

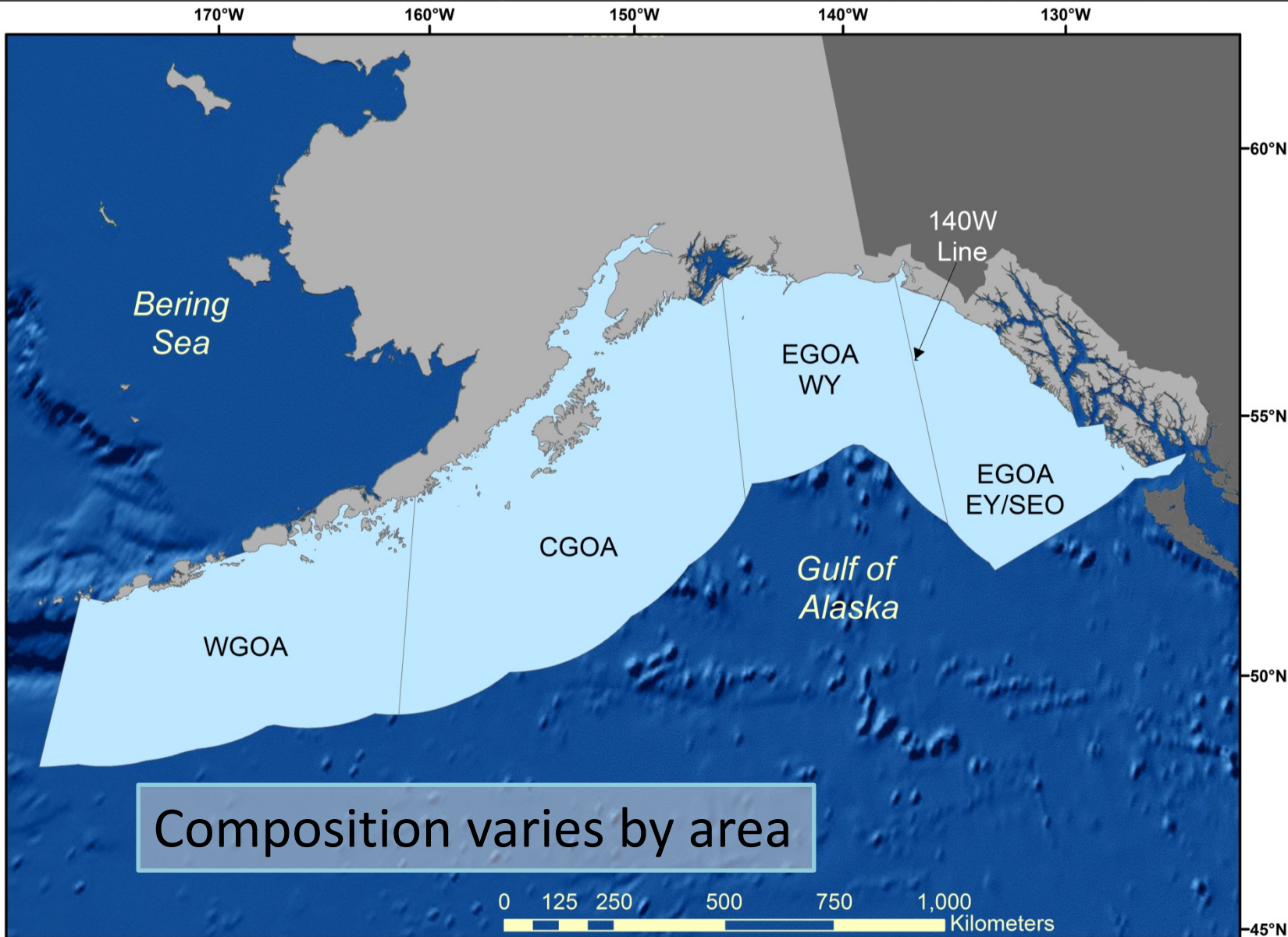
Spatial Management of GOA Other Rockfish and DSR



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OR and DSR Complexes



DSR Complex

EGOA (EY/SEO)

