since Mar 3, 2008

1. Mar 10, 2008 1:43 PM in response to: Gail C
Re: Hammock info, please

Miss Frizzle I think your subject plant is Pisonia (sometimes flesh) so that, in backing off b names are pullback, cockspur, devil's claw Shrubs & Woody Vines of Florida, pp. 238

Attachments:
 416px-Pisonia_aculeata Blanco2_394 (40.6 K)

2. Mar 10, 2008 3:16 PM in response to: Gail Clement



Florida International University - Ask An Everglades Expert

Ask An Everglades Expert

- Overview (4 members)
- All Content (20)
- Discussions (3)
- Attachments (0)
- Blog Posts (0)
- Set as default tab

Recent Discussions

Author	Subject	Views	Replies	Last Post
Gail Clement	Everglades Wading Birds	4	2	20 hours ago by Gail Clement
Gail Clement	Hammock info, please	10	3	20 hours ago by Gail Clement
Gail Clement	Everglades History Project	1	0	20 hours ago by Gail Clement

Edit Delete Branch Reply

to flexible knowledge base and dynamic forum



Resources to Make it Happen

- Working Groups
 - Experts' time to respond to questions
 - Rotating schedule, maybe 1-2 hr. commitment per month
 - May need to attend a brief training session
- Education & Outreach
 - Dollars to license software (\$3000 fee)
 - Minimal IT support to host and administer software
 - Support letters for grant proposal, if we go that way



Community Collaborations

- Miami Dade County Public Schools
 - Teresa Implement a Research Class
 - NCLB Secondary School Reform
- Felix Varela Senior High School
 - Global Studies Academy



Community Partnerships

- Local
 - Children's Trust
 - CEMEX
 - Ft. Lauderdale Museum of Discovery and Science
- National
 - ENLACE
 - CEMEX



Strategic Plan for Education in the LTER Network

Network Vision for Education



LTER Strategic Plan

Network Vision for Education

- Three Initiatives:
 - Leadership, Organization, and Cyberinfrastructure
 - Research and Development
 - Programs for Working with Key Constituent Groups



Initiative 1

Leadership, Organization, and Cyberinfrastructure

- Three Goals--FCE is ahead of the curve!
 - Develop LTER Network Education Leadership
 - RE programs, bilingual, community partners
 - Establish LTER Education Site Coordinators
 - Already well developed
 - Develop LTER Education Cyberinfrastructure
 - Teresa data activities could be used as LTER data is standardized



Initiative 2

Research and Development

- Two Goals--FCE is Implementing
 - Develop Learning Progressions Leading toward Environmental Science Literacy
 - Research Experience Programs
 - Developing interdisciplinary GIS lessons
 - Including and learn from diverse people and perspectives
 - ENLACE



Initiative 3

Programs for Key Groups

- Three Goals--FCE currently implementing
 - Work with K-12 teachers and administrators to promote environmental literacy
 - Research Experience programs
 - GIS instruction and curriculum development
 - Teresa: data exercises; research class; present.
 - Susan's videos
 - Bilingual education



Initiative 3

Programs for Key Groups

- Goals (cont'd)
 - Work at the undergraduate and graduate levels to improve training
 - Research Experience programs

