MEMORANDUM

TO: Council, SSC and AP Members

FROM: Chris Oliver
Executive Director

DATE: November 25, 2002

SUBJECT: Final BSAI Groundfish Specifications for 2003

ESTIMATED TIME
16 HOURS
(for all D-1 items)

ACTION REQUIRED

(d) Approve the 2003 BSAI/GOA EA and BSAI Final Stock Assessment and Fishery Evaluation (SAFE) report.

Approve final BSAI groundfish specifications for 2003:

1. Acceptable Biological Catch (ABC), and annual Total Allowable Catch (TAC);
2. Seasonal apportionment of the fixed gear Pacific cod TAC; and
3. Bycatch allowances, and seasonal apportionments of Pacific halibut, red king crab, Tanner crab, opilio crab, and herring to target fishery (PSC) categories.
4. Approve halibut discard mortality rates for the 2003 CDQ groundfish fisheries.

BACKGROUND

At this meeting, the Council makes final recommendations on groundfish and bycatch specifications as listed above. These final specifications will be used to manage the 2003 groundfish fisheries.

BSAI SAFE Document

The groundfish Plan Teams met in Seattle November 12-14, 2002 to prepare the final BSAI SAFE documents provided for this meeting. This SAFE report forms the basis for BSAI groundfish specifications for the 2003 fishing year. Note that there are three sections to the SAFE report: a stock assessment section, a fishery evaluation section ("economic SAFE"), and an ecosystems considerations section. These three sections, together with the GOA SAFE report, are incorporated into the Environmental Assessment for the 2003 groundfish specifications. The SAFE reports were mailed on November 19 and the EA was mailed on November 22. An errata for the BSAI SAFE introductory chapter, BSAI Plan Team minutes, Joint Team minutes, and SSC and AP recommendations will be provided to the Council during the meeting.

ABCs, TACs, and Apportionments

At this meeting, the Council will establish final catch specifications for the 2003 fisheries. Item D-1(d)(1) includes Tables 4 and 5 from the SAFE summary chapter, which reports biomass levels and BSAI Plan Team recommendations for overfishing levels (OFLs) and Allowable Biological Catches (ABCs). The sum of recommended ABCs by the Plan Team for 2003 is 3,331,001 mt, an increase of 147,000 mt from 2002. Overall, the status of the stocks continues to appear relatively favorable, although in some cases biomass has declined due to below average recruitment or changes in modeling techniques. Pollock biomass increased

by 1.3 million mt compared with last year's estimate. Biomass estimates declined by nearly half for Greenland turbot (age 1+) due to new fishery and survey data and for rock sole (age 2+) due to significant changes to the model and new fishery and survey data. None of the BSAI groundfish stocks are overfished or approaching an overfished condition..

The Council is addressing NMFS recommendations for BSAI rockfish management under Agenda D-1(b). Other final specifications include making the seasonal apportionment of the fixed gear Pacific cod TAC, and establishing bycatch allowances and seasonal apportionments of Pacific halibut, red king crab, Tanner crab, opilio crab, and herring to target fishery (PSC) categories.

Adopt Seasonal Apportionments of the Pacific Cod TAC Allocated to Fixed Gear

Amendment 24 regulations allow seasonal apportionment of the Pacific cod TAC allocated to vessels using hook-and-line or pot gear. Seasonal apportionments will be divided among trimesters and established through the annual specifications process. In recommending seasonal apportionments, regulations require the Council to base its decision on factors listed in the adjacent box.

Seasonal apportionments can be based on the following information:

1. Seasonal distribution of Pacific cod relative to PSC distribution;
2. Expected variations in PSC bycatch rates in the Pacific cod fishery throughout the fishing year; and
3. Economic effects of any seasonal apportionment of Pacific cod on the hook-and-line and pot gear fisheries.

Under Amendment 46, two percent of the TAC is reserved for jig gear, 51 percent for fixed gear, and 47 percent for trawl gear. The trawl apportionment will be split between catcher vessels and catcher processors 50/50. Under Amendment 64, the fixed gear apportionment is further allocated as follows: 80% to freezer longline vessels; 0.3% to longline catcher vessels; 18.3% to pot gear vessels; and 1.4% to catcher vessels (longline or pot) less than 60 feet length overall.

Item D-1(d)(2) lists the 2002 gear and seasonal apportionments of the Pacific cod TAC. Season dates for longline and jig gear were 1/1-6/10 and 6/10-12/31. Season dates for pot gear were 1/1-6/10 and 9/1-12/31.

Adopt Prohibited species catch limits of Pacific halibut, crab, and herring

Halibut

Trawl Fisheries: A 3,675 mt limit on halibut mortality has been established for trawl gear. This limit can be apportioned to the trawl fishery categories as shown in the adjacent box. Note that under Amendment 46, the trawl halibut PSC mortality cap for Pacific cod will be no greater than 1,600 mt.

Categories used for prohibited species catch (PSC) apportionment in trawl fisheries.

1. Greenland turbot, arrowtooth flounder and sablefish;
2. rock sole and "other flatfish;"
3. yellowfin sole;
4. rockfish;
5. Pacific cod; and,
6. pollock, Atka mackerel and "other species."

Fixed Gear Fisheries: A 900 mt non-trawl gear halibut mortality can be apportioned to the fishery categories listed in the adjacent box. Note that under Amendment 46, the hook-and-line halibut PSC mortality cap for Pacific cod will be no greater than 900 mt. Item D-1(d)(3) lists the 2002 PSC allocations and seasonal apportionments for the trawl and non-trawl fisheries. Item D-1(d)(4) is a current summary of PSC bycatch accounting for BSAI fisheries.

Categories used for PSC apportionment in non-trawl fisheries.

1. Pacific cod;
2. Other non-trawl (longline sablefish and rockfish, and jig gear)
3. Groundfish pot (exempt in recent years)

Crab

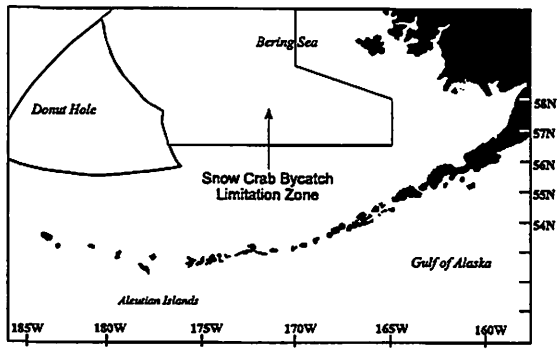
Prescribed bottom trawl fisheries in specific areas are closed when prohibited species catch (PSC) limits of *C. bairdi* Tanner crab, *C. opilio* crab, and red king crab are taken. Amendment 37 established a stairstep procedure for determining PSC limits for red king crab taken in Zone 1 trawl fisheries. PSC limits are based on abundance of Bristol Bay red king crab as shown in the adjacent table. Amendment 57 contained a provision to reduce red king crab bycatch by an additional 3,000 crabs as part of the regulation prohibiting the use of bottom trawl gear for pollock fisheries. Based on the 2002 estimate of ESB (37.7 million pounds), and the 3,000 crab reduction for Amendment 57, the PSC limit for 2003 will be 97,000 red king crabs. The regulations also specify that up to 35% of the PSC apportioned to the rock sole fishery can be used in the 56° - 56°10'N strip of the Red King Crab Savings Area. The red king crab cap has generally been allocated among the pollock/mackerel/other species, Pacific cod, rock sole, and yellowfin sole fisheries. Once a fishery exceeds its red king crab PSC limit, Zone 1 is closed to that fishery for the remainder of the year, unless further allocated by season.

PSC limits for red king crab and C. bairdi Tanner crab.

Species	Zone	Crab Abundance	PSC Limit
Red King Crab	Zone 1	Below threshold or 14.5 million lbs of effective spawning biomass (ESB)	35,000
		Above threshold, but below 55 million lbs of ESB	100,000
		Above 55 million lbs of ESB	200,000
Tanner Crab	Zone 1	0-150 million crabs	0.5% of abundance
		150-270 million crabs	750,000
		270-400 million crabs	850,000
		over 400 million crabs	1,000,000
Tanner Crab	Zone 2	0-175 million crabs	1.2% of abundance
		175-290 million crabs	2,100,000
		290-400 million crabs	2,550,000
		over 400 million crabs	3,000,000

Under Amendment 41, PSC limits for *bairdi* in Zones 1 and 2 are based on total abundance of *bairdi* crab as indicated by the NMFS trawl survey. These limits are further reduced by 50,000 as prescribed by proposed Amendment 57. Based on 2002 abundance (464.9 million crabs), and the Amendment 57 adjustment, the 2003 PSC limit for *C. bairdi* will be 980,000 (1,000,000 minus 20,000) crabs in Zone 1 and 2,970,000 (3,000,000 minus 30,000) crabs in Zone 2.

Under Amendment 40, PSC limits for snow crab (*C. opilio*) are be based on total abundance of *opilio* crab as indicated by the NMFS standard trawl survey. The snow crab PSC cap is set at 0.1133% of the Bering Sea snow crab abundance index, with a minimum PSC of 4.5 million snow crab and a maximum of 13 million snow crab. This number is further reduced by 150,000 crabs as part of Amendment 57. Based on the 2002 survey estimate of 1.49 billion crabs, the 2003 *opilio* crab PSC limit will be 4,350,000 crabs (4,500,000 minus 150,000).



Location of the C. opilio bycatch limitation zone.

Snow crab taken within the "Snow Crab Bycatch Limitation Zone"accrue towards the PSC limits established for individual trawl fisheries. Upon attainment of a snow crab PSC limit apportioned to a particular trawl target fishery, that fishery is prohibited from fishing within the snow crab zone.

Herring

Amendment 16a established an overall herring PSC bycatch cap of 1 percent of the EBS biomass of herring. This cap is to be apportioned to the same six PSC fishery categories listed above, plus a seventh group, mid-water pollock. The 2002 herring assessment data for abundance forecasts have not yet been analyzed. For the largest stock (Togiak) aerial observation conditions were poor during the spring 2002 spawning season and ADFG did not get an abundance estimate for use in the age-structured assessment analysis. Age composition estimates indicate the 1997 year class is of at least moderate size and should continue to support the present biomass levels. Preliminary analysis of the data indicate that the biomass estimates will not change much from last year. It would be reasonable to use last year's biomass estimates of 152,574 mt, for a 2003 herring PSC limit of 1,526 mt.

Seasonal Apportionment of bycatch limits

The Council may also seasonally apportion the bycatch allowances. Regulations require that seasonal apportionments of bycatch allowances be based on the following types of information listed in the adjacent box. Additional information on PSC limits and apportionments is presented in BSAI SAFE Report Appendix B.

Factors to be considered for seasonal apportionment of bycatch allowances.

1. Seasonal distribution of prohibited species;
2. Seasonal distribution of target groundfish species relative to prohibited species distribution;
3. Expected prohibited species bycatch needs on a seasonal basis relevant to change in prohibited species biomass and expected catches of target groundfish species;
4. Expected variations in bycatch rates throughout the fishing year;
5. Expected changes in directed groundfish fishing seasons;
6. Expected start of fishing efforts; and
7. Economic effects of establishing seasonal prohibited species apportionments on segments of the target groundfish industry.

Halibut Discard Mortality Rates

In 2001, the IPHC staff proposed and the Council adopted a plan to use the 10-year average halibut discard mortality rates (DMR) for a 3-year cycle for all GOA and BSAI non-CDQ groundfish fisheries. Although they do not need to be revised until the 2004 fisheries, the Council has the option to revise DMRs, if necessary. The IPHC staff will continue to review annual halibut bycatch. The 2001 BSAI trawl fishery DMRs exhibited no overall increase or decrease; results were mixed when compared to 2000 estimates. In the GOA, results were also mixed, as five trawl fisheries declined and five increased. The 2001 longline fishery DMR showed only minor change from 2000. Pot fishery DMRs exhibited large changes from 2000. In the BSAI fishery, the DMR dropped to 0.06, almost half of the 2000 value and a level typically shown by this gear type. In contrast, the GOA fishery displayed a substantial increase in its' DMR in 2001, up to 0.33. This is the highest level achieved by any pot fishery since these DMR analyses were initiated by IPHC in 1990. These results for the 2001 GOA fishery appear to possibly reflect changes made to management of the cod fishery itself, in that directed cod fishing was curtailed during 2001 in response to the need for Steller sea lion protection. The possible impacts would include moving vessels to areas with low cod catch rates, causing higher than normal soak times which would result in high mortality.