Canary rockfish

China rockfish
Copper rockfish

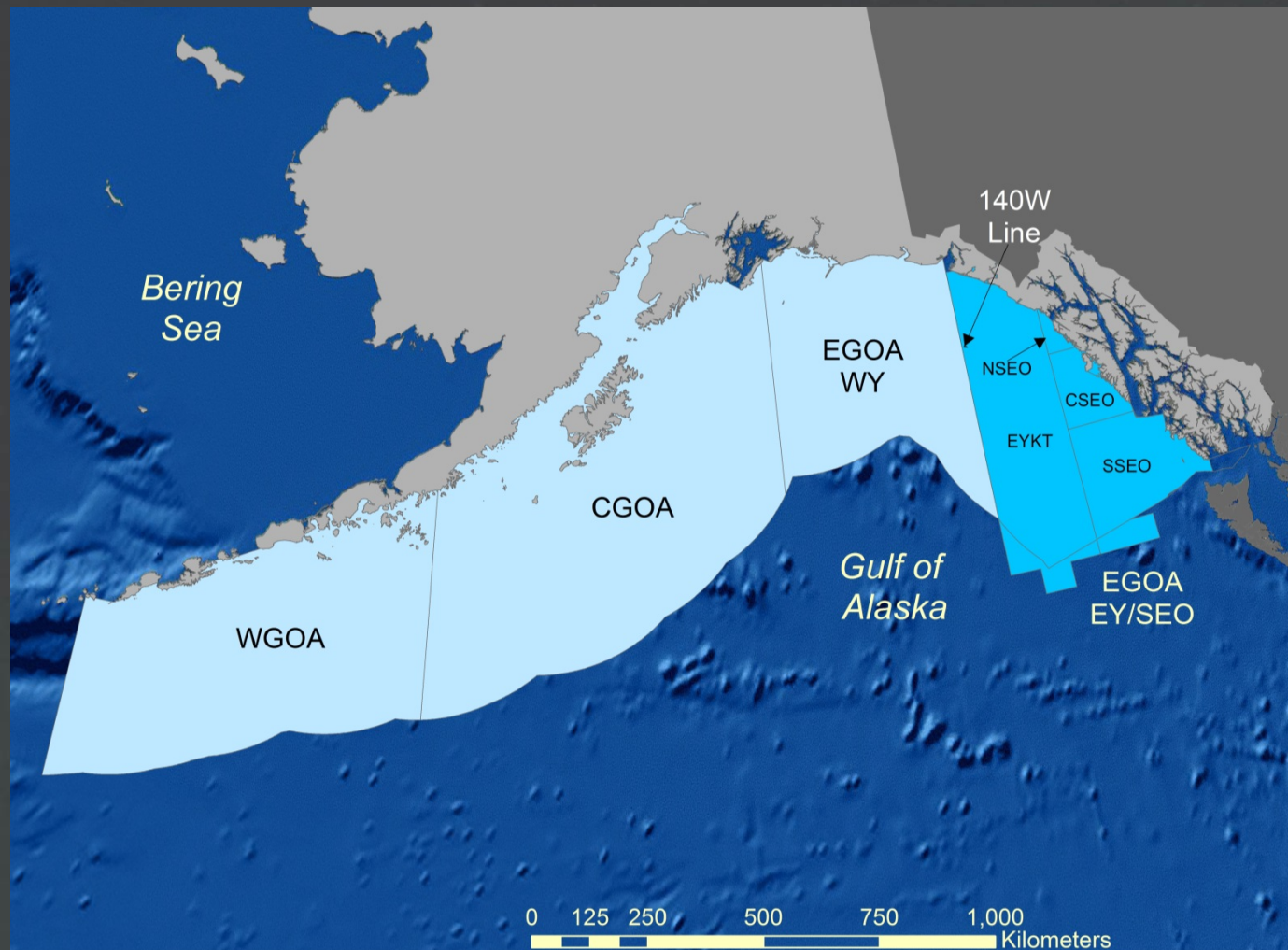
Quillback rockfish

Rosethorn rockfish

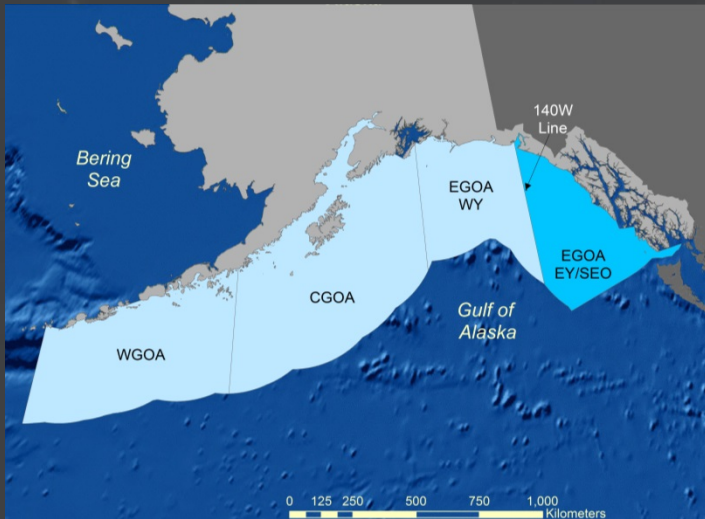
Tiger rockfish

Yelloweye rockfish

7 Species



OR Complex



EGOA (EY/SEO)

Blackgill rockfish
Bocaccio

Chilipepper rockfish

Darkblotched rockfish
Greenstriped rockfish
Harlequin rockfish
Northern rockfish
Pygmy rockfish

Redbanded rockfish
Redstripe rockfish

Sharpchin rockfish
Silvergray rockfish
Splitnose rockfish
Stripetail rockfish

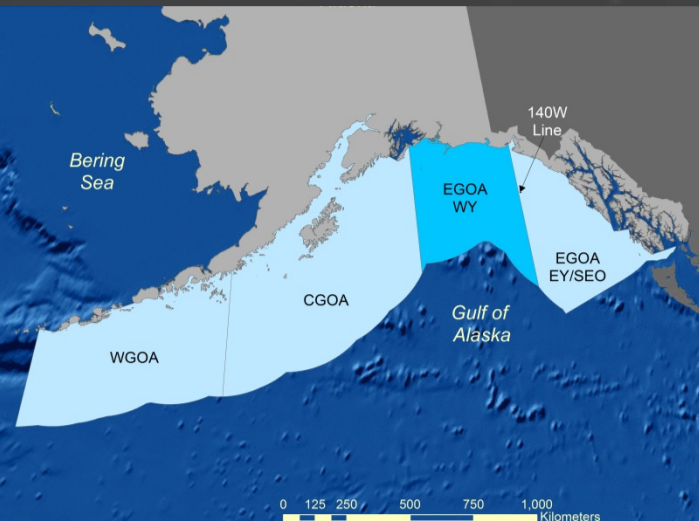
Vermilion rockfish
Widow rockfish

Yellowmouth rockfish
Yellowtail rockfish

18 Species



OR Complex



EGOA (WY)	EGOA (EY/SEO)
Blackgill rockfish	Blackgill rockfish
Bocaccio	Bocaccio
Canary rockfish	
Chilipepper rockfish	Chilipepper rockfish
China rockfish	
Copper rockfish	
Darkblotched rockfish	Darkblotched rockfish
Greenstriped rockfish	Greenstriped rockfish
Harlequin rockfish	Harlequin rockfish
Northern rockfish	Northern rockfish
