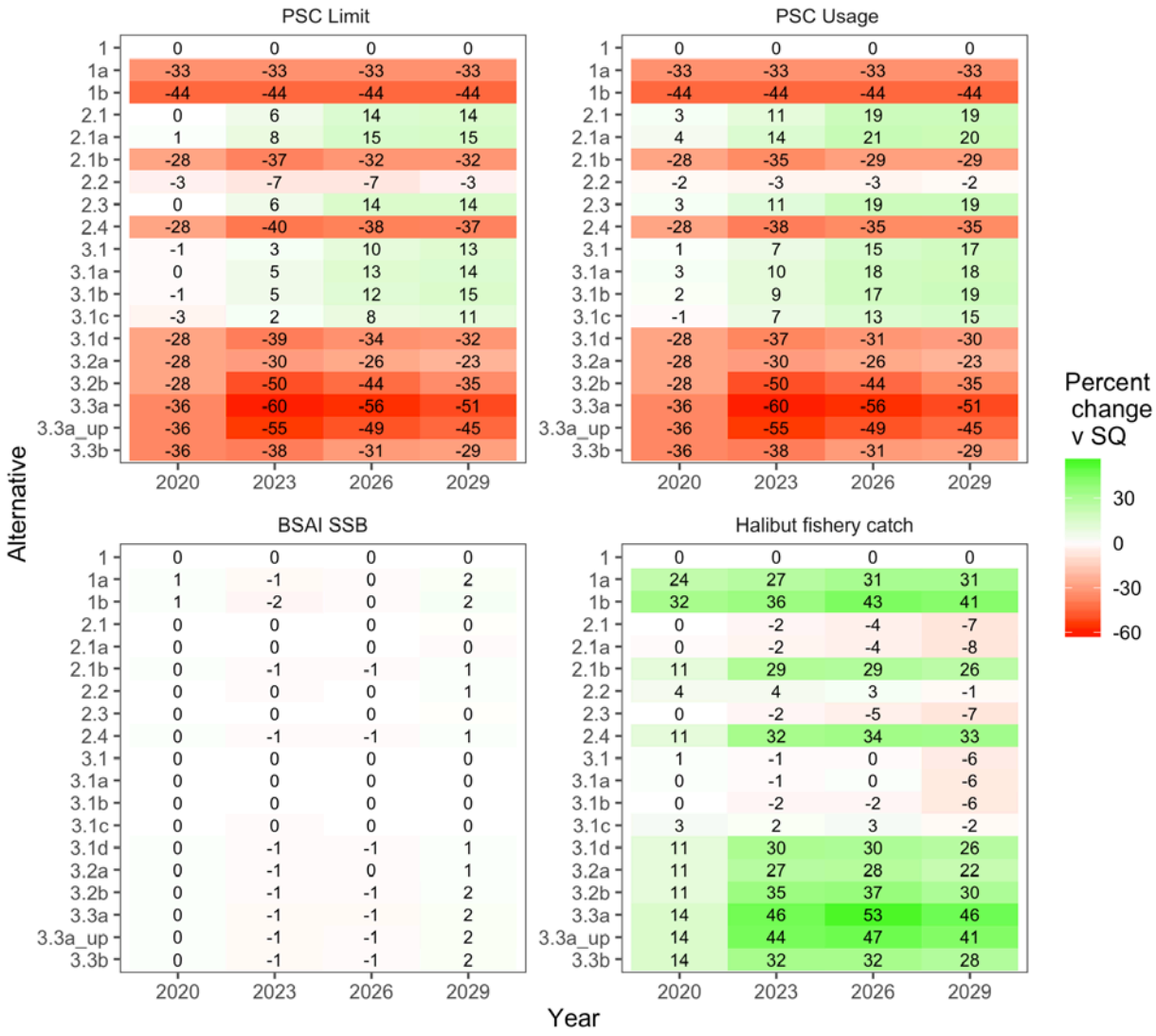
Table 2-1. Combination of alternatives included in analysis. Numbering for each alternative shows the Overarching Alternative (1,2,3) then secondary numbering to group sub-sets by similar elements and options (e.g., 201, 3-1). See Figure 2-8 for further explanation of selections of Elements and Options to formulate each alternative shown. Each index is standardized to the most recent year, unless "mean" is specified which implies it is standardized to the mean of the series from 1998 to the current year. "By gear" means that the trawl index is linked to the trawl fishery and likewise for non-trawl gear. **Elements (1-3) apply 20:80 ratio between non-trawl and trawl PSC to calculate gear-specific starting points (S.P. Element 1), Ceilings (Element 2) and floors (Element 3).** "Constraint" indicates how much a PSC limit can change from one year to the next (Element 6) while "type" indicates whether it is a continuous control rule with or without breakpoints or a 'Look up Table" from Element 7 and shown as "discrete".

