

# Phase 2: Stock Definitions

Todd Phillips  
Pacific Fishery Management Council  
Agenda Item H.6  
March 8, 2025

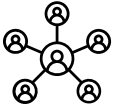




**Retrospective and Process**



**Analysis**



**Results**



**Range of Alternatives**

# How we got here

## Groundfish FMP

- Listed managed species, not stocks
- Did not define stocks in need of conservation and management
- Out of alignment with MSA & NS

## Council initiated Phase 1

- Focused on priority species
- Developed process to define stocks of species
- Defined 28 stocks for 21 species

# Phase 2

## September 2024 Decisions

- Adopted Scope/Process/Plan
- Step 1 as focus for March

## Process

- Step 1: Identify and define stocks of in need of conservation and management
- Step 2: Reconsider stock complexes
- Step 3: Consider delegation of management

# Step 1 Process

## Key Concepts

- Identify stocks in need of conservation and management
- Included all Phase 1 species
- Council can only manage the fishery in federal waters (EEZ)
- Process is concentrated on fishery activity not biomass/habitat

## Data Review

- Investigated rec. and comm. mortality data by state/sector
- Matson analysis used for commercial data (App C.)
- Per SSC recommendations, rec data analyzed 2018-23, excl 2020
- Proportion of species mortality between state/EEZ waters could be discerned for most species



# Step 1 Process Considerations

Original process was to use factors at §600.305(c) for all species ~ *86 separate analyses*

## Internal Process Questions

- Is there a way to be more efficient?
- Can we identify species to water area based on proportion of mortality in EEZ?

## Initial analysis

- Mortality for some species is principally in EEZ
- This element suggests some species could stay in the FMP without further analysis –move to stock def process

# Threshold Proposal

## Threshold

- Needed a method to identify species in need of conservation and management that was repeatable.
- Action team agreed on a precautionary threshold of 25%
- Addresses uncertainty in past-present-future management and mortality data over time (e.g., interannual variation)

## Recommendation

- If mortality is  $> 25\%$  in EEZ, indicates these species are likely good candidates to remain under Federal management
- If mortality  $< 25\%$  in EEZ, could be removed or identified as an EC species -requires analysis using §600.305(c)

# Analysis

## Commercial Mortality –Matson analysis

- Proportion of mortality in EEZ was estimated for CA and OR
- WA: Commercial fishery only in EEZ

## Recreational Mortality -RecFIN

- CA: Identified proportion state/EEZ mortality via estimates
- OR: Identified proportions through additional steps
  - Developed water area proportion based on sample data
  - Applied to RecFIN estimates
- Proportion of mortality in EEZ could not be estimated for WA



# Threshold Analysis Results

## Threshold applied to each sector by state

### Resulted in four categories:

- Category 1: Both comm & rec mortality > 25% or one sector >25% and other 0%
- Category 2: Both comm & rec mortality < 25% or one sector < 25% and other 0%
- Category 3: Mixed mortality
- Category 4: No/de minimis mortality in state & EEZ

