E6. Phase 2 Stock Definitions

June 2025

Introduction

- The Council is required to identify stocks in need of conservation and management in the EEZ, per the MSA
- Process to determine this is provided in National Standards guidance at Section 600.305(c)
- Larger "stock definitions" action with multiple subparts

September 2024

Scoping

Purpose and Need

Purpose and Need

As adopted in September 2024:

"The function of Amendment **[TBD]** to the Pacific Fishery Management Council's (Council) Pacific Coast Groundfish Fishery Management Plan (FMP) is to identify and define **[TBD]** stocks of **[TBD]** managed groundfish species in need of conservation and management at a geographic scale sufficient for assessing overfished status and determining if overfishing is occurring based on key biological, ecological, social, and economic information currently available. Amendment **[TBD]** is necessary to align the FMP with the requirements of the Magnuson Stevens Fishery Conservation and Management Act and its National Standards to enhance the Council's ability to attain sustainability objectives, especially those outlined in National Standard 1."



Alternatives

No Action: All species remain in FMP as currently defined and managed. The Council would not define stocks of the species in the FMP other than the ones already defined.

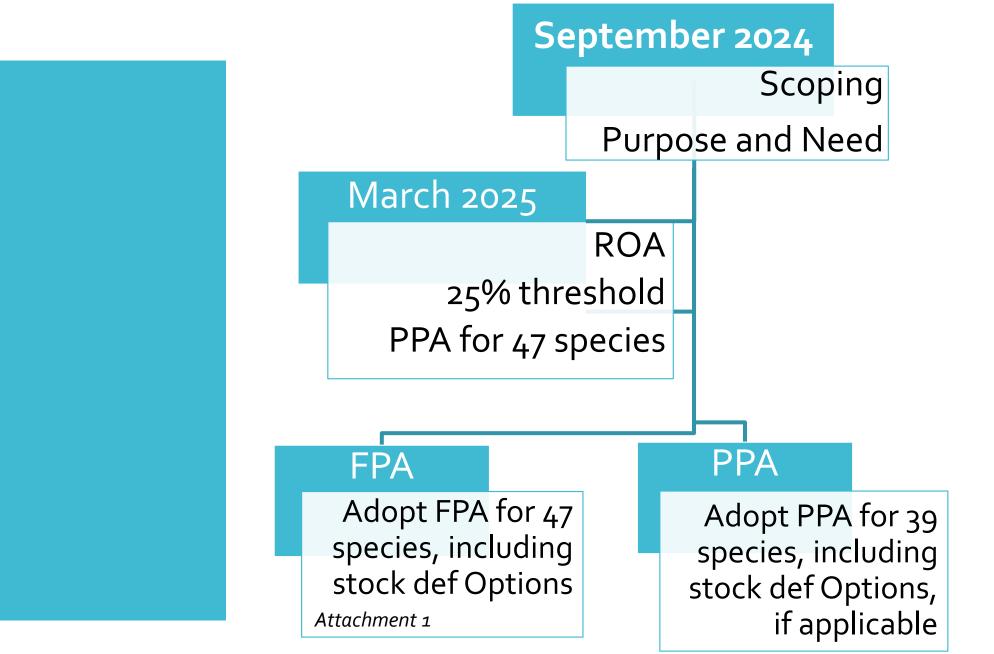
- Alternative 1: Species identified as in need of conservation and management in the EEZ and would remain in the FMP.
 - Stocks defined (Options 1, 2, 3)
- Alternative 2: Species identified as <u>not in need of conservation and management</u>. Stocks of the species not defined and species removed from FMP.

Alternative 3: Species identified as <u>not in need of conservation and management</u>. Species identified as an ecosystem component (EC) species in FMP Chapter 3. Stocks of the species not defined.

