



RC 4

JANUARY 11, 2012

SUBMITTED BY: ALASKA DEPARTMENT OF FISH AND GAME

Summary of 2011/2012 Southeast Alaska red king crab fishery, 2009/2010 – 2011/2012 Districts 1 and 2 Dungeness crab fisheries, and Districts 1 and 2 Dungeness crab shell-condition data.

2011/2012 Southeast Alaska red king crab commercial fishery effort, harvest, and value.

Total GHL: 201,000 pounds

Total harvest: 176,083 pounds, 20, 951 crabs

Permits

	K19A	K29A	K49A	K69A	Total
Registered	6	7	15	28	56
Total w/landings	6	7	13	28	54
Juneau	0	0	3	4	7
Pybus/Gambier	3	4	7	11	25
St. James/Excursion	2	1	4	7	14
Non-Surveyed	4	6	13	24	47

Harvest

Area	GHL	Pounds	#Crabs	# Pot Lifts
Juneau	9,000	9,934	1,081	136
Pybus/Gambier	66,000	59,899	6,922	1,461
St. James/Excursion	29,000	12,939	1,602	1,083
Non-Surveyed	97,000	93,311	11,346	5,283
Total	201,000	176,083	20,951	7,963

Harvest by Surveyed/Non-Surveyed Area

	Surveyed	Non-Surveyed	Total
Pounds	82,772	93,311	176,083
Percentage	47.0%	53.0%	

Exvessel Value

Total	\$/lb
\$1,877,045.00	\$10.66

Dungeness harvest data for Districts 1 & 2

District 1.	Pounds	Pot lifts	# Crabs	Permits
2009/10 Summer	41,139	3,750	20,654	5
2009/10 Fall	44,370	4,770	21,973	4
2009/10 Total	85,509	8,520	42,627	6
2010/11 Summer	91,947	7,750	45,899	5
2010/11 Fall	28,879	3,967	14,509	4
2010/11 Total	120,826	11,717	60,408	7
2011/12 Summer	73,532	6,003	36,306	4
2011/12 Fall	43,576	6,325	22,650	7
2011/12 Total	117,108	12,328	58,956	10

District 2.	Pounds	Pot lifts	# Crabs	Permits
2009/10 Summer	93,224	8,910	48,983	5
2009/10 Fall	23,740	3,350	11,952	3
2009/10 Total	116,964	12,260	60,935	7
2010/11 Summer				
2010/11 Fall	85,338	10,551	38,543	5
2010/11 Total	85,338	10,551	38,543	5
2011/12 Summer				
2011/12 Fall *	75,343	7,364	35,580	5 * <i>Ongoing</i>

STATE OF ALASKA

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MEMORANDUM

TO: Debbie Hart, Marine Fisheries Supervisor
Joe Stratman, Shellfish Management Project Leader

FROM: Gretchen Bishop, Crab Research Project Leader

DATE: September 12, 2011

SUBJECT: Dungeness crab soft shell summary for 2012 Board of Fisheries

In response to several industry proposals, the commercial season for Dungeness crab in Districts 1 and 2 of Southeast Alaska was changed from a fall/winter (October 1–February 28) to a split summer (June 15–August 15) / fall (October 1–November 30) season at the 2009 meeting of the Alaska Board of Fisheries (BOF). The intent of this action was to make seasons consistent throughout Southeast Alaska in order to spread commercial effort. The action was taken despite consistent longstanding department opposition to a summer season for Dungeness crab and a stated desire to eliminate the summer season to reduce handling of soft shelled crab.

At the time of this regulatory change, the BOF directed the department to monitor handling of soft shell Dungeness crab and report back to the 2012 meeting of the BOF. Unfortunately, no additional funding was provided to enable this charge. In an attempt to respond to this charge without additional funding, the department began using durometers to quantitatively determine shell hardness of a portion of Dungeness crab measured for carapace width and shell condition during dockside sampling of commercial landings. Other investigators have related shell hardness (as determined using durometers) to shell age (Hicks and Johnson 1999) and reported increased handling mortality for crabs with durometer readings below 60 (Hicks and Murphy 1989; Kruse et al. 1994).

The primary purpose of this memorandum is to describe spatial and temporal trends in soft shell prevalence of Dungeness crabs in dockside data. Specific objectives are to provide information to the BOF at the 2012 meeting on 1.) the soft shell prevalence during the summer fishery in District 1

for 2009/10 and 2010/11 seasons, and in District 2 for the 2009/10 season and 2.) general spatial and seasonal timing of Dungeness soft shell prevalence, with emphasis on recent seasons.

Secondarily, June dockside soft shell prevalence is also contrasted with preseason survey and fish ticket data. The purpose of comparing dockside sampling with survey data is to allow extrapolation from dockside to on-the-grounds soft shell prevalence in order to provide some measure of the potential level of soft shell handling on the grounds. This must be done with some caution, however, as the survey was conducted during the first two weeks of June, while June dockside sampling was conducted during the last two weeks. Dockside and fish ticket data are also compared because the 100% fish ticket data coverage means that if soft shell prevalence from fish tickets were reliable information, it would provide a cheap, broadly-distributed data source, particularly valuable for areas with low dockside sampling coverage.

Survey findings

A preseason Dungeness crab pot survey of eight areas conducted in early June from 2000/01 through 2004/05 seasons showed that, depending upon the year and location, 3–61% of legal male Dungeness crabs captured were shell condition soft or light (Table 1). Shell hardness at shell condition information collected during the survey was used to guide port samplers in determining shell condition (Table 2).

Dockside findings

During 2009/10 and 2010/11 seasons respectively 2,064 of 18,893 crab sampled in 305 trips and 2,783 of 18,035 crab sampled in 301 trips were measured for shell hardness using a durometer (Table 3). For each sampled trip 50 or 75 crabs were measured depending upon the fishery area. The percentage of crabs with shell condition soft or light by trip was calculated. This is hereafter referred to as “soft shell prevalence”. A mean of 2.1% and 1.2% respectively of delivered crabs were soft shell and mean shell hardness was 76.9 and 84.6 respectively for 2009/10 and 2010/11 (Table 3). For the 2001/02 through 2010/11 seasons, mean soft shell prevalence in sampled deliveries by fishery area ranged from 0.5% in Icy Strait/Glacier Bay to 3.1% in Stikine Flats.

ANOVA was conducted to test effectiveness of shell condition as a predictor of shell hardness. There was a significant effect of shell condition ($F_{(3,4684)}=350.907$, $p<.0001$) and post hoc Tukey HSD tests showed that old shell (Mean=89.3, SE=0.37) were significantly harder than new shell (Mean=81.5, SE=0.18) which were harder than light shell (Mean=54.6, SE=0.97) or soft shell (Mean=51.0, SE=4.14) crabs; however hardness of light and soft shell conditions did not differ (Figure 1).

For the first time during 2009/10 and 2010/11 seasons, 295 Dungeness crabs which had been rejected for purchase by the processor because they were too soft were sampled and measured for shell hardness. ANOVA was conducted to compare rejected crabs with purchased product. Because variances were unequal, Welch ANOVA was used to test effects of delivery condition on crab shell hardness. There was a significant effect of delivery condition ($F_{(1,348.8)}=2038.4$, $p<.0001$) and rejected crabs (Mean=52.7, SE=0.60) were softer than purchased product (Mean=81.2, SE=0.18).

The good correspondence between shell condition and shell hardness, means that shell condition is a useful predictor of whether a crab will be rejected by a processor and whether discard will result in elevated handling mortality. Thus, because of the short time series and small sample size of durometer readings, crab shell condition was used to investigate the effects of fishery area and

month on crab shell hardness. Because crabs with soft or light shell condition corresponded to the shell hardness of crabs with elevated handling mortality and rejected for purchase, they were combined and the proportion in each trip determined. This will be referred to hereafter as “soft shell prevalence.” Months were grouped into summer (June, July and August), fall (September, October, November), and winter (December, January, February) seasons.

Data summarized by trip were used to investigate the effects of year, fishery area and season (summer vs. fall) on soft shell prevalence using three-way ANOVA for 2001/02–2010/11, excluding 2009/10, seasons. Because the primary port sampling objective is to characterize crab by fishery area and season, not to compare fishery areas, and because of uneven distribution of fishing effort, the design was unbalanced. The unbalanced design meant that only Duncan Canal, East Admiralty/Mainland Bays Port Camden, and Stikine River Flats could be compared. The ANOVA was highly significant ($F_{(71,2232)}=10.7242$, $p<.0001$) and fishery, season, year, fishery*year, and year*season were all significant effects (Figure 2). Post hoc Tukey HSD tests showed the highest soft shell prevalence in Duncan Canal, or Stikine River Flats (which did not differ from East Admiralty) in the summer season, and in 2001/02 or 2008/09 seasons (Figure 2).

It was not possible to conduct 3-way ANOVA of the effects of year, fishery area, and season (fall vs. winter) for Behm Canal and Portland Canal, and East Prince of Wales (East POW) as there was insufficient data for East POW for any season. Thus two-way ANOVA of the effect of season and year on soft shell prevalence was conducted for Behm Canal and Portland Canal only for 2001/02, 2002/03, and 2005/05 seasons. The ANOVA was not significant ($F_{(1,57)}=.0876$, $p=.7684$).

The effect of month on soft shell prevalence was investigated using one-way ANOVA for six fishery areas with consistently high sampling effort for 2001/02 through 2010/11 seasons (Figures 3–8). Although there was insufficient data for some fishery area/year combinations, there was a significant effect of month for 22 of the 64 combinations (Figures 3–8). For areas with summer (June 15–August 15) and fall (October 1–November 30) seasons, soft shell prevalence was generally higher in summer than fall but varied within summer months (Figures 3–6). There was very little data from areas (Behm Canal and Portland Canal, and East Prince of Wales) with fall and winter season (December 1–February 28), and the only two significant regressions showed peak soft shell prevalence in November (Behm Canal and Portland Canal, 2004/05, Figure 7), and January (East POW 2003/04, Figure 8). There were no samples from February.

Fish ticket findings

The proportion of fish ticket landings, in pounds, that were coded as dead, soft shell or landed discard was summarized for 2001/02 through 2010/11 seasons (Table 5). This is hereafter referred to as “fish ticket soft shell prevalence”. For the 2001/02 through 2010/11 seasons, mean fish ticket soft shell prevalence by fishery area ranged from 0.1% in West Coast Prince of Wales to 1.4% East Admiralty/Mainland Bays.

Data summarized by fish ticket were used to investigate the effects of year, fishery area and season (summer vs. fall) on fish ticket soft shell prevalence using three-way ANOVA for 2001/02–2010/11 seasons. Because of the uneven distribution of fishing effort, the design was unbalanced. The unbalanced design meant that only Duncan Canal, East Admiralty/Mainland Bays Port Camden, and Stikine River Flats could be compared. The ANOVA was highly significant ($F_{(199,27360)}=7.0$, $p<.0001$) and fishery area, season, year, fishery area*year fishery area*season, and fishery area*year*season were all significant effects (Figure 9). Post hoc Tukey HSD tests showed the

highest soft shell prevalence in East Admiralty (which did not differ from Tenakee Inlet, or Thomas Farragut Bays) in the summer season, and in 2009/10 (which did not differ from 2007/8, 2006/07, 2004/05, 2003/04, 2001/02) seasons (Figure 9).

The effects of year, fishery area and season (fall vs. winter) on fish ticket soft shell prevalence were investigated using three-way ANOVA for 2001/02–2004/05 and 2007/08 seasons for Behm Canal and Portland Canal vs. East Prince of Wales. Not all seasons could be used because of insufficient effort in some seasons in East Prince of Wales. The ANOVA was not significant ($F_{(19,543)}=.8027$, $p=.7049$).

The effect of month on fish ticket soft shell prevalence was investigated using one-way ANOVA for six fishery areas with consistently high sampling effort for 2001/02 through 2010/11 seasons (Figures 10–15). There was a significant effect of month for only one fishery area year combination (Behm Canal and Portland Canal in the 2006/07 season, Figure 14), where soft shell prevalence peaked in December.

Summary

1. Use of durometers allowed description of the shell hardness limit of crabs rejected as soft by the processor. Additional work should be conducted to determine how that varies between processors, years, and fishery area.
2. Shell condition provided a reliable measure of shell hardness and crabs rejected by the processor were exclusively soft or light shelled.
3. Although it is desirable to determine a direct extrapolation factor from dockside to on-the-grounds (survey) soft shell prevalence, the difference in data collection timing prevents the current data from being used to do this. Nonetheless, the magnitude of the differences observed suggests that dockside soft shell prevalence is a considerable underestimate of the actual on-the-grounds soft shell prevalence.
4. For areas with summer and fall seasons, soft shell prevalence was significantly higher during the summer season using either dockside or fish ticket data, although within summer months, peak soft shell month varied with fishery area and year.
5. For areas with fall and winter seasons, there was insufficient dockside or fish ticket data to make conclusive statements about the seasonality of soft shell prevalence.
6. When summer fisheries were prosecuted in District 1 (Behm Canal and Portland Canal) and District 2 (East Prince of Wales) there was insufficient effort, resulting in insufficient dockside or fish ticket data, to make conclusive statements about the seasonality of soft shell prevalence.
7. The lower fish ticket soft shell prevalence relative to dockside suggests that not all soft shell crabs are refused by the processor.

Literature cited

- Hicks, D. M., and B. A. Johnson. 1999. A device to measure shell hardness of Dungeness crabs and trial application in the Kodiak Island, Alaska, Commercial Fishery. *North American Journal of Fisheries Management* 19:581-590.
- Hicks, D. M., and M. C. Murphy. 1989. A Handling Study of Dungeness Crab at Varying Air Exposure Intervals and Shell-Hardness Levels. Alaska Department of Fish and Game, Division of Commercial Fisheries, Fishery Research Bulletin #89-01, Juneau, Alaska.
- Kruse, G. H., D. Hicks, and M. C. Murphy. 1994. Handling increases mortality of softshell Dungeness crabs returned to the sea. *Fishery Research Bulletin* 1(1):1-9.

Tables and Figures

Table 1. Legal male Dungeness crab mean and 95% confidence interval (CI) of softshell (% soft or light) prevalence during pre-season June surveys of eight areas, 2000 through 2004.

Survey area	2000		2001		2002		2003		2004	
	Mean	±CI	Mean	±CI	Mean	±CI	Mean	±CI	Mean	±CI
Duncan Canal	16.8%	±6.0%	56.4%	±6.5%	61.0%	±5.7%	20.2%	±5.6%	24.0%	±6.5%
Stikine Flats	5.4%	±2.7%	18.4%	±4.0%	11.5%	±4.0%	11.9%	±5.1%	3.4%	±3.3%
Port Camden			41.6%	±13.6%			13.8%	±5.9%		
Seymour Canal							25.3%	±6.9%		
Tenakee Inlet			20.8%	±7.4%	16.6%	±6.6%	11.7%	±4.8%	13.8%	±5.8%
Peril Strait			9.0%	±6.3%	15.5%	±7.3%	11.3%	±6.7%		
Berners Bay			6.5%	±7.2%	2.6%	±5.0%				
St. James Bay					15.3%	±11.1%				

Table 2. Shell condition, shell age, and mean and 95% confidence interval (CI) of durometer readings from male and female Dungeness crabs captured in eight survey areas grouped in Southeast Alaska from September 2000 to June 2004. Estimated shell age for soft and light is from Hicks and Johnson (1999).

Shell condition code	Shell condition	Estimated shell age	Male		Female	
			Mean	±CI	Mean	±CI
1	Soft	≤2 wk.	39.2	±0.79	35.0	±1.73
2	Light	wk.≤2 mo.	50.7	±0.45	47.6	±1.42
3	New	>2 mo.≤12 mo.	72.7	±0.35	73.7	±0.37
4	Old	>12 mo.≤24mo.	83.0	±0.48	74.6	±0.46
5	Very old	>24 mo.	79.4	±2.36	75.9	±0.85

Table 3. Summary of Dungeness crab soft shell prevalence and durometer readings by fishery area from dockside sampling for 2009/10 and 2010/11 seasons. Except for East Coast, Prince of Wales in 2010/11, data is from summer fall seasons. Abbreviations used are M = Mean, CI = Confidence Interval, N.A. = not available.

Fishery area	% Shell soft or light						Durometer reading					
	2009/10			2010/11			2009/10			2010/11		
	n, trips	M	±CI	n, trips	M	±CI	n, crabs	M	±CI	n, crabs	M	±CI
Behm Canal	6	0.0%	0.0	8	0.8%	1.0	185	87.8	1.4	200	88.2	1.1
Duncan Canal	79	3.3%	1.0	83	1.1%	0.4	356	78.0	1.3	571	83.1	0.9
East Admiralty	53	2.4%	1.0	55	3.1%	1.8	405	80.6	1.2	563	82.4	1.0
East Coast POW	5	0.8%	1.0	6	0.7%*	0.9*	100	73.7	2.2	215	85.2	1.1
Ernest Sound	7	2.6%	2.1	7	3.9%	2.7	60	62.4	2.6	50	74.1	2.4
Icy Straits	9	0.4%	0.4	13	0.4%	0.3	60	81.8	3.0	155	86.0	1.5
Lynn Canal	14	0.2%	0.3	15	0.8%	0.6	15	82.8	6.4	166	87.8	1.2
Peril Strait	20	0.0%	0.0	21	0.4%	0.6	10	78.6	4.3	35	83.0	3.6
Port Camden	14	4.0%	2.6	12	0.8%	1.3	250	80.1	2.1	230	88.1	1.1
Stikine River Flats	85	6.0%	1.5	68	1.7%	0.6	463	70.1	1.4	429	79.5	1.1
Tenakee Inlet	4	0.7%	0.8	5	0.0%	0.0	30	85.2	3.1	25	89.5	3.3
Thomas Bay	8	4.6%	3.6	8	1.1%	1.3	120	83.3	2.2	144	88.0	1.4
West Coast POW	1	2.0%	N.A.	0	N.A.	N.A.	10	55.1	4.6	N.A.	N.A.	N.A.
Total Mean	305	2.1%		301	1.2%		2,064	76.9		2,783	84.6	

* Fall winter season

Table 4. Summary of Dungeness crab soft shell prevalence (Mean soft and 95% confidence interval (CI) of the percentage of soft or light) from dockside sampling by fishery area for 2001/02 through 2010/11 seasons.

