NOAA FISHERIES

Southeast Fisheries Science Center

Comparison of Catch Rates to Video Observations

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Presentation Outline

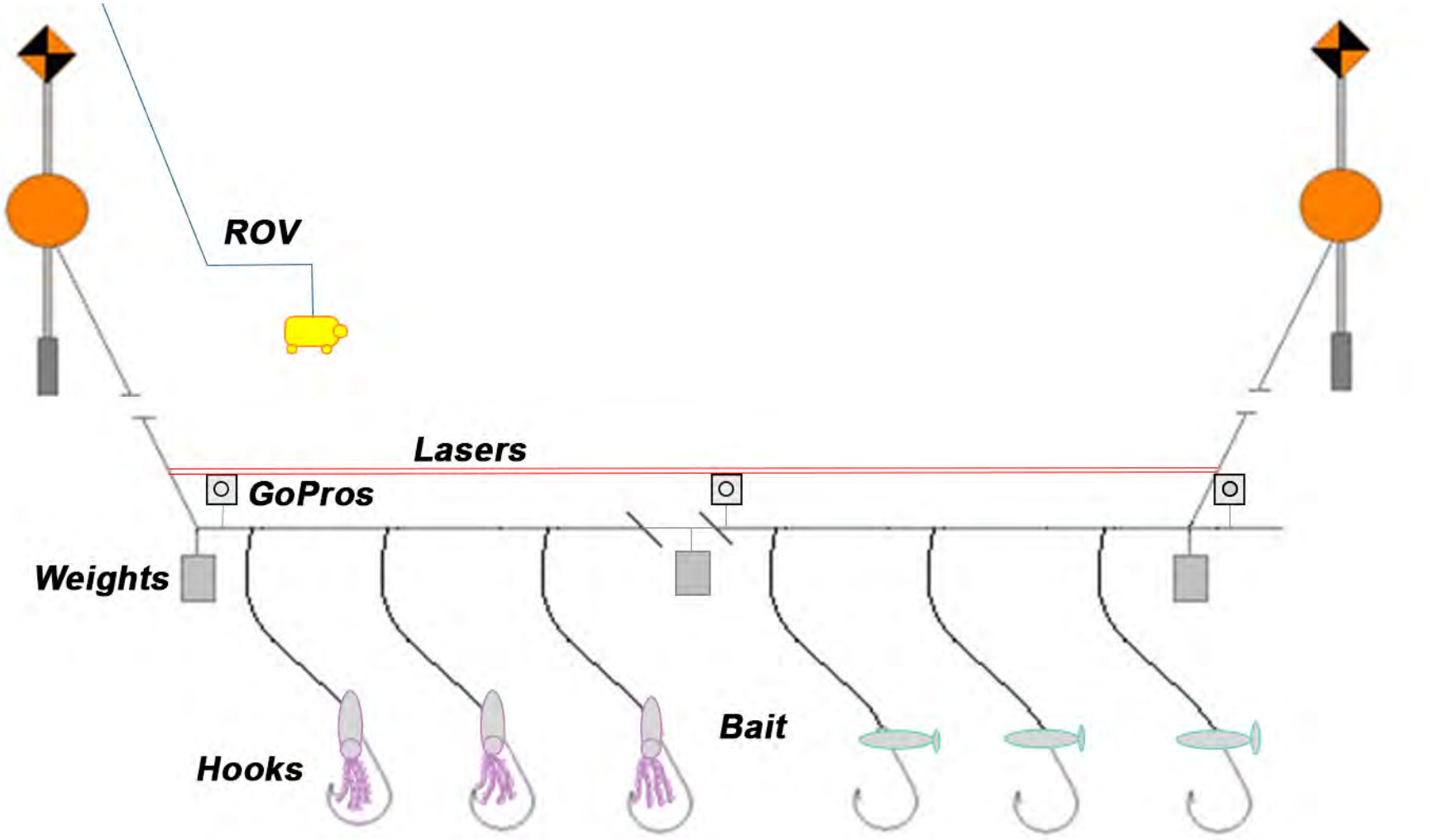
I. Experimental Longline Survey
   a. Objectives
   b. Methods
   c. Data Analysis