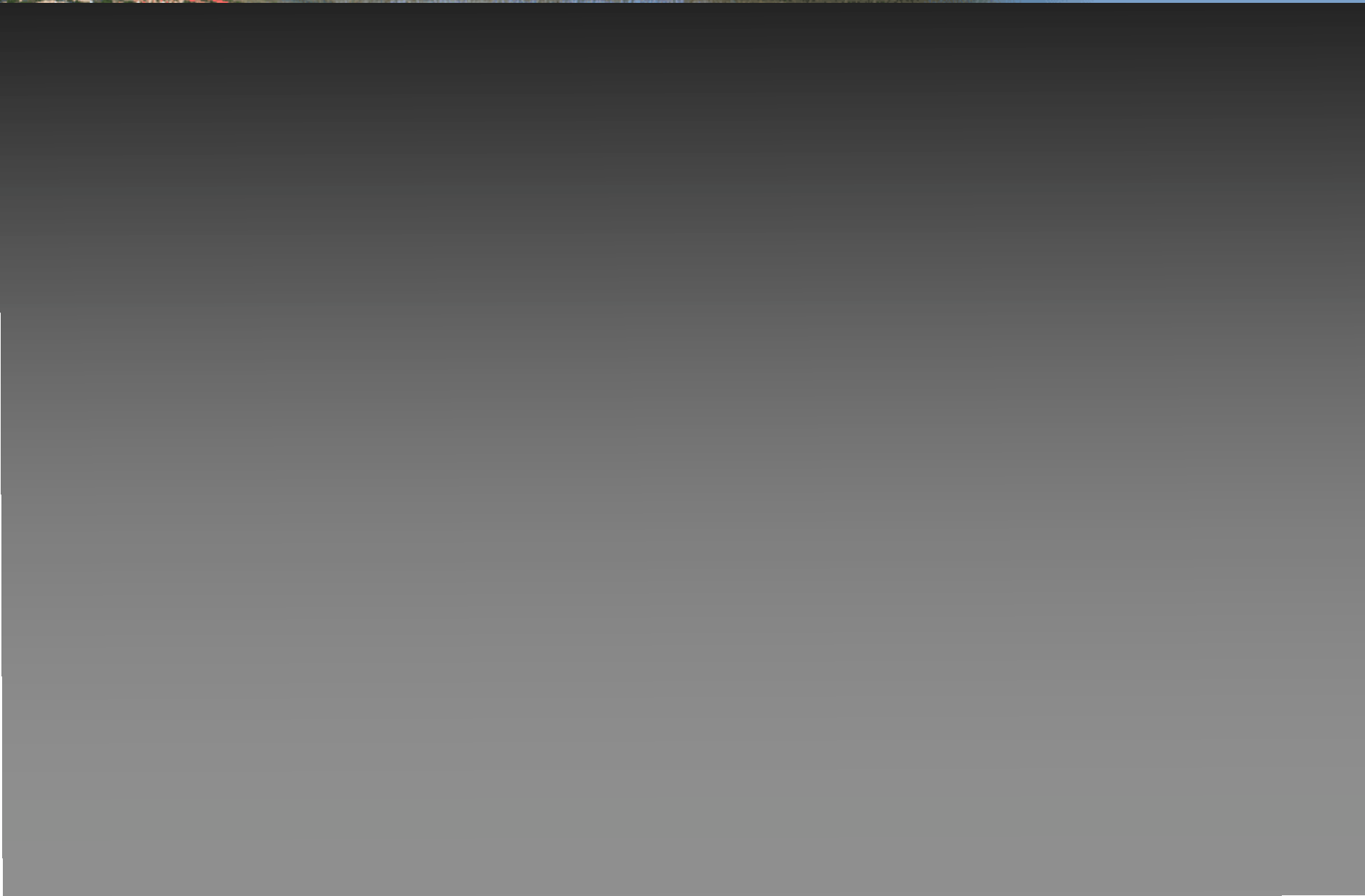


Programs for Working with Key Constituent Groups

- Goals (cont'd)
 - Engage citizens and leaders with LTER research
 - Ask an Everglades Expert
 - Community Outreach Programs
 - Presentations e.g., MDC, Pennekamp
 - CEMEX
 - Ft. Lauderdale Museum of Discovery and Science