The Council decided to set annual DMRs for the CDQ fisheries. IPHC staff recommends that the 2003 CDQ fisheries use the following DMRs:

CDQ Trawls	*CDQ Longlines*	*CDQ Pots*
Atka Mackerel: 0.80	Pacific cod: 0.11	Pacific cod: 0.02
Bottom pollock: 0.90	Turbot: 0.04	Sablefish: 0.46
Flathead sole: 0.90		
Pelagic pollock: 0.89		
Rockfish: 0.90		
Yellowfin sole: 0.83		

No recommendations are proposed for changes to the DMRs used in the open access fishery. The DMRs used in 2002 for the BSAI and GOA are to be used in 2003 (Item D-1(d)(5)).

Table 4-- Summary of stock abundance (biomass), overfishing level (OFL), acceptable biological catch (ABC), the fishing mortality rate corresponding to ABC (F_{OFL}), and the fishing mortality rate corresponding to OFL (F_{ABC}) for the eastern Bering Sea (EBS), Aleutian Islands (AI), and Bogoslof district as projected for 2003. "Biomass" corresponds to projected January 2003 abundance for the age+ range reported in the summary section. Biomass, OFL, and ABC are in metric tons, reported to three significant digits. Fs are reported to two significant digits.

Species or Species Complex	Area	Biomass	OFL	ABC	F_{OFL}	F_{ABC}
Walleye pollock	EBS	11,100,000	3,530,000	2,330,000	1.10	0.52
Walleye pollock	AI	175,000	52,600	39,400	0.30	0.23
Walleye pollock	Bogoslof	227,000	45,300	34,000	0.20	0.15
Pacific cod	BSAI	1,680,000	324,000	223,000	0.41	0.28
Yellowfin sole	BSAI	1,550,000	136,000	114,000	0.14	0.12
Greenland turbot	BSAI	112,000	17,800	5,880	0.32	0.10
Arrowtooth flounder	BSAI	597,000	139,000	112,000	0.30	0.22
Rock sole	BSAI	877,000	132,000	110,000	0.21	0.18
Flathead sole	BSAI	550,000	81,000	66,000	0.37	0.29
Alaska plaice	BSAI	1,080,000	165,000	137,000	0.21	0.28
Other flatfish	BSAI	107,000	21,400	16,000	0.20	0.15
Sablefish	EBS	31,000	4,290	2,550	0.16	0.13
Sablefish	AI	39,000	4,590	2,740	0.16	0.13
Pacific ocean perch	BSAI	375,000	17,900	15,100	0.056	0.047
Northern rockfish	BSAI	156,000	9,330	7,000	0.0	0.045 [a]
Shortraker/Rougheye rockfish	BSAI	45,200	1,290	967	0.025 [b]	0.019-0.22 [a] [b]
Other rockfish	EBS	18,000	1,280	960	0.073 [b]	0.053 [b]
Other rockfish	AI	15,000	846	634	0.073 [b]	0.053 [b]
Atka mackerel	AI	358,000	99,700	51,000	0.84	.44
Squid	BSAI	n/a	2,620	1,970	n/a [c]	n/a [c]
Other species	BSAI	695,000	81,100	60,800	0.12 [c]	0.086 [c]
TOTAL		19,787,200	4,867,046	3,331,001		

a/ previously combined into other red rockfish complex
b/ Weighted average of species-specific rates.
c/ Weighted average of rates for sculpins and skates only

Table 5-- Summary of BSAI groundfish tier designations under Amendment 56, maximum permissible ABC fishing mortality rate (max F_{ABC}), the Plan Team's recommended ABC fishing mortality rate (F_{ABC}), the maximum permissible value of ABC (max ABC), the Plan Team's recommended ABC, and the percentage reduction (% Red.) between max ABC and the Plan Team's recommended ABC. Insofar as the SSC has final authority for tier designations, the designations shown here represent Plan Team recommendations only. Biomass and ABC are in metric tons, reported to three significant digits. Fishing mortality rates are reported to two significant digits. In cases where max ABC and the Plan Team's recommended ABC are equal, the percentage reduction is left blank. All values pertain to the 2002 harvest season. For "other species," the *max* F_{ABC} and F_{ABC} values represent weighted averages of the rates for sculpins and skates.

Species or Species Complex	Area	Tier	max F_{ABC}	F_{ABC}	max ABC	ABC	% Red.
Walleye pollock	EBS	1a	0.52	0.52	2,330,000	2,330,000	
Walleye pollock	AI	5	0.23	0.23	39,400	39,400	
Walleye pollock	Bogoslof	5	0.15	0.15	34,000	34,000	
Pacific cod	BSAI	3b	0.35	0.27	278,000	223,000	20
Yellowfin sole	BSAI	3a	0.12	0.12	11,400	114,000	
Greenland turbot	BSAI	3a	0.26	0.10	14,700	5,880	60
Arrowtooth flounder	BSAI	3a	0.22	0.22	112,000	112,000	
Rock sole	BSAI	3a	0.18	0.18	110,000	110,000	
Flathead sole	BSAI	3a	0.29	0.29	66,000	66,000	
Alaska plaice	BSAI	3a	0.28	0.28	137,000	137,000	
Other flatfish	BSAI	5	0.15	0.15	16,000	16,000	
Sablefish	BS	3b	0.13	0.13	3,520	2,550	28
Sablefish	AI	3b	0.13	0.13	3,780	2,740	28
Pacific ocean perch	BSAI	3b	0.047	0.047	15,100	15,100	
Northern rockfish	BSAI	5	0.045	0.045	7,000	7,000	
Shortraker,Rougheye rockfish	BSAI	5	0.022,0.019	0.022,0.019	967	967	
Other rockfish	EBS	5	0.053	0.053	960	960	
Other rockfish	AI	5	0.053	0.053	634	634	
Atka mackerel	BSAI	3a	0.66	0.39	82,800	51,000	33
Squid	BSAI	6	n/a	n/a	1,970	1,970	
Other species	BSAI	5,6	0.086	0.086	60,800	60,800	
Total					3,326,031	3,331,001	

TABLE 7.—2002 GEAR SHARES AND SEASONAL APPORTIONMENTS OF THE BSAI PACIFIC COD TAC

Gear sector	Percent	Share of gear sector total (mt)	Subtotal percentages for gear sectors	Share of gear sector total (mt)	Seasonal apportionment[2]	
					Date	Amount (mt)
Total hook-and-line and pot gear allocation of Pacific cod TAC.	51	94,350	.....	.....	.....	.....
Incidental Catch Allowance	.....	.....	.....	500	.....	.....
Processor and Vessel subtotal	.....	93,850	.....	.....	.....	.....
Hook-and-line Catcher Processors	.....	.....	80	75,080	Jan 1–Jun 10	45,048
					Jun 10–Dec 31	30,032
Hook-and-line Catcher Vessels	.....	.....	0.3	282	Jan 1–Jun 10	169
					Jun 10–Dec 31	113
Pot Gear Vessels	.....	.....	18.3	17,175	Jan 1–Jun 10	10,305
					Sep 1–Dec 31	6,870
Catcher Vessels <60 feet LOA using Hook-and-line or Pot gear.	.....	.....	1.4	1,314	Jan 1–Dec 31	1,314
Trawl gear Total	47	86,950	.....	.....	.....	.....

Gear sector	Percent	Share of gear sector total (mt)	Subtotal percentages for gear sectors	Share of gear sector total (mt)	Seasonal apportionment[2]	
					Date	Amount (mt)
Trawl Catcher Vessel			50	43,475	Jan 1–Apr 1	30,433
					Apr 1–Jun 10	4,348
					Jun 10–Nov 1	8,695
Trawl Catcher Processor			50	43,475	Jan 1–Apr 1	21,738
					Apr 1–Jun 10	13,043
					Jun 10–Nov 1	8,695
Jig	2	3,700			Jan 1–Jun 10	2,220
					Jun 10–Dec 31	1,480
Total	100	185,000				

[1] The reserve has been released for Pacific cod (See Table 4).

[2] For non-trawl gear the first season is allocated 60 percent of the TAC and the second season is allocated 40 percent of the TAC. No seasonal harvest constraints are imposed for the Pacific cod fishery by catcher vessels less than 60 feet (18.3 m) LOA using hook-and-line or pot gear. For trawl gear, the first season is allocated 60 percent of the TAC and the second and third seasons are each allocated 20 percent of the TAC. The trawl catcher vessels' allocation is further allocated as 70 percent in the first season, 10 percent in the second season and 20 percent in the third season. The trawl catcher/processors' allocation is allocated 50 percent in the first season, 30 percent in the second season and 20 percent in the third season. Any unused portion a seasonal Pacific cod allowance will be reapportioned to the next seasonal allowance.

TABLE 9.–PROHIBITED SPECIES BYCATCH ALLOWANCES
FOR THE BSAI TRAWL AND NON-TRAWL FISHERIES[1]
[All amounts are in metric tons]

TRAWL FISHERIES	Prohibited Species and Zone					
	Halibut mortality (mt) BSAI[7]	Herring (mt) BSAI	Red King Crab (animals) Zone 1	C. opilio (animals) COBLZ[2]	C. bairdi (animals) Zone 1	C. bairdi (animals) Zone 2
Yellowfin sole	886	139	16,664	2,776,981	340,844	1,788,459
January 20 - April 1	262	.....	.....	.....	.....	.....
April 1 - May 21	195	.....	.....	.....	.....	.....
May 21 - June 30	49	.....	.....	.....	.....	.....
June 30 - December 31	380	.....	.....	.....	.....	.....
Rock sole/flat. sole/other flatfish[3]	779	20	59,782	969,130	365,320	596,154
January 20 - April 1	448	.....	.....	.....	.....	.....
April 1 - June 30	164	.....	.....	.....	.....	.....
June 30 - December 31	167	.....	.....	.....	.....	.....
RKC savings subarea[3]	.....	.....	20,924	.....	.....	.....
Turbot/sablefish/arrowtooth[4]	.....	9	.....	40,238	.....	.....
Rockfish (June 30 - Dec. 31)[5]	69	7	.....	40,237	.....	10,988
Pacific cod	1,434	20	11,664	124,736	183,112	324,176
Pollock/Atka/other[6]	232	146	1,615	72,428	17,224	27,473
Midwater trawl pollock	.....	1,184	.....	.....	.....	.....
TOTAL TRAWL PSC	3,400	1,526	89,725	4,023,750	906,500	2,747,250
NON-TRAWL FISHERIES						
Pacific cod - Total	775					
January 1 - June 10	320					
June 10 - August 15	0					
August 15 - December 31	455					
Other non-trawl - Total	58					
May 1 - December 31	58					
Groundfish pot & jig	Exempt					
Sablefish hook-&-line	Exempt					
TOTAL NON-TRAWL	833					
PSQ RESERVE[8]	342	.....	7,275	326,250	73,500	222,750
GRAND TOTAL	4,575	1,526	97,000	4,350,000	980,000	2,970,000

[1] Refer to § 679.2 for definitions of areas.

[2] C. opilio Bycatch Limitation Zone. Boundaries are defined at 50 CFR part 679, fig. 13.

[3] The Council at its December 2001 meeting limited red king crab for trawl fisheries within the RKCSS to 35 percent of the total allocation to the rock sole/flathead sole/ "other flatfish" fishery category (§ 679.21(e)(3)(ii)(B)). "Other flatfish" for PSC monitoring includes all flatfish species, except for Pacific halibut (a prohibited species), Greenland turbot, rock sole, yellowfin sole, arrowtooth flounder.

[4] Greenland turbot, arrowtooth flounder, and sablefish fishery category.

[5] The Council at its December 2001 meeting apportioned the rockfish PSC amounts from June 30 - December 31.

[6] Pollock other than pelagic trawl pollock, Atka mackerel, and "other species" fishery category.

[7] With the exception of the nontrawl Pacific cod directed fishery, any unused halibut PSC apportionment may be added to the following season's apportionment. Any unused halibut PSC apportioned to the nontrawl Pacific cod directed fishery during the January 1 through June 10 time period will not be available until after August 15.

[8] With the exception of herring, 7.5 percent of each PSC limit is allocated to the multi-species CDQ program as PSQ reserve. The PSQ reserve is not allocated by fishery, gear or season.

