

# Defining and Delineating Groundfish Stocks for Fishery Management

April 23, 2023

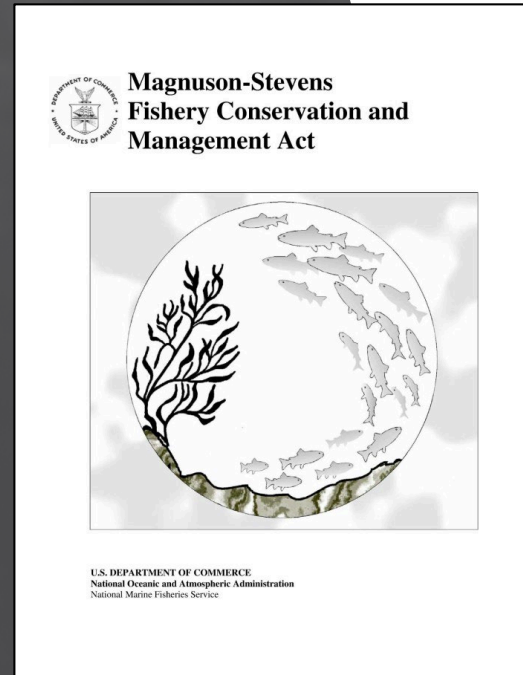
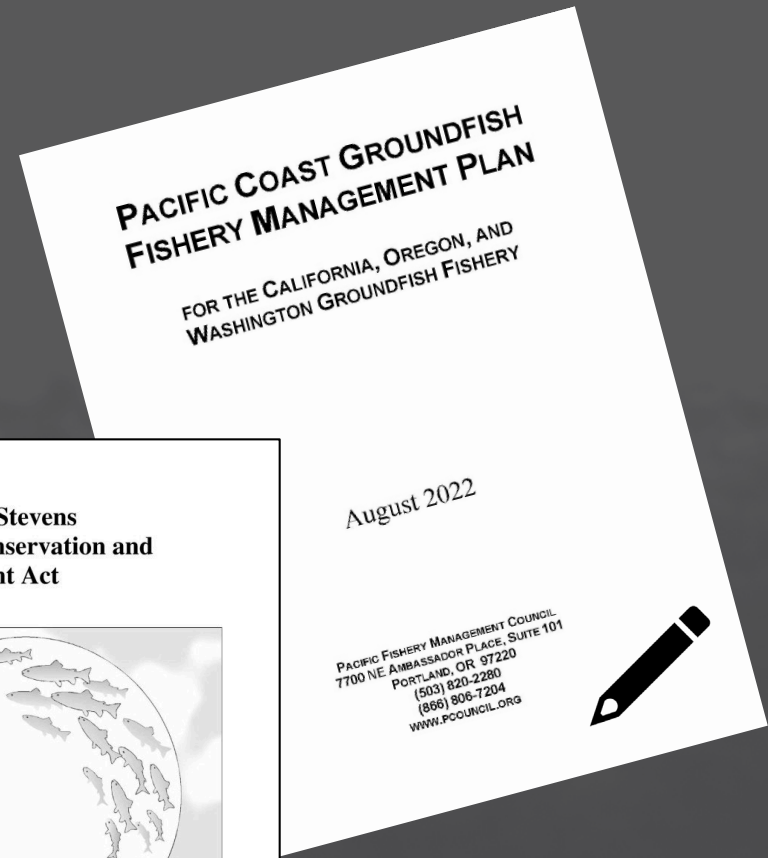
2023 Western Groundfish Conference

Todd Phillips

# Stock Definitions...

- ◆ **The Council and the Issue**
- ◆ **Process Development**
- ◆ **The Results and the Council**
- ◆ **What I need from you...**

# The Council





FMP's Define Stocks of Managed Species

Our Groundfish FMP Doesn't

No Process for Defining Stocks

# The First Question: What is a Stock of Fish?

- ◆ “A stock of fish means a species, subspecies, geographical grouping, or other category of fish capable of management as a unit” – *MSA §3(42)*
- ◆ A stock has:
  - ◆ Specific geographical delineation
  - ◆ Harvest specifications specific to delineated area
- ◆ A stock definition is a policy decision

# The Second Question: How do we define & delineate a Stock?

- ◇ Look to literature, assessments, etc.
- ◇ Scientific and Statistical Committee's (SSC) Advice
- ◇ *"Thou Shalt Look to Population Structure"*
  - ◇ Genetics
  - ◇ Larval Dispersal
  - ◇ Adult Movement

# Findings: Two Population Structure Types

## Single Population/Single Area

- ◇ Broad larval dispersal
- ◇ Adults move around
- ◇ Homogeneous population genetics

