

Gulf of Mexico Regional Governance and Coordination



Wes Tunnell

**Associate Director and Research Scientist,
Harte Research Institute for Gulf of Mexico Studies**

Director, Center for Coastal Studies

Professor of Biology

Texas A&M University-Corpus Christi

The Harte Research Institute

- Endowed by Mr. Ed Harte (Sept. 2000)
- \$46 million
 - 6 Endowed Chairs
 - 12 Endowed Graduate Research Assistantships
 - Endowed Operating Budget
- “Make a Difference”



From Texas Legislature

- \$18 Million for Harte Research Institute Building on TAMU-CC Campus; moved in October 2005
- \$300,000 Annual Special Item Funding for Gulf of Mexico Environmental Lab



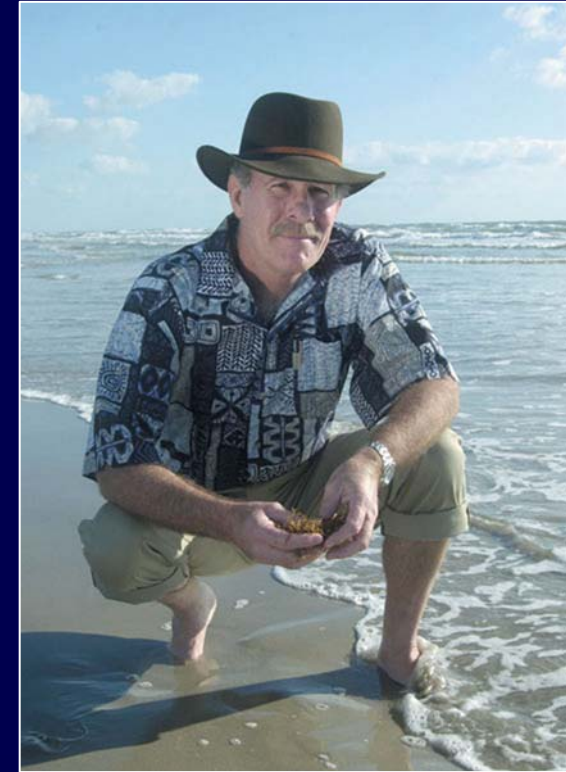
The Team



Bob Furgason
HRI Director



Sylvia Earle
Chair, HRI Advisory Council



Wes Tunnell



The Team

Advisory Council Members:

Dr. Sylvia Earle, Chair – *National Geographic Society*

Sr. Homero Aridjis – *Journalist, Mexico City*

Ms. Katharine Armstrong – *Ranching*

Mr. William Baker – *Environmental Manager, Reliant Energy*

Mr. William Bradford – *Former CEO Dresser / Halliburton*

Mr. Joseph Fitzsimons – *Chair, TPW Commission*

Dr. Robert Furgason – *Director, HRI*

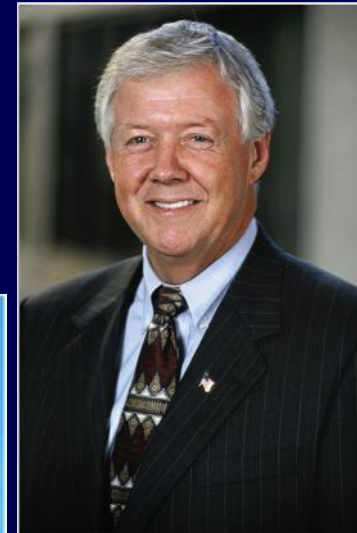
Mr. Terry Garcia – *Executive Vice President, National Geographic Society*

Mr. Bryon Griffith – *Director, Gulf of Mexico Program*

Dr. David Guggenheim – *Vice President, Ocean Conservancy*



Sr. Eugenio Clariond
Chairman and CEO,
Grupo IMSA



Mr. Luke Corbett
CEO, Kerr McGee



Mr. Jean Michel Cousteau
Ocean Futures Society



The Team

Advisory Council Members:

Dr. Eric Gustafson – President, *United States-Mexico Chamber of Commerce*

Mr. Ray Hayes – Executive Vice President, *Mississippi State University*

Mr. William Harte – *Harte Family*

Sr. Alejandro Junco de la Vega – Publisher, *Monterrey*

Dr. Björn Kjervfe – Dean, College of Geosciences, *Texas A&M University*

Dr. Kumar Mahadevan – Executive Director, *Mote Marine Lab*

Mr. Pat Noonan – Chairman, *Conservation Fund*

Sr. Raul Rodriguez – Managing Director and CEO, *North American Development Bank*

Dr. Andrew Sansom – Executive Director, Exec. Director, Intl. Institute for Sustainable Water Resources

