

Tab P, No. 4(b)

# Essential Fish Habitat Generic Amendment 5 Progress Update



November 2025 Council Meeting  
Sarah Gardiner

# Outline



1. Overview of EFH
2. Timeline
3. Summary of work completed on C1: EFH text descriptions and maps
4. SSC feedback
5. Discussion

# What is Essential Fish Habitat (EFH)?



Essential Fish Habitat (EFH): the aquatic waters and substrates necessary for federally managed fish species to complete their life cycles, encompassing areas for spawning, breeding, feeding, or growing to maturity

- The EFH 5-year Review is a mechanism to ensure NOAA Fisheries and Fishery Management Councils incorporate the most recent and best science available into fishery management for EFH.
- The objective of an EFH 5-year Review is to review the ten EFH components of FMPs and revise or amend the ten EFH components as warranted based on available information (50 CFR 600.815).

# How is EFH used?



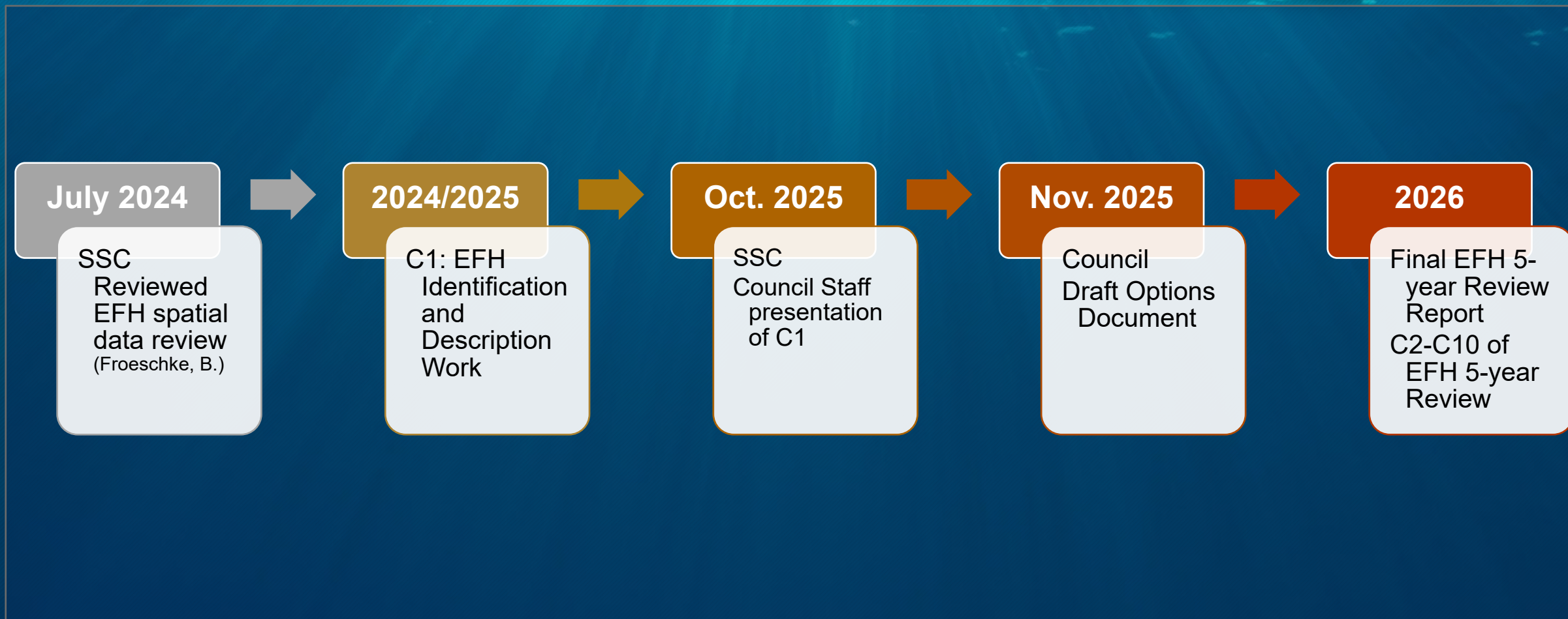
- EFH consultations
  - Federal agency partner projects
    - Regulatory permits and Civil Works of the U.S. Army Corps of Engineers
    - BOEM Wind, Oil and gas, and aquaculture development
- Most accurate and precise data allows for better characterization of habitat usage which may benefit stock health and condition
- Better stock health may provide better fishing opportunities and more access

# Components of EFH



1. **EFH descriptions and identification (text and maps)**
2. *Fishing activities that may adversely affect EFH*
3. *Non-MSA fishing activities that may adversely affect EFH*
4. *Non-fishing activities that may adversely affect EFH*
5. *Cumulative impacts analysis*
6. *EFH conservation and enhancement recommendations*
7. *Prey species list and habitat locations*
8. *Habitat areas of particular concern (HAPC) identification*
9. *Research and Information needs*
10. *Review EFH every 5 years*

# EFH review work to date



# Purpose and Need



The purpose is to comply with EFH provisions of the Magnuson-Stevens Act (MSA) (50 CFR Part 600, Subpart J). The EFH Final Rule states that a review of the EFH components of the Council's FMPs should be reviewed every 5 years and the EFH provisions should be revised or amended, as warranted, based on the best available science contributing new information. This amendment incorporates all information required by 50 C.F.R. section 600.815(a).

The need is to consider new available spatial habitat information to revise the EFH text and map descriptions for the Gulf Shrimp, Reef fish, Coastal Migratory Pelagics, Spiny Lobster, and Red Drum FMPs. Updates to EFH descriptions and identifications will allow the best scientific information available to be utilized to provide enhanced conservation benefits to the stock, and establish a better understanding of species habitat by life stage. This document will concurrently meet the requirements under the EFH 5-year Review.

## Action 1 - Modify Description and Identification of Essential Fish Habitat for finfish and shrimp Gulf Fishery Management Plans



**Alternative 1:** No Action – Retain current description and identification of essential fish habitat (EFH) for Gulf Fishery Management Plans as outlined in EFH Generic Amendment 3 (2005).

**Alternative 2:** Update essential fish habitat descriptions and identification and habitat attribute tables to include primary research and technical literature sources through 2024. This alternative could be used for all managed species for every life stage, as data are available.

## C1: EFH descriptions and identification (text and maps)



For all federal Gulf managed species, EFH is defined qualitatively using known habitat associations derived from the literature.