				Elements						
		Indices used		1	2	3	4	5	6	7
Alternative	Source	Primary	Secondary	Starting point	Ceiling	Floor	Break points	Responsiveness	Constraint	Type
1	Status quo	NA	NA	3,515						
2-1	WG	By gear	NA	3,515	4,426	1,758	none	1:1	15% max	Continuous
2-1.a	WG	By gear	NA	3,515	4,426	1,758	none	1:1	none	Continuous
2-1.b	SSC	By gear	NA	1,958	4,426	1,758	none	1:1	15% max	Continuous
2-2	Stakeholder	By gear	NA	3,515	4,426	2,354	specified	Stairsteps	2 yr avg	Continuous
2-3	Stakeholder	By gear	NA	3,515	4,426	2,354	none	1:1	15% max	Continuous
2-4	Stakeholder	By gear	NA	2,018	3,515	1,000	Start	1:1 (low) 0.5:1 (high)	15% max	Continuous
3-1	WG	By gear	Other (mean)	3,515	4,426	1,758	±25%	1:1	15% max	Continuous
3-1.a	WG	By gear	Other (mean)	3,515	4,426	1,758	±25%	1:1	none	Continuous
3-1.b	WG	By gear	Other (mean)	3,515	4,426	1,758	±25%	2nd Index 0.5:1 (low),1.5:1 (high)	15% max	Continuous
3-1.c	WG	By gear	Other (mean)	3,515	4,426	1,758	±25%	1:1	15% max	Discrete
3-1.d	SSC	By gear	Other (mean)	1,958	4,426	1,758	±25%	1:1	15% max	Continuous
3-2.a	Stakeholder	Gear (mean)	Other (mean)	2,941	4,124	1,758	none	Interpolated	15% max	Discrete
3-2.b	WG	Gear (mean)	Other (mean)	2,941	4,124	1,758	none	1:1	15% max	Discrete
3-3a	Stakeholder	Setline	Trawl (mean)	1,958	3,515	1,000	S.P	Secondary 0.35:1	20% max	Continuous
3-3a_update	Stakeholder	Setline	Trawl (**2018**)	1,958	3,515	1,000	S.P	Secondary 0.35:1	20% max	Continuous
3-3b	WG	Trawl	Setline (mean)	1,958	3,515	1,000	S.P	Secondary 0.35:1	20% max	Continuous

Table 6-1. Projected relative median values of PSC usage, Pacific halibut spawning biomass, and Pacific halibut directed fishery catch, and PSC limit as estimated from the simulation model. Values are expressed relative to status quo (Alternative 1 in row 1). Red shading indicates a lower relative value within each measure. Note that PSC Limit is identical (in relative terms) to PSC usage because it is in relative terms.



Alternative	PSC Limit				PSC Usage				BSAI SSB				Halibut fishery catch			
	2020	2023	2026	2029	2020	2023	2026	2029	2020	2023	2026	2029	2020	2023	2026	2029
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1a	-33	-33	-33	-33	-33	-33	-33	-33	1	-1	0	2	24	27	31	31
1b	-44	-44	-44	-44	-44	-44	-44	-44	1	-2	0	2	32	36	43	41
2.1	0	6	14	14	3	11	19	19	0	0	0	0	0	-2	-4	-7
2.1a	1	8	15	15	4	14	21	20	0	0	0	0	0	-2	-4	-8
2.1b	-28	-37	-32	-32	-28	-35	-29	-29	0	-1	-1	1	11	29	29	26
2.2	-3	-7	-7	-3	-2	-3	-3	-2	0	0	0	1	4	4	3	-1
2.3	0	6	14	14	3	11	19	19	0	0	0	0	0	-2	-5	-7
2.4	-28	-40	-38	-37	-28	-38	-35	-35	0	-1	-1	1	11	32	34	33
3.1	-1	3	10	13	1	7	15	17	0	0	0	0	1	-1	0	-6
3.1a	0	5	13	14	3	10	18	18	0	0	0	0	0	-1	0	-6
3.1b	-1	5	12	15	2	9	17	19	0	0	0	0	0	-2	-2	-6
3.1c	-3	2	8	11	-1	7	13	15	0	0	0	0	3	2	3	-2
3.1d	-28	-39	-34	-32	-28	-37	-31	-30	0	-1	-1	1	11	30	30	26
3.2a	-28	-30	-26	-23	-28	-30	-26	-23	0	-1	0	1	11	27	28	22
3.2b	-28	-50	-44	-35	-28	-50	-44	-35	0	-1	-1	2	11	35	37	30
3.3a	-36	-60	-56	-51	-36	-60	-56	-51	0	-1	-1	2	14	46	53	46
3.3a_up	-36	-55	-49	-45	-36	-55	-49	-45	0	-1	-1	2	14	44	47	41
3.3b	-36	-38	-31	-29	-36	-38	-31	-29	0	-1	-1	2	14	32	32	28