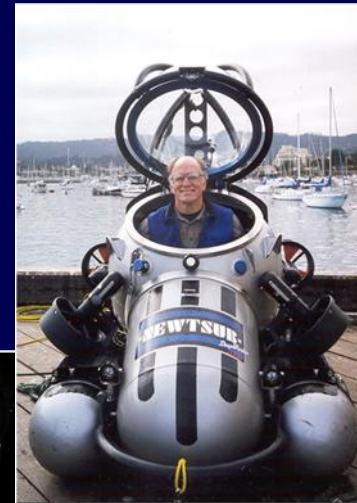
Mr. G. T. (Tom) Theriot – Manager, Safety, Health and Environment, *ExxonMobil*

Dr. Don Walsh – Oceanographer, *Trieste Pilot*

Dr./Admiral Alberto Vazquez de la Cerda –
Universidad Veracruzana & Secretaria de Marina



Sr. Guillermo Garcia Montero – Director, *National Aquarium of Cuba*



Dr. John Ogden – Director, *Florida Institute of Oceanography*



Advisory Council Meeting

- October 2001 – Corpus Christi, Texas
- December 2001 – Corpus Christi, Texas
- February 2002 – Houston, Texas
- April 2002 – Havana, Cuba
- October 2002 – Veracruz Mexico
- January 2003 – Corpus Christi, Texas
- April 2003 – Washington, D.C.
- October 2003 – Corpus Christi, Texas
- February 2004 – Sarasota, Florida
- October 2004 – New Orleans, LA – Stennis Space Center, MS
- March 2005 – Monterrey, Mexico
- November 2005 – Corpus Christi, Texas



Mission

“Research institute of excellence at TAMU-CC to support and advance the long-term sustainable use and conservation of the Gulf of Mexico”



Characteristics

- Generate and disseminate knowledge
- Encourage trilateral responsibility and approach to understanding and managing the Gulf of Mexico (U.S., Mexico, Cuba)
- Collaboration and cooperation with varied Gulf partners



HRI Initiative/Collaborative

“Gulf of Mexico Past, Present, and Future”

- | | | |
|---------------------|---|--|
| Immediate | { | 1. GulfBase (www.gulfbase.org) |
| | | 2. Gulf Exploration (each year) |
| | | 3. State of Knowledge Workshop (Oct. '03) |
| Near to
Mid-term | { | 4. Biodiversity of the Gulf of Mexico Project ('03-'06) |
| | | 5. “Bulletin 89” 50-Year Update ('03-'08) |
| | | 6. State of the Gulf of Mexico Summit (Mar. '06) |
| Long-term | { | 7. Annual Thematic Working Conferences |
| | | 8. Gulf of Mexico Alliance ('05→) |
| | | 9. Public Policy Initiatives |



You are here: [GulfBase](#)



GulfBase.org

*Resource Database
for Gulf of Mexico Research*



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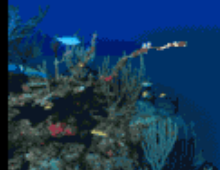
[General Facts
about the Gulf](#)

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Welcome to GulfBase

GulfBase is a database of resources about the Gulf of Mexico. The goal of this website is to regroup, synthesize, and make freely available Gulf of Mexico research information. Our vision is that GulfBase will help researchers, policy makers, and the general public work together to insure long-term sustainable use and conservation of the Gulf of Mexico.



Spotfin Butterflyfish, *Chaetodon ocellatus*

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Announcements: [HRI Seeks Endowed Chairs](#)

Gulf of Mexico Alliance announces new [web site](#)

GulfBase is a project of the [Harte Research Institute for Gulf of Mexico Studies](#) at [Texas A&M University-Corpus Christi](#). To give proper credit to the original authors, please cite information taken from GulfBase by the original source as displayed. To cite GulfBase, use: M. Nipper, J.A. Sánchez Chávez, and J.W. Tunnell, Jr., Editors. 2006. GulfBase: Resource Database for Gulf of Mexico Research. World Wide Web electronic publication. <http://www.gulfbase.org>, 17 April 2006.

You are visitor 577753 since October 15, 2002.

[GulfBase Team](#) [Contact Info](#)



Gulf of Mexico – Origin, Waters and Biota
(50-year update of Bulletin 89; 1954)

- Volume I – Geology
- Volume IIa – Physical Oceanography
- Volume IIb – Chemical Oceanography
- Volume III – Biota
- Volume IV – Human Issues
- Volume V – Ecosystem-based management



Research Focus Areas/Chairs:

- Marine Policy and Law (2005)
- Marine Biodiversity and Conservation Science (2005)
- Coastal and Marine GIS (2006)
- Ecosystem Studies and Modeling (2006)
- Coastal and Ocean Socioeconomics (2007)
- Ocean and Human Health (2007)



Environmental Overview

Mediterranean-type Basin

- Cuba, Mexico, U.S.

