

2021-22 harvest specifications and management measures: check-in

Number of new proposals (not including SQ)

- 10 ACL alts
- 10 allocation/ACT alts
- 7 off-top proposals
- 8 at-sea set-aside alts
- 48 trip limits alts
- multiple recreational changes
- A gazillion sablefish tables

Agenda Item H.4.a
Supplemental GMT Presentation 1
March 2020

Harvest specifications - main focus

Species	No Action: DHCR	Alt 1 (PPA)	Alt 2
Shortbelly RF	ABC P* of 0.40 ACL=500 mt	ABC P* of 0.40 ACL=3,000 mt	EC species
OR Black RF	ACL=ABC P*0.45	ACL = "Caseby-case ABC" = 512 mt from 2020	Same as No Action
Cowcod	ACL=ABC P* 0.45	ACL = ABC P*0.40	ACL = ABC P*0.30
Petrale Sole	ACL=ABC P* 0.45	ACL=ABC P*0.40	"Stair-step ACLs"
Sablefish	ABC P* of 0.40 2 Methods to apportion ACLs	ABC P* of 0.45 2 Methods to apportion ACLs	Same as No Action

Shortbelly Rockfish:

Analysis provides support for Alt 1 PPA (same as 2020 ACL)

Alt.	Description	Summary
No Action	500 mt ACL	Likely to constrain fisheries
Alt. 1 (PPA)	3,000 mt ACL	Extra cushion for fisheries Stock thriving - supports robust forage base Other prey abundant (e.g, anchovy)
Alt. 2	EC species	ACLs more incentive to reduce bycatch EC species do not have harvest specifications

Oregon Black Rockfish (in complex with OR blue/deacon)

Analysis provides support for higher Alt 1 ABCs and ACLs

Alt.	Description
No Action	<p>ACL = ABC P*0.45</p> <ul style="list-style-type: none"> ● 512 mt ABC in 2020 ● 479 mt in 2021 ● 474 mt in 2022
Alt. 1 (PPA)	<p>Caseby-case ABC</p> <ul style="list-style-type: none"> ● Stay at 512 mt for 2022 ● Revert to using P* in 2023+

Similar long-term bio. impacts:

- ABCs, output, depletion
- Stock stays above 54% depletion

Alt 1 (PPA) Impacts:

- Stabilizes fisheries in 2022
- More time for ODFW to conduct new survey for 2023 assessment

Trade-off with Alt 1:

- Reverts back to P*0.45 after 2022
- -5 mt ACL difference

Cowcod South of 40° 10’:

Alt 1 PPA accommodates ACT range of 40-60 mt

Alt.	Description
No Action	ACL = ABC P*0.45 (98 mt in 2021)
Alt. 1 (PPA)	ACL = ABC P*0.40 (87 mt in 2021)
Alt. 2	ACL = ABC P*0.30 (69 mt in 2021)

Stock rebuilt and higher ACLs

- Baseline: 10 mt ACL and 6 mt ACT
- SQ 36% trawl and 64% non-trawl
- All provide more opportunity

Focus on more precautionary ACTs:

- For assessment uncertainty
- ACT range = 40-60 mt
- Alt 2 cannot support 60 mt ACT

Petracle Sole

- Council wanted precaution w/ “overestimate” from 2019 update assessment
- Both Alt 1 and 2 equally precautionary and provide same long-term \$ benefits
- Alt 1 = more benefits in 202-22
- Alt 2 = more spread out later

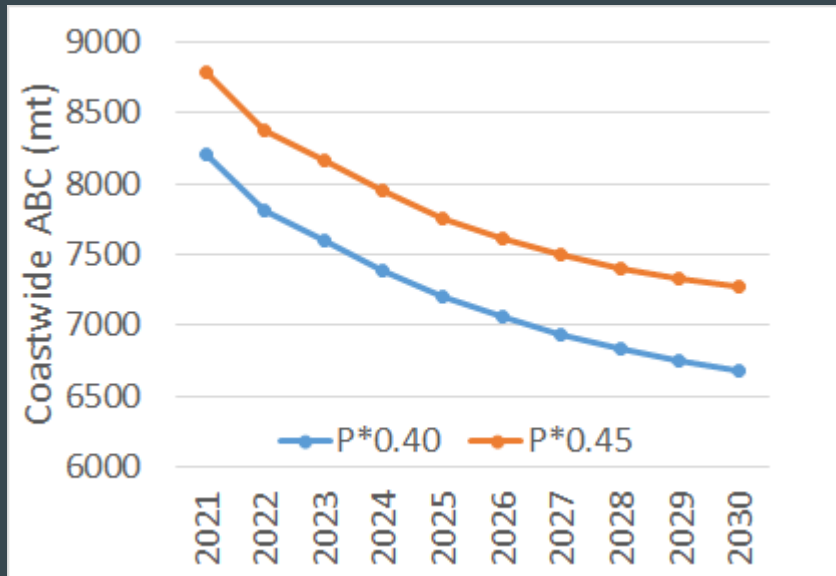
Alt.	Description
No Action	ACL = ABC P*0.45
Alt. 1 (PPA)	ACL = ABC P*0.40
Alt. 2	“Stair-step ACLs” (constant each biennium; decline over time)