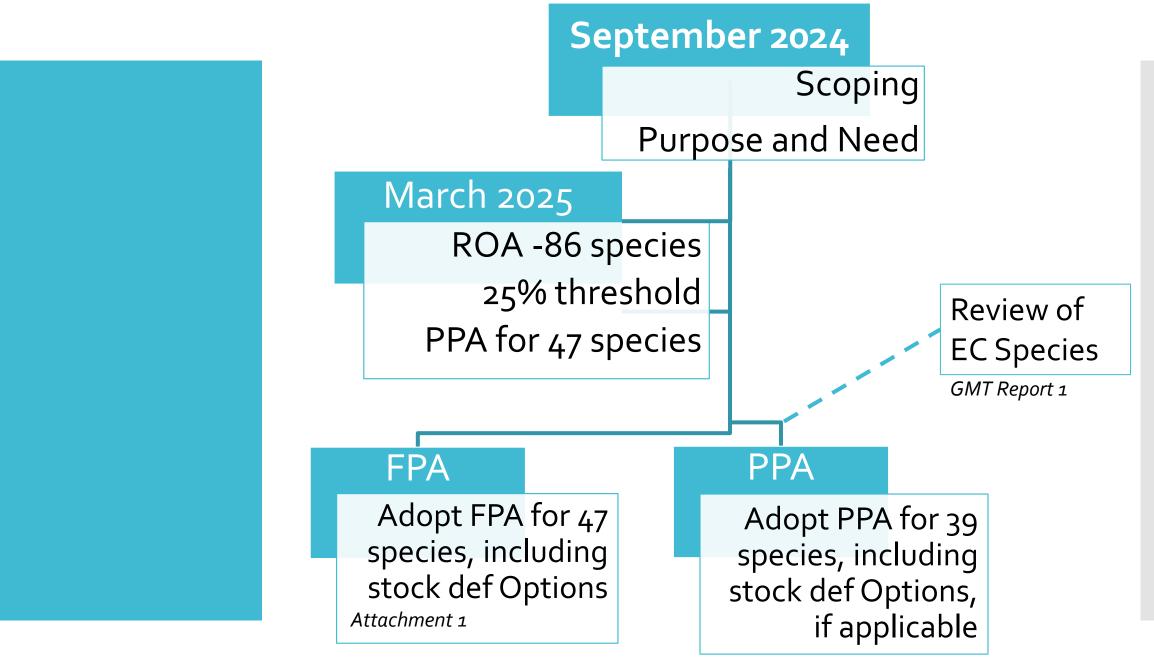
Alternatives

Alternative 1: Species identified as in need of conservation and management in the EEZ and would remain in the FMP. Stocks of the species will be defined as one or more stocks, consistent with the options below.

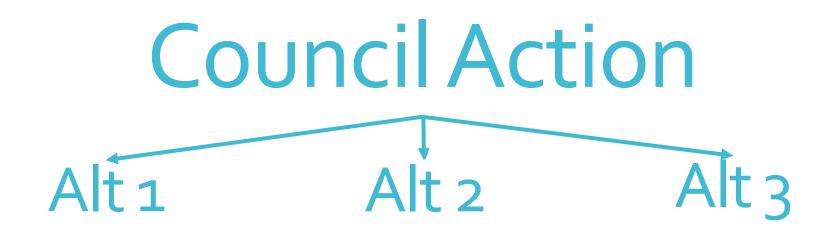
- **Option 1** would amend the FMP to define the species as a single stock within the Fishery Management Unit (FMU).
- Option 2 would amend the FMP to define the species as two stocks within the FMU.
- **Option 3** would amend the FMP to define the species as three stocks within the FMU.



Supplemental Attachment 2



Supplemental Attachment 2



Analytical Component: Is the species in need of conservation and management in the EEZ?