Season	Parameter	Behm Canal	Duncan Canal	East Admiralty	East Coast POW	Ernest Sound/	Icy Strait	Lynn Canal	Peril Strait	Port Camden	Stikine Flats	Tena-kee Inlet	Thomas Bay	West Coast POW
2001/02	Mean ±CI	0.9% 0.8%	9.2% 1.7%	4.9% 2.5%	1.2% 2.4%	4.0% 4.6%		1.0% 0.9%	2.3% 1.6%	5.0% 1.8%	7.8% 2.4%	4.1% 2.8%	5.6% 7.7%	4.0%
2002/03	Mean ±CI	1.6% 1.5%	6.9% 2.0%	1.2% 0.7%	1.3% 1.3%	2.6% 2.3%	1.6% 3.0%		0.3% 0.6%	2.0% 1.1%	4.0% 1.5%	2.6% 5.1%	1.0% 2.0%	4.3% 6.0%
2003/04	Mean ±CI		2.2% 0.8%	2.0% 1.1%	3.1% 2.7%					0.4% 0.4%	1.3% 0.6%	2.0% 2.7%	0.5% 1.0%	0.0%
2004/05	Mean ±CI	3.7% 1.8%	2.1% 0.8%	2.9% 1.2%	2.1% 1.8%	1.9% 1.8%	0.5% 0.5%		0.7% 0.9%	0.3% 0.3%	2.0% 1.0%		0.3% 0.7%	4.8% 9.4%
2005/06	Mean ±CI	0.3% 0.4%	1.1% 0.6%	0.3% 0.4%		0.1% 0.3%			1.2% 0.8%	0.7% 1.3%	0.7% 0.4%	0.6% 0.9%	2.0% 2.3%	
2006/07	Mean ±CI		0.9% 0.4%	0.9% 0.4%			0.3% 0.5%			0.2% 0.2%	0.7% 0.2%	0.4% 0.5%	0.7% 0.7%	
2007/08	Mean ±CI		3.4% 0.9%	1.7% 1.2%	0.2% 0.3%		2.5% 2.3%	1.1% 1.3%	0.1% 0.2%	0.8% 0.5%	4.7% 2.1%	10.8% 15.3%	2.4% 2.2%	
2008/09	Mean ±CI		8.0% 1.7%	8.0% 2.2%	2.4% 2.5%	1.1% 1.5%	3.2% 1.8%	0.5% 0.4%	0.4% 0.6%	7.2% 2.8%	7.6% 2.1%	4.9% 9.6%	6.2% 3.2%	0.0%
2009/10	Mean ±CI		3.3% 1.0%	2.4% 1.0%	0.8% 1.0%	2.6% 2.1%	0.4% 0.4%	0.2% 0.3%		4.0% 2.6%	6.0% 1.5%	0.7% 0.8%	4.6% 3.6%	2.0%
2010/11	Mean ±CI	0.8% 1.0%	1.1% 0.4%	3.1% 1.8%	0.7% 0.9%	3.9% 2.7%	0.4% 0.3%	0.8% 0.6%	0.4% 0.6%	0.8% 1.3%	1.7% 0.6%		1.1% 1.3%	
	Mean Rank	0.7% 10	2.9% 2	2.3% 4	1.0% 9	1.8% 7	0.5% 12	0.5% 13	0.6% 11	1.5% 8	3.1% 1	2.3% 3	2.2% 6	2.2% 5

Table 5. Summary of Dungeness crab soft shell prevalence (Mean and 95% confidence interval (CI) of the percentage coded as dead loss, soft shell, or discard) from fish tickets by fishery area for 2001/02 through 2010/11 seasons.

Season	Parameter	Behm Canal	Duncan Canal	East Admiralty	East Coast POW	Ernest Sound	Icy Strait	Lynn Canal	Peril Strait	Port Camden	Stikine Flats	Tena-kee Inlet	Thomas Bay	West Coast POW
2001 / 02	Mean	0.6%	2.1%	1.2%	0.9%	0.2%	0.5%	0.2%	1.4%	1.0%	0.5%	2.4%	1.0%	0.1%
	±CI	0.6%	0.2%	0.3%	0.9%	0.1%	0.8%	0.2%	1.6%	0.2%	0.1%	2.7%	0.3%	0.2%
2002 / 03	Mean	1.0%	1.6%	1.1%	0.3%	0.9%	0.3%	0.2%	0.3%	0.8%	0.4%	0.3%	1.1%	0.5%
	±CI	1.0%	0.2%	0.5%	0.4%	1.0%	0.2%	0.2%	0.1%	0.3%	0.1%	0.2%	0.4%	0.4%
2003 / 04	Mean	0.2%	0.8%	1.7%	0.8%	0.1%	0.6%	1.2%	0.7%	0.2%	0.3%	0.7%	0.8%	0.1%
	±CI	0.2%	0.1%	0.6%	0.8%	0.1%	0.5%	1.1%	0.5%	0.1%	0.1%	0.6%	0.3%	0.2%
2004 / 05	Mean	0.1%	1.1%	1.6%	0.3%	0.0%	0.6%	0.3%	0.6%	0.4%	0.4%	0.7%	0.9%	0.2%
	±CI	0.1%	0.2%	1.0%	0.2%	0.0%	0.3%	0.3%	0.5%	0.2%	0.1%	0.6%	0.2%	0.3%
2005 / 06	Mean	0.4%	0.9%	1.6%	0.1%	0.1%	0.3%	0.4%	1.6%	0.4%	0.2%	0.4%	0.8%	0.1%
	±CI	0.3%	0.3%	0.9%	0.1%	0.1%	0.2%	0.3%	1.2%	0.2%	0.0%	0.2%	0.3%	0.1%
2006 / 07	Mean	1.5%	0.7%	1.6%	0.6%	0.0%	0.7%	0.9%	0.1%	0.4%	0.4%	1.9%	0.7%	0.2%
	±CI	2.8%	0.2%	0.9%	0.4%	0.0%	1.0%	1.1%	0.1%	0.1%	0.1%	2.2%	0.2%	0.2%
2007 / 08	Mean	0.2%	1.4%	1.7%	0.6%	0.0%	1.6%	1.6%	0.6%	1.0%	0.6%	1.2%	1.4%	0.0%
	±CI	0.1%	0.2%	0.4%	0.4%	0.0%	2.0%	0.9%	0.4%	1.0%	0.1%	1.0%	0.4%	0.0%
2008 / 09	Mean	0.0%	1.0%	0.8%	0.7%	0.0%	0.3%	1.3%	0.4%	0.3%	0.3%	1.2%	1.1%	0.0%
	±CI	0.0%	0.2%	0.2%	0.7%	0.0%	0.2%	1.2%	0.2%	0.1%	0.0%	1.0%	0.2%	0.0%
2009 / 10	Mean	0.7%	2.2%	1.9%	1.1%	0.1%	0.3%	1.2%	1.1%	1.7%	0.6%	0.4%	2.5%	0.0%
	±CI	0.9%	0.6%	0.8%	1.3%	0.2%	0.3%	1.4%	0.5%	0.7%	0.1%	0.4%	0.4%	0.0%
2010 / 11	Mean	1.7%	0.9%	1.3%	0.3%	0.0%	0.1%	0.2%	0.1%	0.3%	0.2%	0.0%	0.8%	0.0%
	±CI	1.3%	0.1%	0.3%	0.2%	0.0%	0.1%	0.2%	0.1%	0.1%	0.0%	0.0%	0.2%	0.0%
	Mean Rank	8	2	1	9	12	10	5	6	7	11	4	3	13

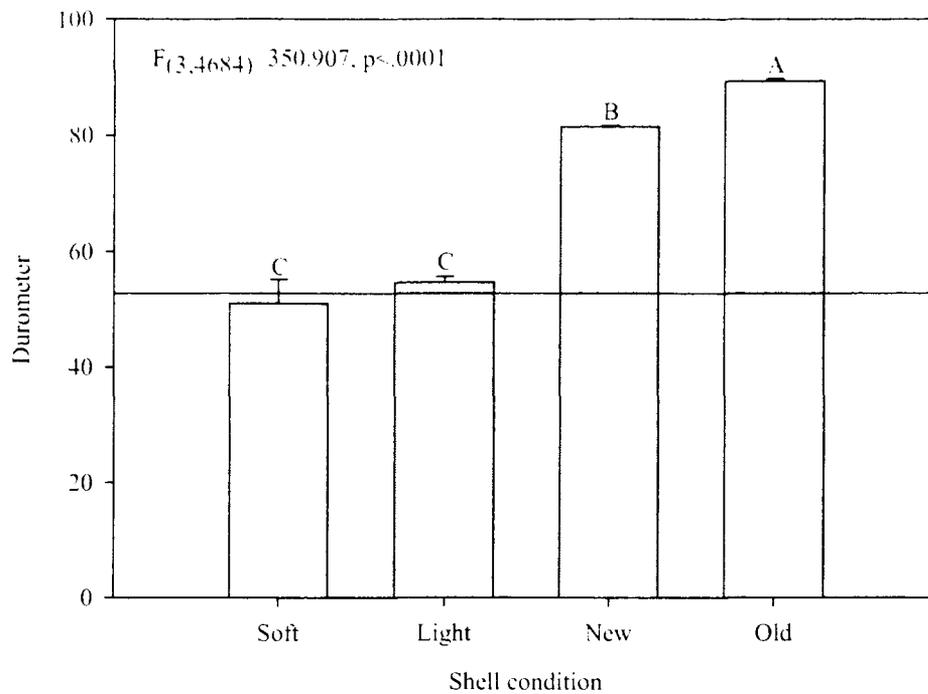


Figure 1. Mean and standard error of Dungeness crab shell hardness by shell condition from crabs delivered and purchased during dockside sampling in 2009/10 and 2010/11 seasons. The reference line at 52.7 is the mean shell hardness of crabs rejected for purchase by the processor. One-way ANOVA results and results of post-hoc Tukey HSD are included.

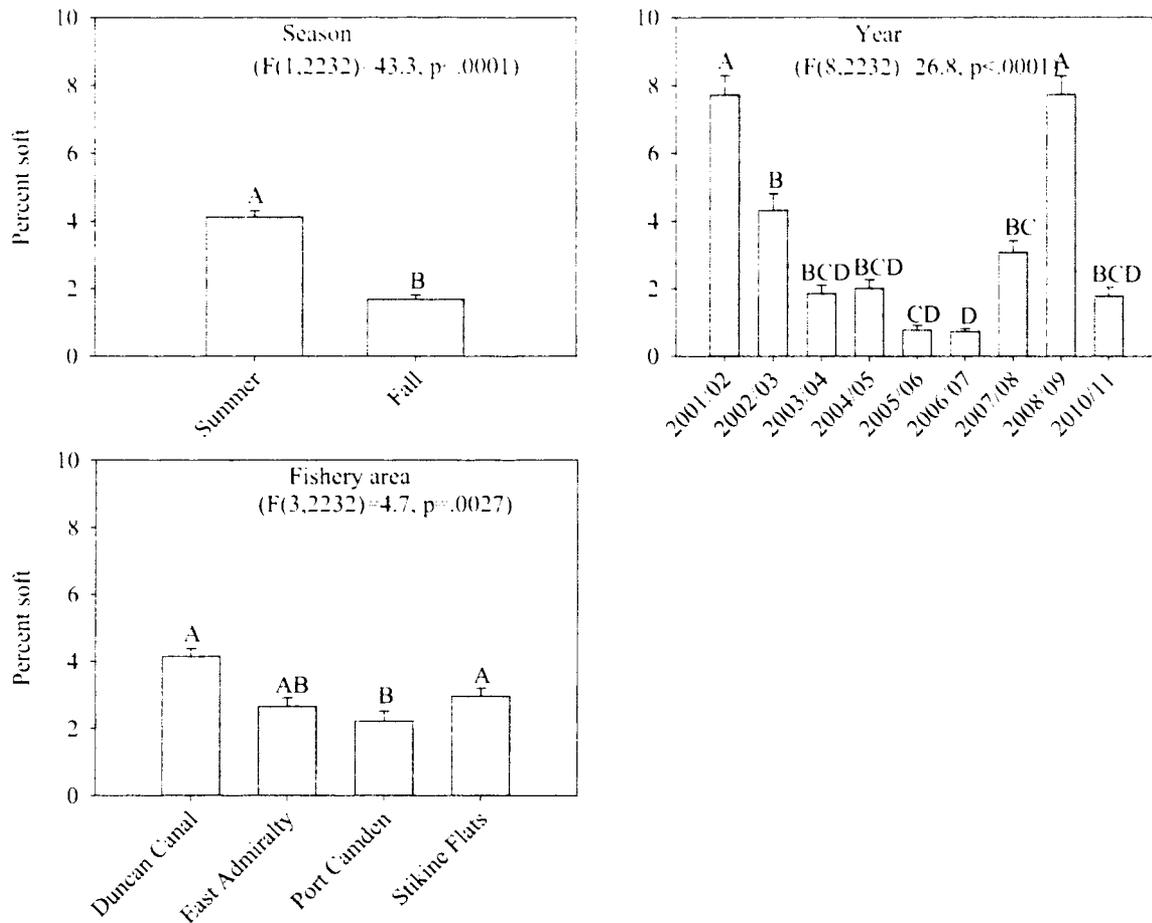


Figure 2. Results of 3-way ANOVA of effects of fishery area, season, and year on Dungeness crab soft shell prevalence from dockside sampling of four fishery areas, during summer and fall seasons of 2001/02 through 2010/11. Not shown are interaction effects, which were significant for fishery area*year (F(24,2232)=1.7, p=.0149), and year*season (F(8,2232)= 4.5, p<.0001). Results of post-hoc Tukey HSD are included.

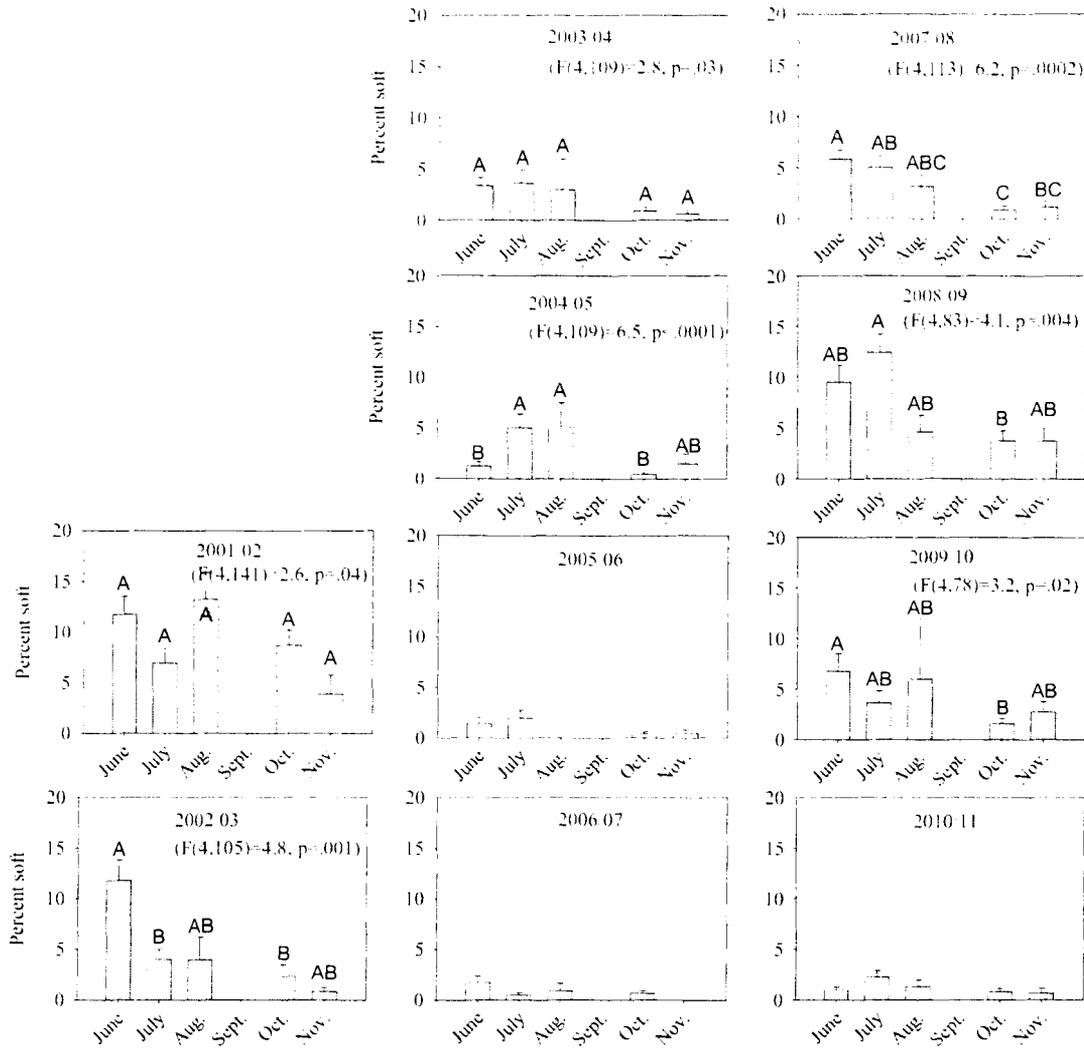


Figure 3. Duncan Canal (District 6) soft shell prevalence by month from dockside sampling of Dungeness crab during summer (June 15–August 15) and fall (October 1–November 30) commercial seasons, 2001/02 through 2010/11. Statistical results are included for areas with significant ANOVA only.

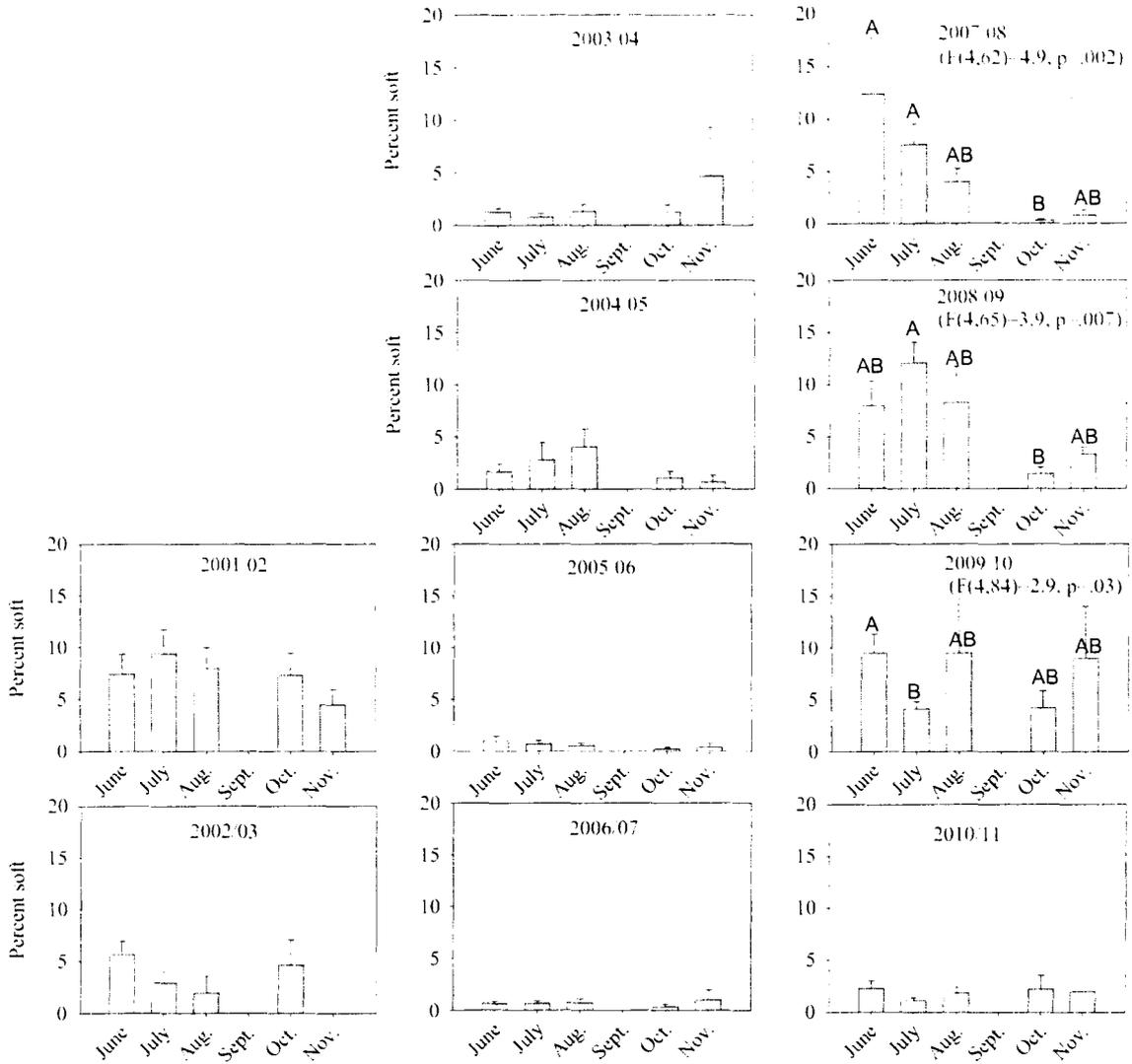


Figure 4. Stikine River Flats (District 8) soft shell prevalence by month from dockside sampling of Dungeness crab during summer (June 15–August 15) and fall (October 1–November 30) commercial seasons, 2001/02 through 2010/11. Statistical results are included for areas with significant ANOVA only.