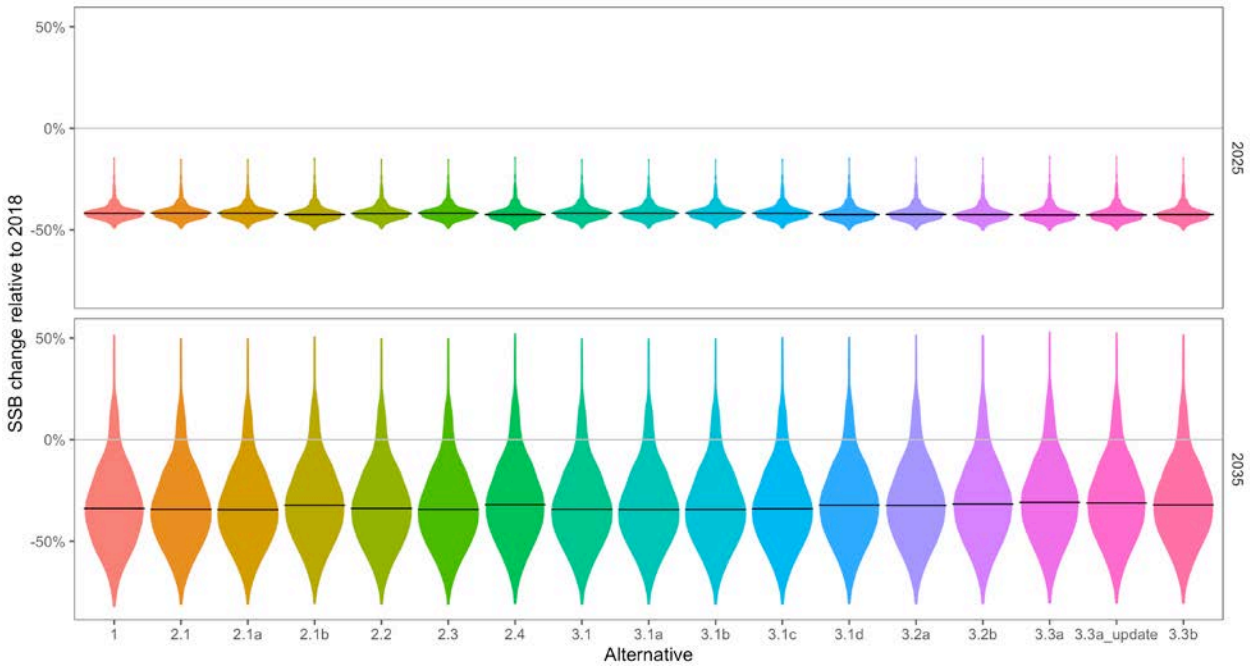


Figure 6-1. Comparison of changes in **Pacific halibut BSAI SSB** relative to the 2018 value by alternative (colors and x-axis within panels) and years (2025, top row and 2035, bottom row). Horizontal bars are median values from the simulations, the width of each region at each SSB value indicates the number of simulations for which SSB was estimated to be at that value.