ITEM D-1(d)(4)
DECEMBER 2002

NMFS/AKR
11/21/02
11:54:56

2002 BERING SEA/ALEUTIAN ISLANDS FISHERIES
PROHIBITED SPECIES BYCATCH
Week Ending: 11/16/02

TRAWL HERRING, BSAI

Fishery group	Herring (mt)	Cap (mt)	%
Midwater pollock	105	1,184	9%
Pacific cod	3	20	14%
Yellowfin sole	19	139	14%
Rockfish	0	7	2%
Other	0	146	0%
Rock sole/Other flatfish	4	20	21%
GTRB/ARTH/SABL	0	9	1%
Total:	131	1,525	9%

TRAWL SALMON, BSAI

Fishery group	Chinook (#'s)	Other (#'s)	Total (#'s)
Midwater pollock	32,330	77,339	109,669
Bottom pollock	0	0	0
Pacific cod	3,280	974	4,254
Yellowfin sole	324	461	785
Rock sole/Other flatfish	675	149	824
Rockfish	0	0	0
Other	931	89	1,020
Seasonal Total:	37,540	79,013	116,553

TRAWL BAIRDI TANNER CRAB

	ZONE 1			ZONE 2		
Fishery group	Crabs (#'s)	Cap (#'s)	%	Crabs (#'s)	Cap (#'s)	%
Rock sole/Other flatfish	286,732	365,320	78%	260,425	596,154	44%
Pacific cod	143,755	183,112	79%	88,626	324,176	27%
Yellowfin sole	26,014	340,844	8%	267,189	1,788,459	15%
Pollock/AMCK/Other species	1,464	17,224	8%	857	27,473	3%
Rockfish	0	0	0%	49	10,988	0%
GTRB/ARTH/SABL	0	0	0%	5,291	0	0%
Total:	457,964	906,500	51%	622,436	2,747,250	23%

TRAWL C. OPILIO TANNER CRAB in the COBLZ AREA

Fishery group	Crabs (#'s)	Cap (#'s)	%
Rock sole/Other flatfish	105,147	969,130	11%
Pacific cod	95,367	124,736	76%
Yellowfin sole	682,430	2,776,981	25%
Pollock/AMCK/Other species	1,566	72,428	2%
Rockfish	0	40,237	0%
GTRB/ARTH/SABL	170	40,238	0%

Total:	884,679	4,023,750	22%

TRAWL RED KING CRAB — ZONE 1

Fishery group	Crabs (#'s)	Cap (#'s)	%
Rock sole/Other flatfish	62,073	59,782	104%
Pacific cod	12,735	11,664	109%
Yellowfin sole	15,146	16,664	91%
Pollock/AMCK/Other species	1	1,615	0%
Total:	89,955	89,725	100%

Table 8. Summary of halibut discard mortality rates (DMRs) in the Bering Sea/Aleutian Islands (BSAI) groundfish fisheries during 1990-2001. DMRs used in 2002 are to be used in 2003.

Gear/Target	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	Used in 2002[1]
BSAI Trawl													
Atka mackerel	66	77	71	69	73	73	83	85	77	81	77	73	75
Bottom pollock	68	74	78	78	80	73	79	72	80	74	67	74	76
Pacific cod	68	64	69	67	64	71	70	67	66	69	69	69	67
Other Flatfish	80	75	76	69	61	68	67	71	78	63	76	81	71
Rockfish	65	67	69	69	75	68	72	71	56	81	89	85	69
Flathead sole	-	-	-	-	67	62	66	57	70	79	74	69	67
Pelagic pollock	85	82	85	85	80	79	83	87	86	87	88	89	84
Rock sole	64	79	78	76	76	73	74	77	79	81	75	77	76
Sablefish	46	66	-	26	20	-	-	-	-	90	60	-	50
Turbot	69	55	-	-	58	75	70	75	86	70	74	68	70
Yellowfin sole	83	88	83	80	81	77	76	80	82	78	77	74	81
BSAI Pot													
Pacific cod	12	4	12	4	10	10	7	4	13	9	13	6	8
BSAI Longline													
Pacific cod	19	23	21	17	15	14	12	11	11	12	12	12	12
Rockfish	17	55	-	6	23	-	20	4	52	-	12	10	25
Sablefish	14	32	14	13	38	-	-	-	-	-	-	-	22
Turbot	15	30	11	10	14	9	15	22	18	17	14	6	18
CDQ Trawl													
Atka mackerel	-	-	-	-	-	-	-	-	-	82	89	80	82
Bottom pollock	-	-	-	-	-	-	-	-	90	88	90	90	88
Flathead sole	-	-	-	-	-	-	-	-	-	-	83	90	79
Pelagic pollock	-	-	-	-	-	-	-	-	90	90	88	89	90
Rockfish	-	-	-	-	-	-	-	-	-	88	-	90	88
Yellowfin sole	-	-	-	-	-	-	-	-	-	83	-	-	83
CDQ Longline													
Pacific cod	-	-	-	-	-	-	-	-	10	10	13	11	10
Turbot	-	-	-	-	-	-	-	-	-	-	4	-	17
CDQ Pot													
Pacific cod	-	-	-	-	-	-	-	-	-	-	7	2	9
Sablefish	-	-	-	-	-	-	-	-	-	-	38	46	12

[1]Values represent 1990-1999 long term mean.

Table 9. Summary of halibut discard mortality rates (DMRs) in the Gulf of Alaska (GOA) groundfish fisheries during 1990-2001. DMRs used in 2002 are to be used in 2003.

Gear/Target	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99	'00	'01	Used in 2002[1]
Trawl													
Atka mackerel	67	89	81	67	53	-	60	-	-	-	-	-	70
Bottom pollock	51	62	66	57	48	66	79	66	55	55	52	58	61
Pacific cod	60	62	66	59	53	64	70	62	64	54	57	67	61
Deep wtr flats	61	58	70	59	60	56	71	61	51	51	62	49	60
Shallow wtr flats	66	71	69	65	62	70	71	71	67	81	67	62	69
Rockfish	65	75	79	75	58	71	65	63	68	74	71	61	69
Flathead sole	-	-	-	-	54	64	67	74	39	51	69	68	58
Pelagic pollock	71	82	72	63	61	51	81	70	80	86	80	89	72
Sablefish	70	60	68	59	67	58	80	61	-	68	38	66	66
Arrowtooth fldr	-	-	-	-	-	-	66	48	62	73	75	86	62
Rex sole	-	-	-	-	56	76	63	47	58	70	71	62	61
Pot													
Pacific cod	12	7	16	24	17	21	7	11	16	13	8	33	14
Longline													
Pacific cod	15	18	13	7	11	13	11	22	11	17	16	11	14
Rockfish	6	-	-	7	-	4	13	-	9	-	9	-	8
Sablefish	17	27	28	30	22	-	-	-	-	-	-	-	24

[1]Values represent 1990-1999 long term mean.

Loh-Lee Low
presentation
D-1d

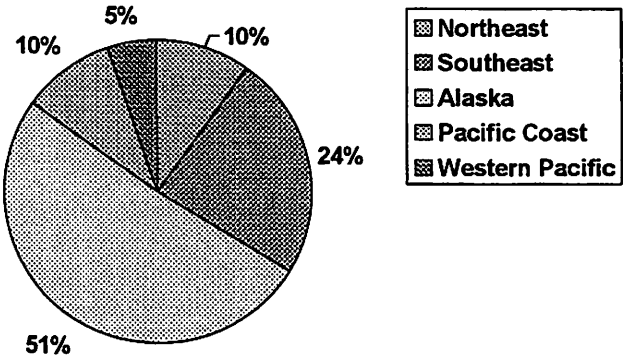
BSAI Plan Team Members (12 Members)

NPFMC --	Jane DiCosimo
NMFS --	Loh-Lee Low
	Mike Sigler
	Grant Thompson
	Lowell Fritz
	Andy Smoker
USF&W --	Kathy Kuletz
ADF&G --	Ivan Vining
	Kristin Mabrey
Univ.Alaska--	Brenda Norcross
WDF&W --	Farron Wallace
Halibut Comm--	Bill Clark

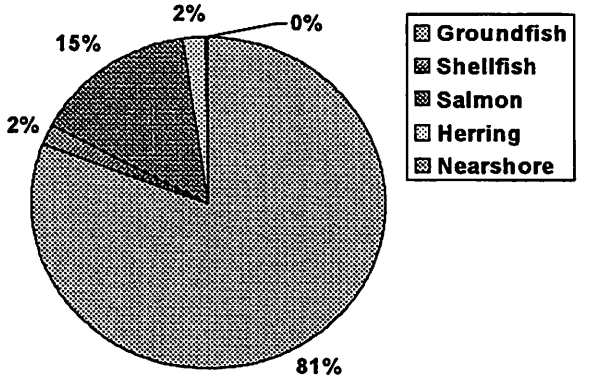
Stock Assessment & Fishery Evaluation Documents for Application of 2003 Fisheries

Appendix A -- BSAI SAFE
Appendix B - GOA SAFE
Appendix C -- Ecosystems Considerations
Appendix D -- Economic Status

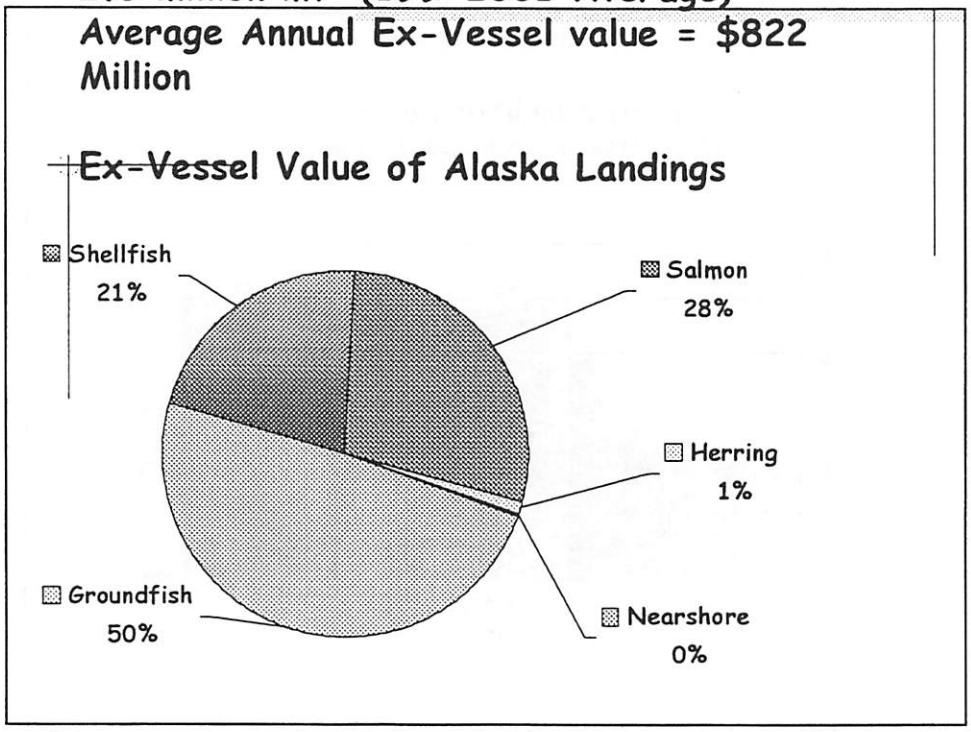
Total U.S.Landings
4.9 million mt (1998-2001)

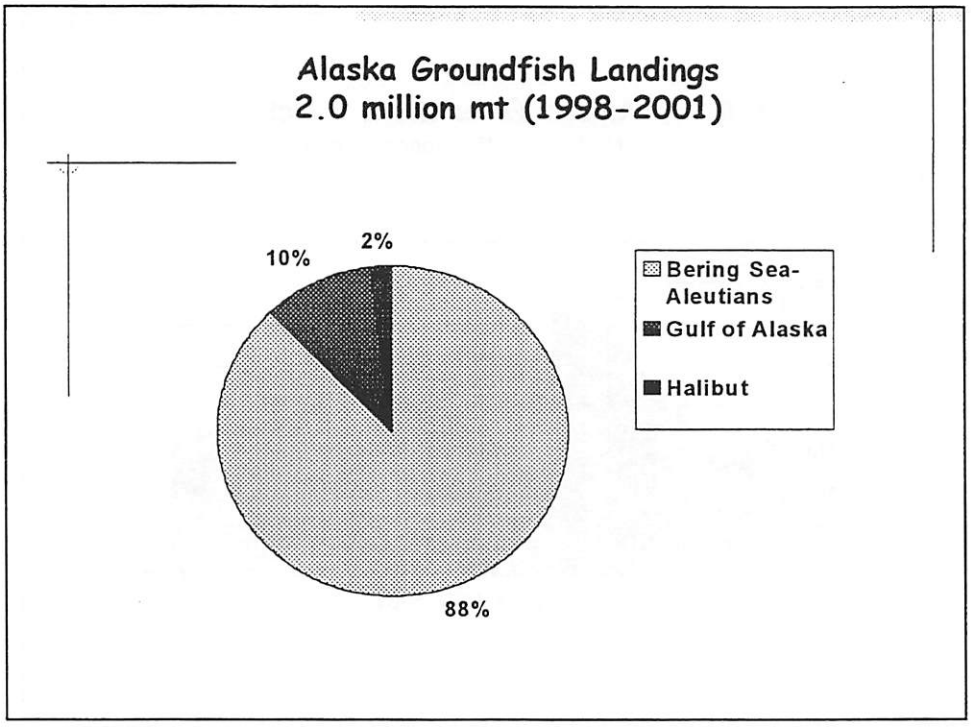


Alaska Landings
2.5 million mt (1998-2001)



