

# C-4 Documents

## C4 [GF 17-054](#) Groundfish Harvest Specifications - Proposed Specs

### **Attachments:**

[C4-1 Groundfish Plan Team minutes Sept 2017](#)

[C4-2 BSAI Gfish specs table.pdf](#)

[C4-3 BSAI Flatfish Flexibility](#)

[C4-4 BSAI PSC Limits](#)

[C4-5 GOA Gfish specs table](#)

[C4-6 GOA Pcod adjustments 2017](#)

[C4-7 GOA Halibut PSC limits-seasonal apportionments](#)

[C4-8 Halibut DMR Working Group recommendations](#)

[PRESENTATION: GOA PCOD 2017](#)

[PRESENTATION: Joint Plan Team report to AP](#)

[PRESENTATION: revised GOA PT report to AP](#)



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Alaska Fisheries  
Science Center

# Report of the September 2017 Joint Groundfish Plan Team meeting

BSAI Team		GOA Team	
Dana Hanselman	AFSC ABL (co-chair)	Jim Ianelli	AFSC REFM (co-chair)
Grant Thompson	AFSC REFM (co-chair)	Jon Heifetz	AFSC ABL (co-chair)
Diana Stram	NPFMC (coordinator)	Jim Armstrong	NPFMC (coordinator)

October 2, 2017

# Meeting overview

- **Dates:** September 12-13
  
- **Participation:**
  - 21 Team members present
  - 1 individual nominated for Team membership
  - numerous AFSC and AKRO staff
  - Several members of the public

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- **Administrative**
- Bering Sea Fishery Ecosystem Plan update
- Climate/oceanography update (SSC to consider in December)
- Species-specific ecosystem and socioeconomic considerations
- Recruitment Processes Alliance surveys
- EBS/GOA 2017 longline survey
- **GOA 2017 bottom trawl survey**
- GOA 2017 acoustic survey
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- Observer program (has its own agenda item)