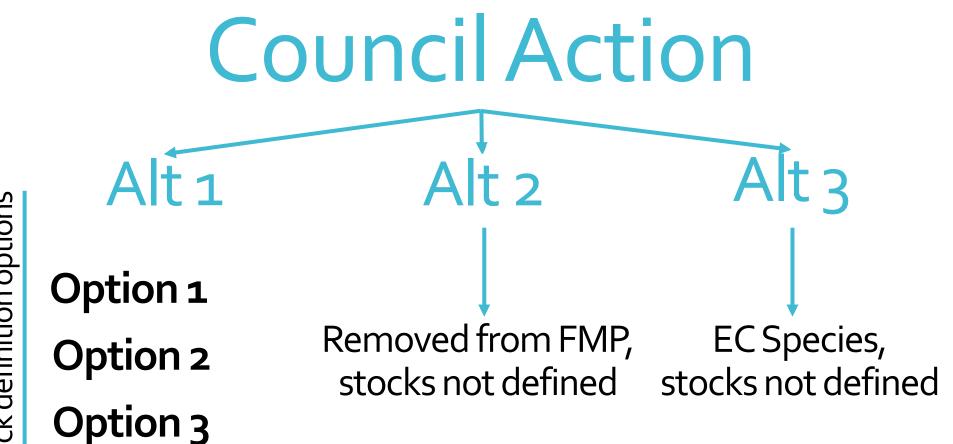
• Section 305(c) 10-Factor analysis

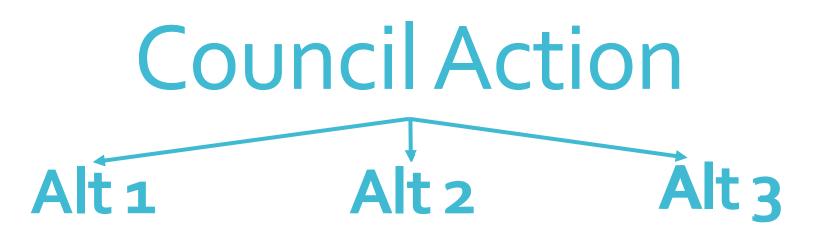
Council Action Alt 1 Alt 2 Alt 3

- In need of C&M
- Retained in FMP
- stocks defined

- Not in need of C&M
- Removed from FMP
- stocks not defined

- Not in need of C&M
- EC Species
- stocks not defined





Option 1 Option 2 Option 3

Analytical Component:

Determine appropriate geographic boundaries of stocks

- Amendment 31
- Population structure, biological risks, management implications

Analysis of PPA for 47 Species Adopted Under Alternative 1 in March

Council Action: Adopt final preferred alternatives, where possible

Council FPA Tasks

- 1. Determine if the 47 species are in need of conservation and management in the EEZ, as appropriate.
- 2. Adopt stock definitions for the 28 undefined species, as appropriate.
- 3. Adopt revised language to the FMP, as appropriate

March 2025: Decisions

86 species considered

- Alternative 1 for 47 species (spp) adopted as PPA
- 39 species referred to 10 Factor Evaluation

Stock definitions considered for 28 spp

- Stocks defined for 19 spp previously
- Option 1 stock definition for 28 spp adopted as PPA

Species – PPA: Alternative 1

Arrowtooth flounder	Greenstriped rockfish	Sablefish
Aurora rockfish	Harlequin rockfish	Sharpchin rockfish
Bank rockfish	Lingcod	Shortraker rockfish
Big skate	Longnose skate	Shortspine thornyhead
Blackgill rockfish	Longspine thornyhead	Silvergray rockfish
Blackspotted rockfish	Pacific cod	Splitnose rockfish
Bocaccio	Pacific hake	Squarespot rockfish
California scorpionfish	Pacific Ocean perch	Starry rockfish
Canary rockfish	Pacific sanddab	Stripetail rockfish
Chilipepper	Pacific spiny dogfish	Sunset rockfish
Cowcod	Petrale sole	Vermilion rockfish
Darkblotched rockfish	Redbanded rockfish	Widow rockfish
Dover sole	Redstripe rockfish	Yelloweye rockfish
English sole	Rex sole	Yellowmouth rockfish
Flathead sole	Rosethorn rockfish	Yellowtail rockfish
Greenspotted rockfish	Rougheye rockfish	

Analytical Steps: Alternatives

- Main question: Is the species in need of conservation and management in the EEZ
- Focus of Alternative 1 analysis is 600.305(c) Factors i-iii
 - These factors should be considered first
 - Should weigh heavily in decision

Alternative 1 Analysis Factors (i) – (iii)

Factor (i) - The stock is an important component of the marine environment

- Review of groundfish ecology
- Index scoring based on EcoSim model (not all species)
- Overall, all species important to the marine environment in some way

Factor (ii) – The stock is caught by the fishery

- Principal mortality >25% in EEZ
- These spp considered caught by the fishery

Factor (iii) – whether an FMP can improve the condition of the stock

- Principal mortality is in EEZ
- the FMP has the tools to improve the condition of the stock

Conclusions

- Factors i-iii indicated 46 spp. are strong candidates to be considered in need of conservation and management in the EEZ
- Analysis indicated harlequin rockfish should be evaluated under all 10 Factors
- If the Council wants to reconsider PPA Alternative 1 for any of these species, a full 10 Factor evaluation is required.
 - Staff added harlequin rockfish to 10 Factor analysis

Terminology Review & Key Aspects of Stock Definitions

Terminology

- **Population** Group of interbreeding individuals of the same species
- **Stock** A species, subspecies, geographical grouping, or other category of fish capable of management as a unit (§ 3(42)

