



**RETURN 'EM
RIGHT**

Return 'Em Right

*Programmatic and
Science Overview*

Gulf States Marine
Fisheries Commission

Gulf Fishery
Management Council

April 9, 2025



Outline

- Programmatic Overview
- State Fishery-dependent Data
- Federal Fishery-dependent Data
- Collaborative Studies
- Human Dimension Study
- Next Steps



Return 'Em Right (RER)

- Duration: 8 years
- Funding: \$30M
- Source: Deepwater Horizon Oil Spill
- Region: Gulf-wide
- Core Partners: NOAA Restoration Center, FSG, GSMFC
- Mission:

Improving reef fish survival by equipping anglers with the knowledge and gear to confidently and successfully release reef fish.



Return 'Em Right (cont'd)

- Components
 - Education and outreach
 - Fish descending device distribution
 - Evaluation and monitoring
- Goals
 - Reduce mortality in reef fish resulting from barotrauma and release
 - Improve angler awareness and experience with release gear
 - Improve overall health of reef fisheries



What are we collecting?

GSMFC



- State reef fish validation surveys
- Gulf at-sea observer programs
- Collaborative studies
- Human dimensions surveys

NOAA



- Southeast Region Headboat Survey

FSG



- Education module follow-up surveys
- Gear use survey



State Reef Fish Validation Surveys

- FWC, ADCNR, & MDMR
- Voluntary participation
- High-level information
- Private and for-hire recreational anglers
- Self-reported after fishing trip
- Data varies by state
 - FL doesn't collect from for-hire
 - AL doesn't collect venting data

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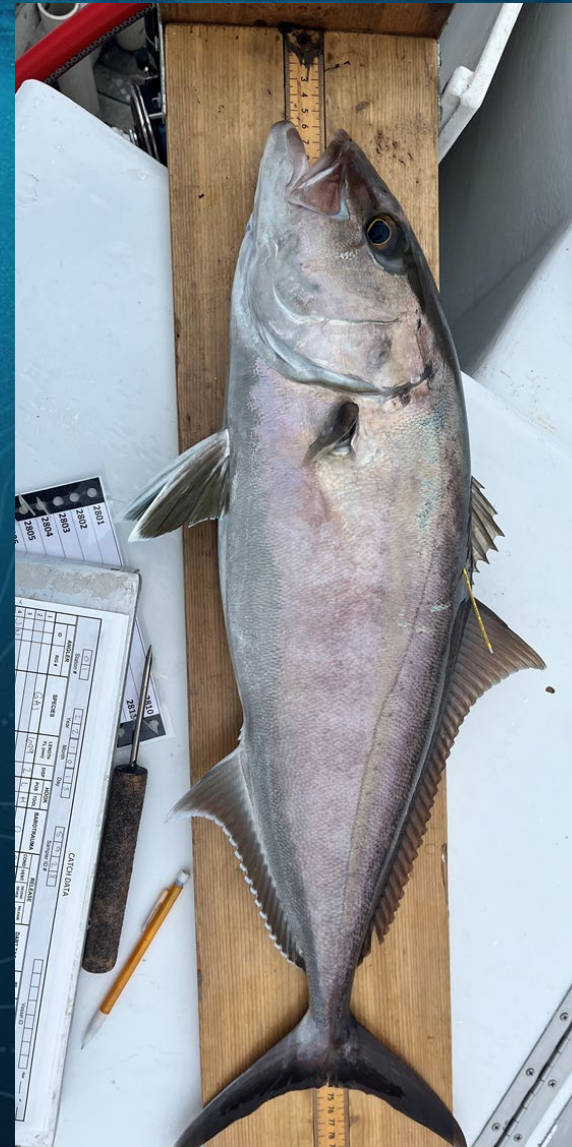
Reef Fish Validation Form