Pygmy rockfish	Pygmy rockfish
Quillback rockfish	
Redbanded rockfish	Redbanded rockfish
Redstripe rockfish	Redstripe rockfish
Rosethorn rockfish	
Sharpchin rockfish	Sharpchin rockfish
Silvergray rockfish	Silvergray rockfish
Splitnose rockfish	Splitnose rockfish
Stripetail rockfish	Stripetail rockfish
Tiger rockfish	
Vermilion rockfish	Vermilion rockfish
Widow rockfish	Widow rockfish
Yelloweye rockfish	
Yellowmouth rockfish	Yellowmouth rockfish
Yellowtail rockfish	Yellowtail rockfish
25 Species	18 Species

OR Complex

WGOA & CGOA

Blackgill rockfish
 Bocaccio
 Canary rockfish
 Chilipepper rockfish
 China rockfish
 Copper rockfish
 Darkblotched rockfish
 Greenstriped rockfish
 Harlequin rockfish

 Pygmy rockfish
 Quillback rockfish
 Redbanded rockfish
 Redstripe rockfish
 Rosethorn rockfish
 Sharpchin rockfish
 Silvergray rockfish
 Splitnose rockfish
 Stripetail rockfish
 Tiger rockfish
 Vermilion rockfish
 Widow rockfish
 Yelloweye rockfish
 Yellowmouth rockfish
 Yellowtail rockfish