Key Aspects

- Stock definitions can be revised
- Process outlined in the COP9 groundfish management schedule

Stock Definitions

- Of the 47 species., stocks of 19 defined under A31 or A35.
 - Those definitions not reconsidered under this action
- Of the remaining 28 species.
 - 23 considered only under Option 1
 - Bocaccio, greenspotted rockfish, harlequin rockfish, and cowcod considered under Options 1 and 2
 - Darkblotched rockfish considered under Options 1, 2, and 3

Species Attenting under Atteneat Sterks

Arrowtooth flounder	Greenstriped rockfish	
Aurora rockfish	Harlequin rockfish	Sharpchin rockfish
Bank rockfish		Shortraker rockfish
Big skate	Longnose skate	
Blackgill rockfish	Longspine thornyhead	Silvergray rockfish
	Pacific cod	Splitnose rockfish
Bocaccio	Pacific hake	
California scorpionfish	Pacific Ocean perch	Starry rockfish
	Pacific sanddab	Stripetail rockfish
Cowcod		
Darkblotched rockfish		
	Redstripe rockfish	
		Yellowmouth rockfish
Flathead sole	Rosethorn rockfish	
Greenspotted rockfish		

Stock Definition Options PPA: Option 1

PPA: Coastwide Stock		
Arrowtooth flounder	Pacific cod	
Aurora rockfish	Pacific hake	
Bank rockfish	Pacific Ocean perch	
Big skate	Pacific sanddab	
Blackgill rockfish	Redstripe rockfish	
Bocaccio	Rosethorn rockfish	
Darkblotched rockfish	Sharpchin rockfish	
Flathead sole	Shortraker rockfish	
Greenspotted rockfish	Silvergray rockfish	
Greenstriped rockfish	Splitnose rockfish	
Longnose skate	Stripetail rockfish	
Longspine thornyhead	Yellowmouth rockfish	

California scorpionfish

Cowcod

Starry rockfish

PPA: OR/WA stock

Harlequin rockfish*

Analytical Steps: Stock Definitions

Focus of stock definition analysis:

- Population structure of species
- Biological implications of stock definition
- Management implications of stock definition

Stock Definition Aspects

- Definition delineates stock boundaries
- Status is determined at same scale as definition
- OFL/ABC is at same scale as geographic definition
- ABC/ACL could be subdivided into regional amounts

24 Species considered <u>only</u>under Option 1 Aurora, bank, blackgill, greenstriped, redstripe, rosethorn, shortraker, silvergray, splitnose, starry, stripetail, and yellowmouth rockfishes, Pacific ocean perch (POP), arrowtooth flounder, flathead sole, Pacific sanddab, Pacific cod, Pacific hake, big and longnose skates, longspine thornyhead*, and CA scorpionfish

- All species would be defined as Coastwide except two species
 - Starry rockfish and CA scorpionfish are CA-only stocks
- BSIA indicates population structure either not present or unknown
- Option 1 unlikely to cause localized depletion
- Option 1 unlikely to disrupt status quo management.

Option 1: Aspects to Consider CA scorpionfish and starry rockfish

Geographic range is California

Blackgill rockfish

- Assessments of different categories would need to be combined: [N of 40°10 N. lat. (Cat. 3), S of 40°10 N. lat. (Cat 1)]
- May increase risk of localized depletion

Bocaccio, Cowcod, Greenspotted Rockfish, and Harlequin Rockfish Considered under Options 1 and 2

Bocaccio Options 1 & 2

Stock Definition Options

- Option 1 (PPA) = Single stock, coastwide
- Option 2 = Two stocks, North/South of 40°10' N. lat.

Population structure

- No structure
- Two demographic centers –per Assessment
- Option 2 inconsistent with this finding

Bocaccio Options 1 & 2

Biological implications

- Option 1 requires combining assessments of different categories (Cat 1-S of 40°10' N. lat., Cat 3- N of 40°10' N. lat)
- Option 1 risks localized depletion north of 40°10' N. lat.

Management Implications

- Option 1 is inconsistent with status quo management, but could still be managed as two units
- Management burden may increase if managed as a single stock

Cowcod Options 1 & 2

Stock Definition Options

- Option 1 (PPA) = Single stock, California-only
- Option 2 = Two stocks, California & Oregon
- Option 2a? Two stocks, north/south of 34°27' N. lat. stocks

Population structure

- Present
- Less than coastwide, break at 34°27' N. lat.