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- VAST model of survey biomass
- New assessment frequency
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- 536 stations      target = 550      3-vessel target = 825
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  - particularly for POP and pollock
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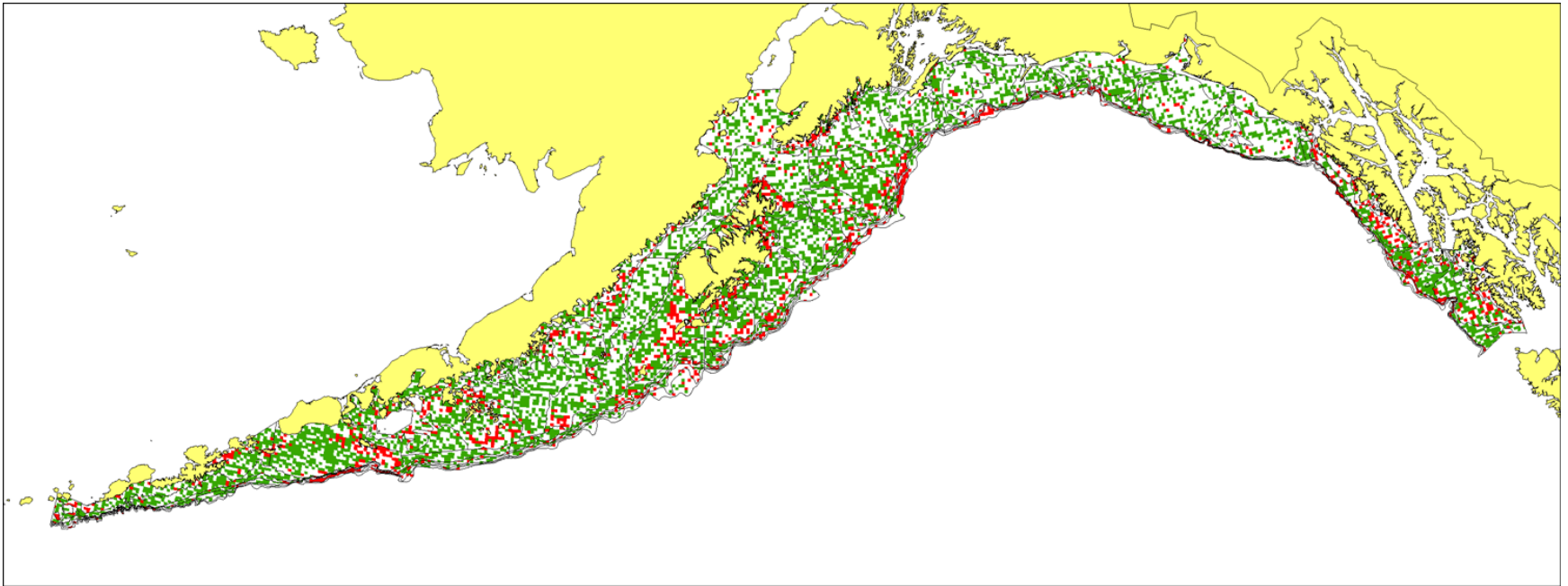
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- Known area = 188,361 km<sup>2</sup> (44% of total area)
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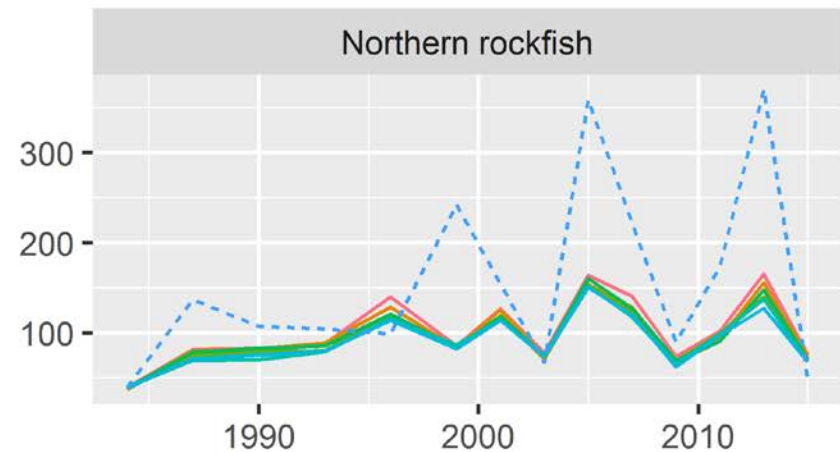
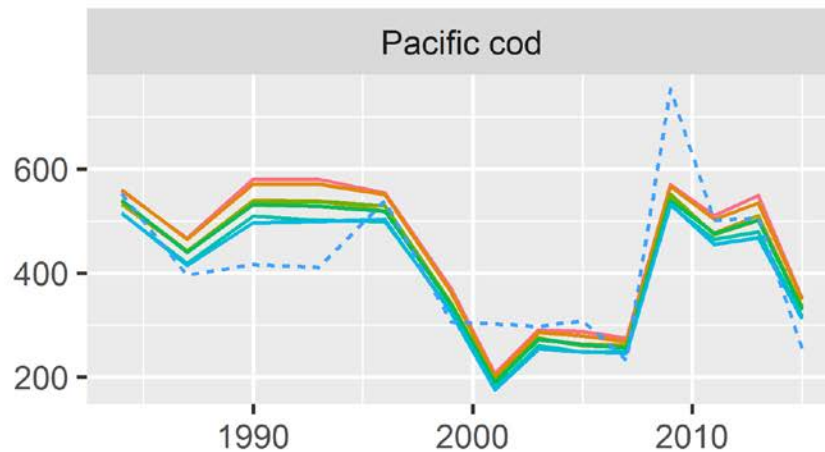
