

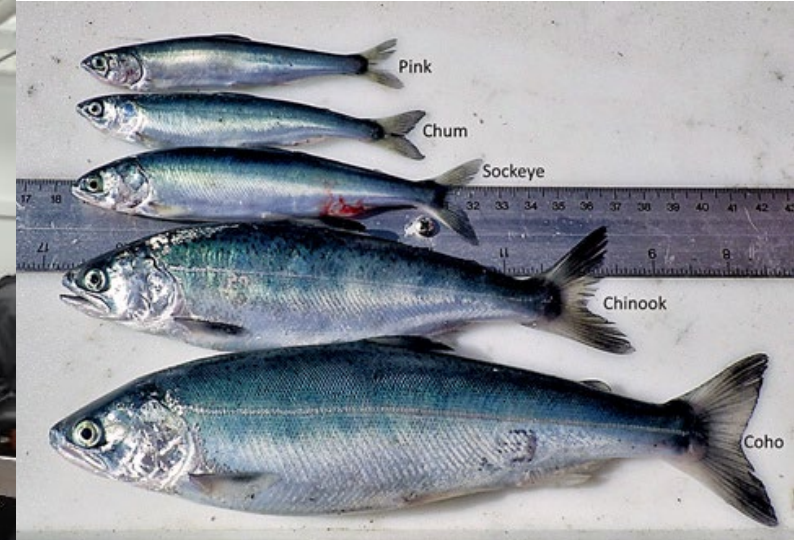
NOAA Fisheries Science Center - 2022 Field Season Closeout and 2023 Preview