II. Groundfish Survey
   a. Objectives
   b. Methods

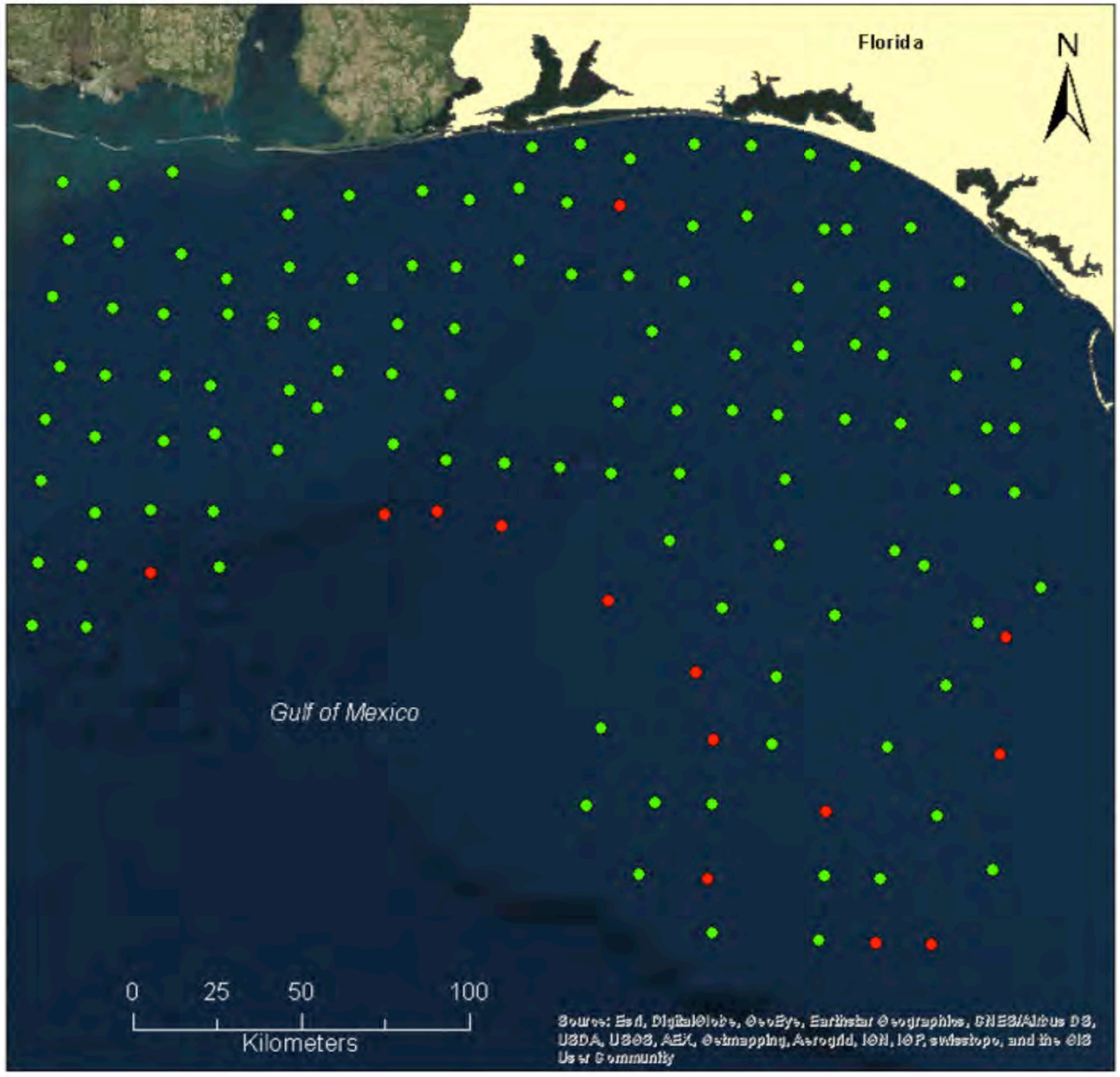
Experimental Longline Survey: Objectives

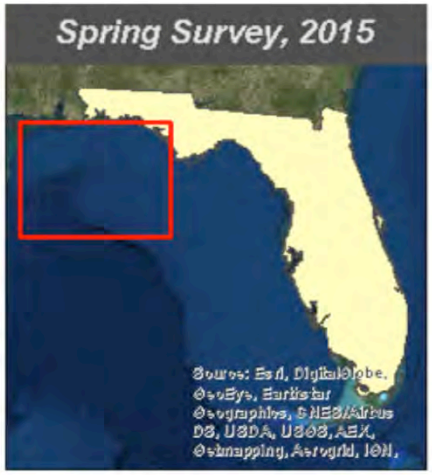
- Determine the distribution and abundance of shark and teleost populations
  - Depths: 9 to 1000 meters
  - Months: March and April
- Tag coastal sharks
- Compare catch rate and composition of Atlantic mackerel and squid
- Deploy ROV along longline gear
- Attach GoPro cameras to longline gear
- Conduct Conductivity, Temperature, Depth (CTD) casts

