

Gulf of Mexico Fishery Management Council

Bob Gill, Chair

Doug Boyd, Vice-Chair

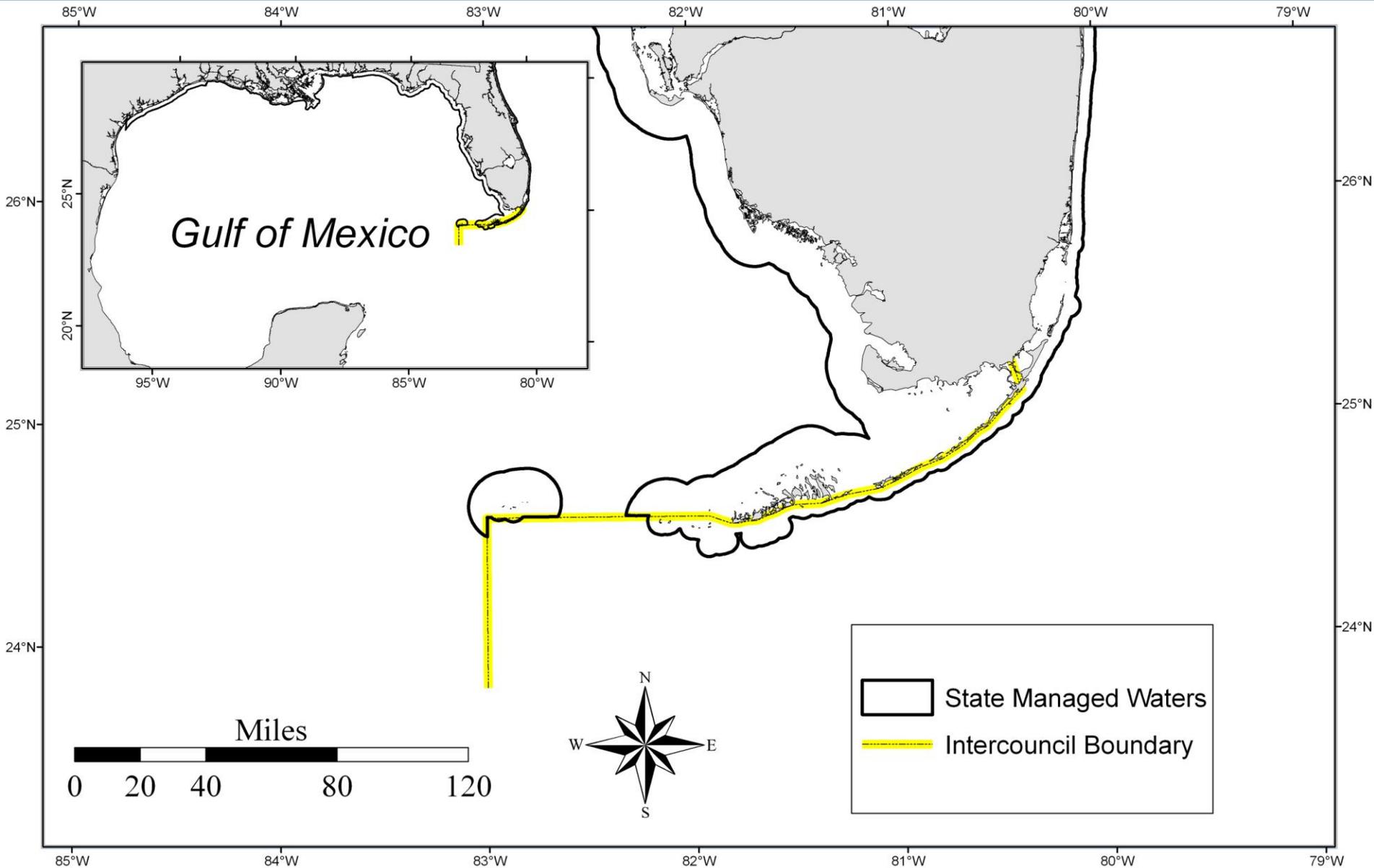
Steve Bortone, Executive Director





In the Gulf of Mexico, there is a 3-mile inshore limit to federal jurisdiction off Louisiana, Mississippi, and Alabama and a 9-mile limit off Texas and Florida

It's Complicated !



Gulf Council membership...

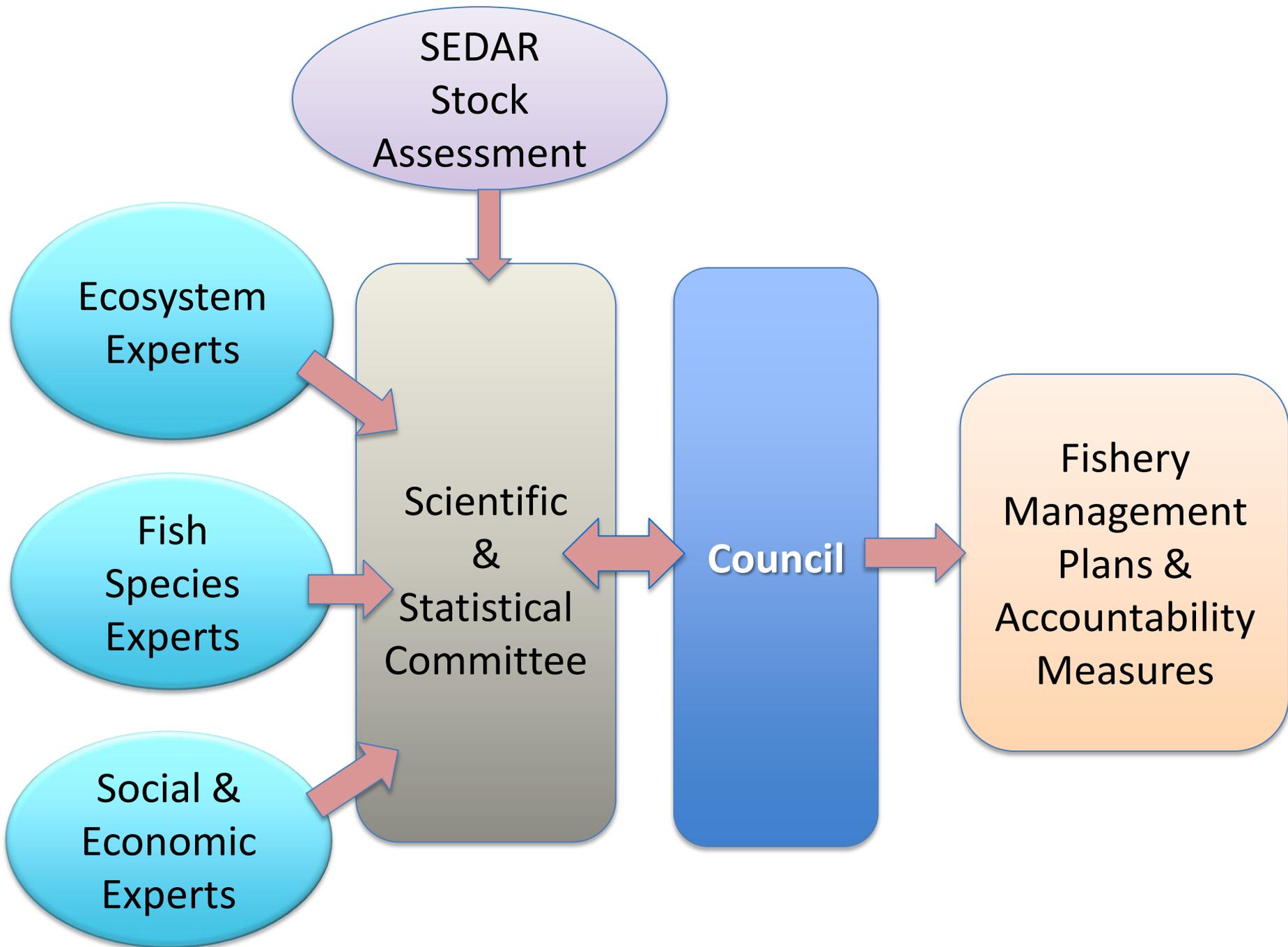
17 voting members:

Governor appointments from states	= 11
State resource managers from each state	= 5
Fisheries Service Regional Administrator	= <u>1</u>
	17

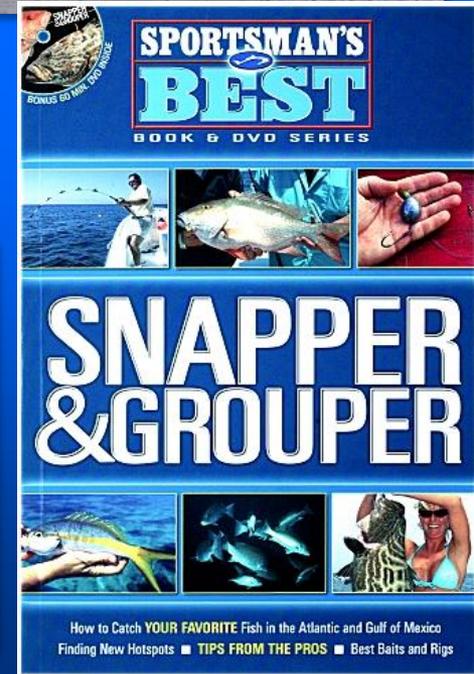
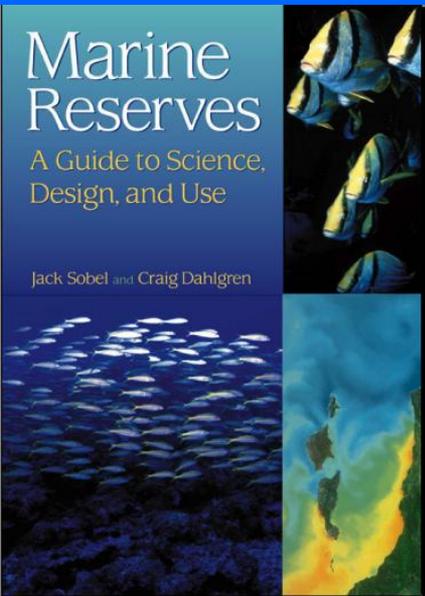
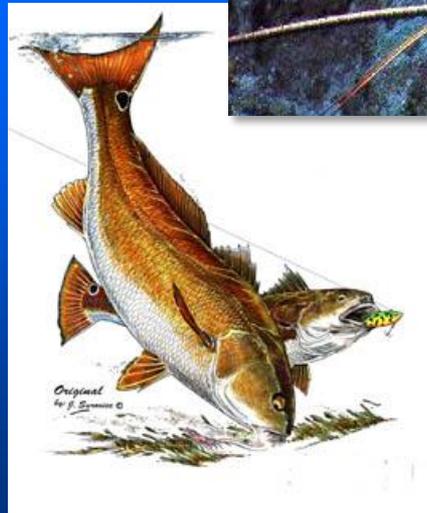
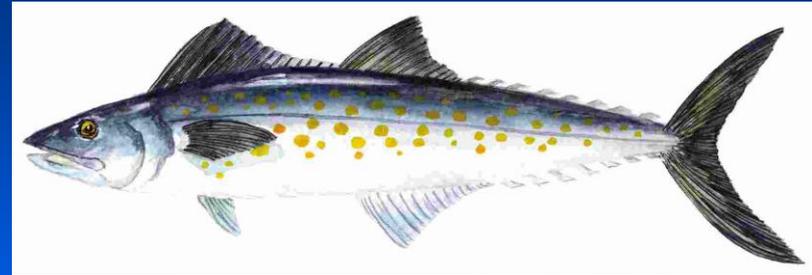
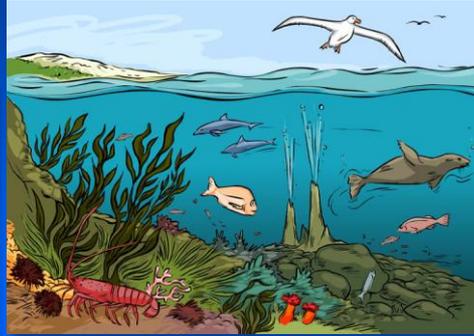
Non-voting members:

- U.S. Coast Guard
- U.S. Fish and Wildlife Service
- U.S. Office of Foreign Affairs
- Gulf States Marine Fisheries Commission





Scientific & Statistical Committee with special committees



Advisory Panels: include most of the Scientific & Statistical Committees plus...