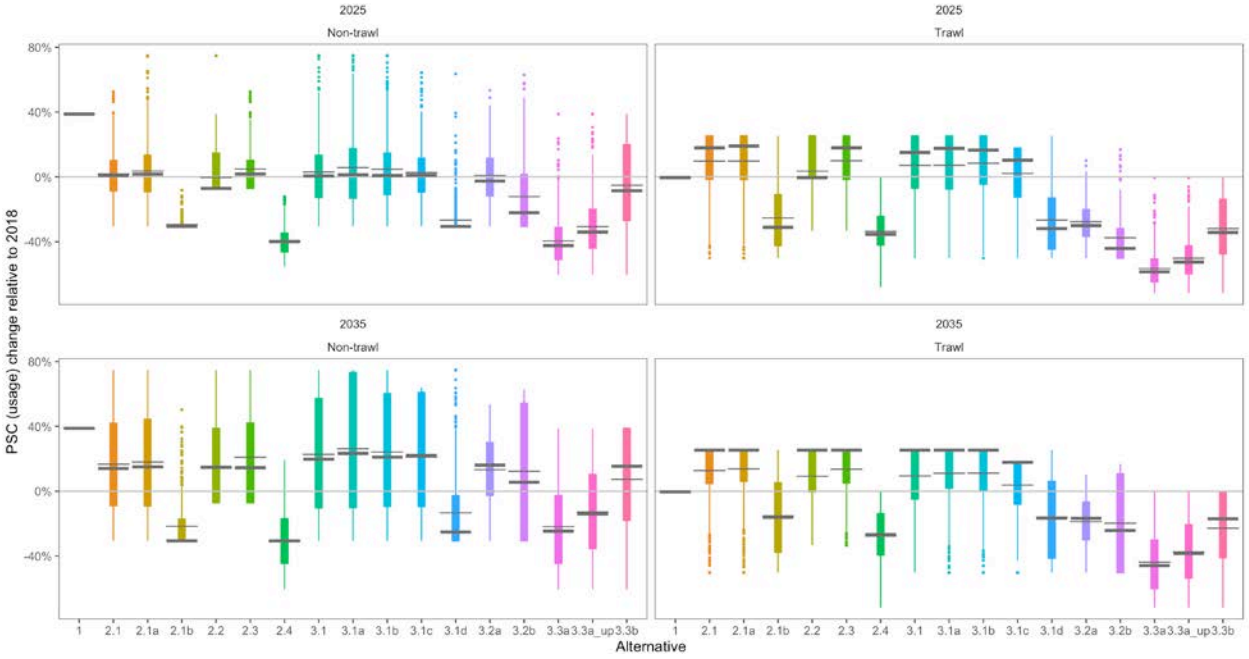


Figure 6-2. Comparison of changes in **Pacific halibut PSC usage** relative to the 2018 value by alternative (colors and x-axis within panels) by groundfish gear (columns) and years (2025, top row and 2035, bottom row). Thick and thin horizontal bars are median and mean values from the simulations, respectively.