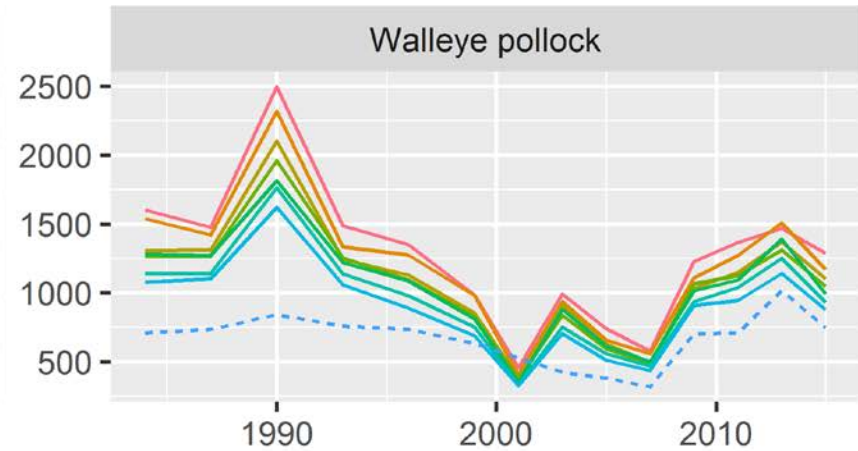
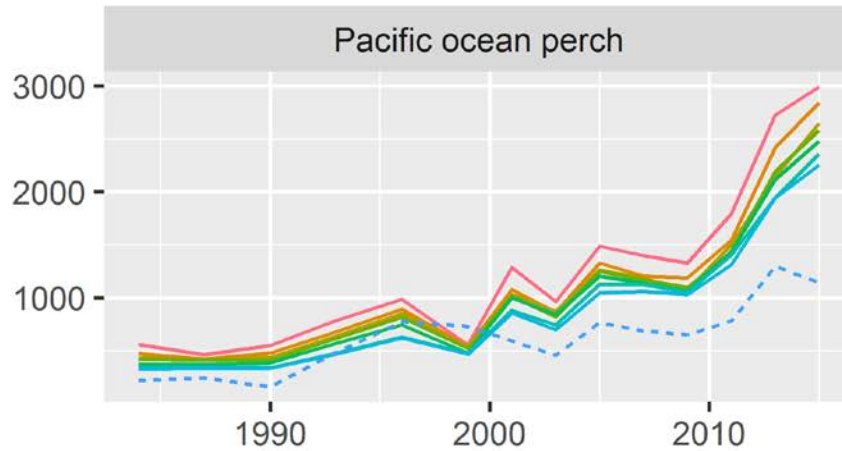
- Design-based survey biomass estimates were compared to those from Thorson's "VAST" geostatistical model
  - VAST already used for west coast groundfish, GOA dusky
- Questions for this analysis of GOA and AI trawl survey data:
  - How do the two methods compare?
  - Does VAST produce estimates with greater precision?
  - How does the number of knots influence trend and scale?
  - How does the specification of intercept and autocorrelation influence the estimates?
  - How does VAST compare to apportionment estimates produced from the Tier 5 random effects model?