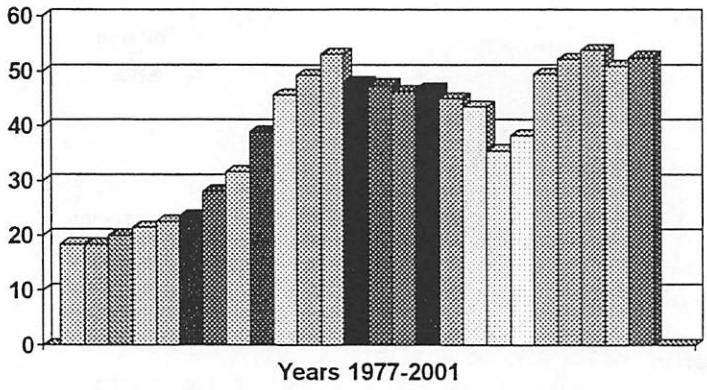
2.5 million mt (199-2001 Average)
Average Annual Ex-Vessel value = $822 Million





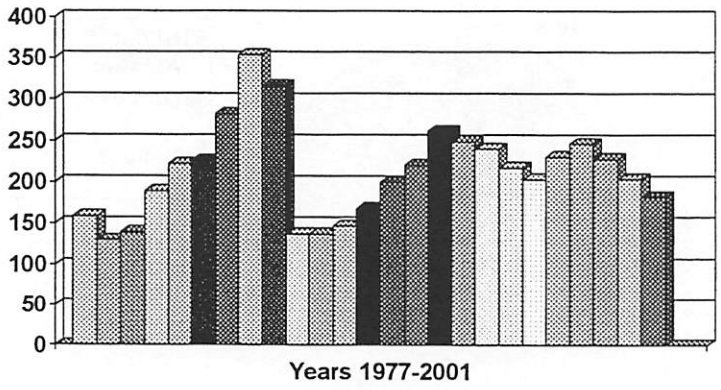
Pacific Halibut Catch

25 Year History (in thousands of mt)



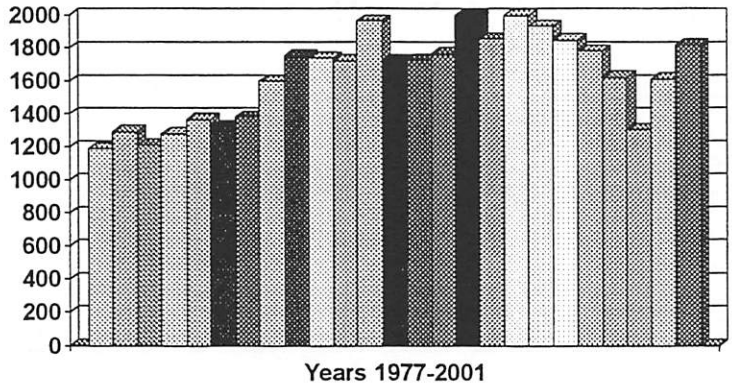
Gulf of Alaska Groundfish Catch

25 Year History (in thousands of mt)



Bering Sea-Aleutians Groundfish Catch

25 Year History (in thousands of mt)



BSAI SAFE

Summary

Species-by-Species Review

Appendix C -- Ecosystems Considerations

Appendix D -- Economic Status

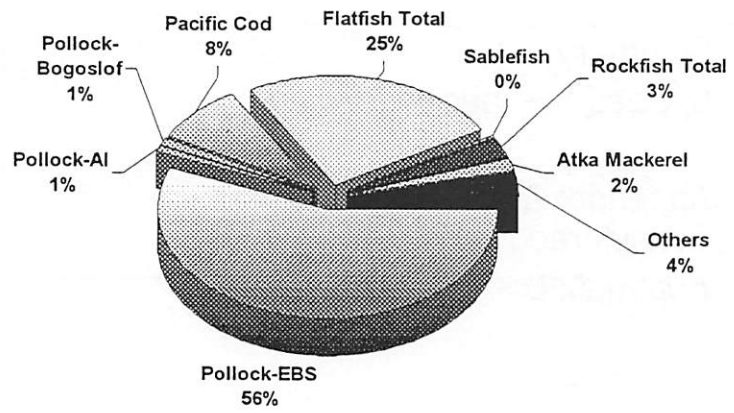
Exploitable Biomass

By

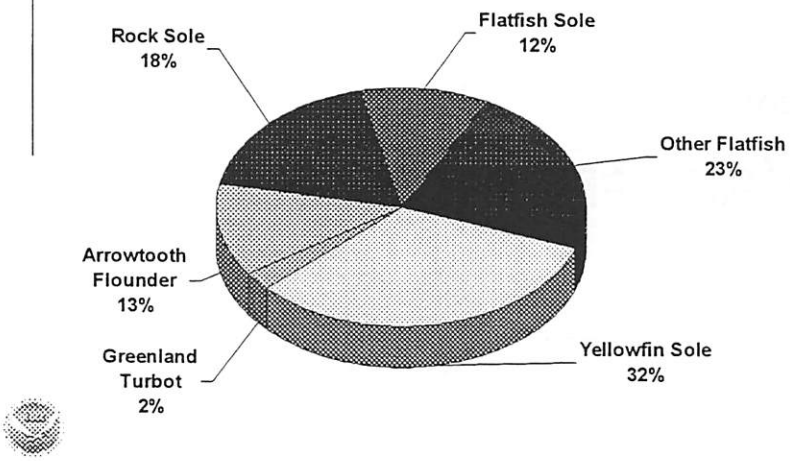
Major Species Groups

BSAI Exploitable Biomass

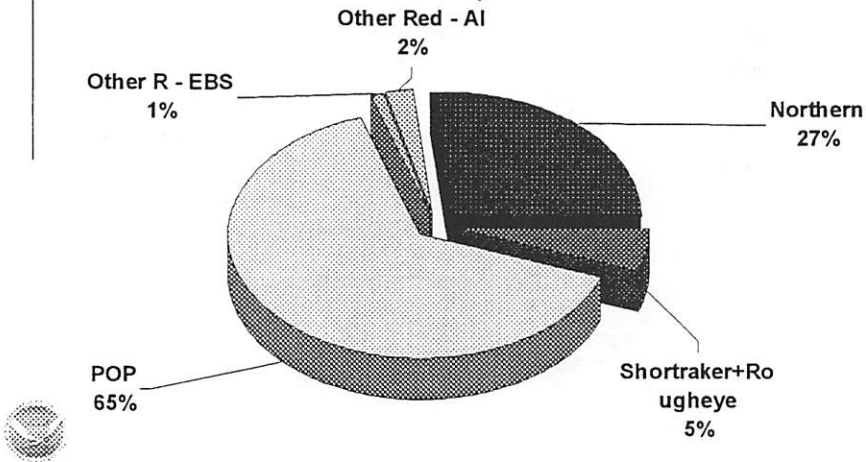
Yr 2003 Total = 19.8 MMT



BSAI Flatfish Complex Biomass
Yr 2003 Total = 4.88 MMT



BSAI Rockfish Complex Biomass
Yr 2002 Total = 596,000 MT

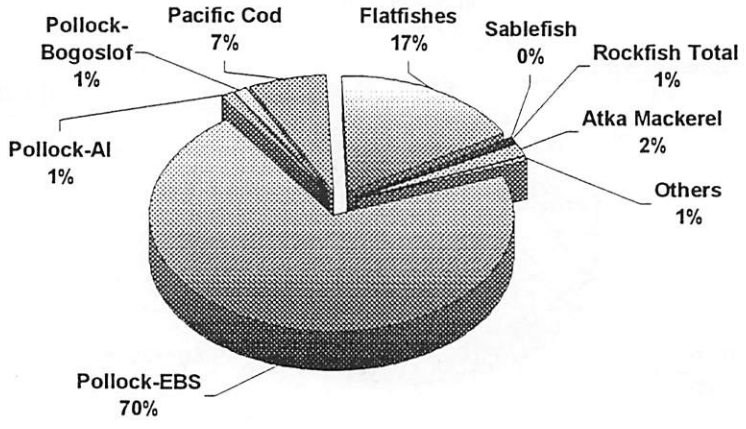


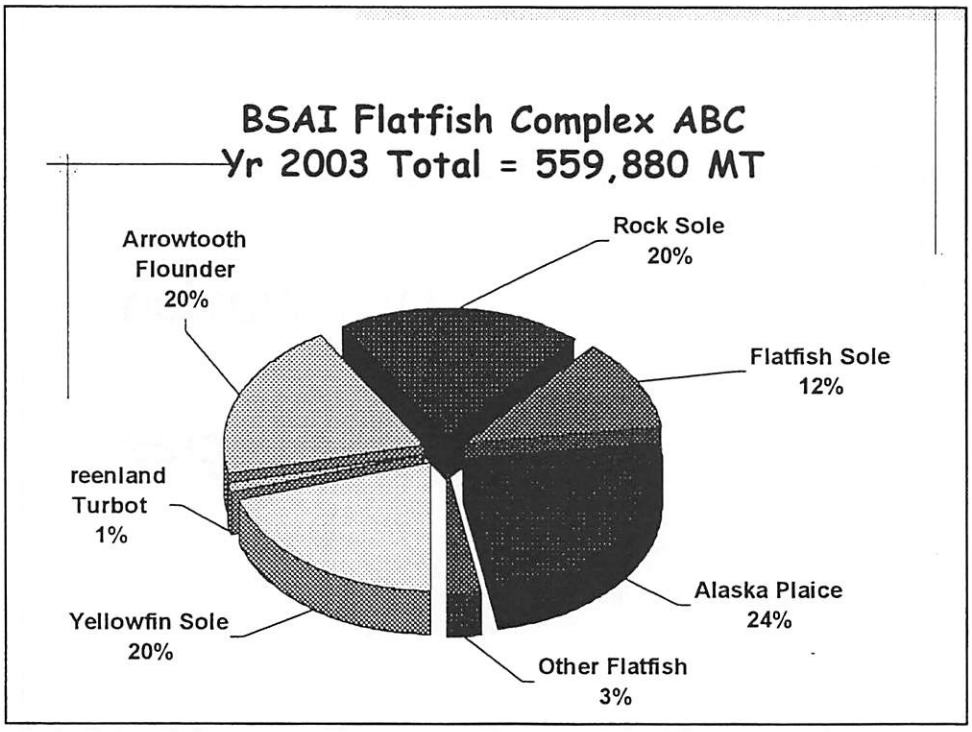
Estimated ABCs

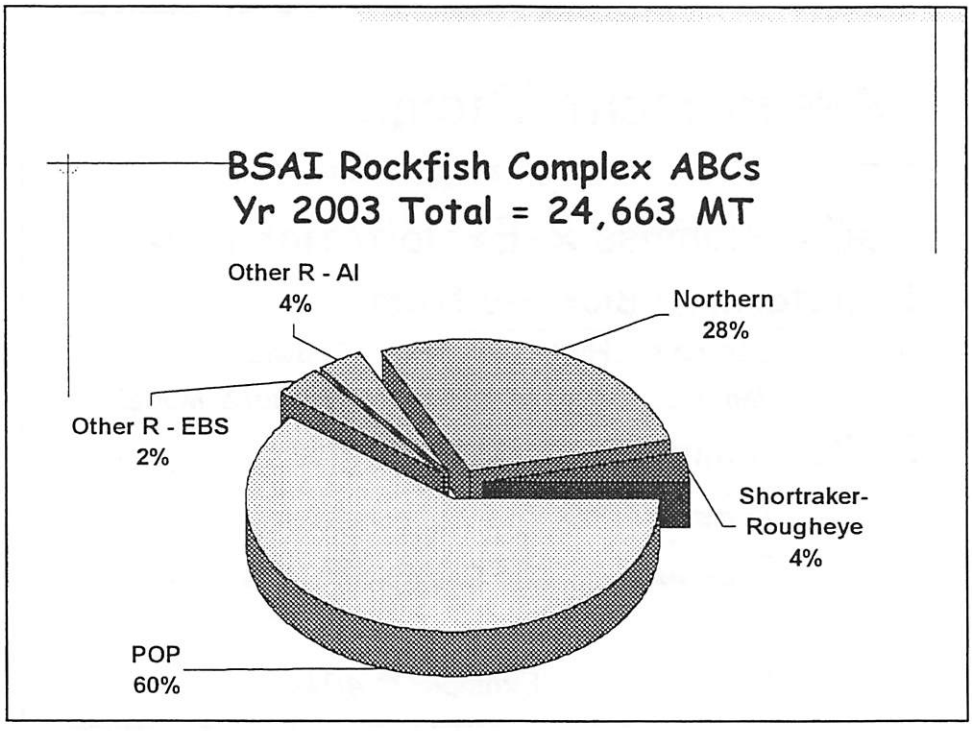
By

Major Species Groups

BSAI Groundfish Complex ABCs
Yr 2003 Total = 3,288,521 MT




BSAI Flatfish Complex ABC
Yr 2003 Total = 559,880 MT
Arrowtooth Flounder 20%
Rock Sole 20%
Flatfish Sole 12%
reenland Turbot 1%
Alaska Plaice 24%
Yellowfin Sole 20%
Other Flatfish 3%