Robert Foy, Alaska Fisheries Science Center
October 2022

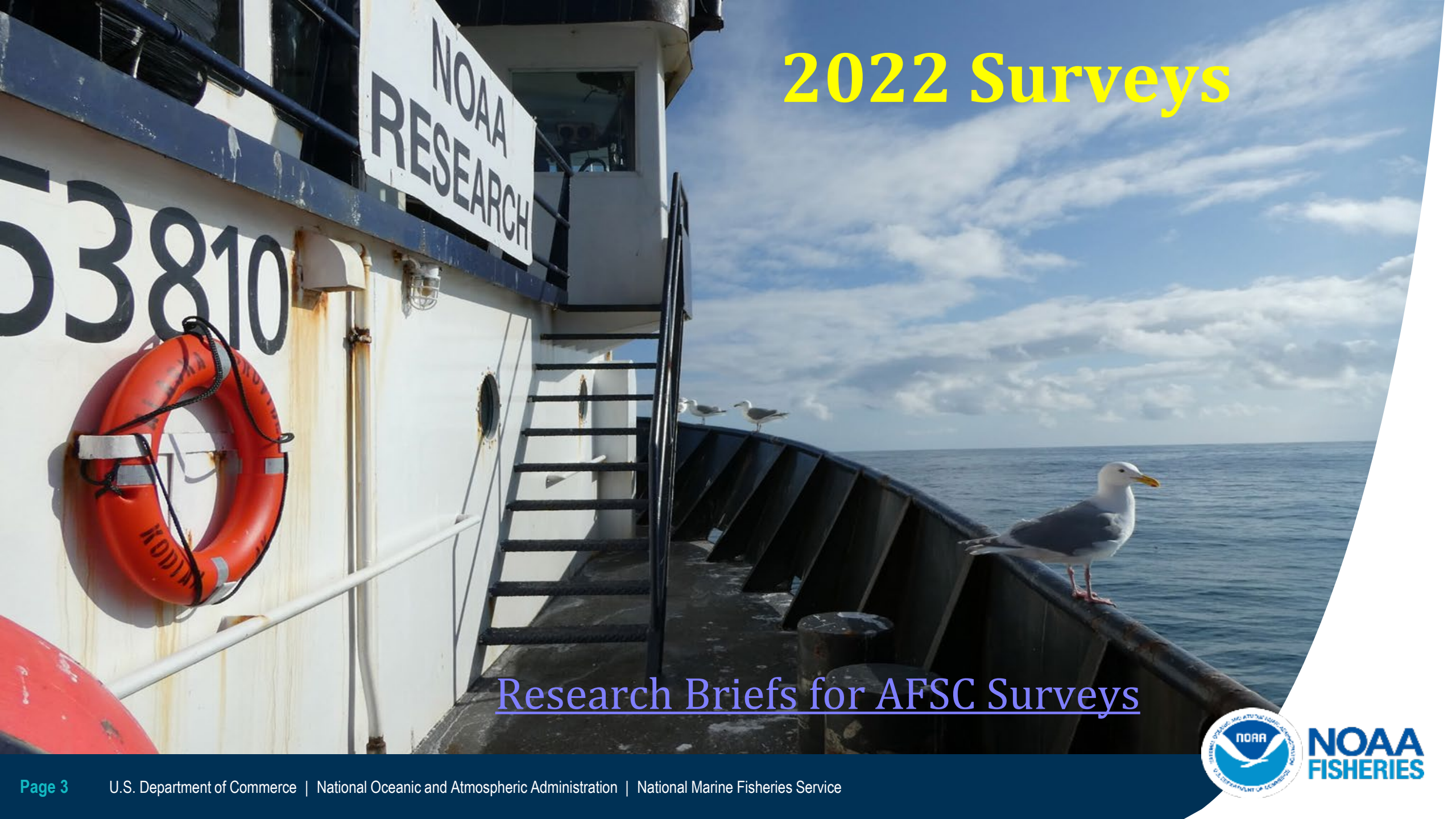


Outline

- Look back at 2022 Field Season
- Preview of 2023
 - Planned surveys
 - Fiscal Outlook
 - Operations Challenges
 - Resiliency and Adaptation



2022 Surveys



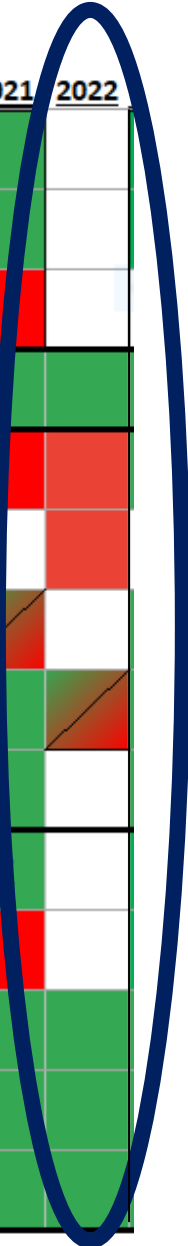
Research Briefs for AFSC Surveys



NOAA
FISHERIES

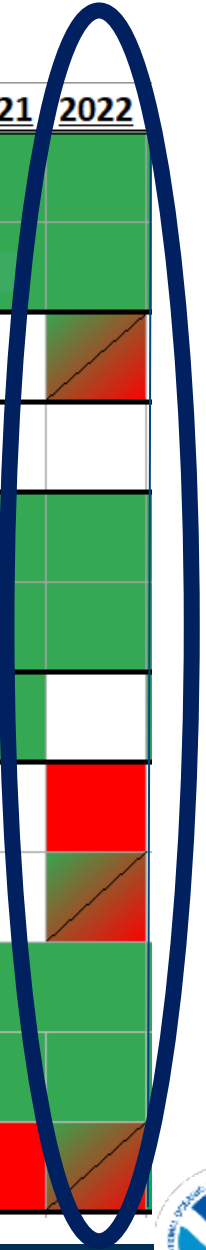
Gulf of Alaska Fish & Ecosystem Surveys

Survey	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
GOA BT vessel 1		Green		Green		Green		Green		Green		Green	
vessel 2		Green		Green		Green		Green		Green		Green	
vessel 3		Red		Red		Green		Red		Red		Red	
Deep shelf and slope groundfish longline	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Winter Acoustic-Trawl Shumagin/Sanak	Green	Red	Green	Green	Green	Green	Green	Green	Green	Red	Green	Red	Red
Winter Acoustic-Trawl Bogoslof		Red	Green		Green		Green		Green		Green		Red
Winter Acoustic-Trawl PWS/Kenai	Green					Green		Green		Red		Green	Green
Winter Acoustic-Trawl Shelikof	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Summer Acoustic-Trawl GOA		Green		Green		Green		Green		Green		Green	
Spring GOA Ichthyoplankton		Green		Green		Green		Green		Green		Green	
Summer GOA Age-0	Green					Green		Green		Green		Red	Red
Kodiak Pacific cod nursery habitat	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Large-Scale GOA Pacific cod nursery habitat									Green	Green	Green	Green	Green
GulfWatch oceanography&forage fish	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green



