

Summary of the 2016 IPHC Annual Meeting

PFMC Meeting
13 March, 2016



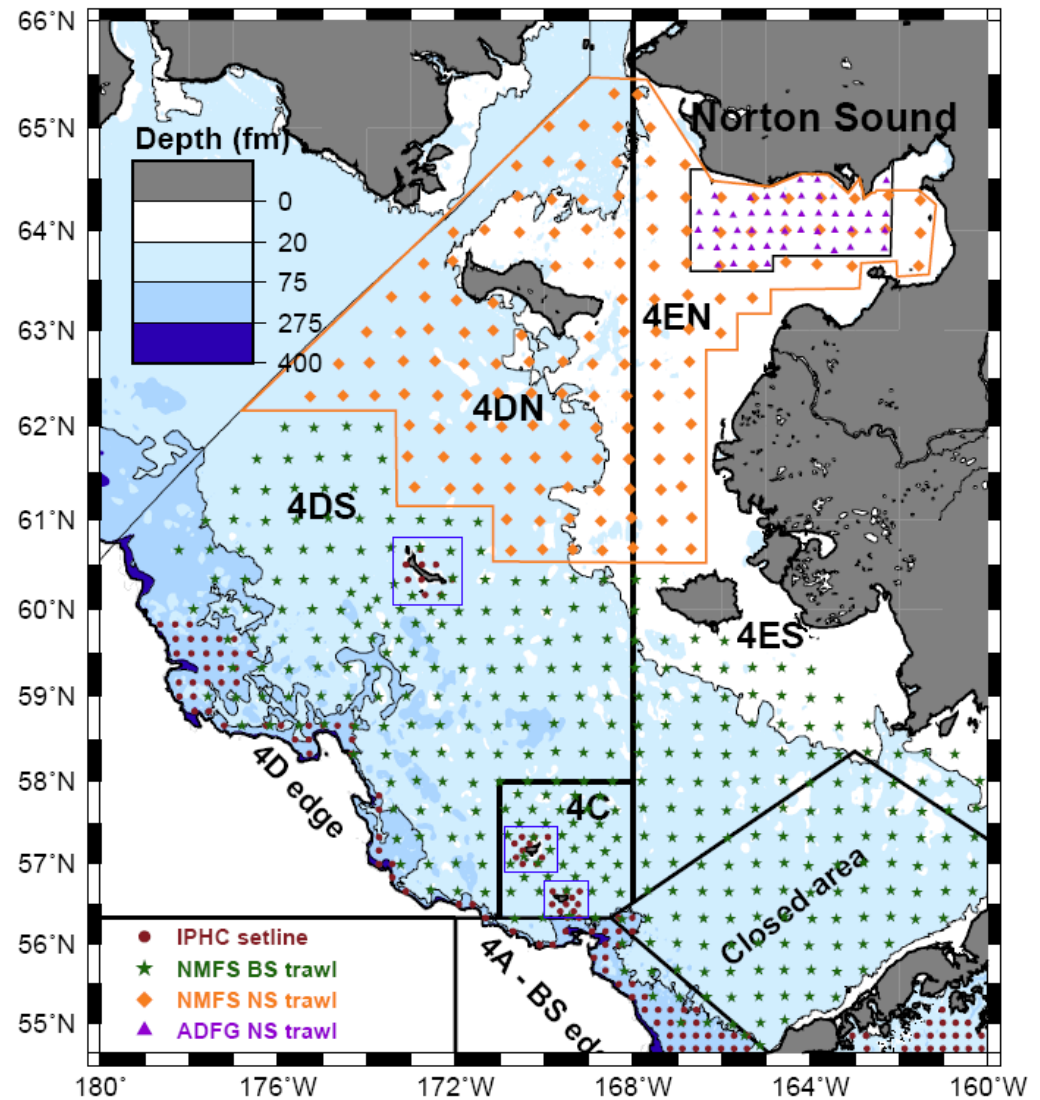
Outline

- Scientific results
 - Survey expansion
 - Stock assessment
- 2016 Catch limits
- Regulatory actions
- Other activity
 - MSAB
 - Staff directives

