

# Implications of the Deepwater Horizon Explosion on Alabama Fisheries



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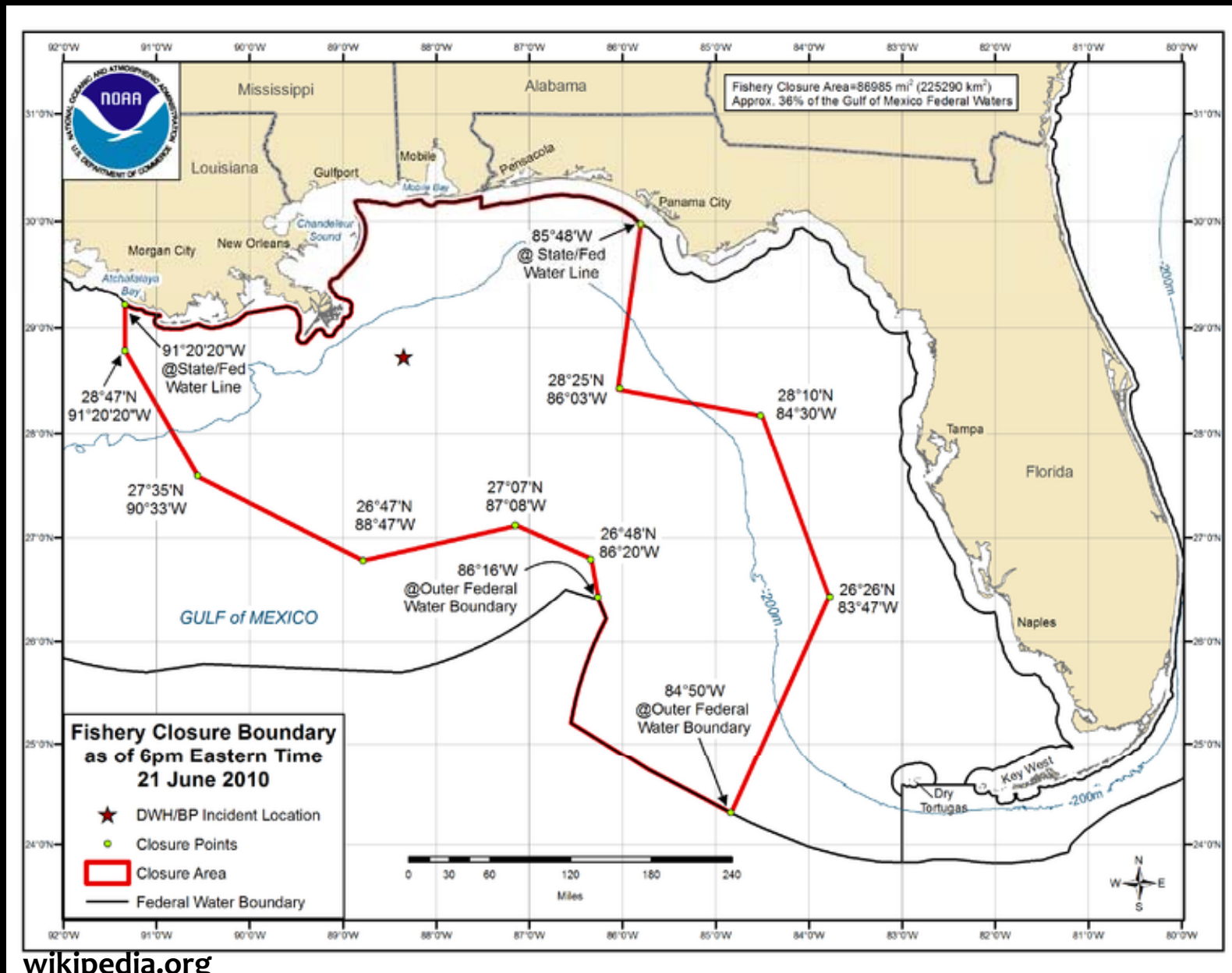
# April 20, 2010: the DWH Explosion

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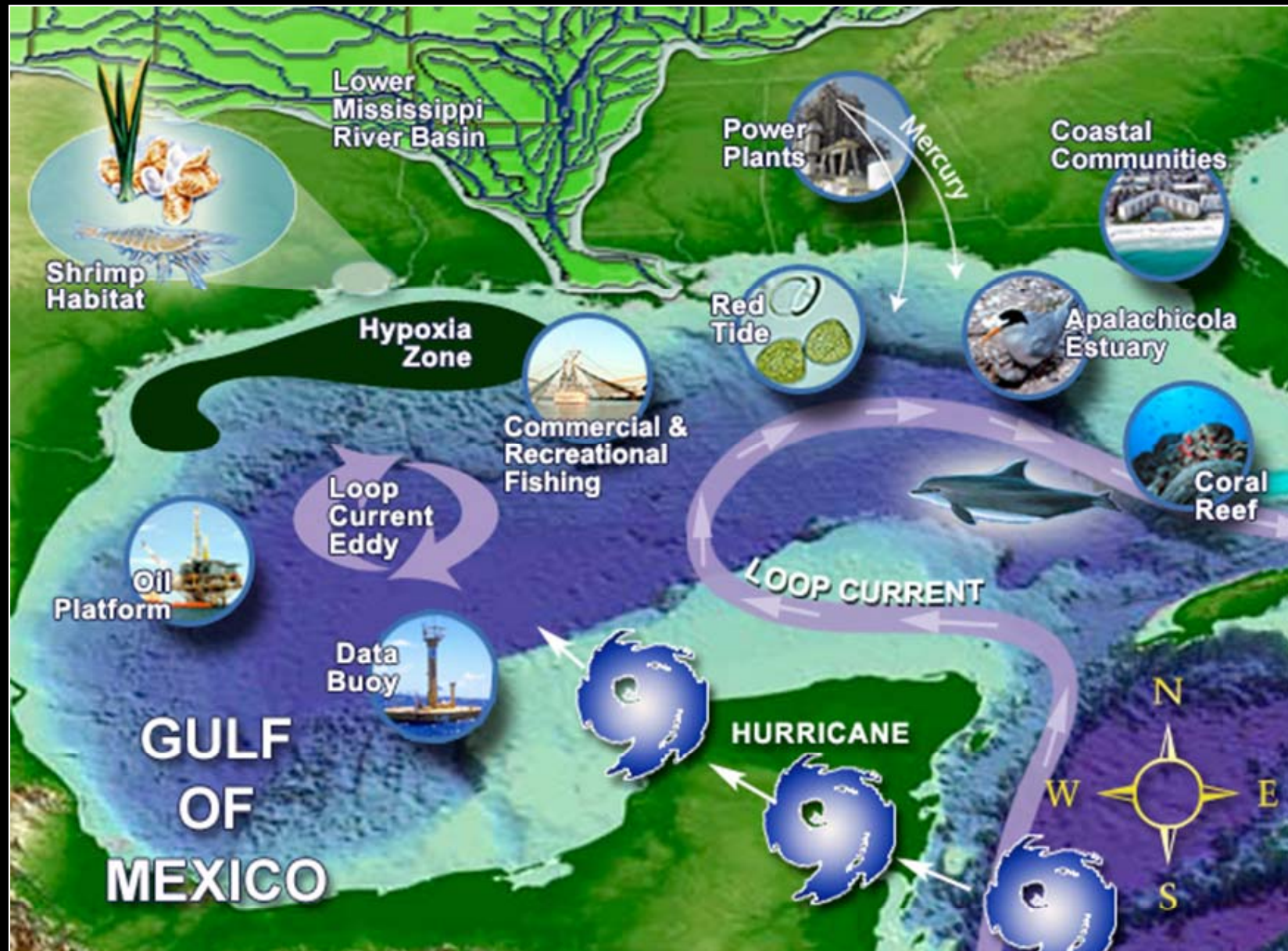