Size

- 1,575 km East-West
- 900 km North-South
- 1,500,000 km² Surface Area

Continental Shelves

- Wide, Carbonate in East
- Narrow to Moderate, Terrigenous in West



Environmental Overview

Major Drainages

- 85% U.S.
- Mississippi River 64%
- Rio Usumascinta
- ~70 bays, estuaries, lagoons

Major Circulation

= Loop Current

Biota

- Temperate in North (Carolinian)
- Tropical in South (Caribbean)



Resources

- Oil & gas
- Mineral leases
- Major ports/shipping
- Fisheries
 - commercial
 - recreational
- Tourism
- Great biodiversity
- Diverse habitats
- Vast wetlands
- Numerous coral reefs
- Migratory waterfowl
- Nesting seabirds/sea turtles



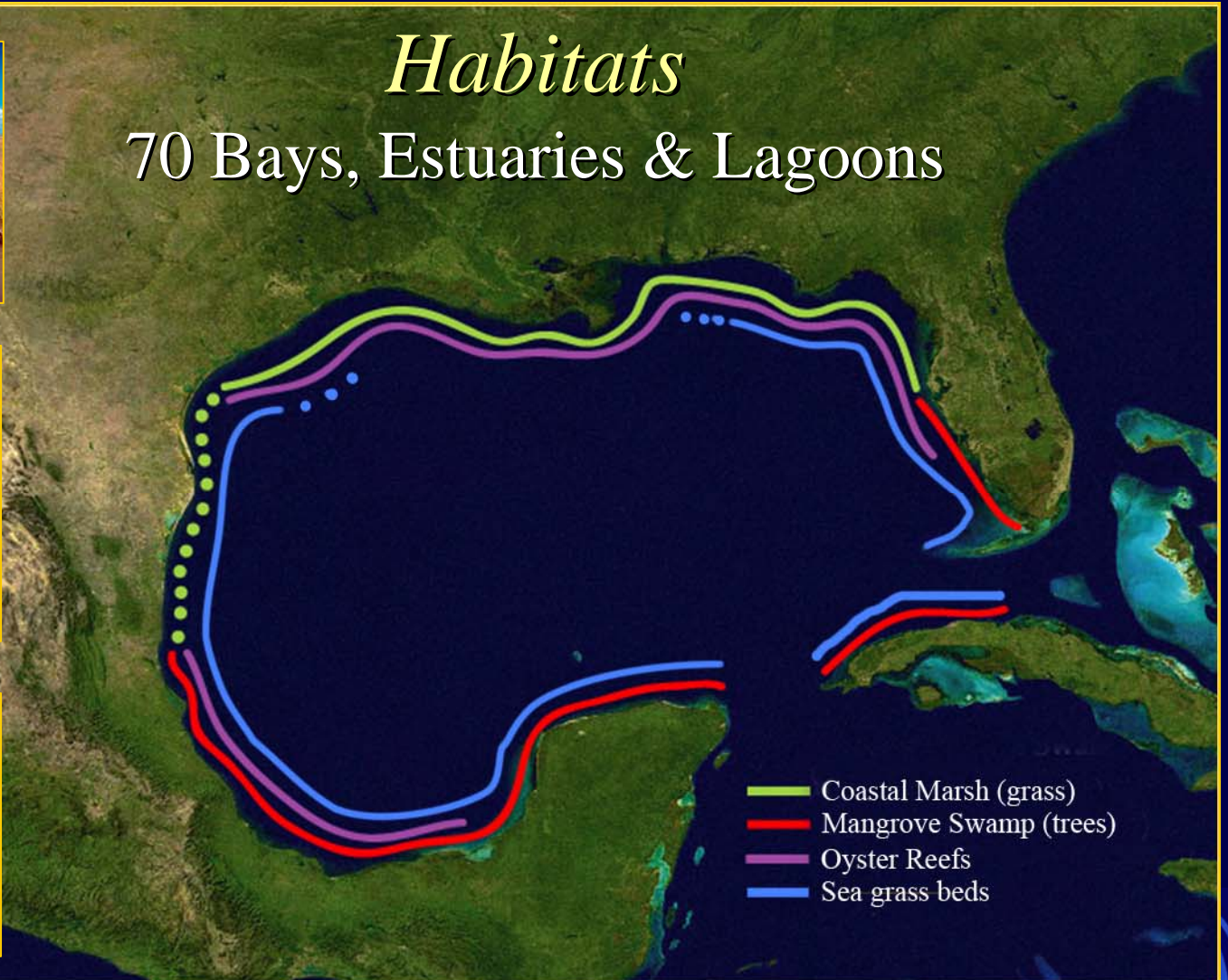
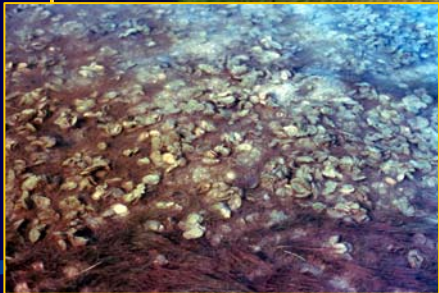
Impacts

- Loss of critical habitats
- Degradation of water quality
- Overfishing
- Destructive fishing methods
- Oil spills
- Trash
- Nutrient enrichment (dead zones)
- Invasive species
- Beach/shellfish closures
- Coastal development
- Harmful algal blooms