BSAI Rockfish Complex ABCs
Yr 2003 Total = 24,663 MT
Other R - AI 4%
Northern 28%
Other R - EBS 2%
Shortraker-Rougheye 4%
POP 60%

Description

Species-by-Species

Assessment Theme

ABC = Biomass x Exploitation Rate

1. Determine Biomass from
   - -- Surveys….Hydroacoustics, Trawls
   - -- Models…..Age or Length-Structure Models
2. Determine Exploitation Rates
   - -- F *msy*
   - -- F ~~*overfishing* ……. Example F *35%*~~
   - -- F *abc* ..... Example F *40%*

Assessment Theme

Evaluate Quality of Information about Population Dynamics of the Stocks and Use Fishing Rates according to 6 Tiers of Information
(Pages 5-6 of SAFE Summary)

Tier 1 -- Most Information - reliable B, Bmsy, pdf of Fmsy
Tier 2 -- Less Information – reliable B, Bmsy, Fmsy, F35, F40
Tier 3 – reliable B, B40, F35, F40
Tier 4 – reliable B, F35, F40
Tier 5 -- reliable B and M
Tier 6 – reliable Catch History Data

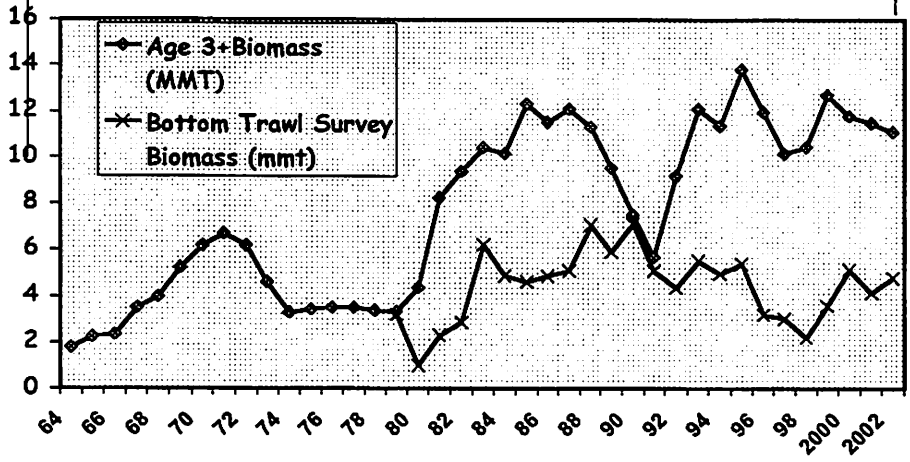
EBS Pollock Assessment
Notable Features

1. **Year 2002 Surveys**
   Bottom Trawl Biomass = 4.82 mmt, up 16%
   EIT Survey Biomass = 3.6 mmt, up 18%

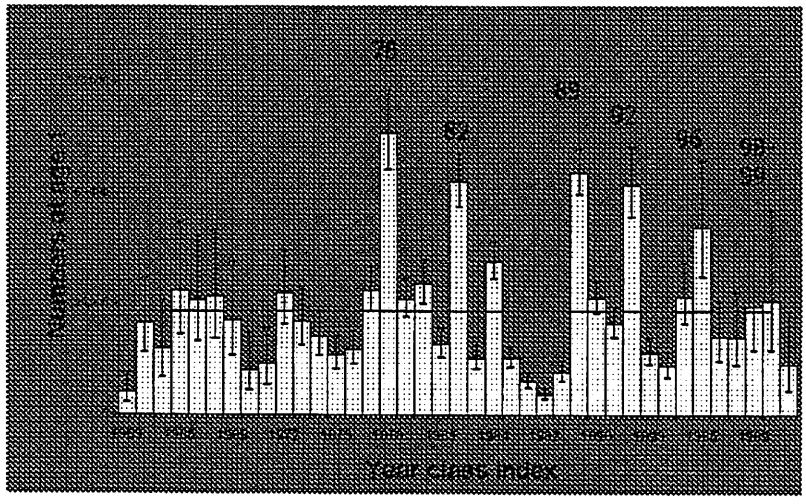
2. **Year 2002 Models**
   7 scenarios of Age-Structure Models, Used Model 1
   Age3+ Biomass for 2003 = 11.8 mmt, up 6%

3. **Recruitment**
   1998 & 1999 Year Classes both Above Average

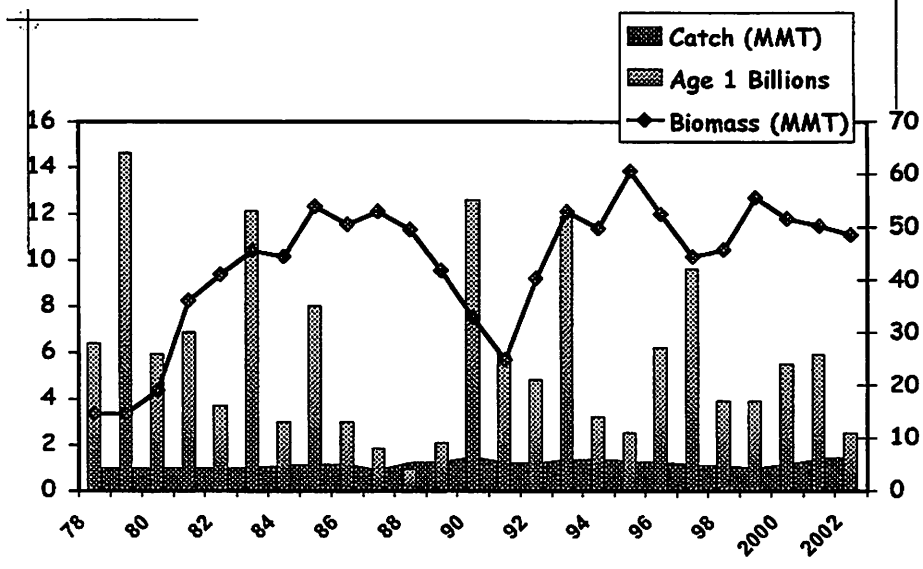
EBS Pollock
Long-Term Biomass Trend



Year-class estimates -- EBS Pollock



EBS Pollock



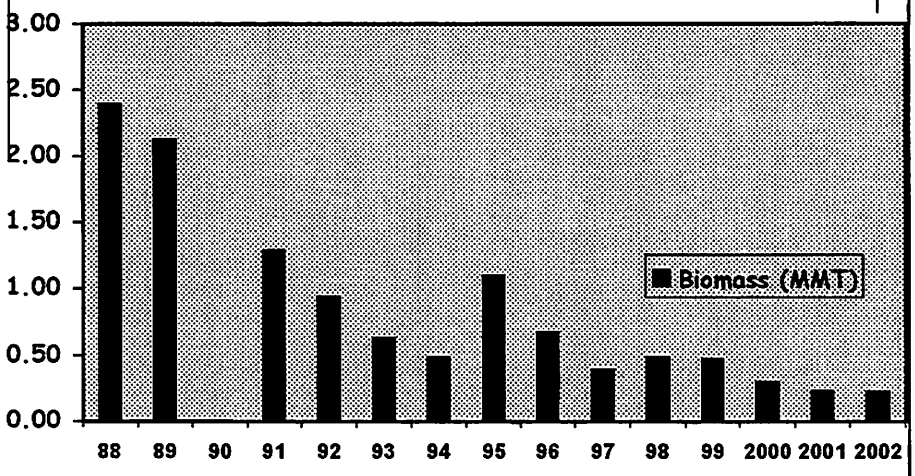
Aleutian Island Region Pollock Assessment Notable Features

1. Age-Structure Model don't work - Not a Unit Stock
2. Assessment Depends on Surveysrey Year

omass	
1991	167,140
1994	77,503
1997	93,512
2000	105,554
2003	175,000

3. ABC = Biomass x 75%M (er 5)
   = 39,400 mt

Bogoslof Region Pollock Survey Biomass

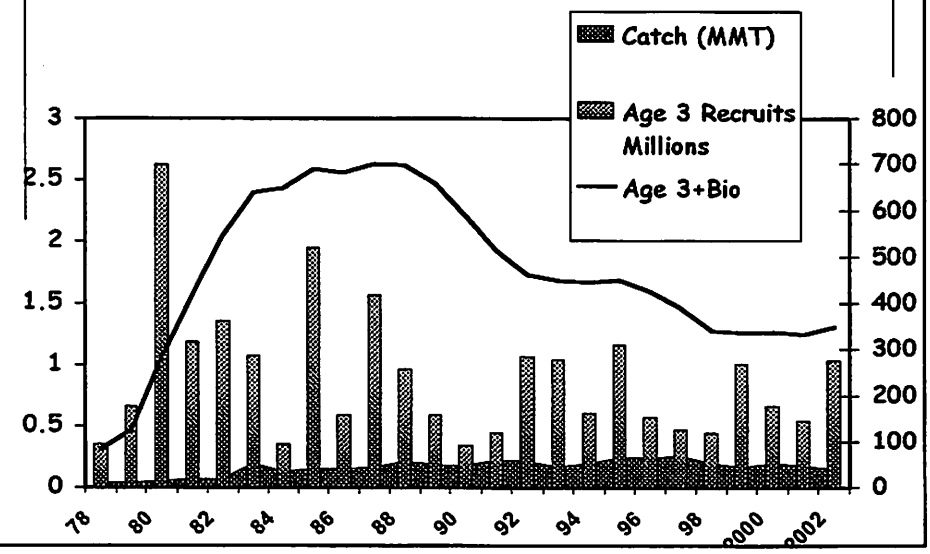


Bogoslof Region Pollock ABC

1. Plan Team Method - Tier 5
   ABC = Biomass x 0.75 M
   ABC = 34,000 mt

2. SSC Method - Use 2 mmt as Target Biomass
   ABC = 4,070 mt

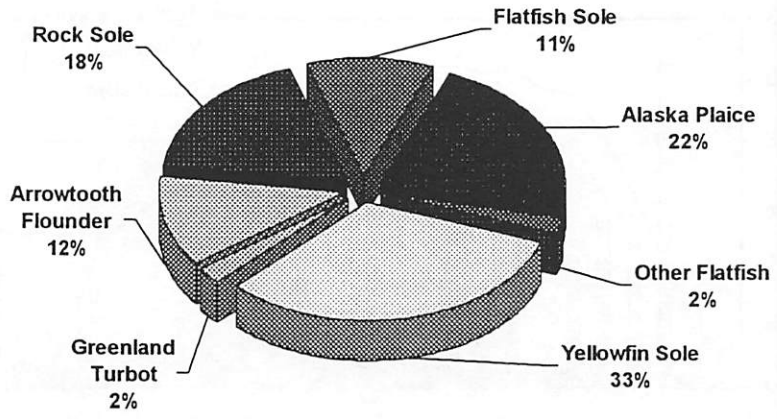
BSAI Pacific Cod



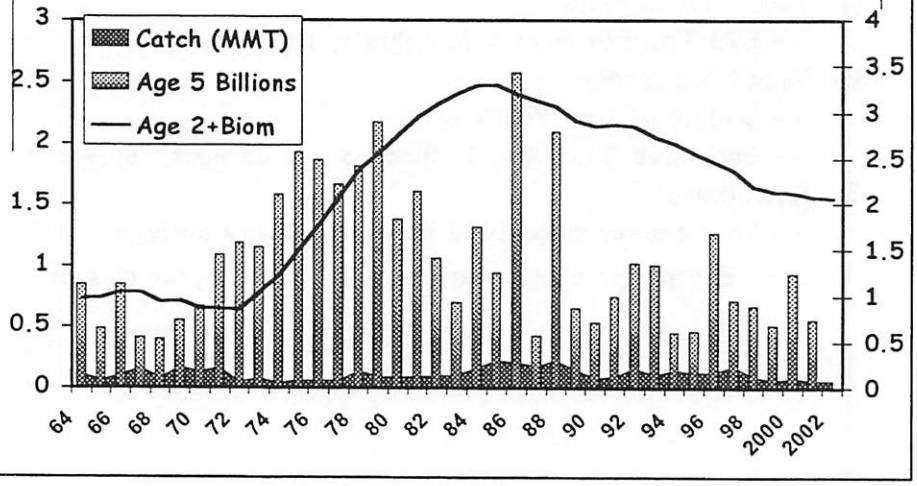
Pacific Cod Assessment Notable Features

1. Year 2002 Surveys
   -- EBS Trawl Biomass = 617,000 t, down26%
2. Year 2002 Model
   -- Update of Last Year's Model
   -- Estimated 2003 Age 3+ Biomass = 1.68 mmt, up 9%
3. Recruitment
   -- Year classes since 1992 have been below average
   -- Except for above average 1996 & 1999 year classes