Shelf, slope, & pelagic species

## Multiple Populations/Areas

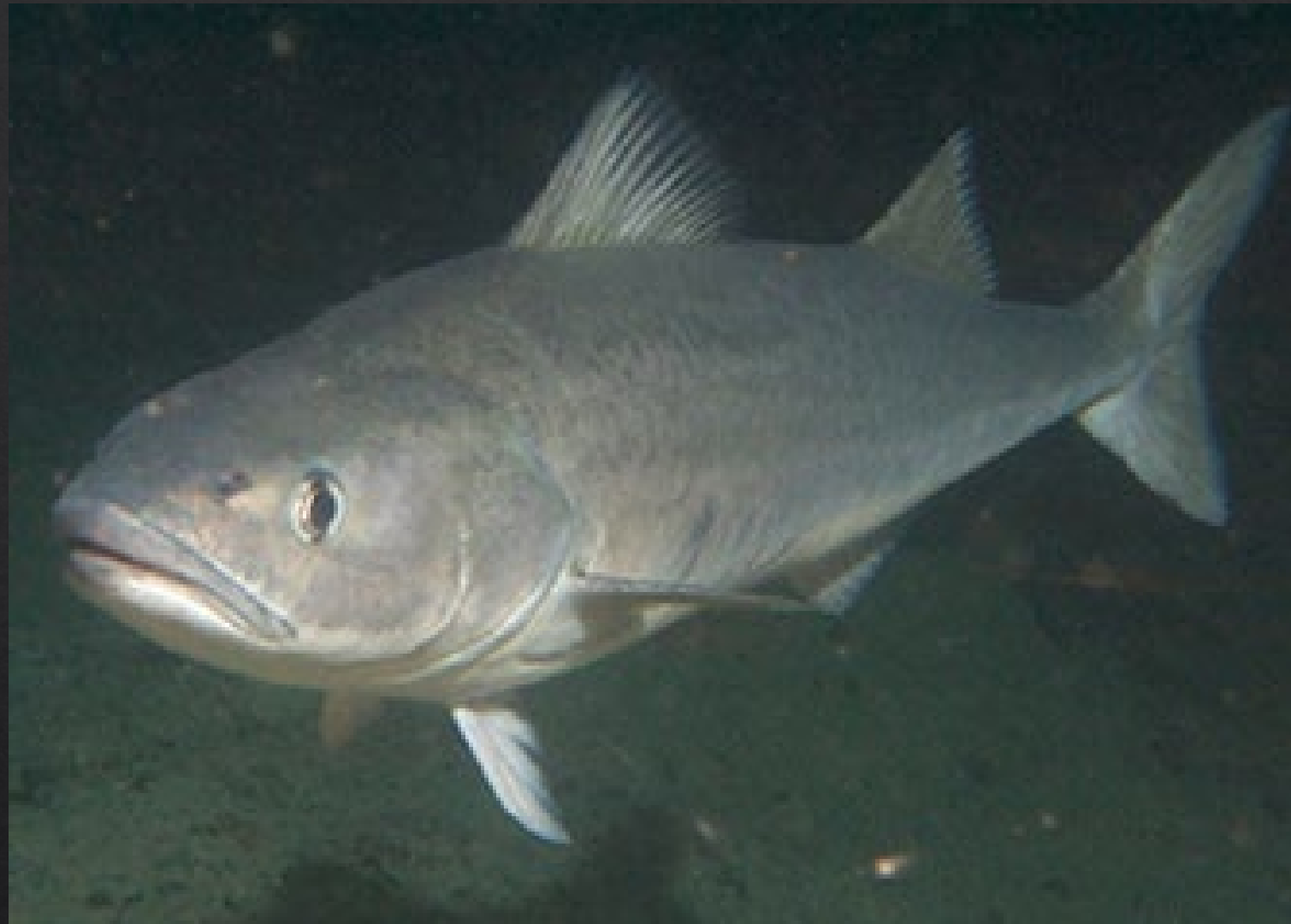
- ◇ Limited larval dispersal
- ◇ High site fidelity
- ◇ Heterogeneous population genetics

Nearshore rockfish

# Species Considered

Those assessed in 2021 and  
those being assessed in 2023

- ◆ 7 Rockfish
- ◆ 3 Flatfish
- ◆ 2 Roundfish
- ◆ 1 Shark
- ◆ 1 Thornyhead





## Single Population, Single Area

*Canary rf, squarespot rf, Dover sole, petrale sole, rex sole, sablefish, P. spiny dogfish, & shortspine thornyhead*

Population Structure	Assessment Model Scale	SSC Stock Scale Rec.	Council Stock PPA Rec.
Single Population Single Area	Coastwide	Coastwide	1 stock = Coastwide

# Multiple Populations, Multiple Areas

*Black, quillback, copper, vermilion/sunset rockfishes (rf) & lingcod*

Species	Pop. Structure	Assessment Model Scale	SSC Stock Scale Rec.	Council Stock PPA Rec.
Black/Quillback rf	Multiple	WA, OR, CA	Less than CW	3 stocks = WA, OR, CA
Vermilion/Sunset RF	Multiple	WA, OR, N.CA, & S.CA	Less than CW	none
Copper Rf	Multiple	WA, OR, N.CA, & S.CA	Less than CW	2 stocks = WA & OR, CA
Lingcod	Two	N/S 40 10 N. lat	N/S 40 10 N. lat	N/S 40 10 N. lat

# Questions Remain...

- ◆ Did we get it right?
- ◆ What else can be explored?
- ◆ What about species with little to no information?

**ONE DOES NOT SIMPLY**

**SAY THANK YOU WITHOUT A  
MEME**

## Vermilion, Vermilion/Sunset Rockfishes

Species	Pop. Structure	Assessment Model Scale	SSC Stock Scale Rec.	Alternatives
Vermilion rf	Multi. pop/area	WA & OR	Less than CW	1 stock or 2 stocks
Vermilion /Sunset rf	Multi. pop/area	NCA, & SCA	Less than CW	1 stock or 2 stocks
or				
Vermilion & Sunset rf	Multi. pop/area	WA, OR, N.CA, & S.CA	Less than CW	1, 2, 3 or 4 stocks