**EFH definition:** *Reef Fish and CMP FMPs:* all estuaries; the US/Mexico border to the boundary between the areas covered by the Gulf and South Atlantic Councils from estuarine waters out to depths of 100 fathoms (600 feet, 182 m).

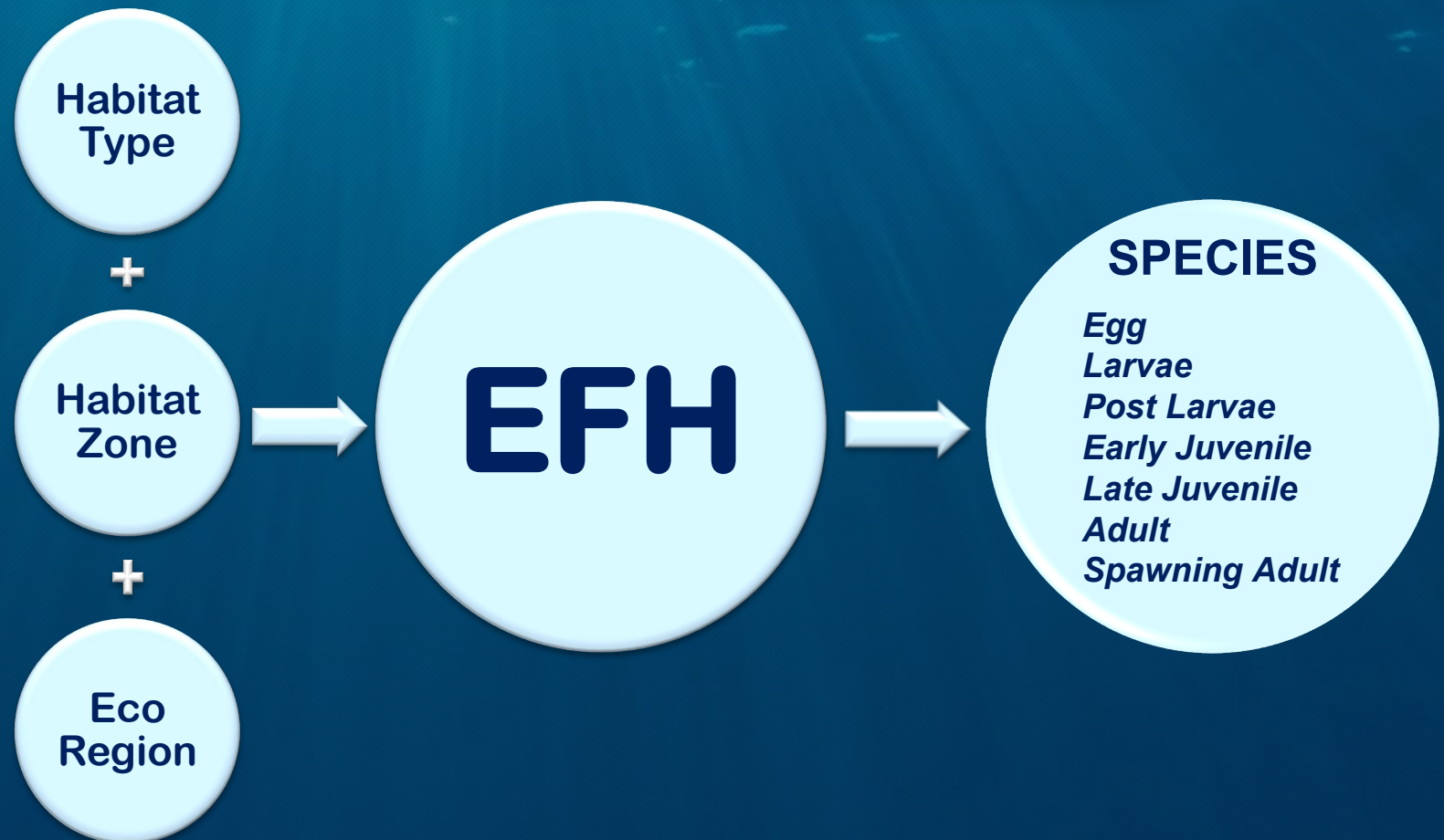
Currently, EFH is not described in the FMPs by species or lifestage. The 2025 EFH Review aims to implement these text and map descriptions into the Gulf FMPs for finfish and shrimp species

# C1: EFH descriptions and identification (text and maps)



## Finfish and Shrimp FMPs

EFH is defined qualitatively using known habitat associations derived from the literature.



# C1: EFH descriptions and identification (text and maps)



For all federal Gulf managed species, EFH is defined qualitatively using known habitat associations derived from the literature.

## 1. EFH descriptions and identification (text and maps)

- I. Habitat Type -
- II. Habitat Zone
- III. Eco-region

Habitat Type	
Submerged Aquatic Vegetation (SAV)	Hard bottom/Reefs
Mangroves	Oyster reefs
Drifting algae	Banks/shoals
Emergent marshes	Shelf edge/slope
Sand/shell bottoms	Water Column Associated (WCA)
Soft bottoms	

# C1: EFH descriptions and identification (text and maps)



For all federal Gulf managed species, EFH is defined qualitatively using known habitat associations derived from the literature.

## 1. EFH descriptions and identification (text and maps)

I. Habitat Type

II. Habitat Zone - Estuarine

III. Eco-region

Nearshore

Offshore



## **C1: EFH descriptions and identification** (text and maps)



For all federal Gulf managed species, EFH is defined qualitatively using known habitat associations derived from the literature.

### **1. EFH descriptions and identification (text and maps)**

**I. Habitat Type**

**II. Habitat Zone**

**III. Eco-region -**

- ER 1:** Florida Keys - Tarpon Springs
- ER 2:** Tarpon Springs - Pensacola Bay
- ER 3:** Pensacola Bay - Mississippi Delta
- ER 4:** Mississippi Delta - Freeport, Texas
- ER 5:** Freeport, Texas - Mexican border

# C1: EFH descriptions and identification (text and maps)



For all federal Gulf managed species, EFH is defined qualitatively using known habitat associations derived from the literature.