Stocks the Gulf Council Manages

69 Species in all

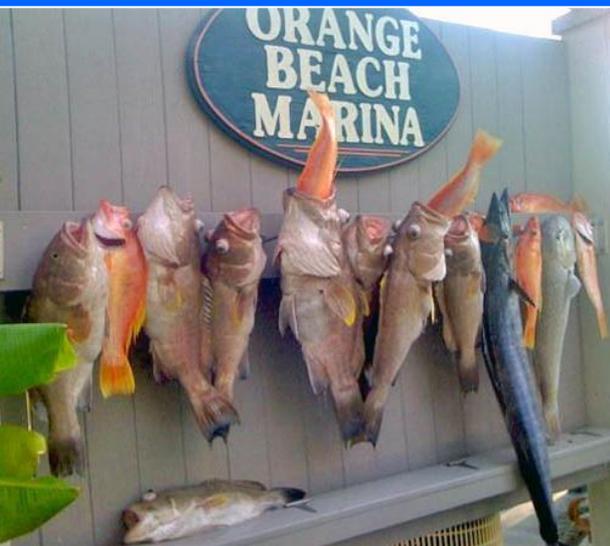
Coastal Migratory Pelagics - Cobia, Mackerels, Sharks

Reef Fish - Red, Vermilion, & Yellowtail Snapper

Deep-water Groupers - Warsaw, Snowy, Misty

Shallow-water Groupers - Gag, Black, Scamp, Yellowmouth

Other Reef Fish - Triggerfish, Amberjack



SEDAR: Southeast Data Analysis and Review (Gulf Version)

Baseline Assessments for 2012



Species	Overfishing	Overfished
Red Snapper		X
Greater Amberjack	X	X
Gray Triggerfish	X	X
Gag	X	X



New since January CCC Update:

- Reef Fish Amendment 37 - Gray Triggerfish
- A Generic Amendment to consider dealer permit requirements and electronic reporting
- Reef Fish Amendment 38 - Revise Post-season Recreational Accountability Measures for Shallow-water Grouper
- Framework Action for Vermilion Snapper Annual Catch Limits

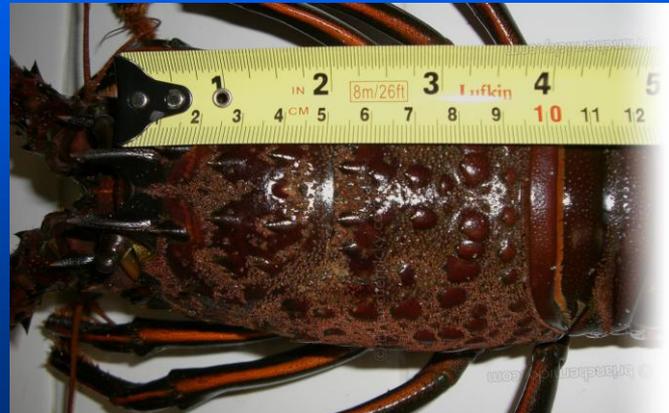


New since January CCC Update (cont.):

- Triggerfish Annual Catch Limit and Annual Catch Target, and give NOAA Fisheries authority to close the season when catch limits are reached. The Council also initiated a framework action to make this interim rule permanent, and to address a possible bag limit reduction minimum size limit adjustments and extend the timeframe for the rebuilding plan from 6 years to 10 years.
- Generic Amendment for Default Status Determination Criteria
- Generic Amendment for Contractual Services for the for-hire sector

Final Action Since January Update:

- Reef Fish Amendment 35 - Greater Amberjack
- Spiny Lobster Amendment 11 (with SAFMC)
- Regulatory Amendment for Red Snapper Fall Closed Season and ACL
- Reef Fish Amendment 34 - Crew Size and Income Requirement



Currently under development/discussion:

- Reef Fish Amendment 28 - Grouper Allocation
- Reef Fish Amendment 33 - LAPP Program
- Reef Fish Amendment 36 - Red Snapper IFQ 5-Year Review & Transferability
- Coastal Migratory Pelagics Amendments 19 & 20 - mackerel and cobia (with SAFMC)
- Sector Separation



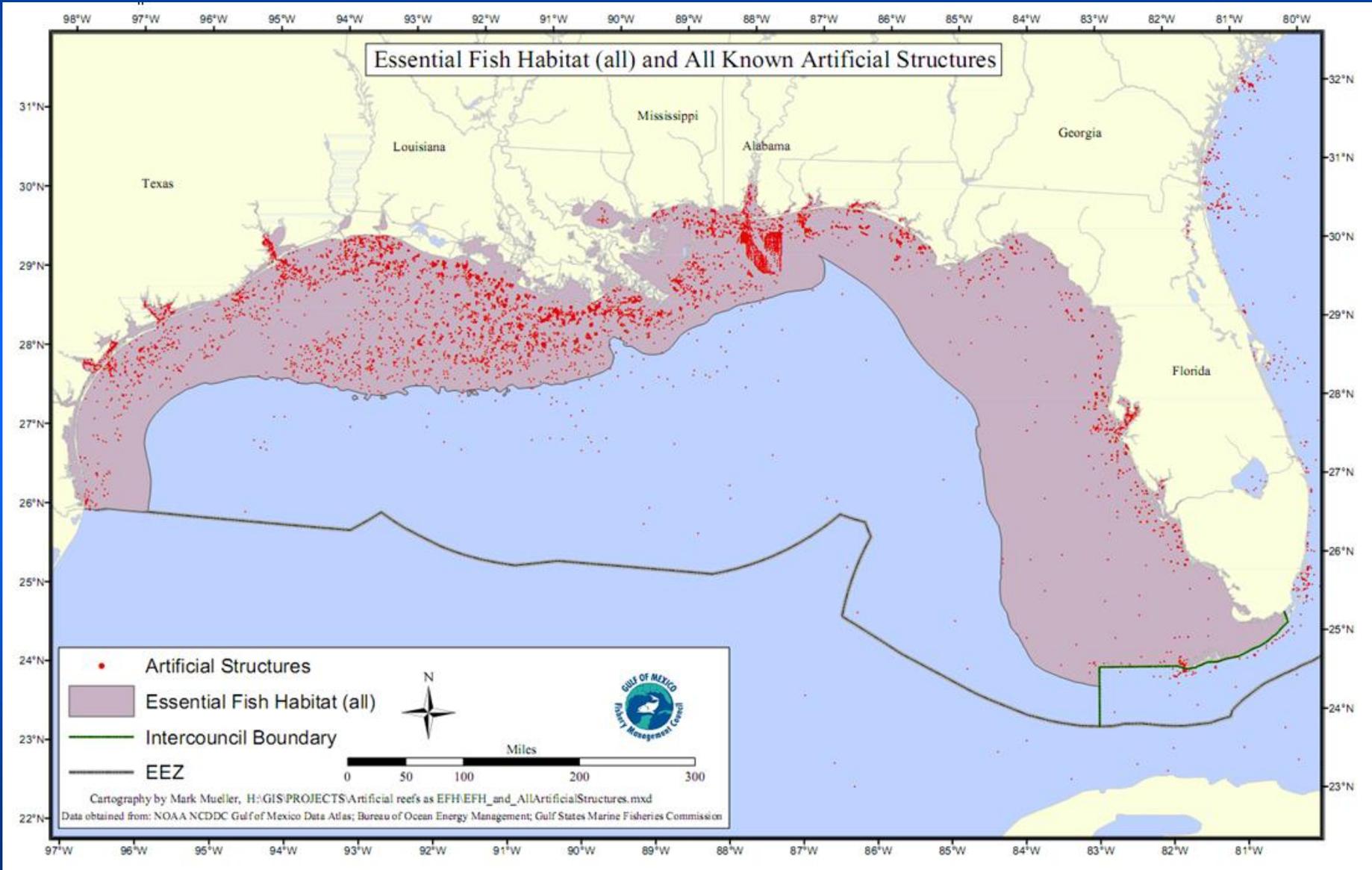
Gulf of Mexico
Fishery Management Council
Crisis Communications Plan