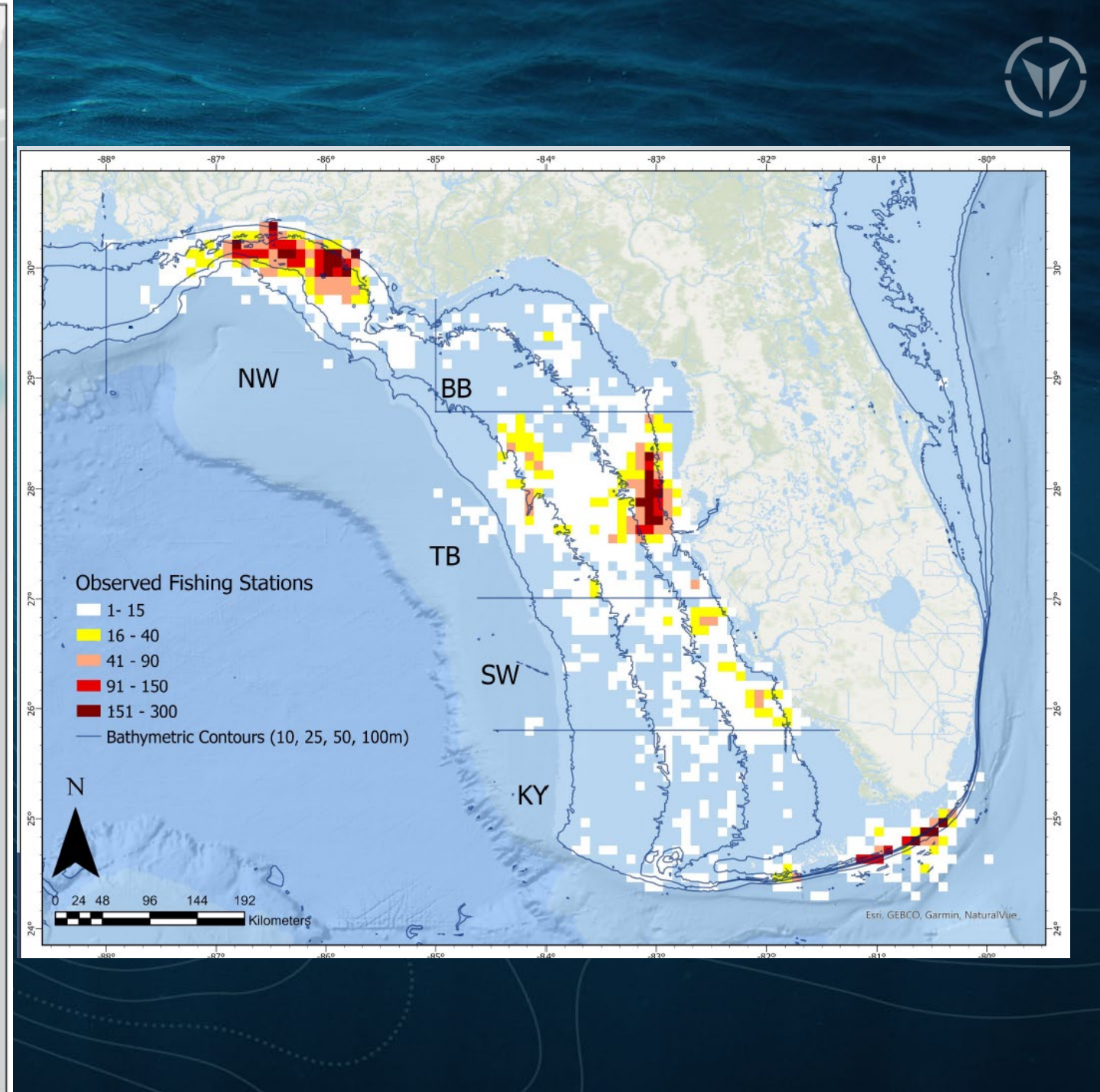
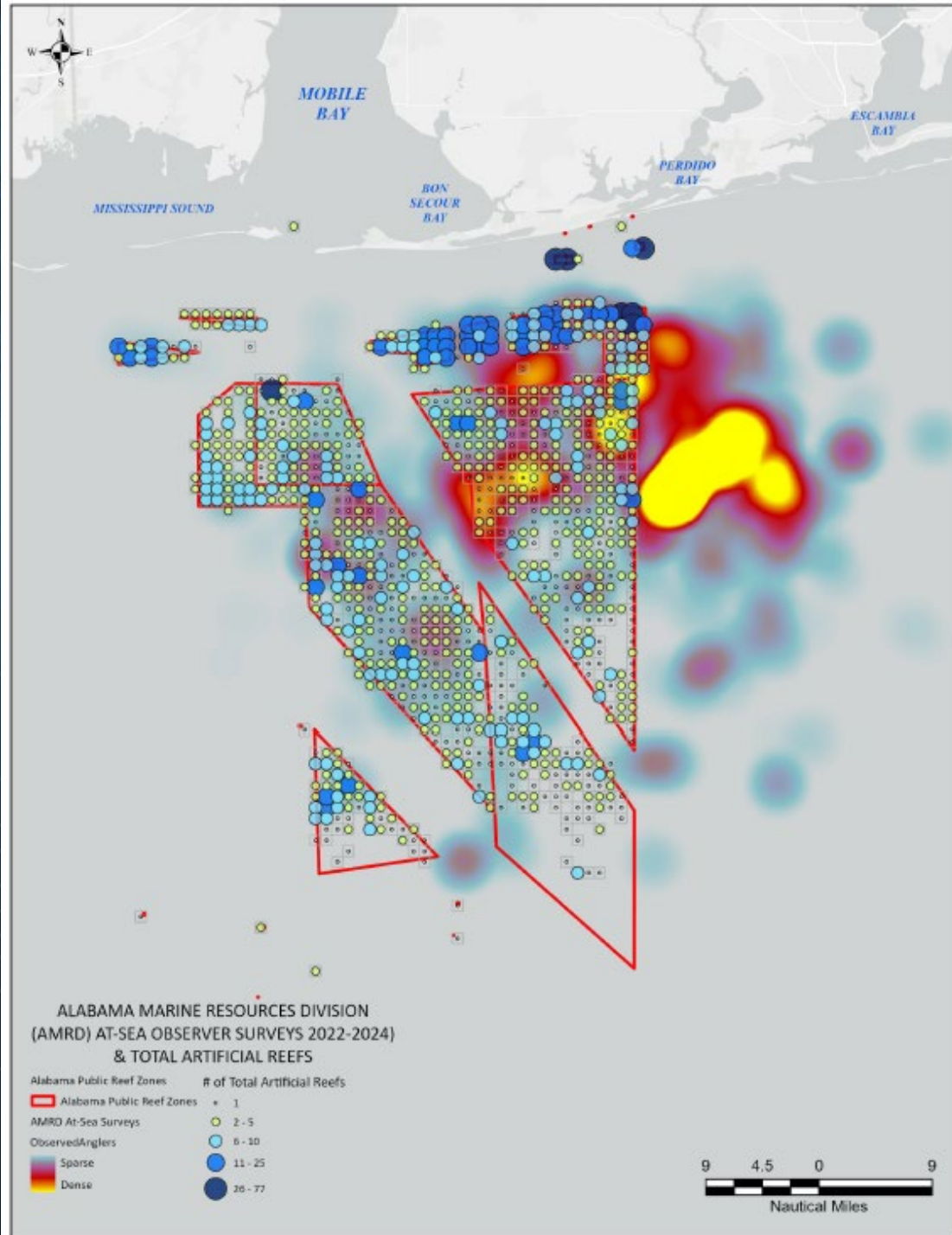
<input type="text" value="2"/> <input type="text" value="0"/> <input type="text" value="2"/> <input type="text" value="2"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1. Year	Month	Day	2. Sampler ID	3. County	4. Site	5. Time			
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	8. Mode <input type="checkbox"/> Private <input type="checkbox"/> Charter	9. If charter trip, trip length: <input type="checkbox"/> Single <input type="checkbox"/> Multi-Day	10. Trip completed? <input type="checkbox"/> Yes <input type="checkbox"/> No			
6. Vessel Registration or CID #	7. # Anglers								
11. Was the majority of your fishing effort today.... <input type="checkbox"/> 3 miles or less from shore <input type="checkbox"/> 3 to 9 miles from shore <input type="checkbox"/> more than 9 miles from shore	12. Was the majority of your fishing effort in an artificial reef zone? <input type="checkbox"/> Yes <input type="checkbox"/> Don't Know <input type="checkbox"/> No <input type="checkbox"/> Refused <i>[If "No", "Don't Know", or "Refused" skip to 0.14]</i>	13. Which artificial reef zone did you spend the majority of your fishing effort in? <input type="checkbox"/> Nearshore <input type="checkbox"/> Don Kelly <input type="checkbox"/> Dr. Bob Shipp <input type="checkbox"/> Tatum Winn S <input type="checkbox"/> Hugh Swingle <input type="checkbox"/> Don't Know <input type="checkbox"/> C.M. Blankenship <input type="checkbox"/> Refused <input type="checkbox"/> Tatum Winn N							
14. Were reef fish caught during this trip today? <input type="checkbox"/> Yes <input type="checkbox"/> No <i>[If "No" skip to 0.15]</i>	# Retained	# Discarded Dead	# Discarded Alive	# Descended Alive W/FDD	15. FDD on board? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't Know <input type="checkbox"/> Refused	All Retained Observed? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No			
RSN	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
GRT	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					
GAJ	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>					



