

# North Pacific Fishery Management Council

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**FINAL**

## **ADVISORY PANEL MINUTES North Pacific Fishery Management Council October 4–7, 2010**

The following (20) members were present for all or part of the meetings:

Joe Childers  
Mark Cooper  
Craig Cross  
John Crowley  
Julianne Curry  
Jerry Downing  
Tom Enlow

Tim Evers  
Jeff Farvour  
Becca Robbins Gisclair  
Jan Jacobs  
Bob Jacobson  
Simon Kinneen  
Chuck McCallum

Matt Moir  
Theresa Peterson  
Ed Poulsen  
Beth Stewart  
Lori Swanson  
Anne Vanderhoeven

Minutes of the June and August 2010 meetings were approved.

### **C-1 Observer Program**

The Advisory Panel recommends the Council adopt Alternative 3 and modified Options 1 and 2 below:

Alternative 3. Coverage-based restructuring alternative. Restructure the program for all fisheries and shoreside processors with coverage of less than 100 percent. Vessels in the restructured program would pay an ex-vessel value based fee. Leave vessels and processors with at least 100 percent coverage under the current service delivery model.

The following motion failed 9 to 10:

Modify Option 1 to read: 2% will be used for the first two years of the program. Upon review by the Council, this could be reduced to one-half of the exvessel fee for halibut and sablefish vessels under 60 feet.

#### (Modified) Option 1:

For the first two years of the program, the fee would be 2% of ex-vessel value. In the third year, the fee would automatically drop to one-half of the ex-vessel value based fee for halibut and sablefish landings. The Council and SSC would assess whether the reduced fee level would generate sufficient revenue to maintain P2 coverage levels.

*Option 1 was voted on separately and passed 13/6.*

*Minority report on C-1, Modified option 1: We the undersigned members of the AP oppose applying a full 2% observer fee to IFQ/CDQ sablefish/halibut sectors during the first two years of the program before dropping to 1%. The P2 cost estimate provided on pg. 168 and in Appendix 11 includes approximately 200 observer days at a cost of \$1,000,000 for vessels under 40 ft which are not scheduled*

*for observer coverage in the first year(s) of the program. When these observer days are backed-out, a 2% fee on the sablefish and halibut fleet generates \$1 million more a year than the deployment plan requires. This million-dollar cushion comes at the expense of the IFQ/CDQ sablefish/halibut fisheries that are struggling under reduced quotas and high entry costs, which creates a significant barrier to entry. IFQ sablefish/halibut is the only fishery that is subject to the observer restructuring program, currently paying a monitoring and enforcement fee of up to 3%.*

*Applying Option 1 (one half the assessed fee) to the sablefish/halibut fleet from the beginning of the program will allow for P2 sampling to be achieved and still generate a small surplus (approx \$200,000) over projected costs. Additionally, the P2 analysis is based on using ride along human observers in all sectors at a cost of \$467/day. Using EM in lieu of human observers on some fleet segments may result in cost savings creating additional surplus.*

*Signed by: Anne Vanderhoeven, Chuck McCallum, Jeff Favour, Julianne Curry, Tim Evers, Becca Robbins Gisclair*

**(Modified) Option 2:**

The agency shall release a draft observer program sampling design and deployment plan annually by September 1, available for review and critique by the OAC and a Council-appointed observer implementation committee comprised of representatives of those affected by the restructured observer program and members of the OAC. The SSC, Council, and Plan Teams shall review and critique the plan annually.

The AP also recommends the following associated decision points to apply to the preferred alternative:

- An ex-vessel value fee of 2% to be applied in the first two years, (one-half of the exvessel value based fee for halibut and sablefish landings after two years), to be reviewed annually.
- Use a 3-year rolling average ex-vessel price to calculate the annual ex-vessel fee on groundfish landings (not halibut and sablefish).
- Exclude the State water GHJ species from the program.
- Catcher vessels that deliver unsorted cod ends to a mothership/CP are exempt from observer coverage and program fees.
- Define catcher processor based on FFP designation. The Implementation Committee would work with regulation writers to address those sectors not required to carry an FFP.
- Use COAR data for groundfish ex-vessel prices, and a method of determining prices by: individual species (as opposed to species complex); fixed, pelagic trawl, and non-pelagic trawl gear types; individual ports if possible and then by aggregating surrounding ports if necessary for confidentiality; and the weighted average of all delivery and disposition codes.
- Apply the annual IFQ price, developed for the cost recovery program, by port or port group from the previous year to determine IFQ species (halibut and sablefish) ex-vessel observer fees.
- Apply for Federal funding.