[fellowshipofminds.wordpress.com](http://fellowshipofminds.wordpress.com)

# June 21, 2010: Federal Fisheries Closure



# The Gulf of Mexico: a Complex Ecosystem



# Potential Impacts from the DWH

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Direct (contaminant related)

Indirect (environmental)

Complex (e.g. fishing release)

# Our Focus Today

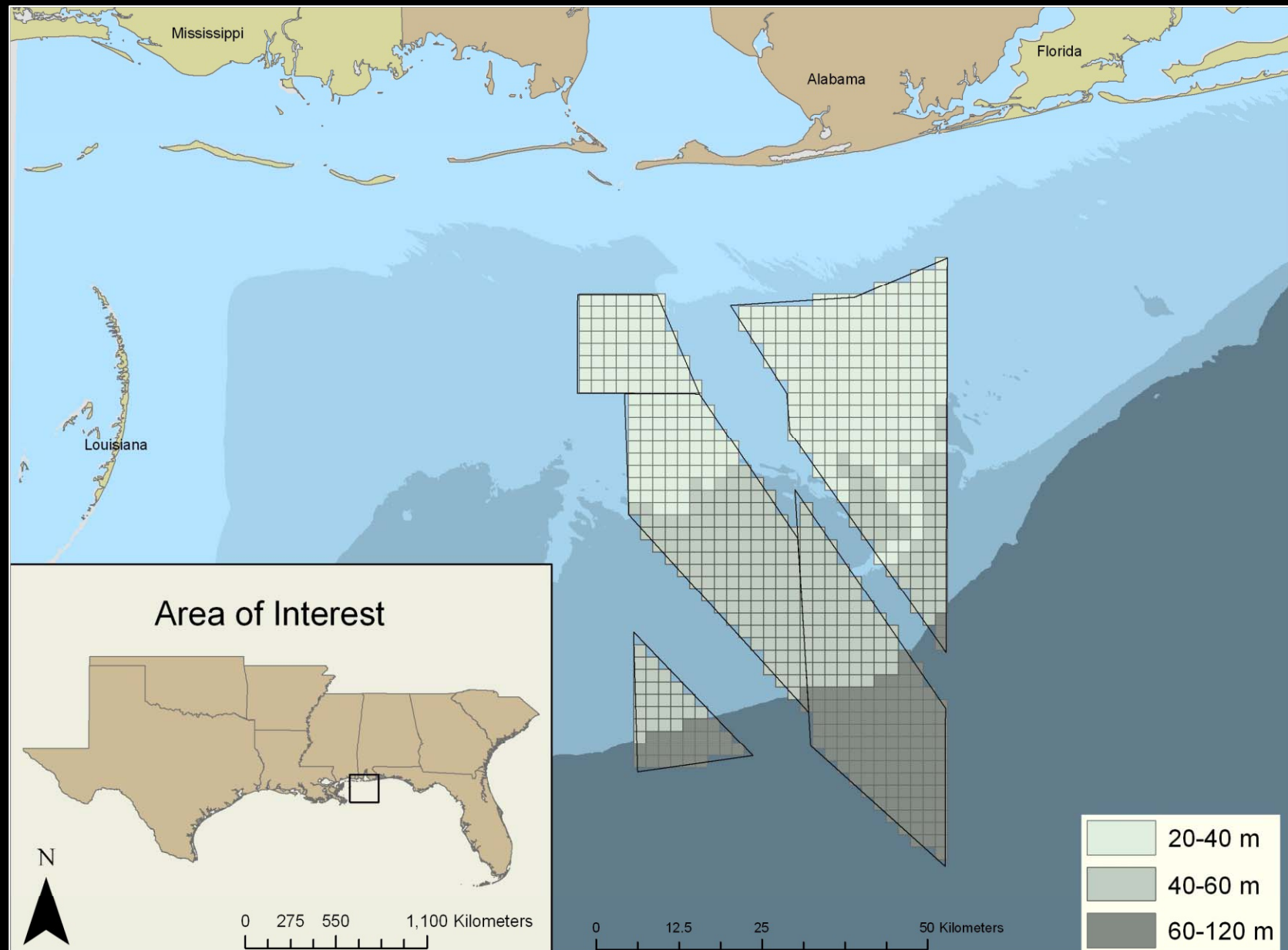
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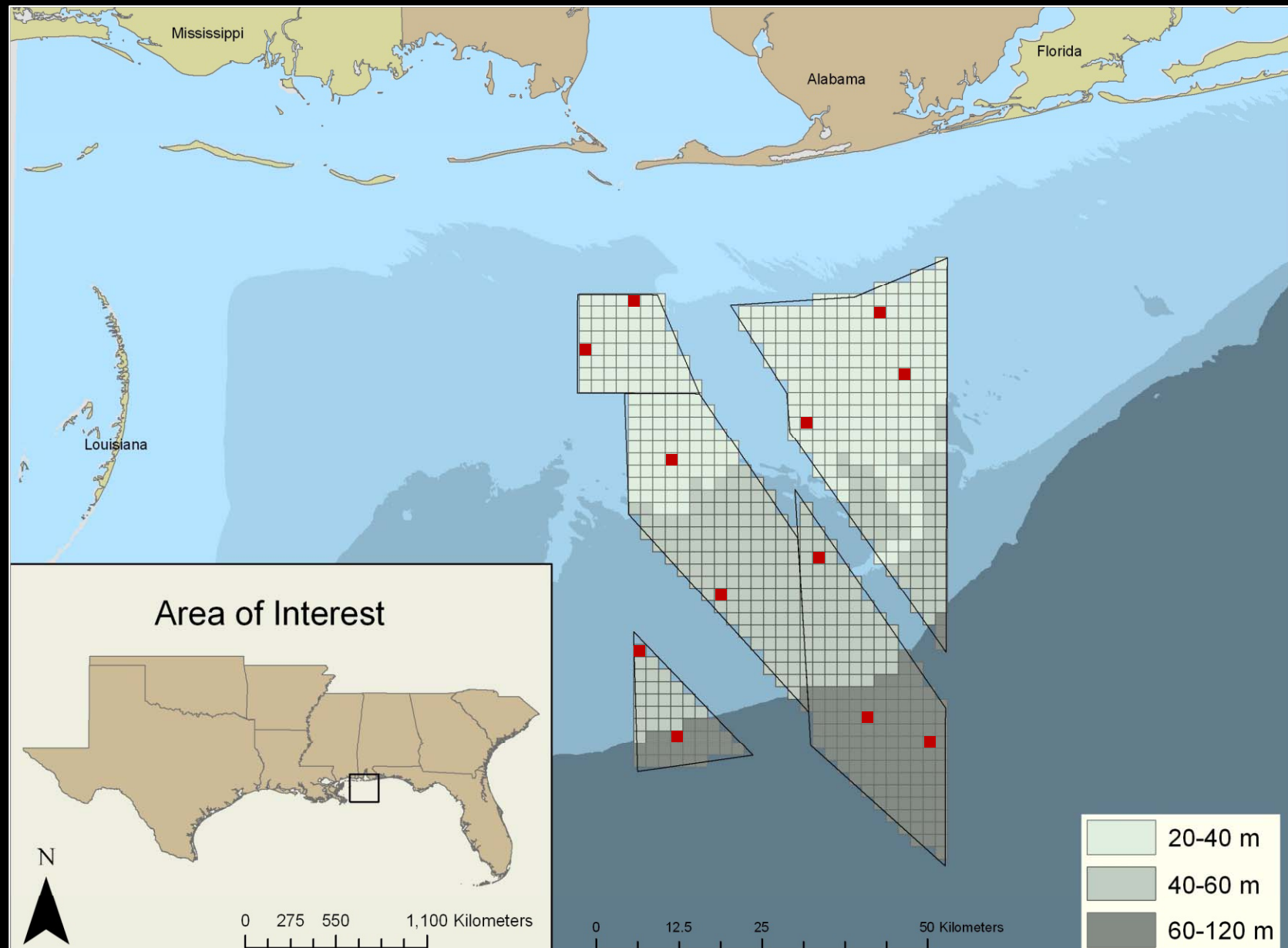
- **Time Series Data**
  - Bottom longline:* sharks
  - Vertical longline:* adult red snapper
  - Trawl:* juvenile red snapper
- **Incidence of Diseased Fish**
- **The Alabama Alps**