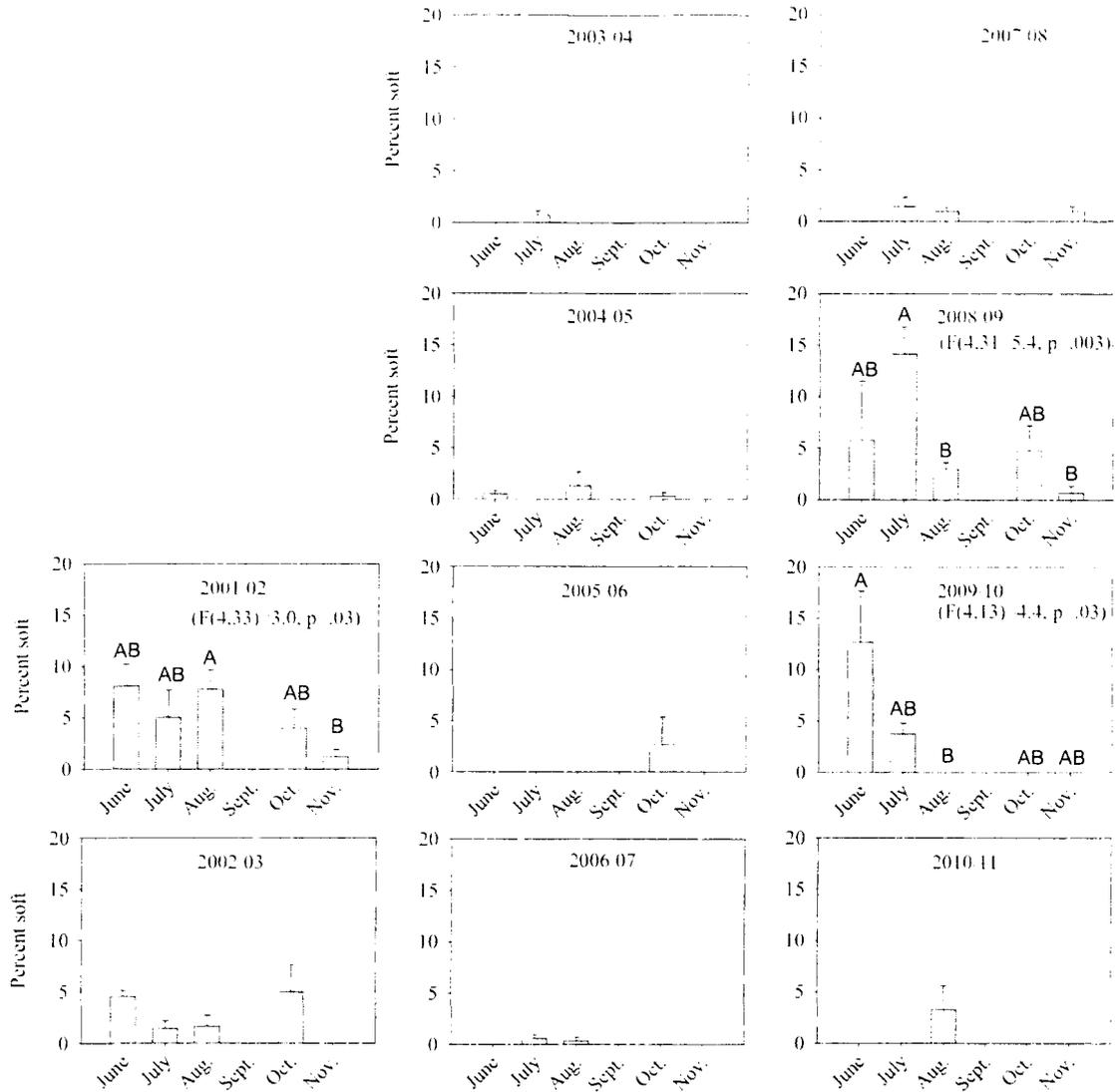


Figure 5. Port Camden (Districts 5/9) soft shell prevalence by month from dockside sampling of Dungeness crab during summer (June 15–August 15) and fall (October 1–November 30) commercial seasons, 2001/02 through 2010/11. Statistical results are included for areas with significant ANOVA only.

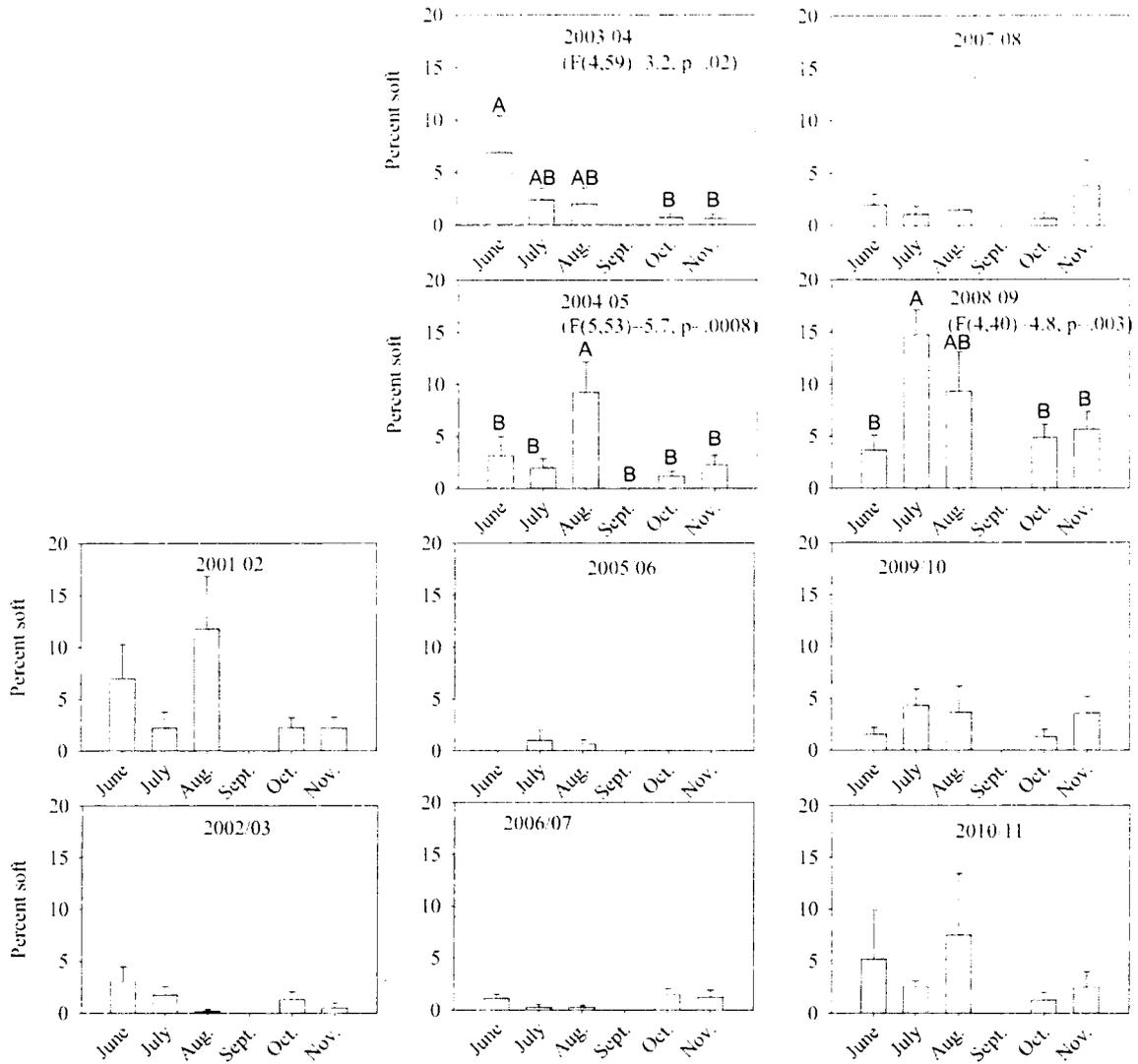


Figure 6. East Admiralty Mainland Bays, (District 11) soft shell prevalence by month from dockside sampling of Dungeness crab during summer (June 15–August 15) and fall (October 1–November 30) commercial seasons, 2001/02 through 2010/11. Statistical results are included for areas with significant ANOVA only.

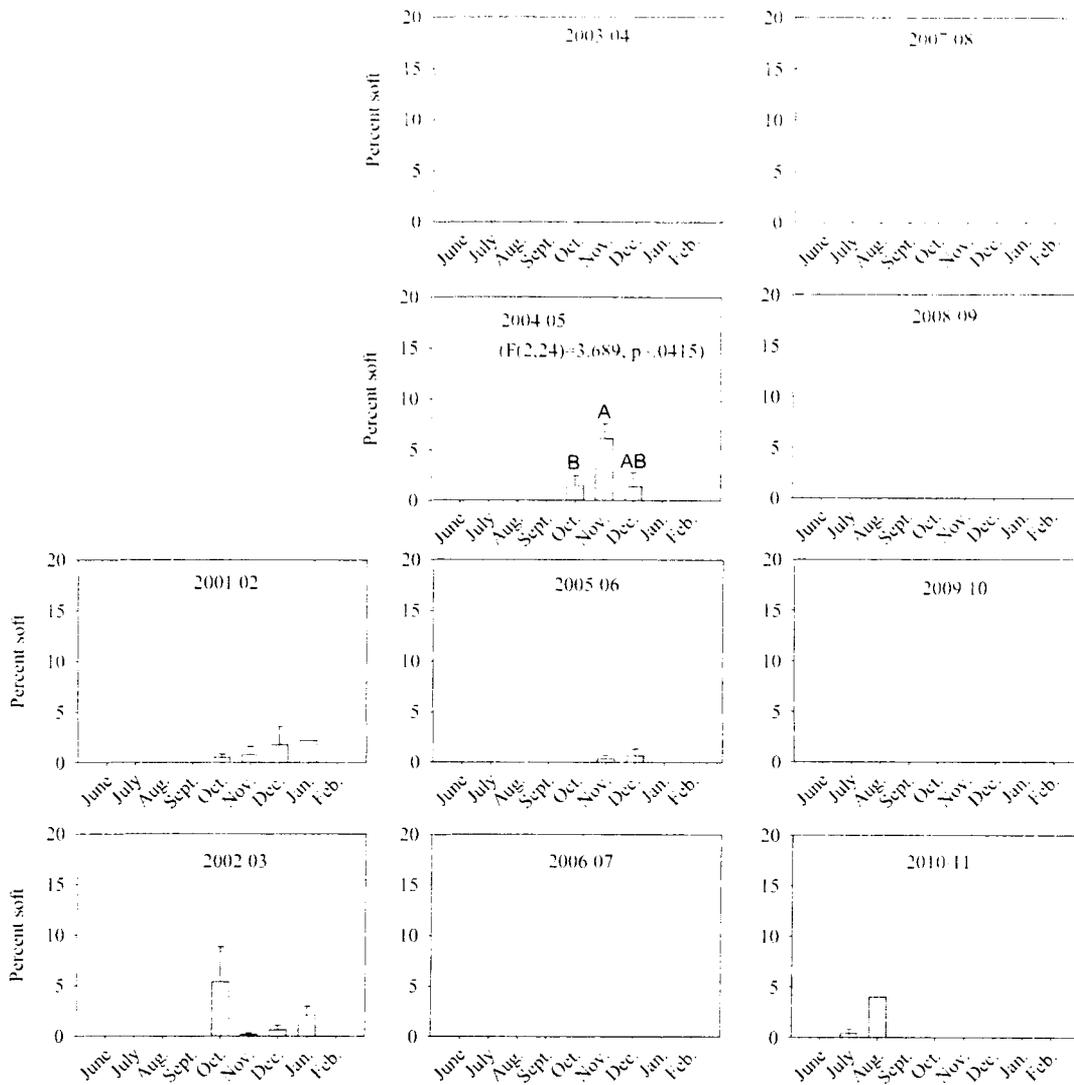


Figure 7. Behm Canal and Portland Canal (District 1) soft shell prevalence by month from dockside sampling of Dungeness crab during fall/winter (October 1–February 28) commercial seasons, 2001/02 through 2010/11. This area had a fall/winter season for 2001/02 through 2008/09 and a summer/fall season for 2009/10 and 2010/11. Statistical results are included for areas with significant ANOVA only. There was insufficient sampling effort in missing years.

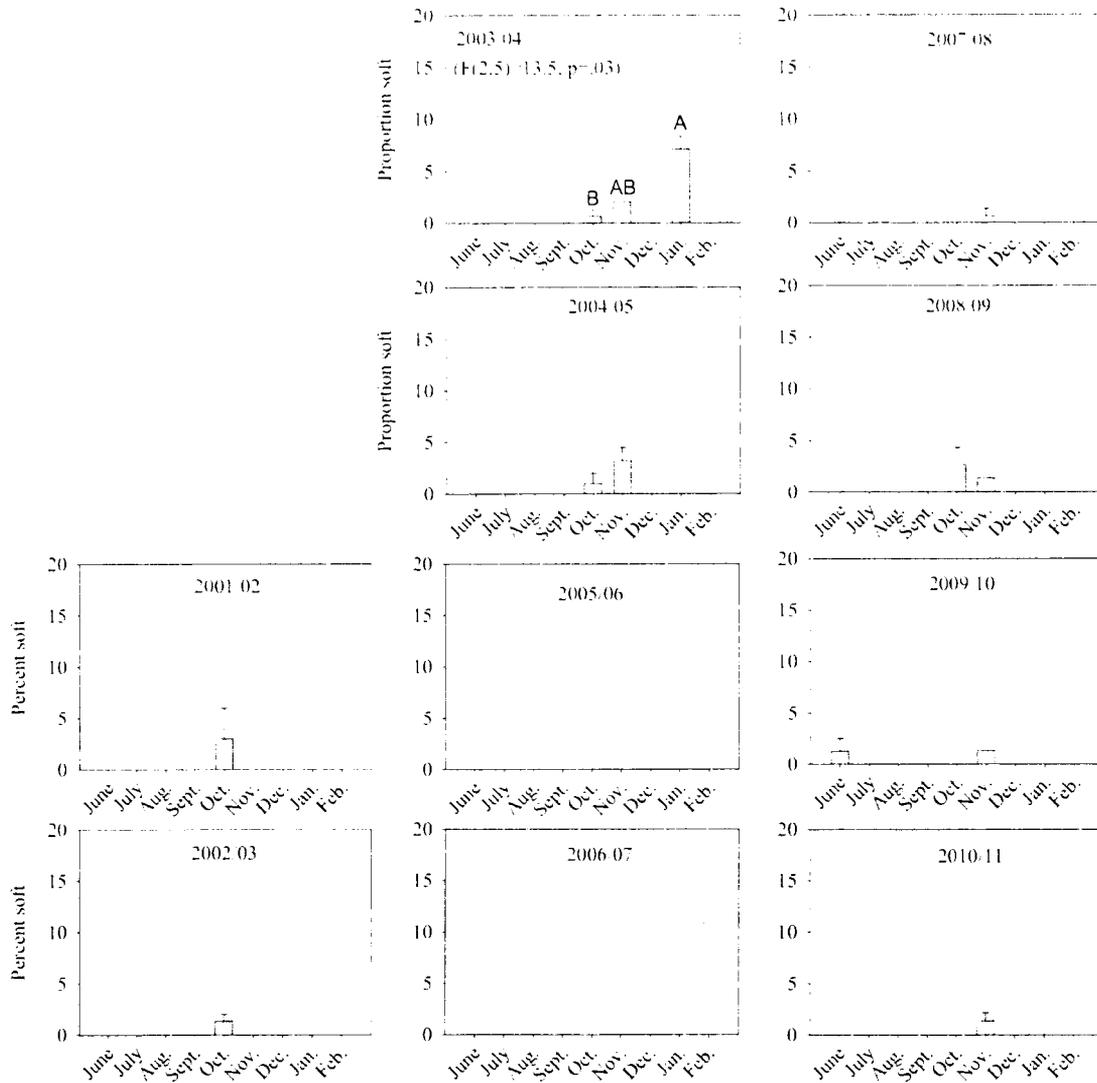


Figure 8. East Prince of Wales (District 2) soft shell prevalence by month from dockside sampling of Dungeness crab during fall/winter (October 1–February 28) commercial seasons, 2001/02 through 2010/11. This area had a fall/winter season for 2001/02 through 2008/09, a summer/fall season for 2009/10, and a fall/winter season again in 2010/11. Statistical results are included for areas with significant ANOVA only.

