



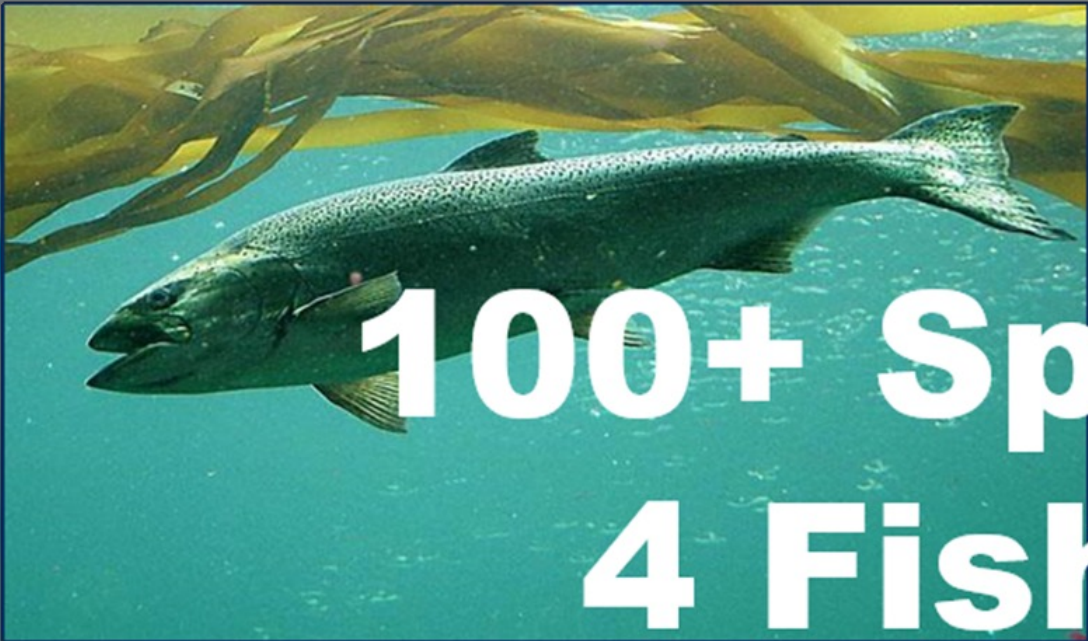
# PFMC Approach to Ecosystem-Based Fisheries Management

Prepared by Yvonne deReynier, NOAA/NMFS/WCR

Presented by Corey Niles, PFMC

Council Member Ongoing Development Meeting

November 15-16, 2022



**100+ Species:  
4 Fishery**



**Management Plans**

Strengthening Scientific Input and Ecosystem-Based Fishery Management  
for the Pacific and North Pacific Fishery Management Councils

Suggestions from a panel discussion  
July 19-20, 2005  
Seattle, Washington

Panel  
Richard Marasco (chair)  
Daniel Goodman  
Churchill Grimes  
Peter Lawson  
André Punt  
Terry Quinn

with assistance from  
Dave Hanson  
Fran Recht  
Jodie Little





FISHERY ECOSYSTEM PLAN  
OF THE SOUTH ATLANTIC REGION

VOLUME I: INTRODUCTION AND OVERVIEW

April 2009

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WESTERN  
PACIFIC  
REGIONAL  
FISHERY  
MANAGEMENT  
COUNCIL

Fishery Ecosystem Plan for the American Samoa Archipelago



Western Pacific Regional Fishery Management Council  
1164 Bishop Street, Suite 1400  
Honolulu, Hawaii 96813

NOVEMBER 24, 2009

Cover Artwork Courtesy of Henry M. Ventura, Simon Sanchez High School, American Samoa