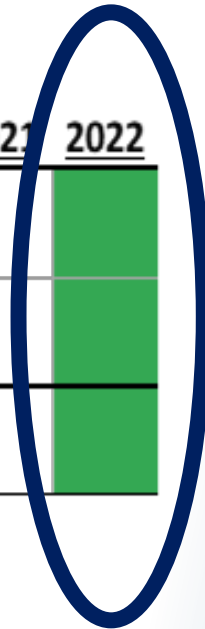
Bering Sea Fish & Ecosystem Surveys

Survey	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Eastern Bering Sea vessel 1	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green
vessel 2	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green
Summer Acoustic-Trawl EBS	Green	White	Green	White	Green	White	Diagonal	White	Diagonal	White	Orange	White	Diagonal
Bering Sea Slope	Green	White	Green	White	Red	White	Green	White	Red	White	Red	White	White
Northern Bering Sea vessel 1	Green	White	White	White	White	White	White	Green	Diagonal	Green	Red	Green	Green
vessel 2	Green	White	White	White	White	White	White	Green	Diagonal	Green	Red	Green	Green
Deep shelf/slope groundfish longline	White	Green	White	Green	White	Green	White	Green	White	Green	White	Green	White
Spring EBS Ichthyoplankton	Green	White	Green	White	Green	White	Green	White	Green	White	Red	White	Red
Summer EBS Age-0 (Inc. BASIS)	White	Green	Green	White	Green	White	Green	White	Green	White	Red	White	Diagonal
Spring EBS Ecosystem/Moorings	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green
Northern Bering Sea juvenile fish	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green
Fall NBS ECO-Foci/DBO	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Diagonal



Aleutian Islands Fish Surveys

<u>Survey</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Aleutian Island vessel 1	Green	White	Green	White	Green	White	Green	White	Green	White	Red	White	Green
Aleutian Island vessel 2	Green	White	Green	White	Green	White	Green	White	Green	White	Red	White	Green
Deep shelf and slope groundfish longline	Green	White	Green	White	Green	White	Green	White	Green	White	Green	White	Green



FY23 Preview

- Arctic 2024
- IRA Funding
- NOAA Vessel Usage
- Uncertainty in operations impacts under CR vs Budget
- Anticipated 2023 surveys
- What we are doing to build resilience





2023 Surveys



NOAA
FISHERIES

Planned Gulf of Alaska Fish & Ecosystem Surveys 2023

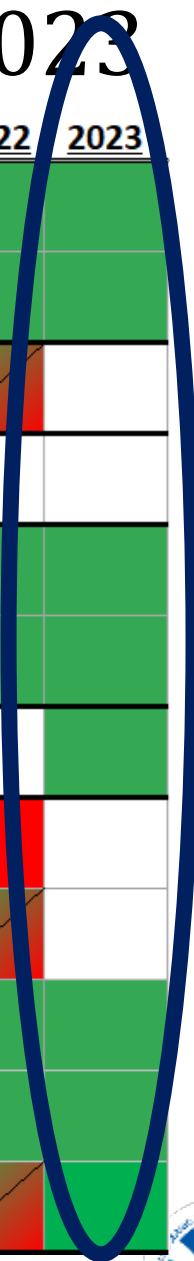
Survey	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
GOA BT vessel 1		Green		Green		Green		Green		Green		Green		Green
vessel 2		Green		Green		Green		Green		Green		Green		Green
vessel 3		Red		Red		Red		Red		Red		Red		Red
Deep shelf and slope groundfish longline	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Winter Acoustic-Trawl Shumagin/Sanak	Green	Red	Green	Green	Green	Green	Green	Green	Green	Red	Green	Red	Red	Green
Winter Acoustic-Trawl Bogoslof	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Red	Green
Winter Acoustic-Trawl PWS/Kenai	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Red	Red	Green
Winter Acoustic-Trawl Shelikof	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green
Summer Acoustic-Trawl GOA	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Spring GOA Ichthyoplankton	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Summer GOA Age-0	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green
Kodiak Pacific cod nursery habitat	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Large-Scale GOA Pacific cod nursery habitat	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
GulfWatch oceanography&forage fish	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green