# Time Series Data ...

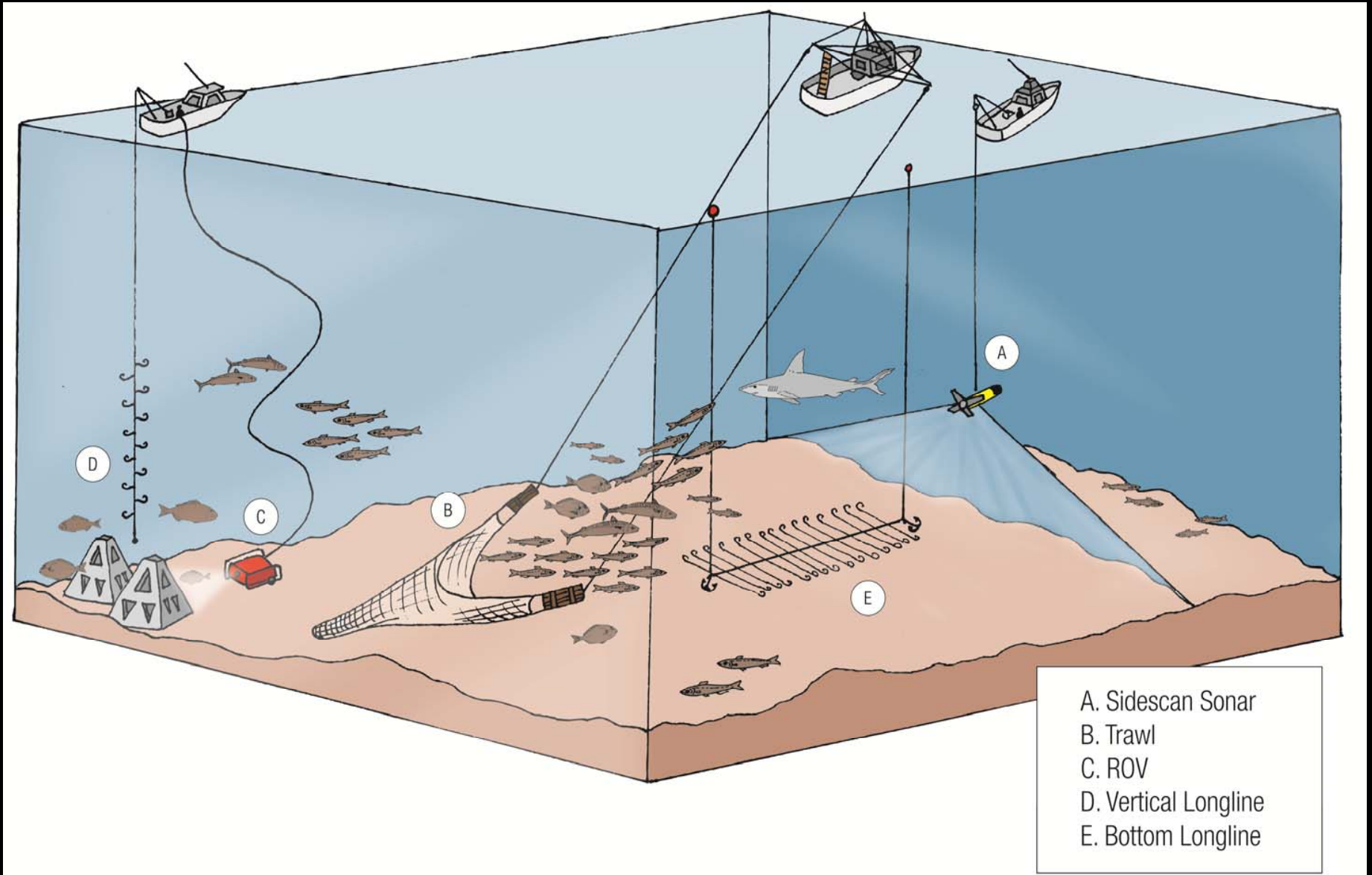


# Time Series Data ...





# ... from an Ecosystem Perspective



# Bottom Longline



Atl. Sharpnose



Blacktip



Sandbar



Blacknose



Bull



Scalloped HH



Bonnethead



Great HH



Spinner



Finetooth



Nurse



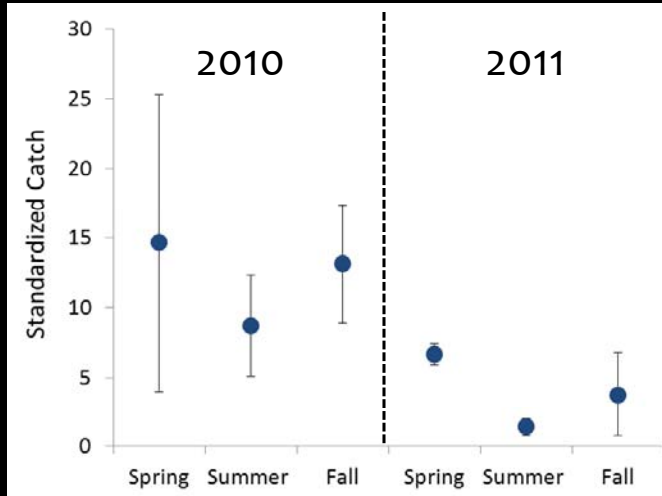
Tiger



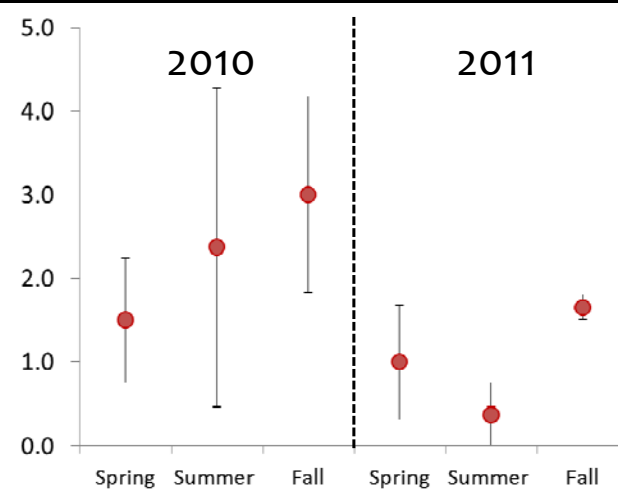