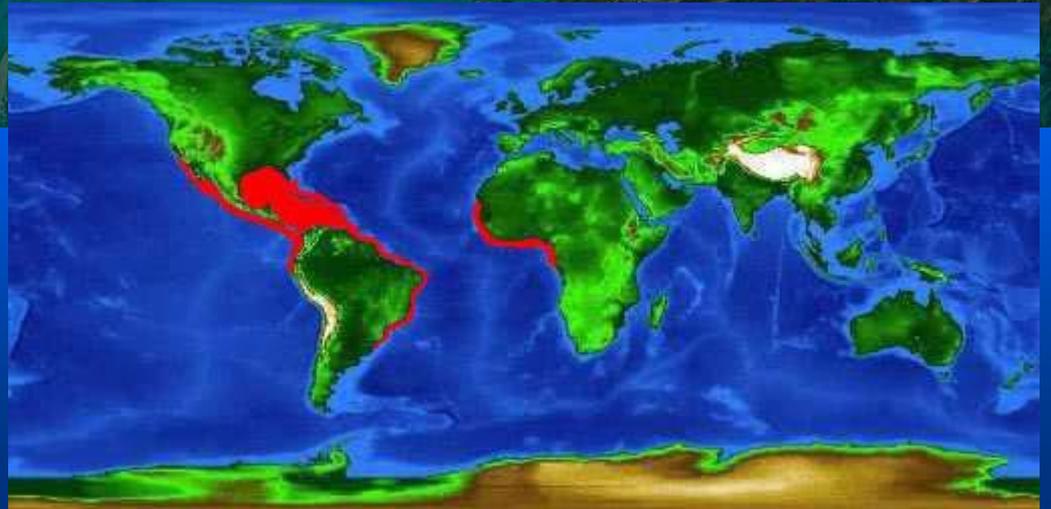
4/19/12

Communicating During a Crisis

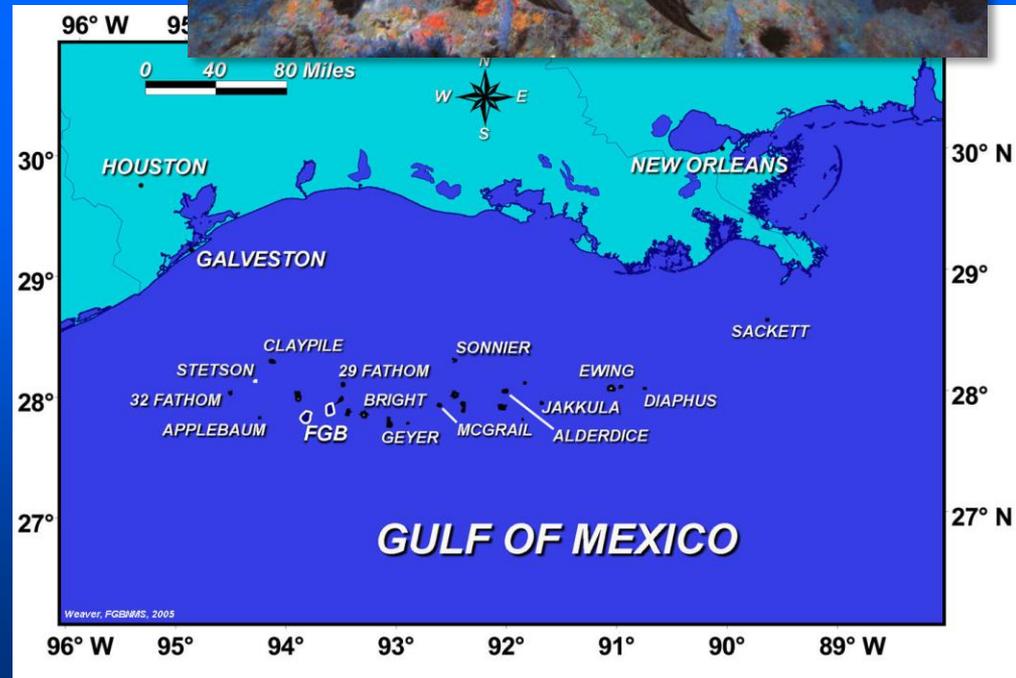
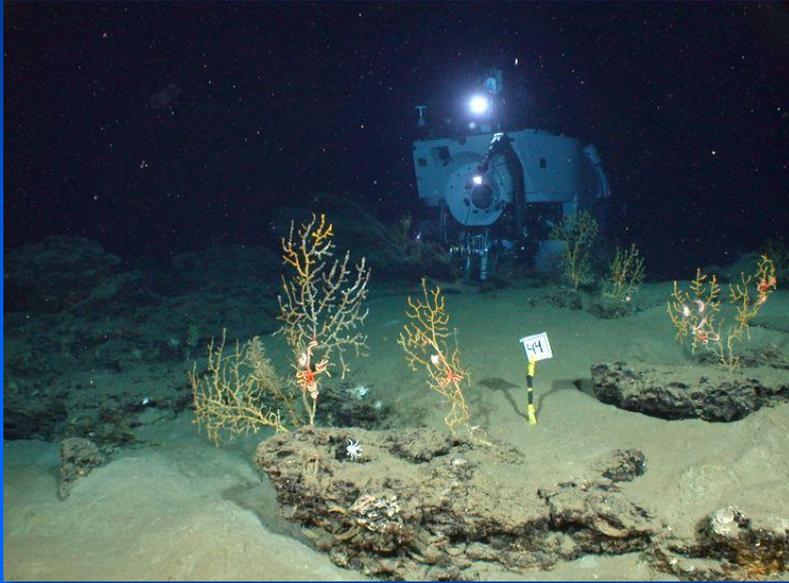
Oil Platforms and Artificial Reefs as Essential Fish Habitat



Goliath Grouper (with SAFMC)



Corals and Fisheries

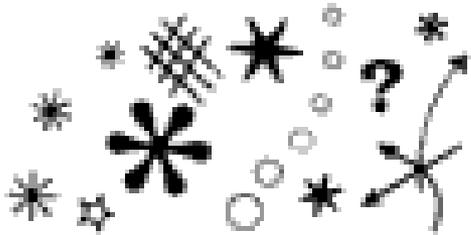


HYPOXIA

Dead Zone



LACK OF OXYGEN!