*Final motion passed 19/0.*

The AP recommends that the Council request that the Implementation Committee analyze the issue of vessels that change target fisheries and areas, which results in a change to the fee structure and coverage category.

*Motion passed 17/0.*

The AP recognizes there are still implementation issues that need to be resolved. The AP requests that the Council appoint an Implementation Committee, comprised primarily of stakeholders that are most affected by the restructured observer program.

*Motion passed 18/0.*

The AP believes that electronic monitoring will be an important component of a cost effective program for some sectors. The AP endorses the OAC recommendation to have a discussion paper brought back in February 2011 identifying decision points necessary to develop the electronic monitoring component, as recommended by the Council.

*Motion passed 17/0.*

### **C-2 BSAI Crab SAFE/OFLs**

The AP recommends the Council approve the BSAI Crab SAFE. *Motion passed 15/0.*

### **C-3 BSAI Crab ACLs/Snow Crab Rebuilding**

The AP recommends the Council take the following actions to amend BSAI Crab FMP:

#### **Action 1: Annual Catch Limits**

Select Alternative 3, the variable buffer approach, with a P\* of 0.49 for all crab stocks.

In regards to the process for ABC recommendation, the AP recommends Option 1, SSC recommends ABC levels annually at the October Council meeting.

#### **Action 2: Snow Crab Rebuilding**

Select Alternative 1, no action and maintain the existing rebuilding plan, with the understanding that National Standard 1 Guidelines require that TAC cannot exceed 75% of OFL.

In addition, change the definition of rebuilt to biomass above Bmsy for one year. This is consistent with Crab Plan Team and SSC recommendations for snow crab and tier 3 stocks.

*Motion passed 19/0.*

### **C-4 Scallop ACLs**

The AP recommends the Council adopt Alternative 2a, and that State management continue to address appropriate accountability measures. The AP also recommends that non-target scallops be put into the ecosystem component. *Motion passed 18/0.*

### **C-5 GOA Tanner Crab Bycatch**

The AP recommends the Council adopt Alternative 1, the status quo with a trailing amendment to implement a requirement for modified trawl sweeps in the Gulf of Alaska flatfish fisheries based on the requirement in the BSAI.

*Motion passed 15/5.*

*Minority Report on C-5 GOA Tanner Crab Bycatch: The AP minority believes that alternative 1 (status quo), is not responsive to the Council's problem statement about the need to reduce Tanner crab bycatch in GOA groundfish fisheries and facilitating crab rebuilding. Tanner crab fishermen have approached*

the Council for many years asking for meaningful action to reduce the impacts of non pelagic trawling on rebuilding Tanner crab stocks. Basing management measures on crab distribution is an appropriate approach to protecting the most important areas. The analysis shows that mature male and female crab populations tend to move offshore into areas not protected by existing management measures. Non pelagic trawling accounts for 83% of Tanner crab bycatch in the GOA. Council action has resulted in an increase in opportunity for the trawl fleet to expand around Kodiak without measures to protect rebuilding Tanner crab stocks. The halibut rollover provision in the rockfish program has increased bottom trawling in the fall. The higher groundfish MRA in the directed arrowtooth fishery has facilitated expansion of this fishery. The increased non pelagic trawl effort is occurring right on top of areas important for mature crab and where the rebuilding potential is high. The AP minority believes area closures, especially addressing priority areas, to be an important means to reduce interactions between non pelagic trawling, rebuilding crab stocks and protecting essential and critical crab habitat.

The Tanner crab fishery is important to local Kodiak fishermen who have experienced a significant reduction opportunity in federal fisheries. The winter Tanner crab fishery serves as a bridge to carry combination vessels to the next fishery. Most of the 52 boats that registered for the 2010 season and most of the 183 Tanner crab permit holders are local combination vessels. Status quo will not result in additional crab protection for rebuilding stocks or protecting essential and critical crab habitat. While the AP minority appreciates creative steps such as gear modifications, they do not meet the purpose and need statement for this action and until they are tested, proven effective and implemented in the GOA they should not be part of this action.