Biological implications

- Option 1 requires combining assessments of different categories (Cat 2- S of 34°27' N. lat., Cat 3- N of 34°27' N. lat.)
- Option 1 risks localized depletion north of 34°27' N. lat.

Cowcod Options 1 & 2

Management Implications

- Option 1 is largely representative of status quo management
- Option 2 may require new management considerations and increase management burden

Other Considerations

- Option 2 as California/Oregon stocks not reflective of population
- Stock delineation at N/S of 34°27' N. lat. more accurate and better addresses cowcod structure and distribution

Greenspotted Rockfish Options 1 & 2

Stock Definition Options

- Option 1 (**PPA**) = Single stock, coastwide
- Option 2 = Two stocks, north/south of 34°27' N. lat.

Population structure

- Uncertain, limited information to support structure
- Genetics & life history data limited
- Modeled as two stocks in 2011, N/S of 34°27' N. lat.
- Models based on growth and exploitation history

Greenspotted Rockfish Options 1 & 2

Biological implications

- Option 1 requires combining assessments of different categories (Cat. 2 -S of 34°27' N. lat., Cat. 3 -N of 34°27' N. lat.)
- Option 1 may increase risk of localized depletion
- Option 2 may be more reflective of regional biology

Management Implications

- Neither Option directly comports to status quo
- Option 1 is closer to status quo
- Both Options not likely to change management burden

Harlequin Rockfish Options 1 & 2

Stock Definition Options



- Less than 0.006 mt mortality 2018-24*
- 0.23 mt is total mortality for last 21 yrs
- Staff analyzed under 10 Factors.

Darkblotched Rockfish Considered under Options 1,2, and 3

Darkblotched rockfish Options 1,2, & 3

Stock Definition Options

- Option 1 (**PPA**) = coastwide stock
- Option 2 =north/south of 40°10' N. lat. stocks
- Option 3 = California, Oregon, and Washington stocks

Population Structure

- Stock structure is uncertain
- Literature review found limited data for structure
- Assessment treated population as single stock
- Opt 2 & 3 based on the limited genetic information -

Darkblotched rockfish Options 1,2, & 3

Biological Implications

- Option 1 is reflective of assessment and status quo specifications
- Options 2 & 3 may require new assessments
- Options 2 & 3 would require OFLs to support definitions

Management Implications

- Option 1 is reflective of status quo management
- Options 2& 3 may:
 - require reconsideration of allocation structure
 - increase management burden

Draft FMP Language: Attachment 3

- Red-line modifications to Table 3-2
- Definitions are reflective of PPA, will be modified, as appropriate, to reflect FPA
- Council will need to adopt changes

FPA Task

- 1. Determine if the 47 species are in need of conservation and management in the EEZ, as appropriate.
- 2. Adopt stock definitions for the 28 undefined species, as appropriate.
- 3. Adopt revised language to the FMP, as appropriate

10-Factor 600.305(c) Analysis of 40 Species

Council Action: Adopt preliminary preferred alternatives where appropriate

Council Tasks

- Consider the results of the 10-Factor analysis of 40 species in attachment 2 and adopt PPA, including stock definitions as appropriate.
- 2. Provide guidance on next steps, as appropriate

Species – PPA & 10 Factor Analysis

Black and Yellow Rockfish	Flag rockfish	Pink rockfish	
Black rockfish	Freckled rockfish	Pinkrose rockfish	
Blue Rockfish	Gopher Rockfish	Pygmy rockfish	
Bronzespotted rockfish	Grass Rockfish	Quillback rockfish	
Brown Rockfish	Greenblotched rockfish	Rock sole	
Butter sole	Halfbanded rockfish	Rosy rockfish	
Cabezon	Harlequin rockfish	Sand sole	
Calico Rockfish	Honeycomb rockfish	Speckled rockfish	
Chameleon Rockfish	Kelp greenling	Starry flounder	
China Rockfish	Kelp rockfish	Swordspine rockfish	
Copper rockfish	Leopard shark	Tiger rockfish	
Curlfin sole	Light Dusky Rockfish	Treefish	
Deacon Rockfish	Mexican rockfish		
Dwarf-Red Rockfish	Olive rockfish		

305(c) 10 Factors

- Decision should be based on consideration of 10 Factors at §600.305(c), determination of whether species is in need of conservation and management in the EEZ
- Evaluation considers specific circumstances of fishery
- Biological, economic, social, operational considers that can and should be addressed by Federal management
- No factor dispositive or required

305(c) 10 Factors

(i) The stock is an important component of the marine environment.(ii) The stock is caught by the fishery.