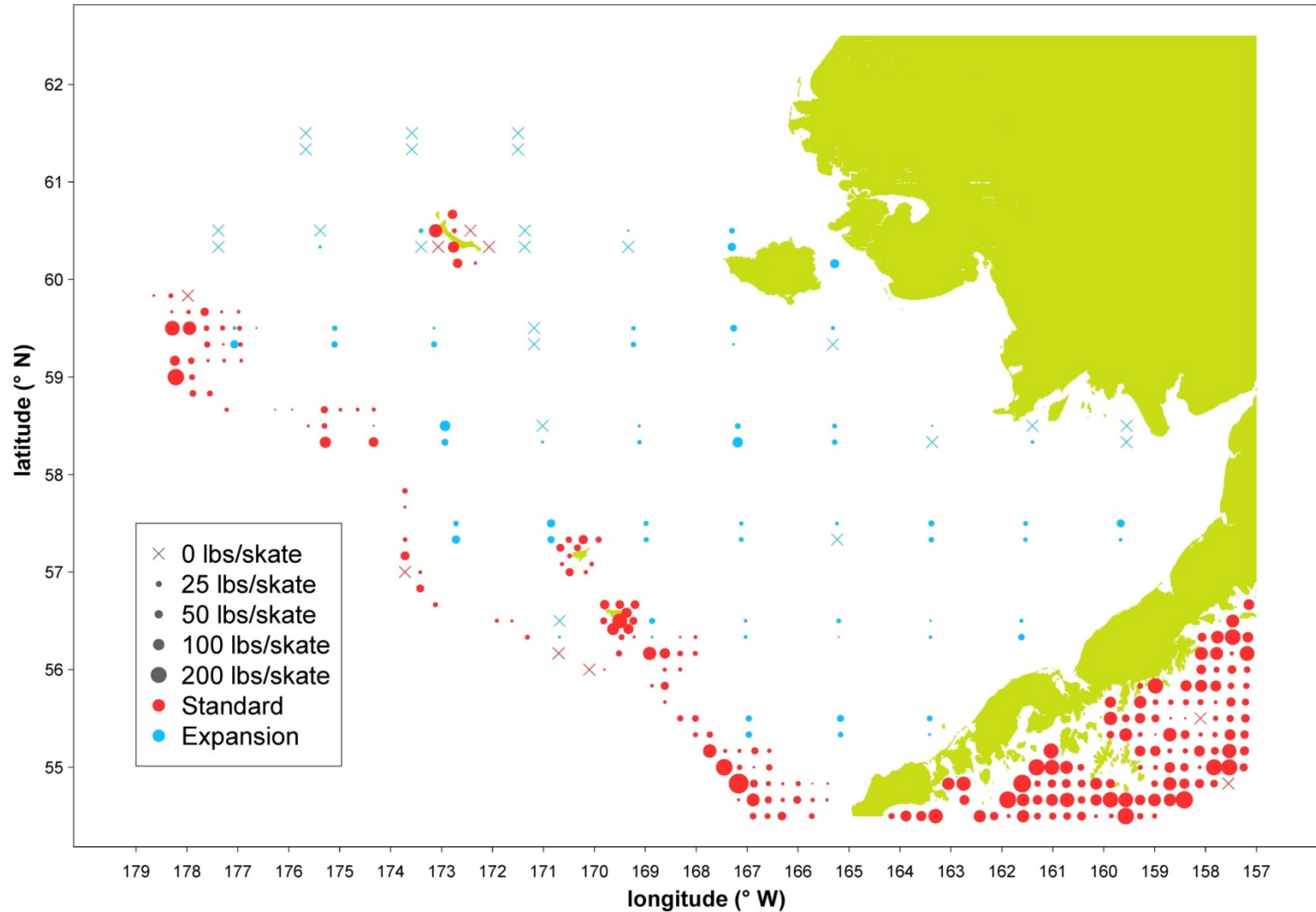


2015 Bering Sea NMFS trawl/setline calibration

- IPHC uses four primary surveys to estimate abundance in the Bering Sea



2015 Bering Sea NMFS trawl/setline re-calibration

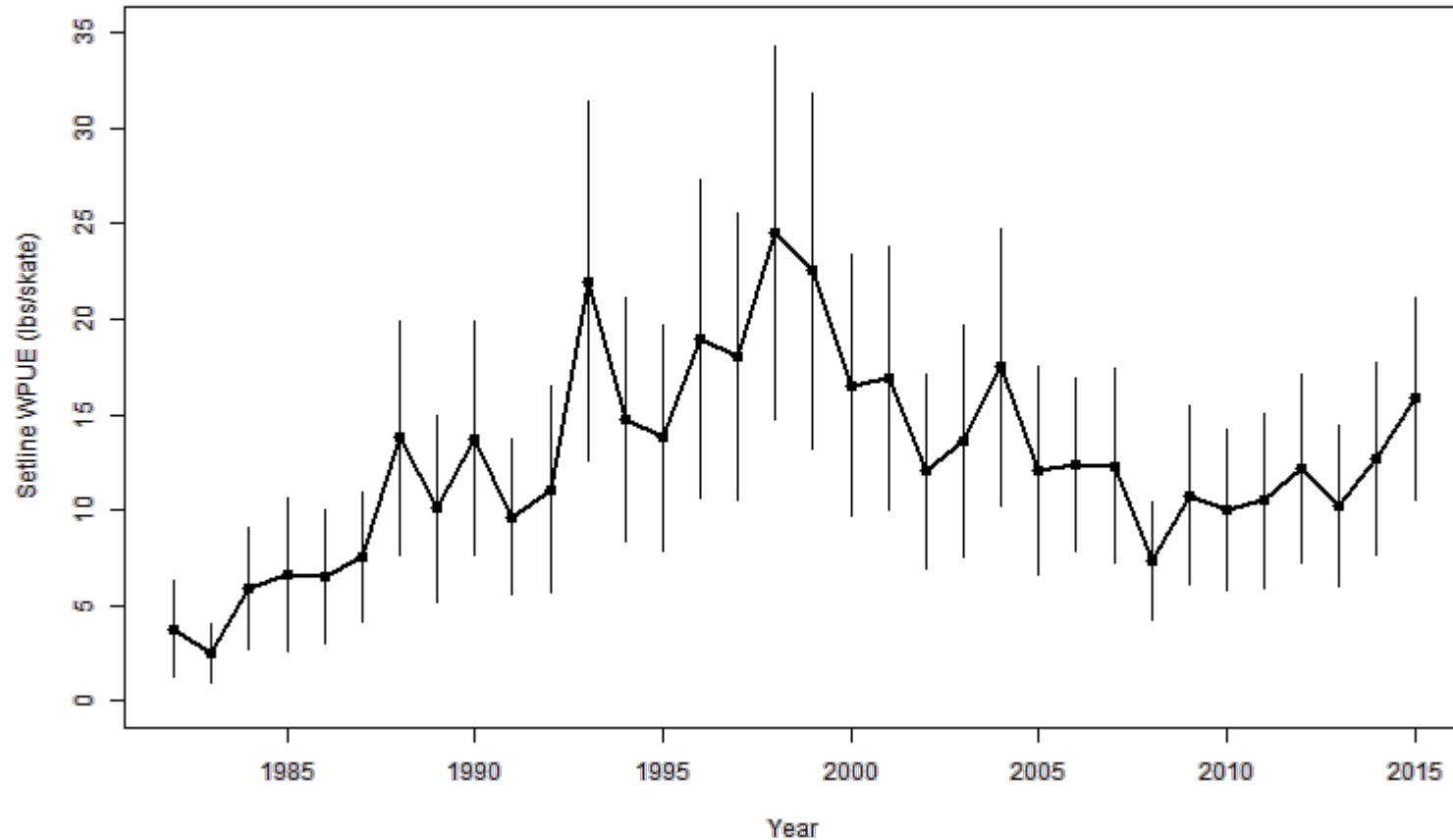


Comparison of mean O32 WPUE (lbs/skate) in EBS in 2006 and 2015

Year	All stations		EBS stations (0-75 fm)	
	WPUE	N	WPUE	N
2006	16.9	82	12.4	76
2015	16.3	83	15.8	77



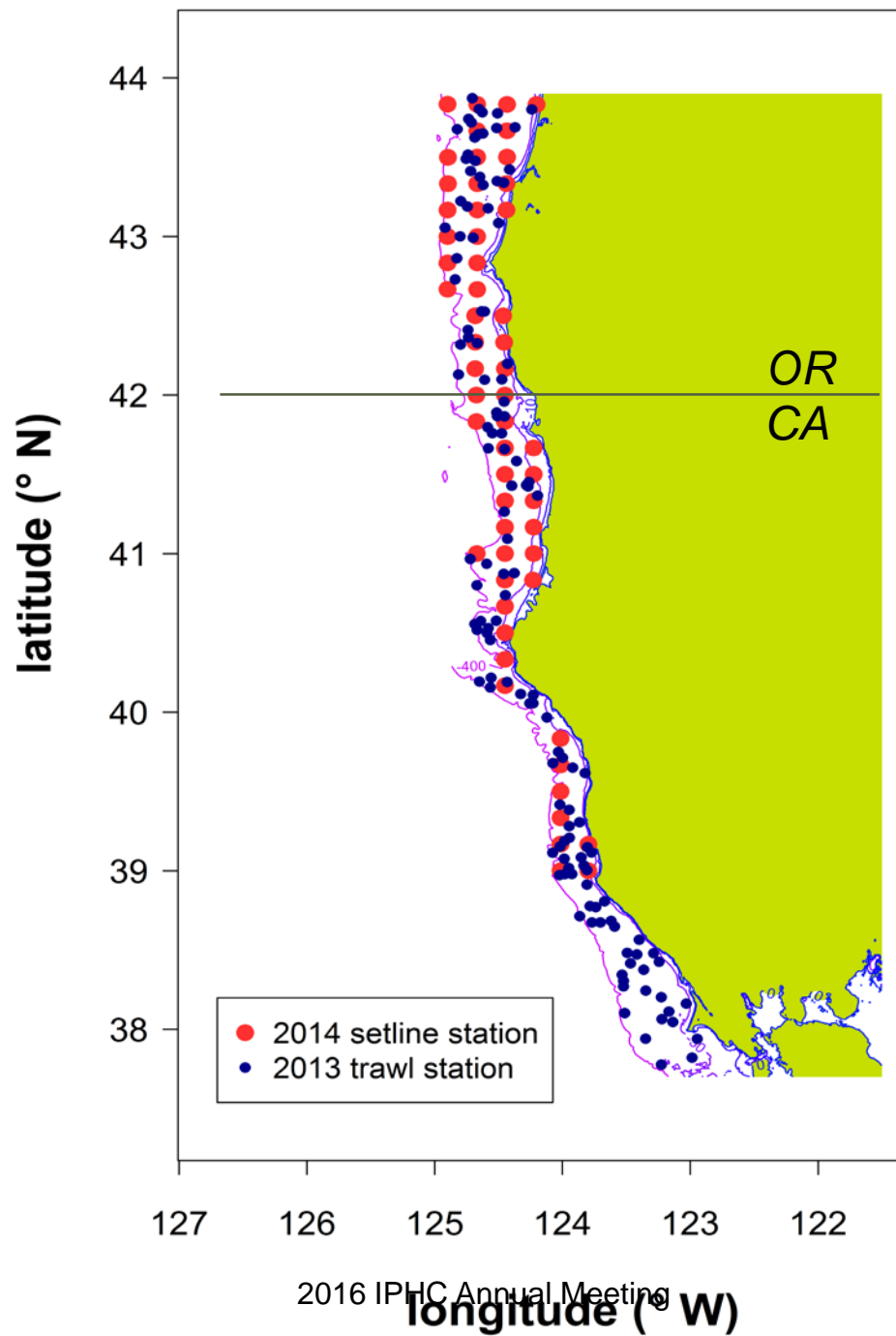
2015 O32 (legal-size) biomass on EBS shelf