Signed by: Theresa Peterson, Chuck McCallum, Becca Robbins Gisclair, Jeff Favour, Tim Evers

### **C-6 Arrowtooth Flounder MRA**

The AP recommends the Council adopt Alternative 3: Set the MRAs for arrowtooth at the current flathead sole levels

Suboption 3.1: Set the MRA for Greenland turbot at 10% (modified from 15%)

*Motion passed 15/3.*

Minority Report on C-6 Arrowtooth MRA: A minority of the AP did not support this motion. The minority supported the concept of providing increased MRAs to reduce regulatory discards in the arrowtooth flounder fishery. However, significant increases in MRAs for high value species could create an economic incentive to "top-off" for these two species. The minority was concerned that the MRA for sablefish of 15% under alternative 3 far exceeded the average bycatch rate of slightly greater than one percent, and therefore could create this type of incentive. The minority was also concerned about the potential impacts on directed Greenland turbot fisheries of setting the Greenland turbot MRA at 10%.

Signed by: Rebecca Robbins Gisclair, Theresa Peterson, Jeff Favour

### **D-1(a) Pribilof BKC Rebuilding Plan**

The AP recommends the Council strike Alternative 5 from the analysis. *Motion passed 19/0.*

The AP recommends the Council request that the analysis should consider spatial overlap of blue king crab and red king crab, and analyze impact of current blue king crab current protection measures on the Pribilof red king crab fishery. *Motion passed 19/0.*

The AP recommends the Council request its Crab Plan Team to conduct a thorough assessment of the stock structure of the Blue King Crab biomass on the Eastern Bering Sea shelf. This assessment should be based on analysis of recruitment patterns by Zheng and Kruse, the work of Mueter on climate forcing on the distribution of subarctic species, and any other research and survey results that the crab plan team believes is relevant. *Motion passed 19/0.*

## **D-1(b) BSAI Crab discussion paper on Economic Data Reports**

The AP recommends the Council adopt the following purpose and need statement for development of an amendment to revise the Crab EDR:

As a part of its Bering Sea and Aleutian Island crab rationalization (CR) program, the Council developed a comprehensive economic data collection (“EDR”) program to provide information to analysts to assess the effects of the CR program and identify problems that may require future amendments to the EDR program.

Council review of the EDR program, development of the EDR metadata through PNCIAC and testimony from the industry has resulted in the identification of substantial portions of the EDR data that are inaccurate. In addition, several elements are wholly or partially redundant with other existing data collection requirements. The cost to industry, both directly through data submission, and indirectly through cost recovery funding of program administration, outweigh the benefits of the resultant data and greatly exceed estimates provided in the initial analysis of the EDR program and in the accompanying regulatory analyses.

To address these problems, the Council intends to amend the EDR process so that the data collected is accurate, informative to the Council, not redundant with existing reporting requirements, and can be reported by industry and administered at a reasonable cost.

The Council expressly wants to limit the EDR to the collection of data that have been demonstrated, through the development of the EDR metadata, and other reviews of the data, to be fully accurate. Data collection should be structured and specific elements identified, to minimize costs while maintaining accuracy and providing the greatest information value to the management decision making process.

As analysts develop, refine, and verify methods for accurately collecting additional informative data elements the Council will consider expansion of the data collection program to include those elements. This process can also inform the future Council action regarding other existing and future EDR programs.

*Motion passed 18/0.*

## **D-2 Groundfish Specifications**

### **BSAI Groundfish**

The AP recommends the Council adopt the BSAI groundfish specifications for 2011-2012 that are shown in the attached table. The OFLs and ABCs are those that were approved by the SSC and Plan Team and the TACs are those recommended by industry. *Motion passed 19/0.*

The AP recommends that the Council adopt PSC bycatch allowances and seasonal apportionments for halibut, crab and herring for the Amendment 80 and BSAI limited access sectors as noted in Tables 8a-c in the revised handout titled D-2(b)(2-3) new, with the following changes:

- Change all table titles to “Preliminary 2011 and 2012” rather than “Final 2010 and 2011.”
- Table 8A: change halibut discard mortality rates for the Amendment 80 sector to 2,375 mt in 2011 and 2,325 in 2012
- Table 8C: change the apportionment of halibut mortality for non-trawl Pacific cod catcher processors to 380 mt for January 1-June 10; 190 mt for June 10-August 15; and 190 mt August 15-December 31.