Sablefish: 4 ACL options

4 Options	Coastwide ABC Alt.	ACL Apportionment Method	% N 36	% S 36
No Action Method 1	NA: P*0.40	1: Longterm avg	73.6%	26.4%
No Action Method 2		2: 5year avg	78.4%	21.5%
Alt 1 Method 1	1: P*0.45	1: Longterm avg	73.6%	26.4%
Alt 1 Method 2 (PPA)		2: 5year avg	78.4%	21.5%

Sablefish ABCs: main focus

Higher catch not expected to negatively impact stock vs lower catch



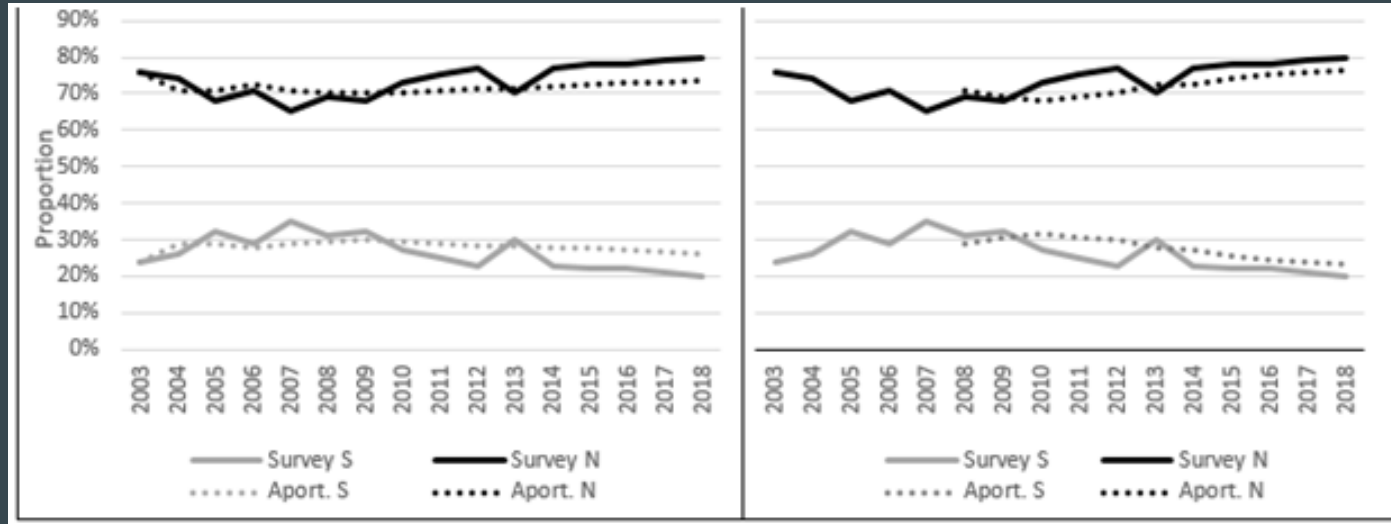
Alt 1 (P*0.45) is 5500 mt higher

- Similar biological impacts for both
- Stays near target, even under low state
- More frequent assessments could be used to conservatively manage stock

Sablefish: 2 ACL apportionment methods

Method 1: longterm avg (73.% N + 26.4%S)

Method 2: 5-year-avg (78.4% N + 21.5% S)



SSC guidance:

- policy call; can consider economics
- Neither method poses biological risk
- Method 2 better if basing off trawl survey distributions

Sablefish N36°

Lat.