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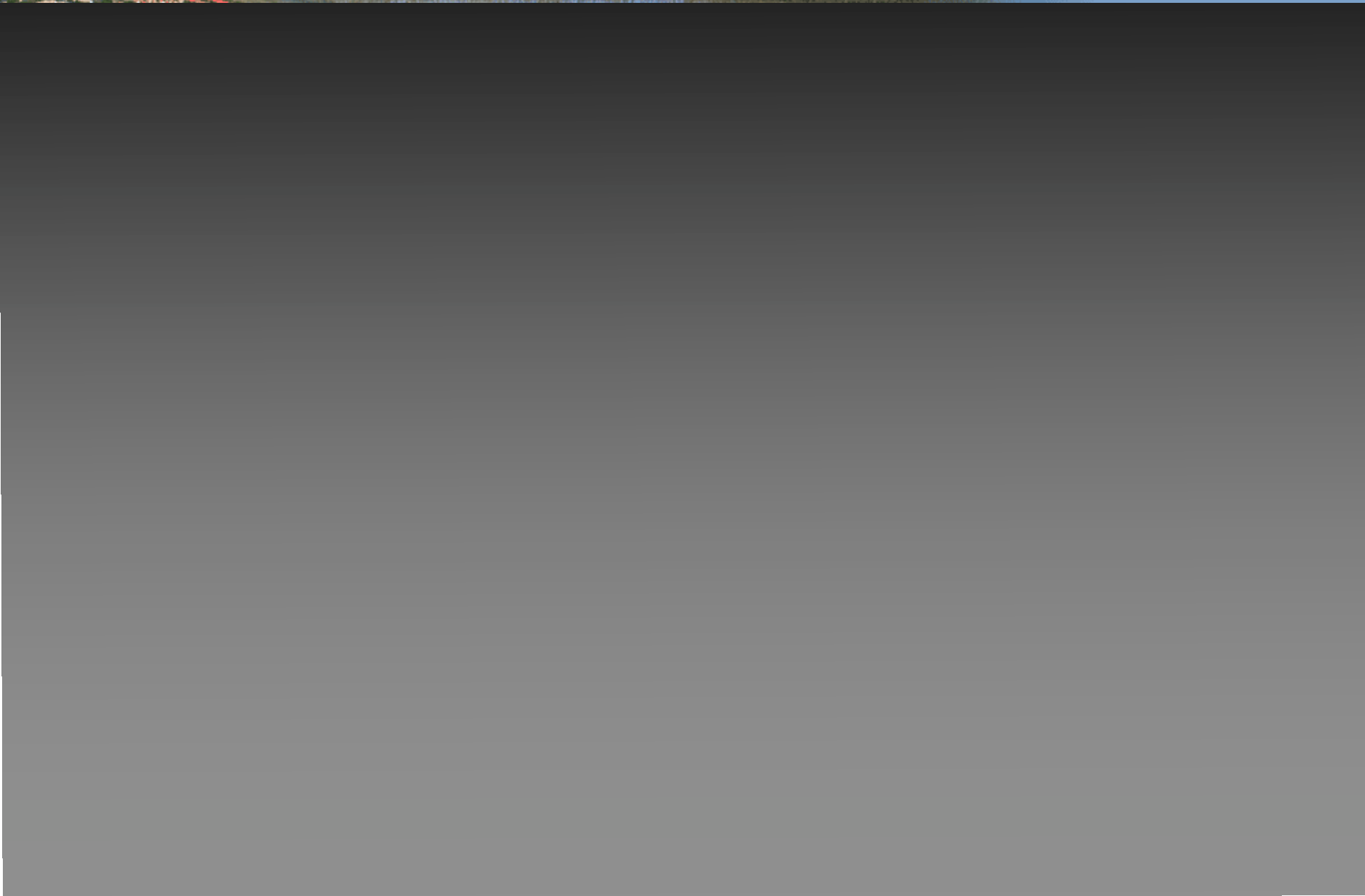
Florida Coastal Everglades
Long Term Ecological Research