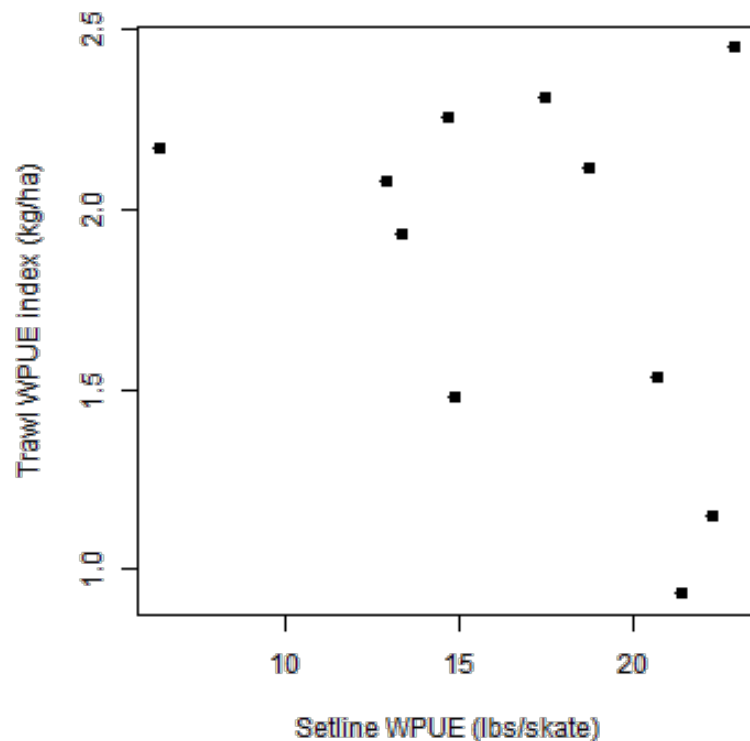


Halibut in southern Area 2A

- Area 2A setline survey has fished as far south as 39°N (in 2014)
- Other platforms (NMFS trawl, West Coast observers) have caught Pacific halibut south of this
- Can the NMFS trawl survey data be used to index halibut in southern Area 2A?







Comparison of Area 2A trawl WPUE with setline O32 WPUE, 2003-2013. Each point represents the index values for a single year.



Use of the trawl index

- Too few halibut are caught on the trawl survey for it to provide a useful annual index of density
- However, the data do provide some information
 - It is clear that densities are very low (WPUE is about 10% of that in Area 2A north of 40°N)
- We calculated the average ratio of trawl WPUE (averaged over 2003-2013) in the region not covered by the setline survey to that covered by the setline survey
 - Used to scale Area 2A index to account for southern halibut



Result

- Area 2A annual biomass index increased by approximately 3% over previous estimates.
 - Overall Area 2A WPUE is scaled down, but bottom area covered by the biomass index for apportionment is expanded from 39°N to 37.75°N



Effect on apportionment

Data	2A	2B	2C	3A	3B	4A	4B	4CDE
2015 apportionment	2.16	14.81	15.05	33.48	12.06	6.71	3.79	11.95
2016 without new setline data in 4CDE	2.73	15.15	15.44	30.94	11.31	6.15	3.77	14.50
2016 with new setline data in 4CDE	2.77	15.33	15.62	31.25	11.43	6.22	3.81	13.57
2016 with 4CDE and 2A updates	2.85	15.32	15.61	31.22	11.42	6.21	3.81	13.56

Effect on apportionment of the 2015 eastern Bering Sea setline survey data and revised calibration, and of the Area 2A area expansion. Apportionment values are estimated % of coastwide O32 biomass.