Year	Coastwide ABC		North of 36° N lat ACLs			
	P*0.40	P*0.45	No Action Method 1 (P*0.40 + 73.6% long-term avg)	No Action Method 2 (P*0.40 and 78.4% 5-year avg)	Alt 1 Method 1 (P*0.45 + 73.6% long-term avg)	Alt 1 Method 2 (P*0.45 + 78.4% 5-year avg)
2019	7,750	---	5,606	---	---	---
2020	7,896	---	5,723	---	---	---
2021	8,208	8,791	6,041	6,435	6,470	6,892
2022	7,811	8,375	5,749	6,124	6,164	6,566

- +851 mt in 2021 & +817 mt in 2022
- ~\$3.0 million total ex-vessel revenue gain per year
 - +\$1.1 million IFQ
 - +\$0.5 million DTL
 - +\$1.1 million primary “tier”
 - +\$0.3 million tribal

Impacts with
Alt 1 Method 2 (PPA):

Sablefish S 36°

Lat.

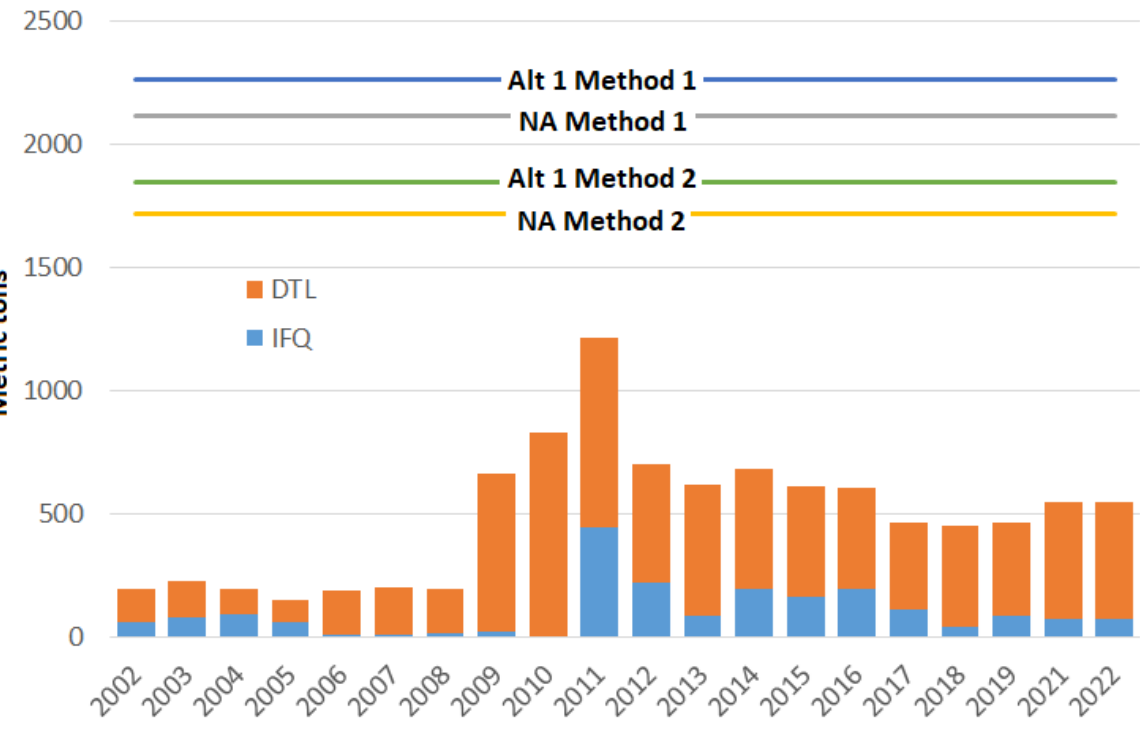
Year	Coastwide ABC		South of 36° N lat ACLs			
	P*0.40	P*0.45	No Action Method 1 (P*0.40 + 26.4% long-term avg)	No Action Method 2 (P*0.40 and 21.5% 5-year avg)	Alt 1 Method 1 (P*0.45 + 26.4% long-term avg)	Alt 1 Method 2 (P*0.45 + 21.5% 5-year avg)
2019	7,750	---	1,990	---	---	---
2020	7,896	---	2,032	---	---	---
2021	8,208	8,791	2,167	1,765	2,321	1,890
2022	7,811	8,375	2,062	1,679	2,211	1,801

Same expected impacts for all options:

- ~\$3.4 million ex-vessel total per year
- ~\$3.2 million DTL
- ~\$0.2 million IFQ

Sablefish S 36°

Lot



Reasons for constant catches:

- Attainments are low
- Neither sector expected to be constrained in 2021-22
- Lack of processing infrastructure a hindrance and CCAs