Experimental Longline Survey: Methods



Experimental Bottom Longline Catch, NOAA SEFSC





Experimental Bottom Longline Legend

Florida

Stations

One Nautical Mile

Successful

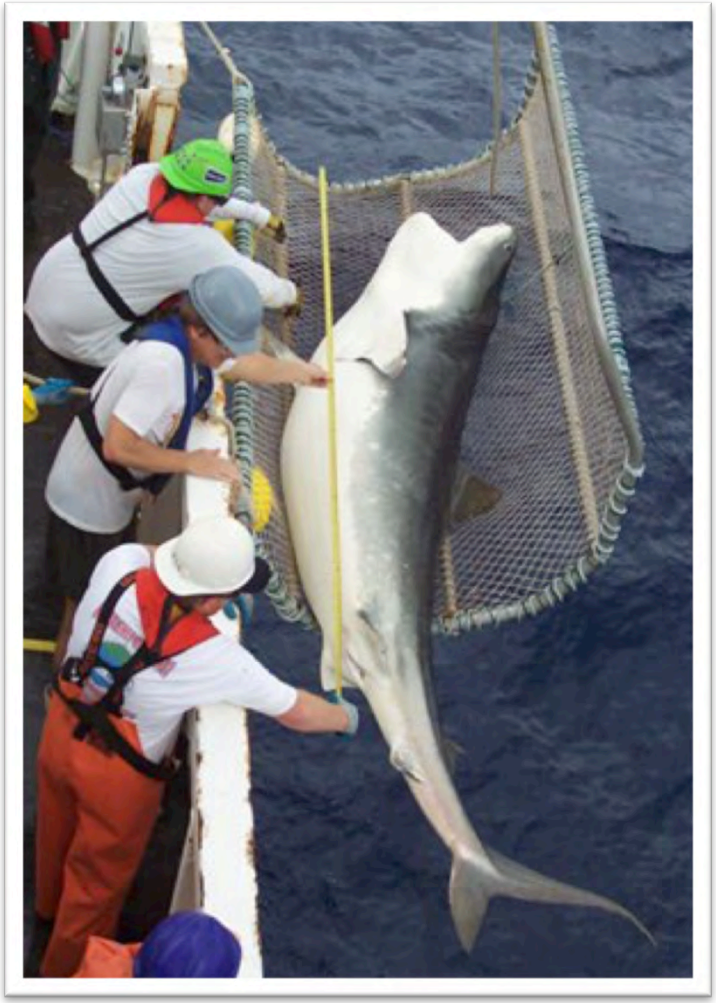
Unsuccessful

This map is of the experimental bottom longline survey on the United States continental shelf in the north east Gulf of Mexico (GOM) from March 12 to April 19, 2014.