BSAI Flatfish Complex Biomass
Yr 2003 Total = 4.88 MMT, down



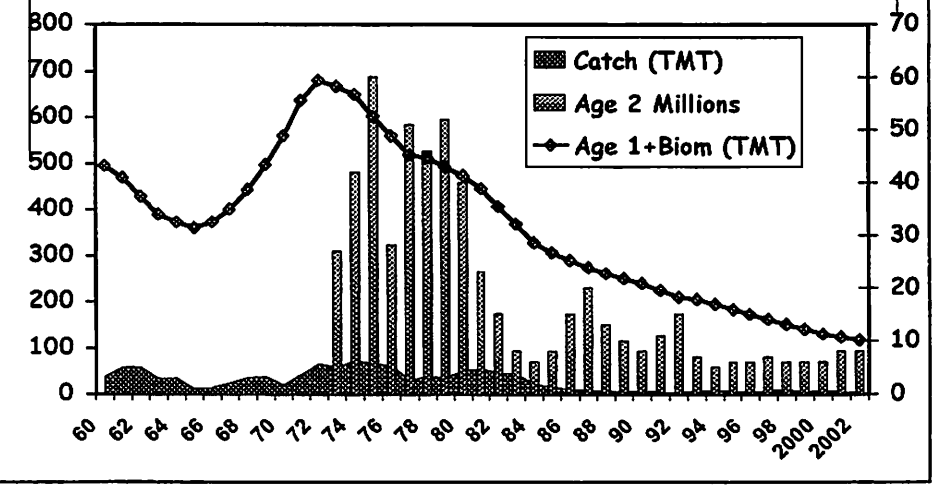
EBS Yellowfin Sole



Yellowfin Sole Assessment
Notable Features

1. Survey Biomass
-- Relatively high biomass, doubled from 1975-79
-- Declining in recent years as strong year classes passes out of the population
2. Models
-- Estimated 2003 Age 3+ Biomass = 1.55 mmt, down 1%
-- biomass is still high but definitely declining
3. Recruitment
-- Lowered recruitment in last decade

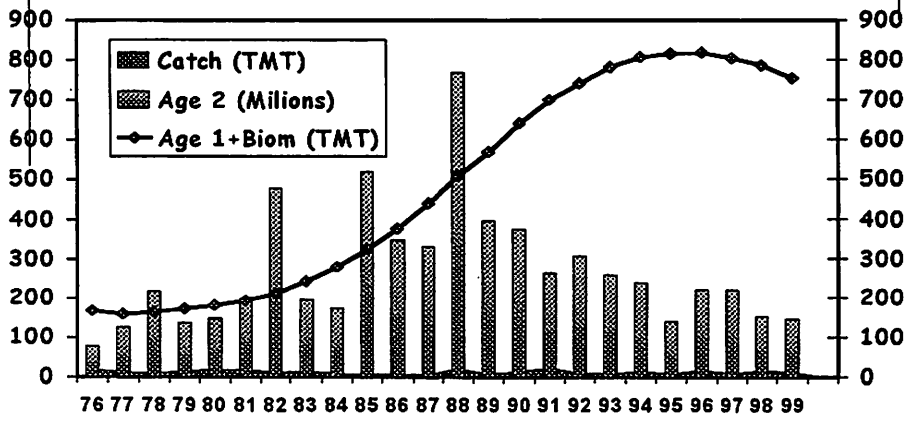
EBS Greenland Turbot

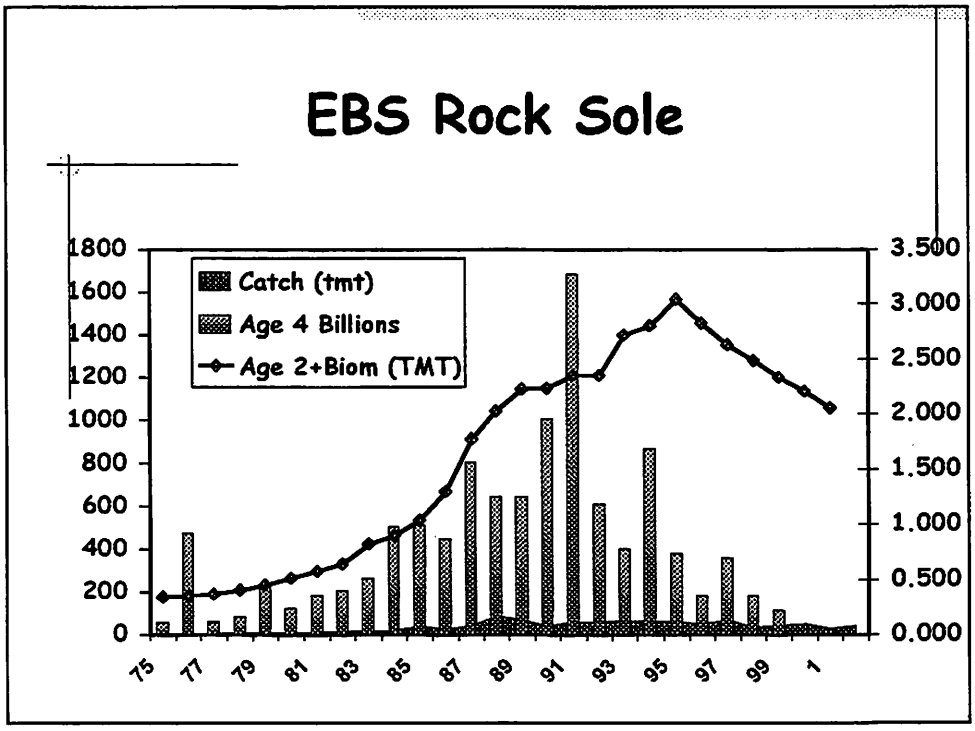


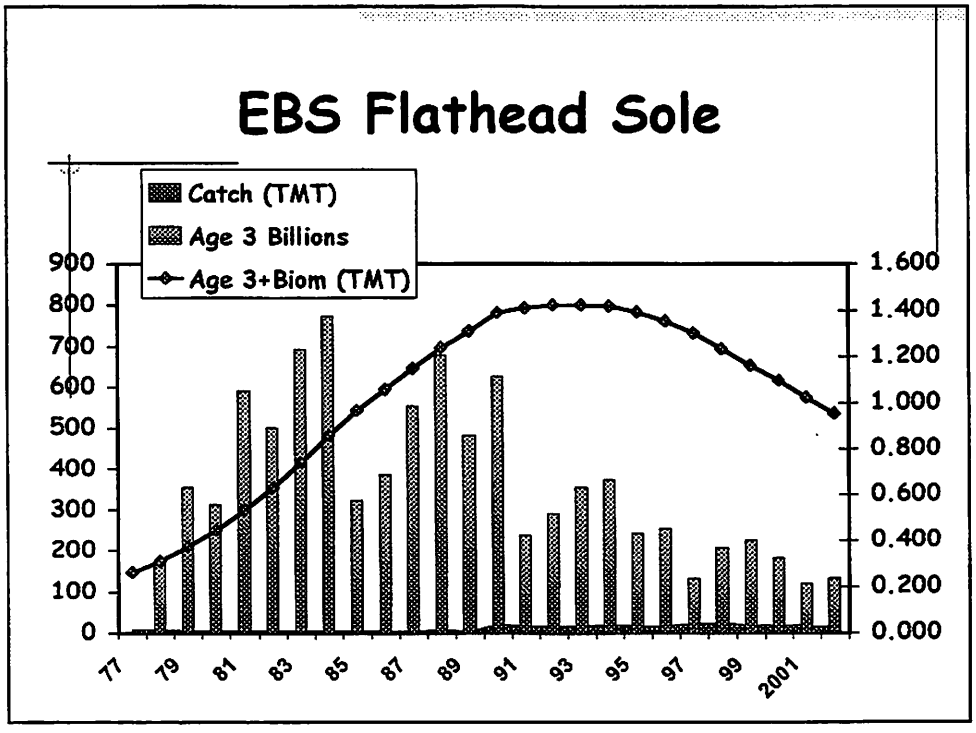
Greenland Turbot Assessment
Notable Features

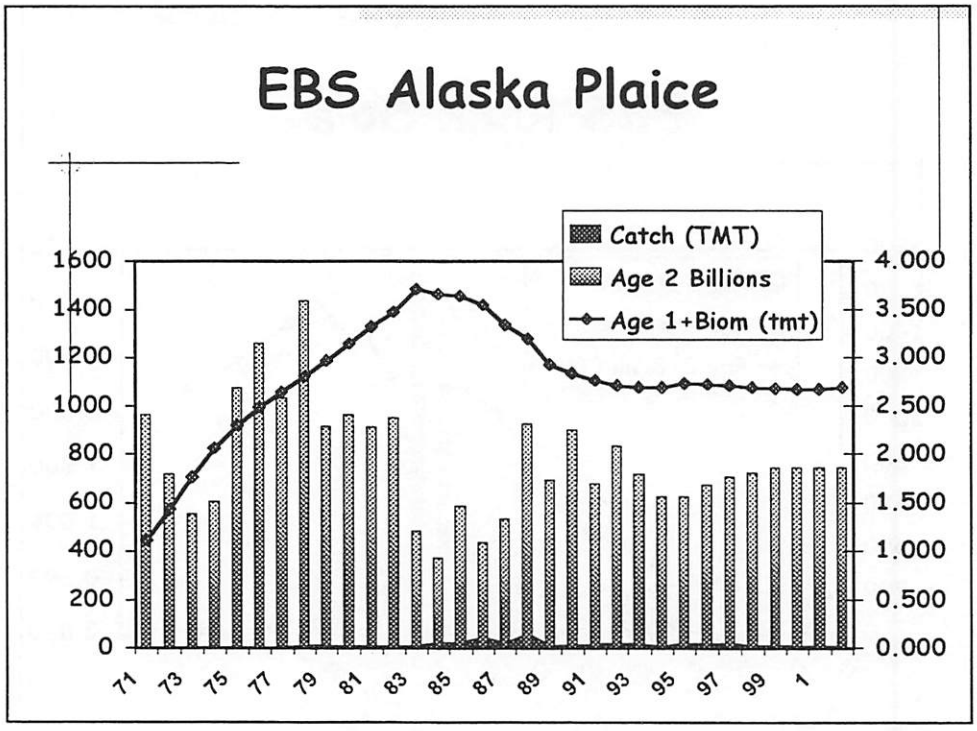
1. Survey Biomass
   -- ~~EBS Trawl Biomass assess~~ juveniles only
2. Modeling
   -- Yr 2003 Age 1+ biomass = 115,700 mt, down 5
   -- biomass is generally low and relatively stable
3. Recruitment
   -- Generally Low recruitment in last 2 decades