Can re-evaluate in future

Southern lingcod allocations

Option	Description
1 (SQ)	A-21: 45% trawl; 55% no-trawl
2	Two year: 43% trawl; 57% no-trawl
3	Two year: 25% trawl; 75% no-trawl

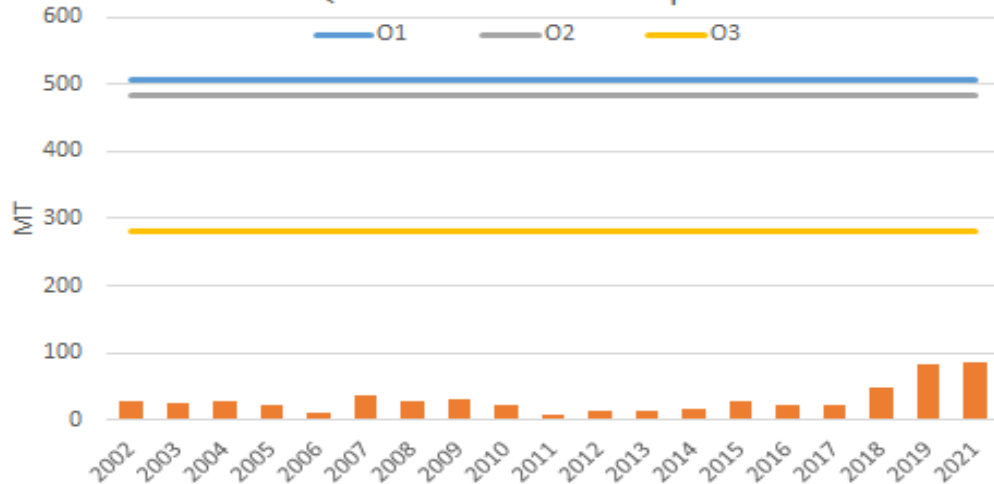
Impact to non-trawl:

- Reduce potential need for inseason action
- Provide flexibility and opportunity to plan for future fishing activities

Impact to trawl:

- Low attainment for all options
- Vessel constraints with O3

IFQ catch vs allocation options

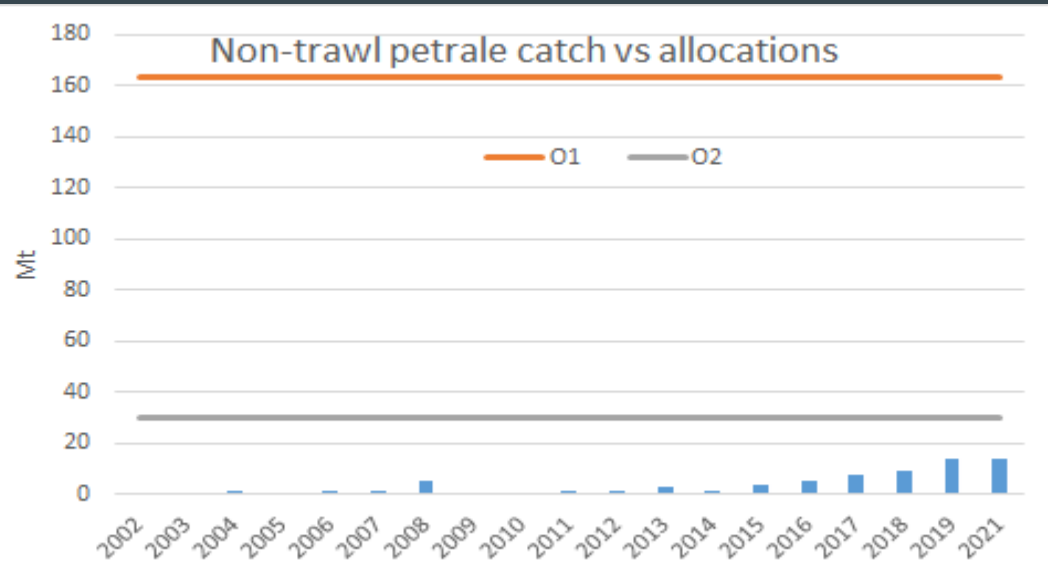


Petrale sole allocations

Option	Description
1 (SQ)	A-21: 95% trawl; 5% no trawl
2	Two year: 30 mt no trawl; rest to trawl

Option 2 benefits IFQ:

- Shifts 133 mt on avg. to IFQ
- +\$347k avg. in ex-vessel revenue



Option 2 not expected to negatively impact non-trawl

- 30 mt allocation provides buffer
- 2021-22 projection: 14 mt

Widow rockfish allocations

Option	Description
1 (SQ)	A-21: 91% trawl, 9% nortrawl
2	Two year: 300 mt nortrawl; rest to trawl