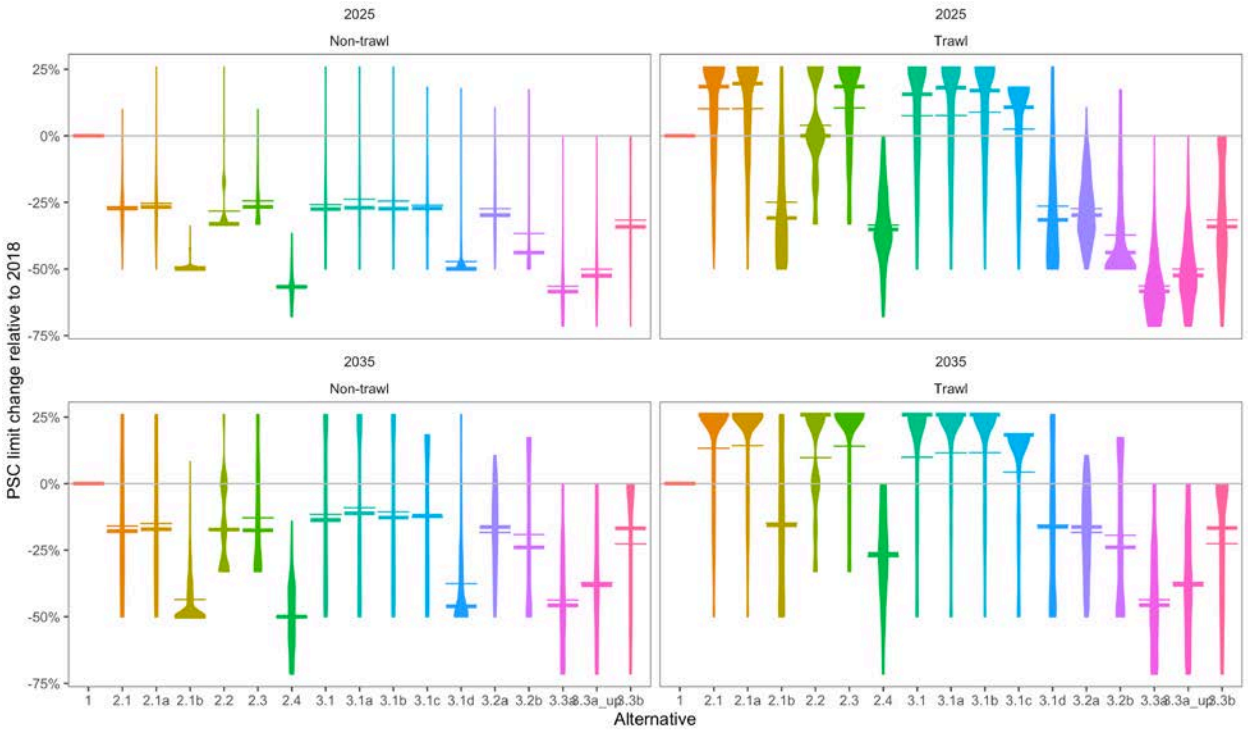


Figure 6-3. Comparison of changes in **Pacific halibut PSC limit** relative to the 2018 value by alternative (colors and x-axis within panels) by groundfish gear (columns) and years (2025, top row and 2035, bottom row). Thick and thin horizontal bars are median and mean values from the simulations, respectively. Note that the vertical scales differ from the previous figure

The impact of the alternatives on the directed Pacific halibut fishery catch varies only slightly among alternatives (relative to the 2018 catch) and each also has similar within-alternative variability which increases by 2035 (Figure 6-4). It is important to note that the difference between the presentation of results shown in Table 6-1 and that of Figure 6-1-Figure 6-4 is that the table shows values relative to Alternative 1 whereas the Figures are relative to 2018 values.