# Bottom Longline



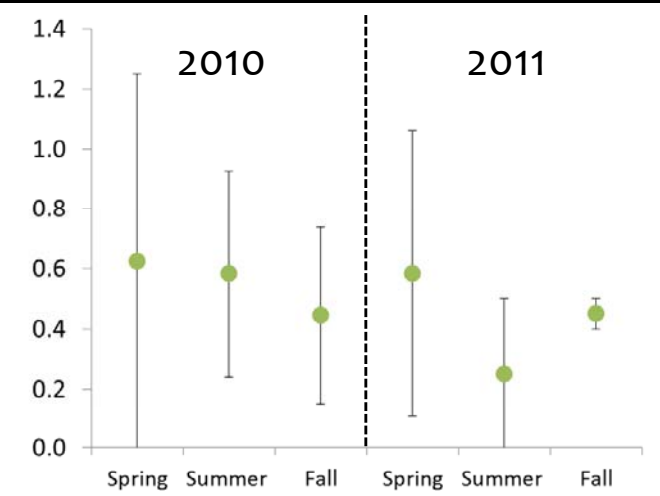
## Sharpnose



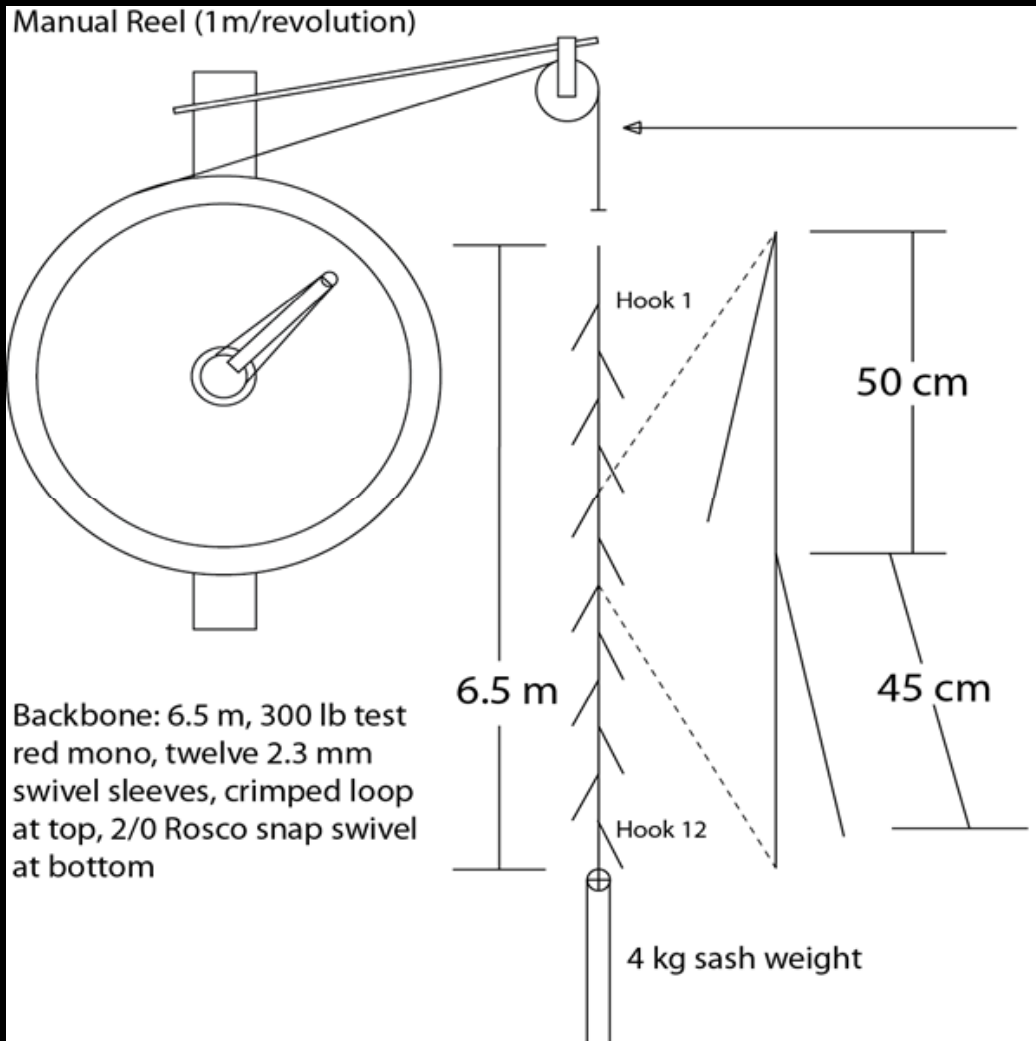
## Blacknose



## Tiger

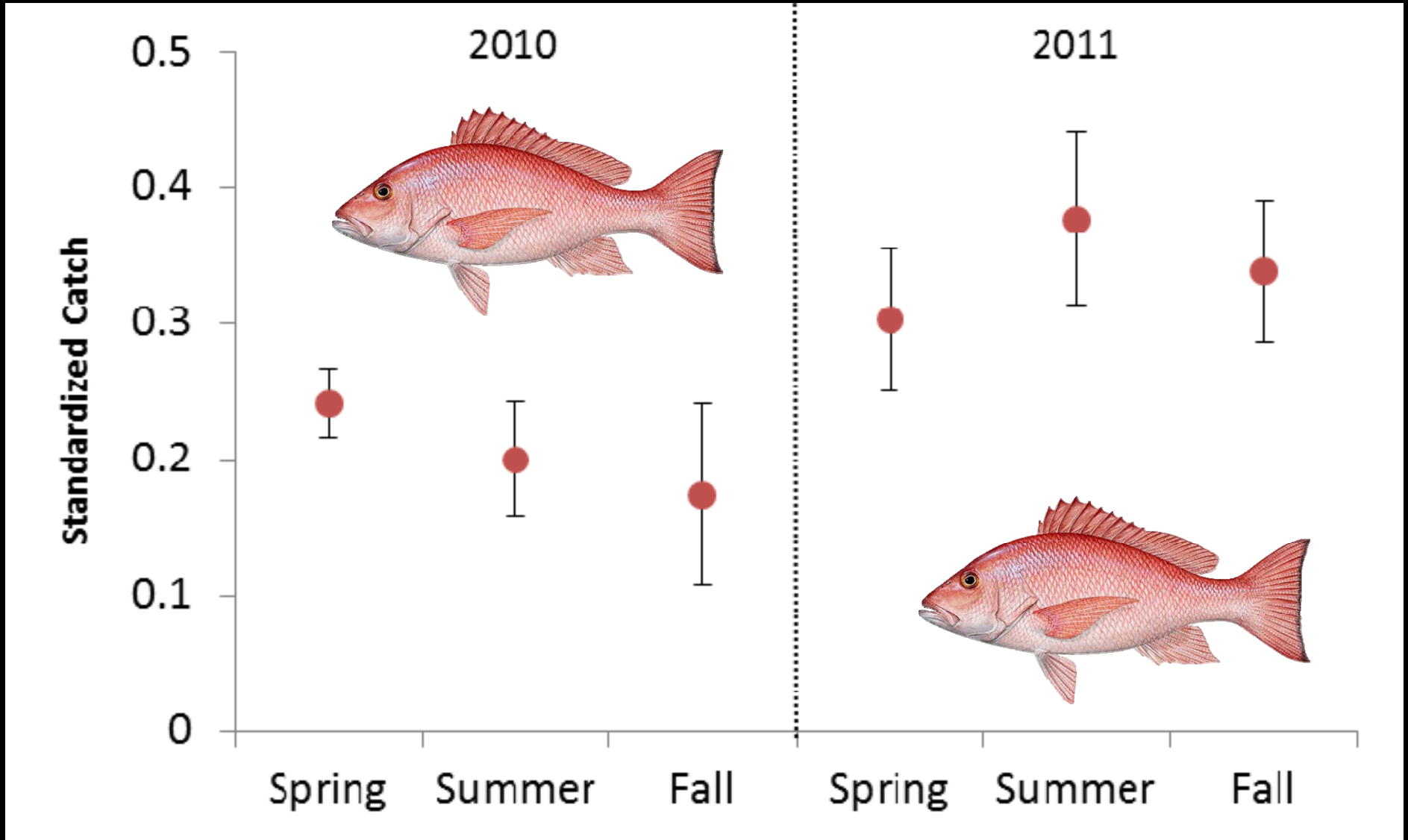


# Vertical Longline

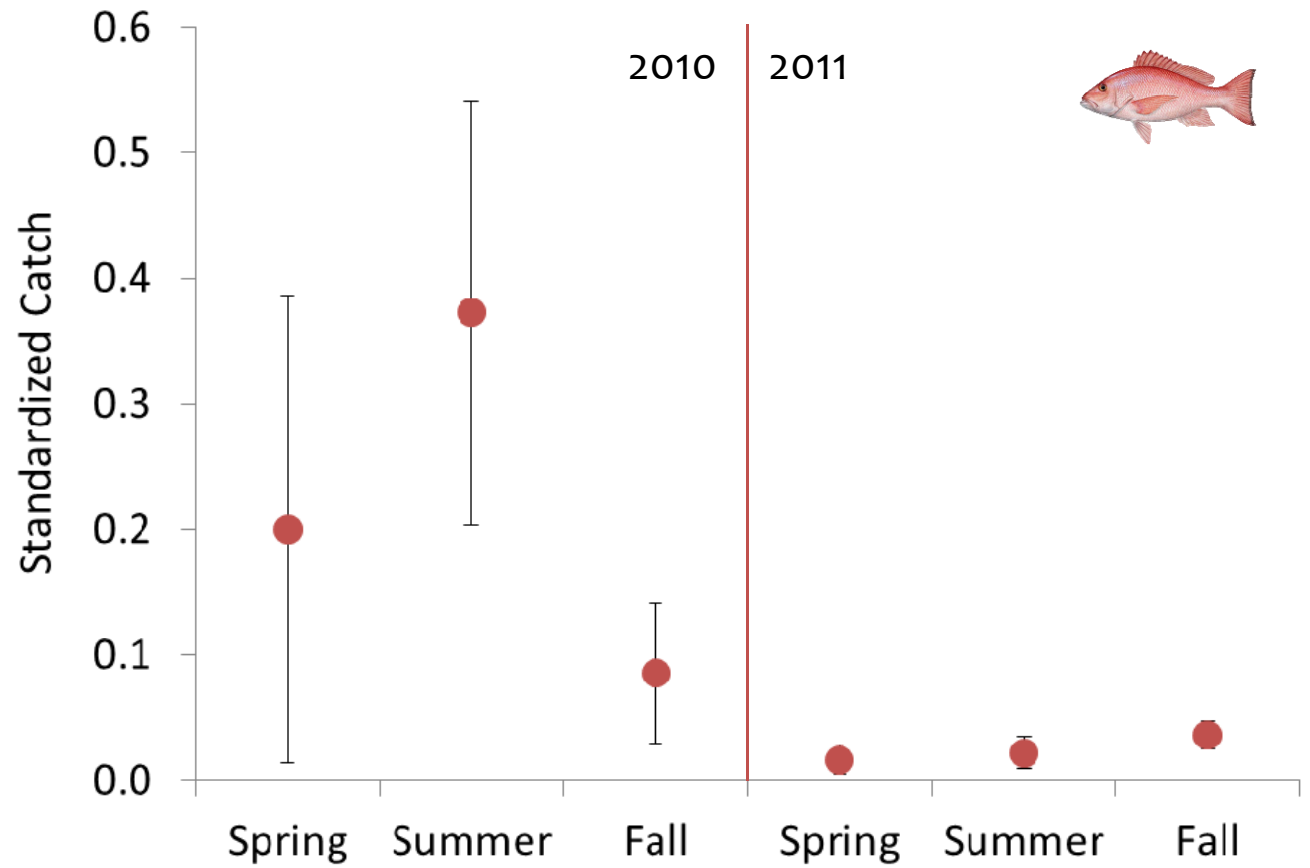
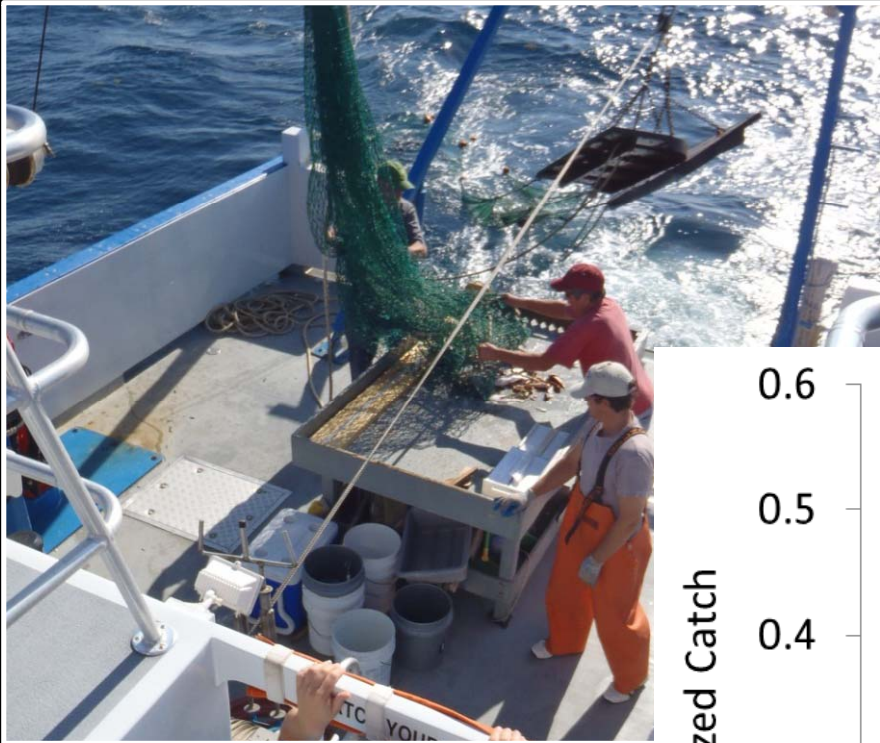


Species	Total	Proportion
Red snapper	1217	0.87
Grey triggerfish	86	0.06
Vermilion snapper	27	0.02
Sharksucker	24	0.02
Tomtate	7	0.01
Sharpnose shark	7	0.01
Red porgy	5	< 0.01
Rock sea bass	5	< 0.01
Red drum	5	< 0.01
Scamp	3	< 0.01
Almaco jack	2	< 0.01
Red grouper	2	< 0.01
Warsaw grouper	2	< 0.01
Gag	1	< 0.01
Cobia	1	< 0.01
Hardhead catfish	1	< 0.01
Blackline tilefish	1	< 0.01
Round scad	1	< 0.01
Little tunny	1	< 0.01
Silky shark	1	< 0.01
Lane snapper	1	< 0.01