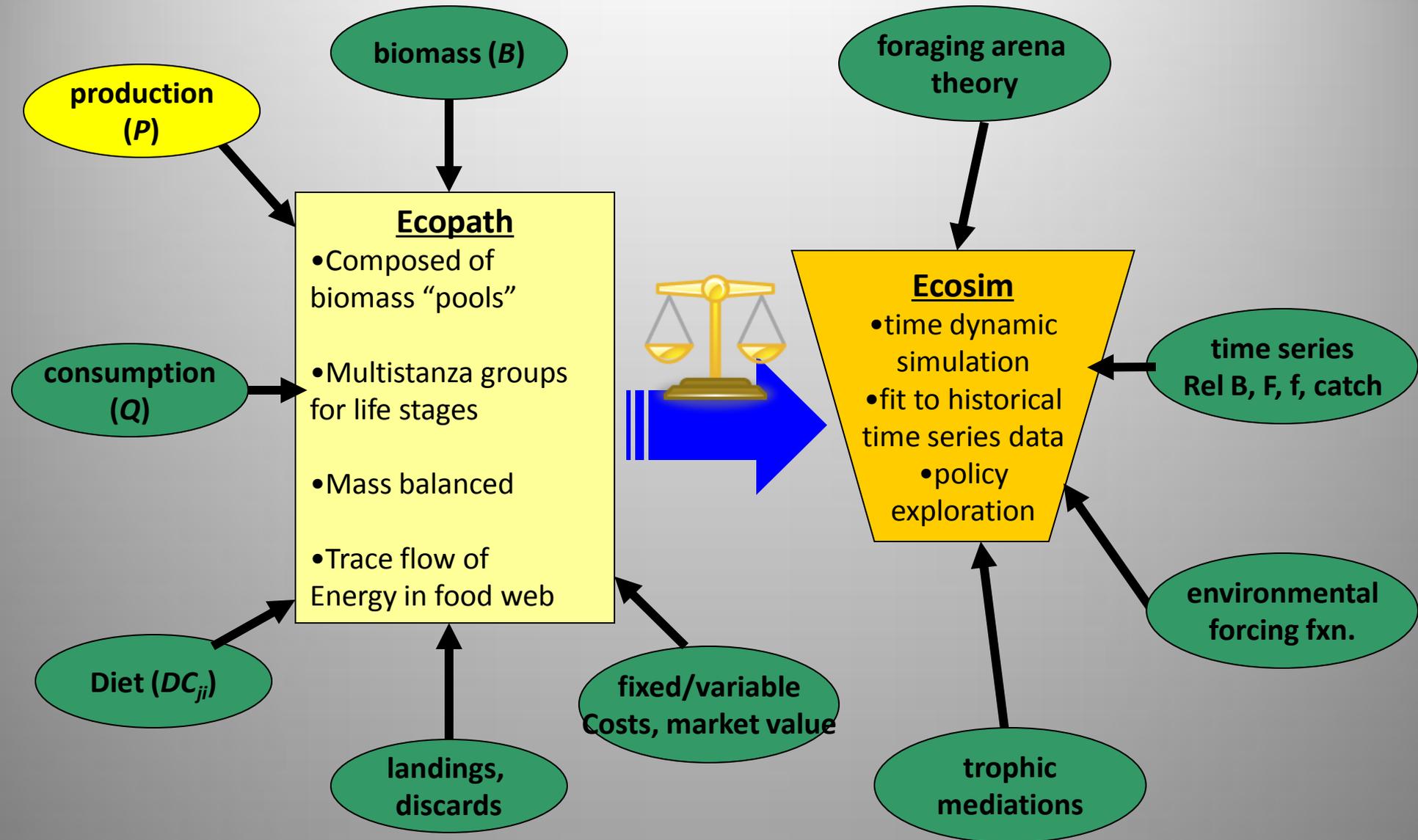
Can cause the same effect as a couple of Martinis