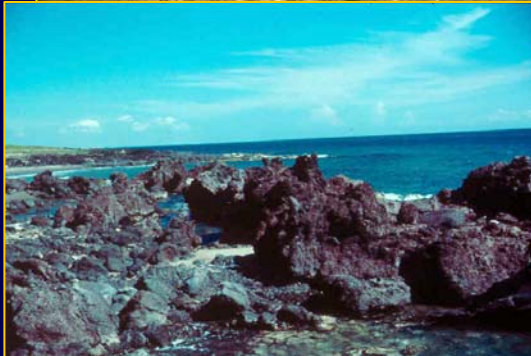
Habitats

70 Bays, Estuaries & Lagoons



- Coastal Marsh (grass)
- Mangrove Swamp (trees)
- Oyster Reefs
- Sea grass beds

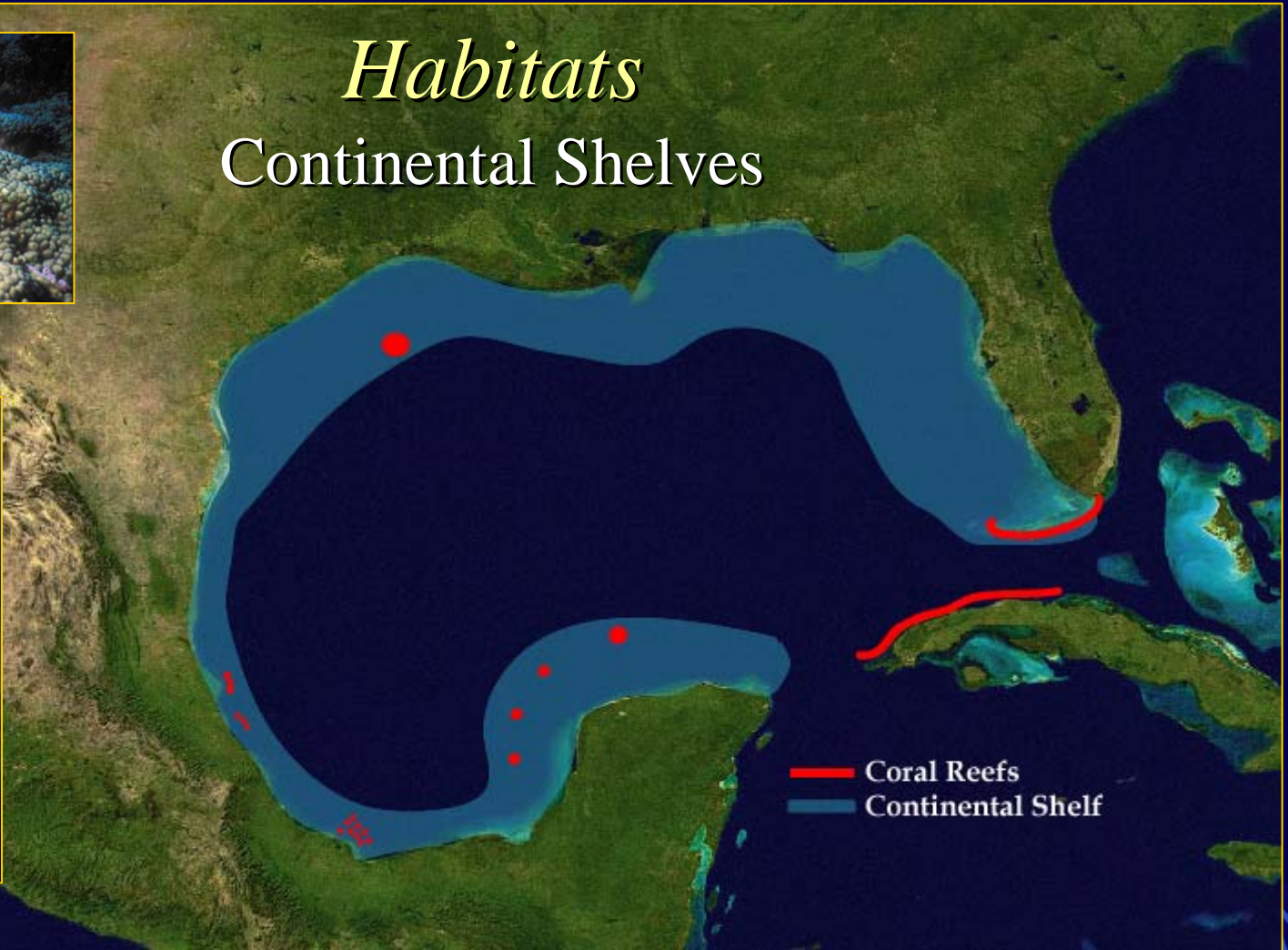
Habitats
Shorelines



Rocky Shores
Sandy Beach