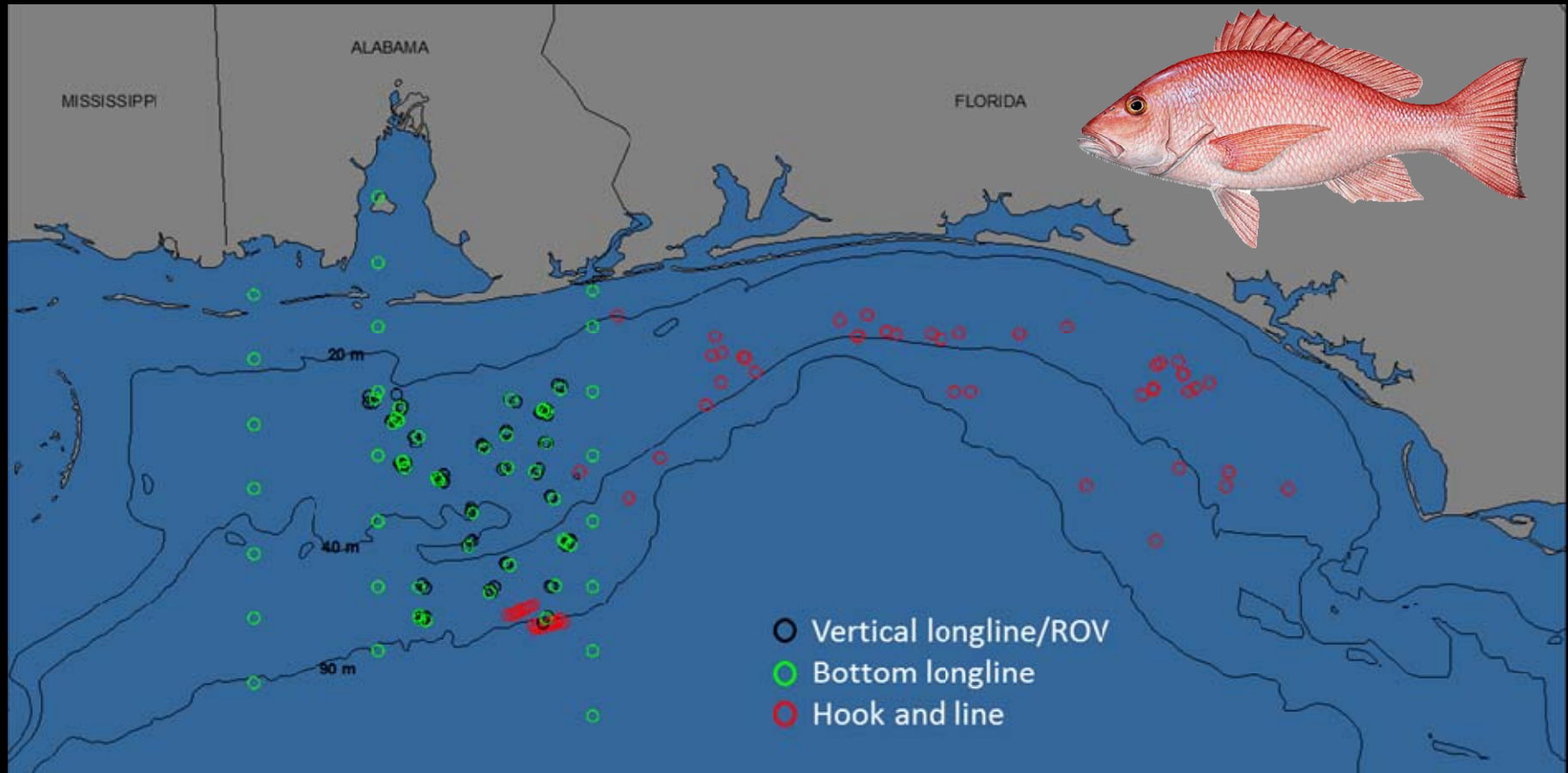
# Vertical Longline



# Trawl



# Incidence of Diseased Fish



Survey Gear	Effort
Vertical longline	192 sets
Bottom longline	57 sets
Hook and line	124 sites
Remotely operated vehicle (ROV)	122 videos
Trawl	36 trawls

Species	Number	External Abnormalities	Internal Abnormalities
Red snapper	1672	1*	0