Community Outreach

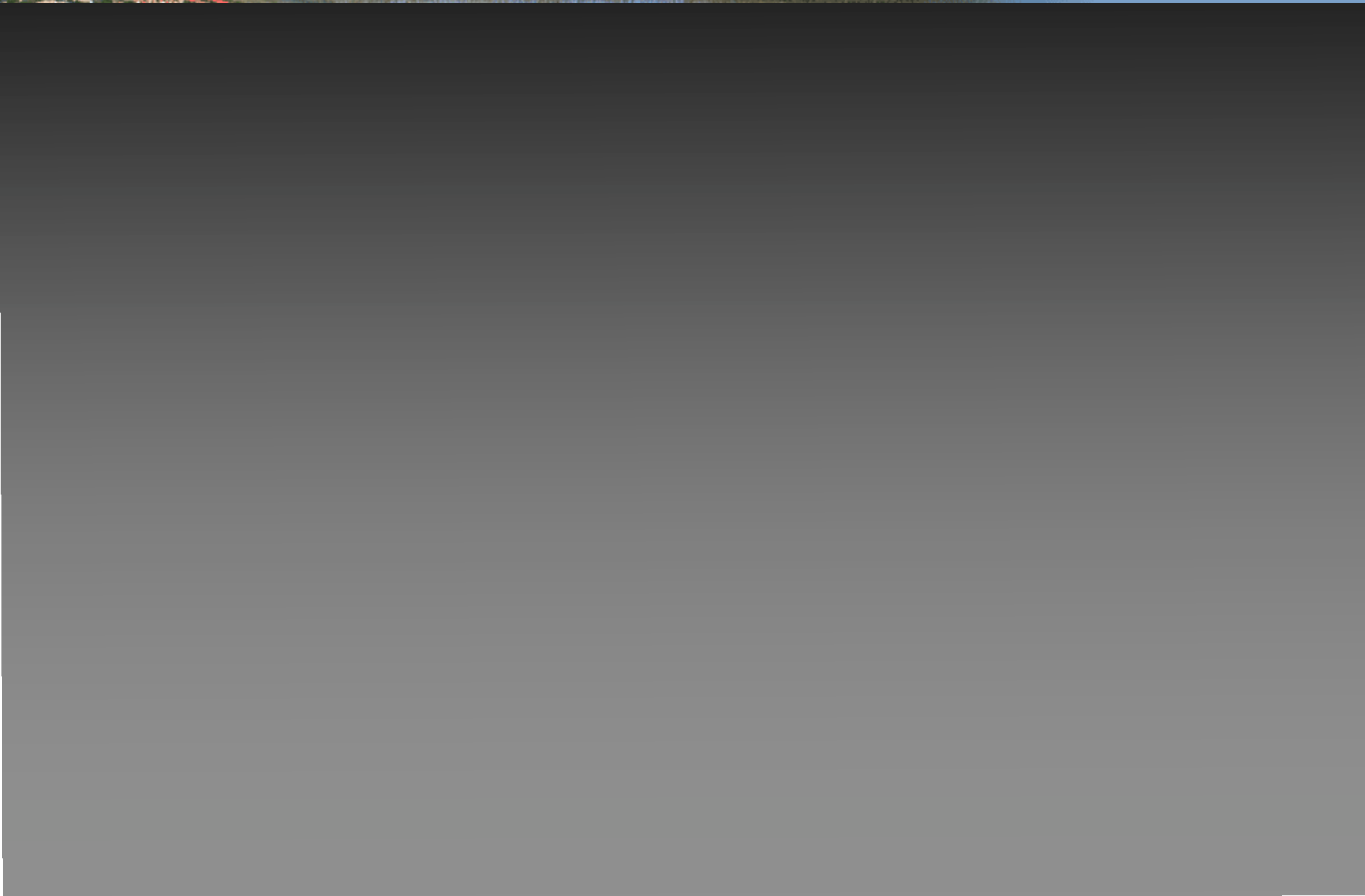