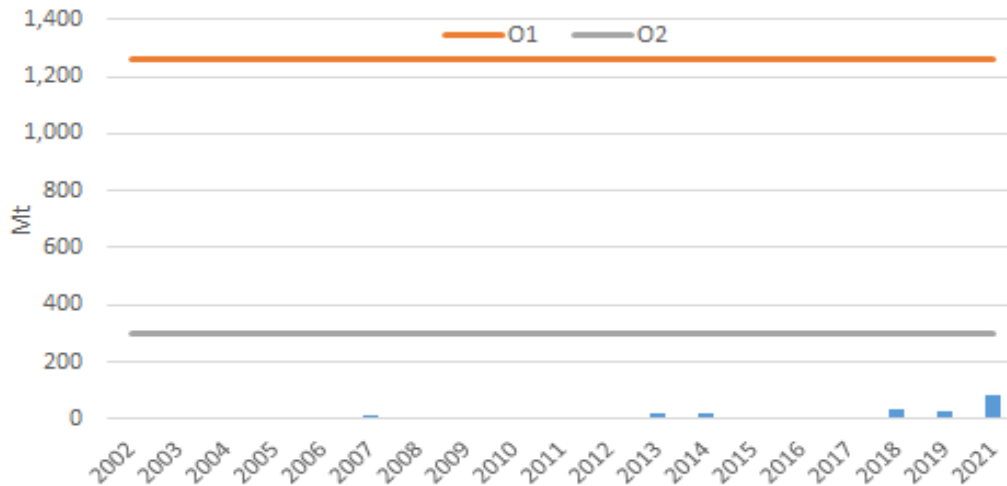
Option 2 benefits IFQ:

- Shifts 961 mt on avg to IFQ
- +\$400k avg ex-vessel revenue

Option 2 not expected to negatively impact non-trawl






- 300 mt fixed provides cushion
- 2021-22 projection = 79 mt
 - Higher expected in FG and Rec.

Non-trawl widow vs proposed allocations



Southern Slope / Blackgill RF allocations

Category	2021	
	Trawl	Non-trawl
Blackgill share	72.4	104.2
Other slope share	484.5	47.9
Total share	556.9	152.1
% of total share	0.8	0.2
Off-top for complex	38.9	
Apportioned off-top	30.5	8.4
Option 2 slope complex allocations	526.4	113.2
Option 1 slope complex allocation (A-21)	422.2	247.9

 41% trawl; 59% non-trawl
 91% trawl; 9% non-trawl
 Problem: have allocated whole ACL
 So need to deduct the off-the-top pro rata
 Final complex custom allocations
SQ: 63% trawl; 37% non-trawl

Canary RF allocations

Non-trawl impacts

- Option 1 amounts may constrain the non-trawl sector
- Combining nearshore & nearshore could help

IFQ impacts:

- Neither Option expected to constrain IFQ
- Projected to catch 300-400 mt of 800+ allocations

Year = 2021	% SQ	Option 1	Option 2
Fishery HG		1,268.6	
Trawl	72.3%	917.2	862.1
--IFQ		871.2	842.1
--CP		16	20
--MS		30	
Non-trawl	27.7%	351.4	406.5
--Non-nearshore	11.4%	40.1	46.5
--Nearshore	24.6%	86.4	100
--WA Rec.	12.3%	43.2	50
--OR Rec	18.5%	65.0	75
--CA Rec.	33.2%	116.7	135

Yelloweye RF allocations

Year	2021		2022	
ACL	50		51	
Fishery HG	41.2		42.2	
IFQ (8%)	3.3		3.4	
Non-trawl (92%)	HG	ACT	HG	ACT
	37.9	29.5	38.8	30.4
Non-nearshore (5.4%)	2.0	1.6	2.1	1.6
Nearshore (15.5%)	5.9	4.6	6.0	4.7
---OR (72.7%)	4.3	3.3	4.4	3.4
---CA (27.3%)	1.6	1.2	1.6	1.3
WA Rec (25.6%)	9.7	7.5	9.9	7.8
OR Rec (23.3%)	8.8	6.9	9.0	7.1
CA Rec (30.2%)	11.4	8.9	11.7	9.2

Do you want to keep using ACTs?