## 1. EFH descriptions and identification (text and maps)

I. Habitat Type

II. Habitat Zone

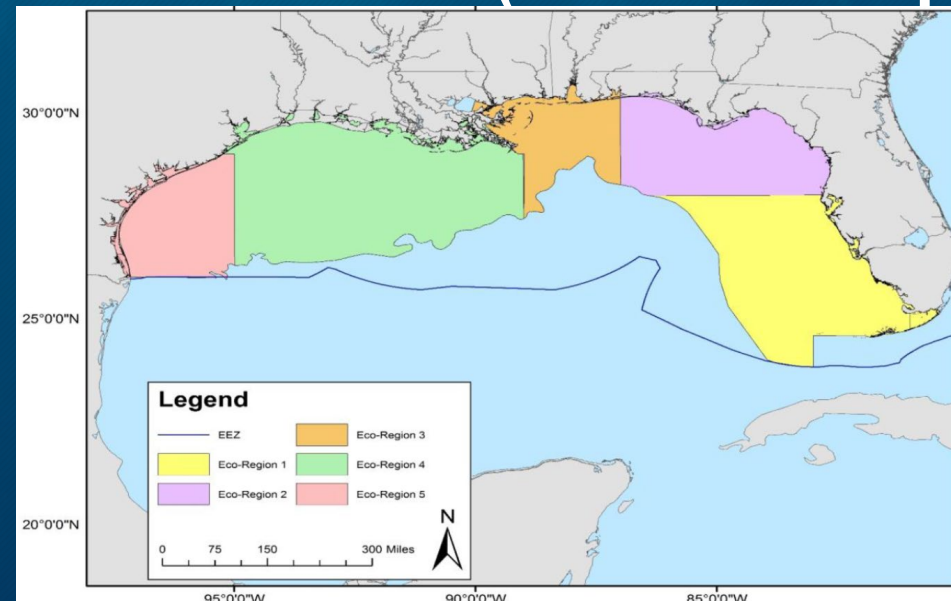
III. Eco-region - ER 1:

ER 2:

ER 3:

ER 4:

ER 5:



## **C1: EFH descriptions and identification** (text and maps)



For all federal Gulf managed species, EFH is defined qualitatively using known habitat associations derived from the literature.

### **1. EFH descriptions and identification (text and maps)**

- I. Habitat Type**
- II. Habitat Zone**
- III. Eco-region**

### **2. Habitat Attribute Tables**

# C1: EFH descriptions and identification (text and maps)



1. EFH descriptions and identification (text and maps)
  - I. Habitat Type
  - II. Habitat Zone
  - III. Eco-region
2. Habitat Attribute Tables
3. Spatial Data Contract (2023/2024) – Appendix B: [GoogleDrive Link](#)
4. Literature Review (through 2024)

## C1: EFH descriptions and identification (text and maps)



- Habitat Attribute Tables were updated with literature through 2024
- 25/40 species included updated literature
  - 13/25 had updates to habitat type, habitat zone, or eco-region- influencing habitat text and map descriptions
  - Other updates include updates to life-history which address other components of the EFH 5-year Review
    - Life history: Mortality, growth, etc.
    - E.G. Component 7 of the EFH Review: Prey Species

# C1: EFH descriptions and identification (text and maps)



Gag Grouper										
Life stage	Eco-region	Habitat Zone	Habitat Type	Season	Temp (°C)	Depth (m)	Prey	Predators	Mortality	Growth
Eggs	ER-1, ER-2	offshore	WCA	Dec-Apr		50-120				hatch in 45h at 21°C
Larvae	ER-1, ER-2	offshore	WCA	early spring		50-120				pelagic larval duration = 29-52 d TL=2.1 cm
Post Larvae	ER-1, ER-2	offshore	WCA			50-120				pelagic larval duration = 29-52 d
Early Juvenile	ER-1, ER-2, ER-3	estuarine, nearshore	SAV, mangroves	late spring-early fall	22-32	0-12	crustaceans (amphipods, copepods, grass shrimp)		minimal while in SAV	rapid during association with SAV
Late Juvenile	ER-1, ER-2, ER-3, ER-4	estuarine, nearshore, offshore	SAV, hard bottom, reefs, mangroves, seawhip	recruit to reefs offshore in fall	22-32	1-50	decapod crustaceans and fish	cannibalistic, larger fishes	recreational fishery, shrimp fishery bycatch	ages 1-3
Adult	ER-1, ER-2, ER-3, ER-4, ER-5	nearshore, offshore	hard bottom, reefs	year-round	14-24	13-100	fish, crustaceans, cephalopods	sharks	sudden low temps, fishing mortality; $M = 0.1342$ ; $M = 0.13 \pm 0.03$	$L_{inf} = 1277.95$ mm FL, $k = 0.1342$ , $t_0 = -0.6687$ , max. age = 31 yrs TL= 54 cm; $L_{max} = 145$ cm
Spawning Adult	ER-1, ER-2, ER-3, ER-4, ER-5	nearshore, offshore	shelf edge/slope, hard bottom	Dec-May peak: Feb-Mar Jan-Apr; Jan-April, peak Feb-March	21-30	50-120			spawning aggregations vulnerable to fishery	

# 2025 EFH 5-Year Review: EFH Descriptions



## *Gag Grouper*

*Egg:* ER 1 and ER 2 in offshore (greater than 60 feet [18m] in depth) habitat, concentrated between 50-120m, during winter and spring, and are associated with the water column.

*Larvae:* ER 1 and ER 2 in offshore (greater than 60 feet [18m] in depth) habitat, concentrated between 50-120m, during spring, and are associated with the water column.

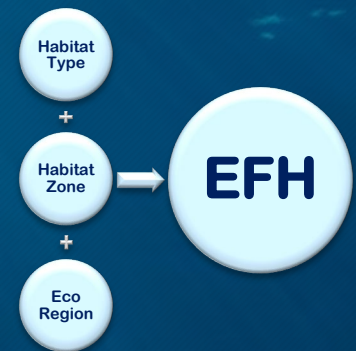
*Post larvae:* ER 1 and ER 2 in offshore (greater than 60 feet [18m] in depth) habitat, concentrated between 50-120m, and are associated with the water column.

*Early juvenile:* ER 1, ER 2 and ER 3, in estuarine (inside barrier islands and estuaries) and nearshore (60 feet [18m] or less in depth) habitats, concentrated between 0-12m, associated with submerged aquatic vegetation and mangroves.

*Late juvenile:* ER 1, ER 2, ER 3, and ER 4, in estuarine (inside barrier islands and estuaries), nearshore (60 feet [18m] or less in depth), and offshore (greater than 60 feet [18m] in depth) habitats, associated with submerged aquatic vegetation, hard bottom, reefs and mangroves.