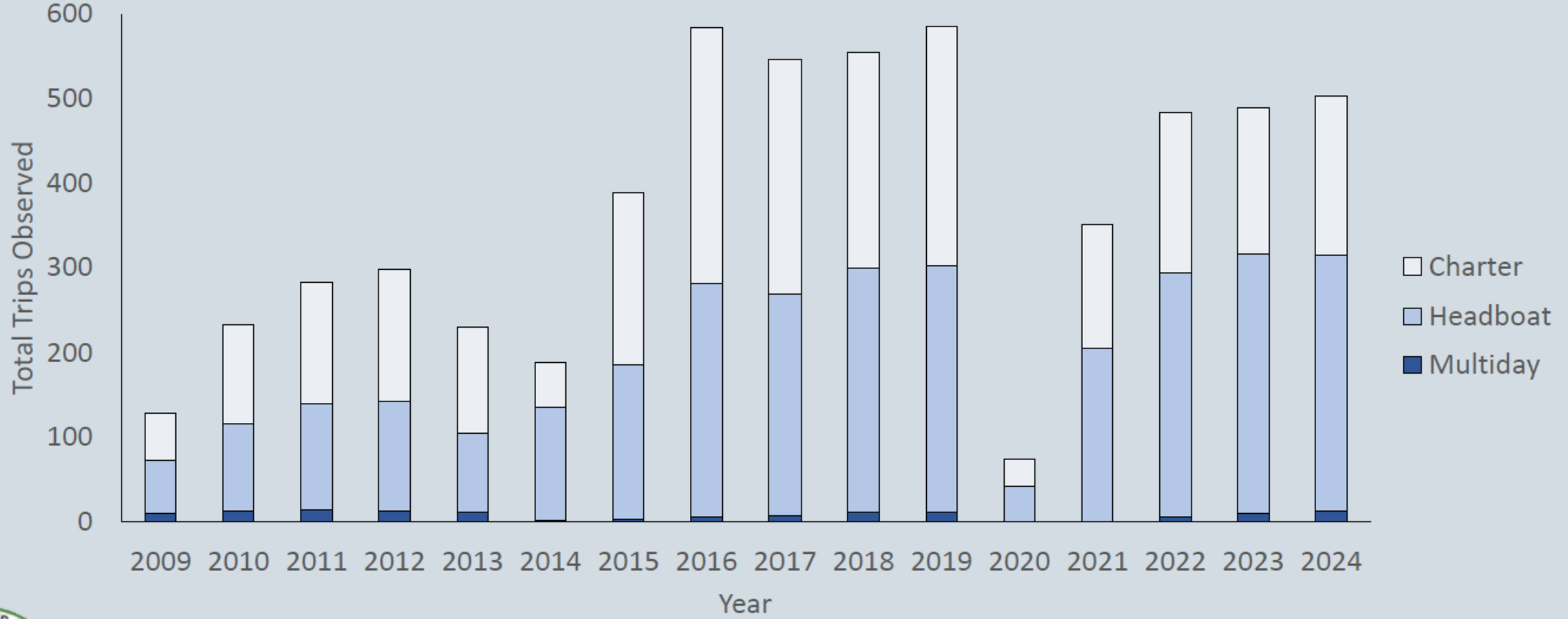
Gulf At-sea Observer Programs

- FWC, ADCNR, & MDMR
- Voluntary participation
- Very detailed information on fishing practices and behaviors