# VAST model of survey biomass

- Results for the GOA survey: point estimates of biomass
  - Much less annual variation was observed in the VAST model for northern and harlequin rockfish, spiny dogfish
  - Pacific cod and big skate showed little difference
  - For Dover sole, POP, pollock, and ATF, the estimates for the VAST model were larger, but decreased with an increase in the number of knots
    - However, trend was independent of number of knots
- Are larger estimates from VAST due to extrapolation over the entire grid, while the design-based estimates are computed over the surveyed area only?

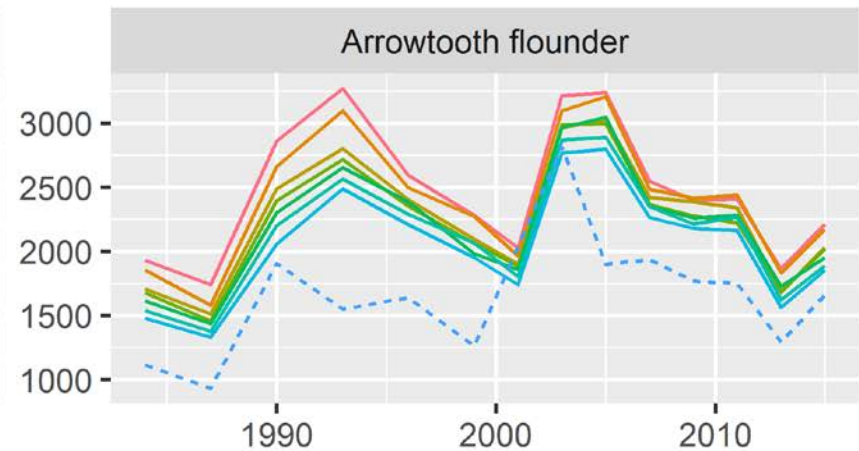
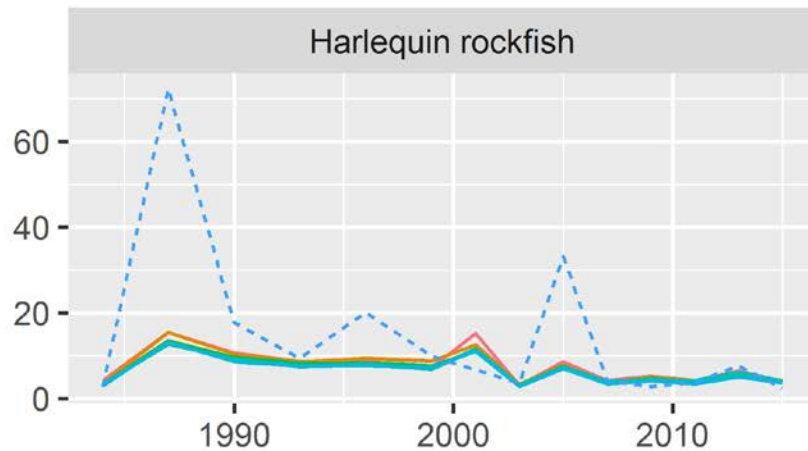
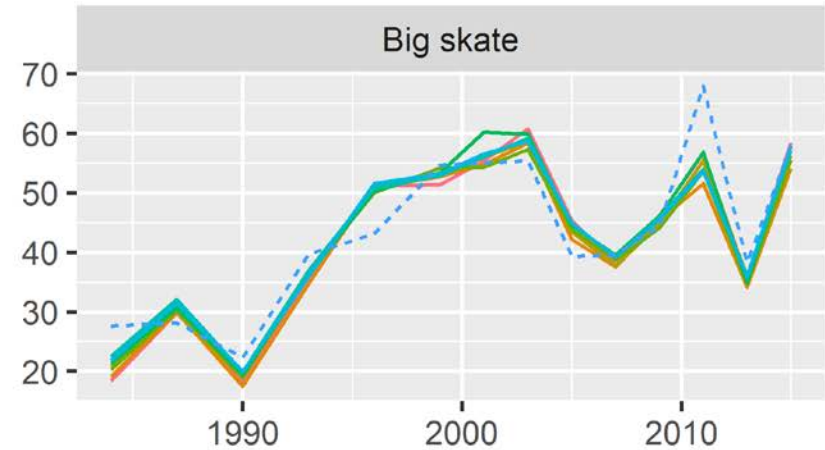
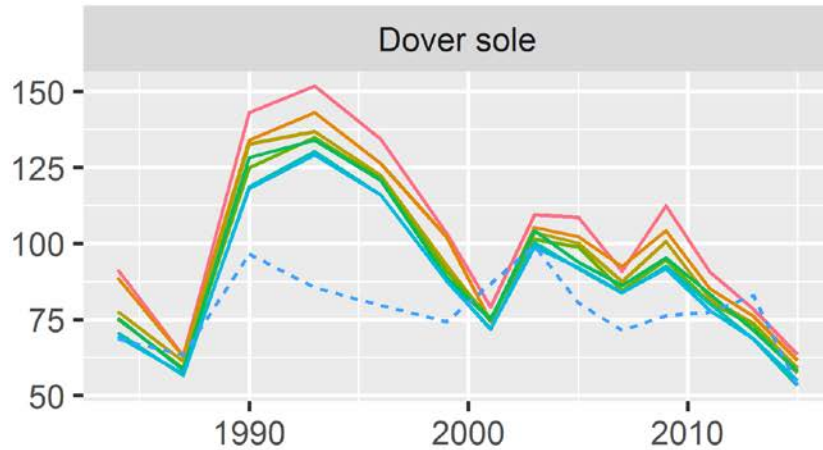
# VAST model of survey biomass

- Example GOA results (dash = design-based)



# VAST model of survey biomass

- Example GOA results, continued



# VAST model of survey biomass

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BSAI other flatfish	Wilderbuer	no	2	4
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GOA N/S rock sole	Bryan	yes	2	4
GOA other shallow-water flatfish	Turnock	no	2	4
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# New assessment frequency

SSC requested (2/17) that the following analyses *prior to the new assessment schedule*:

1. An evaluation of how projected OFL-to-ABC buffers should increase in the intervening years between full assessments
2. Development of a framework for evaluating the costs and benefits of changing the target frequency for the affected stocks and complexes
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# New assessment frequency

- Team discussion:
  - None of the requested analyses have been undertaken
  - AFSC has already proceeded with the new schedule
  - Therefore, it is impossible to fulfill the SSC's request to have the three analyses completed prior to implementation of the new assessment schedule

# New assessment frequency

It may be possible to fulfill the Council's request to have analyses #2 and #3 completed prior to proceeding with the *second* year of the new assessment schedule, but:

- The time needed to complete these two analyses may very well exceed the small amount of time freed by switching to the new schedule
- Qualitatively, the risks associated with switching to the new schedule would appear to be low

# New assessment frequency

The minutes of the Joint Teams' January meeting show that stocks or complexes were not recommended for moving to a lower assessment frequency unless the following three criteria were met:

- The average annual change in biomass was low
- The average ratio of catch to ABC was low
- The importance to the fishery was low

# New assessment frequency

- With all due respect, the Teams recommend that the Council reconsider the need for the two analyses that were requested to be completed prior to proceeding with the second year of the new assessment schedule
- The SSC also developed a list of research areas which it said could be addressed as a result of decreasing the assessment workload of the affected authors
- The Council then asked that the Teams refine that list during their 2017 meetings
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- Specific Team suggestions:
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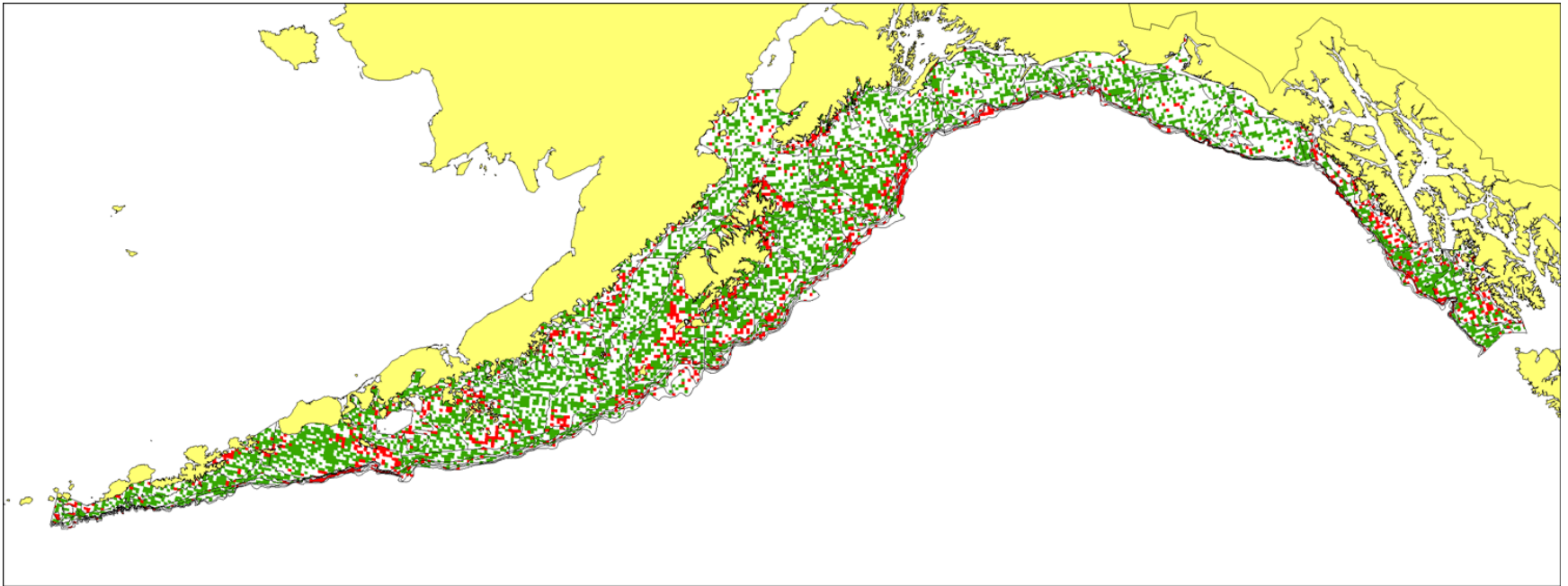
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# Halibut DMRs

## Notable changes:

- BSAI NPT CVs increase 52% to 60%
- GOA HAL CVs increase 12% to 17%
- GOA Rockfish Program (RPP) CVs decrease 67% to 62%

## Combined groupings due to low sample size:

- BSAI HAL CVs - 2 vessels observed in 2014-2016. *Combined with GOA*
- GOA NPT CPs - 10 vessels observed in 2014-2016. *Combined with BSAI*



2017						
Operational Group				Sample Size (Mean Annual N <sub>Viabilities</sub> )	Estimate DMR?	DMR
Sector	Region	Gear	Target			
CP	BSAI	PTR	all	4,151	N	100%
		NPT	all	1,753	Y	85%
		HAL	all	11,676	Y	8%
		POT	all	571	Y	6%
	GOA	PTR	all	0	N	100%
		NPT	all	196	N	85%
		HAL	all	1,247	Y	11%
		POT	all	479	Y	10%
CV	BSAI	PTR	all	224	N	100%
		NPT	all	2,282	Y	52%
		HAL	all	44	Y	14%
		POT	all	571	Y	6%
	GOA	PTR	all	1	N	100%
		NPT	RPP <sup>e</sup>	547	Y	67%
			non-RPP		Y	65%
		HAL	all	729	Y	12%
POT	all	479	Y	10%		

