Fish and Water Column Invertebrates

Strategic Plan





Open Ocean Fish and Water Collumn Invertebrate Stratogic Nan

Deepwater Horizon Open Ocean Trustee Implementation Group

MARCH 2022

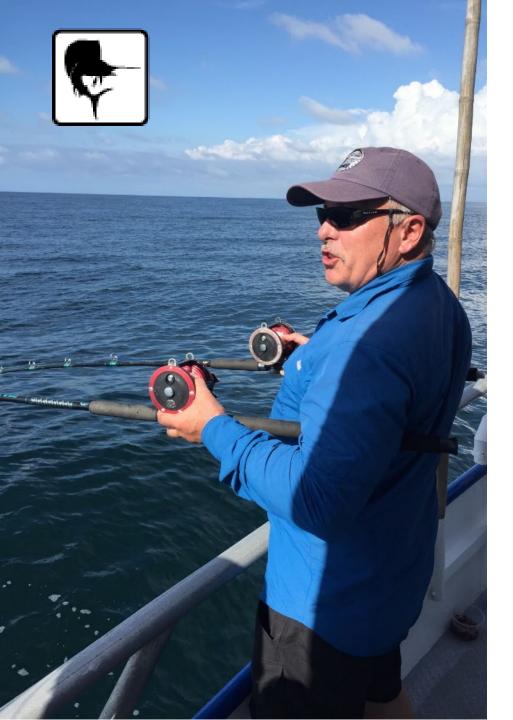














Overview

- Purpose of the Plan
- Approach to the Strategy
 - Engagement
 - Prioritization
 - Threats
 - Preliminary Objectives
- Next Steps



Purpose

- Guide restoration planning for FWCI
 - Establishing a species prioritization process
 - Identifying threats to injured species and associated restoration opportunities
 - Setting objectives for those species and/or species groups.
 - Data gaps







Engagement

- Four sessions with external stakeholder groups in winter/spring 2021
 - Two invited roundtables
 - Two public meetings coordinated with the Gulf Commission and Gulf Council
 - Numerous internal meetings
- Received input on
 - Threats
 - Prioritization criteria important species
 - Communications
 - Opportunities for collaboration



Steps in species prioritization process



1

Determine species groups representing ecosystem components

2

Determine criteria to evaluate restoration priorities

3

Collect data that serve as criteria proxies

4

Select priority species by group based on evaluation of criteria



Priority species selections by group

FWCI Species Group	Priority Species	
Billfish*	Blue marlin (Makaira nigricans)	
Drums and seatrout*	Spotted seatrout (Cynoscion nebulosus)	
Flatfishes	Southern flounder (Paralichthys lethostigma)	
Jacks*	Greater amberjack (Seriola dumerili)	
Forage fish*	Mullets (Mugil cephalus and curema) Gulf menhaden (Brevoortia patronus)	
Sea basses/Groupers*	Red grouper (Epinephelus morio)	
Snappers*	Red snapper (Lutjanus campechanus) Vermilion snapper (Rhomboplites aurorubens)	
Tunas/mackerels*	Yellowfin tuna (Thunnus albacares) King mackerel (Scomberomorus cavalla)	
Other demersal	American eel (Anguilla rostrata)	
Other reef-associated	Golden tilefish (Lopholatilus chamaeleonticeps)	
Crabs and Lobsters	Blue crab (Callinectes sapidus)	
Shrimp	Royal red shrimp (Pleoticus robustus)	





Threats

	Blue marlin	Greater amberjack
Fishing		
Overfishing	X	Х
Illegal fishing		
Bycatch	X	Х
Data limitations	X	Х
Marine debris		
Plastic/Microplastic	X	Х
Derelict gear		
Ecological		
Invasive species		
Climate change	Х	X
Water quality		
HABs (red tide)		
Nutrient enrichment/hypoxia	X	







Reduce negative effects or risks of:

- bycatch
- illegal, unregulated, and unreported fishing
- marine debris to FWCI resources
- post-release mortality
- invasive species
- marine pollution
- energy production
- harmful algal blooms (HABs)
- Improve pelagic and sargassum habitat
- Develop tools and techniques to reduce uncertainty in restoration and provide best practices to stakeholders and fishing communities