*Adult:* Gulf-wide ER 1-5 in nearshore (60 feet [18m] or less in depth) and offshore (greater than 60 feet [18m] in depth) habitats, concentrated between 13-100m, associated with hard bottom and reefs.

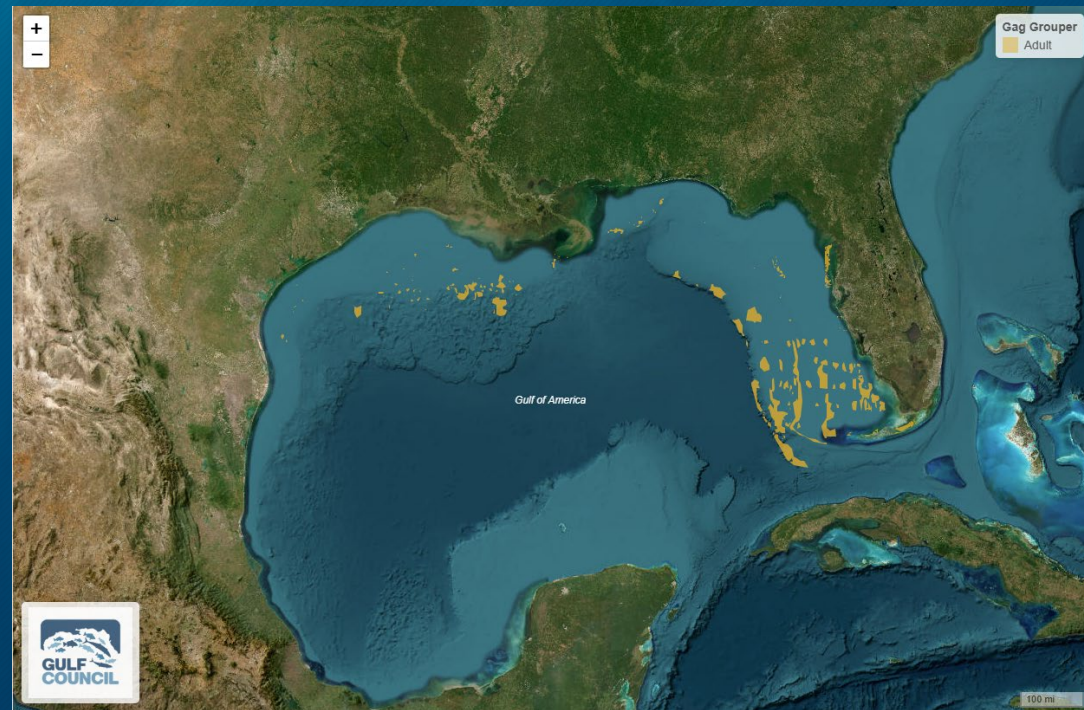
*Spawning adult:* Gulf-wide ER 1-5 in nearshore (60 feet [18m] or less in depth) and offshore (greater than 60 feet [18m] in depth) habitats, concentrated between 50-120m, associated with the shelf/slope edge and hard bottom.



# 2025 EFH 5-Year Review: EFH Descriptions

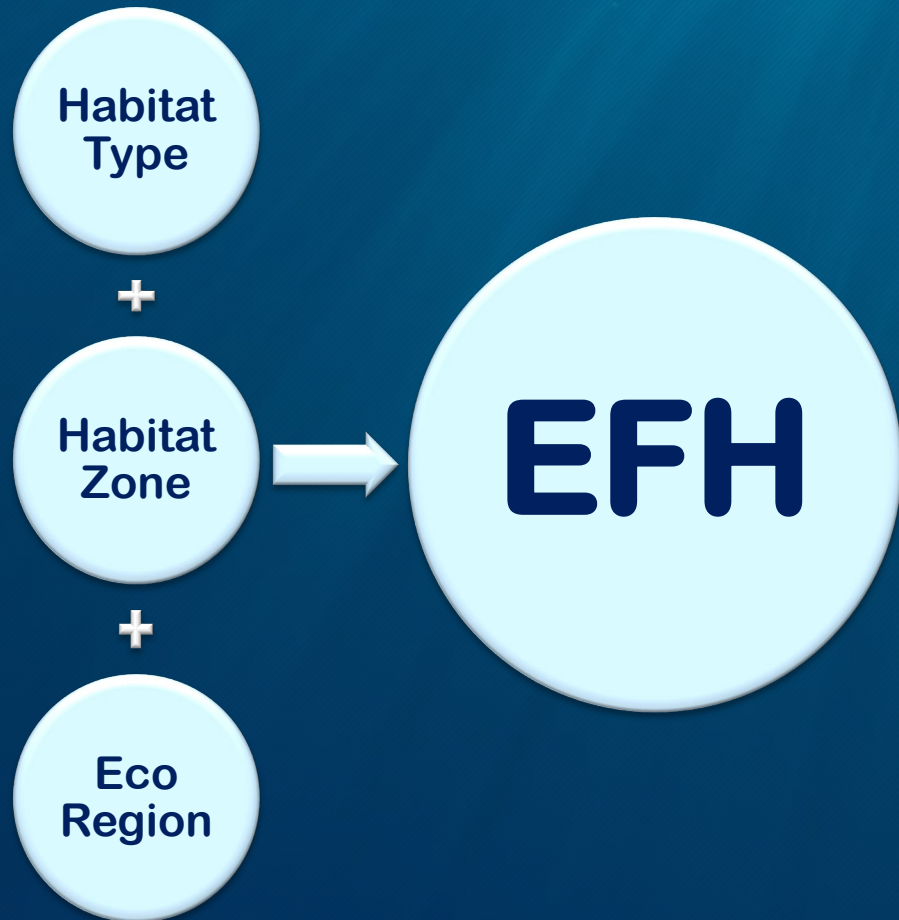


## EX: Static Gag Grouper Adult Map



Rshiny Tool:

[https://gulfcouncilportal.shinyapps.io/EFH\\_5\\_year\\_Review\\_2025/](https://gulfcouncilportal.shinyapps.io/EFH_5_year_Review_2025/)



# Summary of Work Completed



1. Update EFH descriptions and identification (text and maps) (C1)

<u>Reef Fish</u>	<u>Shrimp</u>	<u>Coastal Migratory Pelagics</u>	<u>Red Drum</u>	<u>Spiny Lobster</u>
31	4	3	1	1

*40 species x 7 Life Stages (eggs, larvae, post larvae, early juvenile, late juvenile, adults, spawning adults) = 280*

