## C3 Joint Groundfish September Plan Team Report

Steve Barbeaux, Sara Cleaver, Jim Ianelli, Chris Lunsford, Kalei Shotwell, Diana Stram, Cindy Tribuzio



October 2024, Presentation to the AP



## Groundfish Plan Team Meeting, Sept 17-19, 2024

### **BSAI Groundfish Plan Team Members:**

Steve Barbeaux	AFSC REFM (co-chair)
Kalei Shotwell	AFSC REFM (co-chair)
Cindy Tribuzio	AFSC ABL (vice chair)
Diana Stram	NPFMC (coordinator)
Lukas DeFilippo	AFSC

Allan Hicks IPHC
Lisa Hillier WDFW
Kirstin Holsman AFSC REFM

Andy Kingham AFSC FMA
Beth Matta AFSC REFM

Andrew Seitz UAF

Jane Sullivan AFSC ABL Steven Whitney NMFS AKRO

### **GOA Groundfish Plan Team Members:**

Jim Ianelli	AFSC REFM (co-chair)
Chris Lunsford	AFSC ABL (co-chair)
Sara Cleaver	NPFMC (coordinator)
Abby Jahn	NMFS AKRO

Craig Faunce AFSC FMA
Lisa Hillier WDFW
Pete Hulson AFSC ABL
Sandra Lowe AFSC REFM

Nat Nichols ADF&G Jan Rumble ADF&G

Paul Spencer AFSC REFM Ben Williams AFSC ABL



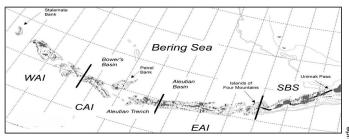
## Joint Teams Presentation Summary

- Met Tuesday, September 17, 2024 at 9:00 am AKDT
  - Virtual meeting only via Zoom, Team's <u>electronic agenda</u>
  - Presentations are linked in the header (in report)
- Future meetings:
  - November 12-15, 2024
  - Tentative 2025 dates:
    - Week of September 15-19 (4 days TBD)
    - November 2025 date is TBD.

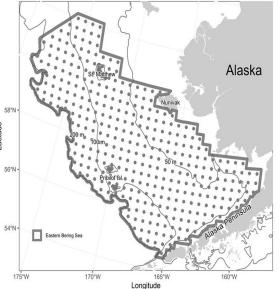


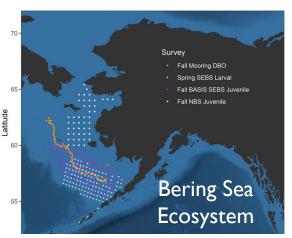
## 2024 survey previews

### Al Bottom Trawl



### **EBS Bottom Trawl**





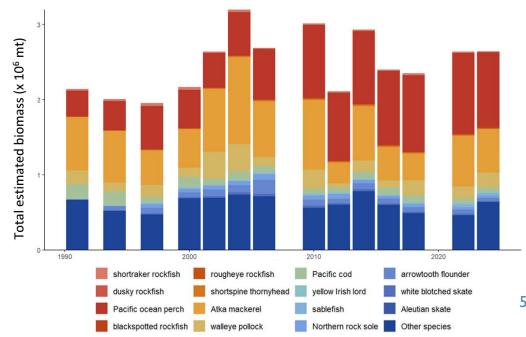


## Aleutian Islands Trawl Survey

- 20% reduction in stations, variance in deep strata might have increased
- >76,000 lengths, >6,500 otoliths
- Bottom temp average, surface below average
- Larger changes in biomass in deep water rockfish

Thanks to Susanne McDermott

### **Catch composition**



## Eastern Bering Sea Trawl Survey

- 26 corner stations omitted
- 125,265 lengths, 6,070 otoliths,
   4,917 stomachs collected
- Bottom temp average,
   surface temp below average,
   cold pool area near average
- Biomass increased for most species (pollock and flatfish)