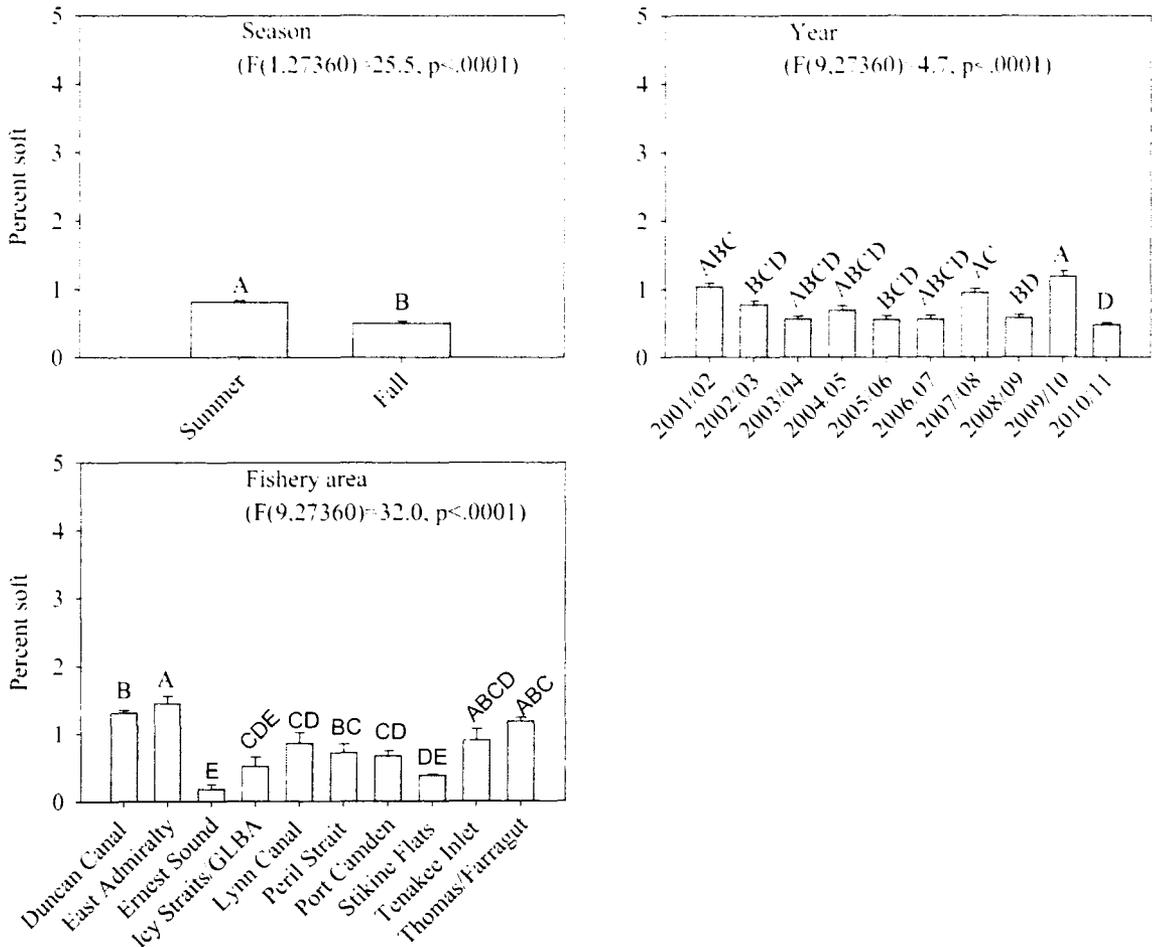


Figure 9. Results of 3-way ANOVA of effects of fishery area, season, and year on Dungeness crab soft shell prevalence from fish tickets for 10 fishery areas, during summer and fall seasons of 2001/02 through 2010/11. Not shown are interaction effects, which were significant for fishery area*year (F(81,27360)=2.0, p<.0001), fishery area*season (F(9,27360)=4.6, p<.0001), and fishery area*year*season (F(9,27360)=2.0, p<.0001). Results of post-hoc Tukey HSD are included.

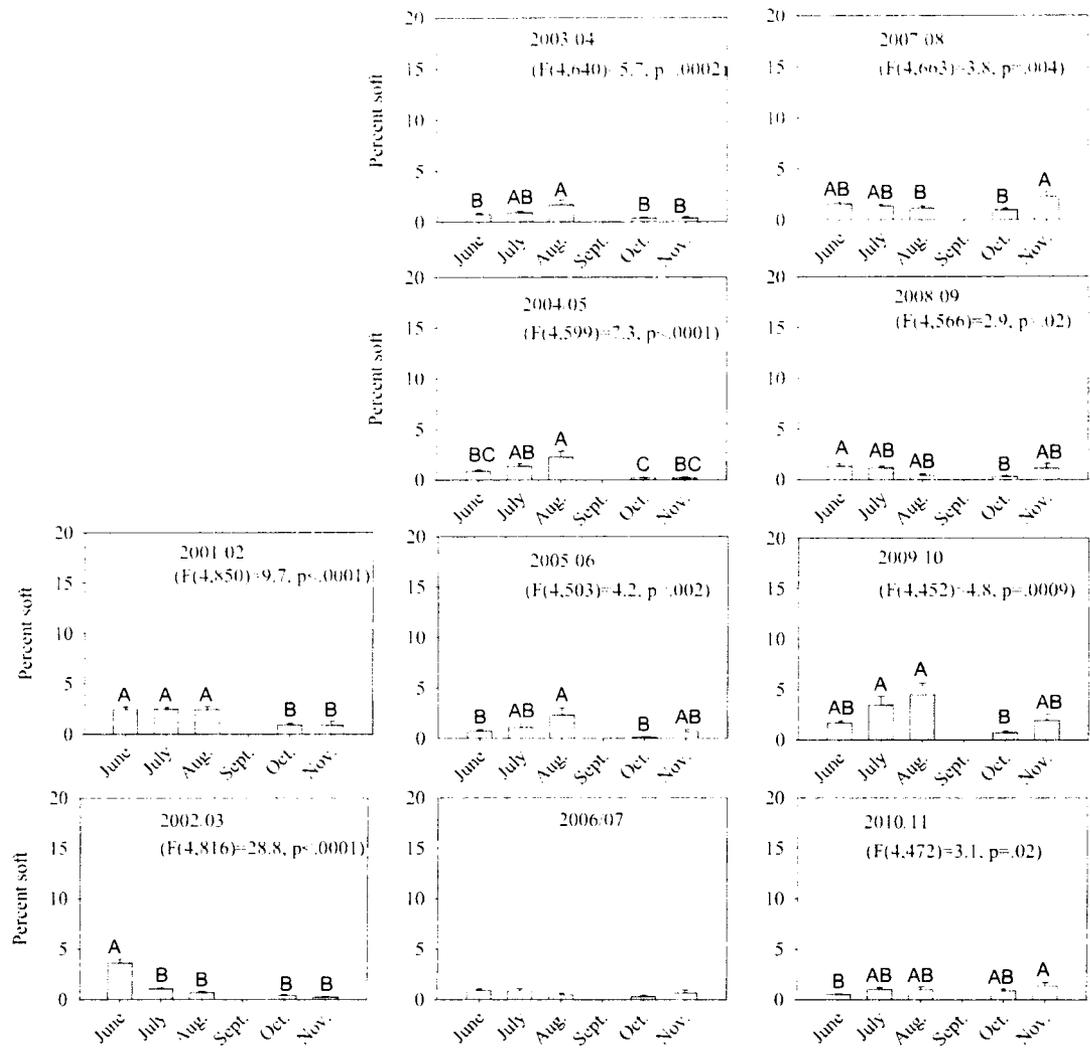


Figure 10. Duncan Canal (District 6) Dungeness crab soft shell prevalence by month from fish tickets during summer (June 15–August 15) and fall (October 1–November 30) commercial seasons, 2001-02 through 2010/11. Statistical results are included for areas with significant ANOVA only.

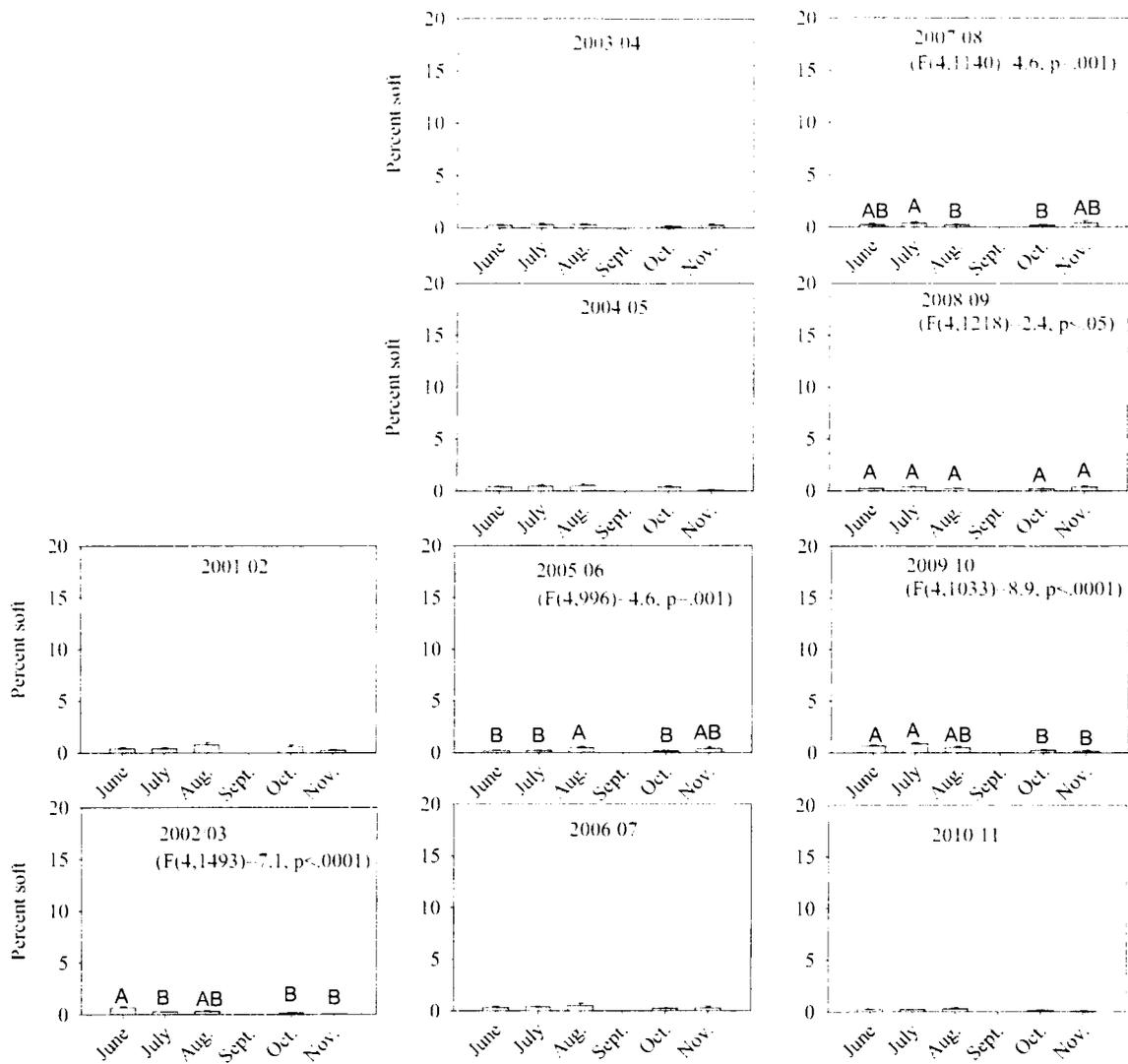


Figure 11. Stikine River Flats (District 8) Dungeness crab soft shell prevalence by month from fish tickets during summer (June 15–August 15) and fall (October 1–November 30) commercial seasons, 2001/02 through 2010/11. Statistical results are included for areas with significant ANOVA only.

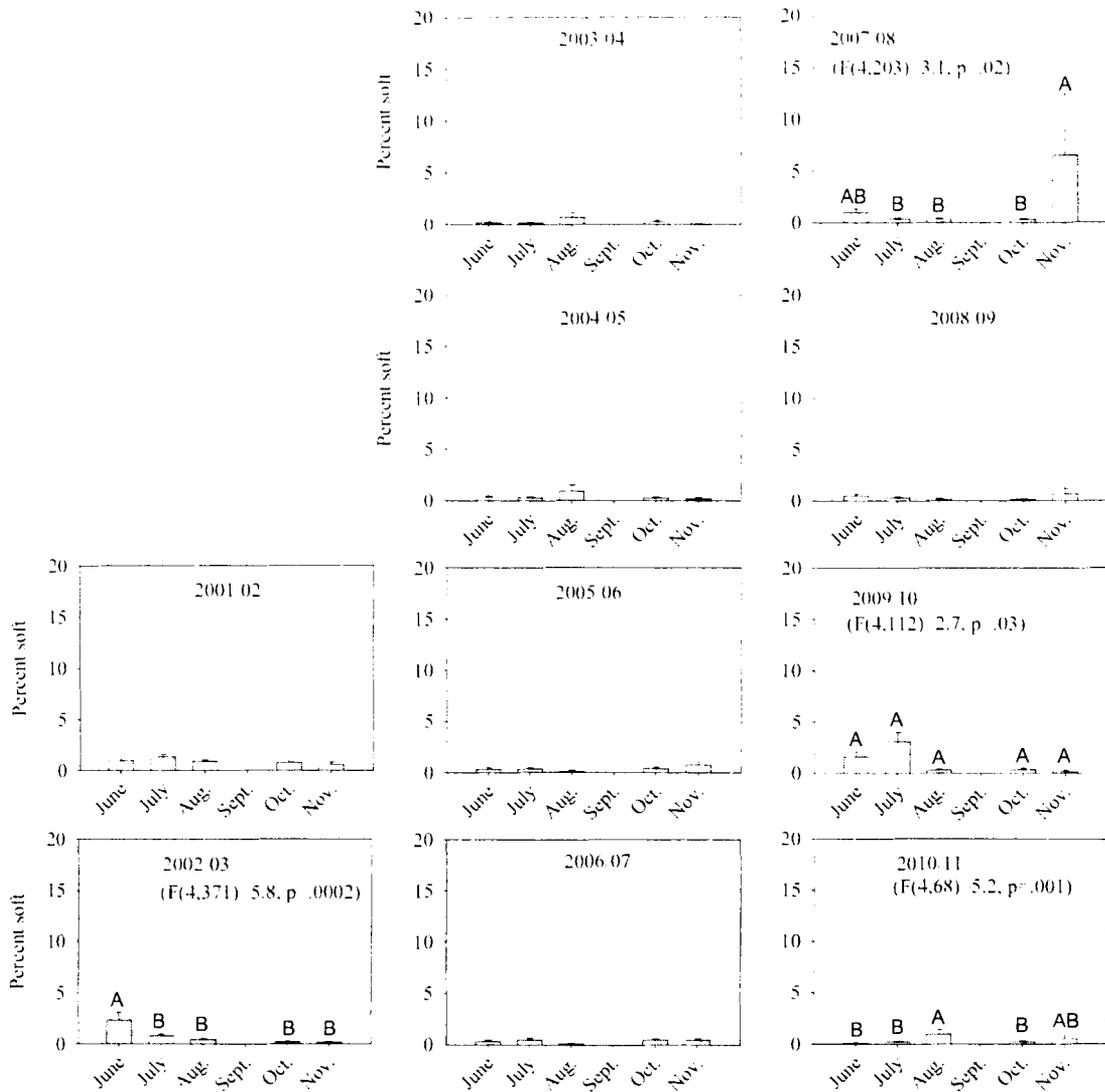


Figure 12. Port Camden (Districts 5/9) Dungeness crab soft shell prevalence by month from fish tickets during summer (June 15–August 15) and fall (October 1–November 30) commercial seasons, 2001-02 through 2010-11. Statistical results are included for areas with significant ANOVA only.

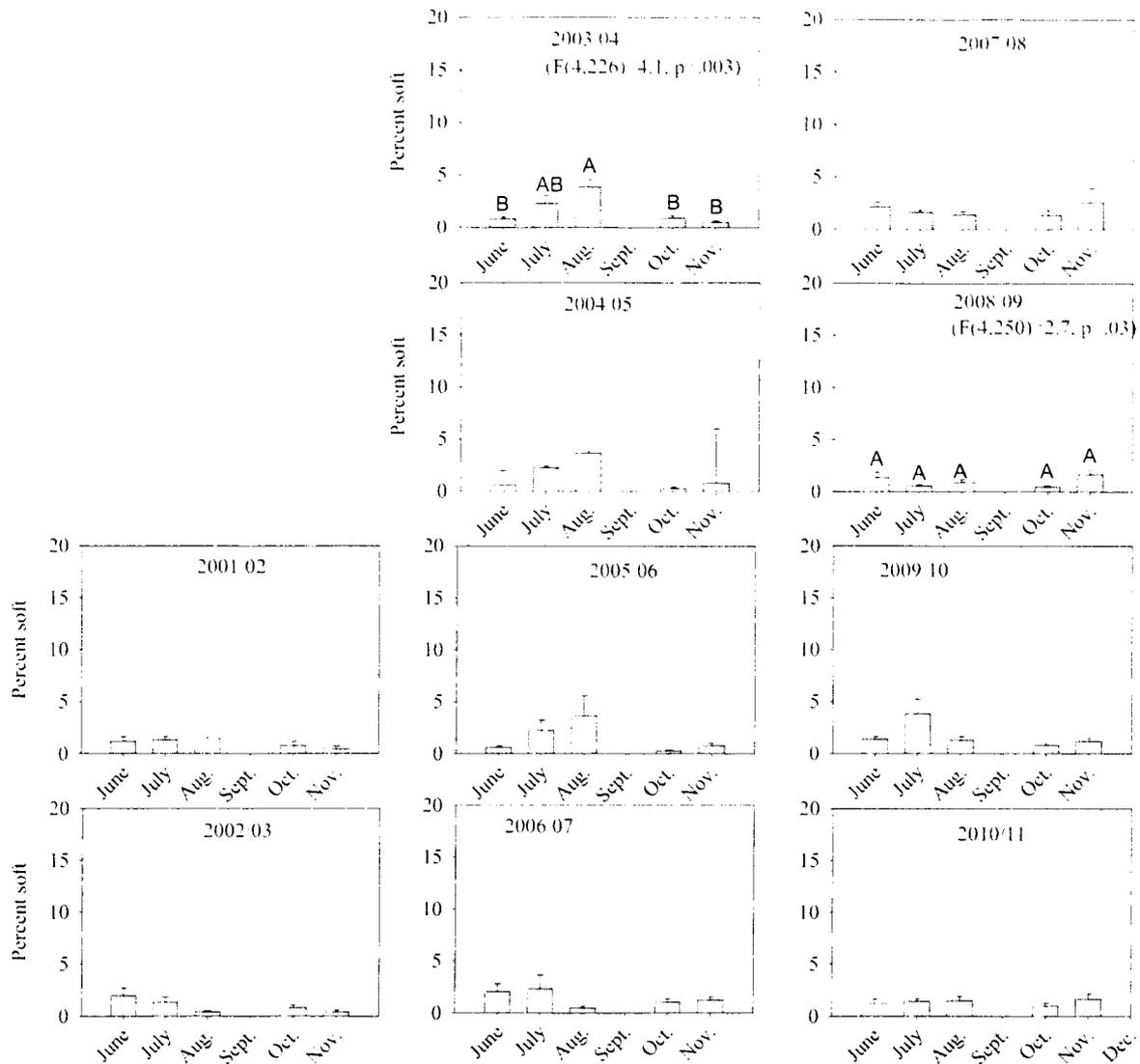


Figure 13. East Admiralty Mainland Bays (District 11) Dungeness crab soft shell prevalence by month from fish tickets during summer (June 15–August 15) and fall (October 1–November 30) commercial seasons, 2001/02 through 2010/11. Statistical results are included for areas with significant ANOVA only.