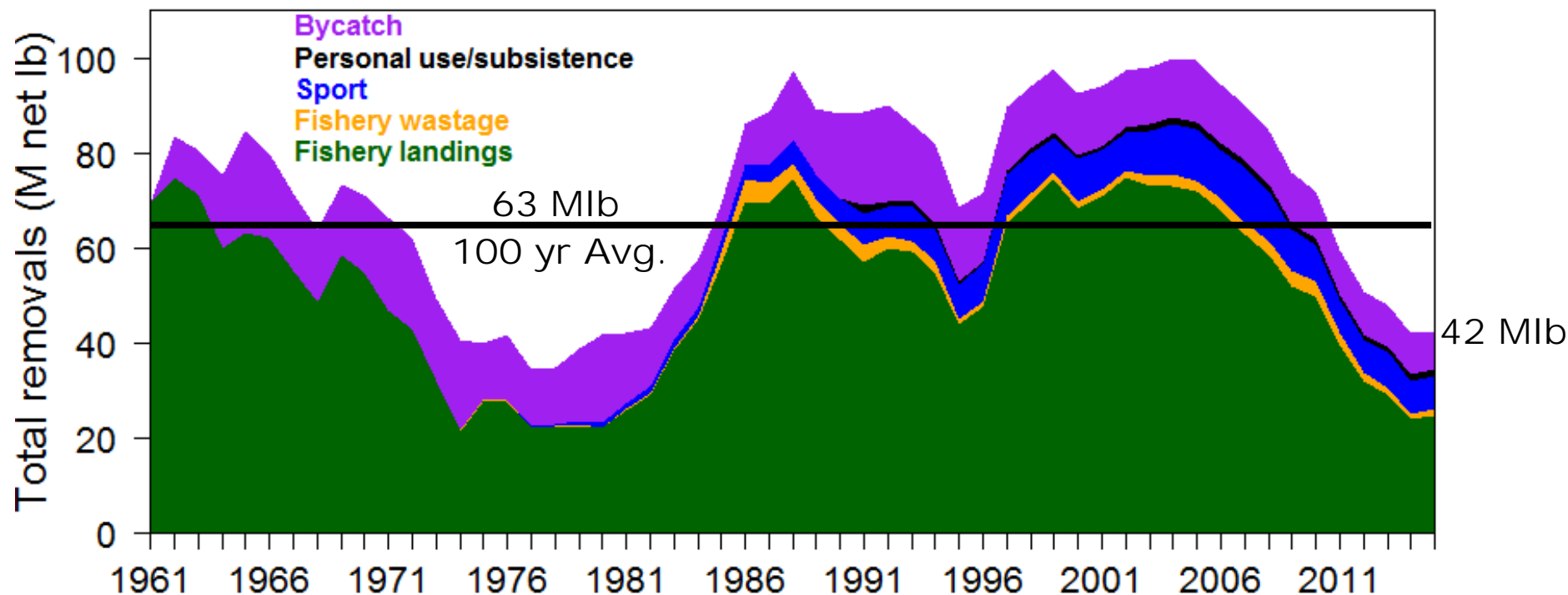


Outline

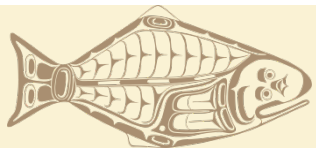
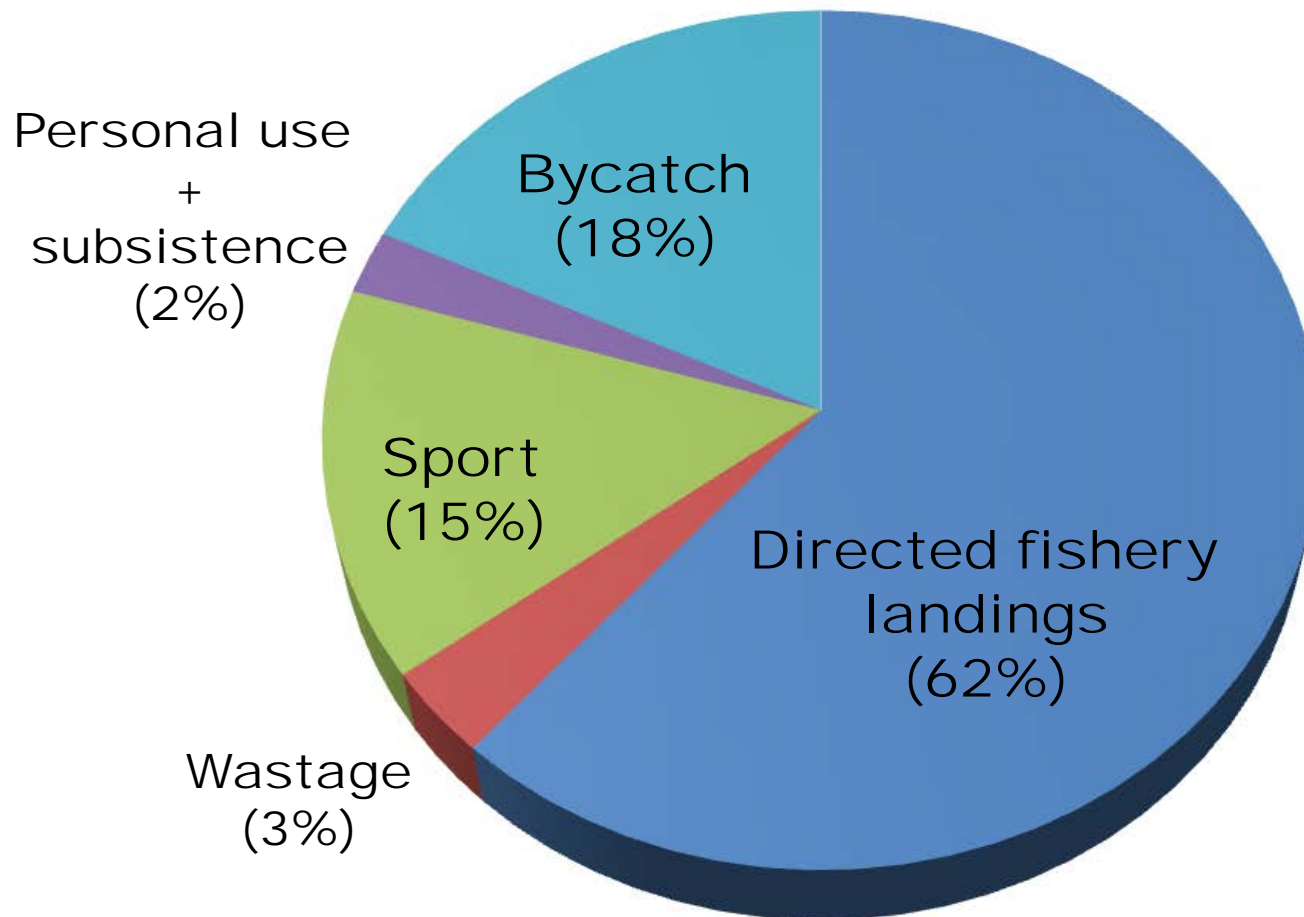
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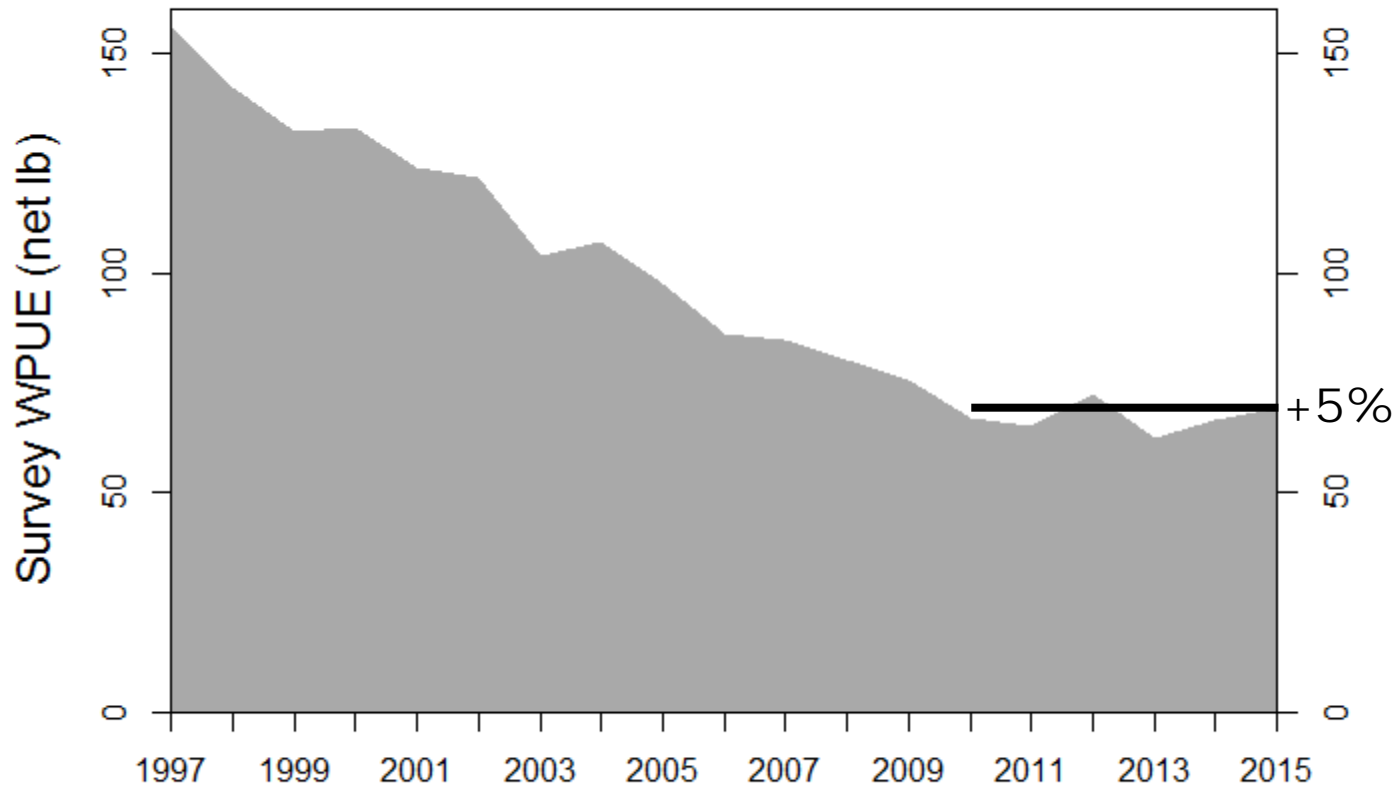
Estimated halibut mortality



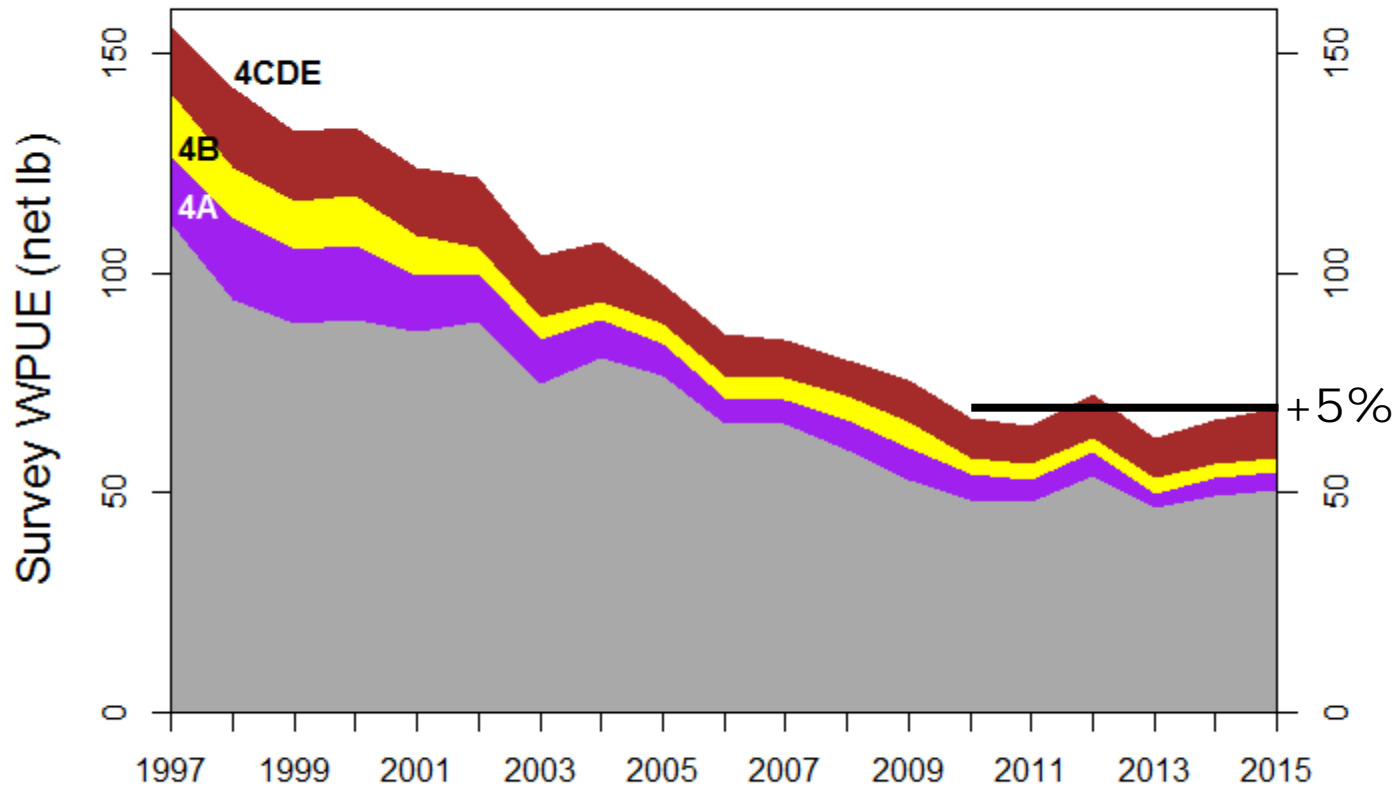
Distribution of the resource: 2011-2015 (pounds)