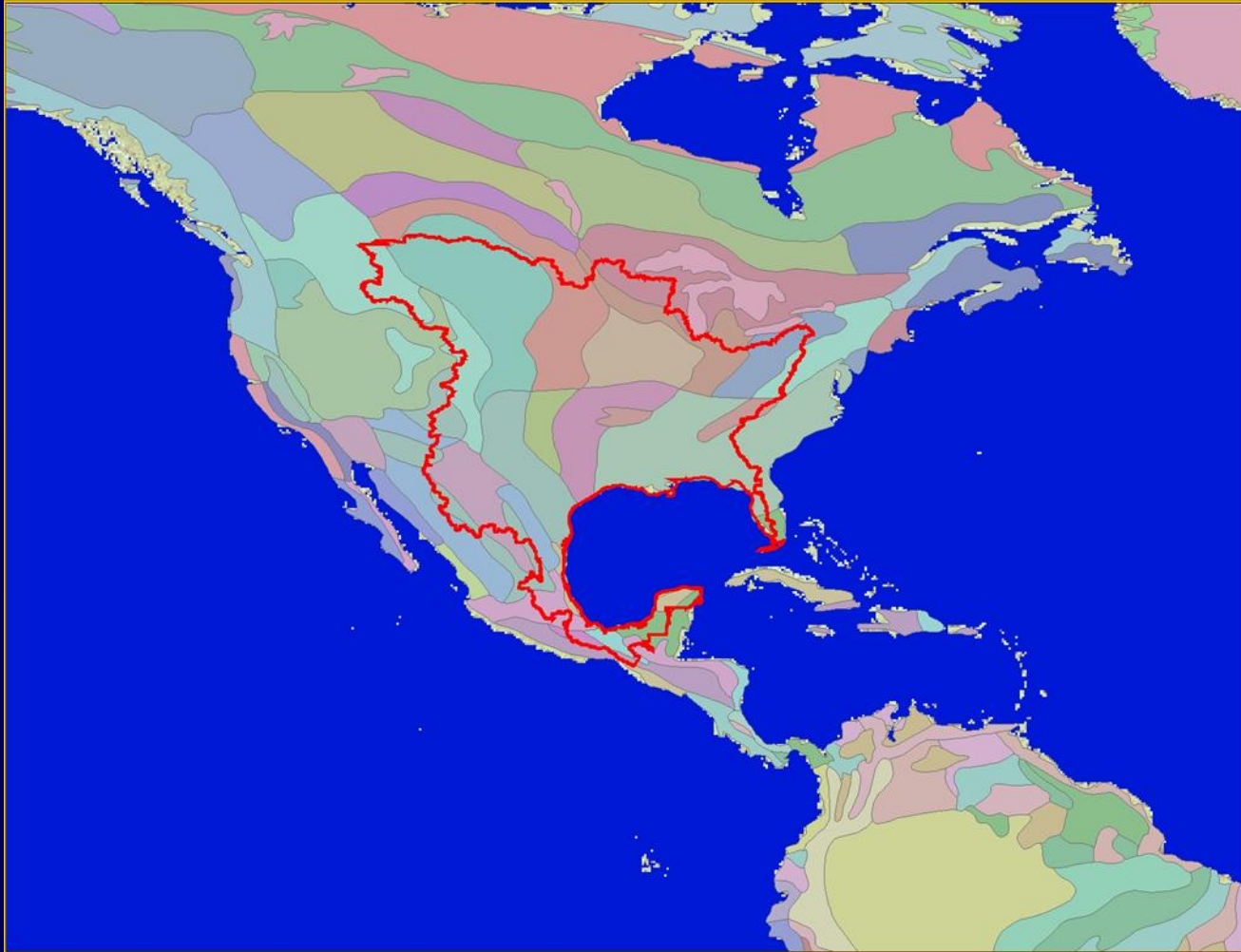
Habitats Continental Shelves



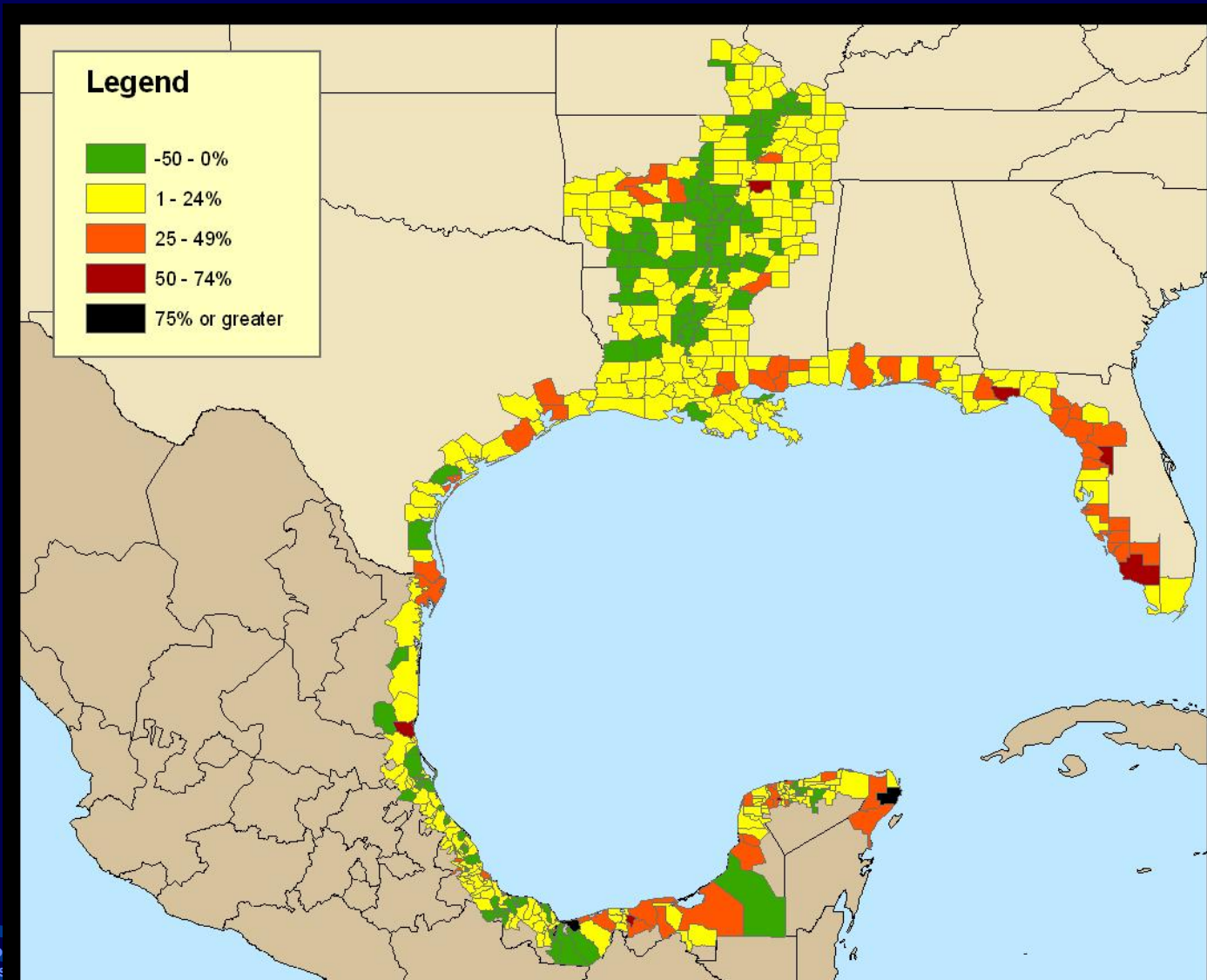
Drainages into the Gulf



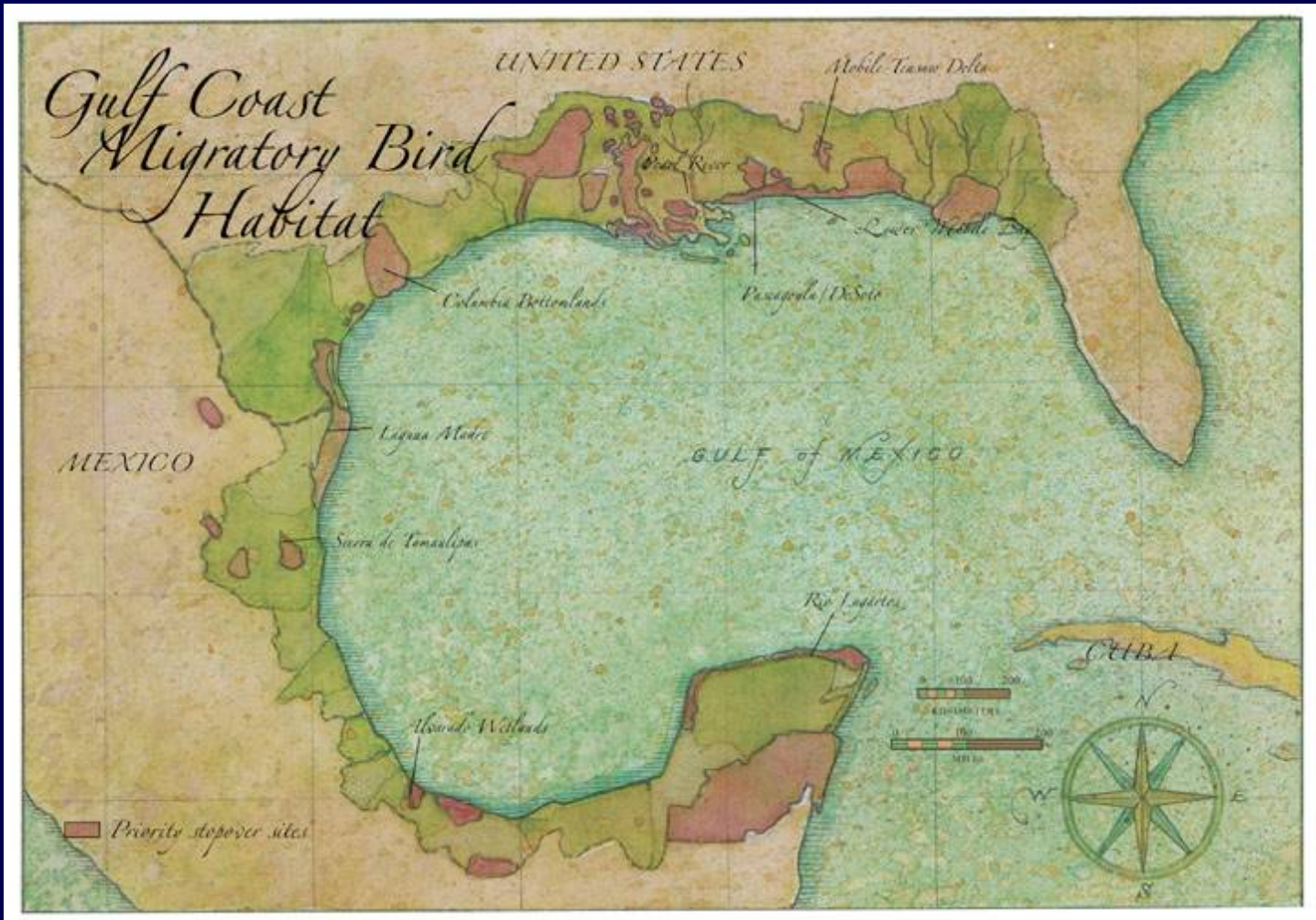
Ecoregions



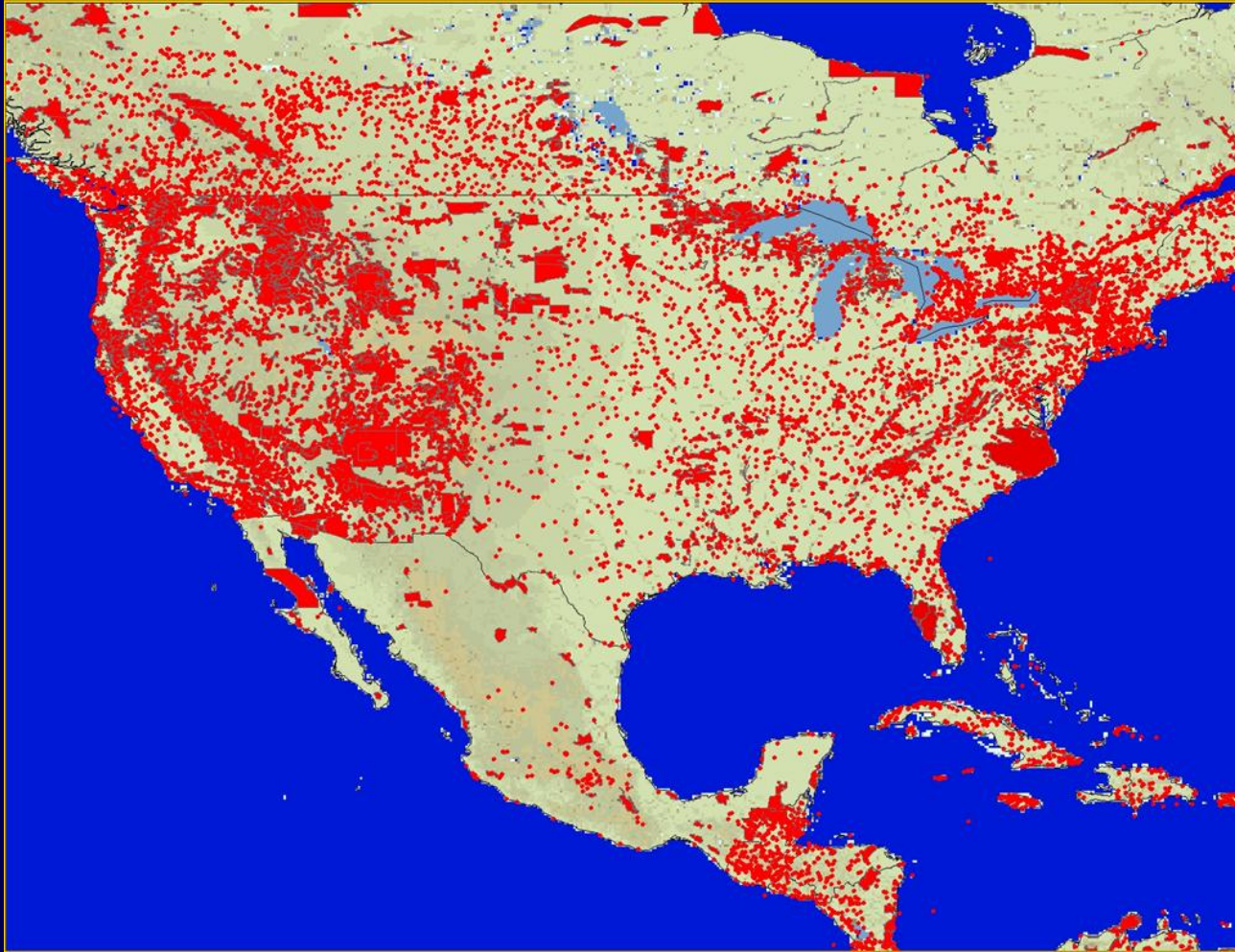
Coastal Demographics by County