*Motion passed 19/0.*

The AP recommends that the Council adopt the halibut discard mortality rates as shown in Table 9 of the revised handout (item D-2(b)(2-3) and retitle Table 9 to “Preliminary 2011 and 2012.”

*Motion passed 19/0.*

### GOA Groundfish

The AP recommends the Council adopt the GOA groundfish specifications for 2011-2012 as shown in the attached table. *Motion passed 19/0.*

The AP recommends the Council adopt the halibut PSC apportionments as shown on page 2 of the D-2 action memo. *Motion passed 19/0.*

Further, the AP recommends the Council request the Plan Team to continue to look at Tier 6 species calculations that are currently based on average catches because there is concern that it could constrain current fisheries. *Motion passed 18/0.*

### **D-3(b) BSAI Chinook Salmon Bycatch Economic Data Reporting**

The AP recommends that the Council approve the Amendment 91 AFA pollock fishery economic data collection forms with the following changes:

1. **Logbook:** Add “primarily” to logbook check box text. Revised text would read “Check if moved primarily to avoid Chinook salmon.”
2. **Vessel Fuel Survey:** Add “for pollock fishing only” under rate of fuel consumption and add “for all fishing” under fuel purchased during calendar year on Table 2 (reflecting text in instructions).
3. **Vessel Master Survey:**
  - Instructions for Part 2 (text before question 1) – Revise first sentence to read: “Please consider the following questions carefully and provide the most complete answers you can to your best ability.”
  - Question 7 – revise to read: “Please describe how any regulatory or other area closures or restrictions for a purpose other than reducing Chinook salmon bycatch affected ~~where~~ and how you fished your avoidance of Chinook PSC.”
  - Question 9 – revise first sentence to read: “Were there exceptional factors that affected your pollock fishing this year in regard to Chinook salmon bycatch avoidance?”

*Motion passed 19/0.*

### **D-3(c) Annual Review of Groundfish Workplan**

The AP recommends that the council prioritize item 24 (encourage programs to review status of endangered marine mammal stocks and fishing interactions and develop fishery management measures as appropriate) to address data shortfalls in the Steller Sea Lion Biological Opinion specifically in the Central and Western Aleutian Islands.

*Motion passed 19/0.*

### **D-3(d) Preliminary Screening of HAPC proposals**

The AP received a brief report from Sarah Melton and Matt Eagleton on HAPC proposals.

**Advisory Panel Recommendation on TACs with BSAI Plan Team proposed OFL and ABC recommendations (metric tons)  
for 2011-2012 (dated October 7, 2010)**