(iii) Whether an FMP can improve or maintain the condition of the stock.(iv) The stock is a target of a fishery.

(v) The stock is important to commercial, recreational, or subsistence users.

(vi) The fishery is important to the Nation or to the regional economy.

(vii) The need to resolve competing interests and conflicts among user groups and whether an FMP can further that resolution.

(viii) The economic condition of a fishery and whether an FMP can produce more efficient utilization.

(ix) The needs of a developing fishery, and whether an FMP can foster orderly growth.

(x) The extent to which the fishery is already adequately managed by states, by state/Federal programs, or by Federal regulations pursuant to other FMPs or international commissions, or by industry self-regulation, consistent with the requirements of the Magnuson-Stevens Act and other applicable law.

305(c) 10 Factors

- Address Factors (i) (iii), considering the stock's role as a fishery resource and component of the marine environment.
- 2. Address Factors (iv) (ix), considering the key economic and social reasons for conservation and management.
- 3. Consider Factor (x) before deciding to remove a stock from or continue to include a stock in the FMP.

*Other considerations - Vulnerability

Analysis

- 305(c) Factor Analysis
 Methods by factor
 Results, by bin
- Stock Definitions

*Results by Factor and species available in E.6 Supplemental Attachment 2 Analysis Factors (i) – (iii)

- Factor (i) The stock is an important component of the marine environment
 - Review of groundfish ecology
 - Index scoring based on EcoSim model (not all species)
 - Overall, all species important to the marine environment in some way
- Factor (ii) The stock is caught by the fishery
 - 'Fishery' = in the EEZ
 - Principal mortality 25% threshold adopted by the Council in March 2025
 - Considered `mixed mortality'
 - Conclusions also considered de minimis catch
- Factor (iii) whether an FMP can improve the condition of the stock
 - Ties to goal of FMP
 - Principal mortality 25% threshold adopted by the Council in March 2025

Analysis Factors (iv) – (vi)

- Factor (iv) The stock is a target of a fishery
 - Whether a stock is sought to catch for sale or personal use or incidentally caught
 - Oualitative input & review of public comment
 - Targets per trip
 - Commercial species with largest prop. of landings per trip
 - Recreational probability of being top species retained in random year

Factor (v) – The stock is important to commercial, recreational, and subsistence users

- Qualitative input & review of public comment
- Index scoring from Stock Assessment Prioritization (SAP) tool
- Local Quotient (LQ) to determine localized importance
 - Relative importance locally compared to other species
 - Commercial ex-vessel revenue
 - Recreational counts

Analysis Factors (iv) – (vi)

- Factor (vi) The fishery is important to the Nation or to the regional economy
 - Qualitative input on local, regional, National markets
 - Calculation of Regional Quotient (RQ)
 - Contribution to regional economic benefit derived from groundfish fishery
 - Commercial ex-vessel revenue
 - Recreational counts

Analysis Factors (vii) - (ix)

- Factor (vii) The need to resolve competing interests and conflicts amongst user groups and whether an FMP can further that resolution
 - Qualitative input
 - Qualitative analysis of public comment
- Factor (viii) The economic condition of a fishery and whether an FMP can provide more efficient utilization & Factor (ix) – The needs of a developing fishery and whether an FMP can foster orderly growth
 - Analysis of landings over time
 - Additional Tribal input

Analysis Factor (x) Factor (x) – The extent to which the fishery is already adequately managed by states, by state/Federal programs, or by Federal regulations pursuant to other FMPs or international commissions, or by industry selfregulation, consistent with the requirements of the MSA and other applicable law

- Summary of programs outside the FMP
- No judgement on efficacy or speculation of management if removed

Analysis – Other considerations

Vulnerability: Productivity-Susceptibility Analysis (PSA)

- Requested by SSC to evaluate species for EC designation
- Terms were defined in Patrick et al (2009)
- Analyzed for West Coast groundfish in Cope et al (2011)
- PSA is dated, does not account for area of principal mortality, but provides some helpful adjunct information
- Differentiates stocks of low, medium, high, and major concern of vulnerability to the fishery

Synthesis

- Synthesis of overall conclusions of 10 Factors
- Present results by species bins
- No conclusions on findings in analysis up to the Council to determine whether each species is "in need of conservation and management"
- Factors (i) (iii) should be weighted most heavily

Is each species in need of conservation and management?