OVERCONFIDENCE...InCoOrDiNaTiOn

USE OXYGEN OVER 12,000 FEET

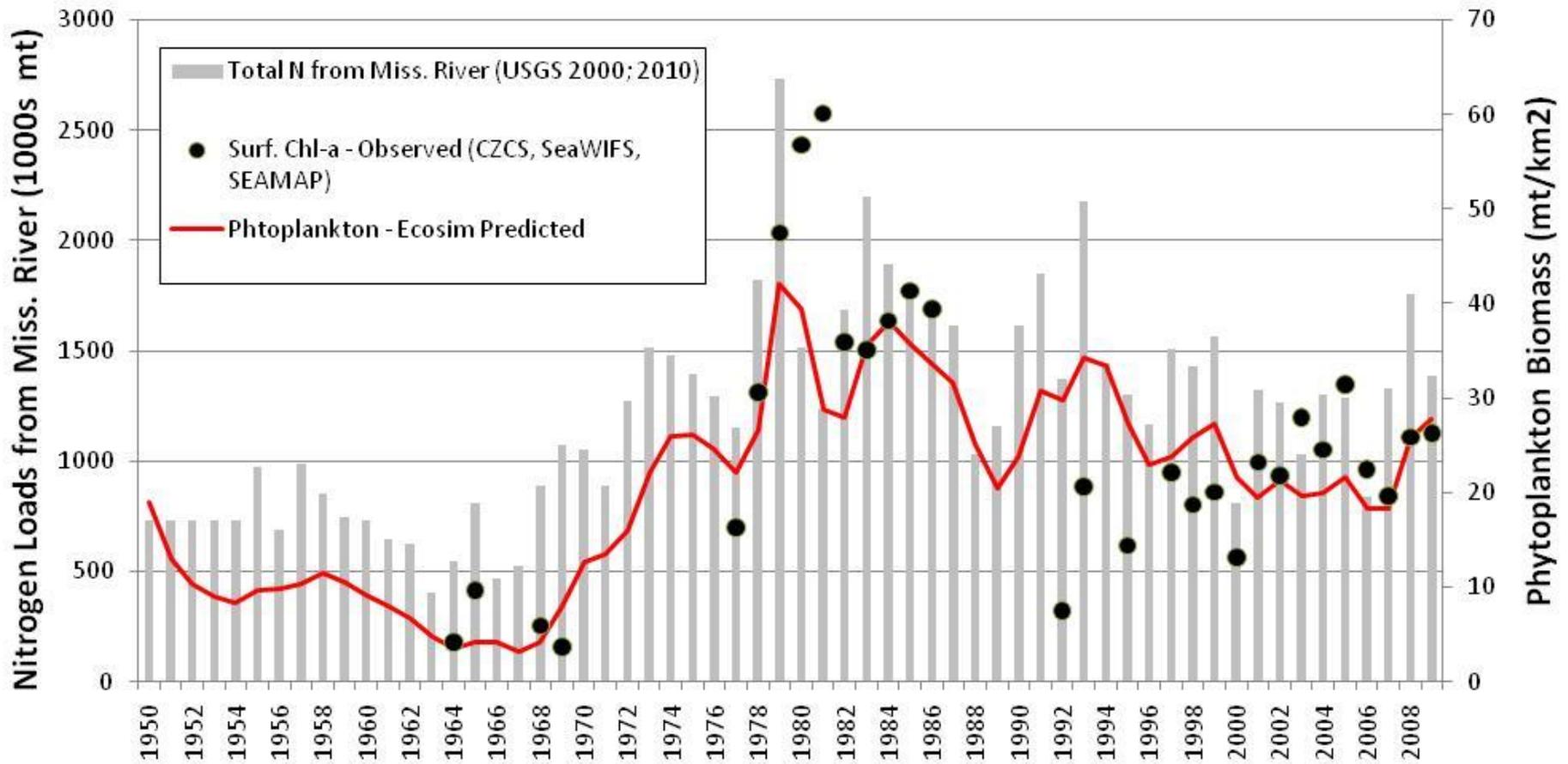


Ecopath & Ecosim & Ecospace



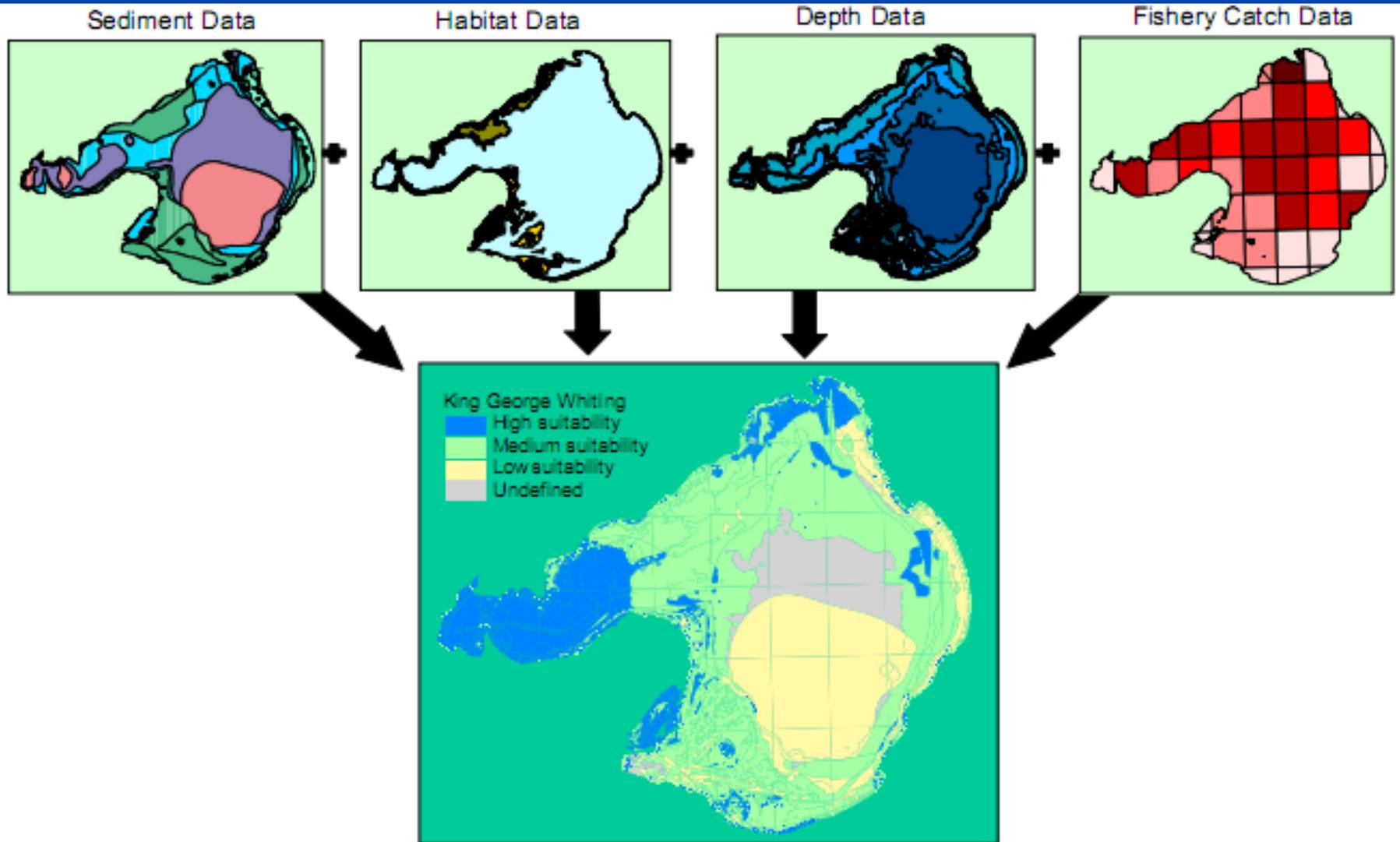
Primary Production on the West Florida Shelf

Nitrogen Loads, Chl-a, and estimated phytoplankton biomass in the Gulf of Mexico



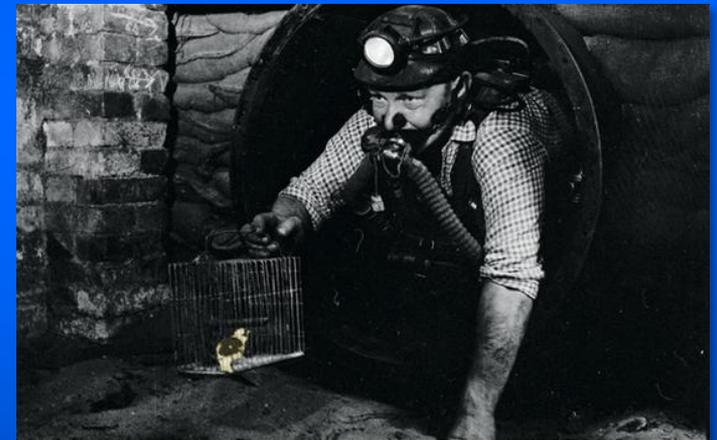
Chlorophyll Plumes on West Florida Shelf (Gilbes et al. 1996) – “Green River Phenomenon”:

Coastal & Marine Spatial Planning



Ecosystem-Based Management Indicators

- Impetus: limited resources to fully assess exploited species and ecosystems
- Desire for ecosystem-based approaches to fisheries management (EBM)
- Indicators:
 - Reflect processes
 - Serve as signals of something more basic or complicated (NRC 2000).
- Long history of use in sciences