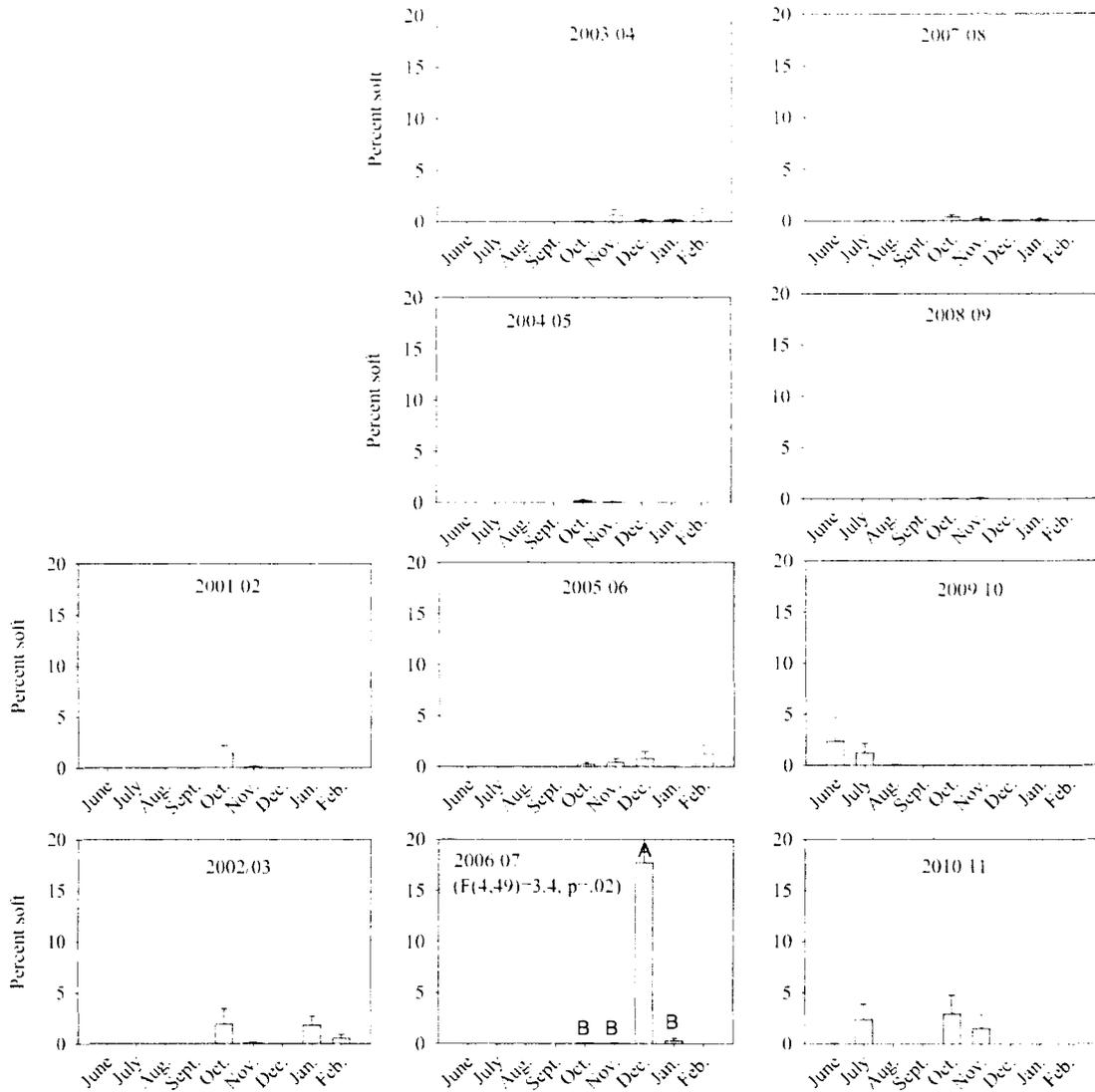


Figure 14. Behm Canal and Portland Canal (District 1) Dungeness crab soft shell prevalence by month from fish tickets during fall/winter (October 1–February 28) commercial seasons, 2001/02 through 2010/11. This area had a fall/winter season for 2001/02 through 2008/09 and a summer/fall season for 2009/10 and 2010/11. Statistical results are included for areas with significant ANOVA only.

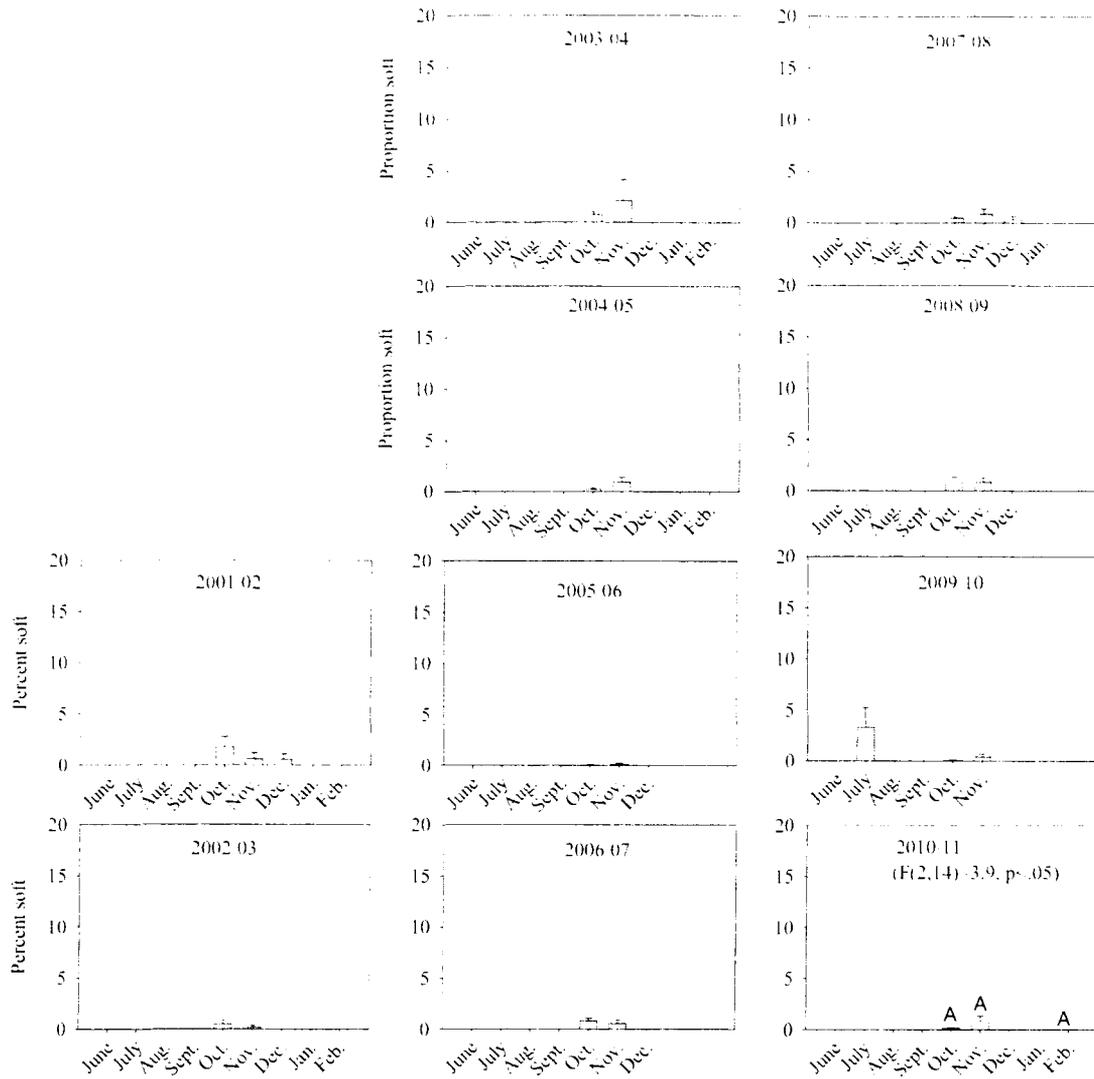


Figure 15. East Prince of Wales (District 2) Dungeness crab soft shell prevalence by month from fish tickets during fall/winter (October 1–February 28) commercial seasons, 2001/02 through 2010/11. This area had a fall/winter season for 2001/02 through 2008/09, a summer/fall season for 2009/10, and a fall/winter season again in 2010/11. Statistical results are included for areas with significant ANOVA only.

Members of the Board of Fish-

My name is Max Worhatch IV. I live in Petersburg, Alaska and have fished commercially out of there since 1972. I currently fish Dungeness crab, gillnet salmon, long-line halibut, gillnet herring, as well as crew for red and tanner crab. I have fished from southern southeast to Norton Sound, and just about everywhere in between. I make my entire living from commercial fisheries and consider myself lucky to be able to do so. Today I am commenting on various proposals concerning shellfish in southeast Alaska.

The first proposal I would to comment on is Proposal 161. This proposal, submitted by the Juneau Yacht Club and the Territorial Sportsmen, would like to close the waters of Taku Harbor to commercial Dungeness crabbing.

Let me begin with the fact that the southeast Alaska Dungeness crab fishery is the most conservatively managed Dungeness fishery in the world. We have the largest minimum size, and the shortest season in the state, as well as on the west coast. We also have the liberalist sport fishery in the world. Personal use limits are 20 crab per day per person. It never is closed. Sport and personal use have a 12 month season, while commercial is limited to two, two month seasons. The commercial Dungeness crab fishery is a 5-10 million dollar ex-vessel fishery, and a very important part of southeast Alaska's economy, with processing plants in Wrangell, Petersburg, Juneau, Sitka, and Haines. These communities rely on the jobs and raw fish tax this fishery provides on a yearly basis. We see proposals that will favor closing areas for commercial fishing to provide for personal use every board cycle. As commercial Dungeness fishermen lose areas to otter predation and board re-allocation, they find themselves crammed into the few viable areas we have left. Some of these areas are also personal use areas. Closing more area to commercial fishing will just cause fishermen to go elsewhere, concentrate there because they have to, ruining some other personal user's favorite area, in turn generating another board proposal to close commercial fishing. A vicious cycle.

I am vehemently opposed to proposal 161 since it will take a traditional well used commercial fishing area and re-allocate it to another user group. All sport, subsistence, and personal users have access to this area 12 months a year. Past board of fish re-allocation and sea otter predation have taken many areas away from the commercial fleet. This has pushed more gear into smaller and smaller areas, compounding the perceived problem in Taku harbor. It is important to note that there is a very large area north of Juneau where commercial fishing is closed. Sport, subsistence, and personal use needs could be met there. The idea that this will only effect a few commercial crabbers is erroneous. If this area is closed, those crabbers will have to move to other grounds, where other crabbers are present, splitting up the amount of crab, and having a negative effect on all involved business, as well as under harvesting southeast crab stocks. Please note that I also have a hard time with any proposal made by the Juneau Yacht that mentions the word "Subsistence."

Proposal 162 was submitted by the same folks who did 161. Again, this is an resource grab by weekend warriors who feel they are entitled to shut down honest hard-working people so they can get all the crab they need and more from June 15th to August 15th. The fact that commercial fishing brings hundreds of thousands of dollars into Juneau as raw fish tax alone, money that goes directly to pay for improvements to Juneau's lovely harbors is completely lost on them. Are Juneau residents qualified to take subsistence?

Proposal 163 was submitted by the Haines borough. Again, subsistence and personal use are open 12 months a year. That leaves 8 months a year with no commercial effort, plenty of time to enjoy the resource. The reasoning of the proposal that the few crabbers fishing there will be the only impacted is wrong as I have stated earlier, they will move to areas where other guys are fishing, impacting their catch. I hope they are all residents of Haines.

Proposal 164 looks to close area around Ketchikan. Again, these areas are already open 12 months a year for sport, personal use and subsistence. Excluding commercial fish because sport and personal use claim, with no documentation, that they cannot meet their needs is disingenuous. Perhaps a solution to the conflict could be found through a sport closure from June 15th to August 15 every summer.

Again, these proposals calling for closure of the commercial Dungeness fishery are partially a result of past board allocations, and sea otter predation. Adopting these proposals will only make the problem worse in the future.

Proposal 146 would close all areas to sport fishing for Dungeness crab in waters closed to commercial harvest of Dungeness crab. I heartily support this proposal. The closing of area to the commercial fleet has usually come at the call of residents who claim they cannot catch enough crab to meet their needs of personal use or subsistence. This proposal would make such closures even more effective by eliminating another user group who were never intended to benefit from commercial closures.

Proposal 165 would amend the wording regarding bouy marking for Dungeness gear. I support this because it would make it possible to be in compliance with the law. Currently the regulation reads "identical." "Similar" would be a much better way to state this, as identical is nearly impossible to achieve. It is important to note that this regulation is pre-registration tag. We now have pot tags we must buy for every pot we fish. Pots are easily traceable by enforcement through these tags. This word change merely brings common sense to the regulation. No other fishery in the state has such stringent marking requirements. The fact that this has been a frequent violation in the past, never coupled with excess of gear limits or any other tangible violation that would make the law necessary, shows that it is too stringent and is a waste of time and resources, both by enforcement and fishermen.

Proposal 166 would open districts 1 and 2 in the summer season for Dungeness crab, in line with the majority of southeast Alaska. I am in support of this. Past board of fish allocations and sea otter predation have made for lost area for the fleet. To avoid over-crowding in high use areas, we need to spread ourselves out as much as possible. This area was opened in 2009 by the board of fish with a three year sunset, so fish and game could get data concerning soft-shell crab. In 2010, the board of fish took the district 2 part of this out of cycle because the original did not address subsistence. Amazingly, they closed the entire district 2 to commercial fishing in the summer, when a small highly productive area was made available to address the needs of the local folks. Fish and Game has garnered no data from this summer fishery and it needs to be open so they can.

Proposal 167 would reduce the maximum amount of gear allowed in the commercial Dungeness crab fishery in Yakutat from 400 pots to 60. This fishery has not been opened for 17 years. Reducing the maximum amount of gear as a means to allow a limited fishery to garner data is not a responsible approach. Fish and Game needs to conduct a test fishery in this area to get data to open this fishery again. In the past this has been a large and viable fishery, but for unknown reasons, collapsed. Limiting gear to such a small amount of gear would not give a clear view of what is available for harvest over this large area. Fish and Game is currently looking into test fishing in this area to see if there is crab available. Dungeness fishing with 60 pots is unviable.

Proposal 140 would require a report card for the sport, personal use and subsistence takes of Dungeness crab. I think this is a very good idea, not just for Dungeness, but for all species. Responsible management calls for the best numbers available. There is no number for these catches. There should be.

Proposal 148 asks the board to take a traditional commercial fishing area and make it exclusively personal use. Area 11-A is a very important traditional commercial fishing area. Boats from all over southeast Alaska have fished there. Historically, it has been one of the biggest producing sub districts in southeast for red king crab. A large section of 11-A, arguably the best part, has been closed to commercial fishing for many years now. It is open exclusively for personal use and sport. This area was also a traditional commercial area that was taken away from the fleet by the board of fish. Without this area, commercial boats will be concentrated into other areas, reducing everybody's profitability. It would also have a detrimental effect on Juneau's local processors and their employees who rely on this fishery to extend their season. It is important to note at this time, ADF&G is in the process of finding out that their survey they rely on to give a fishery is not functioning properly. It would appear through a continues mark recapture segment in addition to their survey, that they have been grossly underestimating the available bio-mass. Further study could result in more fishing time for both personal use and commercial. Keeping that in mind I would think it best to leave this area as it is, pending for information.

Proposal 152 and 153- these identical proposals would allow a fishery for red king crab if the guideline harvestable surplus was less than 200,000 lbs. with an equal split between registered permit holders. I am opposed to this change as I feel with the mark recapture program there will be data that will increase the exploitable bio-mass of king crab. I also think it is regressive and doesn't serve the purpose it intends to as it will cost jobs. Permit holders will be able to eliminate or reduce their crew members, as they will team up on one boat to reduce expenses. I would support these proposals without the equal split. I see this proposal benefiting no one but the permit holders.

Proposal 157- I am opposed to this. We have a regulation that was put into effect to allow for better conditions at the start of the brown king crab fishery. ADF&G inability to read a tide book led to people getting ass-hurt by people who could. The dates of these fisheries could and should be set a year in advance. I think it would require just about 10 minutes of really not intense effort to do this. They put out a news release each season, and it would be easy enough to do this. They spent way more time on this proposal than what it takes to implement the regulation they have.

Proposals 159 and 160- I am opposed to both of these proposals, as they will only benefit the permit holders, consolidating the fleet, and money. The reasons given for this proposal are weak as there is plenty of effort in all the crab fisheries. Permit prices are high and nobody is going bankrupt from where I am sitting. These proposals if adopted will leave more people on the beach, and more permit holders moving out of state. We have a limited entry system in effect, and if there are too many permits, CFEC could do a study for the optimum number of permits in the fishery. Consolidation will drive up permit prices even more making it harder for the next generation to buy in. These are great proposals for permit holders, but are bad for the region economically.

Thanks,

Max Worhatch IV

Attention BOF COMMENTS

Boards Support Section
 Alaska Dept. of Fish and Game
 PO Box 115526
 Juneau, Alaska 99811-5526

RE: Proposal #166-Fishing Seasons for Registration Area A—OPPOSE

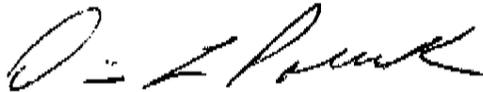
I DENNIS POLLOCK a resident of Kasaan, Alaska, do oppose proposal #166. I oppose it as it will further affect the low levels of Dungeness crab in district #2.

Since the summer commercial Dungeness crab fishery in district #2 I find it impossible to get my customary and traditional levels of crab. With the already low levels of Dungeness crab in district #2, specifically Kasaan Bay, Skowl Arm, Polk Inlet and Twelve Mile Arm and with the high cost of fuels I cannot get my much needed crab. You must let this fishery "Sunset" and not reopen it. Should you open this district to summer Dungeness fishery it will not only be bad for subsistence users but also for the commercial industry in general.

I cannot get my level of crab since the Summer Dungeness crab fishery was opened in District #2 using the same pots, same type of bait and setting in the same areas. I can only get about 20 % of what I use too get!

A Summer Dungeness fishery in District #2 will further damage the already low levels of Dungeness crab. Both the laws and the state constitution say that "all resources will be managed in a sustainable yield" and this fishery Proposal #166 does not do that.