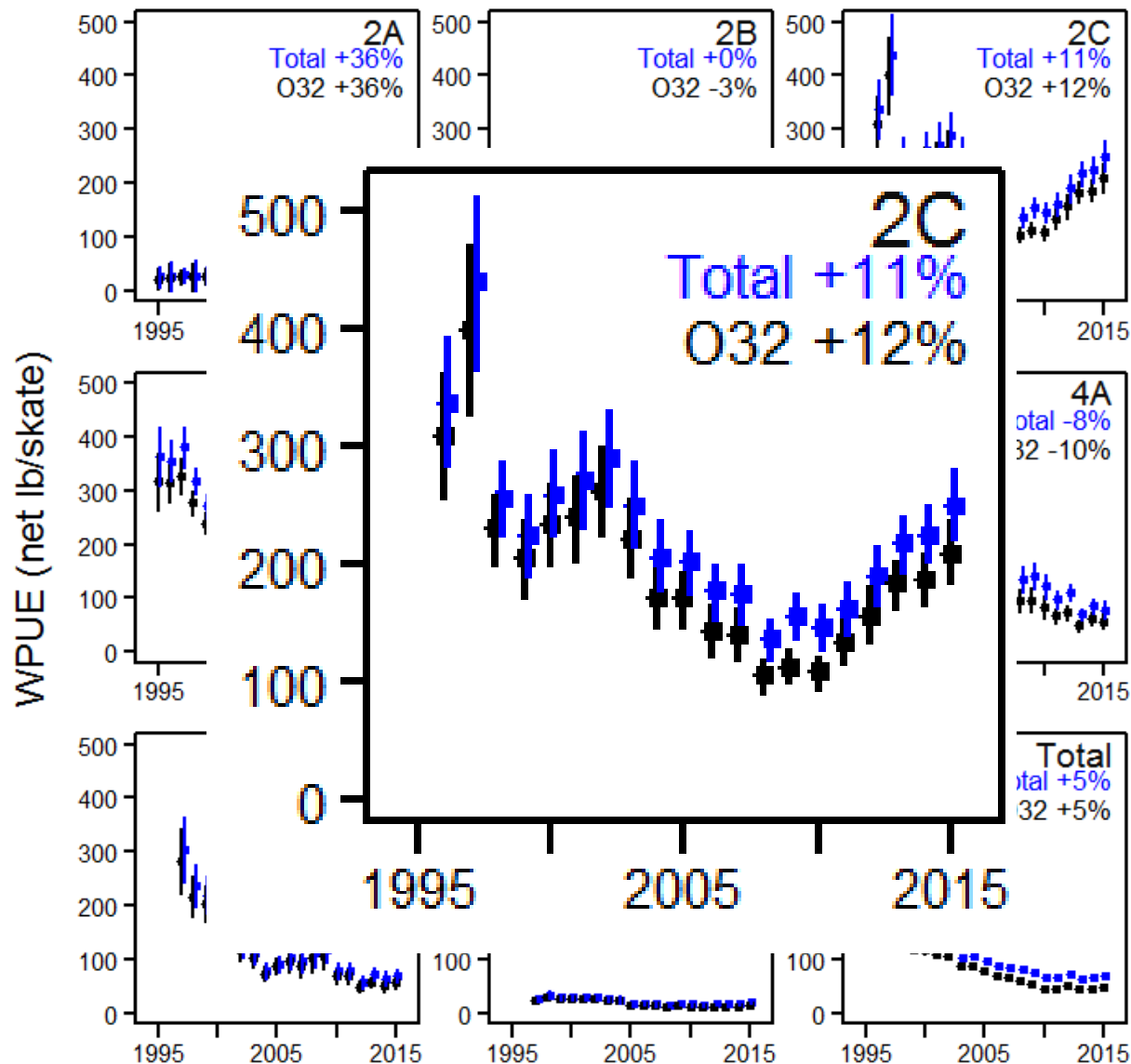
Survey coastwide Weight-Per-Unit-Effort



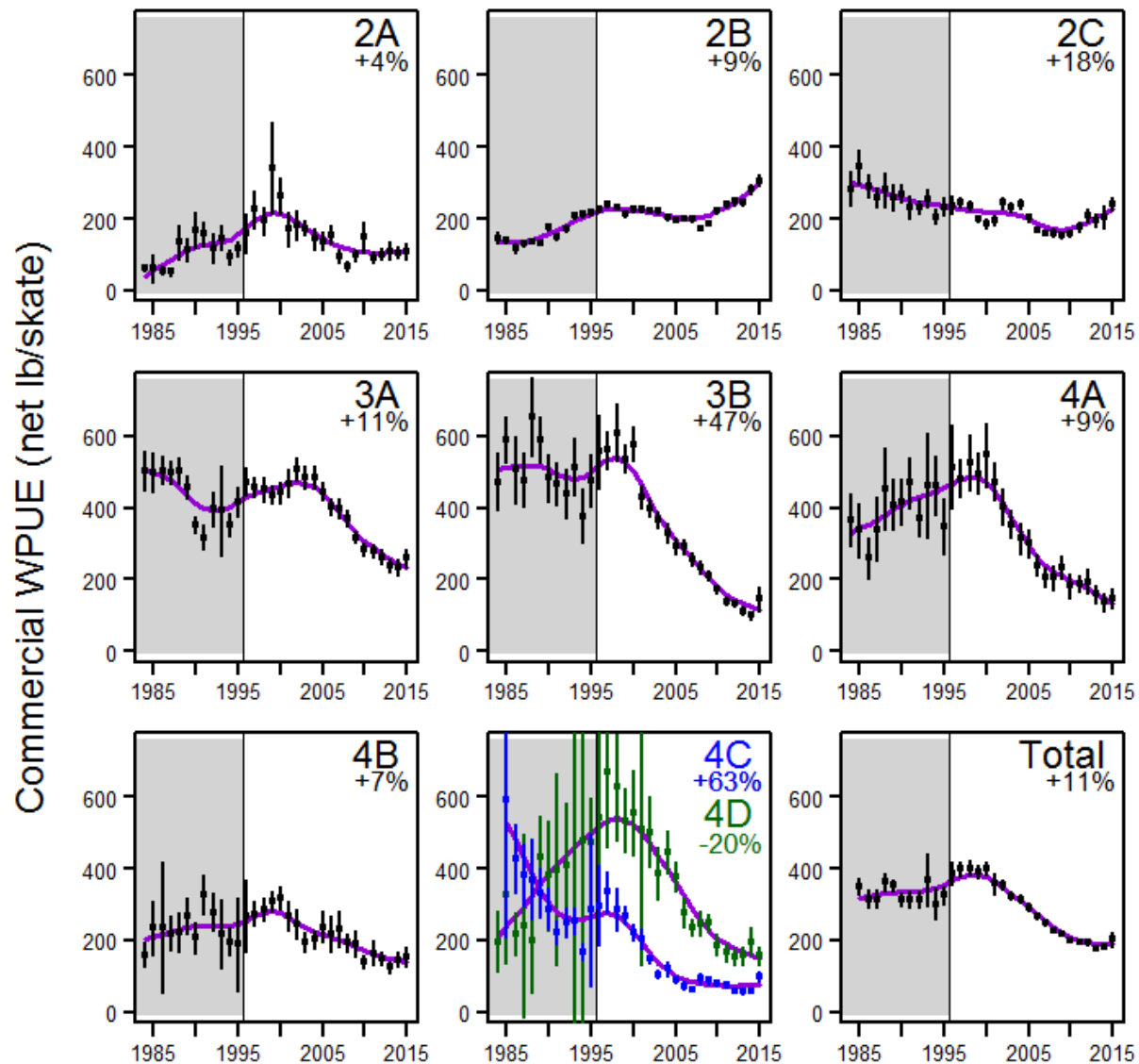
Survey total Weight-Per-Unit-Effort