Grey triggerfish	49	0	0
Red drum	35	0	0
Vermilion snapper	296	0	0
Grouper (Scamp, Gag, Red)	62	0	0

# Incidence of Diseased Fish

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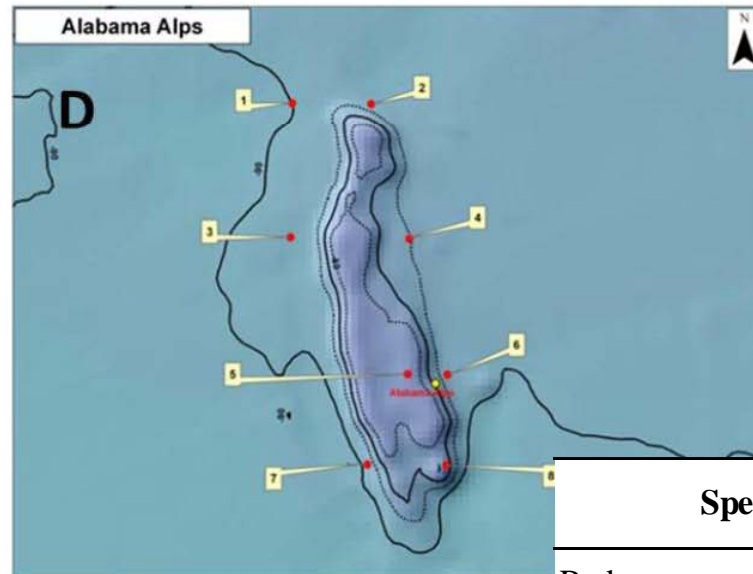
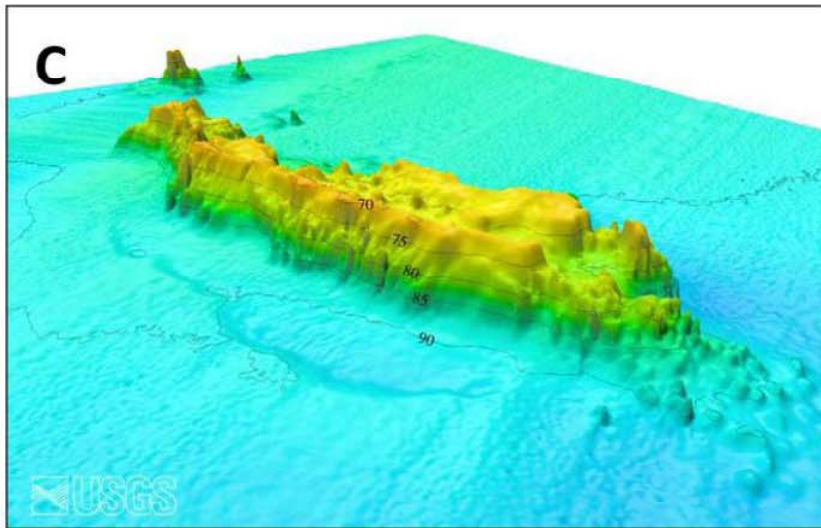
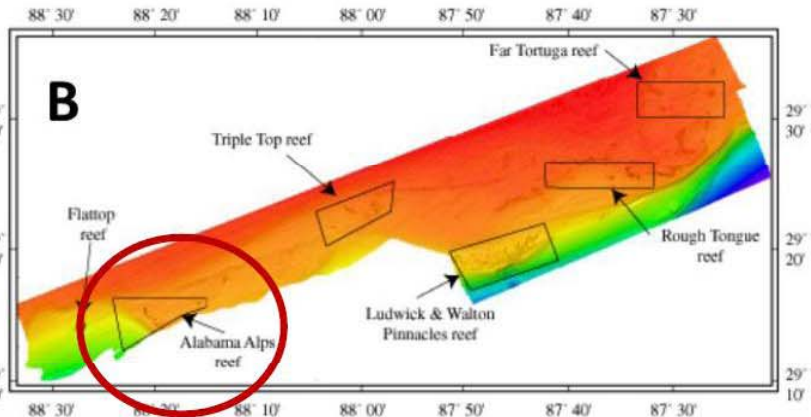
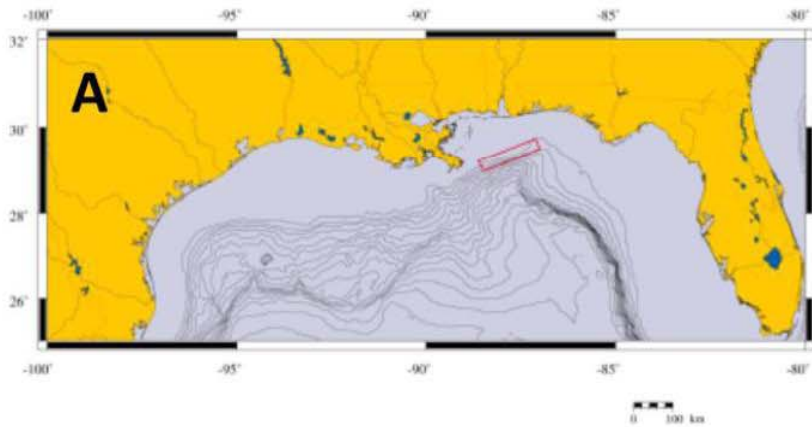