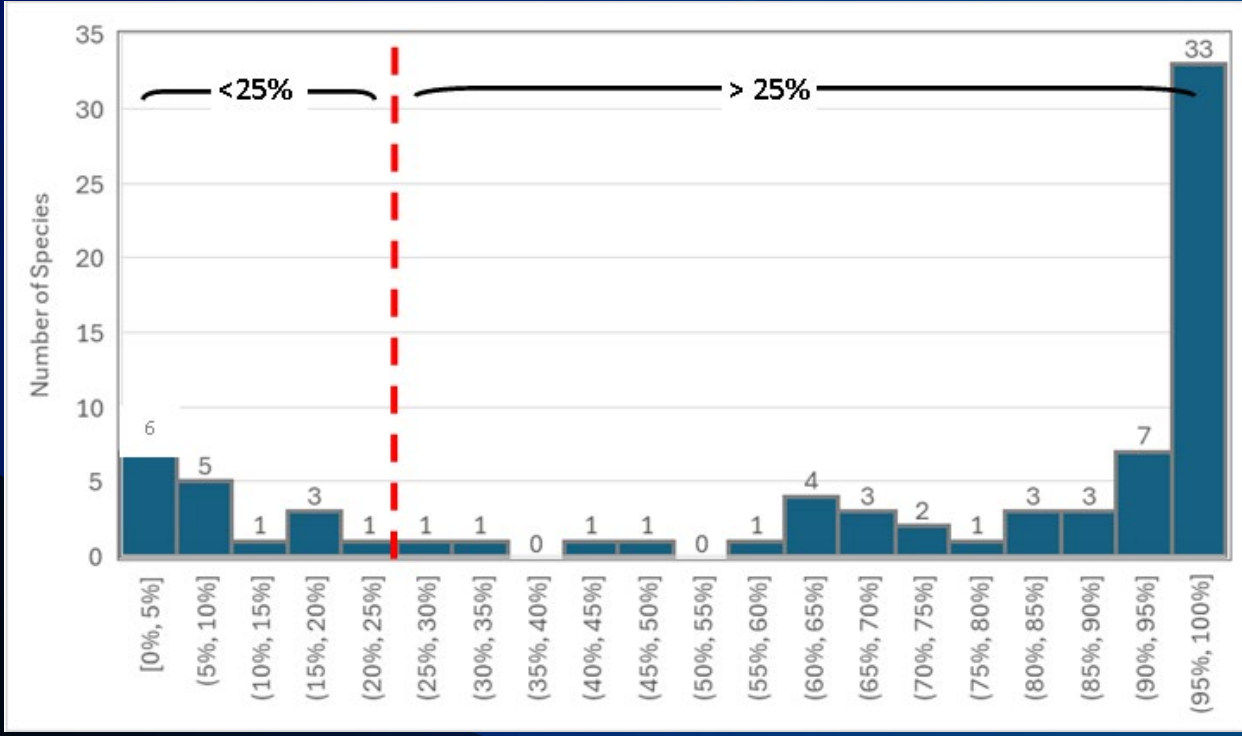
# Results: Categories

<b>Mortality in EEZ</b>	<b>CA</b>	<b>OR</b>	<b>WA</b>
<b>&gt; 25%</b>	57 (59)	45 (52)	18*
<b>&lt; 25%</b>	18	15	-
<b>Mixed</b>	8 (6)	7(0)	-
<b>No Mortality</b>	3	19	32