**NOAA
FISHERIES**

Planned Bering Sea Fish & Ecosystem Surveys 2023

Survey	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Eastern Bering Sea vessel 1	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green
vessel 2	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green
Summer Acoustic-Trawl EBS	Green	White	Green	White	Green	White	Diagonal	White	Diagonal	White	Orange	White	Diagonal	White
Bering Sea Slope	Green	White	Green	White	Red	White	Green	White	Red	White	Red	White	White	White
Northern Bering Sea vessel 1	Green	White	White	White	White	White	White	Green	Diagonal	Green	Red	Green	Green	Green
vessel 2	Green	White	White	White	White	White	White	Green	Diagonal	Green	Red	Green	Green	Green
Deep shelf/slope groundfish longline	White	Green	White	Green	White	Green	White	Green	White	Green	White	Green	Green	Green
Spring EBS Ichthyoplankton	Green	White	Green	White	Green	White	Green	White	Green	White	Red	White	Red	Red
Summer EBS Age-0 (Inc. BASIS)	White	Green	Green	White	Green	White	Green	White	Green	White	Red	White	Diagonal	Red
Spring EBS Ecosystem/Moorings	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green
Northern Bering Sea juvenile fish	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green	Green
Fall NBS ECO-Foci/DBO	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Diagonal	Green



Planned Aleutian Islands Fish Surveys 2023

Survey	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Aleutian Island vessel 1	Green	White	Green	White	Green	White	Green	White	Green	White	Red	White	Green	White
Aleutian Island vessel 2	Green	White	Green	White	Green	White	Green	White	Green	White	Red	White	Green	White
Deep shelf and slope groundfish longline	Green	White	Green	White	Green	White	Green	White	Green	White	Green	White	Green	White



Building Resilience



NOAA
FISHERIES

Plan and Predict for Resilience

Can we manage for 5-10 years in advance instead of 1-2 years?



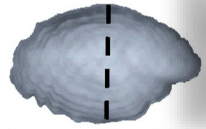
Incorporate innovative data

- NOAA Fisheries' Next Generation Data Acquisition Plan (10-15 year outlook).

EM Innovation



Fish Ageing Advancements



Bering Sea Survey Reconfiguration



AI Zooplankton Data Generation



Eastern and Northern Bering Sea



F/V Alaska Knight (US Seafoods)

Model Enhancements

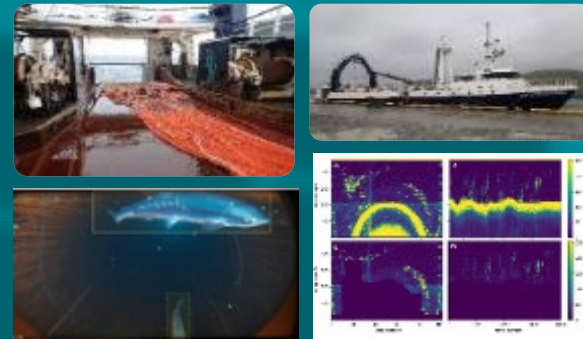


F/V Alaska Provider (US Seafoods)



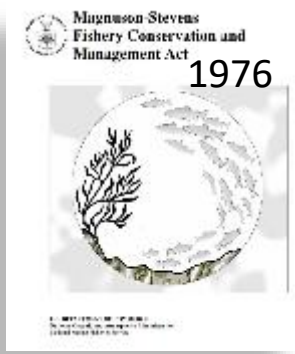
F/V Ocean Explorer (B&N Fisheries)