Rshiny Tool: [https://gulfcouncilportal.shinyapps.io/EFH\\_5\\_year\\_Review\\_2025/](https://gulfcouncilportal.shinyapps.io/EFH_5_year_Review_2025/)

# Recommendations from SSC



- **Update Species Distribution for Wenchman, Spanish Mackerel, and Scamp**
- **Combine Hard bottom and Reef Habitat Type**
- **Remove WCA spatial data from EFH maps given the spatial dominance- allows for more detailed habitat association maps.**

# Next Steps



- 1. Council- identify a Preliminary Preferred Alternative**
- 2. Staff develop the remaining portion of the EFH 5-year Review (C2-C10)**
  1. EFH descriptions and identification (text and maps)
  2. *Fishing activities that may adversely affect EFH*
  3. *Non-MSA fishing activities that may adversely affect EFH*
  4. *Non-fishing activities that may adversely affect EFH*
  5. *Cumulative impacts analysis*
  6. *EFH conservation and enhancement recommendations*
  7. *Prey species list and habitat locations*
  8. *Habitat areas of particular concern (HAPC) identification*
  9. *Research and Information needs*
  10. *Review EFH every 5 years*
- 3. CH 3 and CH 4 development on Action 1**
- 4. Compile Final Document including CH 1-4, and 5-year Review**

# Document Outline



**Chapter 1 - Introduction**

**Chapter 2 - Management alternatives**

**Chapter 3 - EFH Descriptions and Identifications (C1)**

**Chapter 4 - Affected Environment**

**Chapter 5 - Environmental Consequences**

**Chapter 6 – Initial Regulatory Flexibility Analysis**

Chapter 7 – Fishing Effects (C2)

Chapter 8 Non- MSA Fishing Activities that may adversely affect EFH (C3)

Chapter 9 - Non-Fishing Effects (C4)

Chapter 10 – Habitat Areas of Particular Concern & Conservation Recommendations (C6 & C8)

Chapter 10 – Research and Information Needs (C9)

Chapter 11 – Periodic review (C10)

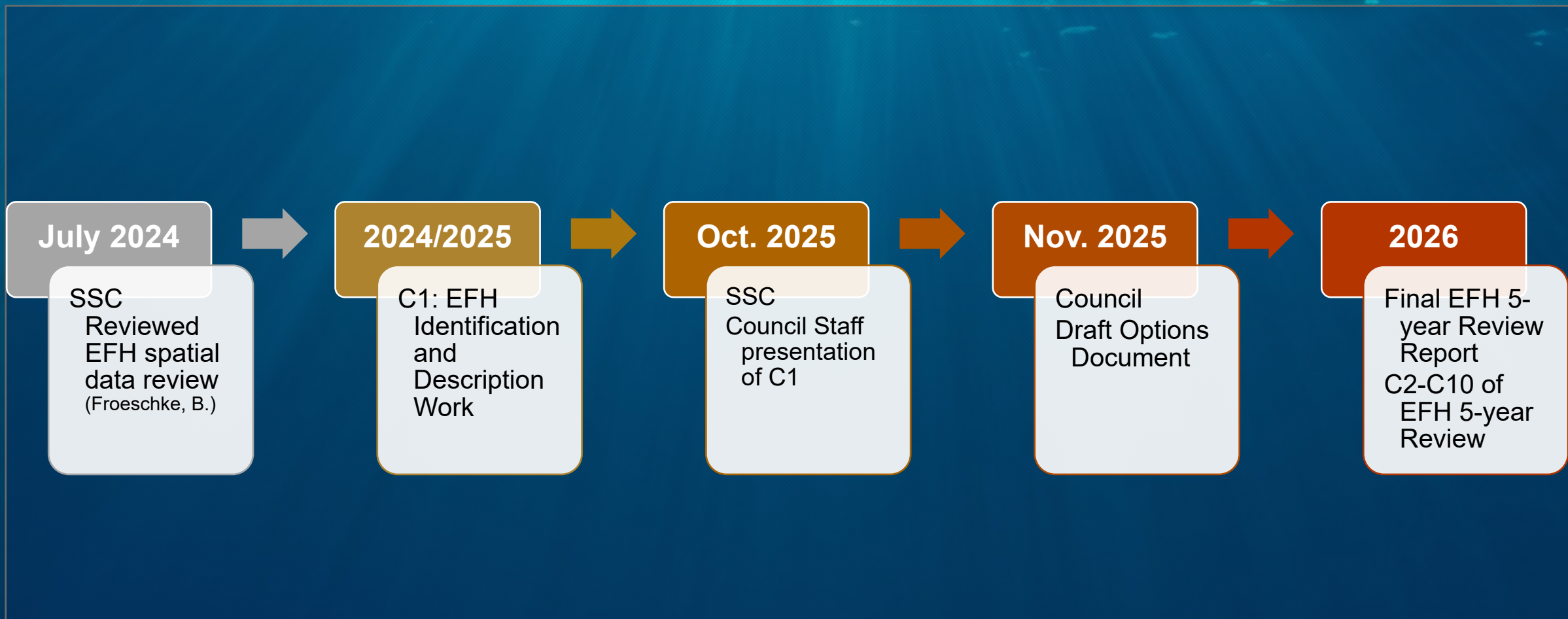
**Chapter 12 – List of Agencies and persons consulted**

**Chapter 13 – References**

Appendix A – Habitat Attribution Tables (C7)

Appendix B – EFH map identification and descriptions

# Timeline



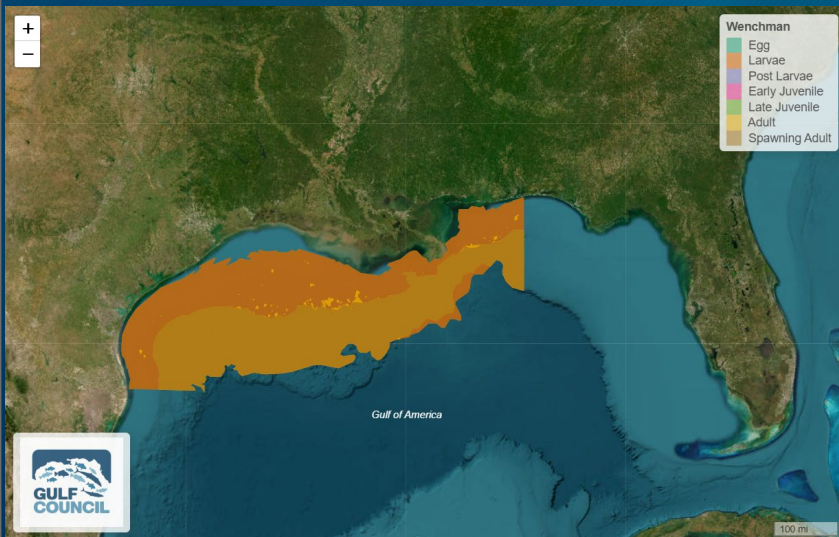
Questions?