- Factor (i) Species in this analysis occupy a diverse range of habitats, depths, serve as predator & prey; considered important components of the marine environment
- Factor (vii) The FMP and Council process broadly provide an avenue for communication, stakeholder input, use of BSIA; analysis does not necessarily support one alt or another
- Factors (viii) and (ix) no developing fisheries or areas for increased efficiency in utilization identified; Mexican and greenblotched rockfish may be species to monitor
- Factor (x) states manage nearshore rockfish in state waters; this analysis does not speak to states' ability to independently manage

Shallow Nearshore

Black and yellow rockfish, China rockfish, gopher rockfish, grass rockfish, kelp rockfish, cabezon, and kelp greenling

Shallow Nearshore

- Factors (ii) and (iii) weigh against finding need of conservation and management
 - Mortality is principally in state waters, hence species are not caught by the fishery and Federal management could do little to change the condition of the species
- Factors (iv), (v), (vi) mostly weigh against finding need of conservation and management, though have more mixed results
 - Species are not individually targeted
 - Species 'important' to the fishery are black-and-yellow rockfish, gopher rockfish, kelp greenling; cabezon and kelp greenling important to Tribes
 - Only gopher rockfish contribute over 1% to both regional revenue (comm) and landings (rec) (1.5% in both comm and rec), cabezon >1% for commercial (1.7%)

Deeper Nearshore

black rockfish, blue rockfish, brown rockfish, copper rockfish, deacon rockfish, olive rockfish, quillback rockfish, and treefish

Deeper Nearshore

- Factors (ii) and (iii) weigh against finding need of conservation and management
 - Mortality is principally in state waters, hence species are not caught by the fishery and Federal management could do little to change the condition of the species
 - Black, copper, quillback mortality off Washington principally in Federal waters
 - Quillback off CA is 20% under but close to threshold can FMP improve condition?
- Factors (iv), (v), (vi) weigh in favor of finding need of conservation and management, though have more mixed results
 - Council must weigh context of Factors (ii) and (iii)
 - Black, copper, brown, blue, copper, deacon, treefish are targets
 - Important to fishery participants and region
 - Particularly black rockfish, brown rockfish, blue/deacon rockfish
 - Black, blue/deacon, quillback important to Tribes

Shallow Shelf

Calico rockfish, flag rockfish, freckled rockfish, halfbanded rockfish, honeycomb rockfish, pygmy rockfish, rosy rockfish, speckled rockfish, swordspine rockfish

Shallow Shelf

- Factors (ii) and (iii) weigh in favor of finding need of conservation and management for 8/10 species, but with caveats, given the level of catch
 - All but calico and rosy are principally caught in EEZ
 - De minimis mortality of calico, pygmy, freckled, swordspine
- Factors (iv), (v), (vi) weigh against finding need of conservation and management,
 - Most are too small to be retained
 - None identified as important or targets, though may be caught with targets

Deep Shelf

Bronzespotted rockfish, chameleon rockfish, greenblotched rockfish, harlequin rockfish, Mexican rockfish, pink rockfish, pinkrose rockfish, tiger rockfish

Deep Shelf

- Factors (ii) and (iii) weigh in favor of finding need of conservation and management, but with caveats given the level of catch (except Tiger)
 - Tiger does not meet 25% threshold off CA and OR (24.2% and 15.4%), but does in WA
 - All others have principal mortality in EEZ
 - De minimis mortality of chameleon, harlequin, pink, pinkrose, bronzespotted
 - Only greenblotched and Mexican rockfish have annual mortality > 0.1mt
- Factors (iv), (v), (vi) weigh against finding need of conservation and management
 - Only tiger rockfish identified as recreational target
 - De minimis mortality of all but greenblotched and Mexican rockfish

Flatfish

Butter sole, curlfin sole, rock sole, sand sole, starry flounder

Flatfish

- Factors (ii) and (iii) weigh in favor of finding need of conservation and management for butter sole, curlfin sole, starry flounder
- Factors (ii) and (iii) weigh against need of conservation and management for rock sole and sand sole
- Factors (iv), (v), (vi) weigh against finding need of conservation and management, though have more mixed results
 - None identified as targets or important in the current market conditions by non-tribal fishery participants
 - Tribes have identified rock sole and sand sole as important