S  
em Plan



North Pacific  
Fishery Management Council



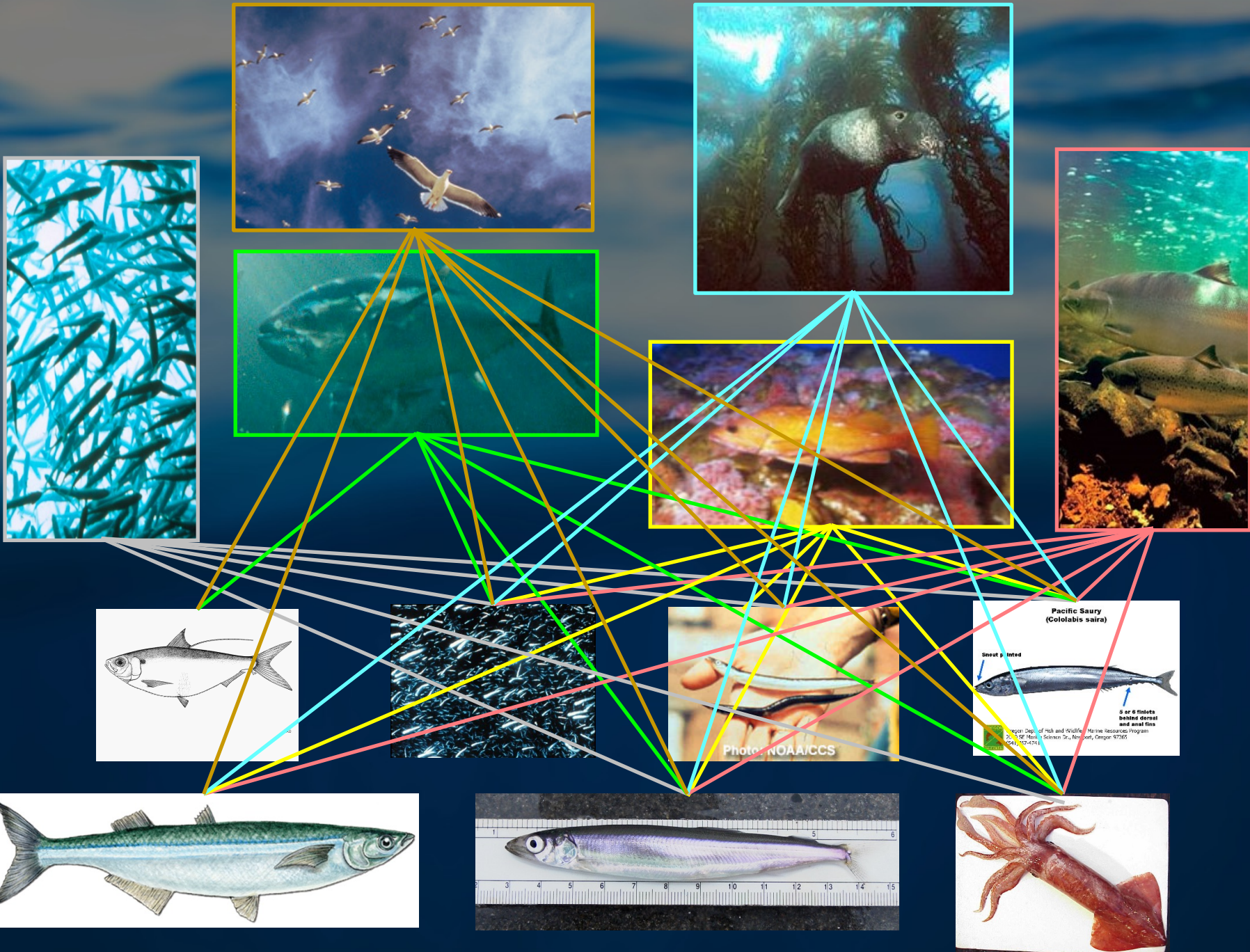
**INFORM**  
**BUT DO NOT**  
**OVERWHELM**