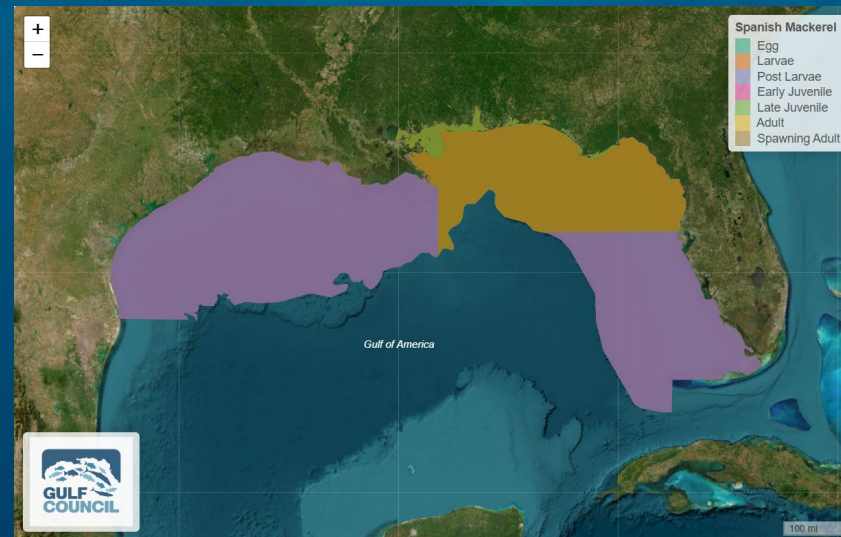
# Species-specific Distribution



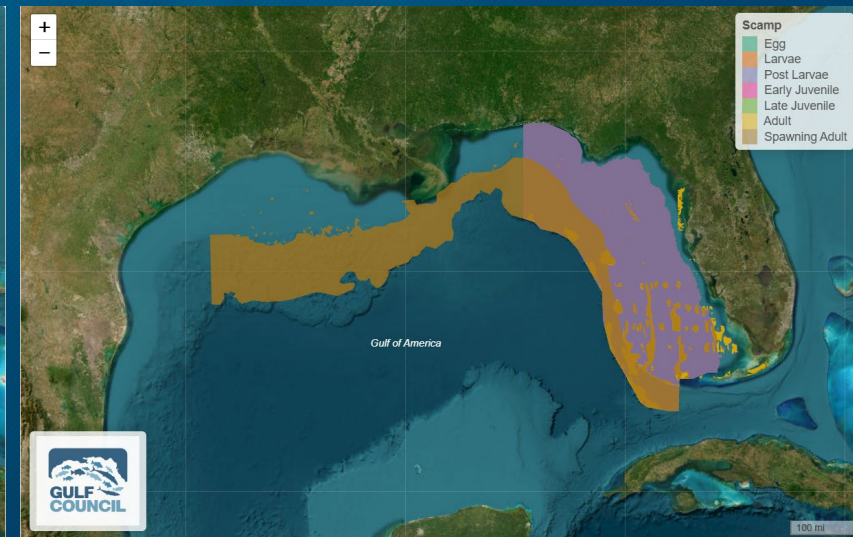
## Wenchman



## Spanish Mackerel



## Scamp

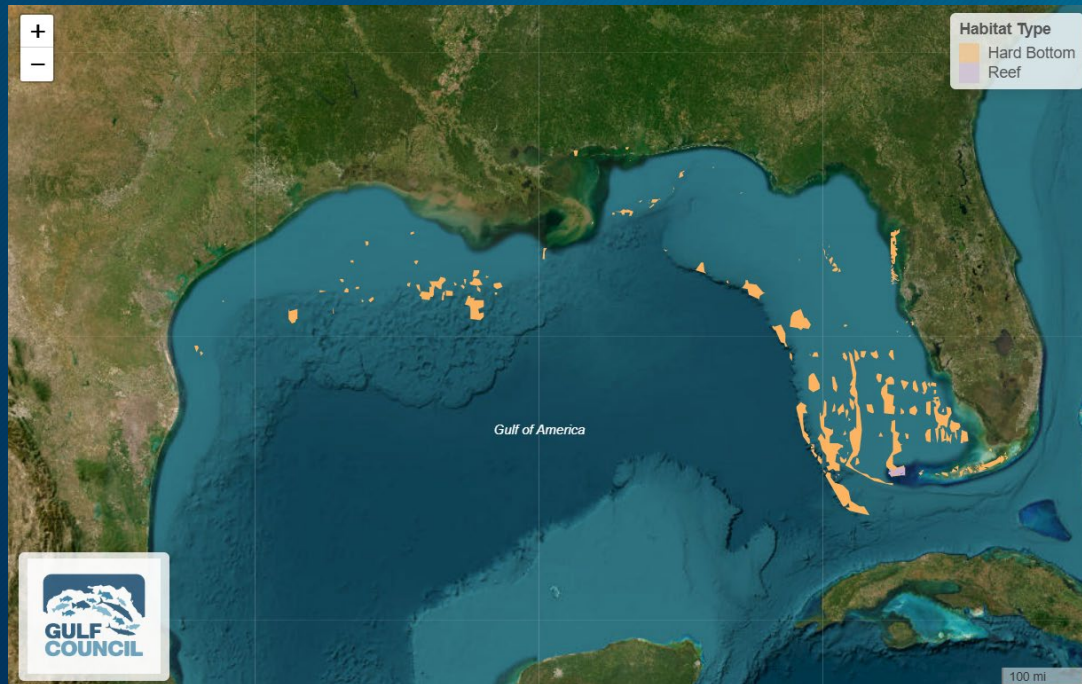


**Q: Should the distribution of these species be expanded to other Eco-regions at different life stages?**

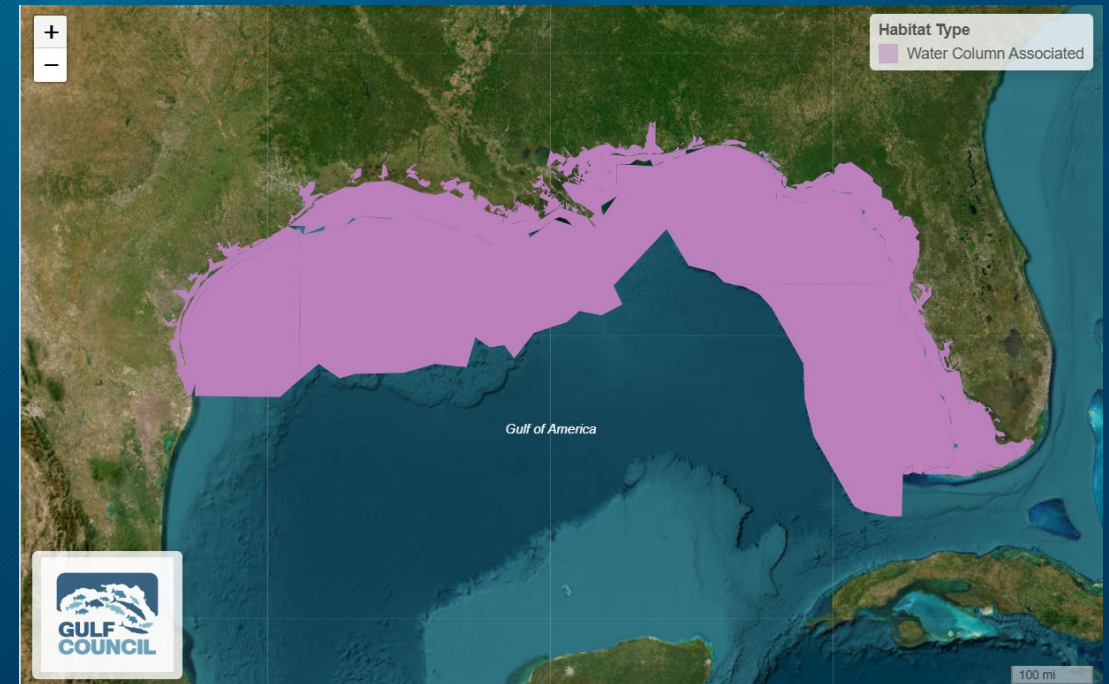