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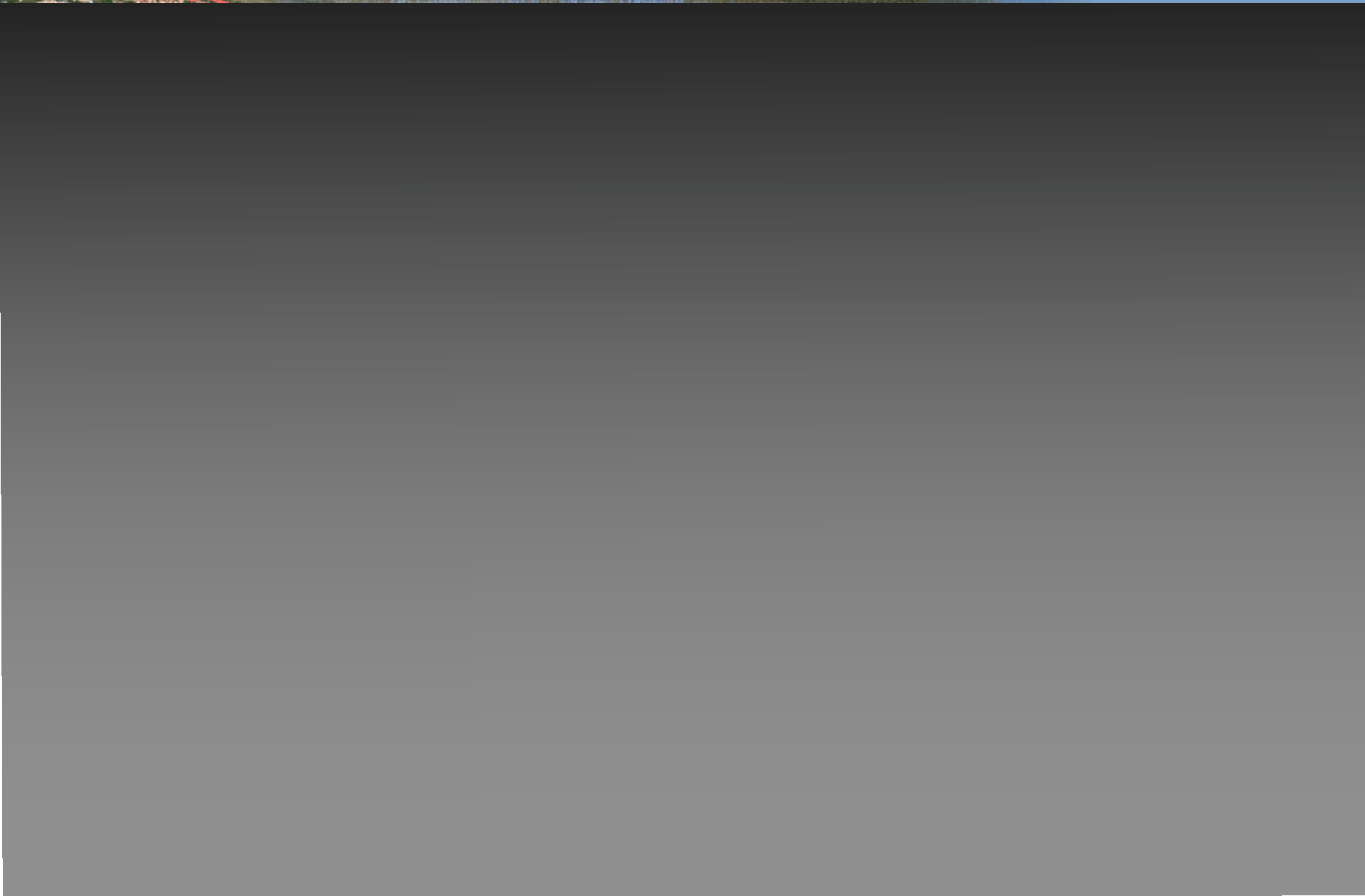