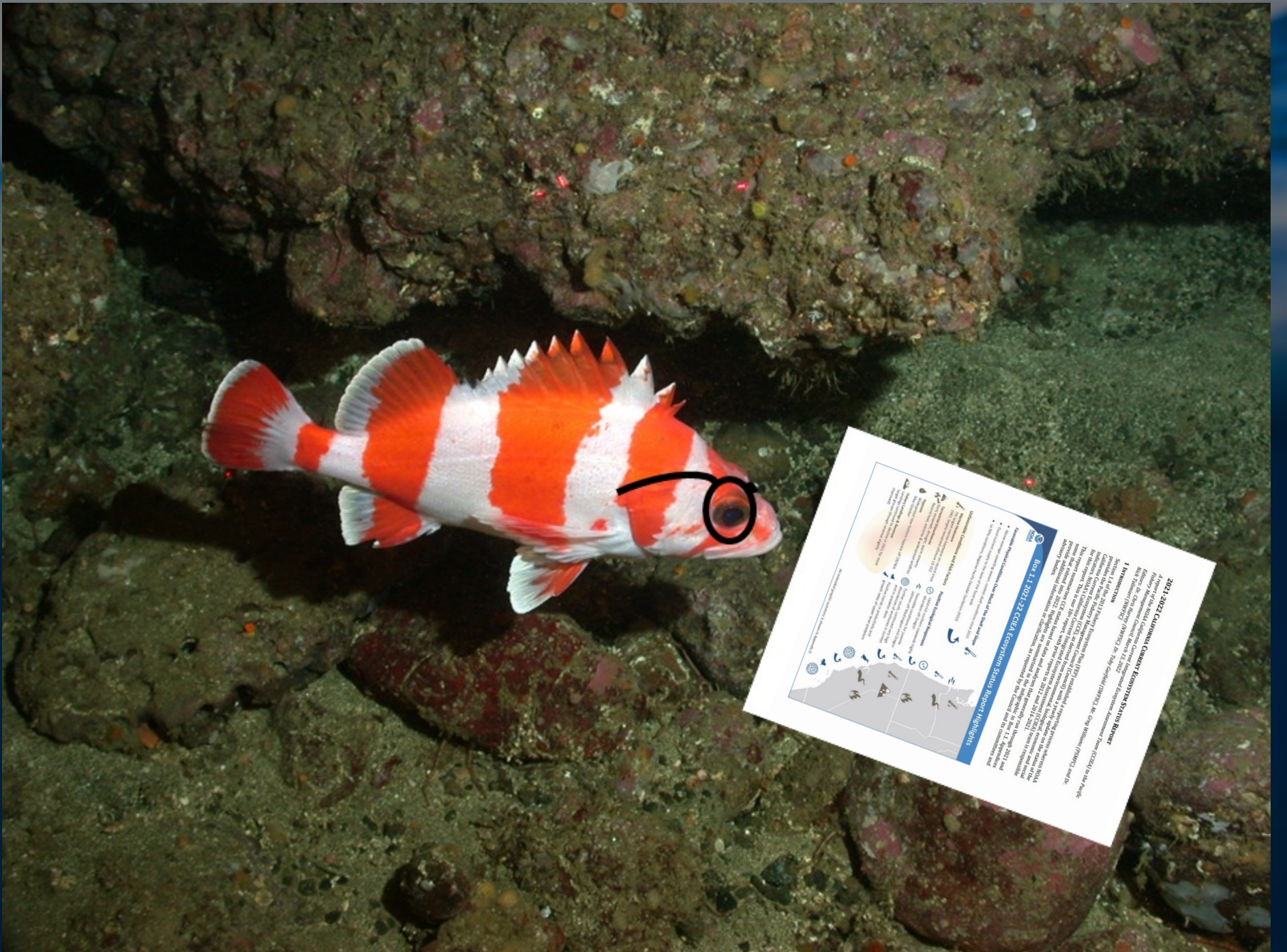
Each year at the Council's March meeting, the Council and its advisory bodies will:

- review progress to date on any ecosystem initiatives the Council already has underway;
- review the list of potential ecosystem initiatives provided in Appendix A to the FEP and determine whether any of those initiatives merit Council attention in the coming year;
- if initiatives are chosen for Council efforts, request background materials from the appropriate entities;
- in March 2015 and in each subsequent odd-numbered year, assess whether there are new ecosystem initiative proposals that could be added to the appendix; and
- in March 2018, assess whether to initiate a review and update of the FEP.

In support of its ecosystem-based management processes, the Council has requested that NMFS, in coordination with other interested agencies, provide it with an annual state-of-the-ecosystem report at each of its March meetings, beginning in March 2014. The Council asked that the report:

- be bounded in terms of its size and page range to about 20 pages in length, and not wait for the “perfect” science to become available, should there be scientific information that does not come with definitive answers and numbers, but which may be useful for the Council to consider.