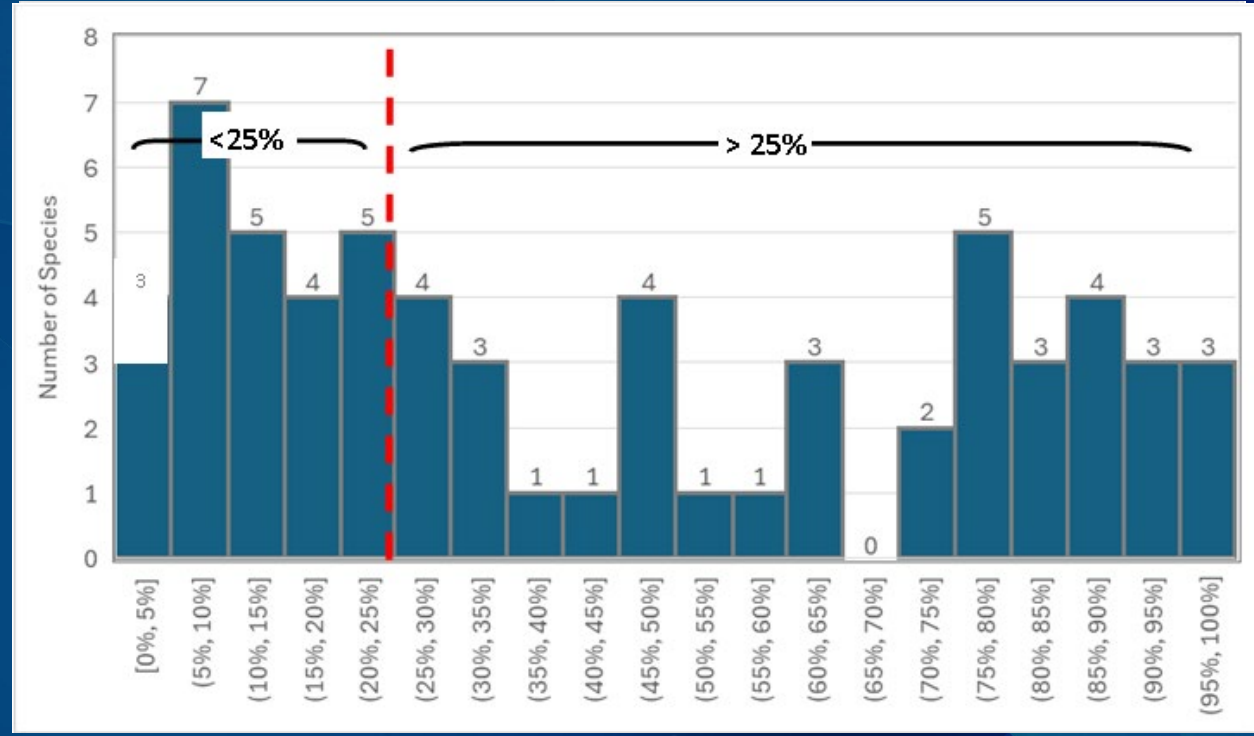
\*Only caught in commercial fishery



# California



Commercial

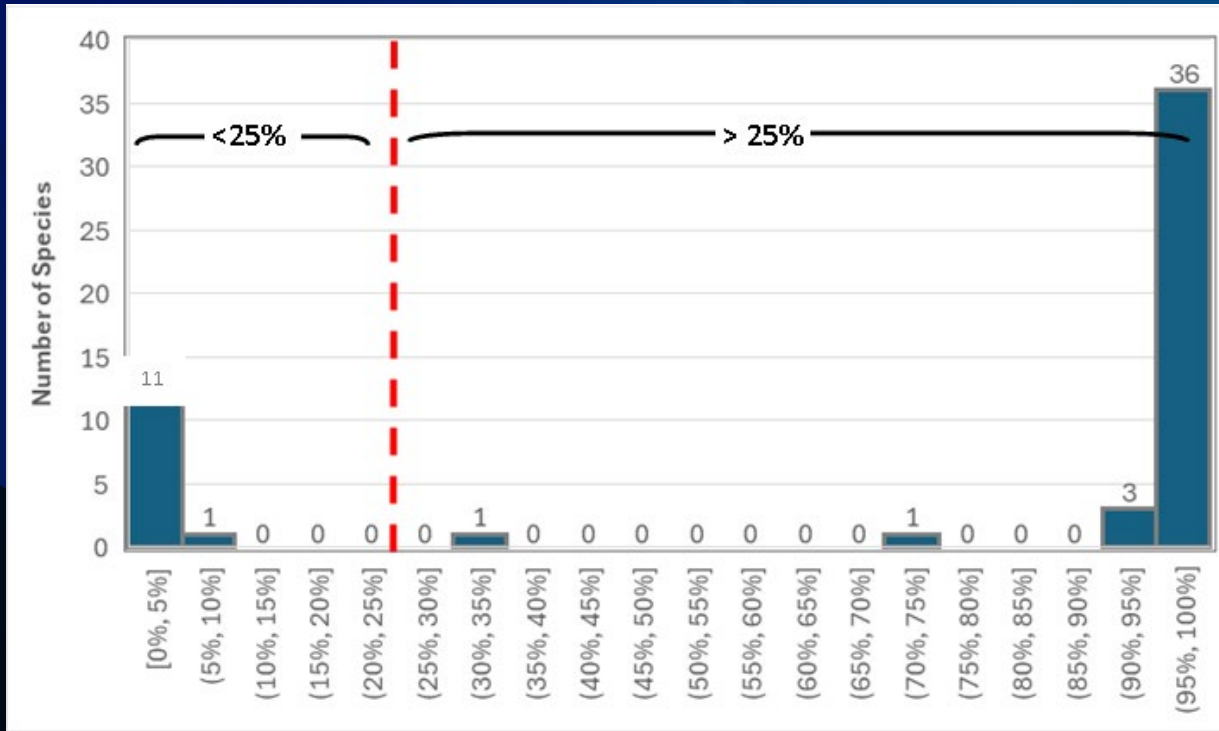


Recreational

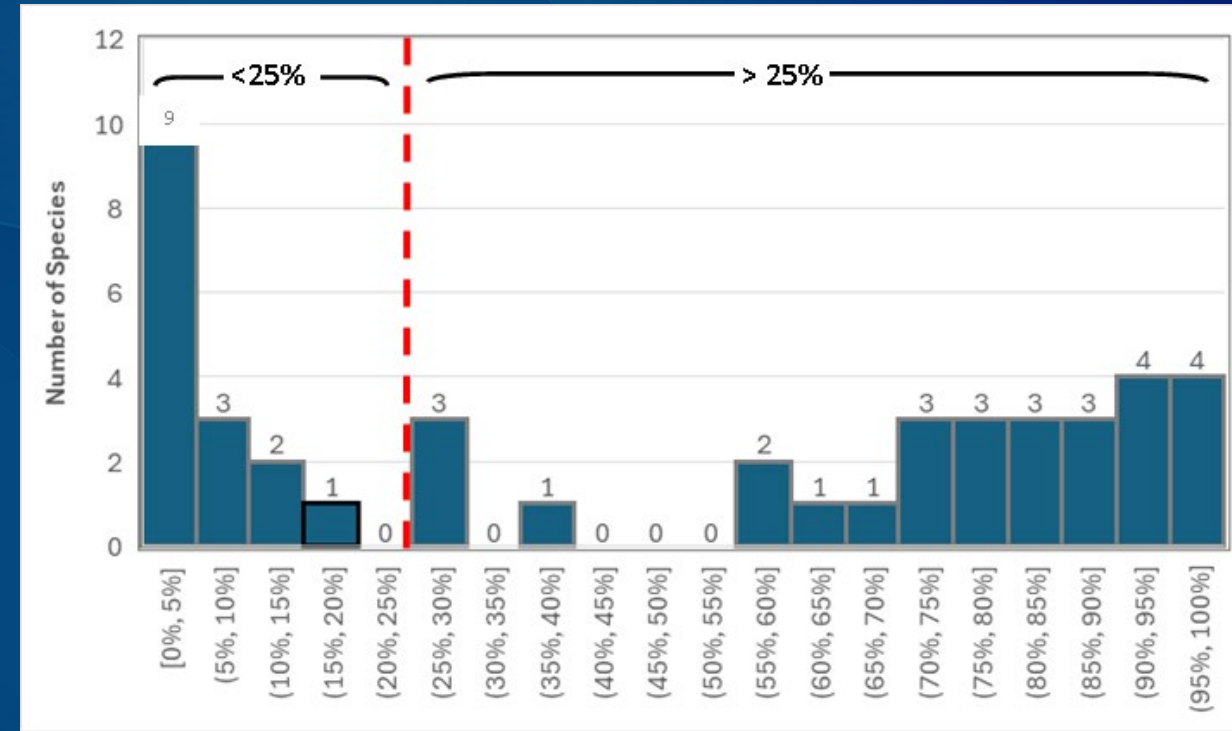
excludes mixed and no mortality species  
cryptic species counted as single species



# Oregon



Commercial



Recreational

excludes mixed and no mortality species  
cryptic species counted as single species





# Washington

## Unable to estimate mortality proportions (except commercial-only species)

- 18 species with commercial mortality only
- 24 species with commercial & recreational mortality
- 12 species with recreational mortality only
- 32 species with no mortality in EEZ or state waters

## Proposals for WDFW consideration

- 1: Use Oregon results as proxy for mortality
- 2: All species stay in FMP

# Results

## Groupings

- Cat. 1: almost all species >25% mortality off CA = >25% mortality off OR\*
- Cat. 2: Almost all species >25% mortality off CA = >25% mortality off OR
- Cat.4: 2 species had no mortality in state/EEZ waters

## Category 3: Mixed Results

- Lingcod
- Starry flounder
- Tiger rockfish
- Rock sole
- Sand sole
- Vermilion rockfish (OR)
- Rosy rockfish

# Groupings

## Group A: Species that need no further evaluation

- Mortality > 25% in EEZ
- 600.305(c) not necessary
- Could move into stock definitions process
- 60 species