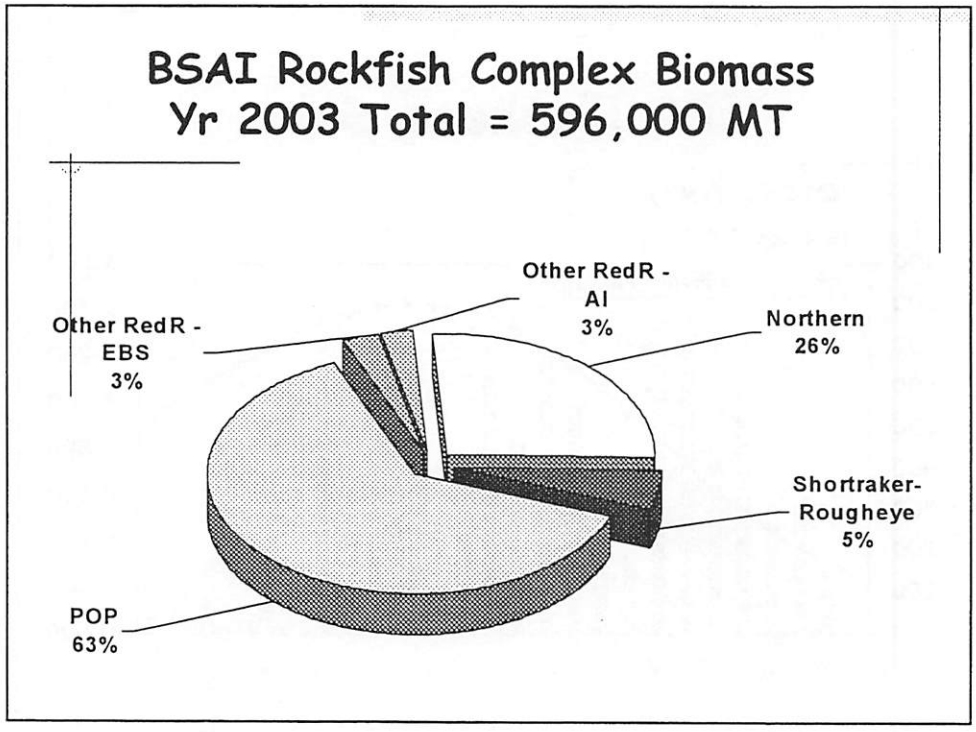
EBS Arrowtooth Flounder



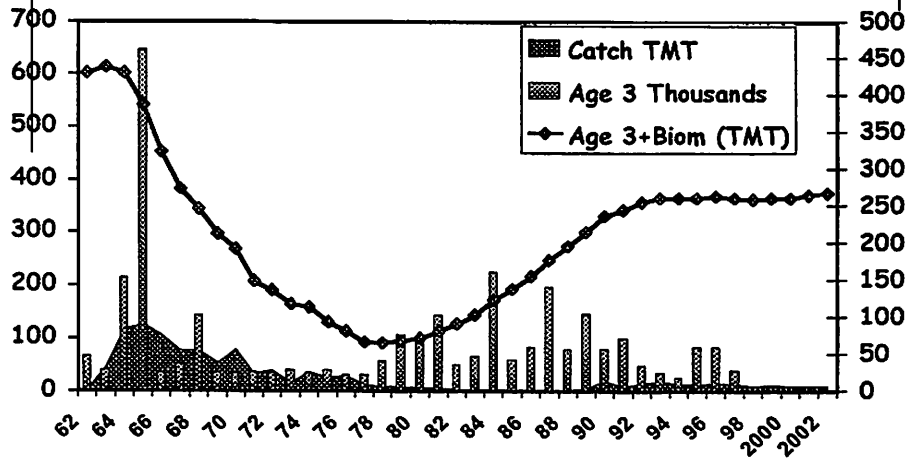

EBS Rock Sole
Catch (tmt)
Age 4 Billions
Age 2+Biom (TMT)
1800
1600
1400
1200
1000
800
600
400
200
0
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
75
77
79
81
83
85
87
89
91
93
95
97
99
1


EBS Flathead Sole
Catch (TMT)
Age 3 Billions
Age 3+Biom (TMT)
900
800
700
600
500
400
300
200
100
0
1.600
1.400
1.200
1.000
0.800
0.600
0.400
0.200
0.000
77
79
81
83
85
87
89
91
93
95
97
99
2001


EBS Alaska Plaice
Catch (TMT)
Age 2 Billions
Age 1+Biom (tmt)
1600
1400
1200
1000
800
600
400
200
0
4.000
3.500
3.000
2.500
2.000
1.500
1.000
0.500
0.000
71
73
75
77
79
81
83
85
87
89
91
93
95
97
99
1


BSAI Rockfish Complex Biomass
Yr 2003 Total = 596,000 MT
Other RedR - AI 3%
Northern 26%
Other RedR - EBS 3%
Shortraker-Rougheye 5%
POP 63%

Bering Sea/Aleutians POP



POP Assessment
Notable Features

1. Present Assessment
   -- Single Model to Combined Bering Sea/Aleutians Areas

2. Biomass Trend
   -- Rather Stable Trend in recent years after some rebuilding

3. Recruitment
   -- Rather Poor Recruitment in recent years

Other Red Rockfish
Notable Features

1. Other Red Rockfish Split into:
   -- ~~Northern~~
   -- Rougheye/Shortraker
2. Tier 5 ABC = Average 1991-2002 Survey Biomass x 0.75M

Stock	EBS	Aleutians
Northern	18 mt	6,6980 mt (99.7%)
Rougheye-Shortraker	137mt	830 mt (85.8%)

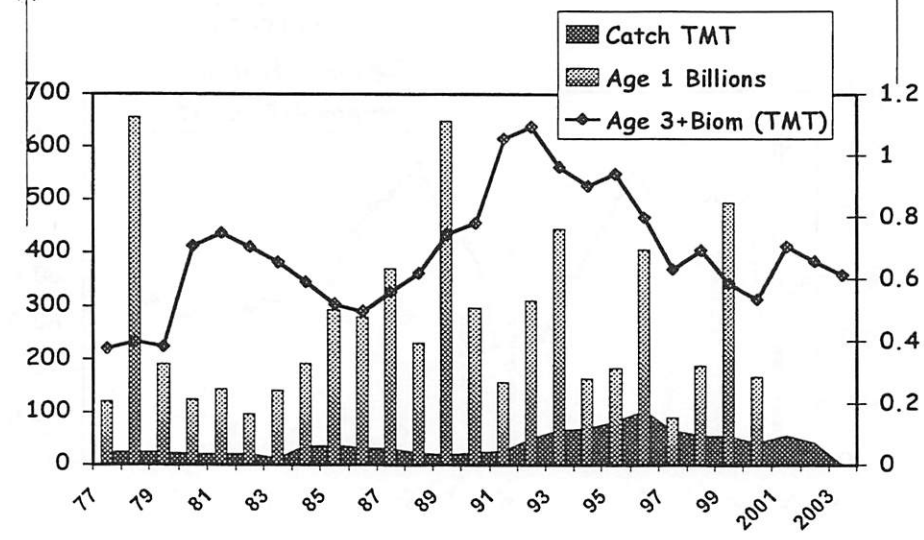
Other Rockfish Assessments
Notable Features

1. Presently Managed as a Complex
2. Author Recommend separating out Dusky Rockfish
   -- Catch rate maybe as high as 34%
3. ~~Plan Team disagree, maybe catch~~ rate estimated high
   -- Noted survey biomass has not decreased

4. Tier 5 ABC = Survey Biomass x 0.75 M

Stock	Year	Survey Biomass	ABC
EBS	2002	18,000	960
AI	2002	15,000	634

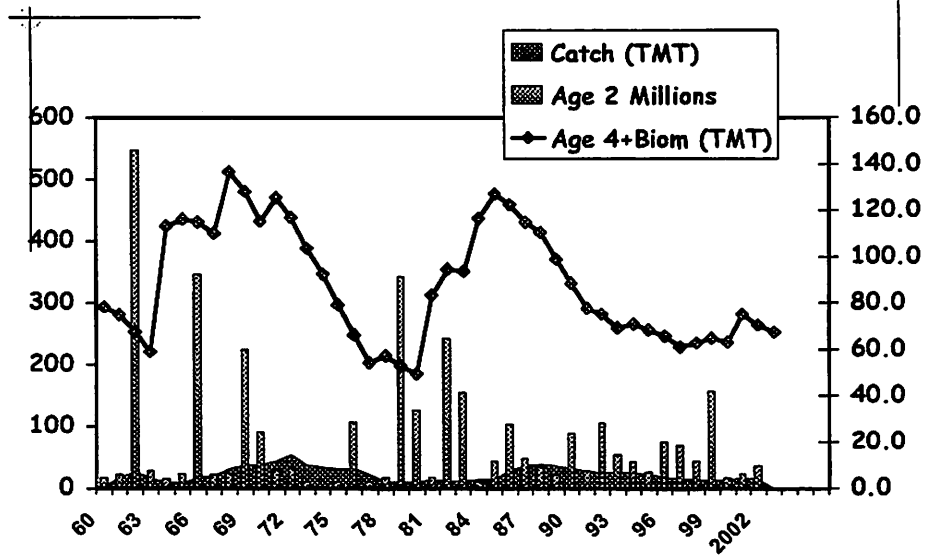
Aleutian Islands Atka Mackerel



Atka Mackerel Assessment Notable Features

1. New Assessemnt Model - AD Model Builder
2. Authors ABC Considerations
   - -- Survey Biomass 2002 = 773,000 mt
     ~~up 51% from 2000 survey; Shows~~ high variability
   - -- Yr 2003 Model biomass = 358,000 mt,
     down 7 % from Yr 2002;
   - -- Max Permissible F40 would yield ABC = 82,800 mt
   - -- 1998 Year Class showing strength
3. Plan team favors using average F over last 5 years
   - -- ABC = 51,000 mt
   - -- slight increase over 2002 ABC of 49,000 mt
4. ABC apportioned by area using weighted last 4 survey biomass

Sablefish-all areas



Sablefish Assessment

Notable Features

1. Longline Survey Abundance
   -- Increased 5% in numbers and 7% in weight
2. Modeling
   -- Abundance now appears moderate and increased from recent lows
3. ABC according to Tier 3b
   -- Max Permissible F 40 adjusted gives ABC = 25,400 mt
   -- Team and Author recommend ABC = 18,400 mt
   Simulation shows spawning biomass will have low probability of dropping below historic low biomass
4. ABC is apportioned by 5-year exponential weighting of abundance indices by region: EBS, AI & GOA

Squid Assessment
Notable Features

1. **Squid ABC is calculated under Tier 6**
   - …. average catch from 1977-1995
2. **Begin managing by Major Taxonomic Groups**
   a. For Sculpins & Skate
      …. ABC = Tier 5 Situation = 0.75M * Biomass
   b. For Sharks and Octopus
      ….. ABC = Tier 6 = Average 1977-1995

Summary (From Table 4)
(Pollock)

Stock	Biomass (mt)	ABC (mt)	ABC Change (2003 from 2002)
Pollock, EBS	11,100,000	2,330,000	Up 10 %
Pollock, AI	175,000	39,400	Up 65%
Pollock, Bogoslof	232,000	4,070 (SSC)	Down 6%

Summary (fromTable 4) (Cod and Sablefish)

Stock	Biomass (mt)	ABC (mt)	ABC Change (2003 from 2002)
Pacific Cod, BSAI	1,680,000	223,000	Same
Sablefish, EBS	31,000	2,550	Up 32 %
Sablefish, AI	39,000	2,740	Up 7 %

Summary (fromTable 4) (Flatfishes)

Stock	Biomass (mt)	ABC (mt)	ABC Change (2002 fr 2001)
YellFn. Sole	1,554,000	114,000	Down 2 %
Grn. Turbot	112,000	5,880	Down 27 %
Arrow. Fl	597,000	112,000	Down 1 %
Rock Sole	877,000	110,000	Down 51 %
Flathead S	550,000	66,000	Down 20 %
Alaska Plaice	1,083,000	137,000	Down 4 %
Other Flats	107,000	15,000	Down 17%

Summary (fromTable 4) (Rockfishes)

Stock	Biomass (mt)	ABC (mt)	ABC Change (2003 fr 2002)
POP, BSAI	375,000	15,100	Up 2 %
Northern R	156,000	7,000	Up 4%
ShortRaker-Rougheye	188,000	967	Down 6%
Other R, EBS	18,000	960	Up 166%
Other R, AI	15,000	634	Down 6%

Summary (fromTable 4) (Atka Mackerel & Other Species)

Stock	Biomass (mt)	ABC (mt)	ABC Change (2003 fr 2002)
Atka Mackerel	358,300	51,000	Up 4 %
Squid	NA	1,970	No Change
Other Species	695,000	19,300	Down 51 %

Adjustments to Reduce ABCs - due To Uncertainties

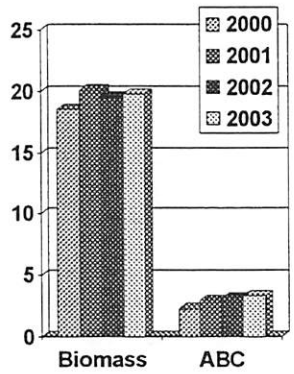
Stock	Maximum Permissible ABC (mt)	Recommend ABC (mt)	Main Reasons for Adjustment
Pollock, Bogoslof	34,000	4,070	SSC Procedure
Pacific Cod	278,000	223,000	Risk-Adverse Optimization
Green. Turbot	17,800	5,880	Low B & R
Sablefish, All	25,400	18,400	Simulated Catch
Atka Mackerel	82,800	51,000	Average 4-Yr F

Adjustments to ABCs - due to Ecosystems

~~The Team was unable to isolate~~ individual cases where ABC adjustments are needed to be made after ABC has been calculated to address ecosystem concerns specifically.