### Fortune and Favor

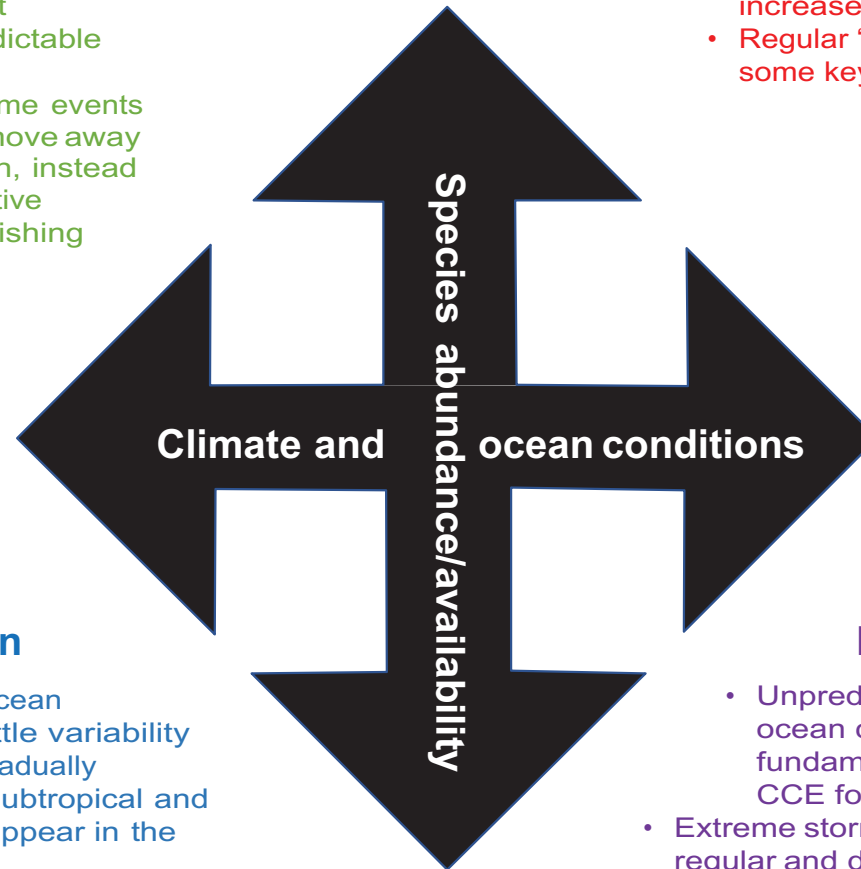
- Mostly favorable conditions for fish and fisheries
- Many stocks shift northward in predictable ways
- Few severe extreme events
- Societal values move away from globalization, instead encourage collective support of local fishing

Mostly steady changes, few extreme events

### Blue Revolution

- Warmer climate/ocean conditions, but little variability
- Familiar stocks gradually decline but new subtropical and tropical species appear in the southern CCE
- Open, globalized commerce encourages alternative uses of ocean resources
- Aquaculture and offshore energy puts pressure on commercial fishing

Increases



### Box of Chocolates

- A world of environmental surprises and extremes, but where stock levels increase on average
- Regular “boom and bust” cycles for some key stocks
  - New technology is deployed to better monitor the unpredictable environment
  - Seafood marketing becomes more difficult because of the high variability in availability

Highly variable conditions, many extreme events

### Hollowed Out

- Unpredictable and extreme shifts in ocean conditions lead to a fundamental reorganization of the CCE food web
- Extreme storms and rising tides create regular and damaging inundations
- Only a few stocks remain at harvestable levels and most commercial fisheries suffer
- The nature of coastal activity changes as some places are neglected, others become fortified, commercial hub

Decreases

# 2022

## PACIFIC COAST FISHERY ECOSYSTEM PLAN

For the U.S. Portion of the California Current Large Marine Ecosystem

March 2022

Pacific Fishery Management Council  
7700 NE Ambassador Place, Suite 101  
Portland OR 97220

## ECOSYSTEM INITIATIVES

APPENDIX TO THE  
*PACIFIC COAST*

*FISHERY ECOSYSTEM PLAN*

FOR THE U.S. PORTION OF THE  
CALIFORNIA CURRENT LARGE MARINE ECOSYSTEM

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SEPTEMBER 2022

### 2021-2022 CALIFORNIA CURRENT ECOSYSTEM STATUS REPORT

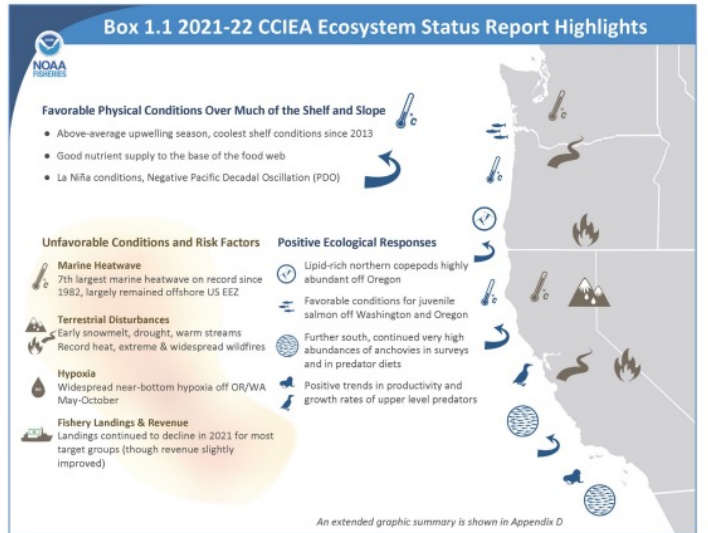
A report of the NOAA California Current Integrated Ecosystem Assessment Team (CCIEA) to the Pacific Fishery Management Council, March 13, 2022