Respectfully,



Signature

DENNIS POLLOCK

Name

P.O. Box KXA KASAAN

Address

907 738 3066

Phone # (optional)

E-mail (optional)

Alaska Board of Fisheries

1/9/12

I am writing this letter in hopes that I may help stop the proposed opening of Traitor's Cove and Neets Bay areas to the commercial/charter industry. This request is in reference to Crab/shrimp fisheries that effect the subsistence lifestyle of many who live and recreate in the West Beam waters.

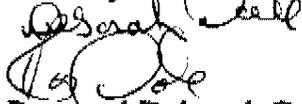
My family has enjoyed this area for many generations and I can testify as to the destructive nature of opening up these areas to Commercial boats.

A number of years ago a man I went to school with, who happens to be a Commercial crabber, literally and legally picked Mosier Bay clean of all crab. After his season of crabbing, in our back-yard, we have NEVER been able to confidently set our pots since. It has been at least 15 years since this event and yet it is almost not worth your gas to set pots in Mosier. We have moved further away from our home to trap crab for our food supply, mainly in Traitors Cove. It is a further run up for us and the water can get real ugly, but we do it 4 - 5 times a summer and have always come away with something that makes the time and effort worth it. I believe that if you open these waters to the big guys us little guys will be out of luck once again.

Please don't!!!! These boats are big enough to go further away from the town folks of Ketchikan and Loring, not to mention the hardy Alaskans that live off the grid in that body of water. If you were to look at the Ketchikan Gateway Borough property tax you will find quite a large number of us living out there.

Please Don't Do This.

Thank you



Ron and Deborah Dale

3215 First Street

Ketchikan Alaska

907-225-3265

FAX TO: 907-465-6094



Alaska Longline

FISHERMEN'S ASSOCIATION

Post Office Box 1229 / Sitka, Alaska 99835 907.747.3400 / FAX 907.747.3462

Boards Support Section
Alaska Department of Fish and Game
PO Box 115526
Juneau, AK 99811-5526

January 9, 2012

Dear Members of the Board,

I am submitting these comments on behalf of the Alaska Longline Fishermen's Association (ALFA). ALFA is a fishing association of vessel owners and deckhands committed to sustainable harvest of Alaska's marine resources. Our members participate in the Gulf of Alaska and Bering Sea halibut and sablefish fisheries, but most depend heavily on the Southeast fisheries with the Area 2C halibut fishery being of particular importance.

ALFA SUPPORTS proposal 154: Prohibit the use of square pots for golden king crab in Area A. As the proposer and Alaska Department of Fish and Game comments establish, golden crab are currently harvested with both cone and square pots. Joint ADF&G/International Pacific Halibut Commission (IPHC) research indicates that the halibut bycatch rate of side loading square pots is 36 times the bycatch of top-loading cone pots. Square pots are known to "self bait," i.e., fish swim in, become trapped, and become crab bait. Each year the IPHC estimates halibut bycatch in the Southeast state waters crab fisheries to be 303,000 pounds. (<http://www.iphc.int/publications/rara/2010/2010.281.IncidentalcatchandmortalityofPacifichalibut1962.2010.pdf>).

The 303,000 pounds of crab bycatch is 89% of all bycatch in Area 2C. This bycatch is deducted from the Constant Exploitation Yield, or CEY, before catch limits are set for the directed halibut fishery. This bycatch deduction equates to 12% of the 2012 Area 2C commercial catch limit, and has an ex-vessel value to the directed fishery of \$1.5 to \$2 million.

As the board is aware, the IPHC estimates that the exploitable biomass of halibut in Area 2C has declined by 58% over the past decade. Catch limits in the commercial fishery have been reduced by 75%; guided sport allocations have been reduced by 45%. Reductions in

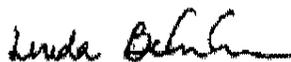
the directed fisheries have imposed a significant economic burden on Area 2C quota share holders, many of whom are struggling to make payments on substantial quota share loans. The future of the Area 2C fishery depends on protecting the rebuilding potential of the halibut stock; rebuilding the stock depends on allowing the existing biomass of small halibut to grow to maturity. In these times of low abundance, reducing bycatch is of heightened importance.

Our membership recognizes that Area 2C halibut bycatch deductions may no longer reflect actual or accurate bycatch. ALFA supports ongoing cooperative efforts between ADFG and IPHC to re-evaluate bycatch estimates of all Area 2C state-waters fisheries. Hopefully re evaluation will disclose that halibut bycatch in the crab fishery is lower than current estimates and the deductions will be revised accordingly. That said, ALFA members are concerned that failure to prohibit square pots at this point will encourage additional use of these higher bycatch pots with a detrimental effect on halibut stocks and Area 2C halibut fishermen.

Prohibiting square pots will impose an economic cost on a small number of crab fishermen who have invested in these pots. While we believe these costs pale in comparison to the cost of bycatch to the approximately 2000 Area 2C halibut fishermen, we would not oppose a three year sunset on the use of square pots as an alternative to an immediate prohibition. Since crab pots are regularly replaced, a three-year sunset will allow those crab fishermen who currently own square pots to recoup some percentage of their investment in those pots by gradually switching to cones as pots are replaced.

Thank you for the opportunity to comment.

Sincerely,



Linda Behnken

(Executive Director, ALFA)

Submitted by the Alaska Department of Fish and Game
January 15, 2012

Southeast Alaska Area King, Tanner, and Miscellaneous Shellfish Management Plans.

5 AAC 31.145. Southeastern Alaska Area Pot Shrimp Fishery Management Plan. (a) The purpose of the management plan under this section is to provide the department with direction for the management of the spot shrimp (*Pandalus platyceros*) and coonstripe shrimp (*Pandalus hypsinotus*) stocks in Registration Area A (Southeastern Alaska). The department shall manage the spot and coonstripe shrimp stocks for sustained yield according to the principles specified in the management plan under this section.

(b) The department shall manage

(1) all the districts or portions of districts, in Registration Area A based on the harvest of spot shrimp, except that

(A) District 11 shall be managed based on the harvest of spot and coonstripe shrimp; and

(B) Districts 15 and 16 shall be managed based on the harvest of coonstripe shrimp;

(2) the spot and coonstripe shrimp fisheries to

(A) maintain a number of age classes of shrimp to ensure the long-term viability of those stocks and reduce the dependence on annual recruitment;

(B) reduce fishing periods for shrimp stocks during the biologically sensitive periods of the shrimp's life cycle, such as egg hatch, growth, and recruitment, and when shrimp stocks are considered to be poor quality for the market place;

(C) reduce mortality of small shrimp of any species;

(D) maintain an adequate broodstock for the rebuilding of the shrimp stocks, if rebuilding becomes necessary.

(c) The department shall continue the development of the shrimp fisheries in Districts 4, 5, 8, 11, 14, 15, and 16, which have an historically low or sporadic harvest of shrimp with guideline harvest ranges of 0 - 20,000 pounds per district.

(d) The commissioner may, by emergency order, open a shrimp fishing season from May 15 through July 31 (summer season) in a district where the guideline harvest range was not reached during the season specified in 5 AAC 31.110 (winter season).

(e) The guideline harvest ranges for spot shrimp are specified in 5 AAC 31.115(1) - (10), and (12) - (14), and are based primarily on the average catch of pot shrimp from the 1990 - 1991 season through the 1994 - 1995 season.

(f) Repealed 7/18/2003.

(g) There are no specific guideline harvest ranges for coonstripe shrimp, but the allowable harvest of coonstripe shrimp will be based on the average catch of coonstripe shrimp in each district during the 1995 - 1996 season through the 1999 - 2000 season. The provisions of this subsection do not apply in Districts 15 and 16. History: Eff. 10/12/2000, Register 156; am 7/18/2003, Register 167

Authority: AS 16.05.060 AS 16.05.251

5 AAC 32.146. Southeastern Alaska Area Dungeness Crab Fisheries Management Plan. In the absence of adequate stock assessment, the department shall manage the Dungeness crab fishery in Registration Area A (Southeastern Alaska) using a precautionary approach. When stocks are assessed to be low, the department shall, subject to the commissioner's authority under 5 AAC 32.035, reduce the harvest of legal Dungeness crab and reduce the handling of non-legal, light, and soft-shell Dungeness crab by complying with the following:

(1) no later than 14 days after the start of the summer Dungeness crab fishing season specified in 5 AAC 32.110, the department shall establish a projection of harvest thresholds for the season;

(2) if the department projects that the entire season's catch of legal Dungeness crab will be

(A) 1.5 million pounds or less, the department will close the summer Dungeness crab fishing season no sooner than 21 days after the season opened, and the fall Dungeness crab fishing season specified in 5 AAC 32.110 will not open;

(B) more than 1.5 million pounds, but less than 2.25 million pounds, the department will close the summer Dungeness crab fishing season no sooner than 28 days after the season opened, and the fall Dungeness crab fishing season will be open for 30 days;

(C) more than 2.25 million pounds, the summer and fall Dungeness crab fishing seasons will occur as specified in 5 AAC 32.110;

(3) if the department determines that harvest projections fail to meet the threshold for a season as described in (2)(C) of this section due to soft-shelled crabs early in the summer Dungeness crab fishing season, the department may open the fall Dungeness crab fishing season as specified in 5 AAC 32.110. (Eff. 10/12/2000, Register 156; am 7/29/2009, Register 191)

Authority: AS 16.05.251

5 AAC 34.111. Section 11-A Red and Blue King Crab Management and Allocation Plan.

(a) The Board of Fisheries (board) find that there exists strong competing demands between the personal use and commercial user groups for red and blue king crab in Section 11-A of the Southeastern Alaska Area. The board finds that personal use of red and blue king crab in the Juneau area is a historical use, that this use has grown in recent years concurrent with the growth

of the king crab population in Section 11-A, and that there are both summer and winter components to the personal use fishery. The board also finds that the commercial use of red and blue king crab in Section 11-A is historical, economically important, and should be maintained.

(b) When managing red and blue king crab in Section 11-A, the board authorizes the department to conduct the personal use and commercial fisheries according to the following allocation plan:

(1) personal use fishery from July 1 through September 30 (summer season) - 50 percent of the red king crab guideline harvest level;

(2) personal use fishery from October 1 through March 31 (winter season) - 10 percent of the red king crab guideline harvest level;

(3) commercial fishery - 40 percent of the red king crab guideline harvest level when the general season is open under 5 AAC 34.110;

(4) repealed 7/29/2009.

(c) The board finds that the personal use red and blue king crab fishery should be conducted so that the summer and winter seasons last as long as possible within the allocation plan described in (b) of this section. To accomplish this objective the commissioner may close, by emergency order, a personal use red and blue king crab season and immediately reopen a personal use red and blue king crab season during which any of the following restrictions, selected at the discretion of the commissioner, are in effect:

(1) the daily bag and possession limit is one male king crab per person;

(2) the daily bag and possession limit is two male king crab per person;

(3) no more than one pot per vessel may be used to take king crab;

(4) no more than two pots per vessel may be used to take king crab;

(5) no more than three pots per vessel may be used to take king crab;

(6) there is a seasonal per person limit for king crab, established by the commissioner. (Eff. 7/1/96, Register 138; am 8/8/99, Register 151; am 7/29/2009, Register 191)

Authority: AS 16.05.060 AS 16.05.251

5 AAC 34.113. Southeast Alaska Red King Crab Management Plan. (a) The Southeast Alaska red king crab fishery shall be managed consistently with the board's "*Policy on King and Tanner Crab Resource Management*" (90-4-FB, March 23, 1990), adopted by this reference, and according to the principles set out in this section.

(b) The department shall close an area if the abundance of various sizes of male and female crabs is inadequate to provide for a sustained harvest, or when potentially high effort precludes an orderly fishery.

(c) The department shall close the fishery if the department's estimate of the available harvest is below the minimum threshold of 200,000 pounds of legal male red king crab.

(d) The department shall determine an appropriate harvest rate before the opening of the fishery. The harvest rate is the percentage of the legal males that can be harvested while providing for the long-term reproductive viability of red king crab stocks. The department shall base the harvest rate on estimates of abundance of the various size classes of male and female crabs, and on factors affecting the reproductive viability of the stock.

(e) The department shall determine the guideline harvest level before each fishing season. The guideline harvest level is the sum of the estimates of sustainable harvest for each fishing district. If stock assessment data are not available, the guideline harvest level will be based on historical fishery performance, catch, and population information. A lack of adequate information will result in conservative management. (Eff. 6/24/93, Register 126; am 8/24/2002, Register 163)

Authority: AS 16.05.251

Editor's note: Copies of the board policy adopted by reference in 5 AAC 34.113 are available at regional offices of the Department of Fish and Game and from the department's Juneau office, P.O. Box 115526, Juneau, AK 99811-5526.

5 AAC 34.114. Southeast Alaska Golden King Crab Management Plan. (a) The Southeast Alaska golden king crab fishery shall be managed consistently with the board's *Policy on King and Tanner Crab Resource Management* (90-04-FB, March 23, 1990), adopted by this reference, and according to the principles set out in this section.

(b) To the extent possible, golden king crab shall be managed as a separate stock in each defined fishing area. The department shall close an area if the abundance of various sizes of male crabs is inadequate to provide for a sustained harvest, or when potentially high effort precludes an orderly fishery.

(c) The department shall base management on historical fishery performance, catch, and population structure information. A lack of adequate information will result in conservative management. (Eff. 6/24/93, Register 126; am 8/14/2005, Register 175)

Authority: AS 16.05.251

5 AAC 35.116. Tanner crab ring net harvest management policy for Registration Area A. The Registration Area A Tanner crab fishery is to be regulated in a manner that will result in no less than 96 percent of the Tanner crab catch being taken by the pot fishery and no more than four percent by the ring net fishery. This is a long-term management goal and does not require

the department to use emergency order authority to achieve the goal within any one season. Based upon the percent of the total harvest taken by ring net fishermen during the general fishing season, the department may restrict the time allowed in the subsequent year's general season to restrain the harvest by ring net fishermen so as not to exceed the four percent guidelines. (Eff. 9/19/90, Register 115; am 9/29/96, Register 139)

Authority: AS 16.05.251

5 AAC 38.140. Southeastern Alaska Sea Cucumber Management Plan. (a) A permit described under 5 AAC 38.062 is not required for the taking of sea cucumbers in Registration Area A.

(b) Sea cucumbers may be taken from October 1 through March 31. Fishing periods will be as follows:

(1) the fishing periods in October will occur during periods set by the commissioner by emergency order; the fishing periods will be on Mondays from 8:00 a.m. to 3:00 p.m. and on Tuesdays from 8:00 a.m. to 12:00 noon;

(2) the fishing periods from November through March will occur during daylight hours on Monday and one-half of the daylight hours on Tuesday each week during periods set by the commissioner by emergency order; these fishing periods may be extended by emergency order to obtain the guideline harvest level.

(c) Sea cucumbers may be taken in areas within Registration Area A as specified by an emergency order issued by the commissioner before each fishing season. An area may not be opened unless the department has conducted a biomass assessment in that area within the preceding two years. An area shall be closed by emergency order if the guideline harvest level is reached before the closing date of the season. An area opened by emergency order under this subsection may not be opened again until at least two subsequent fishing seasons have passed.

(d) Except as specified in (f) of this section, a CFEC permit holder may not land or possess more than 2,000 pounds of eviscerated sea cucumbers during any fishing period established by the department. Harvest limits may be repealed by emergency order if guideline harvest levels have not been reached.

(e) During an open sea cucumber fishing period, no more than two licensed CFEC sea cucumber permit holders may conduct fishing operations from, or land commercially harvested sea cucumbers from, a vessel that is licensed and registered to commercially fish for sea cucumbers. From 24 hours before, during, and for 24 hours after a fishing period, or when commercially harvested sea cucumbers are on board the vessel, no more than three licensed CFEC sea cucumber permit holders may be transported, housed, quartered, or domiciled on board a vessel that is licensed and registered to commercially fish for sea cucumbers.

(f) In order to provide a refuge for sea cucumbers below 18 meters depth, saturation diving or the use of mixed gases is prohibited, except that the use of enhanced air nitrox having concentrations of oxygen that do not exceed 40 percent and having a remainder of nitrogen is

permitted. Sea cucumbers may only be harvested by picking them by hand and placing them in bags. All other means of harvesting sea cucumbers are prohibited.

(g) Sea cucumbers may be harvested by divers using the following:

- (1) scuba gear;
- (2) a tethered, umbilical, surface-supplied system; or
- (3) a snorkel.

(h) The department shall establish a guideline harvest level for each area open to the harvest of sea cucumbers. The guideline harvest level shall be based on population estimates from the department's biomass assessment, and shall be calculated as a product: Guideline Harvest Level = 3 x CF x GF x M x P, where:

CF = 0.4 scaling factor relating maximum sustainable fishing mortality to unexploited population size;

GF = 0.5 correction factor to allow for errors in assumptions upon which the surplus production model is based;

M = 0.32 estimated instantaneous mortality rate for sea cucumbers;

P = virgin population size, taken as the lower bound of the one-sided 90 percent confidence interval.

The guideline harvest level includes a factor of three to account for a two-year closure under (c) of this section.

(i) Repealed 9/28/97.

(j) Repealed 7/18/2003.

(k) The following waters are closed to commercial sea cucumber fishing:

(1) District 1:

(A) subdistrict 101-27, in waters of Nichols Passage north of a line from the southernmost tip of Dall Head, located on the southernmost tip of Gravina Island, to the easternmost tip of Cedar Point, located on the western shore of Annette Island, and south of a line from the southernmost tip of Gravina Point, located on the southeast shore of Gravina Island, to the northernmost tip of Walden Point, located on the northwesternmost tip of Annette Island;

(B) repealed 7/29/2009;

(2) District 2: those waters less than 20 fathoms deep along the north shore of Kassar Bay from Grindall Point to the southern point of Harris Bay in Twelve-Mile Arm;

(3) District 3:

(A) the waters of Section 3-A that are north and east of a line from Halibut Nose to a point on Sukkwan Island at 55° 09.27' N. lat., 132° 53.77' W. long., north of a line from the southernmost tip of Sukkwan Island to a point on Prince of Wales Island at 54° 59.53' N. lat., 132° 36.73' W. long., and west of a line from a point on Prince of Wales Island at 55° 08.95' N. lat., 132° 38.47' W. long., located in Hetta Inlet approximately 1.1 nautical miles northeast of Eek Pt., to a point at 55° 03.25' N. lat., 132° 38.80' W. long., located approximately 0.6 nautical miles west of Lime Point, to a point on Prince of Wales Island at 54° 59.53' N. lat., 132° 36.73' W. long.;

(B) the waters of Section 3-B that are

(i) east of a line from a point on Prince of Wales Island located at 55° 34.56' N. lat., 133° 13.65' W. long. to Fern Reef buoy, to Point Eugenia and north of a line from the northernmost tip of Point Miliflores to Point Miraballes and including those waters of Port St. Nicholas; and

(ii) the waters of Port Caldera, Prince of Wales shoreline, and contiguous waters east of 133° 13.63' W. long. and west of 133° 07.00' W. long.