Tribal

Setaside (mt) requests:

Stock	2019 setaside	2021-22 setaside
Petrale sole	290	350
Longnose skate	130	220
Yelloweye RF	2.3	5.0
Cabezon	0	2.0

Also sablefish as allocated 10% N³⁶. ACL:

Year	No Action Method 1	No Action Method 2	Alt 1 Method 1	Alt 1 Method 2
2019	\$1.8			
2021-22 avg.	\$1.9	\$2.0	\$2.1	\$2.2

At-sea setasides: questions for consideration

- Is the ACL at risk of exceedance (highly attained in all sectors)?
 - If so, does the amount cover expected sea bycatch, or is a higher number needed to prevent risk to ACL?
 - What is Council response for exceeding a setaside when no/low risk to ACL?
- To what extent does increasing/decreasing the setaside amount constrain/benefit the IFQ sector?
- Do we want sectorspecific setasides?



Same attainments as in past for most stocks:

- 90+% attainment for petrale, widow, sablefish N36 lat.
- 52% darkblotched RF, 47% halibut
- Low for everything else: 28% non-whiting, non-sablefish
 - 13% Dover sole: ~6k of 46k allocation

Trip limits:

- Unlimited big skate:
 - Low projected benefits and attainments
- New blackgill trip limit to keep to Option 2 share?
 - Unlimited at first
 - Downward inseason if needed
 - Highly effective at reducing catch

Washington Recreational

Proposed changes for 2021-2022 include:

- Additional access to healthy lingcod and deepwater stocks:
 - Removal of 2 small YRCAs
 - Continue incremental relaxation of depth restrictions
- Additional access to healthy mid-water rockfish stocks:
 - Allow the retention of yellowtail and widow rockfish seaward of 20 fathoms during summer months
- Additional access to other healthy stocks:
 - Increase retention allowance for flatfish
 - Allow retention of additional species on halibut trips







Oregon recreational

- Season open to all depth year round
 - Stonewall Bank YRCA remains closed
- Bag limits remain the same
 - General marine bag--10
 - Lingcod--3
 - Flatfish--25
 - Longleader gear--10, of select species
- Size limits remain the same
 - Lingcod--22 inches
 - Cabezon--16 inches
- Longleader gear fishing & all-depth halibut allowed on same trip

California recreational

- Changes to the sub-bag limits within the 10 fish Rockfish Cabezon Greenling limit
 - Cabezon - from 3 up to 10
 - Black rockfish - from 4 up to 10
 - Canary rockfish from 3 up to 10
 - Vermilion rockfish - from 10 to as few as 2
- Rockfish Conservation Area Boundary Modifications
 - Mendocino Management Area - from 20 fm to 30 fm
 - San Francisco Management Area - from 40 fm to 50 fm
 - Southern Management Area - from 75 fm to 100 fm

OA Thornyheads N 34° 27' Nlat. (Pt Conception)

Area	Option	Trip limit	
North of 40°10'	1 (SQ)	50 lb./month shortspine 50 lb./month longspine	
	2	1,000 lb./month shortspine 50 lb./month longspine	
	3	50 lb./day combined 1,000 lb./2 months combined (same as SQ S 347')	
Central Cal. (34°27' - 40°10')	1 (SQ)	Both Prohibited	
	2	50 lb./ month shortspine 50 lb./ month longspine (same as SQ N 40°10')	
	3	50 lb./day combined 1,000 lb./2 months combined (same as SQ S 347')	

LEFG OA trip limit proposals N40° 10' N lat:

	Option 1 (SQ)	Option 2	ACL attainment
Widow RF	LE OA: 200 lbs./month widow, shelf, shortbelly combined	Separate widow limit: LE: 4,000 lbs./2 months OA: 2,000 lbs./2 months	H
Canary RF	LE: 300 lbs./month OA: 300 lbs./ month	LE: 3,000 lbs./month OA: 1,000 lbs./month	L
POP	LE: 1,800 lbs./2 months	LE: 3,600 lbs./2 months	L
Yellowtail RF	LE: 1,000 lbs./month OA: 500 lbs./month	LE: 3,000 lbs./month OA: 1,500 lbs./month	M
Slope RF and darkblotched RF	LE: 4,000 lbs./2 months combined OA: 500 lbs./ month combined	LE: 8,000 lbs./2 months combined OA: 1,000 lbs./month combined	L: slope M: dark.
Lingcod N42	LE: 2,000 lbs./2 months OA: 900 lbs./month	LE: 4,000 lbs./month OA: 2,000 lbs./month	L

LEFG OA trip limit proposals S 40° 10' N. lat:

- Analyzed routine adjustment to achieve harvest limits for both LE and OA
- Analyzed removal of the period 2 (Mar-Apr) closure
- LE and OA trip limits for canary rockfish may be constrained by the non-nearshore and nearshore shares.