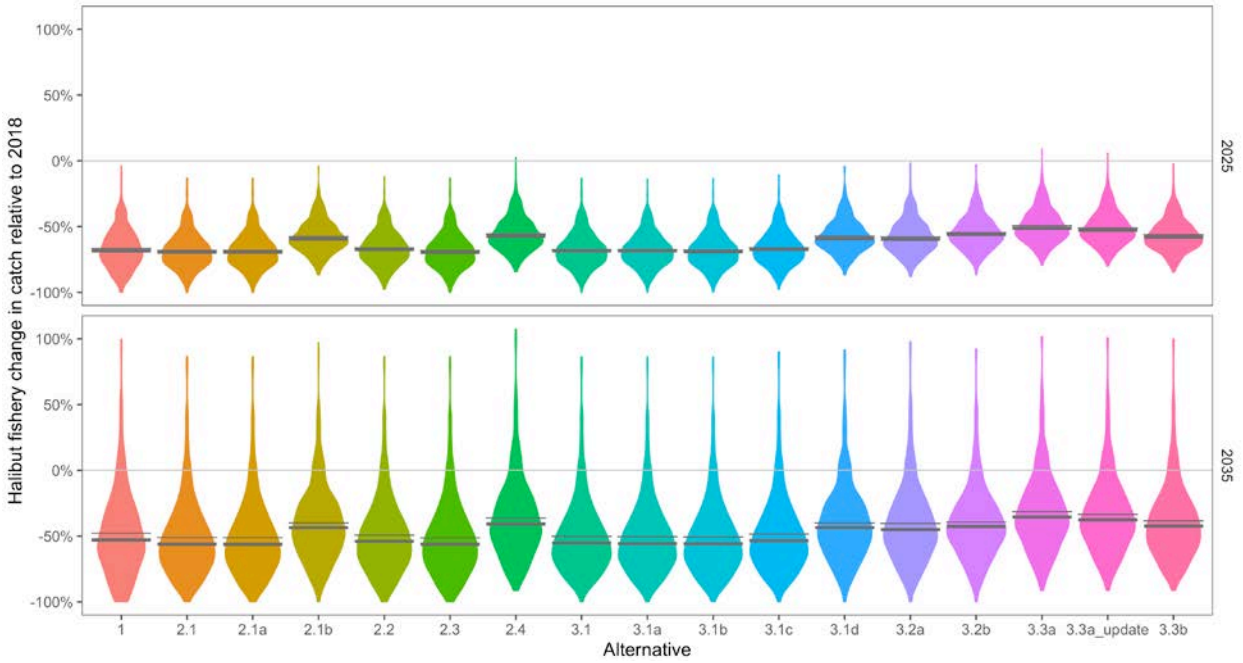
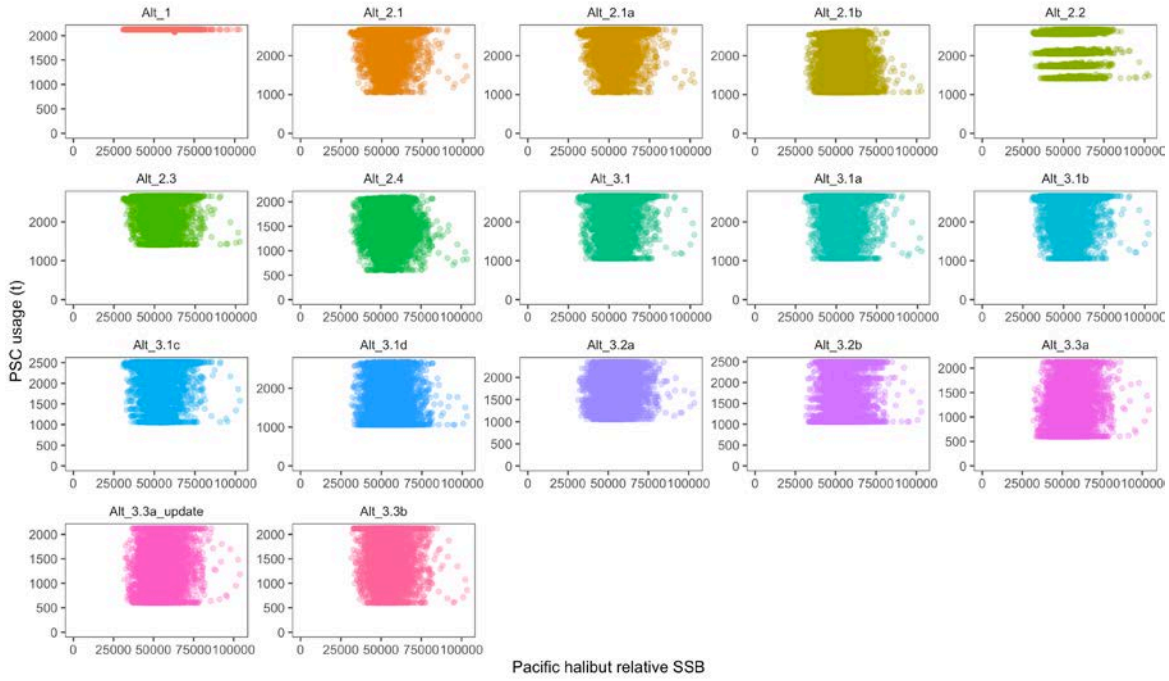
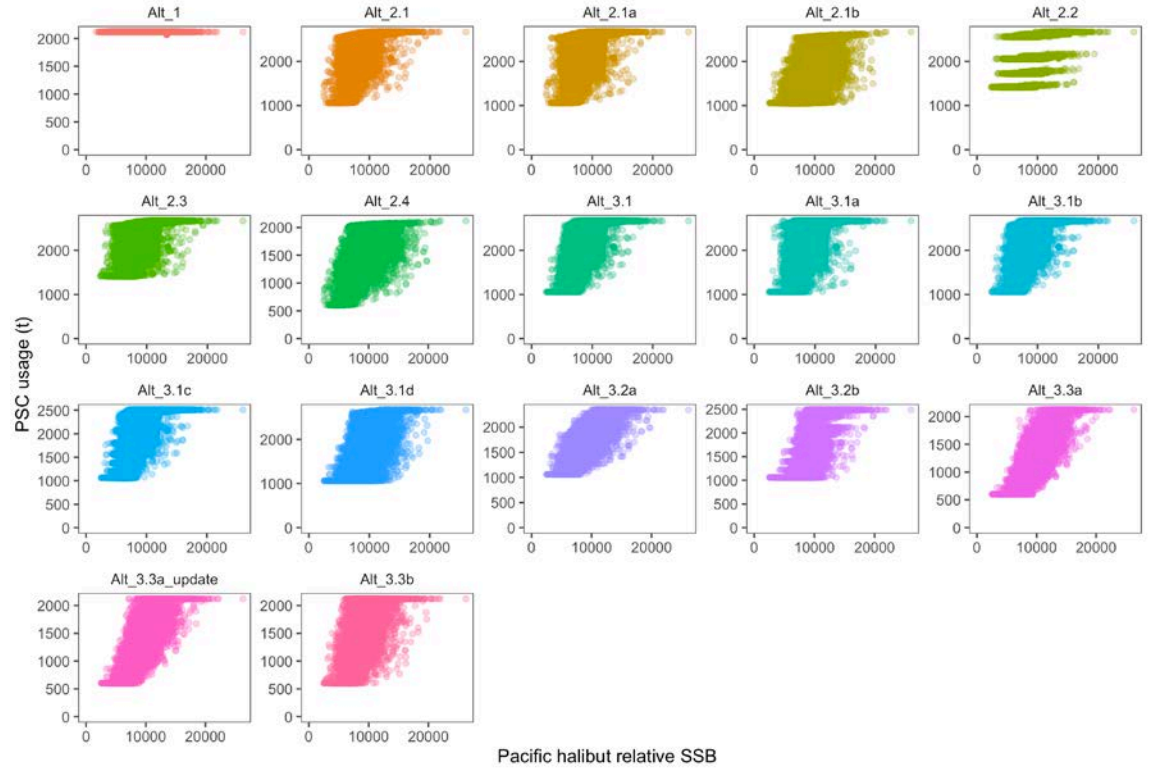