(4) District 5: the waters of Shipley Bay east of a line from 56° 05' N. lat., 133° 39.50' W. long., to 56° 07.17' N. lat., 133° 38.58' W. long., and the waters of Seclusion Harbor, Three Mile Arm, and Rocky Pass north of 56° 32' N. lat. (north end of Monte Carlo Island) and south of the latitude of the Summit at 56° 40.57' N. lat.;

(5) District 6: the waters of Section 6-B of Whale Pass and Coffman Cove, including all waters along the shore of Prince of Wales Island, and the shores of the adjacent islands west of a line from Luck Point to a point at 56° 10.30' N. lat., 133° 02.25' W. long.;

(6) District 9: the waters of Rowan Bay and Bay of Pillars east of a line from Point Ellis to Point Sullivan;

(7) District 10: all waters west of a line extending from the Admiralty Island shoreline at 57° 26' N. lat., 133° 54.20' W. long. to Point Gambier to the northernmost tip of Gambier Island at 57° 27.75' N. lat., 133° 51.48' W. long.;

(8) District 11: the waters of Section 11-C along the western shore of Stephens Passage south of the latitude of Midway Island;

(9) repealed 5/26/2006;

(10) District 13:

(A) the waters of Section 13-A along the Chichagof Island shore south of 57° 47' N. lat., and north of 57° 37.17' N. lat., excluding Klag Bay, Lake Anna, and Sister Lake;

(B) the waters of Section 13-B in Whale Bay east of a line from North Cape to Point Launder and a portion of Sitka Sound in Subdistrict 113-40 and 113-41 east of a line from the northern entrance to Deep Inlet at 56° 59.62' N. lat., 135° 18.67' W. long., to the westernmost tip of Long Island to Bieli Rock to Dog Point;

(11) District 14: the waters of Section 14-B in Port Frederick west and south of a line from Crist Point to Point Sophia;

(12) District 15: the waters of Section 15-C along the western shore of Lynn Canal south of the latitude of Point Sherman;

(13) District 16: the waters of Torch Bay north of the latitude of the southernmost point of Venisa Point.

(d) A CFEC permit holder who is an agent for a licensed processor and on board a vessel that is registered to operate as a tender vessel may commercially harvest sea cucumbers and transport sea cucumbers that have been harvested by other CFEC permit holders. The tender vessel may have on board more than the 2,000-pound limit specified in (d) of this section, if completed fish tickets, as required under 5 AAC 39.130, for the excess poundage are on board the vessel. (Eff. 2/27/91, Register 117; am 4/15/94, Register 130; am 9/28/97, Register 143; am 12/26/97, Register 144; am 5/8/98, Register 146; am 10/12/2000, Register 156; am 3/11/2001, Register 157; am 7/18/2003, Register 167; am 12/1/2004, Register 172; am 5/26/2006, Register 178; am 7/29/2009, Register 191)

Authority: AS 16.05.060 AS 16.05.251

5 AAC 38.142. Southeastern Alaska Geoduck Fishery Management Plan. (a) The purpose of the management plan under this section is to direct the department in the management of the geoduck commercial fishery in Registration Area A (Southeastern Alaska Area). In the management of the commercial geoduck fishery, the department may consider paralytic shellfish poison (PSP) levels.

(b) Unless the commissioner determines otherwise, a permit described in 5 AAC 38.050 and 5 AAC 38.062 is not required to take geoducks in Registration Area A.

(c) From October 1 through September 30, geoducks may be taken only during fishing periods established by emergency order.

(d) There is no size limit for geoducks.

(e) A person must retain all geoducks harvested by that person.

(f) A person may only take geoducks with dive gear and while using a hand manually-operated, water jet device having a manual shut-off valve and a nozzle with an inside diameter of not more than seven-eighths inch. If the commissioner determines that the gear is being operated

in a manner that wastes the resource, destroys the resource, or causes damage to geoducks or other fishery resources, the commissioner may close, by emergency order, the fishing season and reopen a season in which the commissioner modifies or prohibits the gear specified in this subsection.

(g) The department shall designate areas that are appropriate for commercial harvest of geoducks according to stock assessment surveys conducted by the department. The department shall establish a guideline harvest level for each area that has had a biomass survey conducted and the department has designated for a commercial geoduck fishery. The guideline harvest level will be based on estimates of biomass derived from stock assessment surveys conducted on the stock within the 12 years that precede the opening of the commercial geoduck fishery in that area. The guideline harvest level for each area will be calculated as two percent of the most recent estimated biomass, per year. The commissioner may modify these procedures by regulation based on new information regarding geoduck productivity.

(h) The commissioner may not open the commercial geoduck fishery in an area if the estimated biomass of the geoduck stock in that area is less than 30 percent of the original biomass determined by the first stock assessment conducted by the department on that stock. The commissioner may modify this percentage if the department receives information about geoduck productivity that supports a modification.

(i) A person shall attach a tag to each container that holds geoducks commercially harvested by that person. The tag must indicate the date of harvest, the harvest location, and the harvester's name. The person shall keep the tag attached to the container while it is being transported to a processor or dealer.

(j) A person that commercially harvested geoducks is required to submit a fish ticket under 5 AAC 39.130 and shall record on that fish ticket

(1) the pounds of geoducks harvested;

(2) the area fished for geoducks;

(3) the dive time, for each area, given in minutes, for harvesting the geoducks specified on that fish ticket; and

(4) any other information the commissioner determines is necessary for the conservation and management of the geoduck fishery.

(k) The commissioner may establish the maximum amount of geoducks that may be harvested during a fishing period. If the commissioner determines that a rate of delivering geoducks will contribute to conservation, law enforcement, waste reduction, or assist the development of the fishery, the commissioner may close, by emergency order, a fishing period in a designated area, and reopen a fishing period in the same area for which the commissioner designates a rate of delivery.

(l) The following waters are closed to the commercial taking of geoducks:

(1) District 1:

(A) waters of Grant Cove, and contiguous waters along the west coast of Gravina Island, south of $55^{\circ} 21.37'$ N. lat., and north of $55^{\circ} 20.70'$ N. lat.;

(B) waters east of a line from Indian Point at $55^{\circ} 36.85'$ N. lat., $131^{\circ} 42.02'$ W. long., to the northeasternmost tip of Betton Island at $55^{\circ} 31.95'$ N. lat., $131^{\circ} 46.37'$ W. long., to the southeasternmost tip of Betton Island at $55^{\circ} 29.90'$ N. lat., $131^{\circ} 48.18'$ W. long., to Survey Point at $55^{\circ} 28.07'$ N. lat., $131^{\circ} 49.87'$ W. long.;

(C) waters of Nichols Passage north of a line from the southernmost tip of Dall Head located on the southernmost tip of Gravina Island, to the easternmost tip of Cedar Point located on the western shore of Annette Island, and south of a line from the southernmost tip of Gravina Point located on the southeast shore of Gravina Island, to the northernmost tip of Walden Point, located on the northwesternmost tip of Annette Island;

(2) District 3: waters of Port Mayoral that are north of the latitude of the northernmost tip of Cristina Island ($55^{\circ} 22.83'$ N. lat.) and south of the latitude of Point San Leonardo ($55^{\circ} 24.25'$ N. lat.);

(3) District 13:

(A) waters of Kliuchevoi Bay east of a line from $56^{\circ} 50.40'$ N. lat., $135^{\circ} 22.52'$ W. long. to $56^{\circ} 50.20'$ N. lat., $135^{\circ} 22.68'$ W. long.;

(B) waters within the unnamed bay located southeast of Frosty Reef east of a line from $56^{\circ} 52.82'$ N. lat., $135^{\circ} 22.93'$ W. long. to $56^{\circ} 52.70'$ N. lat., $135^{\circ} 22.98'$ W. long. to $56^{\circ} 52.61'$ N. lat., $135^{\circ} 22.97'$ W. long. and south of $56^{\circ} 53.00'$ N. lat.;

(4) waters identified as a permitted mariculture site.

(m) If the commissioner determines that logbooks will contribute to conservation, management, or development of the fishery, the commissioner may, by emergency order, close the commercial geoduck fishing season and immediately reopen a commercial geoduck fishing season during which logbooks are required in all specific geoduck fisheries. If a logbook is required under this section, the logbook must be filled out daily and before leaving the harvest site. A permit holder shall submit a completed logbook to the department with the applicable ADF&G fish tickets no later than seven days after landing geoducks. A logbook must be available for inspection upon request from a representative of the department or a peace officer of the state. A logbook must include the following information:

(1) fishing activity;

(2) location of harvest and effort;

(3) any other information that the commissioner determines necessary for management purpose. (Eff. 10/12/2000, Register 156; am 3/11/2001, Register 157; am

7/18/2003, Register 167; em am 3/9/2005 - 7/6/2005, Register 174; am 5/26/2006, Register 178; am 7/29/2009, Register 191)

Authority: AS 16.05.060 AS 16.05.251

5 AAC 38.145. Southeastern Alaska Red Sea Urchin Management Plan. (a) The requirements of this management plan apply to the commercial taking of red sea urchins in Registration Area A.

(b) A permit described in 5 AAC 38.062 is not required for the taking of red sea urchins in Registration Area A.

(c) The season for taking red sea urchins is from October 1 through September 30.

(d) Red sea urchins may be taken only from 5:00 a.m. to 8:00 p.m. during periods established by emergency order.

(e) If the commissioner determines that hours different from those set out in (d) of this section will contribute to law enforcement or to management of the red sea urchin fishery, the commissioner may specify, by emergency order, other hours during which red sea urchins may be taken.

(f) The commissioner shall open fishing periods in at least 16 weeks of a season unless the commissioner determines that this frequency will adversely impact conservation, law enforcement, waste reduction, or development of the fishery.

(g) During an open fishing period for red sea urchins, no more than two licensed CFEC red sea urchin permit holders may conduct fishing operations from, or land commercially harvested red sea urchins from, a vessel that is licensed and registered to participate in the commercial red sea urchin fishery. From 24 hours before, during, and for 24 hours after a fishing period or at any time that commercially harvested red sea urchins are on board the vessel, no more than three licensed CFEC red sea urchin permit holders may be transported, housed, quartered, or domiciled on board a vessel that is licensed and registered to commercially take, transport, or process red sea urchins.

(h) Notwithstanding 5 AAC 38.051, red sea urchins may be taken only by hand picking. A person taking red sea urchins may use a hand-held sea urchin rake or an abalone iron.

(i) A person diving for red sea urchins may use scuba gear, a tethered, umbilical, surface supplied system, or a snorkel.

(j) The commissioner shall establish, by emergency order, subdistricts for the taking of red sea urchins.

(k) Except as provided in (l) of this section, there is no size limit for red sea urchins.

(l) If the commissioner determines that size restrictions or trip limits will contribute to conservation, law enforcement, waste reduction, or promote development of the fishery, the

commissioner may close, by emergency order, the red sea urchin fishing season in a district or subdistrict, and reopen a season in that district or subdistrict during which size restrictions or trip limits are in effect.

(m) Until the roe is removed by processing, a person shall keep red sea urchins taken from different fishing districts or subdistricts in separate containers, and shall clearly mark on each container the district or the subdistrict in which the urchins were taken and the name of the diver who took the urchins. If all red sea urchins on board a vessel were taken from the same district or subdistrict, no marking under this subsection is required.

(n) A vessel that is used for the processing of red sea urchins must carry an onboard observer as specified in 5 AAC 39.141 - 5 AAC 39.143 and 5 AAC 39.645 if unprocessed red sea urchins are on board that vessel. The commissioner may, instead of requiring an onboard observer under this section, require that the processing of red sea urchins be conducted under a permit issued by the commissioner with the following conditions:

(1) each person shall keep the processed red sea urchins taken from different fishing districts or subdistricts in separate containers, and separate from any other person's processed red sea urchins; the person shall clearly mark each container with the district or subdistrict from which the urchins were taken and the name of the person who took the urchins;

(2) all red sea urchins must be processed on board the vessel that harvested the urchins;

(3) no more than two persons may process red sea urchins on board a vessel under this subsection;

(4) a person may process only the red sea urchins harvested by that person;

(5) any other conditions the commissioner deems necessary for the conservation and management of an orderly fishery.

(o) In addition to the applicable requirements of 5 AAC 39.130,

(1) a diver shall report on an ADF&G fish ticket the pounds taken and dive times by subdistrict;

(2) the owner or operator of a facility or vessel that purchases unprocessed red sea urchins shall

(A) within 30 days after the purchase, submit to the department a report indicating the pounds of red sea urchins purchased, the pounds of the red sea urchin roe recovered, the price paid to the person who delivered the urchins, and the number of the ADF&G fish ticket prepared at the time of delivery;

(B) upon the request of an employee or representative of the department, report information regarding the dates, locations, and times of any delivering, transporting, unloading, or processing of red sea urchins.

(p) The department shall establish a guideline harvest level for each district or subdistrict open to commercial fishing for red sea urchins. The guideline harvest level shall be based on population estimates from the department's biomass assessment. The annual guideline harvest level shall be a maximum of six percent of the most recent assessment survey population estimate, taken as the lower bound of the one-sided 90 percent confidence interval. Fishing shall not be allowed in a district or subdistrict unless a stock assessment survey to determine biomass and size distribution has been conducted in that district or subdistrict within the previous six years. Between assessment surveys, no more than the equivalent of three annual guideline harvest levels may be harvested. If the commissioner receives new information about red sea urchin productivity or if the commissioner determines that modifying the guideline harvest level will contribute to conservation, law enforcement, waste reduction, or promote development of the fishery, the commissioner may modify the guideline harvest level.

(q) The commissioner shall close a district or subdistrict to the taking of red sea urchins when the commissioner determines from the prevailing rate of harvest that the guideline harvest level in that district or subdistrict will be reached.

(r) The department shall, to the extent practicable, attempt to manage the fishery so that approximately 25 percent of the guideline harvest level is taken within 30 days of each emergency opening unless the commissioner determines that this will adversely impact conservation, law enforcement, waste reduction, or development of the fishery.

(s) The following waters are closed to the taking of red sea urchins:

(1) in District 1,

(A) subdistrict 101-27, waters of Nichols Passage north of a line from the southernmost tip of Dall Head (located on the southernmost tip of Gravina Island) to the easternmost tip of Cedar Point (located on the western shore of Annette Island) and south of a line from the southernmost tip of Gravina Island (located on the southeast shore of Gravina Island) to the northernmost tip of Walden Point (located on the northwesternmost tip of Annette Island);

(B) waters east of a line from Indian Point at 55° 36.85' N. lat., 131° 42.02' W. long., to the northeasternmost tip of Betton Island at 55° 31.95' N. lat., 131° 46.37' W. long., to the southeasternmost tip of Betton Island at 55° 29.90' N. lat., 131° 48.18' W. long., to Survey Point at 55° 28.07' N. lat., 131° 49.87' W. long.;

(2) in District 4,

(A) waters east of a line that extends from Lontana Point to Diver's Island Light to Diver's Point;

(B) repealed 7/18/2003.

(t) In this section, "processing" means the removal of roe from red sea urchins for subsequent sale; "processing" does not include the occasional sampling of roe quality by a person who harvests red sea urchins. (Eff. 12/8/96, Register 140; am 9/28/97, Register 143; am

5/8/98, Register 146; am 10/12/2000, Register 156; am 3/11/2001, Register 157; am 7/18/2003, Register 167; am 5/26/2006, Register 178; am 8/8/2007, Register 183)

Authority: AS 16.05.060 AS 16.05.251

5 AAC 38.150. Octopus Bycatch Management Plan. (a) Octopus may only be taken as incidental bycatch in Registration Area A in pot and longline gear fisheries.

(b) The guideline harvest range for octopus in Registration Area A is 0 - 35,000 pounds.

(c) The maximum bycatch allowance for octopus that may be on board a vessel operating

(1) pot gear is 35 percent by weight of the whole weight of the targeted species on board the vessel; and

(2) longline gear is 15 percent by weight of the round weight of groundfish or halibut on board the vessel.

(d) The commissioner may close, by emergency order, Registration Area A to the retention of octopus when the upper end of the guideline harvest range has been reached.

(e) Octopus retained for sale or for personal use must be recorded on a fish ticket as specified in 5 AAC 39.130. (Eff. 7/29/2009, Register 191)

Authority: AS 16.05.060 AS 16.05.251

RC10

From: case mapes [yak2you2@yahoo.com]
Sent: Saturday, January 14, 2012 10:57 AM
To: Stone, Shannon C (DFG); Crass, Scott W (DFG)
Cc: Sheri Nelson; yak2you2@yahoo.com
Subject: A.C meeting minutes for Dec. 7th, 2011

Yakutat Fish & Game Advisory Committee Meeting

Meeting Minutes

December 7, 2011

I. Call to order

Casey Mapes called to order the meeting of the Yakutat Fish & Game Advisory Committee at 7:15 p.m. on December 7th, 2011 at the High School Library.

II. Roll call

The following persons were present: Casey Mapes, Jeff Fraker Sr., Scott Chadwick, Larry Bemis, Herb Holcomb, Jeremiah Pavlik, Dave Stone, Bob Fraker, Jessie Pavlik, . Absent: Jonathan Pavlik, Reggie Kirkovich, Greg Dierick, Gary Gray and Wayne Gray
Quorum established.

Others in attendance: Sheri Nelson, Gordy Woods, John Vale, Jason Stened, Nate Catterson, Trooper Abbott, Wayne Ivers, Susan Ohlers

III. Approval of minutes from last meeting

April 1st, 2011. Approved, unanimous.

IV.