Coastal Migratory Bird Habitat



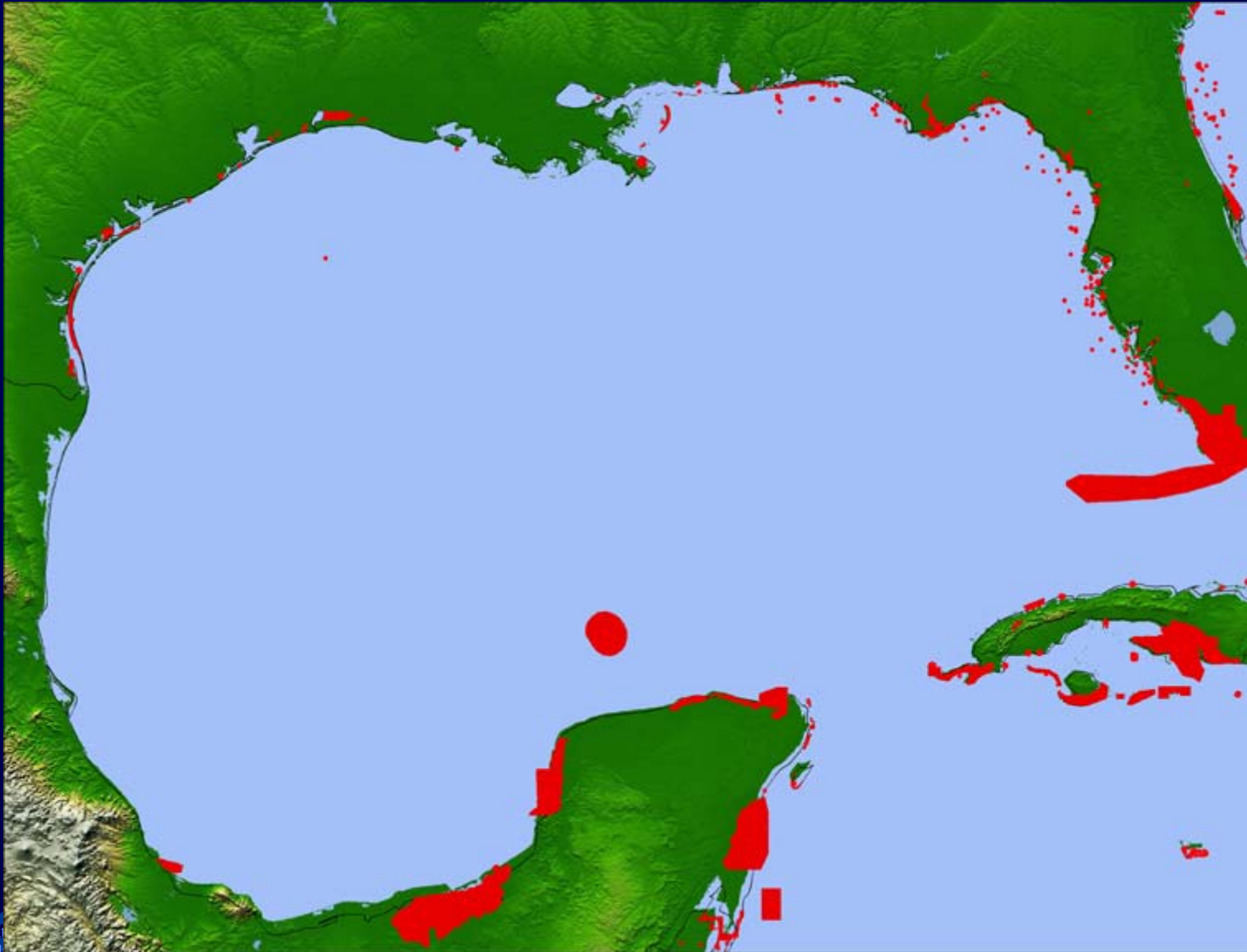
Protected Areas – on Land



Marine Protected Areas



Marine Protected Areas



Institutions & Organizations conducting GOM research



	1800-1900	1901-1940	1941-1960	1961-1980	1981-2003
Number of organizations around the Gulf	11	12	22	42	72
Number of organizations doing GOM research located elsewhere	15	5	16	43	55
Total number of Institutions/Organizations	26	17	38	85	127

Federal Alphabet (MPA) Soup in the Gulf



Principal Component Soup

- United States
 - DOI: USFWS, NPS
 - DOC: NMSP
- Mexico
 - SEMARNAT: CONANP – National Commission for Protected Natural Areas
- Cuba
 - CITMA: CNAP – National Center for Protected Areas (administer decrees)





“Make

A

Difference”

Ed Harte