Additional LEFG OA trip limits for consideration:

Stock	Option 1 (SQ)	Option 2	ACL attainment
Shelf RF North	LE OA: 200 lbs./month widow, shelf, shortbelly combined	Separate shelf RF limit: LE: 800 lbs./month OA: 800 lbs./month	L
Shortbelly Rockfish	Multi -species trip limit categories N+S 40°10'	Separate shortbelly RF limit: 200 lbs./month LE and OA	H (NA) L (Alt 1)
Lingcod 40°10' - 42°	LE: 1,400 lbs./2 months OA: 600 lbs./month	LE: 2,000 lbs./2 months OA: 1,000 lbs./month	L
Flatfish	LE: 5,000 lbs./month OA: 3,000 lbs./month & 300 lbs. non-sanddab sublimit	LE: 10,000 lbs./month OA: 5,000 lbs./ month	L except H petrale
Splitnose South	OA: 200 lbs./month	OA: 500 lbs./month	L

Others: (1) Raise LES and OAS DTL; (2) Raise yellowtail north even higher; (3) Raise LE and OA

Clarifications needed

- Yelloweye ACT?
- Yelloweye research set-aside at 2.92 mt based on anticipated research needs of IPHC, states, and NMFS, rather than historic high
- Confirming Alternative 2 for shortbelly rockfish and petrale sole
- Additional LEFG OA trip limits for analysis

Back-up slides

3 overarching questions on at-sea A-21, canary,

Keep or drop the A21 formulas for widow, POP, darkblotched?

- Strands hundreds mts of widow and POP from IFQ
- Does not accomodated expected-sea darkblotched bycatch

Reduce atsea canary from 46 mt (30 MS + 16 CP) mt to 20 mt?

- Not expected to constrain (3x historical max of 7 mt) and no longer harcap species

Increases sablefish to 100 for both

- Helps cover recent atsea bycatch and reduces risk to ACL
- -50 mt to IFQ, which is relatively minor to potential IFQ gains with the PPA SPEX (Alt 1 Method 1)

Item	Year	No Action ABC		Alt 1 ABC (PPA)	
		Method 1 ACL	Method 2 ACL	Method 1 ACL	Method 2 ACL (PPA)
N 36° IFQ allocation	2019	2,584			
	2021	2,787	2,973	2,990	3,190
	2022	2,649	2,826	2,845	3,035

Three main (single) at-sea set-aside options

Stock/Species	Area	2019 Regs	Option a (SQ)	Option b (5 year average)	Option c (5 year average with 1.2	Historical Mortality for CPs/MS			
						Maximum	2018 (mt)	2019 (mt)	Average 2015-2019
YELLOWEYE ROCKFISH	Coastwide	0	0	0	0	0	0	0	0
Arrowtooth flounder	Coastwide	70	70	38.6	46.3	66	55	44	39
Canary rockfish	Coastwide	46	46	20	20	7	6	5	4
Darkblotched rockfish	Coastwide	36.3	42.1(2021)/ 39.5(2022)	38.8	46.6	76	65	76	39
Dover sole	Coastwide	5	10	2.1	2.5	6	3	6	2
English sole	Coastwide	5	5	0	0	0	0	0	0
Lingcod	N. of 40°10'	15	15	1.4	1.7	3	3	2	1
Longnose skate	Coastwide	5	5	1	1.2	2	2	1	1
Longspine Thornyhead	N. of 34°27'	5	5	0	0	0	0	0	0
Minor Shelf Rockfish	N. of 40°10'	35	35	9.4	11.3	16	11	16	9
Minor Slope Rockfish	N. of 40°10'	100	300	147.1	176.5	295	295	207	147
Other flatfish	Coastwide	20	35	16.5	19.8	33	32	33	17
Pacific cod	Coastwide	5	5	0	0	0	0	0	0
Pacific halibut a/	Coastwide	10	10	10	10	1	1		0
Pacific ocean perch	N. of 40°10' N. lat.	404.5	357.7(2021) 321.3(2022)	48.5	58.2	142	56	142	49
Petrale Sole	Coastwide	5	5	0	0	0	0	0	0
Sablefish	N. of 36° N.	50	50	100	100	153	117	71	76
Shortspine Thornyhead	N. of 34°27'	30	70	35.2	42.2	69	69	57	35
Starry Flounder	Coastwide	5	5	0	0	0	0	0	0
Widow rockfish	Coastwide	611.4	764.1(2021) 714.6(2022)	220.6	264.7	476	207	199	221
Yellowtail Rockfish	N. of 40°10'	300	320	194.9	233.9	318	230	318	195