2018						
Operational Group				Sample Size (Mean Annual N <sub>Viabilities</sub> )	Estimate DMR?	DMR
Sector	Region	Gear	Target			
CP	BSAI	PTR	all	3,097	N	100%
		NPT	all	2,025	Y	84%
		HAL	all	8,838	Y	8%
		POT	all	548	Y	9%
	GOA	PTR	all	0	N	100%
		NPT	all	132	N	84%
		HAL	all	1,493	Y	10%
		POT	all	602	Y	7%
CV	BSAI	PTR	all	151	N	100%
		NPT	all	2,456	Y	60%
		HAL	all	36	Y	17%
		POT	all	548	Y	9%
	GOA	PTR	all	0	N	100%
		NPT	RPP	937	Y	62%
			non-RPP		Y	67%
		HAL	all	1	Y	17%
POT	all	602	Y	7%		

# Gulf of Alaska SAFE report

Report of the  
Gulf of Alaska Groundfish  
Plan Team meeting  
Sept 12<sup>th</sup>-15<sup>th</sup>, 2017

## GOA Plan Team Members

James Ianelli (chair)	AFSC/REFM
Jon Heifetz (co-chair)	AFSC/ABL
James Armstrong	NPFMC
Ben Williams	ADFG
<b>Nat Nichols</b>	<b>ADFG</b>
Jan Rumble	ADFG
<b>Dan Lew</b>	<b>AFSC/REFM</b>
Chris Lunsford	AFSC/ABL
Sandra Lowe	AFSC/REFM
Paul Spencer	AFSC/REFM
Craig Faunce	AFSC/FMA
Obren Davis	AKRO

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# Stock Structure Template

- **The Team recommended:**
  - ◆ 2018 - Octopus and flathead sole
  - ◆ 2019 - N. rockfish and Pacific cod
  - ◆ 2020 - Sculpins and thornyhead rockfish

# Other rockfish

- Multi-year examination of the potential to split DSR complex out of ORX complex GOA-wide
  - ♦ Issues
    - Differences in life history
    - Availability or lack thereof to the trawl survey
- The Team Recommended
  - ♦ Author-preferred Alternative 3a to split DSR species out of the ORX complex.
  - ♦ Need clear justification for how the Tier 6 method was selected before the November meeting.
  - ♦ Red-banded rockfish remain in the ORX complex
  - ♦ Clarification on whether the Council Stock Structure and Spatial Management Policy applies to the proposed changes to the ORX complex

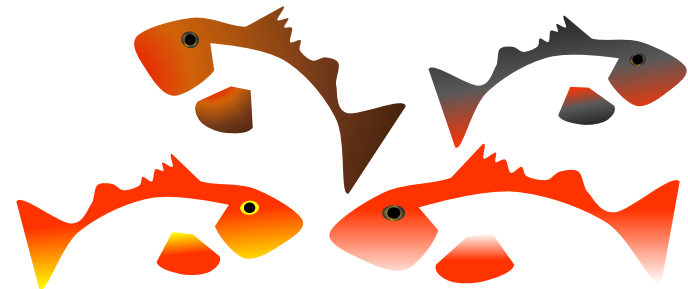
# Skates

- Thomas Farrugia (PhD student) presented age-structured assessments longnose and big skates
- Tier 5 will continue for 2018 fishing year
- Possible use for 2019 specifications

# Pacific ocean perch

## Four areas of research presented:

1. Length composition data
2. Input sample sizes used for age and length composition data
3. Fishery selectivity
4. GLMM alternative to the design based estimates currently used for the bottom trawl survey index



# DSR/yelloweye rockfish

- Density estimates for yelloweye rockfish increased in 2016 and 2017 so biomass has increased by ~50 t.
- Age-structured assessment has been delayed due to staffing changes and will be presented in 2018.

# Pacific cod

## Topics covered:

1. How to deal with length composition proportioning
2. Exploration of the VAST model for survey indices
3. Examination of temperature based catchability.

# Pcod recommendations

- Pot fishery monitoring low
  - ◆ Work with State on linking state port sampling data with fish tickets for length compositions
- Continue with the design-based estimates
  - ◆ More work needed for VAST model
  - ◆ Incorporating temperature-based catchability seems interesting and “experimental”
  - ◆ More examination during a pending CIE review.