Survey Weight-Per-Unit-Effort



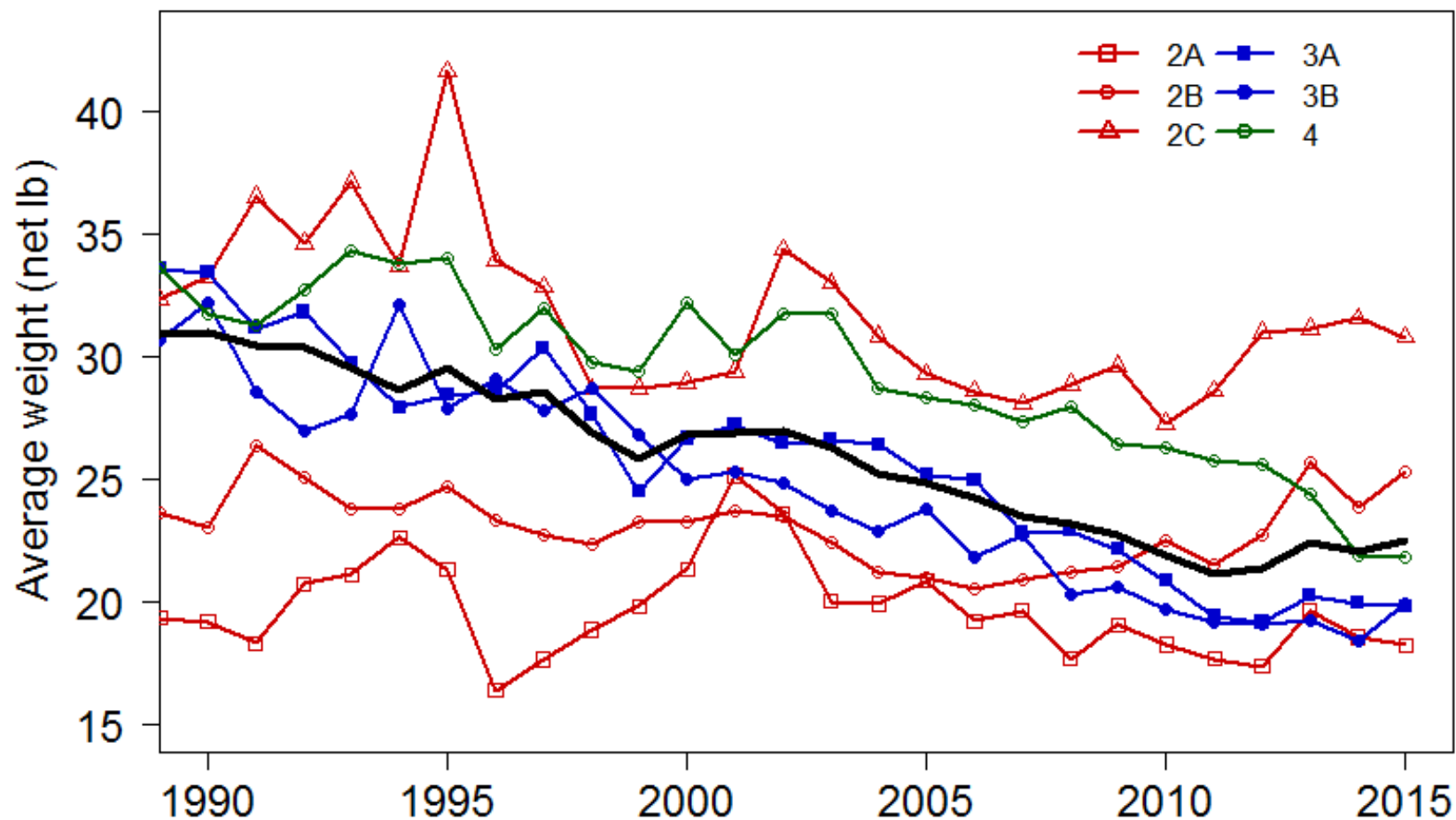
Commercial fishery logbooks



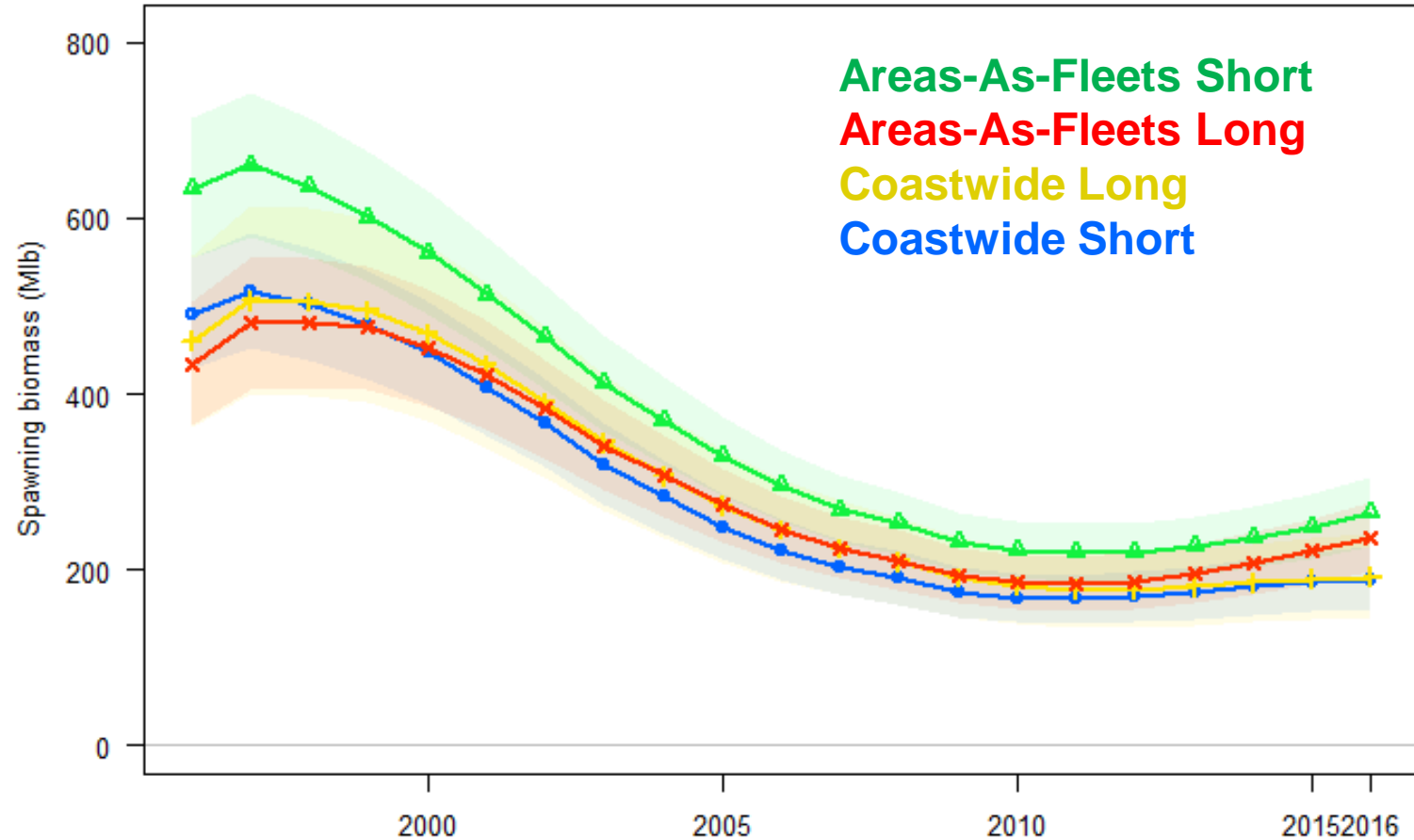
2015 logs are still incomplete and unverified.