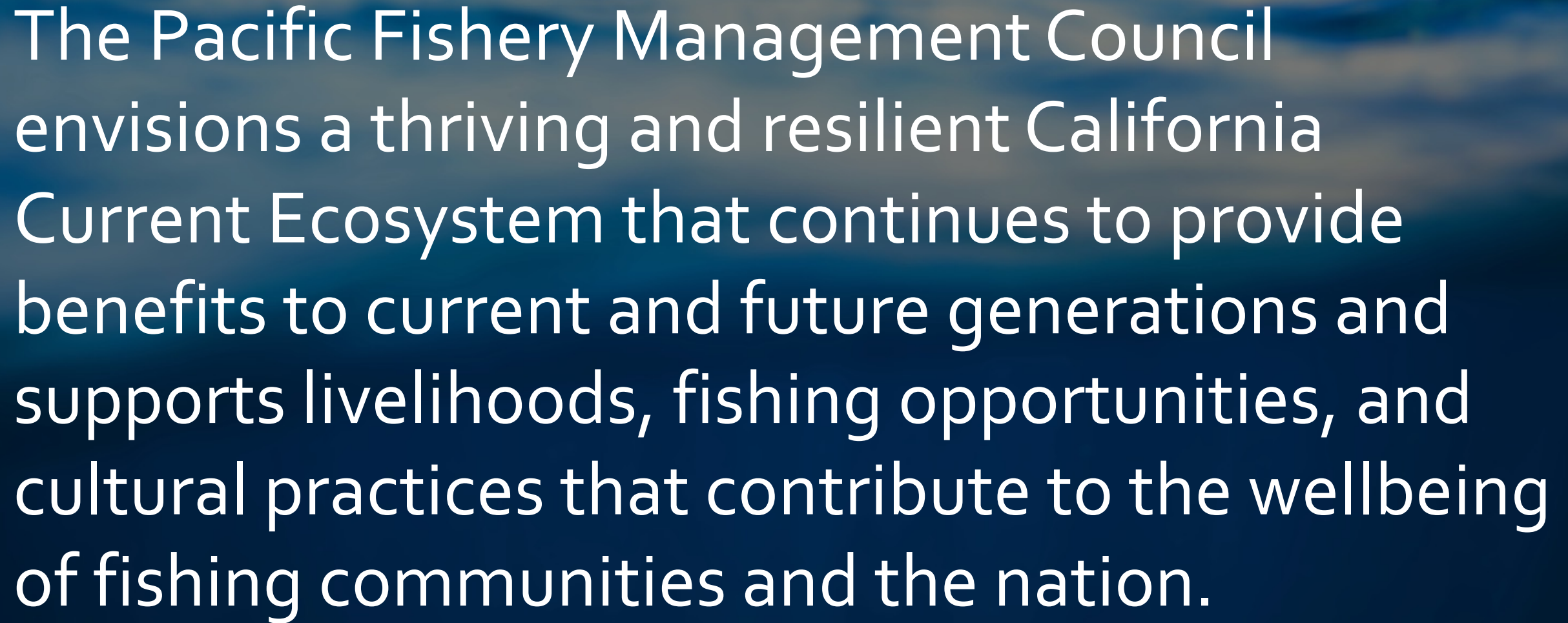
Editors: Dr. Chris Harvey (NWFSC), Dr. Toby Garfield (SWFSC), Mr. Greg Williams (PSMFC), and Dr. Nick Tolimieri (NWFSC)

#### 1 INTRODUCTION

Section 1.4 of the 2013 Fishery Ecosystem Plan (FEP) established a reporting process wherein NOAA provides the Pacific Fishery Management Council (Council) with a yearly update on the status of the California Current Ecosystem (CCE), as derived from environmental, biological, economic and social indicators. NOAA's California Current Integrated Ecosystem Assessment (CCIEA) team is responsible for this report. This is our 10<sup>th</sup> report, with prior reports in 2012 and 2014-2021.

This report summarizes CCE status based on data and analyses that generally run through 2021 and some that extend into 2022. Highlights are summarized in the infographic in Box 1.1. Appendices provide additional information or clarification, as requested by the Council and its committees and advisory bodies.





The Pacific Fishery Management Council envisions a thriving and resilient California Current Ecosystem that continues to provide benefits to current and future generations and supports livelihoods, fishing opportunities, and cultural practices that contribute to the wellbeing of fishing communities and the nation.

2022