## Group B: Species needing further evaluation

- Mortality <25% in EEZ, mixed/uncertain results, & no mortality
- Could be removed, identified as EC, or kept in FMP
- Need 600.305(c) analysis
- 26 species

# Group A

Species		
• Arrowtooth Flounder	• Greenspotted Rockfish	• Rosethorn Rockfish
• Aurora Rockfish	• Greenstriped Rockfish	• Rougheye/Blackspotted Rockfish a/
• Bank Rockfish	• Halfbanded Rockfish	• Sablefish a/
• Big Skate	• Honeycomb Rockfish	• Sharpchin Rockfish
• Blackgill Rockfish	• Harlequin Rockfish	• Shortraker Rockfish
• Bocaccio Rockfish	• Longnose Skate	• Shortspine Thornyhead a/
• Bronzespotted Rockfish	• Longspine Thornyhead	• Silvergray Rockfish
• Butter Sole	• Mexican Rockfish	• Speckled Rockfish
• California Scorpionfish	• Pacific Cod	• Splitnose Rockfish
• Chilipepper Rockfish a/	• Pacific Hake	• Squarespot Rockfish a/
• Canary Rockfish a/	• Pacific Ocean Perch	• Starry Rockfish
• Cowcod Rockfish	• Pacific Sanddab	• Stripetail Rockfish
• Curlfin Sole	• Pacific Spiny Dogfish a/	• Swordspine Rockfish
• Darkblotched Rockfish	• Petrale Sole a/	• Vermilion/Sunset rockfish (CA) a/
• Dover Sole a/	• Pink Rockfish	• Widow Rockfish a/
• English Sole a/	• Pinkrose Rockfish	• Yelloweye Rockfish a/
• Flag Rockfish	• Pygmy Rockfish	• Yellowmouth Rockfish
• Flathead Sole	• Redbanded Rockfish	• Yellowtail Rockfish a/
• Freckled Rockfish	• Redstripe Rockfish	
• Greenblotched Rockfish	• Rex Sole a/	