Figure 6-4. Comparison of changes in BSAI **Pacific halibut fishery catch** relative to the 2018 value by alternative (colors and x-axis within panels) by groundfish gear (columns) and years (2025, top row and 2035, bottom row). Thick and thin horizontal bars are median and mean values from the simulations.



SSB other than in BSAI



BSAI relative SSB

Figure 6-14. Simulation patterns for total project PSC usage (t) from 2019-2038 by alternative (colors and panels) relative to SSB (x-axis). The top set is for coast-wide SSB, bottom is for BSAI only.

Table 6-8 Comparison of sector allocation of Pacific halibut PSC limits (t) by alternative for median values of the projection simulations to 2024 (top section) and 2030 (bottom section)

	Trawl				**Non-trawl (NT)**		
PSC allocation %	**A80 62.3%**	**TLAS 26.6%**	**CDQ 11.1%**	**Trawl Total 100%**	**Cod 93.1%**	**Other 6.9%**	**NT Total 100%**
Status quo limit	1,745	745	315	2,805	661	49	710
Avg. usage (2016-18)	1,307	431	153	1,892		163*	
2024	**A80**	**TLAS**	**CDQ**	**Trawl limit**	**Cod**	**Other**	**NT limit**
Alternative 1	1,745	745	315	2,805	661	49	710
Alternative 2.1	2,080	890	371	3,341	473	35	508
Alternative 2.1a	2,116	905	378	3,398	474	35	509
Alternative 2.1b	1,207	516	215	1,938	331	24	355
Alternative 2.2	1,746	747	312	2,805	442	33	475
Alternative 2.3	2,080	890	371	3,341	476	35	511
Alternative 2.4	1,334	485	202	1,822	279	21	300
Alternative 3.1	2,016	862	360	3,239	469	35	504
Alternative 3.1a	2,041	873	364	3,279	471	35	506
Alternative 3.1b	2,042	873	364	3,280	476	35	511
Alternative 3.1c	1,934	827	345	3,106	481	36	517
Alternative 3.1d	1,180	505	211	1,896	331	24	355
Alternative 3.2a	1,226	524	219	1,969	464	34	498
Alternative 3.2b	874	374	156	1,403	331	24	355
Alternative 3.3a	696	298	124	1,119	263	20	283
Alternative 3.3a update	*803*	*343*	*143*	*1,289*	*303*	*22*	*326*
Alternative 3.3b	1,131	484	202	1,816	427	32	459
2030	**A80**	**TLAS**	**CDQ**	**Trawl limit**	**Cod**	**Other**	**NT limit**
Alternative 1	1,745	745	315	2,805	661	49	710
Alternative 2.1	2,097	897	374	3,367	530	39	570
Alternative 2.1a	2,160	924	385	3,469	537	40	577
Alternative 2.1b	1,251	535	223	2,009	331	24	355
Alternative 2.2	1,746	747	312	2,805	547	41	587
Alternative 2.3	2,096	897	374	3,367	530	39	570
Alternative 2.4	1,153	493	206	1,852	323	24	347
Alternative 3.1	2,078	888	371	3,337	531	39	570
Alternative 3.1a	2,135	913	381	3,430	541	40	581
Alternative 3.1b	2,096	896	374	3,366	538	40	578
Alternative 3.1c	2,067	884	369	3,319	531	39	571
Alternative 3.1d	1,235	528	220	1,984	331	24	355
Alternative 3.2a	1,344	575	240	2,158	509	38	546
Alternative 3.2b	1,128	483	201	1,812	437	32	469
Alternative 3.3a	864	370	154	1,388	327	24	351
Alternative 3.3a update	*970*	*415*	*173*	*1,558*	*367*	*27*	*394*
Alternative 3.3b	1,209	517	216	1,942	457	34	491