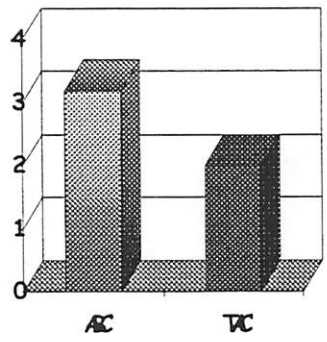
~~General Concerns have been been built~~ into the Analyses already

BSAI Groundfish Complex
Yr 2000 to Yr 2003



- Exploitable Biomass
  - 19.8 mmt for Yr 2003
  - Near Historical High
- ABC
  - 3.289 mmt for Yr 2003
  - Near Historical High

Year 2003 Summary



- ABC = 3,184,085 mt
- TAC = 2,000,000 mt

D-1: Groundfish TAC Specifications for 2003

December 2002 NPFMC Meetings

Anchorage, Alaska

Topics -

- Overview of the draft Environmental Assessment (EA)
- Brief description of the alternatives
- Analytical approach used in the document
- Summary of the results

Fifth year TAC Specifications EA has incorporated SAFE Reports as Appendices

- Improves NEPA compliance in TAC setting process
- Provides full disclosure of all information into the administrative record
- 2003 is second TAC spec EA to attempt a significance analysis of impacts

EA Outline

- Purpose and Need
- Alternatives
- Affected Environment
- Environmental Consequences
- Cumulative Effects
- Conclusions
- Initial Regulatory Flexibility Analysis
- List of Preparers
- References

EA Outline

App A BSAI SAFE

App B GOA SAFE

App C Ecosystem Considerations

App D Economic SAFE

App E ESA Section 7 consultation

App F ESA listed seabirds Sec 7 consultation

App G EFH consultation

2003 TAC Specifications Alternatives

On a target species or species group basis:

Alt 1. Set fishing mortality rate (F) equal to the maximum permissible value of F_{ABC} under Amendment 56

Alt 2. Set F within range of ABCs recommended by Plan Teams and Council (Preferred Alternative)

Alt 3. Set F equal to 50% of max F_{ABC}

Alt 4. Set F equal to most recent 5-year average actual F

Alt 5. Set F equal to 0

Typical Analytical Approach for Each Issue

1. Key effects question(s) identified

2. Criteria developed for determining the significance of the effects in relation to reference point

3. Information assembled for significance predictions

4. Conclusion related to FONSI determination

Reference Points – Resource Issues

Reference point	Application
Current population trajectory or harvest rate	Marine mammals Target fish Prohibited species Seabirds
Indicators of ecosystem function	Ecosystem
2002 status	Economic issues

Significance Determinations

- S+ Significant Beneficial
- I Insignificant
- S- Significant Adverse
- U Unknown

Table 6.0-1 Summary of Significance Determinations

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Marine Mammals	I	I	I	I	I
Target Fish	I	I	I	I	I
Prohibited Species					
Condition of Stocks	I	I	I	I	I
Prohibs Harvest Level	I	I	I	I	I
Bycatch of prohibs	I	I	I	I	S+
Ecosystem	I	I	I	I	I

Notes: S=significant, I=insignificant, U= unknown.

Table 6.0-1 Summary of Significance Determinations (Continued)

Six classes of seabirds
Four classes of impacts
- incidental take
- prey availability
- benthic habitat
- processing waste and offal

Alternatives 1 and 2
- most impacts "insignificant"
- some unknown impacts

Alternatives 3 and 4
- the same as 1 and 2

Alternative 5
- generally similar – in some cases a possible beneficial effect

Table 6.0-1 Page 76

Table 6.0-1 Summary of Significance Determinations (continued)

Economic Indicators	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
First wholesale gross rev.	I	I	S-	S-	S-
Operating cost impacts	I	I	S+	S+	S+
Net returns to industry	I	I	S-	S-	S-
Safety and health impacts	I	I	U	U	S-
Impacts on related fisheries	I	I	U	U	S-
Consumer effects	I	I	S-	S-	S-
Management and enforce.	I	I	I	I	S+
Excess capacity	I	I	S-	S-	S-
Bycatch and discards	I	I	I	I	S+
Passive use values	I	I	U	U	U
Non-market use values	I	I	U	U	U
Non-consumptive use values	I	I	U	U	U

Notes: S=significant, I=insignificant, U= unknown.

Section 7
EA contains information for Biological Assessment for ESA listed Species present in the action area

- Steller sea lion
- ESA listed great whales
- ESA listed Pacific salmon
- ESA listed seabirds

Table 5.0-2 Page 74

EA contains information for Essential Fish Habitat Consultation

- EFH Consultation for 2003 TAC specifications is almost complete
- EFH consultations consider all impacts of the action to EFH and management measures built into the fisheries to mitigate adverse impacts to EFH.

Available on the internet:

- EA/IRFA From NMFS Alaska Region at: http://www.fakr.noaa.gov/sustainablefisheries/ea/tac2003/draftEAIRFA_1102.pdf
- EA/IRFA now available, and SAFE will be available, from from the NPFMC at: http://www.fakr.noaa.gov/npfmc/safes/safe.htm

Contacts:

- Tamra Faris or Ben Muse
  - National Marine Fisheries Service
  - P.O. Box 21668
  - Juneau, AK 99802
- (907) 586-7228

SAFE EA
Replacement Page
8-14, e

Alternative 2 is being chosen as the preferred alternative because: 1) It takes into account the best and most recent information available regarding the status of the groundfish stocks, public testimony, and socio-economic concerns; 2) Sets all TACs at levels equal to or below ABC levels; 3) falls within the specified range of OY for both the BSAI and GOA, and 4) is consistent with the Endangered Species Act and the National Standards and other requirements of the Magunson Stevens Fishery Conservation and Management Act.

Table 6.0-1 Summary of significant determinations with respect to direct and indirect impacts.

Coding: I = Insignificant, S = Significant, + = beneficial, - = adverse, U = Unknown					
Issue	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
Marine Mammals					
Incidental take/entanglement in marine debris	I	I	I	I	I
Spatial/temporal concentration of fishery	I	I	I	I	I
Disturbance	I	I	I	I	I
Target Fish Species					
Fishing mortality	I	I	I	I	I
Spatial temporal concentration of catch	I	I	I	I	I
Change in prey availability	I	I	I	I	I
Habitat suitability: change in suitability of spawning, nursery, or settlement habitat, etc.	I	I	I	I	I
Prohibited Species Management					
Condition of prohibited species stocks	I	I	I	I	I
Harvest levels in directed fisheries targeting prohibited species	I	I	I	I	I
Bycatch levels of prohibited species in directed groundfish fisheries	I	I	I	I	S+
Northern Fulmar					
Incidental take–BSAI	U	U	U	U	U(S+)
Incidental take–GOA	I	I	I	I	I
Prey availability	I	I	I	I	I
Benthic habitat	I	I	I	I	I
Proc. waste & offal	U	U	U	U	U(S-)
Short-tailed Albatross					
Incidental take	U	U	U	U	U(S+)
Prey Availability	I	I	I	I	I
Benthic Habitat	I	I	I	I	I
Proc. Waste & Offal	I	I	I	I	I

Coding: I = Insignificant, S = Significant, + = beneficial, - = adverse, U = Unknown					
Issue	Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5
Other Albatrosses & Shearwaters					
Incidental Take	U	U	U	U	U(S+)
Prey Availability	I	I	I	I	I
Benthic Habitat	I	I	I	I	I
Proc. Waste & Offal	I	I	I	I	I
Piscivorous Seabirds (Also Breeding in Alaska)					
Incidental Take	I	I	I	I	I
Prey Availability	U	U	U	U	U
Benthic Habitat	I	I	I	I	I
Proc. Waste & Offal	I	I	I	I	I
Eiders (Spectacled and Stellers)					
Incidental Take	I	I	I	I	I
Prey Availability	U	U	U	U	U
Benthic Habitat	U	U	U	U	U
Proc. Waste & Offal	I	I	I	I	I
Other Seabird Species					
Incidental Take	I	I	I	I	I
Prey Availability	I	I	I	I	I
Benthic Habitat	I	I	I	I	I
Proc. Waste & Offal	I	I	I	I	I
Marine Benthic Habitat					
Removal and damage to HAPC biota	I	I	I	I	I
Modification of nonliving substrates,	I	I	I	I	I
Changes to species mix	I	I	I	I	I
Ecosystem Considerations					
Predator-Prey Relationships					
Energy Flow and Balance					
Diversity					
State waters seasons					
Pollock PWS	I	I	I	I	I
Pacific cod GOA	I	I	S-	I	S-
Sablefish PWS and SEI	I	I	I	I	I
Parallel seasons BSAI and GOA	I	I	I	I	S-

PUBLIC TESTIMONY SIGN-UP SHEET FOR AGENDA ITEM Agenda Item D-1(d)(e) BSAI/GOA

PLEASE SIGN ON THE NEXT BLANK LINE.
LINES LEFT BLANK WILL BE DELETED.

	NAME	AFFILIATION
1.	Jeff Stephan	UFMA
2.	BRENT PAINE	UCB
3.	Paul MacGregor / LORI Swanson	APA / GFF
4.	Julie Bonney	AGDB
5.	Matt Hegge	F/V Ocean Bay
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		
16.		
17.		
18.		
19.		
20.		
21.		
22.		
23.		
24.		
25.		

D-1e
Jeff Stephan
UFMA

Central Gulf of Alaska (CGOA) Pacific cod (p. cod) issues for consideration
2002 GOA Specifications D-1(e)

Utilization of Central GOA (CGOA) Inshore (IS) p. cod TAC
(IS p. cod TAC = .80 X CGOA p. coc TAC) (in metric tons)

Season	IS TAC	catch trawl	catch pot	catch h&l	catch jig	catch total	catch as % of IS TAC	regul-atory % of IS TAC	discards
A	13,387.00	8,051.80	2,094.60	5,302.40	4.20	15,453.00	69	60	??
A-B		4,595.60		145.80	<.1	4,714.40	21		2303.00
B	8,924.00	39.00	578.70	1,033.50	<.1	1,651.20	7.4	40	??
>B		950.40		6.80	0.00	957.20	4.3		655.00
Totals	22,311.00	13,636.80	2,673.30	6,488.50	<4.4	22,802.80	101.7		>3175.00

Somecharacteristics of 2002 removals of CGOA IS p. cod:

- A Season harvest of CGOA Inshore (IS) p. cod = ~69% of CGOA IS p. cod TAC (regulatory target is 60%)
- B Season harvest of CGOA IS p. cod = ~7.4% of CGOA IS p. cod TAC (regulatory target is 40%)
- Trawl Bycatch of CGOA p. cod between the A and B Seasons = ~21% of CGOA IS p. cod TAC (no regulatory target for p. cod between A and B Seasons)
- ~90% of the CGOA IS p. cod TAC was taken prior to the start of the B Season (regulatory target for the B Season is 40%)
- Trawl discards of 2002 CGOA p. cod = >3,100 mt (i.e., >14% of CGOA IS p. cod TAC and actual harvest)
- Trawl discards of 2001 CGOA p. cod = ~1,600 mt
- "Topping Off" with p. cod may be occurring in the CGOA directed trawl fishery for the "Shallow Water Flatfish" complex

Some possible solutions and management measures for managing removals of CGOA IS p. cod during2003 and beyond:

- Inseason management measures ????
- minimize opportunities that may exist for "topping off"
- Adjust Maximum Retainable Bycatch (MRB) between the A and B Seasons of CGOA p. cod in the CGOA shallow water flatfish target fishery to less than 20% (to 5%, or to a "natural" rate)
- Allocate an allowable (i.e., natural rate) bycatch amount "off the top" of the CGOA IS p. cod TAC for those trawl fisheries that occur between the A and B Seasons

Submitted by Jeff Stephan, United Fishermen's Marketing Association, Inc.