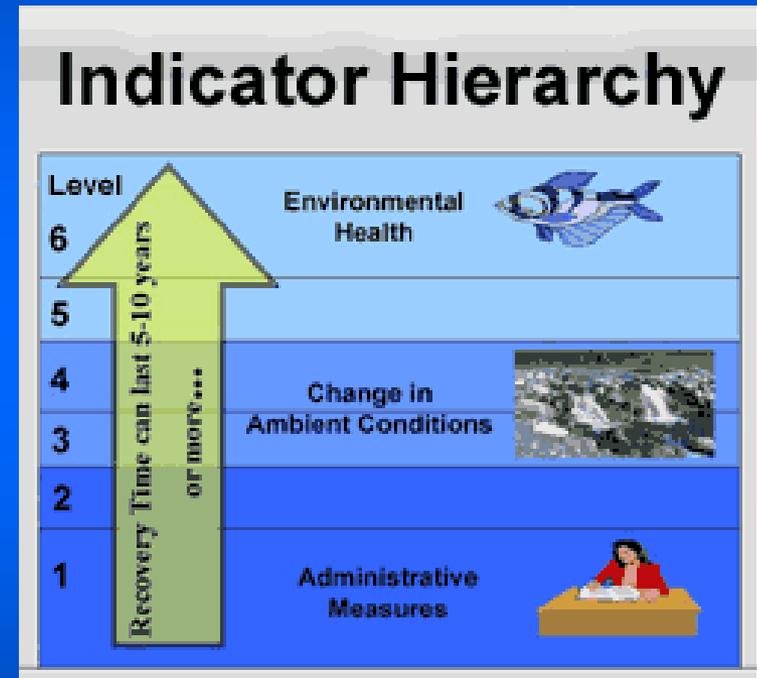
Indicator selection for Ecosystem-Based Management for the GOM

- Are indicators appropriate or adequate for GOM?

- Data availability
- Management Goals
- Focus on status or trend

- Trend detection:

- Indicators over time
- Appropriate analytical technique to balance Type I & II errors



Alternative Methodology

ECOLOGICAL INDICATORS 9 (2009) 732–739

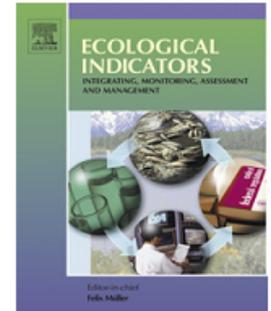


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Intersection–union tests for characterising recent changes in smoothed indicator time series

Verena M. Trenkel*, Marie-Joëlle Rochet

Alternative methodology cont.

Table 1 – Test results for recent trends and change Southern North Sea fish ($\alpha = 0.05$) using linear regression. p-Values for χ^2 -test for GAM model fit to entire time series. Decreasing (↘), increasing (↗) or stable (↔). Change derivatives (↘); positive derivatives (↗).

Scientific name	1984-2006	2004-2006			
	χ^2 p-value	LR p-value	LR	MK	IU
<i>Agonus cataphractus</i>	0.001	0.06	↔	↔	↗
<i>Arnoglossus laterna</i>	0.051	0.51	↔	↔	
<i>Buglossidium luteum</i>	0.039	0.64	↔	↔	↗
<i>Callionymus lyra</i>	<0.001	0.92	↔	↔	↔↘
<i>Chelidonichthys gurnardus</i>	0.001	0.07	↔	↔	↔
<i>Clupea harengus</i>	<0.001	0.42	↔	↔	↘
<i>Echiichthys vipera</i>	0.052	0.40	↔	↔	
<i>Enchelyopus cimbrius</i>	0.002	0.19	↔	↔	↗
<i>Engraulis encrasicolus</i>	<0.001	0.31	↔	↔	↗
<i>Ammodytidae</i>	<0.001	0.96	↔	↔	↘

- Long and short term properties
- Low probability of error (Type I & II)
- Scientifically grounded
- Flexible
- Incorporates uncertainty
- Assumptions can be evaluated
- Easy to communicate results

Example

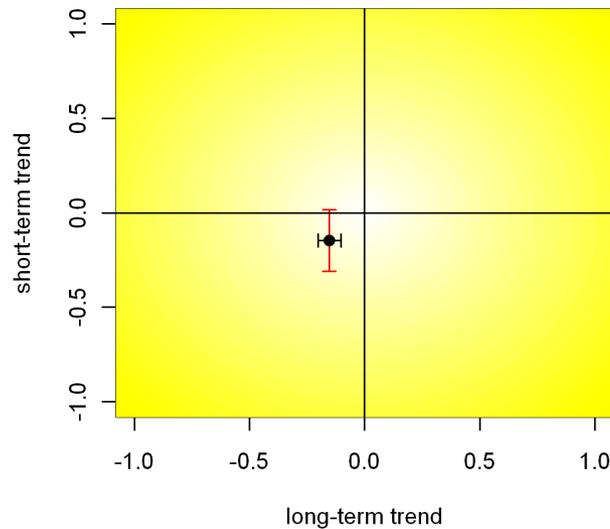
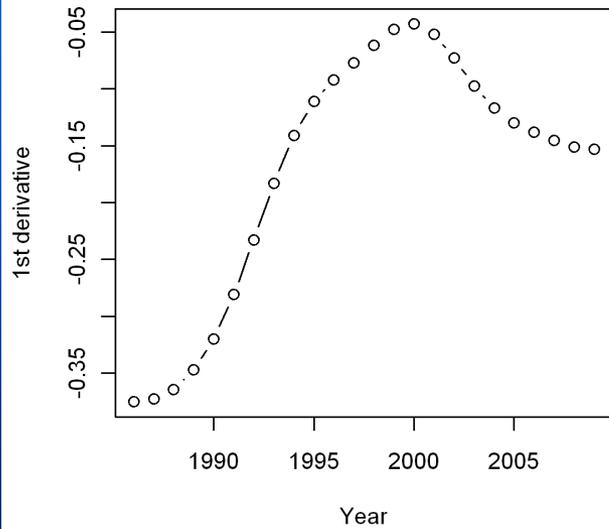
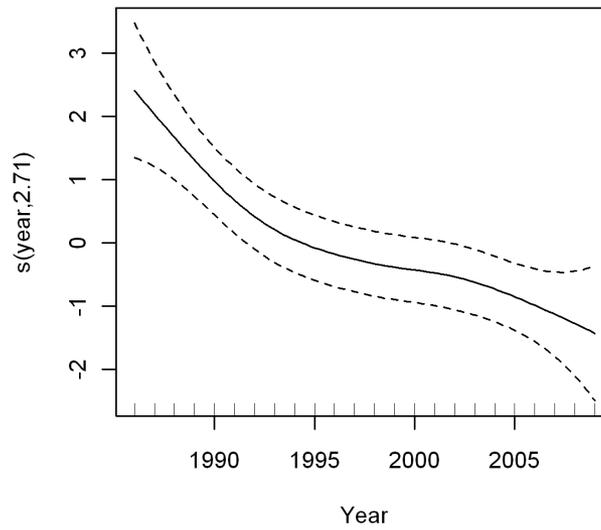
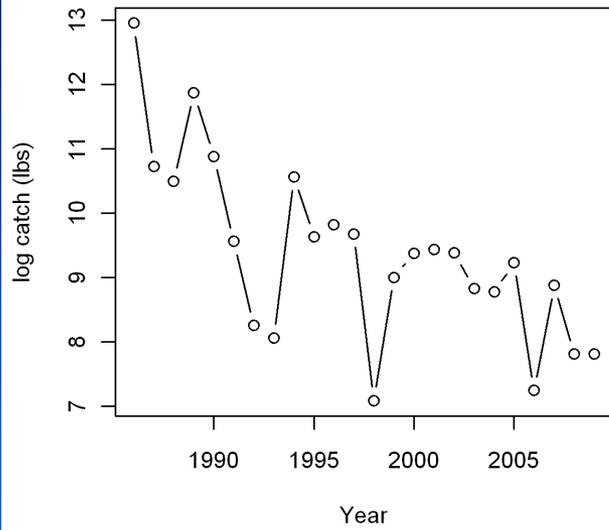
- Data: Annual Catch Limit data set used to inform harvest levels for data-poor GOM managed species