Thanks to Duane Stevenson

		EBS				
Common name	Year	Biomass (mt)	Population (x1,000)			
walleye pollock	2023	3,154,668	5,685,500			
walleye pollock	2024	5,476,067 (74%)	10,307,932 (81%)			
Pacific cod	2023	663,075	555,739			
racine cou	2024	635,840 (-4%)	436,530 (-21%)			
llafin a ala	2023	1,393,379	5,567,596			
yellowfin sole	2024	1,503,618 (8%)	5,643,105 (1%)			
northern rock sole	2023	1,380,684	6,657,558			
northern rock sole	2024	1,439,739 (4%)	7,417,950 (11%)			
flathead sole	2023	594,851	2,039,623			
Tiathead sole	2024	723,996 (22%)	2,311,092 (13%)			
D	2023	6,813	33,736			
Bering flounder	2024	10,370 (52%)	48,918 (45%)			
Alaska alaka	2023	358,845	617,849			
Alaska plaice	2024	349,579 (-3%)	634,036 (3%)			
ddh-fld	2023	462,575	861,345			
arrowtooth flounder	2024	582,469 (26%)	926,415 (8%)			
1/ la -41 #1 d	2023	24,875	40,128			
Kamchatka flounder	2024	28,362 (14%)	69,129 (72%)			
Desifie helihut	2023	170,238	95,321			
Pacific halibut	2024	125,145 (-26%)	65,136 (-32%)			
Alaska skata	2023	418,483	98,290			
Alaska skate	2024	407,133 (-3%)	102,931 (5%)			
	2023	5,857	3,743			
Greenland turbot	2024	4,959 (-15%)	1,595 (-57%)			

## **Ecosystem Surveys**

- Bering Sea Summary (southeastern and northern, SEBS / NBS)
  - Cooler than heatwave years, lower large copepods and avg small copepods in SEBS but increase in NBS, large fall bloom phytoplankton, age-0 pollock high in spring, low in surface in fall, low body condition in SEBS
- Gulf of Alaska (GOA) Summary
  - Western GOA cooler, nearshore eastern GOA warmer, high lipid content in zooplankton, avg age-0 Pcod but above avg age-0 pollock in nearshore, age-0 sablefish avg growth rates
- Highlighted Projects
  - Larval size-at-date sensitivity, earlier spawning / faster growth in warm years

### Overviews

- ESR Climate Update (one for each region)
  - Overall cooler conditions in EBS and AI, moderate El Nino in GOA
- NMFS Inseason Management
  - First presentation of this kind to Plan Team, flags important fishery changes and Plan Team would like to see in future (\*note errata in JPT report)
- ESP and Socioeconomic Sablefish Indicators
  - Teams requested clarification from SSC on how socioeconomic information fits into risk tables, ABC/OFL, and TAC decisions and to standardize definitions on size grade and pricing

## Other Topics

- Data Limited Methods (DLM) Working Group
  - Requested another DLM progress report at Joint PT in 2025
- Age and Growth Update
  - Recommended that maturity analyses be a priority in near future
- Halibut Discard Mortality Rates (DMRs)
  - Recommended adopting 2025-2026 DMRs from Halibut DMR group
- REMA Diagnostics
  - Encouraged authors to explore new diagnostics at their discretion



## Halibut DMR Workgroup

**Marine Mammals Feeding on Halibut Discards** 









# Marine Mammals Feeding on Halibut Discards

- Informational report only
- Outlines 3 ways in which DMRs are calculated
  - Biennially specified DMR through DMR workgroup
  - Real-time haul based DMR for deck sorted halibut
  - Fixed rate (100% for pelagic trawl)
- MM feeding on discards is
  - not accounted for in any method
    - Deck sorted hauls with MM feeding on discards moved to U Unknown and the average deck sorted rate is used
    - Specified rate used in all cases including when MM feeding on discards
  - not a statistical sample with a defined sampling frame

## Marine Mammals Feeding on Halibut Discards

- Fixed DMRs could be established on all hauls with MM feeding on discards
  - Policy decision
  - Outboard cameras could support exploration of methods to incorporate MM feeding on discards into DMR calculations

Table 1 Hauls with Marine Mammals Feeding on Discards by Sector							
2018	2019	2020	2021	2022	2023		
95	181	295	204	66	33		
8	5	5	5	8	5		
24	0	1	0	2	3		
0	0	0	9	1	0		
5	1	2	2	2	8		
	2018 95 8 24 0	2018 2019 95 181 8 5 24 0 0 0	2018 2019 2020 95 181 295 8 5 5 24 0 1 0 0 0	2018         2019         2020         2021           95         181         295         204           8         5         5         5           24         0         1         0           0         0         0         9	2018         2019         2020         2021         2022           95         181         295         204         66           8         5         5         5         8           24         0         1         0         2           0         0         9         1		

Source: NMFS AFSC Observer Program, data compiled by AKFIN in Comprehensive\_NORPAC

Table 1 Kilograms of Halibut on Hauls with Marine Mammals Feeding on Discards by Sector, inclusive of halibut sorted from the deck and factory on non-pelagic trawl CPs