Mean weight in the landings



Assessment ensemble



Salient results

- Low (3/100) chance the stock is below harvest policy threshold ($SB_{30\%}$)
- Current status ($SB_{43\%}$) consistent with targets for other species
- Current (2016) spawning biomass estimated to be increasing gradually



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FCEY Comparison

	<u>2A</u>	<u>2B</u>	<u>2C</u>	<u>3A</u>	<u>3B</u>	<u>4A</u>	<u>4B</u>	<u>4CDE</u>	<u>Total</u>
2014 Blue Line	0.72	4.98	4.16	9.43	2.84	0.85	0.82	0.64	24.45
2015 Blue Line	0.75	4.96	4.30	10.10	2.46	1.39	0.73	0.52	25.22
2016 Blue Line	1.02	5.22	4.62	9.27	2.71	1.30	0.92	1.64	26.70



Changing spatial distribution
and other sources of mortality

Increasing
abundance



2016 Catch Limits (Mlb, net wt)

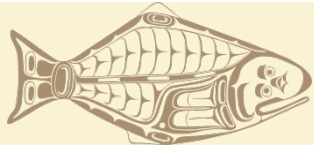
Regulatory Area	2015 Catch Limit	Blue Line	Conference Board Advice	Processors Advisory Group Advice	IPHC Approved
2A ¹	0.97	1.02	1.33	1.42	1.14
2B ¹	7.04	5.22	7.35	7.35	7.30
2C ²	4.65	4.62	5.64	6.87	4.95
3A ²	10.10	9.27	10.10	10.10	9.60
3B	2.65	2.71	3.00	2.71	2.71
4A	1.39	1.30	1.39	1.39	1.39
4B	1.14	0.92	1.30	1.16	1.14
4CDE ³	1.29	1.64	1.64	1.64	1.66
4C ⁴	0.597	0.76	0.76	0.76	0.734
4D ⁴	0.597	0.76	0.76	0.76	0.734
4E ⁴	0.092	0.12	0.12	0.12	0.193
Total	29.22	26.70	31.75	32.63	29.89

¹ Combined sport and commercial allocation (2A includes tribal)

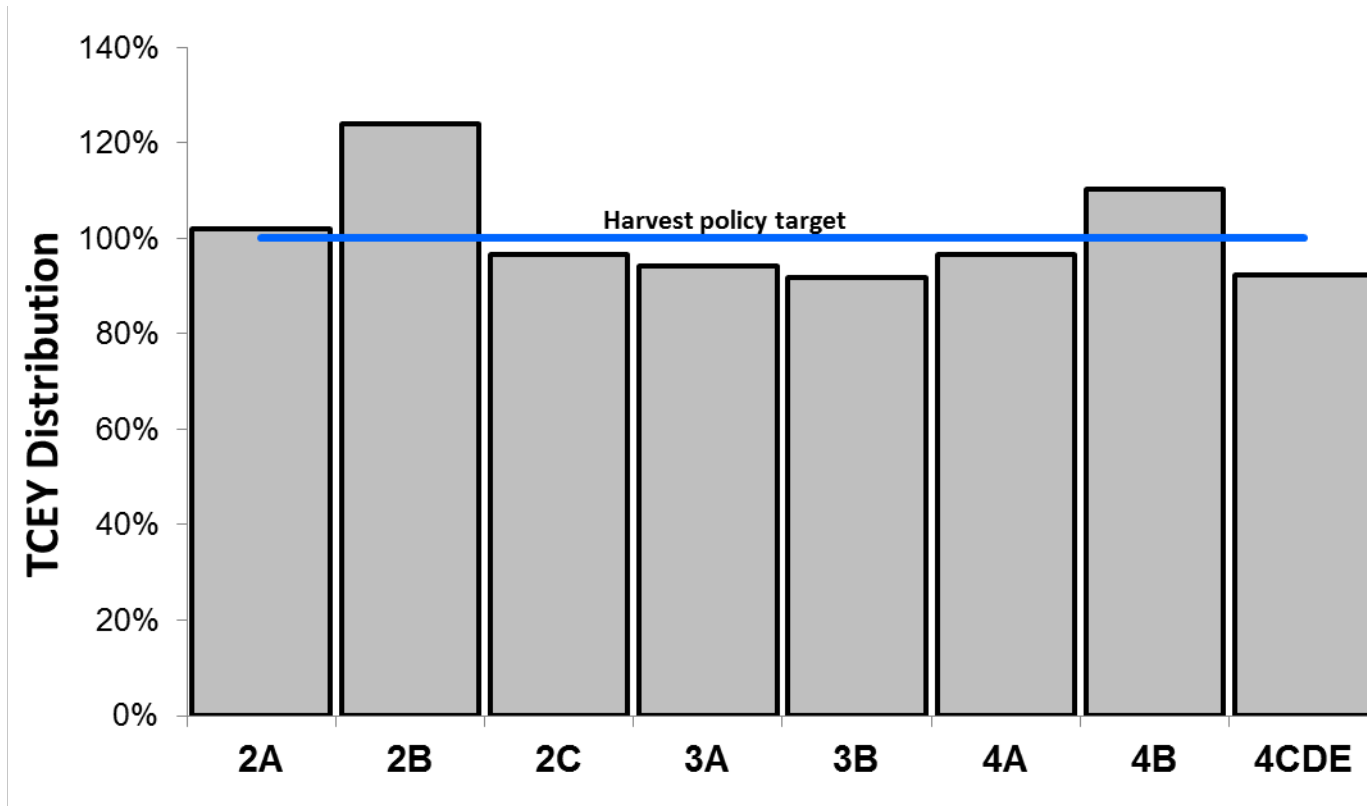
² Includes commercial and recreational charter Catch Sharing Plan

³ Allocation for combined Areas 4C, 4D, 4E

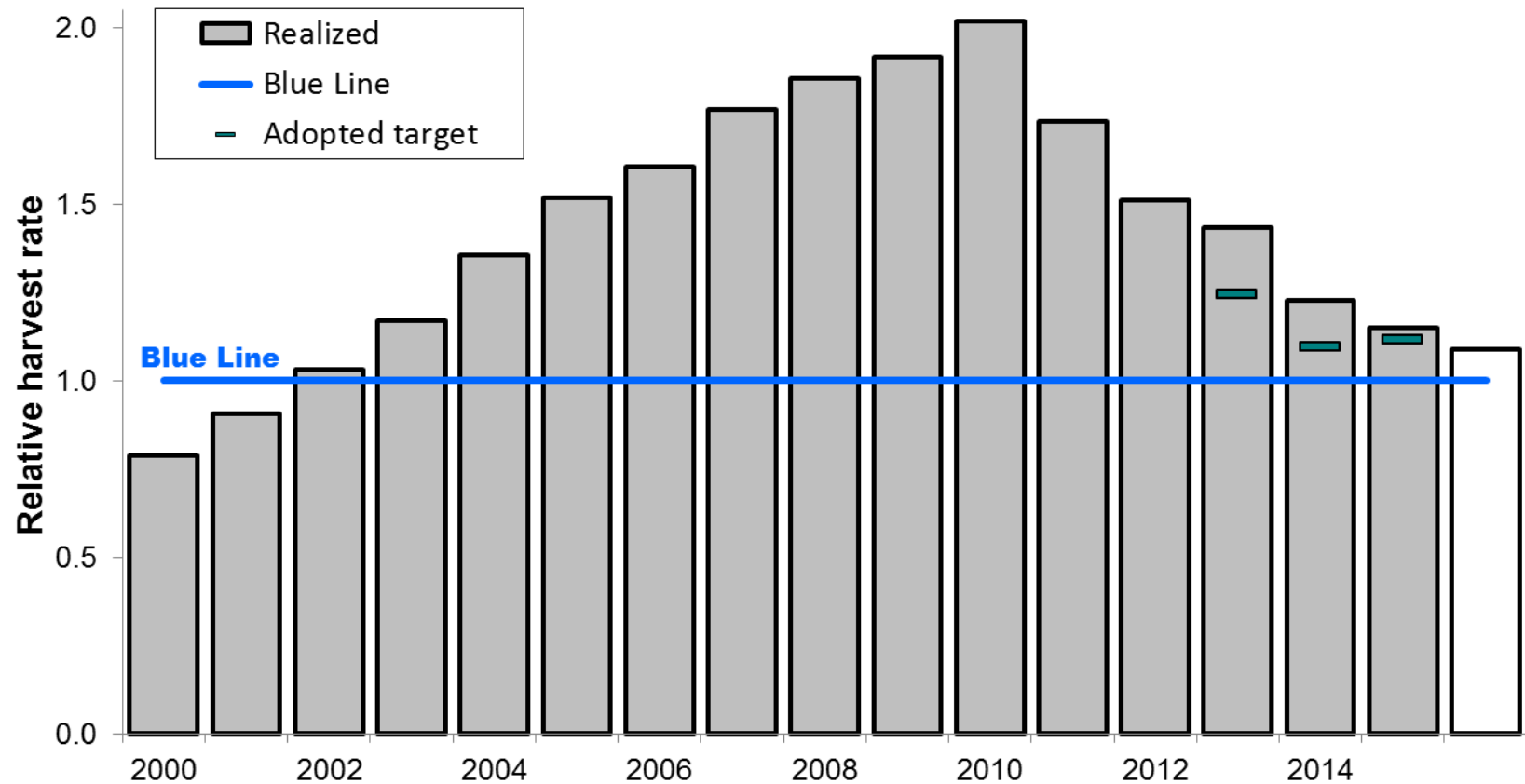
⁴ NPFMC Plan: 4C , 4D: 46.43% of 80K less than 4CDE quota, 4E: 7.14% + 80K if at or above 1.657