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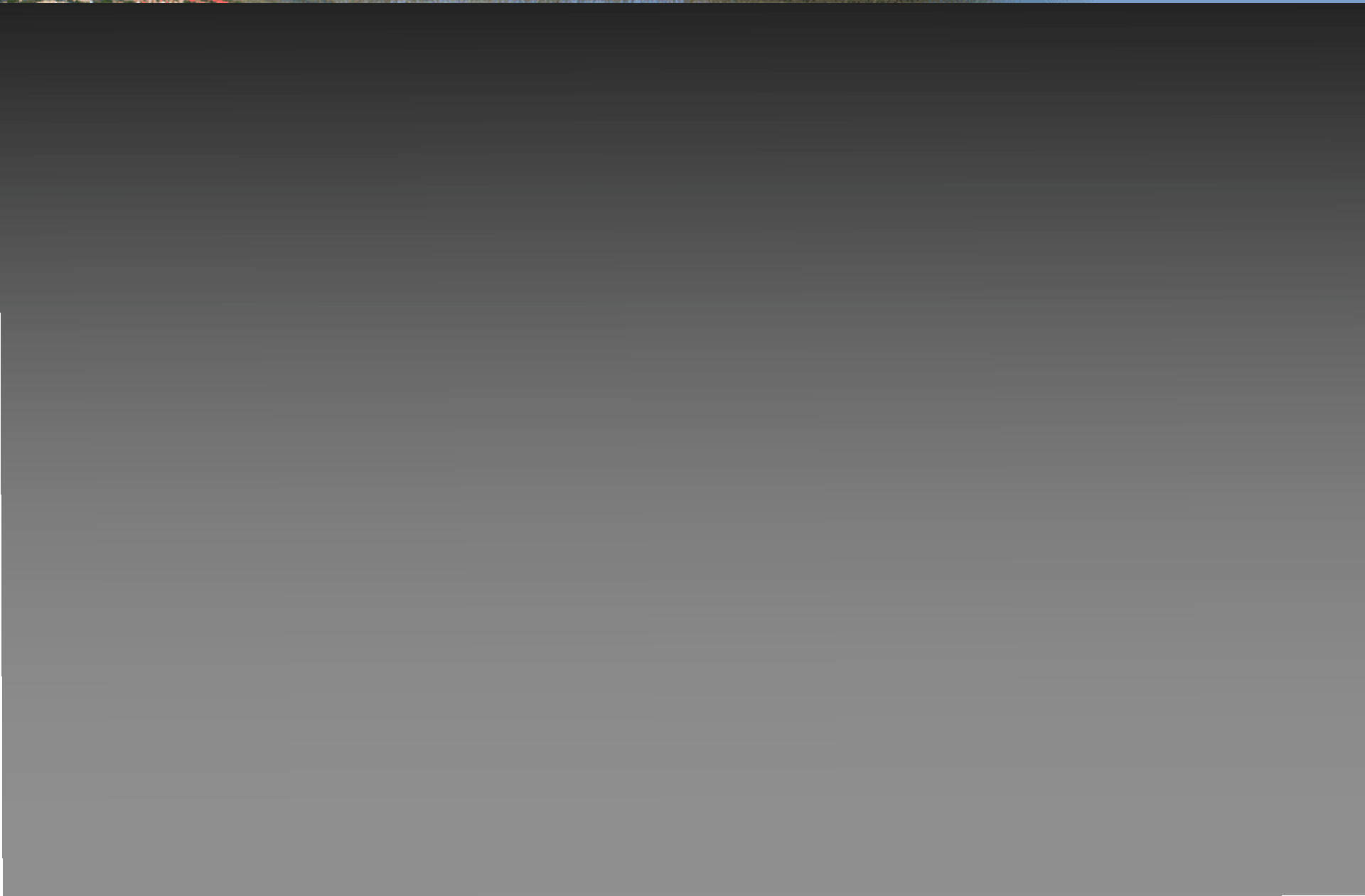
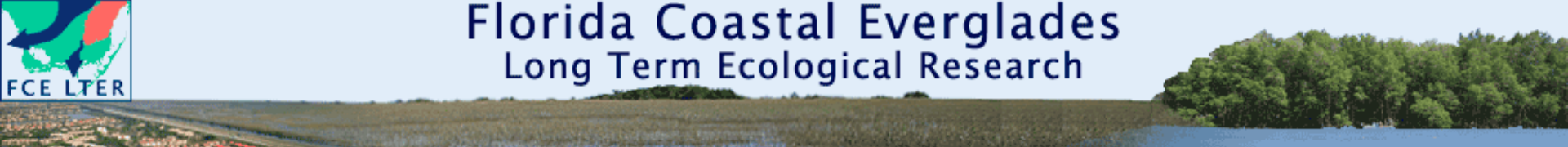


Florida Coastal Everglades Long Term Ecological Research





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Florida Coastal Everglades Long Term Ecological Research