Sector	2018	2019	2020	2021	2022	2023
BSAI Nonpelagic Trawl CPs	14,163	49,592	98,280	66,758	21,054	8,926
BSAI Hook and Line CPs	3,376	660	285	480	2,395	2,361
Other	2,463	128	250	3,700	724	1,275

Source: NMFS AFSC Observer Program, data compiled by AKFIN in Comprehensive\_NORPAC



# Groundfish Plan Team Contacts:

Steve.Barbeaux@noaa.gov
Sara.Cleaver@noaa.gov
Jim.lanelli@noaa.gov
Chris.Lunsford@noaa.gov
Kalei.Shotwell@noaa.gov
Diana.Stram@noaa.gov
Cindy.Tribuzio@noaa.gov

C3 Bering Sea Aleutian Islands Groundfish September Plan Team Report

Steve Barbeaux, Kalei Shotwell, Diana Stram, Cindy Tribuzio





October 2024, Presentation to the AP

## BSAI Presentation Summary

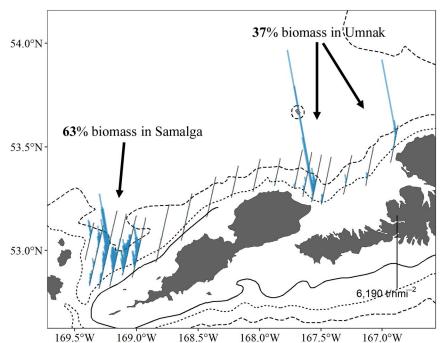
Topic	Presenter	Туре	Recommendations	
Bogoslof Winter Acoustic Survey	Nathan Lauffenburger	Survey Update	No	
EBS Acoustic Survey & AVO Index	Abigail McCarthy, Nathan Lauffenburger	Survey Update	No	
EBS Pollock	Jim lanelli	Full Model	Yes, tier change	
EBS Pacific Cod	Steve Barbeaux	Full Model	Yes, 2 models	
Al Pacific Cod	Ingrid Spies	Full Model	Yes, 5 models	
Alaska Plaice	Lee Cronin-Fine	Full Model	Yes, 2 models	
Northern Rock Sole	Carey McGilliard	Full Model	Yes, 2 models	
Greenland Turbot	Meaghan Bryan	Full Model	Yes, 3 models	
Pacific Ocean Perch	Paul Spencer	Full Model	Yes, 2 models	
Rougheye/Blackspotted Rockfish	Paul Spencer	Update Model	Yes, 1 model	
Harvest Projections	Melissa Haltuch	Final Models	Yes, biomass trends	
Proposed Specifications	Steve Whitney			

## Bogoslof Winter Acoustic Survey

### Preliminary results:

- Weather reduced survey from 4 to 2 days, 19 transects combo spacing
- Most female were pre-spawning so survey timing was good, surface temp average
- 2024 pollock estimate is 31% decrease from 2020, next survey 2026

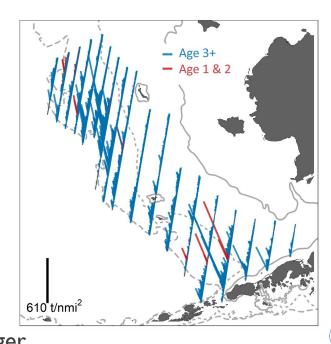
Thanks to Nathan Lauffenburger



## Summer Acoustic Survey & AVO Index

### Preliminary results:

- Wider transect spacing and reduced trawling effort likely increased uncertainty
- Total biomass pollock decreased 25% from 2022 survey
- More age I-2 in EBS than in recent years, age 4+ fish still dominate
- Acoustic vessel of opportunity (AVO) index is on the way





## BSAI models reviewed for November assessments

Stock	Type	Recommendations
EBS Pollock	Full Model	Yes, tier change
EBS Pacific Cod	Full Model	Yes, 2 models
Al Pacific Cod	Full Model	Yes, 5 models
Alaska Plaice	Full Model	Yes, 2 models
Northern Rock Sole	Full Model	Yes, 2 models
Greenland Turbot	Full Model	Yes, 3 models
Pacific Ocean Perch	Full Model	Yes, 2 models
Rougheye/Blackspotted Rockfish	Update Model	Yes, 1 model
*Harvest Projections	Final Models	Yes, biomass trends

<sup>\*</sup>harvest projections are finalized at this meeting and not reviewed in November