2016 Adopted catch limit distribution

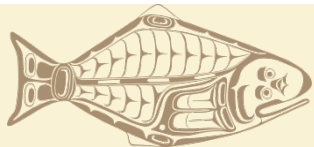


Harvest rates



Decision table: Stock trend (times/100)

		Stock Trend			
		Spawning biomass			
		in 2017		in 2019	
		is less than 2016	is 5% less than 2016	is less than 2016	is 5% less than 2016
2016 Alternative	Total removals (M lb)				
No removals	0.0	<1	<1	<1	<1
FCEY = 0	11.6	<1	<1	<1	<1
	20.0	<1	<1	3	<1
	30.0	3	<1	28	9
Blue Line	38.7	19	<1	45	32
<i>status quo</i> FCEY	41.4	28	<1	48	38
2016 Adopted	41.9	29	<1	49	39
Maintain 2015 SPR	42.9	32	<1	50	40
	50.0	45	3	64	48
	60.0	50	22	73	55
		a	b	c	d



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Adopted regulations

- Season dates:
 - IFQ/IVQ fisheries Areas 2B-4, Area 2A Treaty and incidental: March 19 – November 7
 - Area 2A non-treaty commercial: 10 hr periods:
6/22, 7/6, 7/20, 8/6, 8/17, 8/31, 9/14, 9/28
- Catch sharing plans for Areas 2A, 2B, 2C, 3A, and 4CDE



Other actions

- Approved pots as a legal commercial halibut gear in the Gulf of Alaska, as defined by sablefish management areas, with review in three years
- NMFS eLog allowed as an acceptable log for Alaska
- Area 2A Tribal ID (from vessel ID) on fish ticket requirement
- All halibut with an IPHC external tag may be retained in sport and personal use fisheries regardless of season, size, or bag limits



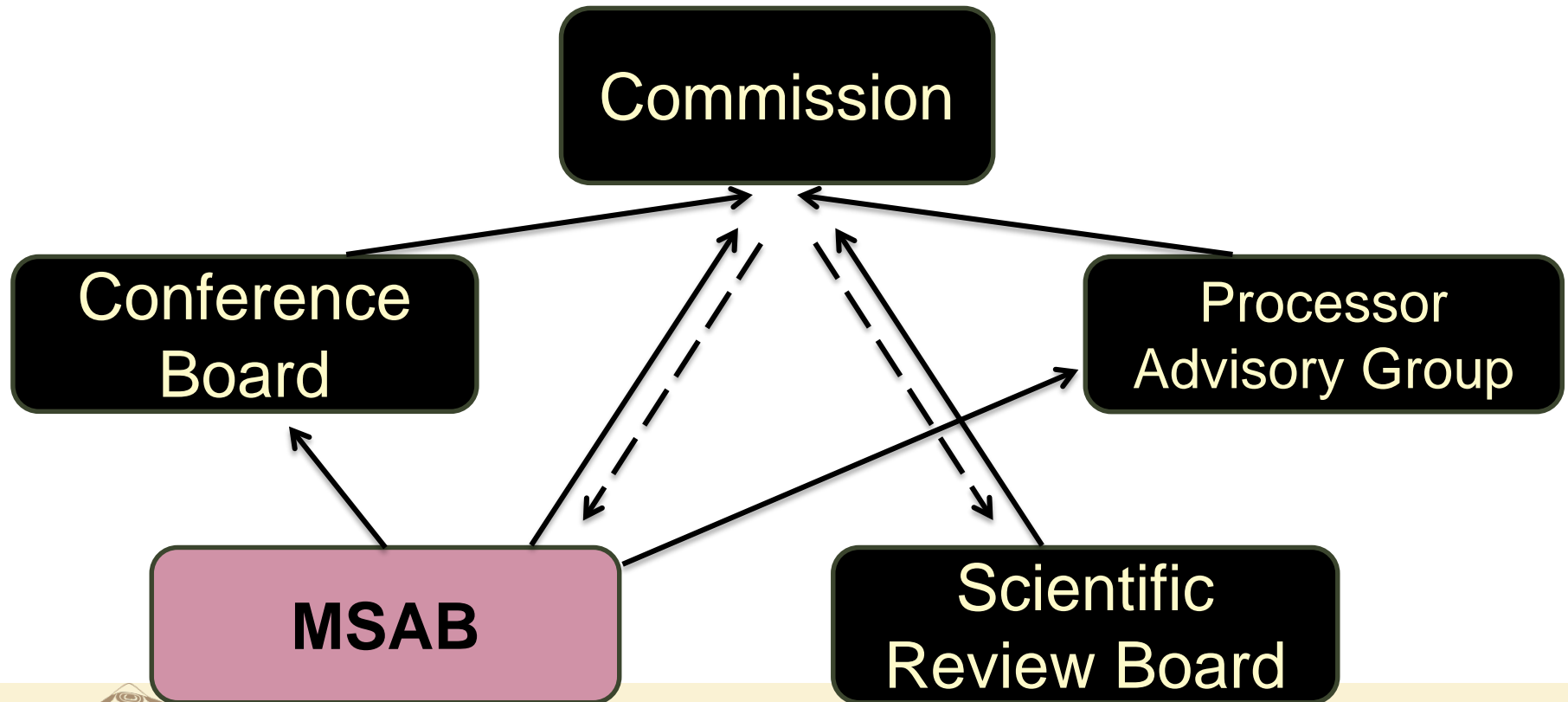
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MSAB 2015

- Defined governance and facilitation structure
- Draft fishery objectives, management procedures
- Model development and user interface



MSE Operating Model Development

- Operating Model features under development:
 - Population model is age-structured, spatially explicit, sex, stock, recruitment, advection-migration.
 - Fisheries: fleets, areas, selectivity/availability, size-specific fishing mortality, bycatch, discards, sex-specific.
 - Scientific data: sex-specific catch, relative abundance, age- size-composition, weight-at-age sampling.
 - Stochastic elements: recruitment, scientific sampling errors, structural errors, implementation errors.
- Technical details reviewed by IPHC Scientific Review Board



MSAB 2016

- Developing outreach plan
- Developing Terms Of Reference
- Developing 2-3 year work plan
- Continued development of coastwide and spatially explicit operating models

→ *New hire: Dr. Allan Hicks (begins April 4, 2016)*



2016 Staff directives

- Evaluate discard mortality rate (16%) applied to the directed halibut fishery
- Explore other data sources for estimating relative abundance and/or catch rates near Nunivak Island
- Further harvest policy analysis via the MSAB
- Continue to promote bycatch reduction and evaluate of the effects of bycatch



Future Meetings

- **2016 IPHC Interim Meeting:** Seattle, WA
November 29-30, 2016
- **2017 Annual Meeting:** Victoria, BC
January 23-27, 2017
- **2018 Annual Meeting:** Portland, OR
January 22-26, 2018