# Habitat Type



## Reef and Hardbottom



## Water Column Associated



**Q: Should we combine Reef and Hardbottom Habitat Type?**

**Q: How to show fine-scale habitat with WCA?**

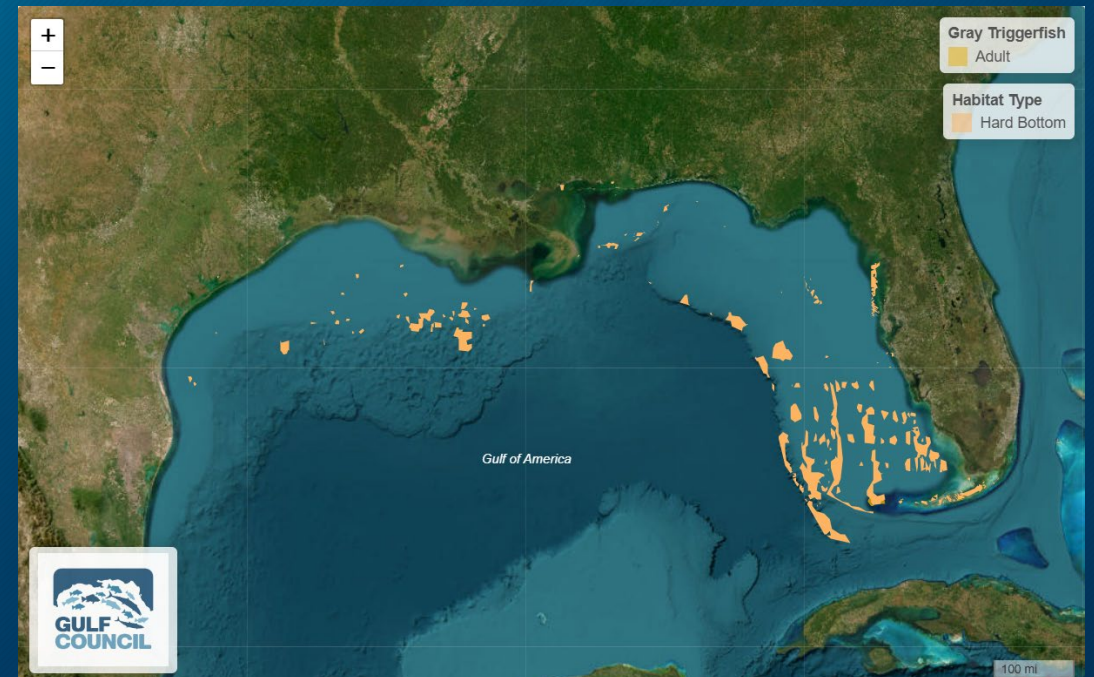
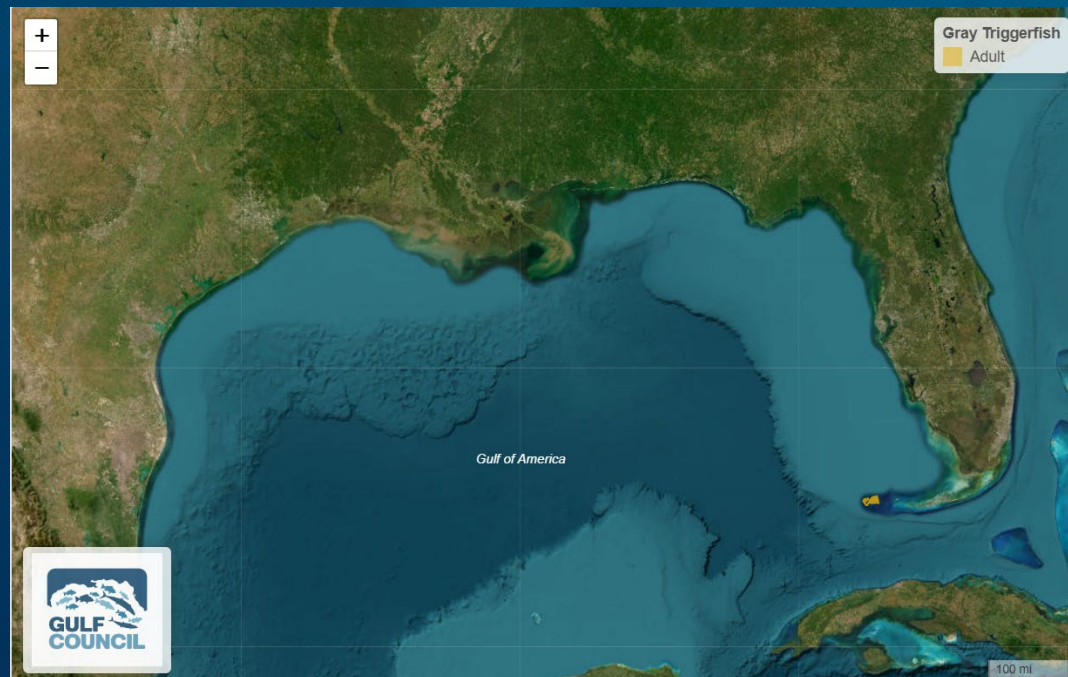
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# Habitat Type- Gray Triggerfish