- For-hire recreational fishing trips
- Trained observers onboard recording data
- Standardized to the extent possible

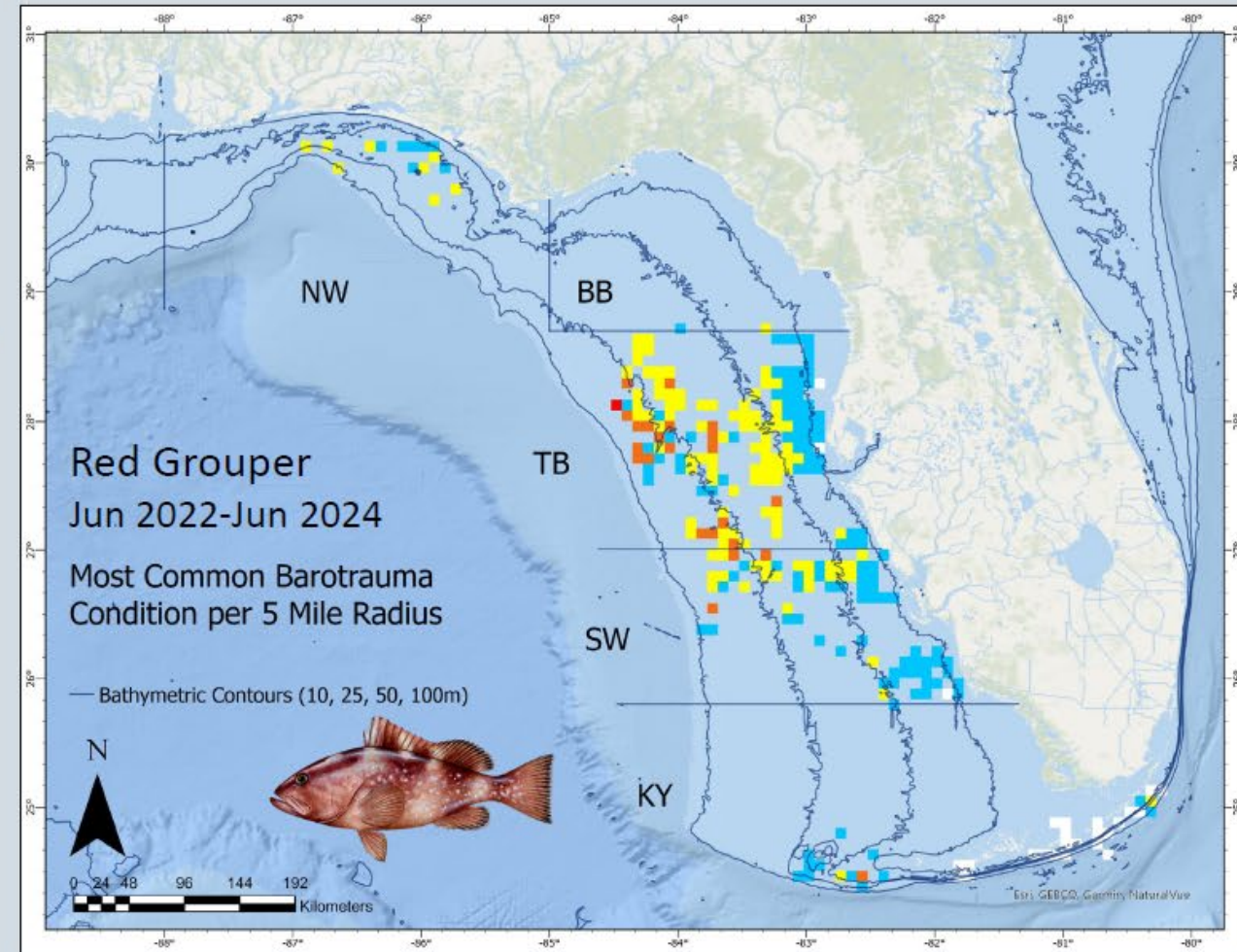
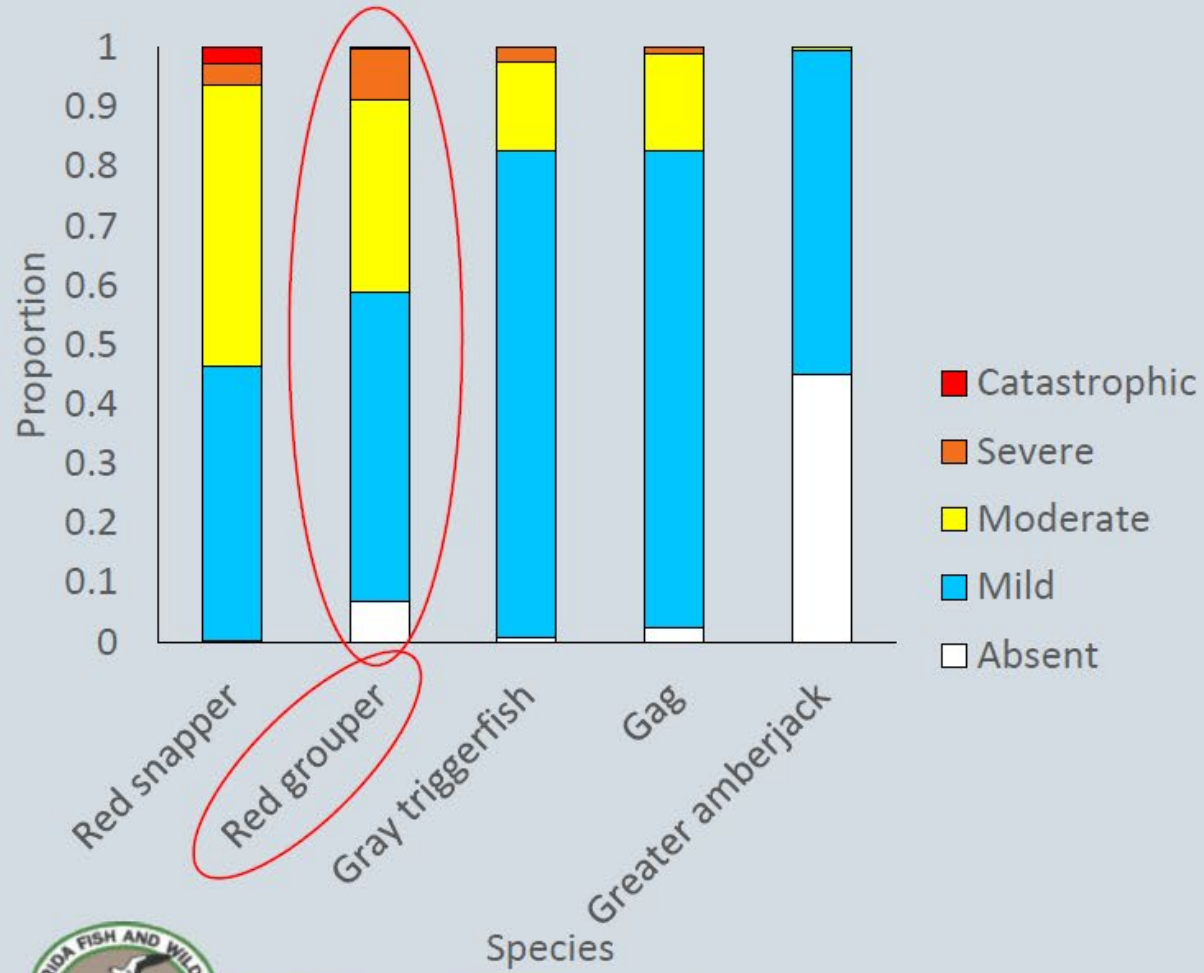