Species	Area	2010				2011			2012		
		OFL	ABC	TAC	Catch	OFL	ABC	TAC	OFL	ABC	TAC
Pollock	EBS	918,000	813,000	813,000	787,027	1,220,000	1,110,000	1,110,000	1,220,000	1,110,000	1,110,000
	AI	40,000	33,100	19,000	976	39,100	32,200	19,000	39,100	32,200	19,000
	Bogoslof	22,000	156	50	52	22,000	156	75	22,000	156	75
Pacific cod	BSAI	205,000	174,000	168,780	128,510	251,000	214,000	207,580	251,000	214,000	207,580
Sablefish	BS	3,310	2,790	2,790	555	2,970	2,500	2,500	2,970	2,500	2,500
	AI	2,450	2,070	2,070	879	2,200	1,860	1,860	2,200	1,860	1,860
Atka mackerel	Total	88,200	74,000	74,000	43,008	76,200	65,000	65,000	76,200	65,000	65,000
	EAI/BS	n/a	23,800	23,800	13,549	n/a	20,900	20,900	n/a	20,900	20,900
	CAI	n/a	29,600	29,600	18,555	n/a	26,000	26,000	n/a	26,000	26,000
	WAI	n/a	20,600	20,600	10,903	n/a	18,100	18,100	n/a	18,100	18,100
Yellowfin sole	BSAI	234,000	219,000	219,000	94,144	227,000	213,000	213,000	227,000	213,000	213,000
Rock sole	BSAI	243,000	240,000	90,000	48,837	245,000	242,000	90,000	245,000	242,000	90,000
Greenland turbot	Total	7,460	6,120	6,120	3,201	6,860	5,370	5,370	6,860	5,370	5,370
	BS	n/a	4,220	4,220	1,386	n/a	3,700	3,700	n/a	3,700	3,700
	AI	n/a	1,900	1,900	1,815	n/a	1,670	1,670	n/a	1,670	1,670
Arrowtooth flounder	BSAI	191,000	156,000	75,000	34,267	167,400	139,300	60,000	167,400	139,300	60,000
Kamchatka flounder	BSAI					23,600	17,700	17,700	23,600	17,700	17,700
Flathead sole	BSAI	83,100	69,200	60,000	18,107	81,800	68,100	60,000	81,800	68,100	60,000
Other flatfish	BSAI	23,000	17,300	17,300	2,042	23,000	17,300	17,300	23,000	17,300	17,300
Alaska plaice	BSAI	278,000	224,000	50,000	13,402	314,000	248,000	40,000	314,000	248,000	40,000
Pacific Ocean perch	BSAI	22,400	18,860	18,860	12,465	22,200	18,680	18,680	22,200	18,680	18,680
	BS	n/a	3,830	3,830	873	n/a	3,790	3,790	n/a	3,790	3,790
	EAI	n/a	4,220	4,220	3,054	n/a	4,180	4,180	n/a	4,180	4,180
	CAI	n/a	4,270	4,270	3,352	n/a	4,230	4,230	n/a	4,230	4,230
	WAI	n/a	6,540	6,540	5,186	n/a	6,480	6,480	n/a	6,480	6,480
Northern rockfish	BSAI	8,640	7,240	7,240	2,116	8,700	7,290	7,290	8,700	7,290	7,290
Shortraker rockfish	BSAI	516	387	387	197	516	387	387	516	387	387
Blackspotted/Rougeye rockfish	BSAI	669	547	547	191	650	531	531	650	531	531
	BS						42	42		42	42
	AI						489	489		489	489
Other rockfish	BSAI	1,380	1,040	1,040	523	1,380	1,040	1,040	1,380	1,040	1,040
	BS	n/a	485	485	193	n/a	485	485	n/a	485	485
	AI	n/a	555	555	330	n/a	555	555	n/a	555	555
Squid	BSAI	2,620	1,970	1,970	65	2,620	1,970	1,970	2,620	1,970	1,970
Other species	BSAI	88,200	61,100	50,000	17,321						
Shark	BSAI				39	598	449	449	598	449	449
Skates	BSAI				13,080	35,900	30,000	30,000	35,900	30,000	30,000
Sculpin	BSAI				4,113	51,300	30,200	30,035	51,300	30,200	30,035
Octopus	BSAI				89	311	233	233	311	233	233
<b>Total</b>	<b>BSAI</b>	<b>2,462,945</b>	<b>2,121,880</b>	<b>1,677,154</b>	<b>1,207,884</b>	<b>2,826,305</b>	<b>2,467,266</b>	<b>2,000,000</b>	<b>2,826,305</b>	<b>2,467,266</b>	<b>2,000,000</b>

Sources: 2010 OFLs, ABCs, and TACs and 2011 OFLs and ABCs from harvest specifications adopted by the Council in December 2009; 2012 OFLs and ABCs equal 2011; individual other species from December 2009 SSC minutes, minor modifications from Council 2009 recommendations to other species and BSAI totals to conform to SSC other species recommendations; 2010 catches through September 11 from AKR Catch Accounting.

**Advisory Panel Recommendation on TACs with GOA Plan Team proposed OFL and ABC recommendations (metric tons) for 2011 and 2012 (dated October 7, 2010)**