# GOA flatfish

- Rex sole
  - ◆ Evaluated splitting and combine length data
    - New data dramatically reduced F40% values from previous assessments
- Rock soles
  - ◆ Alternative data weighting methods
- Arrowtooth flounder
  - ◆ The Team agrees with the planned proposed work on data weighting, estimating the conversion matrix, and modeling natural mortality as a function of weight.



# Walleye pollock

Summary of the CIE review that was conducted in May 2017

- ◆ An appendix expected in Nov describing responses
- ◆ Conflicting survey data
  - Acoustic trawl surveys are up
  - Bottom trawl surveys down

# GOA climate science regional action plan

For GOA

- ◆ Based on EBFM roadmap (HQ).
- ◆ Led by Martin Dorn

Climate Science Strategy has 4 areas of activity:

- ◆ Long-term monitoring
- ◆ Process studies
- ◆ Risk assessment
- ◆ Modeling climate impacts and management scenarios

AFSC research contributes to these 4 areas.

- ◆ OY range for GOA
- ◆ Biological reference points for status determination
- ◆ Community level social and economic impacts of climate change.

# GOA Harvest specifications for 2018/2019

- The Team recommended rolling over the 2018 GOA final harvest specifications for OFLs and ABCs (as published in the Federal Register in February 2017) for the proposed 2018 and 2019 OFLs and ABCs.

# Other issues

- General concern about drop in survey coverage (530 stations instead of 850)

# Team vacancies

- **WDFW**
- **Marine Mammal expert**
- **USFW (Seabird expert)**
- **IPHC and**
- **NMFS Headquarters**



**NOAA  
FISHERIES**

Alaska Fisheries  
Science Center

# Report of the September 2017 BSAI Groundfish Plan Team meeting

Dana Hanselman	<i>AFSC ABL (co-chair)</i>
Grant Thompson	<i>AFSC REFM (co-chair)</i>
Diana Stram	<i>NPFMC (coordinator)</i>
Kirstin Holsman	<i>AFSC REFM</i>
Cindy Tribuzio	<i>AFSC ABL</i>
Chris Siddon	<i>ADF&amp;G</i>
Alan Haynie	<i>AFSC REFM</i>
Allan Hicks	<i>IPHC</i>
Brenda Norcross	<i>UAF</i>
Mary Furuness	<i>NMFS AKRO</i>
vacant	<i>ADF&amp;G</i>
vacant	<i>AFSC</i>
vacant	<i>AFSC NMML</i>
vacant	<i>USFWS</i>

# Meeting overview

- Date: September 14
- Place: AFSC Seattle
- Leaders: Dana Hanselman (BSAI co-chair), Grant Thompson (BSAI co-chair), Diana Stram (BSAI coordinator)
- Participation: 10 Team members present, plus numerous AFSC staff and members of the public
- File containing minutes includes Joint, BSAI, GOA

# Agenda (action items in red)

- Administrative
- EBS pollock update
- Bering Sea Pacific cod preliminary assessment
- BS/RE rockfish stock structure/spatial management
- BSAI sculpin stock structure
- Stock structure template
- Harvest specifications for 2018/2019