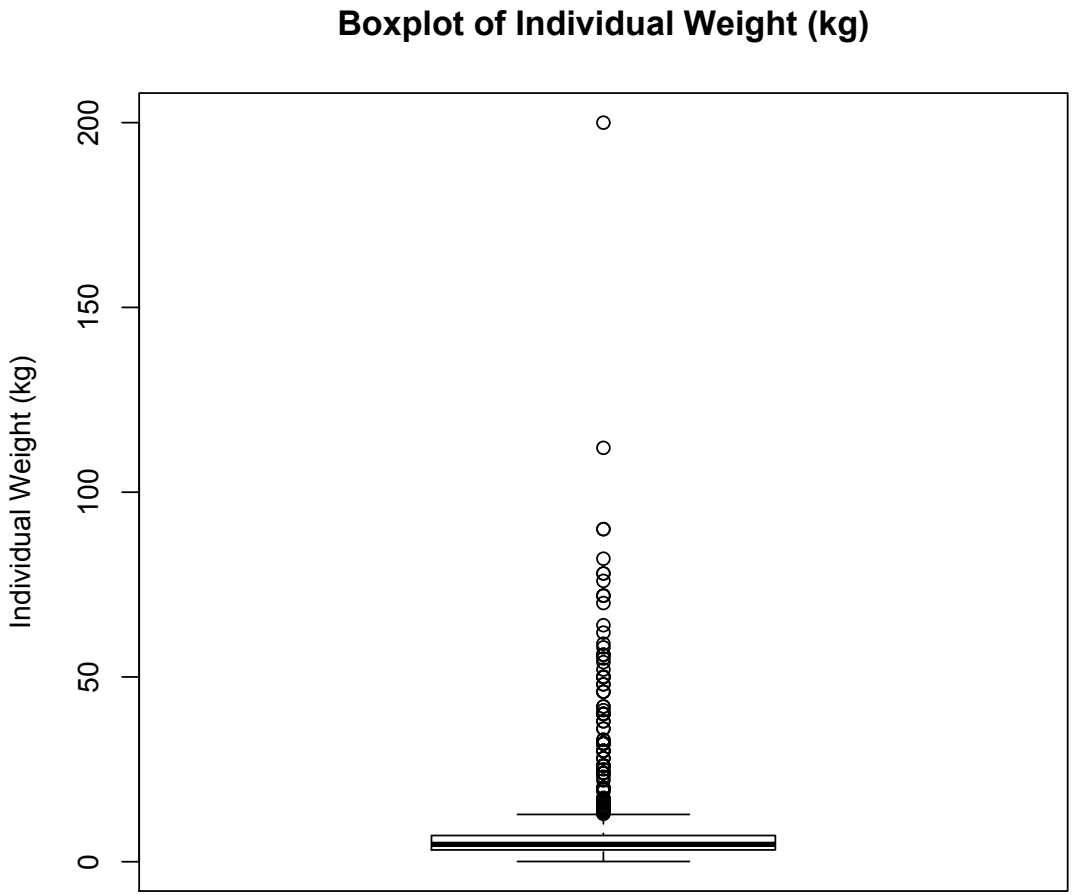
Projection: NAD 1983 UTM Zone 16

Experimental Longline Survey: Data Analysis

- Stations: 131 total bottom longline sets through the central Gulf of Mexico
- Captures: 1,195
  - Sharks comprising 79% of the total catch
  - Representation from 18 different species
  - Remaining captures consisted of 30 species
- Tags: 266
  - Deployed on 11 different species