Species	Area	2011			2,012		
		OFL	ABC	TAC	OFL	ABC	TAC
Pollock	W(61)		34,728	34,728		34,728	34,728
	C(62)		37,159	37,159		37,159	37,159
	C(63)		25,287	25,287		25,287	25,287
	WYAK		2,686	2,686		2,686	2,686
	Subtotal	135,010	99,860	99,860	135,010	99,860	99,860
	SEO	12,326	9,245	9,245	12,326	9,245	9,245
	Total	147,336	109,105	109,105	147,336	109,105	109,105
Pacific cod	W		34,265	25,699		34,265	25,699
	C		60,698	45,524		60,698	45,524
	E		2,937	2,203		2,937	2,203
	Total	116,700	97,900	73,426	116,700	97,900	73,426
Sablefish	W		1,488	1,488		1,488	1,488
	C		4,042	4,042		4,042	4,042
	WYAK		1,450	1,450		1,450	1,450
	SEO		2,320	2,320		2,320	2,320
	WYAK+SEO		3,770	3,770		3,770	3,770
	Total	11,008	9,300	9,300	11,008	9,300	9,300
Shallow water flatfish	W		23,681	4,500		23,681	4,500
	C		29,999	13,000		29,999	13,000
	WYAK		1,228	1,228		1,228	1,228
	SEO		1,334	1,334		1,334	1,334
	Total	67,768	56,242	20,062	67,768	56,242	20,062
Deep water flatfish	W		530	530		530	530
	C		2,928	2,928		2,928	2,928
	WYAK		2,089	2,089		2,089	2,089
	SEO		778	778		778	778
	Total	7,847	6,325	6,325	7,847	6,325	6,325
Rex sole	W		1,521	1,521		1,521	1,521
	C		6,312	6,312		6,312	6,312
	WYAK		871	871		871	871
	SEO		888	888		888	888
	Total	12,534	9,592	9,592	12,534	9,592	9,592
Arrowtooth flounder	W		34,263	8,000		34,263	8,000
	C		144,262	30,000		144,262	30,000
	WYAK		22,501	2,500		22,501	2,500
	SEO		11,693	2,500		11,693	2,500
	Total	250,559	212,719	43,000	250,559	212,719	43,000
Flathead sole	W		17,520	2,000		17,520	2,000
	C		28,190	5,000		28,190	5,000
	WYAK		2,068	2,068		2,068	2,068
	SEO		1,508	1,508		1,508	1,508
	Total	61,601	49,286	10,576	61,601	49,286	10,576



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Species	Area	2011			2,012		
		OFL	ABC	TAC	OFL	ABC	TAC
Pacific ocean perch	W	3,220	2,797	2,797	3,220	2,797	2,797
	C	11,944	10,377	10,377	11,944	10,377	10,377
	WYAK		1,937	1,937		1,937	1,937
	SEO		1,882	1,882		1,882	1,882
	E (subtotal)	4,396	3,819	3,819	4,396	3,819	3,819
Total		19,560	16,993	16,993	19,560	16,993	16,993
Northern rockfish	W		2,549	2,549		2,549	2,549
	C		2,259	2,259		2,259	2,259
	E		0	0		0	0
	Total	5,730	4,808	4,808	5,730	4,808	4,808
Shortraker	W		134	134		134	134
	C		325	325		325	325
	E		455	455		455	455
	Total	1,219	914	914	1,219	914	914
Other slope rockfish	W		212	212		212	212
	C		507	507		507	507
	WYAK		273	273		273	273
	SEO		2,757	200		2,757	200
	Total	4,881	3,749	1,192	4,881	3,749	1,192
Pelagic shelf rockfish	W		607	607		607	607
	C		3,035	3,035		3,035	3,035
	WYAK		405	405		405	405
	SEO		680	680		680	680
	Total	5,739	4,727	4,727	5,739	4,727	4,727
Rougheye	W		81	81		81	81
	C		869	869		869	869
	E		363	363		363	363
	Total	1,581	1,313	1,313	1,581	1,313	1,313
Demersal shelf rockfish	SEO	472	295	295	472	295	295
Thornyhead rockfish	W		425	425		425	425
	C		637	637		637	637
	E		708	708		708	708
	Total	2,360	1,770	1,770	2,360	1,770	1,770
Atka mackerel	GW	6,200	4,700	2,000	6,200	4,700	2,000
Big skate	W		598	598		598	598
	C		2,049	2,049		2,049	2,049
	E		681	681		681	681
	Total	4,438	3,328	3,328	4,438	3,328	3,328
Longnose skate	W		81	81		81	81
	C		2,009	2,009		2,009	2,009
	E		762	762		762	762
	Total	3,803	2,852	2,852	3,803	2,852	2,852
Other skates	GW	2,791	2,093	2,093	2,791	2,093	2,093
Sharks	GW	1,276	957	957	1,276	957	957
Squid	GW	1,530	1,148	1,148	1,530	1,148	1,148
Octopus	GW	298	224	224	298	224	224
Sculpin	GW	6,328	4,746	4,746	6,328	4,746	4,746
Total	GOA	743,559	605,086	330,746	743,559	605,086	330,746