No Mortality

Light dusky rockfish & dwarf-red rockfish

Species with No Mortality off West Coast

- Analysis could not be completed in same way due to lack of mortality data
- Overall, all factors weigh against finding these species to be in need of conservation and management
- No recent recorded mortality = not in the fishery, not important for social or economic factors

Leopard Shark

Leopard Shark

- Factors (ii) and (iii) weigh against finding need of conservation and management
 - Mortality is principally in state waters, hence species is not caught by the fishery and Federal management could do little to change the condition of the species
- Factors (iv), (v), (vi) weigh in against need of conservation and management
 - Target off CA, but in state waters
 - Not identified as important to fishery participants or the region

Stock Definitions

Any species under Alt 1 also require stock def option:

Option 1: A single stock, single area within the Fishery Management Unit (FMU). A single stock means there is no evidence of or unknown stock structure. The stock unit could be coastwide or limited to a single state based on its known range.

Option 2: Two Stocks within the FMU, delineated by specific latitude (e.g., north/south of 42° N. lat., north/south of 40°10' N. lat., etc.

Option 3: Three Stocks within the FMU, delineated at state boundaries (e.g., a California stock, an Oregon stock, and a Washington stock) and/or latitudes. Each species is defined as a state-specific stock, i.e., a California stock, an Oregon stock, and a Washington stock.

*see section 5 of Supp Att 2 for Options

Potential Stock Definition Options

Option 1	Species	Option 2	Option 3
All 40 species	Black and yellow rockfish	*	
	Blue rockfish	*	*
	Brown rockfish	*	*
	Cabezon	*	*
	China rockfish	*	*
	Deacon rockfish	*	*
	Gopher rockfish	*	
	Grass rockfish	*	
	Harlequin rockfish	*	
	Kelp greenling	*	*
	Kelp rockfish	*	
	Leopard shark	*	*
	Olive rockfish	*	*

Species	Opt 1 Proposed Stock Delineations
Bronzespotted rockfish	Coastwide or California-only
Butter sole	Coastwide
Calico rockfish	Coastwide or California-only
Chameleon rockfish	Coastwide or California-only
Curlfin sole	Coastwide
Dwarf-red rockfish	Coastwide or California-only
Freckled rockfish	Coastwide or California-only
Greenblotched rockfish	Coastwide
Halfbanded rockfish	Coastwide
Honeycomb rockfish	Coastwide or California-only
Pinkrose rockfish	Coastwide or California-only
Pygmy rockfish	Coastwide
Rock sole	Coastwide
Rosy rockfish	Coastwide
Sand sole	Coastwide
Speckled rockfish	Coastwide
Starry flounder	Coastwide
Swordspine rockfish	Coastwide or California-only
Tiger rockfish	Coastwide
Treefish	Coastwide or California-only

Species	Opt. 1 Proposed Stock Delineations	Opt. 2	Opt. 3
Black and yellow rockfish	Coastwide or California/Oregon	California and Oregon	
Blue rockfish	Coastwide	N/S of 42° N. lat.	state-specific
Brown Rockfish	Coastwide	N/S of 42° N. lat.	state-specific
Cabezon	Coastwide	N/S of 42° N. lat.	state-specific
China rockfish	Coastwide	N/S of 42° N. lat.	state-specific
Deacon rockfish	Coastwide	N/S of 42° N. lat.	state-specific
Flag rockfish	Coastwide or California/Oregon	California and Oregon	
Gopher rockfish	Coastwide or California/Oregon	California and Oregon	
Grass rockfish	Coastwide or California/Oregon	California and Oregon	
Harlequin rockfish	Coastwide or Oregon/Washington	Oregon and Washington	
Kelp greenling	Coastwide	N/S of 42° N. lat.	state-specific
Kelp rockfish	Coastwide or California/Oregon	California and Oregon	
Light dusky rockfish	Coastwide or Oregon/Washington	Oregon and Washington	
Leopard shark	Coastwide or California/Oregon	California and Oregon	
Olive rockfish	Coastwide or California/Oregon	California and Oregon	
Pink rockfish	Coastwide or California/Oregon	California and Oregon	

Council Action: PPA/10-Factor Species

Council Action: Adopt preliminary preferred alternatives where appropriate

- PPA Alternative
- For species under Alt 1, also adopt a stock definition Option

Questions?