a/ indicates stock defined





# Group B

Species		
• Black and Yellow Rockfish	• Dwarf-red Rockfish	• Quillback Rockfish a/
• Black Rockfish a/	• Gopher Rockfish	• Rock Sole
• Blue/Deacon Rockfish	• Grass Rockfish	• Rosy Rockfish
• Brown Rockfish	• Kelp Greenling	• Sand Sole
• Cabezon	• Kelp Rockfish	• Starry Flounder
• Calico Rockfish	• Leopard Shark	• Tiger Rockfish
• Chameleon Rockfish	• Light Dusky Rockfish	• Treefish
• China Rockfish	• Lingcod a/	• Vermilion Rockfish (OR) a/
• Copper Rockfish a/	• Olive Rockfish	•

a/ indicates stock defined



# Threshold Analysis Conclusions

**25% threshold is precautionary**

**Analytical methods can identify proportion of mortality in EEZ/State waters for OR & CA**

**Analytical results identify two groups**

- Group A >25% mortality in EEZ
- Group B <25%, mixed, or no mortality in EEZ

**Results can be used to inform ROA selections**

# Guidance Considerations

**Is the use of a threshold appropriate?**

**If so, is the 25% a valid threshold?**

- Should it be higher?
- Should it be lower?

**For WDFW to consider,**

- Are the proposals valid options?
- If so, which proposal is best suited for use?
- If not, does WDFW have a method for the team to consider?

# Range of Alternatives (ROA)



# ROA Considerations

- Analytical results informed ROA structure
- ROA is first step in the next set of analyses
- Council is not limited to adopting Alt 1 for Group A
- Species can be identified to multiple Alternatives
- Council can identify PPA, as appropriate
- Stocks defined in Phase 1 will not be redefined unless new information compels reevaluation

# Proposed ROA I

**No Action:** All species remain in FMP. Stocks of species would not be defined.

**Alternative 1:** Species identified as in need of conservation and management, will remain in FMP. Stocks of these species will be defined consistent with these options:

Option 1: One Stock

Option 3: Three Stocks

Option 2: Two Stocks

Option 4: Four Stocks

- *Based on analytical results, Group A fits to Alt 1*
- *Proposed definitions will be analyzed using A31 process*

# Alternative 1: Considerations

Literature Review indicated Option 1 and/or Option 2 applicable for Group A species

If species without proposed definition are considered under Alt 1, literature review will be used to identify options for Council review in June

**Group A consists of 60 species**

- 4 species considered under Opt 1 and Opt 2
- 56 species considered under Opt 1
  - 48 coastwide only
  - 8 coastwide or CA-only

# Proposed ROA II

**Alternative 2:** Species not identified as in need of conservation and management. Stocks will not be defined. Species will be removed from FMP

**Alternative 3:** Species identified as ecosystem component species. Stocks will not be defined. Species will remain in FMP

- *Based on analytical results, Group B species fit under Alt 2 & Alt 3*
- *Species identified to Alt 2 and Alt 3 will be analyzed using factors at §600.305(c)*



# Alternatives 2 and 3: Differences

	Alt 2: Removal	Alt 3: EC Species
Remain in FMP	No	Yes
Actively Monitored	No	Yes, not a priority
Return to Federal management?	Yes, via 600.305 (c) analysis	Yes, via 600.305 (c) analysis
Accountability Measures	No	Potentially
Stock Assessment	No	No

# Council Tasks

- Consider and approve the proposed 25% threshold framework for identifying species principally caught in the EEZ, as appropriate.
- Adopt the ROA and identify species to Alternatives, where appropriate.
- For Alternative 1 species, adopt PPA stock definition, where possible.
- Provide guidance on next steps, as appropriate