## Gray Triggerfish

*Adult:* Gulf-wide ER 1-5 in nearshore (60 feet [18m] or less in depth) and offshore (greater than 60 feet [18m] in depth) habitats, concentrated between 10-100m, and are associated with reefs.

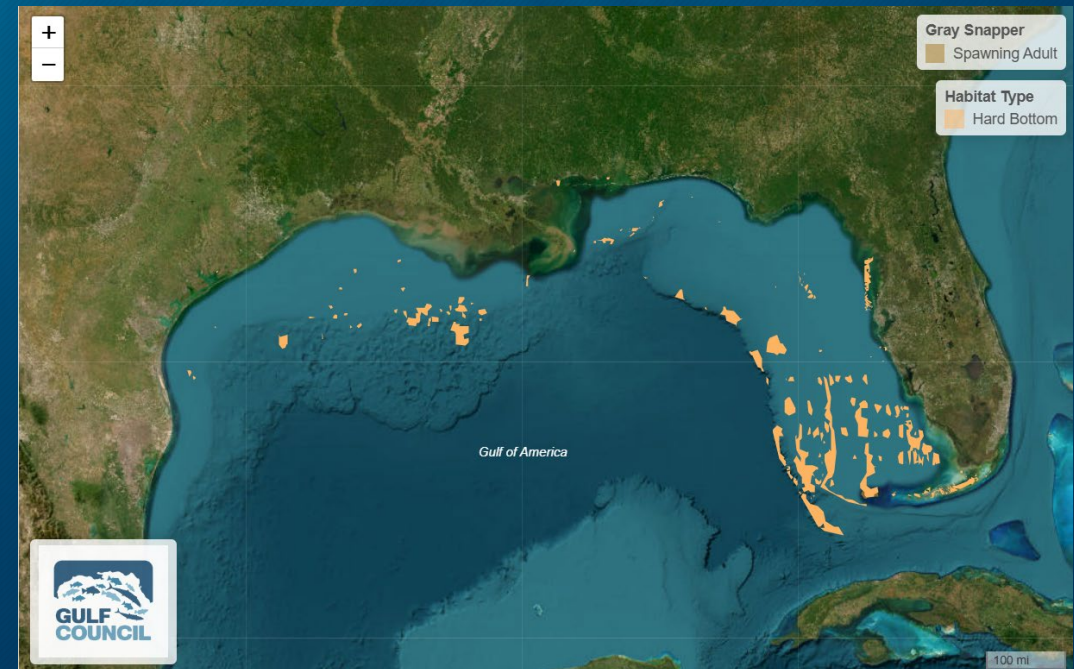
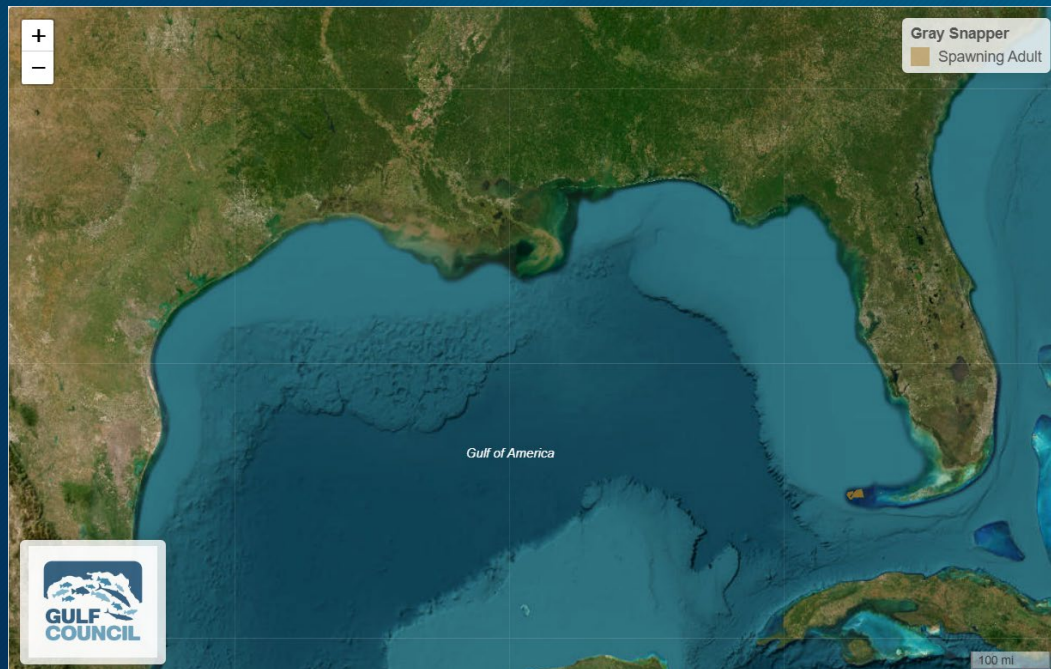


# Habitat Type- Gray Snapper



## Gray Snapper

*Spawning adult:* Gulf-wide ER 1-5 in nearshore (60 feet [18m] or less in depth) and offshore (greater than 60 feet [18m] in depth) habitats, concentrated between 1-180m, and are associated with reefs and banks/shoals.



# Habitat Type- Greater Amberjack



## Greater Amberjack

*Adult:* Gulf-wide ER 1-5 in nearshore (60 feet [18m] or less in depth) and offshore (greater than 60 feet [18m] in depth) habitats, concentrated at depths <187m, and are associated with the water column, hard bottom, reefs, and banks/shoals.