- Landings

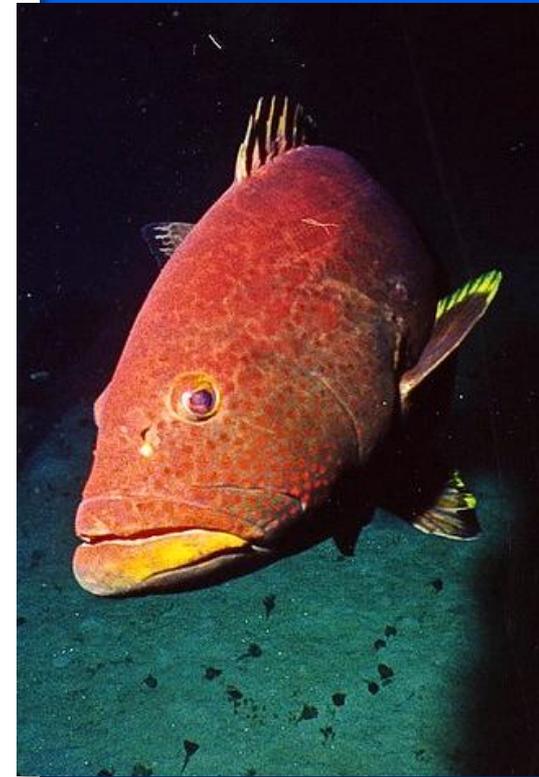
- lbs whole weight
- Recreational
- For-hire
- Commercial
- 1986 - 2009



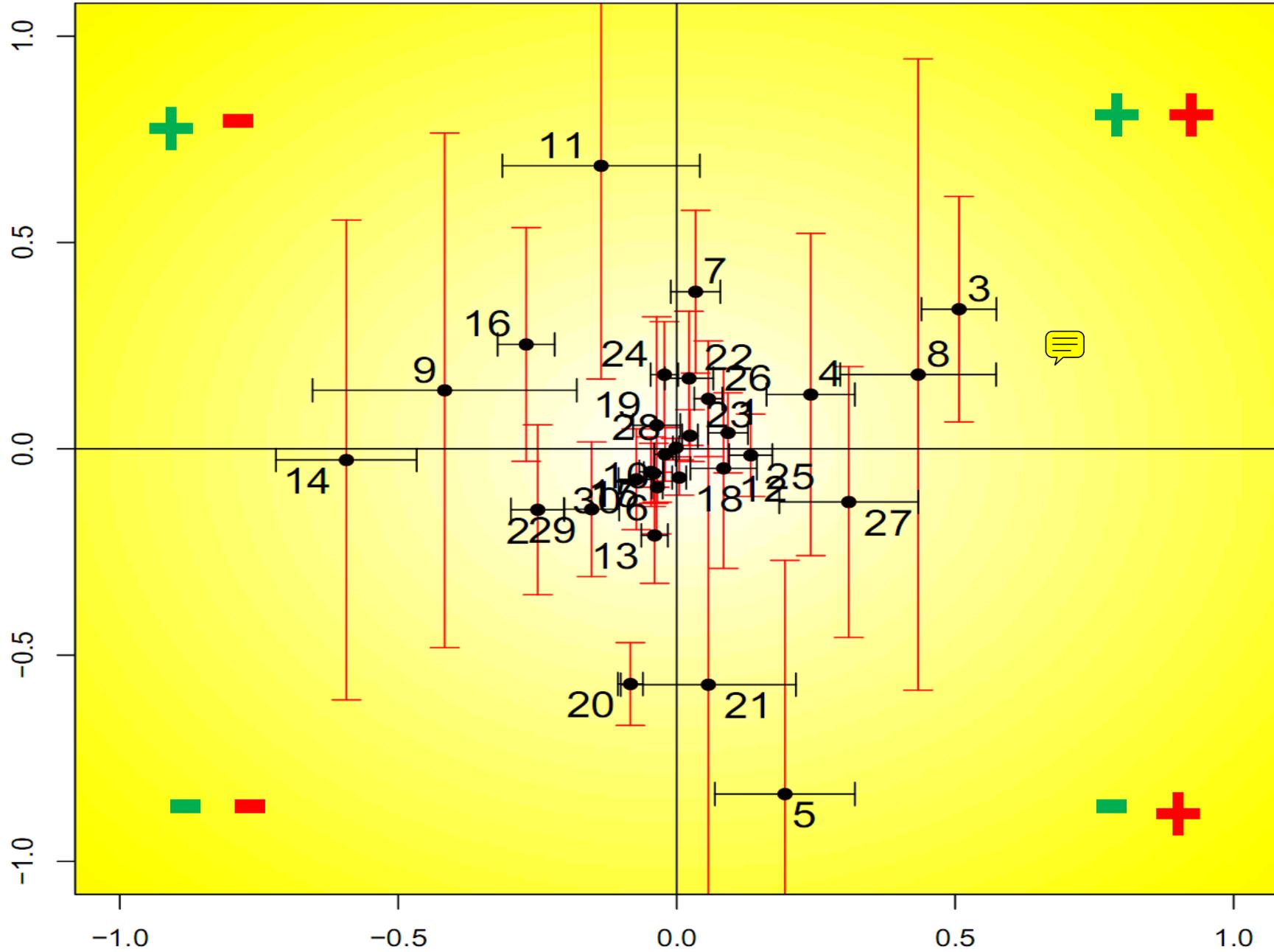
- Based on methodology of Trenkel and Rochet 2009



Yellowfin Grouper



Short-term Trend



Long-term Trend



"Are we there yet?"