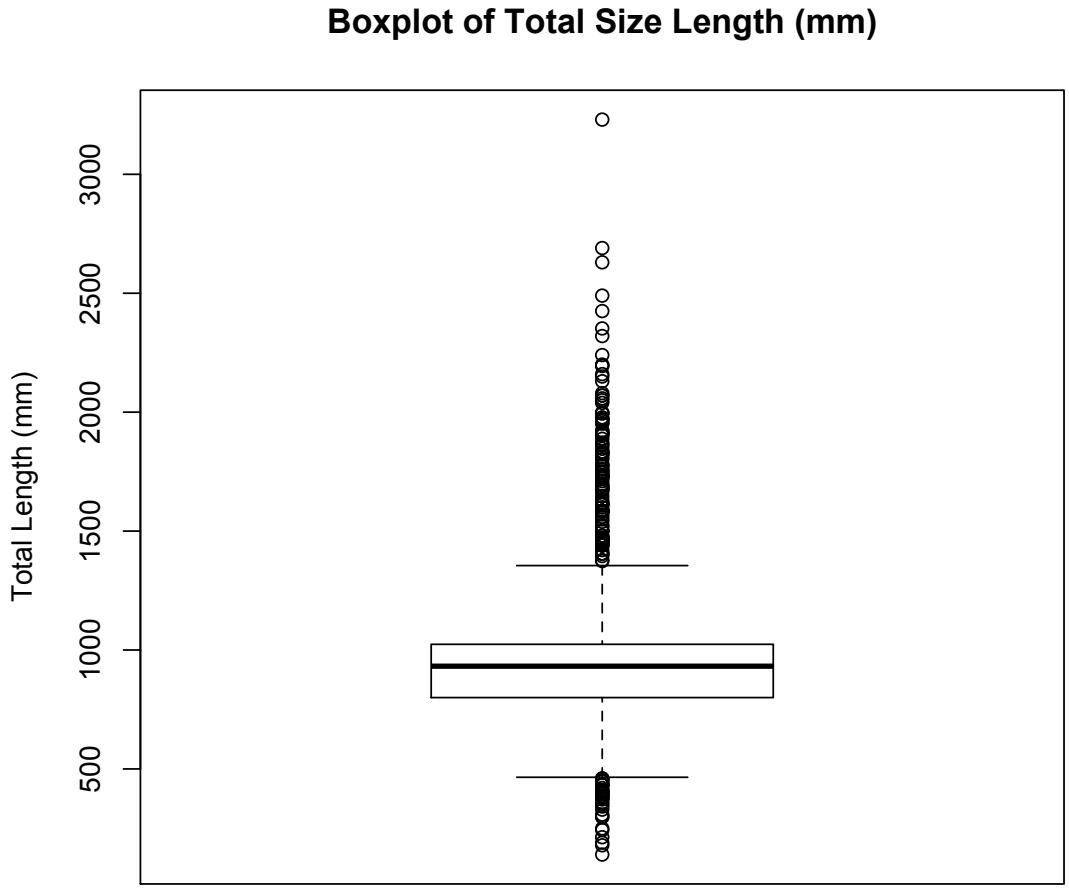


Experimental Longline Survey: Data Analysis



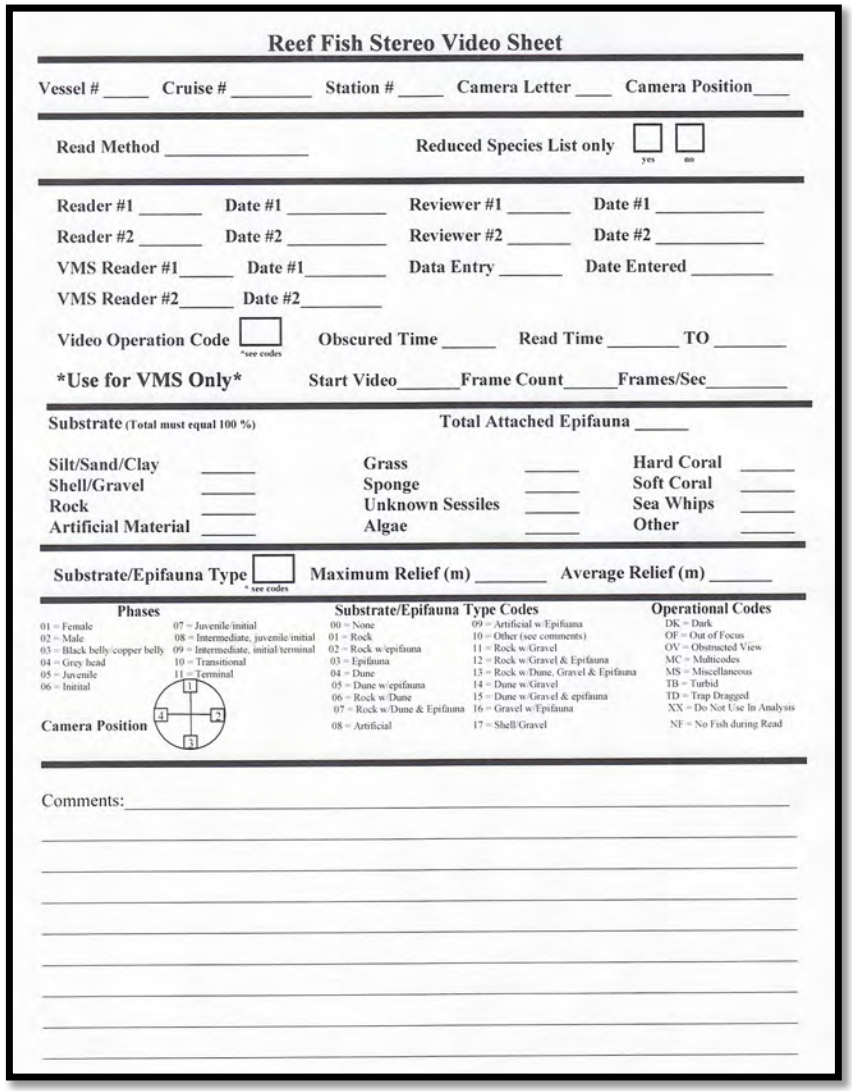
Minimum	1st Quartile	Median	3rd Quartile	Maximum
0.065 kg	3.200 kg	4.700 kg	7.100	200

Experimental Longline Survey: Data Analysis



Minimum	1st Quartile	Median	3rd Quartile	Maximum
140.0 mm	800.0 mm	932.0 mm	1024.0 mm	3230 mm

Experimental Longline Survey: Data Analysis



Reef Fish Stereo Video Sheet

Vessel # _____ Cruise # _____ Station # _____ Camera Letter ____ Camera Position____