Sector-specific

Stock/Species	Area	Option d		Option e		Option f		2018 Mortality		2019 Mortality	
		CP	MS	CP	MS	CP	MS	CP	MS	CP	MS
YELLOWEYE ROCKFISH	Coastwide	0	0	0.0	0.0	0	0	0	0	0	0
Arrowtooth flounder	Coastwide	65.5	10.0	22.6	16.0	34.6	4	45.4	10.0	40.9	2.7
Canary rockfish	Coastwide	16	30	11.7	8.3	1	2.6	0.9	4.7	1.7	3.3
Darkblotched rockfish	Coastwide	24.7(2021) 23.2(2022)	17.4(2021) 16.4(2022)	22.7	16.1	25.7	13.2	41.8	23.2	45.5	30.9
Dover sole	Coastwide	6.2	0.6	1.2	0.9	1.9	0.2	2.1	0.6	6.2	0.1
English sole	Coastwide	0	0	0	0	0	0	0.1	0.0	0.1	0
Lingcod	N. of 40°10' N. lat.	0.3	3.2	0.8	0.6	0.1	1.3	0.1	3.2	0.3	1.4
Longnose skate	Coastwide	0.9	1	0.6	0.4	0.5	0.5	0.9	1.0	0.7	0
Longspine Thornyhead	N. of 34°27' N. lat.	0	0	0	0	0	0	0.0	0	0	0
Minor Shelf Rockfish	N. of 40°10' N. lat.	4.2	12.3	5.5	3.9	2.4	7	1.1	9.7	4.2	11.3
Minor Slope Rockfish	N. of 40°10' N. lat.	219.3	75.7	86.2	60.9	112.6	34.5	219.3	75.7	161.4	45.9
Other flatfish	Coastwide	31.6	4.8	9.7	6.8	14.7	1.7	26.9	4.8	31.6	1.5
Pacific cod	Coastwide	0	0	0	0	0	0	0.0	0.0	0	0
Pacific ocean perch	N. of 40°10' N. lat.	209.7(2021) 188.4(2022)	148.0(2021) 133(2022)	28.4	20.1	31.1	17.4	30.8	24.8	94.4	47.3
Petrale Sole	Coastwide	0	0	0	0	0	0	0.0	0.0	0	0
Sablefish	N. of 36° N. lat.	92.2	85.8	58.6	41.4	48.1	28	92.2	24.6	53.1	18.1
Shortspine Thornyhead	N. of 34°27' N. lat.	59.6	9.8	20.6	14.6	30.5	4.7	59.6	9.8	52	5.4
Starry Flounder	Coastwide	0	0	0	0	0	0	0.0	0.0	0	0
Widow rockfish	Coastwide	447.9(2021) 418.9(2022)	316.2(2021) 295.7(2022)	129.3	91.3	139	81.7	62.6	144.3	92.6	106.4
Yellowtail Rockfish	N. of 40°10' N. lat.	163.7	178.7	114.2	80.7	71.4	123.5	51.1	178.7	163.7	153.9

Option D = five year_{max} for CP and MS (except A-21); adds potential to strand lots of fish w/ no benefit to ACL
 Option E = 5-year avg both split pro rata (58.6 CP, 41.4% MS) - infrequently covers sector bycatches (60%)
 Option F = 5-year average from CP and MS - lots of instances where doesn't cover bycatches

LEFG OA Sablefish:

Sector	Baseline	No Action Method 1	No Action Method 2	Alt 1 Method 1	Alt 1 Method 2
Tier 1 avg	47,637	50,113	53,406	53,726	57,254
Tier 2 avg	21,653	22,779	24,275	24,421	26,025
Tier 3 avg	12,373	13,017	13,872	13,955	14,872
LEN weekly	1,300	1,500	1,600	1,600	1,700
LEN bimo	3,900	4,500	4,800	4,800	5,100
OAN daily	300	300	300	300	300
OAN weekly	1,200	1,200	1,300	1,300	1,400
OAN bimo	2,400	2,400	2,600	2,600	2,800
LES weekly	2,000	2,000	2,000	2,000	2,000
OAS daily	300	300 = Option 1; No daily limit = Option 2			
OAS weekly	1,600	1,600	1,600	1,600	1,600
OAS bimo	4,800	4,800	4,800	4,800	4,800