Trips per Year



Barotrauma









Southeast Region Headboat Survey

- Gulf-wide headboats
- Required reporting
- Electronic logbook
- Number of fish caught and discarded by species
- For each discard, whether descended or vented
- Self-reported data after fishing trip

Species	Total # Released	Total # Descended	Percent Descended	Total # Vented	Percent Vented
GRAY TRIGGERFISH	112,289	3,588	3.2	37,789	33.7
RED SNAPPER	74,365	10,103	13.6	33,618	45.2
RED GROUPER	63,686	6,539	10.3	7,549	11.9
WHITE GRUNT	42,698	2,847	6.7	332	0.8
VERMILION SNAPPER	28,789	2,802	9.7	7,642	26.5
LANE SNAPPER	14,144	6,073	42.9	876	6.2
GAG	8,342	701	8.4	1,698	20.4
BLACK SEA BASS	6,241	5	0.1	31	0.5
GRAY SNAPPER	5,514	1,258	22.8	1,505	27.3
HOGFISH	3,061	437	14.3	234	7.6



Collaborative Studies

Principal Investigator	Location	Research Priorities
 Dr. Stephen Szedlmayer	MS/AL coast	Compare release mortality & survival of descended red snapper across depth zones
 Dr. Marcus Drymon	Gulf-wide	Evaluate depredation rates of released reef fish; depredator ID
 Zach Zuckerman	LA coast	Compare efficiency of release; characterize depredation; survey anglers' device type preferences
 Dr. Will Patterson	West FL Shelf	Estimate seasonal release mortality of descended gag



Szedlmayer – Red Snapper Release Study

Objective:

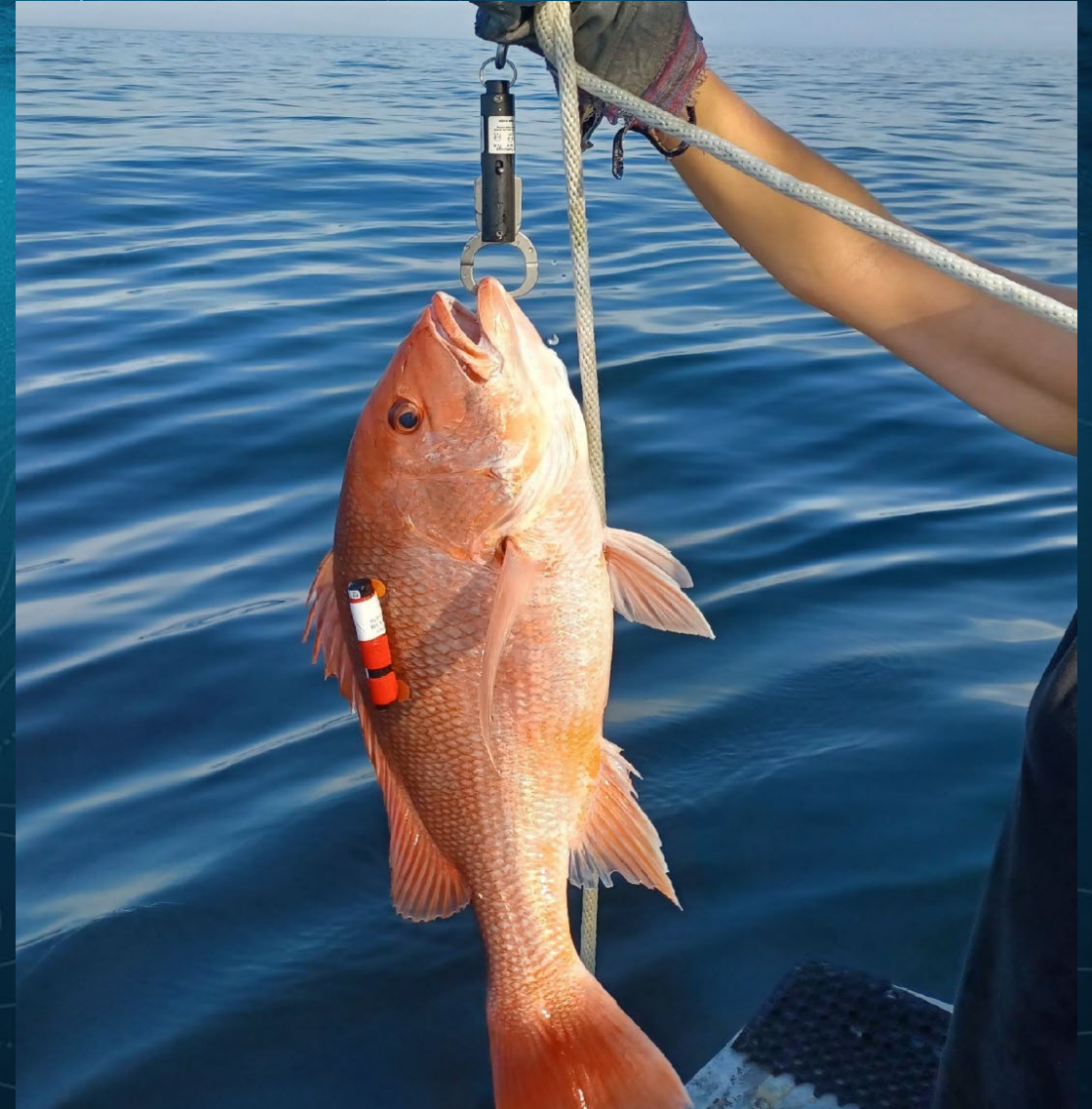
- Compare survival of Red Snapper released via surface, descender, and cage methods

Key Results:

- Predation had an effect on survival
- Descending devices are effective at reducing mortality
- Greater depth reduced survival
- Fast handling and retrieval improved survival

Conclusion:

- Descending devices are effective; however, reduced handling and fast release are likely most important





Drymon – Depredation on Descender Devices

Objective:

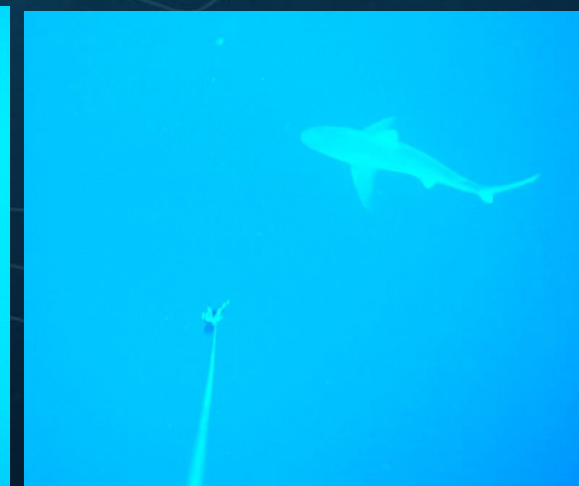
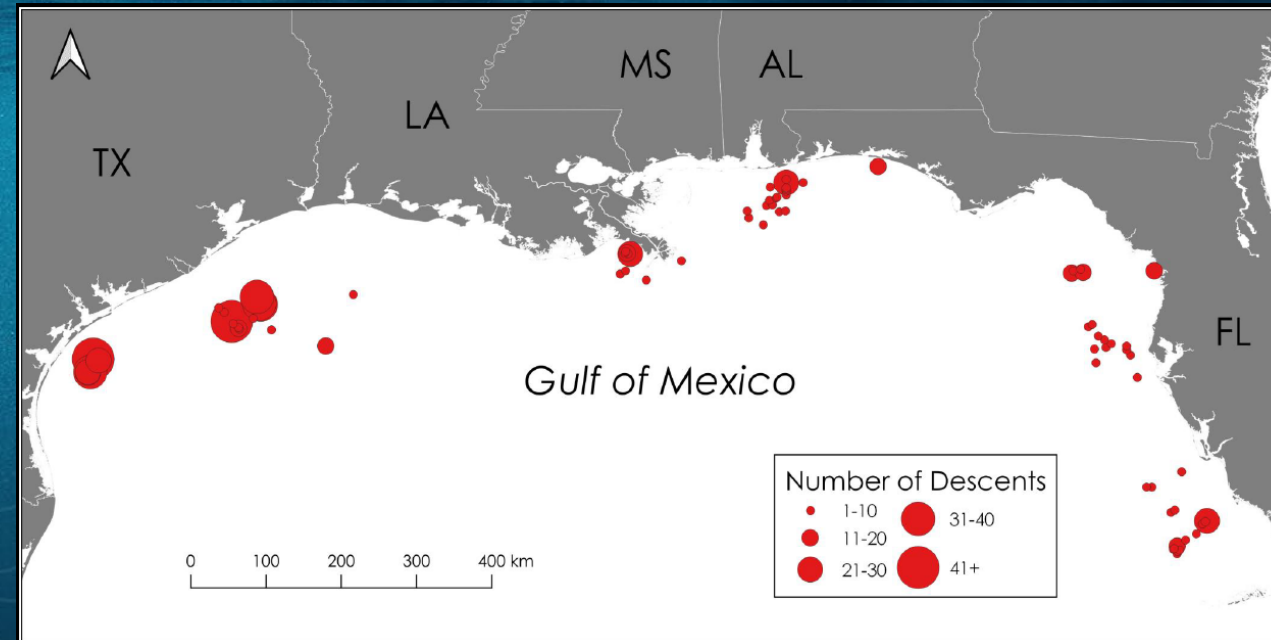
- Assess depredation rates on descending fishes and identify depredating species

Key Results:

- Of 987 descents recorded, only 3 shark depredations observed (0.3%)
- No dolphin depredation during descent
- Depredation during ascent far more common

Conclusion:

- Depredation is essentially a non-issue for reef fishes on descender devices
- Anglers should embrace their use as effective tools for mitigating barotrauma





Patterson – Gag Release Mortality Mitigation

Objective:

- Use 3D telemetry to estimate gag fate and assess effectiveness of descender devices and venting

Preliminary Data:

- 823,279 detections and 13,805 geoposition estimates from Winter 2023
- Movement metrics include depth changes and speed
- High confidence in fate assignments

Challenges:

- Hurricanes Idalia (Aug 2023) and Helene (Sep 2024) impacted array recovery and tagging





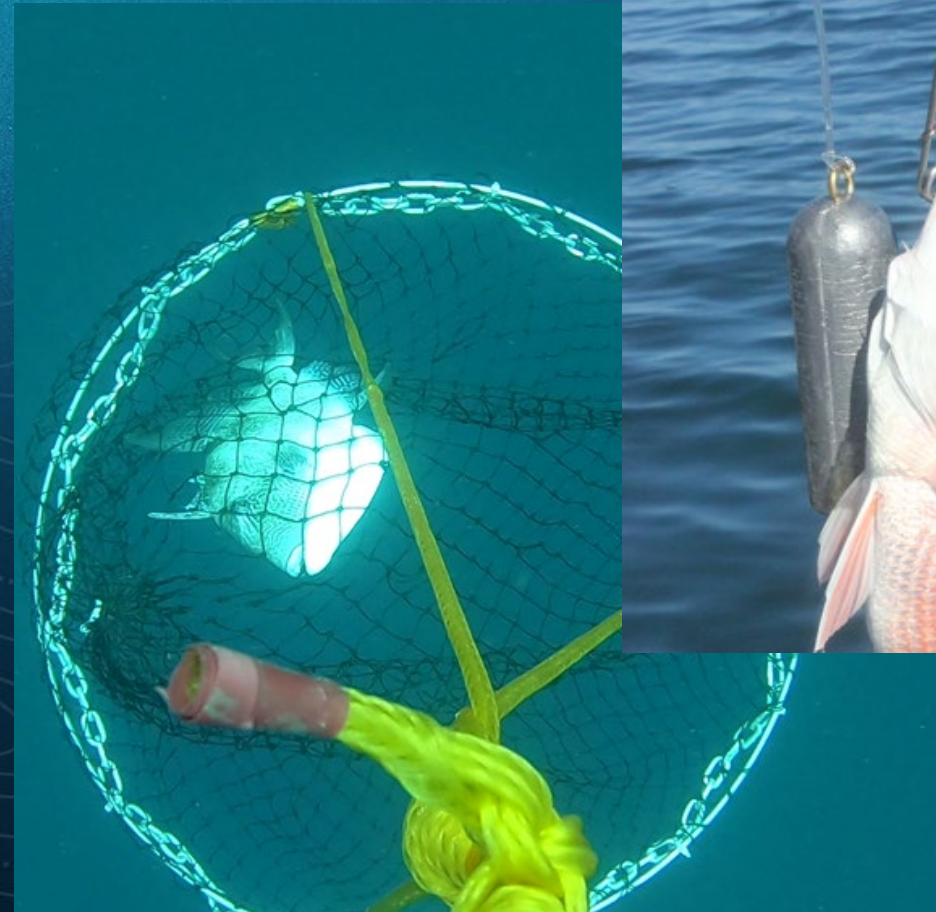
Zuckermann – Evaluating FDDs for Reef Fish