## Harvest Projections



- New! Reviewed in September instead of November
- Stocks Evaluated (lead author):
  - Northern Rockfish (Paul Spencer), high catch in 2023, expected to be smaller in 2024, next full assessment 2025
  - Alaska Skate (Cindy Tribuzio), catch decreased in 2024 for both Alaska skate and other skates, next full assessment 2025
  - Arrowtooth Flounder (Kalei Shotwell), BS catch lowest in time series,
     Al low but increased from 2023, next full assessment 2026



## Harvest Projections



### Discussion & Recommendations:

- Discussed lack of current survey information due to change in schedule and recommended coordination with survey presentations to include HP stocks
- Team supported potential AFSC evaluation of sensitivity to earlier catch dates and subsequent catch advice
- Discussed red-flag potential, although unlikely for these stocks, no formal process to revisit in November, adjustment could be made
- Team agreed with the authors' OFL and ABC recommendations



TAC

.300.000

19,000

127,409

8.425

7.996

8,440

3,960

3,338

15.000

7,579

66,000

35,500

17,500

4.500

622

230,000

n/a

300

OFL

3.381.000

52,383

115,146

172,495

18,416

47.390

404.882

4.645

n/a

n/a

98.787

166.034

79.256

40.823

22.919

through December 31, and 2023 catches through September 16, 2024 from AKR Catch Accounting

8.946

n/a

n/a

Area

**EBS** 

Al Bogoslof

BS

AI

BS

Al

**BSAI** 

**BSAI** 

BS

Al

**BSAI** 

**BSAI** 

**BSAL** 

**BSAI** 

**BSAI** 

**BSAI** 

BSAI/GOA

Species

Pollock

Pacific cod

Sablefish

Yellowfin sole

Greenland turbot

Arrowtooth flounder

Kamchatka flounder

Northern rock sole

Flathead sole

Alaska plaice

Other flatfish

ABC

,910,000

43,413

86,360

144,834

13.812

40.502

8,417

8.884

3,960

3,338

83.852

7,579

121,719

65,344

33,946

17,189

622

378,499

	op com cacio			V MA	J)	19 1
able 1. Plan Team Proposed reco	ommended OFL, ABC for G	Groundfish in the Bering	Sea and Aleutian Is	slands (metric tons)	for 2024-2025	9/16/20
	2023	Catch as of	2024	Catch as of	Plan Team Propose	ed 2025/2026

12/31/2023

1,310,591

3,744

126,458

3.398

5,418

2.463

.276

795

481

7.276

6.949

27,212

8.991

15,252

3.020

Sources: 2023 OFLs, ABCs, and TACs and 2024 OFLs and ABCs are from harvest specifications adopted by the Council in December 2022 and December 2023 respectively; 2023 catches

112,889

125

OFL

3.162.000

51,516

115,146

200.995

18,416

55.084

305,298

103,280

197.828

81,605

42,695

22.919

8.850

3.705

n/a

n/a

n/a

n/a

ABC

2,313,000

42,654

86.360

167.952

12,431

47,146

11,450

13,100

3,188

2,687

87,690

7.498

122.091

67,289

35,494

17,189

501

265.913

TAC

.300.000

19,000

147.753

8.080

7.996

8.440

3,188

2,687

14.000

7.498

66,000

35,500

21,752

4.500

501

195,000

n/a

250

9/16/2024

1,229,404

4,431

104,170

3.570

3,579

1.262

56,775

736

436

300

8.030

4,748

25,411

10.764

8,293

2.855

OFL

3.449.000

53,030

115,146

180.798

18,416

55.317

317.932

3.185

n/a

n/a

104.270

264,789

82.699

45,182

22.919

8,687

n/a

n/a

ABC

2,401,000

43.863

86,360

150.876

12.431

47.350

11,499

13,156

2.740

2.310

88.548

7.360

122,535

68,203

37,560

17,189

430

276,917

9/16/2024

1,325,000

19,000

131,262

8,080

9,500

8,440

2.740

2,310

14,000

7.360

66,000

35.500

20,000

4.500

430

195.000

n/a

250

TAC

Proposed Specifications Team recommended (1 of 2)

Proposed	ı speci	IICau	IONS	ream	rec	Omn	nend	eu (2	. 01 Z	
Table 1. Plan Team Proposed r	ecommended C	OFL, ABC fo	or Groundfis	sh in the Be	ering Sea a	and Aleutia	n Islands (m	netric tons)	for 2024-202	5
BSAI	50,133	42,038	37,703	35,951	49,010	41,096	37,626	23,647	48,139	40,3

11.903

8,152

5.648

12,000

11,000

525

359

166

530

1.260

880

380

69,282

27.260

17,351

24,671

27,441

2.000,000

250

400

11.903

8,152

5.648

16,335

18,687

525

359

166

530

1,260

880

380

98,588

43,281

17,351

37.956

38,605

450

3.576

3.132.067

n/a

n/a

n/a

n/a

703

n/a

n/a

706

1,680

n/a

n/a

n/a

n/a

n/a

689

4.769

through December 31, and 2023 catches through September 16, 2024 from AKR Catch Accounting.