Ben Raines, Mobile Press-Register



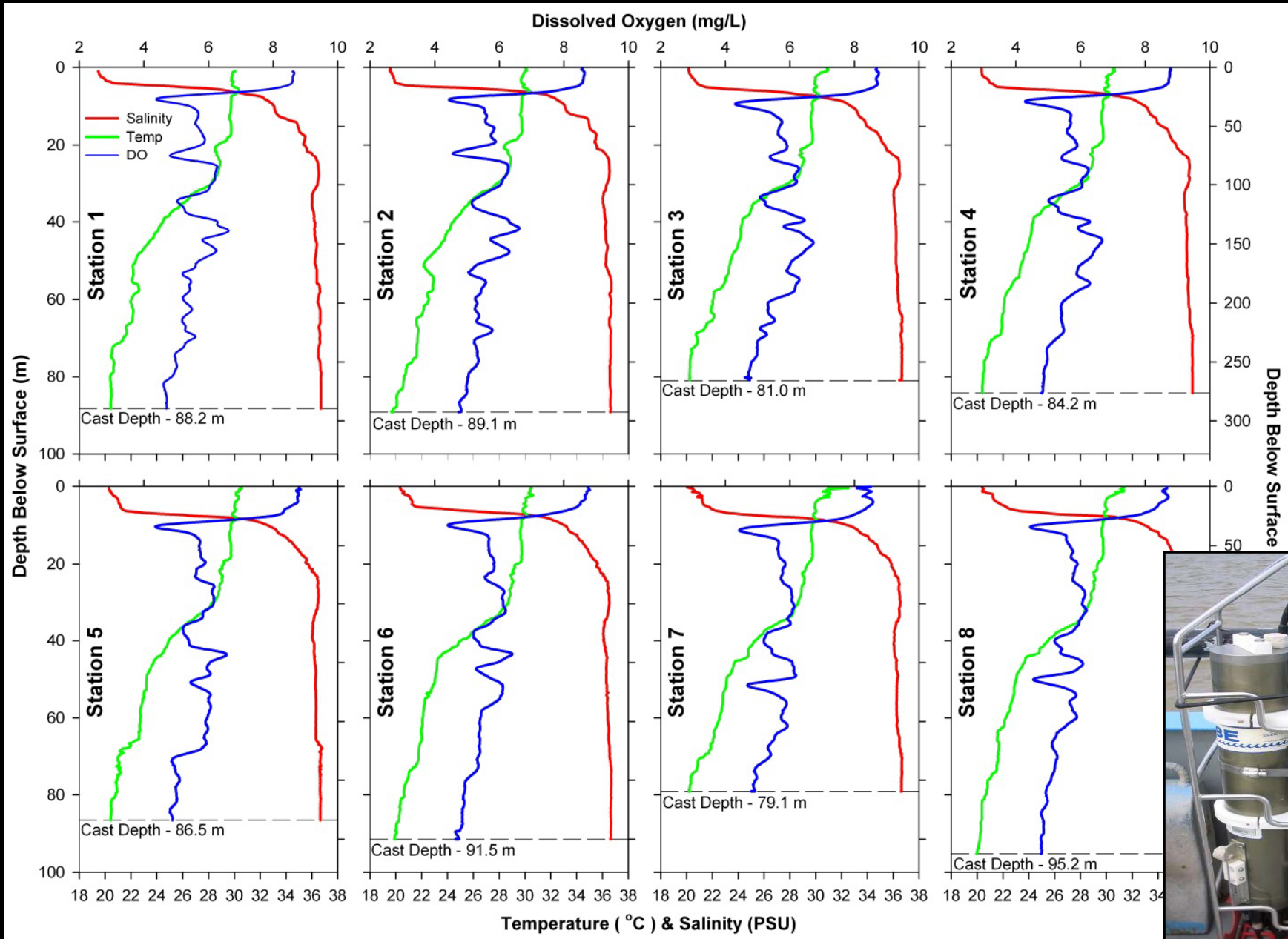


# The Alabama Alps



Species	Number
Red snapper	15
Vermilion snapper	9
Red porgy	4
Greater amberjack	1
Silky shark	1

# The Alabama Alps



# Final Thoughts

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## Could there be changes to the Gulf of Mexico ecosystem?

- A different shark assemblage:  
*Opportunistic predation?*
- More large red snapper:  
*2010 fishery closure?*
- Fewer small red snapper:  
*Year class failure?*  
*Increased cannibalism?*
- Incidence of diseased fish  
appears normal.