* The 2016-2018 average usage for non-trawl includes both the HALCP and HALCV sectors. Figure 2-1 illustrates that halibut PSC for the non-trawl category is divided by target species (Pacific cod and 'all other targets'). Though not shown in this table, the non-trawl Pacific cod fishery PSC limit (status quo = 661 t) is further divided through harvest specifications between non-trawl CPs (status quo = 648 t) and non-trawl CVs (status quo = 13 t).

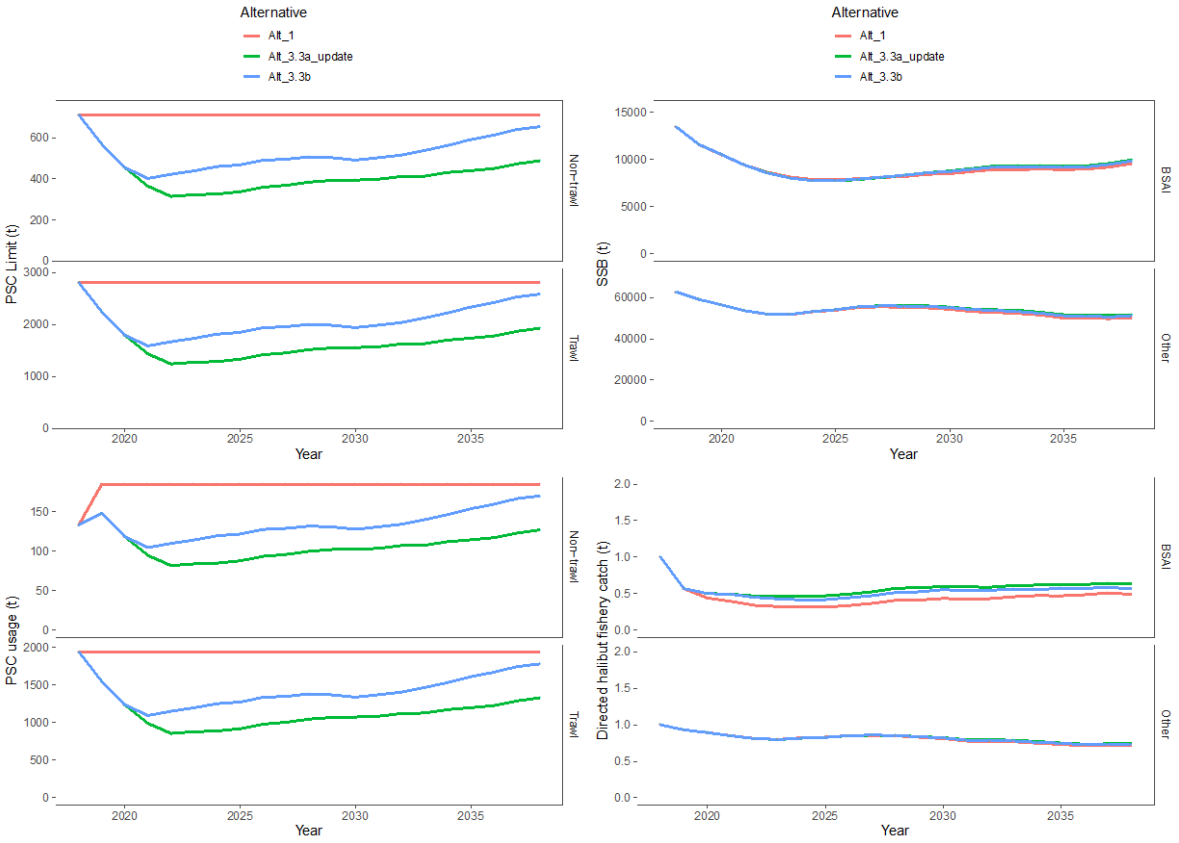


Figure 6-19. A comparison of projected PSC limits, usage, spawning biomass (SSB), and directed halibut fishery catch for Alternatives 3.3a and 3.3b.