24 Species

EGOA (WY)

Blackgill rockfish
 Bocaccio
 Canary rockfish
 Chilipepper rockfish
 China rockfish
 Copper rockfish
 Darkblotched rockfish
 Greenstriped rockfish
 Harlequin rockfish
 Northern rockfish
 Pygmy rockfish
 Quillback rockfish
 Redbanded rockfish
 Redstripe rockfish
 Rosethorn rockfish
 Sharpchin rockfish
 Silvergray rockfish
 Splitnose rockfish
 Stripetail rockfish
 Tiger rockfish
 Vermilion rockfish
 Widow rockfish
 Yelloweye rockfish
 Yellowmouth rockfish
 Yellowtail rockfish

25 Species

EGOA (EY/SEO)

Blackgill rockfish
 Bocaccio

 Chilipepper rockfish

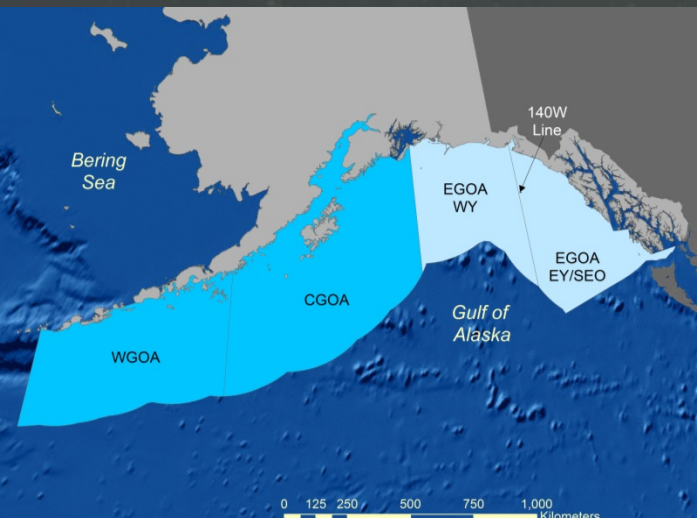
 Darkblotched rockfish
 Greenstriped rockfish
 Harlequin rockfish
 Northern rockfish
 Pygmy rockfish

 Redbanded rockfish
 Redstripe rockfish

 Sharpchin rockfish
 Silvergray rockfish
 Splitnose rockfish
 Stripetail rockfish

 Vermilion rockfish
 Widow rockfish
 Yellowmouth rockfish
 Yellowtail rockfish

18 Species



Other Rockfish (OR) Complex

- Two sub-groups within the complex, based on life history, spatial distribution and fishery and survey characteristics
- **Demersal sub-group**: canary, china, copper, quillback, rosethorn, tiger and yelloweye rockfish
- **Slope sub-group**: 20 remaining species



Background

- 2015
 - Proposed GOA-wide DSR
 - PT and SSC requested further evaluation
- 2017
 - PT/SSC approved Alternative 3a and moving to *NPFMC Spatial Management Policy Step 2*
- 2019
 - Continued discussion about what to do next
 - PT/SSC reiterated support of moving to *Step 2*
- 2021
 - Updated information to support proposal
 - Unclear what next steps are



Step 2???

- Council is requested to initiate a regulatory amendment to modify 50 CFR Part 679 to accommodate changes to both the OR and DSR complexes
- Are there additional economic and management considerations to be addressed by staff?

EXAMPLE ABCs and OFL

	Western GOA	Central GOA	Eastern GOA		Total
			West Yakutat	E Yakutat/ Southeast	
Area ABC (t)	46	125	34	238	443
OFL (t)					648

Request to PT/SSC

Step 2: With input from the agency, the public, and its advisory bodies, the Council (and NMFS) should identify the economic and management implications and potential options for management response to these findings and identify the suite of tools that could be used to achieve conservation and management goals.

Guidance or ideas on how to achieve this?

Recent Work

NS1 guidelines: “Where practicable, the group of stocks should have a **similar geographic distribution, life history characteristics**, and **vulnerabilities to fishing pressure** such that the impact of management actions on the stocks is similar. The vulnerability of individual stocks should be considered when determining if a particular stock complex should be established or reorganized, or if a particular stock should be included in a complex”

- **Multivariate analysis of life history and vulnerabilities**
- **VAST modelling of distribution**