Read Method _____ Reduced Species List only ☐ yes ☐ no

Reader #1 _____ Date #1 _____ Reviewer #1 _____ Date #1 _____

Reader #2 _____ Date #2 _____ Reviewer #2 _____ Date #2 _____

VMS Reader #1_____ Date #1_____ Data Entry _____ Date Entered _____

VMS Reader #2_____ Date #2_____

Video Operation Code ☐ *see codes Obscured Time _____ Read Time _____ TO _____

Use for VMS Only Start Video_____Frame Count_____Frames/Sec_____

Substrate (Total must equal 100 %) Total Attached Epifauna _____

Silt/Sand/Clay	_____	Grass	_____	Hard Coral	_____
Shell/Gravel	_____	Sponge	_____	Soft Coral	_____
Rock	_____	Unknown Sessiles	_____	Sea Whips	_____
Artificial Material	_____	Algae	_____	Other	_____

Substrate/Epifauna Type ☐ * see codes Maximum Relief (m) _____ Average Relief (m) _____

Phases

01 = Female
02 = Male
03 = Black belly/copper belly
04 = Grey head
05 = Juvenile
06 = Initital
07 = Juvenile/initial
08 = Intermediate, juvenile/initial
09 = Intermediate, initial/terminal
10 = Transitional
11 = Terminal

Camera Position (1, 2, 3, 4)

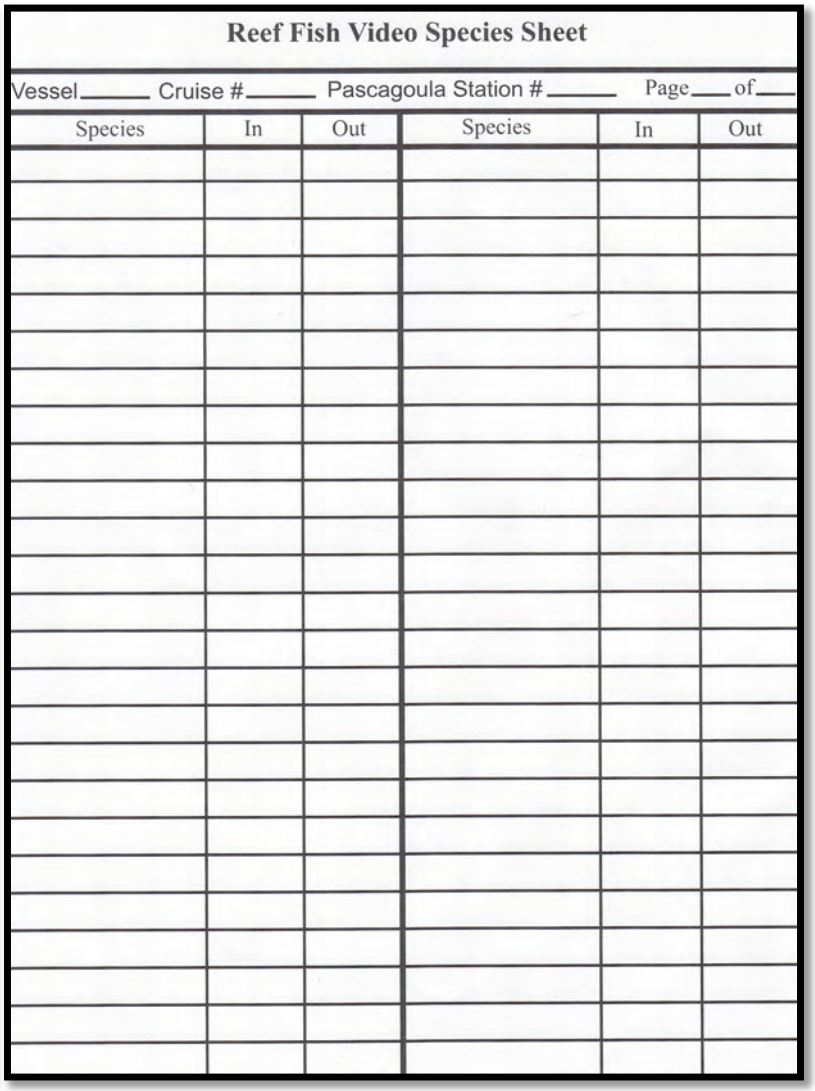
Substrate/Epifauna Type Codes

00 = None
01 = Rock
02 = Rock w/epifauna
03 = Epifauna
04 = Dune
05 = Dune w/epifauna
06 = Rock w/Dune
07 = Rock w/Dune & Epifauna
08 = Artificial
09 = Artificial w/Epifauna
10 = Other (see comments)
11 = Rock w/Gravel
12 = Rock w/Gravel & Epifauna
13 = Rock w/Dune, Gravel & Epifauna
14 = Dune w/Gravel
15 = Dune w/Gravel & epifauna
16 = Gravel w/Epifauna
17 = Shell/Gravel