4.859.585

46,220

118,787

22,776

BS

EAI

CAI

WAI

**BSAI** 

**BSAI** 

**BSAI** 

**BSAI** 

**BSAI** 

CAI

WAI

**BSAI** 

**BSAI** 

**BSAI** 

**BSAI** 

EAI/BS

BS

FBS/FAI

CAI/WAI

Pacific Ocean perch

Northern rockfish

Shortraker rockfish

Other rockfish

Atka mackerel

Skates

Sharks

Total

Octopuses

Rockfish

Blackspotted/Rougheye

10.892

7,791

5,461

11.807

10,433

607

291

316

243

.220

652

568

66,613

24,862

17.210

24,541

25,866

1.776,469

325

148

Sources: 2023 OFLs, ABCs, and TACs and 2024 OFLs and ABCs are from harvest specifications adopted by the Council in December 2022 and December 2023 respectively; 2023 catches

n/a

n/a

n/a

n/a

761

n/a

n/a

706

1,680

n/a

n/a

n/a

n/a

n/a

689

6,080

4.609.077

45.574

111.684

23,556

11.636

7,969

5.521

15,970

19.274

569

388

181

530

1,260

880

380

95,358

41,723

16,754

36,882

37,808

450

4,560

3,476,801

11.636

7,969

5.521

12,500

16,752

569

388

181

530

1,260

880

380

72,987

32,260

16,754

23,973

30,519

400

400

2.000,000

6.678

6,723

3,497

6,749

7.647

414

167

248

102

693

408

59,475

27,247

13.901

18,326

21,451

1.578.210

159

163

1.101

n/a

n/a

n/a

n/a

813

n/a

n/a

706

1,680

n/a

n/a

n/a

n/a

n/a

689

6.080

4.946.241

44,203

99,723

22.838

9/16/2024

366

11,430

7,828

5.423

15,685

18.685

607

412

195

530

1,260

880

380

84,676

37,049

14,877

32,750

36,625

450

4,560

3.550.691

37,181

11,430

7,828

5.423

12,500

15,000

607

412

195

530

1.260

880

380

66.165

30,000

14,877

21,288

30,361

1.998,536

400

400

Proposed Specifications Team recommended (2 of 2)

## BSAI Halibut Discard Mortality Rates (DMRs)

Table 12-Proposed 2024 and 2025 Pacific Halibut Discard Mortality Rates (DMR) for the BSAI

Gear	Sector	Halibut discard mortality rate (percent)
Pelagic trawl	A11	100
Non-pelagic trawl	Mothership and catcher/processor	86
Non-pelagic trawl	Catcher vessel	67
Hook-and-line	Catcher vessel	9
Hook-and-line	Catcher/processor	9
Pot	A 11	21

Thanks to Michael Fey (AKFIN) and other Halibut DMR Working Group members: Jen Cahalan (PSMFC), Jennifer Ferdinand (NMFS AFSC), Krista Melani (NMFS AKRO), Jason Gasper (NMFS AKRO), Ian Stewart (IPHC)



Assessment Type	BSAI Stocks for 2024					
Operational Full	EBS pollock EBS Pacific cod Al Pacific cod Alaska plaice	Northern rock sole Greenland turbot Pacific ocean perch				
Operational <b>Update</b>	Aleutian Islands pollock Bogoslof pollock Kamchatka flounder Yellowfin sole Blackspotted rougheye rockfish	Flathead sole Other flatfish Sablefish (AK-wide) Atka mackerel Other rockfish Shortraker rockfish				
Harvest Projections (review in Sept (PT)/Oct (SSC)	Northern rockfish Arrowtooth flounder	Skates (Alaska skates)				
Catch Reports	Octopus	Sharks				
Other-Ecosystem Reports	BSAI and GOA Forage fish (including squid)	BSAI and GOA Grenadiers				



## BSAI Plan Team Contacts:

Steve.Barbeaux@noaa.gov Kalei.Shotwell@noaa.gov Diana.Stram@noaa.gov Cindy.Tribuzio@noaa.gov