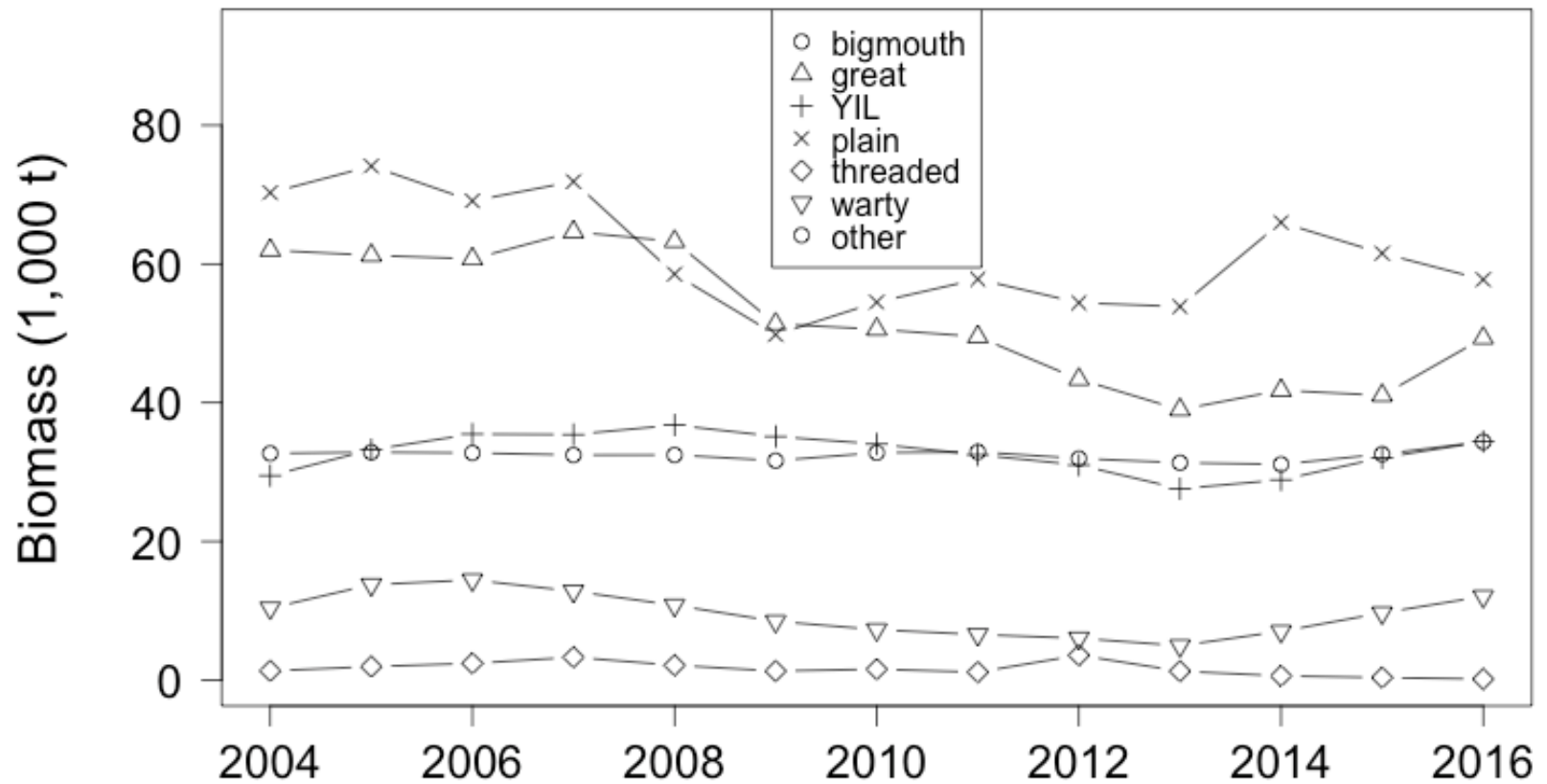


# BS Pacific cod preliminary assessment

- 2018 meeting of the Pcod Models Subcommittee TBD  
November
- Recommend models 16.6 and 17.6 for the final Pacific cod assessment
  - Note SSC added 17.1, 17.2 and 17.3 as well

# BSAI sculpin stock structure

Biomass trends of the six most abundant sculpins have been mostly stable, although some decline is apparent in great, plain, and butterfly sculpin



# BSAI sculpin stock structure

- Aggregated catch of sculpin species in the EBS and the AI has also been stable since 2004
- Differences in growth were observed among yellow Irish lord between the EBS and the AI
- Growth and length differences have not been examined for other sculpin species in the BSAI, but differences have been observed for great sculpin in Kamchatka

# BSAI sculpin stock structure: conclusions

- Recommend that a rating of “little or no concern” be conferred upon the BSAI sculpin complex
- The Team recommends that future assessments consider the following two requests:
  1. Determine if there was a change in the quality of species identification around 1998
    - large change in biomass for a number of the species
  2. Aleutian Islands survey data prior to 1991 may not be comparable to survey data after 1986, and should be noted as separate time series or omitted entirely

# Stock structure template

- For September 2018:
  - Bogoslof pollock
  - Greenland turbot
  - Northern rock sole

# Harvest specifications for 2018/2019

- Recommends adoption of the proposed 2018/2019 BSAI OFLs and ABCs for the purpose of notifying the public of potential final harvest specifications

# Harvest specifications for EBS Pacific cod

- Post-meeting analysis—preliminary 2018/2019 OFL and ABC for EBS Pacific cod based on a Tier 5 approach using the 2017 EBS shelf bottom trawl survey point estimate:
  - Biomass=598,260 t (down 37% from 2016)
  - OFL=215,374 t, ABC=161,530 t