Operational Codes

DK = Dark
OF = Out of Focus
OV = Obstructed View
MC = Multicodes
MS = Miscellaneous
TB = Turbid
TD = Trap Dragged
XX = Do Not Use In Analysis
NF = No Fish during Read

Comments: _____

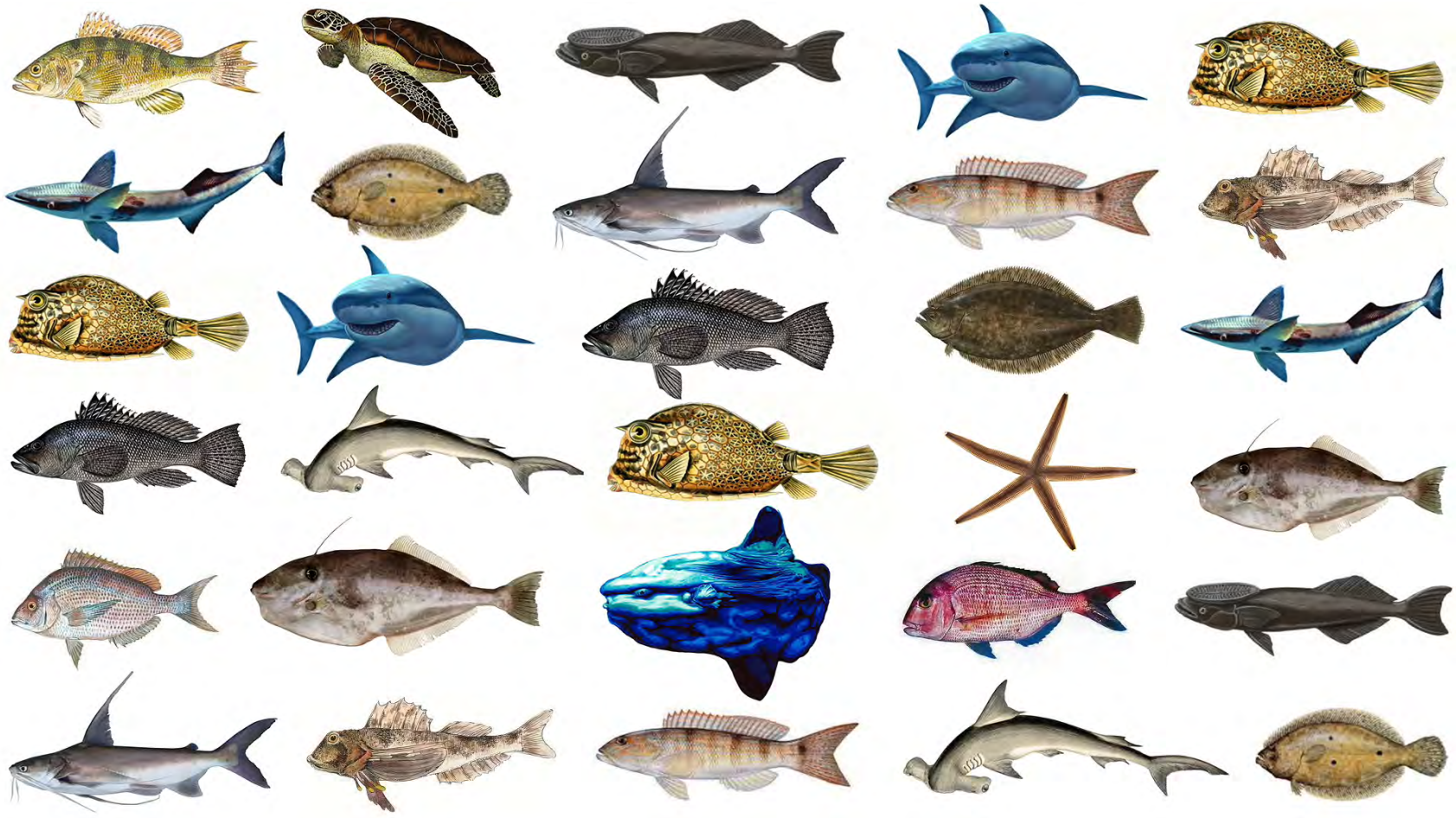


Reef Fish Video Species Sheet

Vessel_____ Cruise #_____ Pascagoula Station #_____ Page___of___

Species	In	Out	Species	In	Out

Experimental Longline: Data Analysis



Experimental Longline Survey: Data Analysis

Catch for Station #109

Station	Taxon	Count	Length (mm)
109	*Carcharhinus acronotus*	4	950
109	*Mustelus sinusmexicanus*	1	1260
109	*Rhizoprionodon terraenovae*	4	750
109	*Sphyrna lewini*	2	1800