Objective:

- Assess biological and logistical effectiveness of descending devices for various reef fishes

Preliminary Data:

- Predators present in 34% of releases
- SeaYaLater performed strong overall
- SeaQualizer had most predator interactions
- Fish Elevator was effective but cumbersome





Angler Awareness & Knowledge of BRPs

Objective:

- Evaluate recreational anglers' knowledge and behavior related to best practices in the Gulf

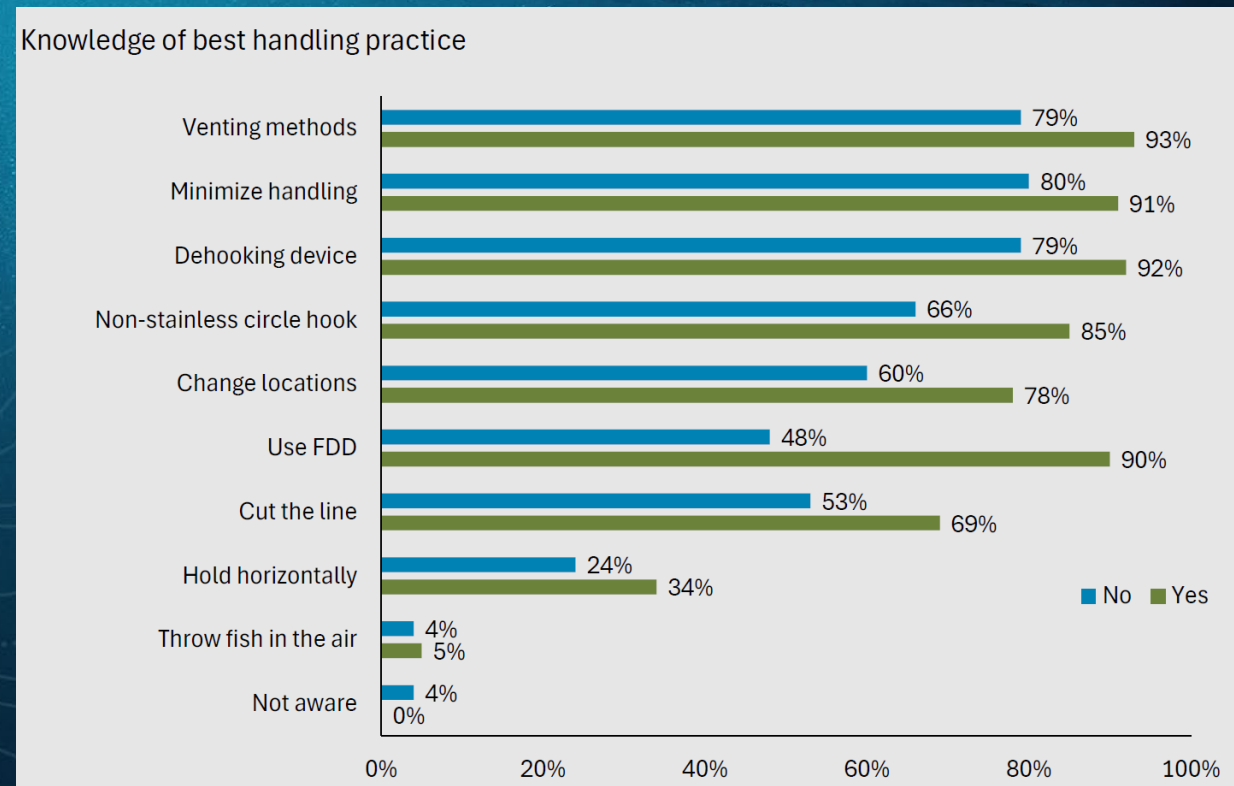
Preliminary Results:

- Barotrauma knowledge improved
- Use of best handling practices increased (especially FDDs)
- Awareness of RER increased
- Anglers fishing >60ft more likely to use FDDs (92% vs 61%)

Conclusions:

- RER is positively influencing angler behavior and awareness
- Continued outreach – especially targeting new anglers – is recommended

If respondents knew about RER...





Next Steps

- Continuing our efforts and looking for ways to improve
- Expanding our at-sea observer coverage to LA and TX
- At-sea Data Warehouse (improvements already coming!)
- Coordinating with SSC

A photograph of a sunset over the ocean. The sun is a bright yellow circle on the horizon, with its light reflecting as a shimmering path on the water's surface. In the foreground on the left, a dark fishing rod is visible, extending vertically. The overall scene is dimly lit, with a dark blue and grey color palette.

Thank You!