Bycatch excluders and AI



NOAA FISHERIES

Alaska - Climate Informed Science for Management



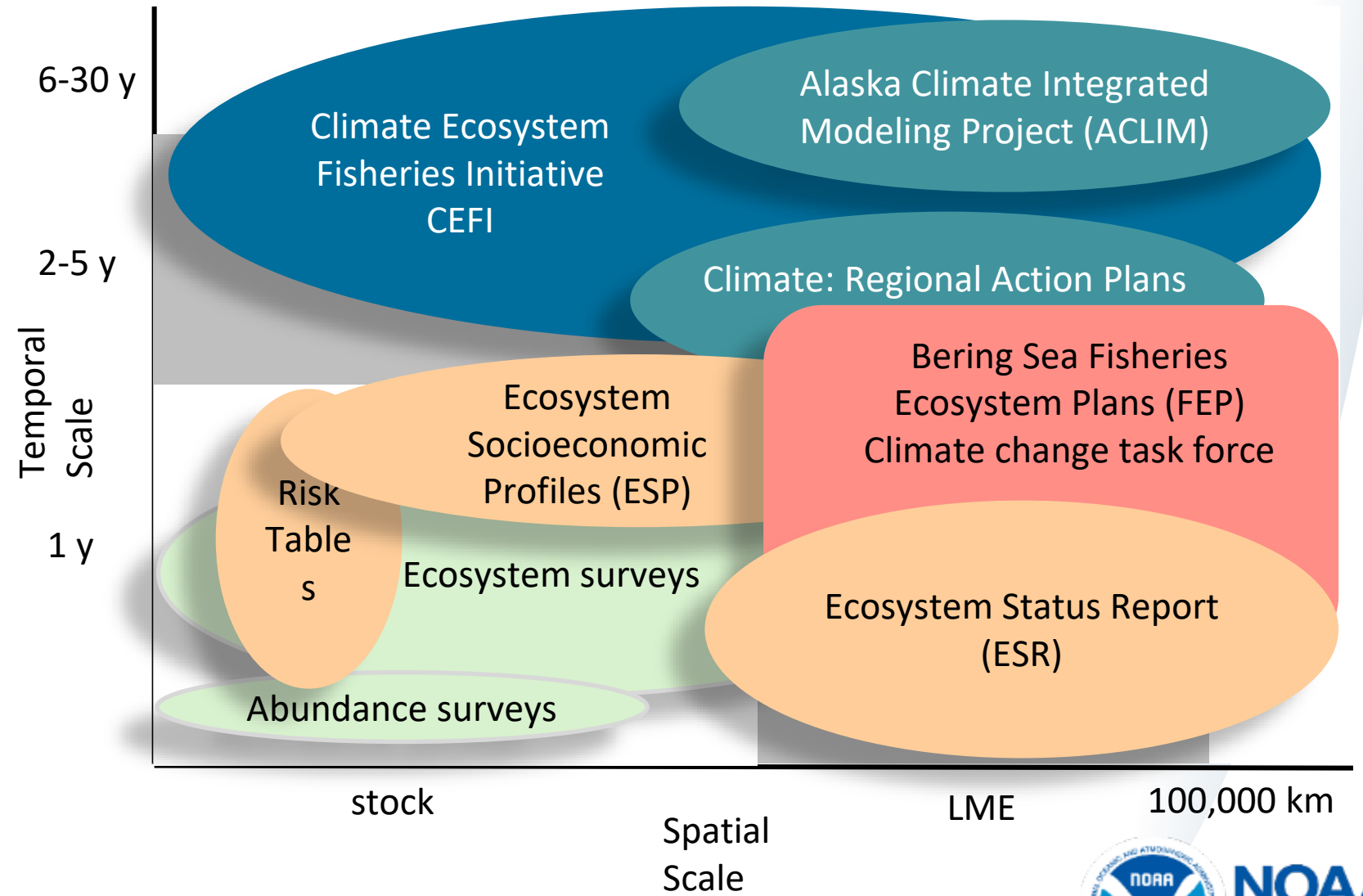
- Ecosystem Based Management Policy



- FEP
- ESR
- ESP



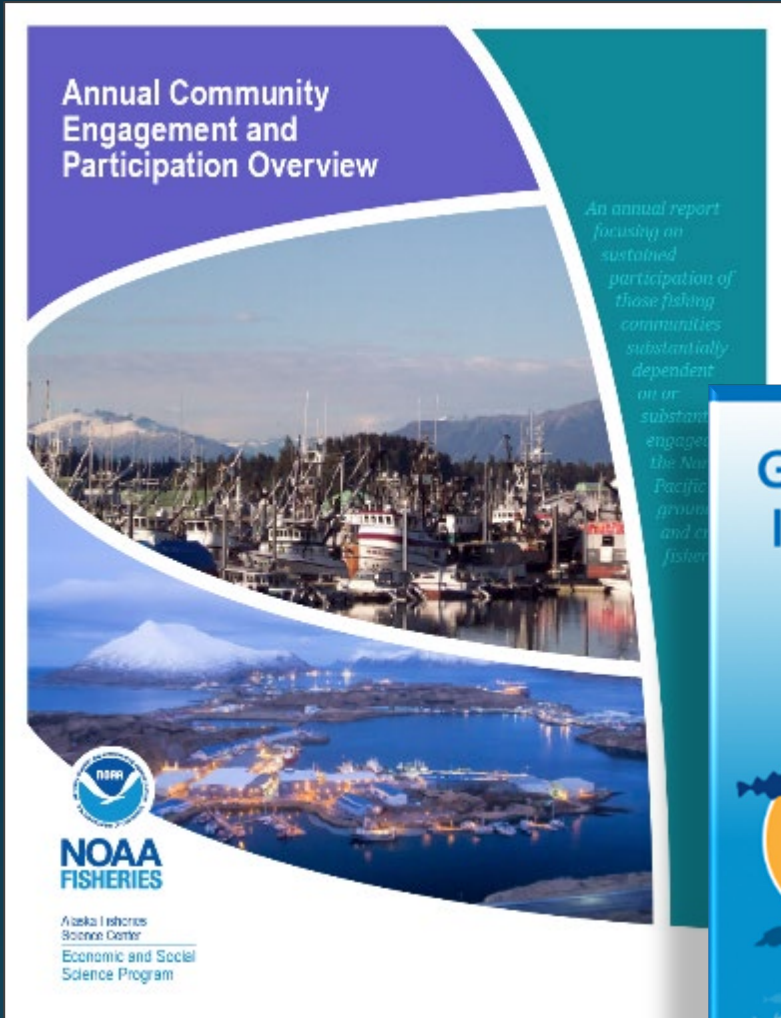
- RAPs
- FEP-CCTF
- ACLIM
- CFI



Improve equity in science and management tools

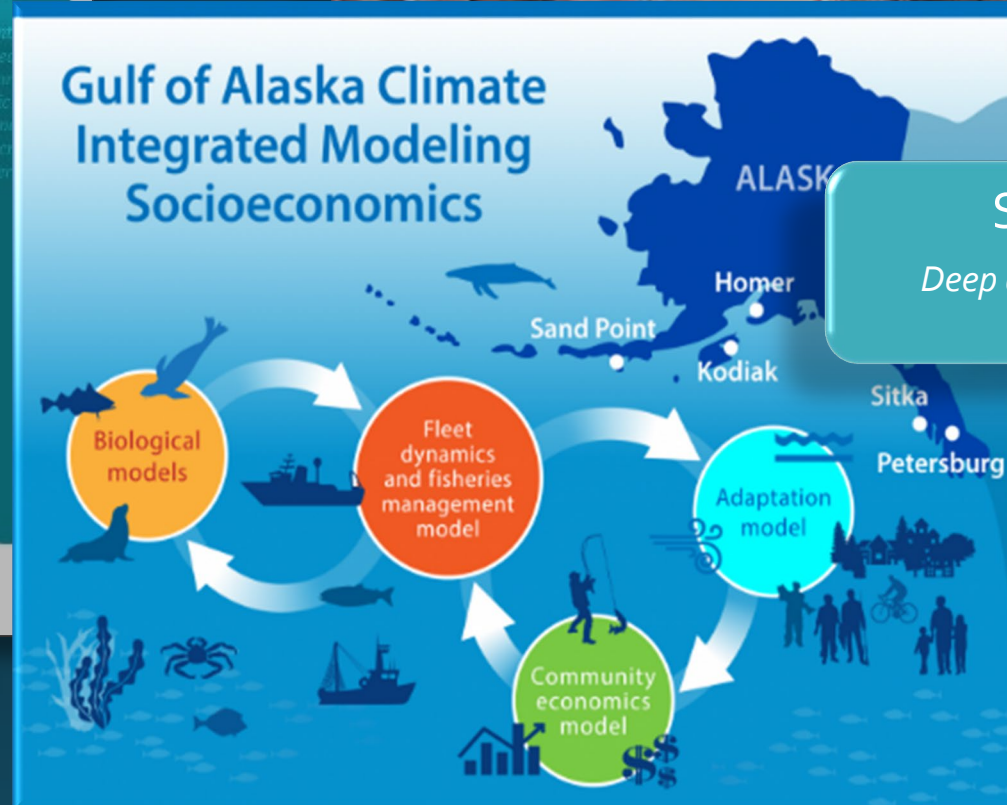
Annual Community Engagement and Participation Overview

An annual report focusing on sustained participation of those fishing communities substantially dependent on or substantially engaged in the North Pacific groundfish and ecosystem fisheries.



NOAA FISHERIES

Alaska Fisheries Science Center
Economic and Social Science Program



Social Vulnerability Indicators
Deep dive into Highly Engaged communities and their participation in FMP groundfish fisheries.

Integrated Ecosystem Assessments (IEAs)