Video Observations for Station #109

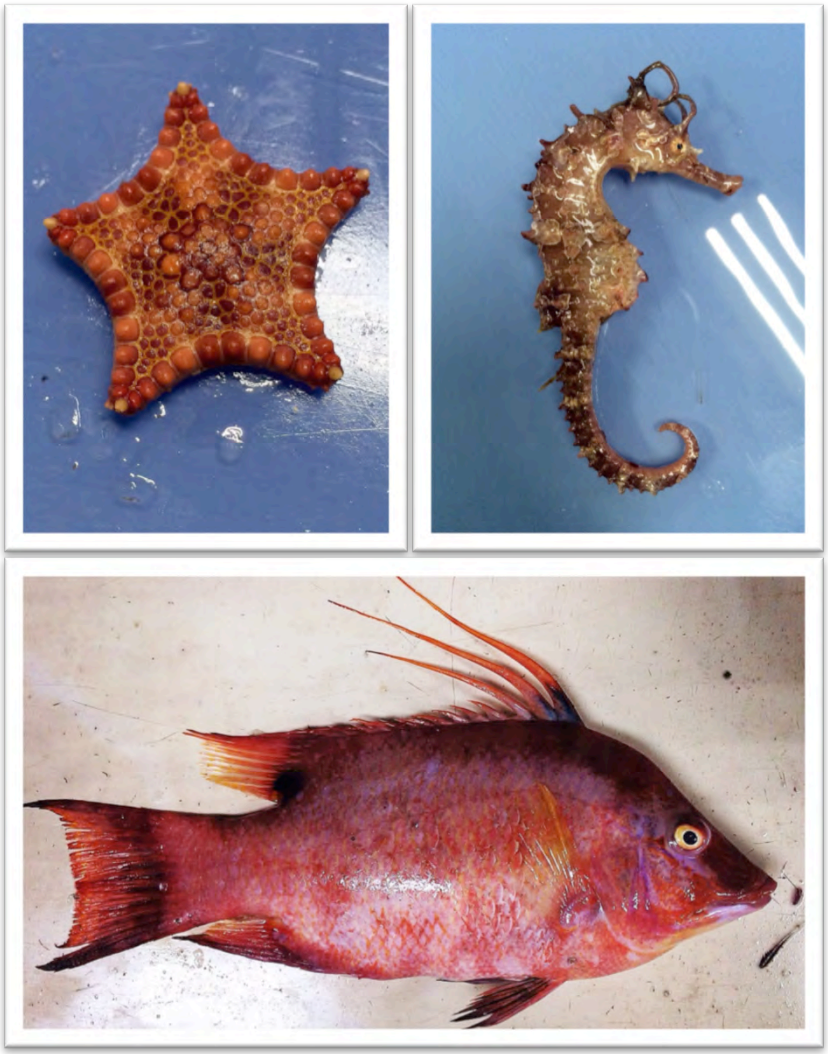
Station	Taxon	Count	Length (mm)
109	*Carcharhinus acronotus*	4	950
109	*Mustelus sinusmexicanus*	1	1260
109	*Rhizoprionodon terraenovae*	4	750
109	*Sphyrna lewini*	2	1800
109	*Annelida*	1	NA
109	*Decapoda*	1	NA
109	*Bothidae*	3	150
109	*Calamus calamus*	14	250
109	*Calamus proridens*	6	250
109	*Monacanthidae or Sparidae*	16	325
109	*Pagrus pagrus*	37	450
109	*Sparidae*	60	300
109	*Stenotomus caprinus*	5	165
109	*Unknown*	6	NA

Groundfish Survey: Objectives

- Monitor the inter-annual estimates of relative abundance in the Gulf of Mexico
- Conduct Conductivity, Temperature, Depth (CTD) casts

Groundfish Survey: Methods

- Stratified random design with stations proportionally allocated by surface area
- Counts
- Weights
- Sizes
- Sex
- Maturity



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