I. January 2012 Elections

- | | | | |
|------------------------------|--------------------|-------|--|
| <u>Nominated Candidates:</u> | 1. Bob Fraker | cm/ds | 1 year term - sportfishing, hunting - 9 ayes- 0 nyes |
| | 2. Jeff Fraker Sr. | ds/sc | 3 year term- sportfishing, hunting, subsistence, trolling - 9 ayes- 0 nyes |
| | 3. Scott Chadwick | cm/hh | 2 year term- sportfishing, trolling, hunting - 9 ayes- 0 nyes |
| | 4. Greg Dierick | sa/jf | 1 year term- sportfishing/ lodge owner, hunting - 9 ayes- 0 nyes |
| | 5. Larry Bemis | bf/sc | 2 year term- gillnetting, sportfishing, trolling, sub - 9 ayes- 0 nyessistence |
| | 6. Herb Holcomb | sc/ds | 2 year term- longlining, trolling - 9 ayes- 0 nyes |

7. Sheri Nelson	cm/ds	3 year term- <u>gillnetting, subsistence - 9 ayes- 0 nyes</u>
8. Jeremiah Pavlik	hh/sc	3 year term- <u>gillnetting, hunting, subsistence - 9 ayes- 0 nyes</u>
9. Casey Mapes	sc/jf	3 year term- <u>trolling, gillnetting, hunting, subsistence - 9 ayes- 0 nyes</u>
10. David Stone	jf/hh	1 year term- <u>sportfishing - 9 ayes- 0 nyes</u>
11. Reggie Kirkovich	ds/jf	2 year term- <u>sportfishing/ lodge owner - 9 ayes- 0 nyes</u>
12. Jessie Pavlik	hh/bf	1 year term- <u>longlining, gillnetting - 9 ayes- 0 nyes</u>
13. Jonathan Pavlik	ds/hh	3 year term- <u>gillnetting, longlining, hunting - 9 ayes- 0 nyes</u>
Alternates		
14. Loren Clark	ds/jf	3 year term- <u>gillnetting, trolling, subsistence - 9 ayes- 0 nyes</u>
Officers:		
Casey Mapes, Chair	bf/sc	- 8 ayes, 1 opposed
Scott Chadwick, Vice Chair	ds/cm	- 9 ayes, 0 opposed
Sheri Nelson, Secretary	cm/ds	- <u>9 ayes- 0 nyes</u>

V - Comments on proposals to the Board of Fisheries

1) Proposal 165 -Buoy marking in the Dungeness crab pot fishery. M/S to support- CM/ SC

Discussion- comments were made that having exact buoys markers was not realistic. Sun fading, bird pecking, and buoys that have been run over are examples of things that happen, that can make buoys look different. It was felt that buoys similar is important, but having them exact is unrealistic, and would put undo hardship on the fishermen.

Question- 9 ayes 0- nyes

2) Proposal 167 - Reduce Dungeness pot limit in the Yakutat area. M/S to support- JP/ DS

Discussion-comments were made that this is the only realistic proposal that the Yakutat A.C. can put forth to attempt to aidour failed crab stocks. Hopefully, there will be more effort to help the stocks rebound.

Q- 9 ayes 0- nyes

3) Proposal 199 - Amend super-exclusive groundfish registration.M/S to support- HH/ SC

Discussion- comments were made that hopefully this will fix the loophole that allows one vessel to harvest the lion's share out of both the East Yakutat, and the Icy Bay Lingcod areas.

Q- 9 ayes 0- nyes

4)Proposal 207- Increase the dogfish daily bag limit. M/S to support- DS/ SC

Discussion- it was asked what areas this will apply to? It was felt that the Yakutat area could definately use some ideas to thin down the dogfish population.

Q- 9 ayes 0 nyes

5) Proposal 208- Establish Pacific cod season. M/S to support HH/SC

Discussion- housekeeping by the Dept.

Q- 9 ayes 0 nyes

6) Proposal 209- Establish Black rockfish season. M/S to support HH/SC

Discussion- housekeeping by the Dept.

Q- 9 ayes 0 nyes

7) Proposal 212 Adjustment of GHL ranges for DSR in eastern gulf. M/S to oppose DS/HH

Discussion- comments were made that this is an allocate grab by one user from another.

Q- 9 ayes 0 nyes

8) Proposal 217 Establish lingcod allocation between commercial users, and increase the GHL. M/S to support HH/BF

Discussion- we considered again adjusting the percentages, but it was decided to leave it as is.

Q- 9 ayes 0 nyes

9) Proposal 220 reallocate Lingcod GHL. M/S to oppose DS/SC

Discussion- It was felt that this was an extreme allocation.

Q- 9 ayes 0 nyes

10) Proposal 222 increase lingcod GHL M/S to oppose DS/SC

Discussion- 200,000 lbs. was excessive for GHL.

Q- 9 ayes 0 nyes

11) Proposal 223 clarify dingbar fishery in lingcod fishery. M/S to support CM/DS

Discussion- house keeping by the Dept.

Q- 9 ayes 0 nyes

12) Proposal 246 clarify use of 2 rods for king salmon M/S to support DS/JF

Discussion- house keeping by the Dept.

Q- 9 ayes 0 nyes

13) Proposal 251 allow the use of 2 rods by non-guided anglers in salt water. M/S to support LB/ DS

Discussion- it was felt that this prop. won't change the bag limit, it will just give a resident angler a better chance of catching.

Q- 9 ayes 0 nyes

14) Proposal 267 no bait in post office lake in Yakutat

Discussion- house keeping by the Dept.

Q- 9 ayes 0 nyes

15) Proposal 268 clarify where personal use finfish regs. apply. M/S to support DS/SC
discussion- much confusion on this proposal, more info was needed.

Q- 4 ayes 5 to take no action, motion fails, no action.

16) Proposal 281 allow 75 fathom gillnet in Yakutat bay for subsistence. M/S to support SC/HH

Discussion- proposal should make it easier for subsistence users to use existing commercial nets, and hopefully take some of the subsistence pressure off of the Situk river.

Q- 9 ayes 0 nyes.

17) Proposal 282 Modify Situk/ Ahrnklin and lost river king salmon management plan M/S to support DS/SC

Discussion- House keeping by the dept., attempting to redesign how king salmon are retained when a nonsale is in effect.

Q- 9 ayes 0 nyes

18) Proposal 283 Revise the Situk management plan M/S HH/CM

Discussion- concerns about harvesting situk river king salmon and effecting a potential gillnet closure later in the season are voiced. It is pointed out that the existing data of scale samples taken from sport caught king salmon in the saltwater charter fishery indicate a 3% situk king salmon percentage. This is a 1000 king salmon test fishery, so your looking at a probable 30 Situk king salmon harvest, which is tolerable. the data will be helpful to ADF&G.

Q- 7 ayes 2 nyes (J. Pavlik, and J. Pavlik) felt it would hamper gillnetting

19) Proposal 300 allow multiple gillnet permit holders to fish from the same vessel and divide harvests in Yakutat area.

Discussion- considered to be extremely important to get passed for the gillnet fishery.

Q- 9 ayes 0 nyes

20) Proposal 301 relocate commercial setnet boundry on the Tsiu river. M/S to oppose DS/HH

Discussion- This is a purely allocative redistribution attempt. markers should left up to ADFG, thats what they are for.

Q- 9 ayes 0 nyes

21) Proposal 302 Prohibit using power boats to drive fish on the Tsiu river. M/S to oppose DS/HH

Discussion- This is how commercial fishing is accomplished on rivers like Tsiu, without the ability to drive fish, the gillnetters would be severly limited. This prop. is allocative, and is not supported by other guide/sportfish users in the area.

Q- 9 ayes, 0 nyes

22) Proposal 303 Establish criteria to determine the first commercial opening on the Tsiu river. M/S to oppose SC/ JP

Discussion- should simply be left up to ADFG, thats what they are for.

Q- 9 ayes 0 nyes

23) Proposal 304 Amend Ankau Inlet closed waters. M/S to support DS/ CM

Discussion- house keeping by ADFG

Q- 9 ayes 0 Nyes

24) Proposal 305 Amend Akwe river closed waters. M/S to support. DS/SC

Discussion- House keeping by ADFG

Q- 9 ayes 0 nyes

25) Proposal 306 Change the day when allowable gear increases on the Alesk River from Monday to Sunday M/S to support SC/ BF

Discussion- House keeping by ADFG

Q- 9 ayes 0 nyes

26) Proposal 309 Allow four handtroll gurdies in the summer troll fishery. M/S to support LB/CM

Discussion- as stated, the allowable number of rods that can be fished is already established, it is not needed to take away the ability to carry spare rods.

Q- 9 ayes 0 nyes

27) Proposal 310 Amend the winter king salmon troll fishery GHL by adding hatchery produced kings. M/S to support SC/BF

Discussion- Fish should be accounted for when they were caught, to the season they were caught in. Also, it behooves the troll fleet to harvest king salmon in the winter when they are worth twice as much. Tired of the troll fishery being unable to adapt as needed because of the preordained treaty agreements.

Q- 9 ayes 0 nyes

28) Proposal 311 Change the beginning date for coho salmon retention in the spring king salmon fishery from June 15th to June 1st. M/S to support CM/ HH

Discussion- this proposal won't affect the Yakutat area, but may affect some of our local fishermen with permits that can fish in the spring hatchery areas. It makes good sense to utilize the cohos if they are market quality, giving the fishermen opportunity, and possibly lowering by catch mortality.

Q- 9 ayes 0 nyes.

29) Proposal 312 Require a mandatory 10 day troll closure. M/Sto oppose. HH/ CM

Discussion- This is an allocative proposal that takes away from the dept. the ability to manage. It is based on data that is in-accurate, and it will be detrimental to the troll fleet.

Q- 7 ayes 2 nyes (J. Pavik, J. pavlik) felt it would hamper gillnetting

30) Proposal 313 Extend troll coho fishery in S.E. to Sept. 30th, but closed earlier by emergency order when warranted. M/S to support SC/HH

Discussion- this proposal just gives the dept. another tool to manage with. The troll fleet has been below every year in their GHL, the extra days might help this. Weather is such in this area that generally the effort is minimal by then anyway.

Q- 7 ayes, 2 nyes (J. Pavlik, J. Pavlik) felt it would hamper gillnetting

31) Proposal 321 Amend waters closed to trolling near the Situk river. M/Sto support DS/ HH

Discussion- this prop. will adjust the no trolling corridor according to the river's westward migration, without hampering existing fisheries.

Q- 9 ayes 0 nyes

32) Proposal 322 Amend waters closed to trolling near the Situk river. M/S to oppose HH/ BF

Discussion- the dept. proposal would put undo hardship on the troll fleet, and have potential other adverse ramifications. The Lat. and Longs. as listed are inaccurate.

Q- 9 ayes 0 nyes.

VI- Move to adjourn SC/HH @ 10:20 Pm

Q- all in favor.

PC11

In support of proposal #196

Public Comment for Board of Fish Meeting 2012

Submitted by:
Ryan Kauffman
307 Charteris St.
Sitka AK 99835
907-738-7873

Dear Board of Fish Member,

This public comment is intended to address staff comments for BOF Proposal 196 and provide additional documentation in response to those comments. This public comment is made with upmost respect for ADF&G staff and their efforts.

It is crucial to set ANNUAL abalone harvest limits

Staff comment states "While annual limits may help reduce harvests to a degree, annual limits can more readily be implemented for the sport and personal use fisheries by recording harvests on the back of a sport fishing license, but there is no practical means to enforce annual limits in the subsistence fishery."

Although there are currently daily bag limits for abalone, there are no annual limits. **Setting annual limits will convey to harvesters that there is a finite number of abalone available.** The majority of harvesters will likely adhere to new ADF&G regulations thus reducing overall harvest. Staff comment acknowledges that there may be benefit by setting annual limits. To "readily" implement an annual limit recording system for both sport and personal use would improve upon the current system of no limit and no recording even if subsistence harvest were not recorded.

Increasing the minimum size limit will benefit stocks

Setting a new minimum size limit of 3.75 inches will decrease harvest of exploited abalone populations. This will increase the number of abalone of larger size (thus higher fecundity) as well as maintain higher abalone density, which will increase the likelihood of successful recruitment. **This rationale is supported by historical ADF&G efforts to improve stocks** through the past increase of commercial abalone fisheries minimum size restrictions from 3" in the 1960s to 3.5" then 3.75" and ultimately 4" during the last two seasons (1994 to 1996). (See **attached** "Collapsed or Recovering Shellfish Fisheries in the State Of Alaska" ADF&G 1999). **Historical management actions contradict the current department's position** in the staff comments that say that the department is **"OPPOSED** to an increase in a minimum harvest size and does not believe an increase would provide any net benefit for population stability." At one point, the

department did see the need to increase the minimum size limit for at least the commercial sector to 3.75" and even 4" due to concerns about the declining stocks. In addition, the relationship between increased size and increased fecundity has been well documented in the literature, i.e. "older abalone contribute more to the total reproductive output of the population than do younger abalone" (Campbell et al. 1997¹).

The staff comments also state that the department is "concerned that a new size limit would create confusion, with a result of increased handling mortalities. Abalone are prone to mortalities from any cut or laceration." However, changing the minimum sport, personal use, and subsistence minimum size from 3.5 to 3.75 inches will simply be a matter of updating regulations posted in department regulation books and websites. Again, there is already a historical precedent of increasing the minimum size in the commercial fishery. With abalone, as with any other fishery, it is the responsibility of the harvester to stay current with the most recent regulations including minimum size and bag limits before harvesting. To assume that changing minimum size regulations would be confusing to harvesters and therefore not worthwhile is to say that changing any fisheries size or bag limit is confusing and not worthwhile. **Fisheries size and bag limits often change, sometimes even mid-season and harvesters are able to stay current.**

Support educational Reg. book language

Although staff made no comment on this aspect of my proposal, by inserting simple language about proper harvest technique into the regulation books, unintentional abalone mortality will likely decrease.

In conclusion, while other states and countries have become proactive about protecting and rebuilding their abalone stocks, Alaska has been inactive. The actions that we decide to take now must be deliberate and prescriptive if we want to maintain the hope of having abalone stocks in the future. **We can not, under the current system, control the rapid depletion of abalone biomass by sea otters or other natural predators but we can however control the impact of humans on the numbers of remaining abalone stocks.**

As an Alaskan who enjoys both the recreation of abalone diving and the food it provides, I strongly encourage the board to adopt conservative harvest measures to protect the remaining abalone stocks in southeast Alaska for the maximum benefit of current and future Alaskans.

Sincerely

Ryan Kauffman
Sitka AK
907-738-7873

Preliminary Report to the Alaska Board of Fisheries
**COLLAPSED OR RECOVERING SHELLFISH FISHERIES IN THE
STATE OF ALASKA**
**ALASKA DEPARTMENT OF FISH AND GAME Division of Commercial
Fisheries Regional Information Report: 1J02-06**
— OCTOBER 1999 —

SOUTHEAST ALASKA ABALONE

Historical Harvest Synopsis

The commercial fishery for northern abalone (*Haliotis kamtschatkana*) in Alaska was short-lived. The 25-year history was marked by peak catches in the late 1970s and early 1980s, followed by a steep decline and a long slide towards total closure in 1995 (Figure below). Size restrictions and seasonal catch limits were imposed in an increasingly restrictive sequence that proved ineffective to alter the downward trend.

A 76 mm (3 in) minimum size was in effect since at least 1963. This limit was variously modified through 1979, when a regionwide limit of 95 mm (3.75 in) was set in an attempt to preserve reproductive potential following the initial explosion of catch in 1978. The regionwide limit was further raised to 102 mm in 1994 once the stock decline was clear.

GHLs were first put in place at the peak of the fishery in the 1980/81 season. These guideline levels were reduced repeatedly in the subsequent 15 years until the final closure in 1995. The first GHL was 225,000 pounds with the GHL in the final year reduced to 15,000 pounds. Fishing time was first reduced from 12 months to 9 in 1980. Total fishing time in the final year, 1995, was reduced to 6 days.

There were no limits to the number of divers participating in the fishery. The rise in participation to approximately 100 divers by the early 1990s was an important factor in eventual closure of the fishery. The allowable catch in this decade was too small to provide for an orderly, manageable fishery with 100 or more participants under open access regulations.

Management and Research Program

Except for catch and effort statistics and some limited tagging efforts, the department has never had a stock assessment program for abalone in Alaska. Department divers conduct urchin and sea cucumber surveys in areas that were traditional abalone grounds, and through these observations we are able to subjectively gauge the status of abalone stocks.

Cause of the Collapse

The fishery collapsed almost certainly because of excessive harvests in the late 1970s and early 1980s. Similar collapses have occurred in stocks of the same species in British Columbia and Washington State. There was not a sufficient stock assessment or research program in place when the Alaska fishery boomed and there was insufficient support to develop a program within the department. Further, there was inadequate understanding among the global research community of the special vulnerabilities of abalone populations to overharvest. These attributes include a very limited larval dispersal distance, such that local populations can become effectively extinct with little chance for larvae to colonize from elsewhere. Also, abalones aggregate, and will move in from marginal habitat as individuals are removed from prime habitat. This behavior leads to false conclusions that harvests are sustainable until, seemingly by surprise, they are all gone. The decline of abalone is probably a long-term condition now that sea otters have expanded to occupy much of their former range. Otter populations have grown exponentially since their reintroduction into outer coastal waters of southeast Alaska in the 1960s (Figure below), and there are only a few pockets of abalone habitat that have not yet seen a resurgence of otters. The

two species share the same environment. Otters are uniquely adapted to prey on abalone and it is clear that abalone cannot co-exist in commercial quantities with sea otters.

What Do We Plan To Do?

The abalone fishery will remain closed. If the stock recovers and funding becomes available, the department will work with the industry to develop a research plan and management program that will allow an orderly and sustainable fishery. The Southeast Regional Dive Fishery Association has indicated their strong support for such a program.

END OF ADF&G DOCUMENT

Additional photos:



Above pictures taken from the social network site of a diver / abalone harvester after harvesting in Sitka Sound. Harvests like what is seen here, although currently may be legal, will leave an area “picked clean” leaving little opportunity for abalone recruitment and recovery. “Abalones aggregate, and will move in from marginal habitat as individuals are removed from prime habitat. This behavior leads to false conclusions that harvests are sustainable until, seemingly by surprise, they are all gone.” (“Collapsed or Recovering Shellfish Fisheries in the State Of Alaska” ADF&G 1999).

¹(Campbell, 1997) *Possible criteria for reopening the northern abalone (Haliotis kamtschatkana) fishery in British Columbia*. 1997 Fisheries and Oceans Canada
<http://www.iucnredlist.org/apps/redlist/details/61743/0>

RC12

Southeast Alaska Fishermen's Alliance

9369 North Douglas Highway

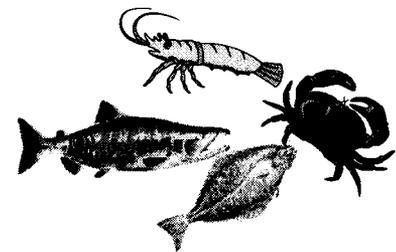
Juneau, AK 99801

Phone: 907-586-6652

Email: seafa@gci.net

Fax: 907-523-1168

Website: <http://www.seafa.org>



January 15, 2012

RE: Proposal #165 - Identical buoy markings - Supplemental Information

Dear Board of Fish Members,

Southeast Alaska Fishermen's Alliance (SEAFA) submitted this proposal asking that the word identical be replaced with the word similar or we would entertain other suggested words or description. We understand that enforcement likes the current regulation as written and have been told don't worry about it that enforcement will use "common sense" when administering this law. But fishermen are receiving tickets and warnings. See the enclosed ticket and pictures from the summer of 2011 that one fisherman was willing to make public in this forum. This is not the only case we are aware of.

Current regulations conflict with each other in 5AAC 32.125 (d) and (e). In one section you state the buoys must be identical for the permit holder/ vessel and the next section you state when two permit holders or more are onboard they must include their CFEC permit number which again makes the buoys unable to meet the standard of identical. Also the required Dungeness crab tags are individually and uniquely numbered which again makes the buoy set up not identical.

This is the only crab fishery we know of that has this requirement. In some respects the pot tag requirement was implemented after this law in order to determine if a fisherman is fishing over their limit so are both regulations still actually necessary? Board of Fish regulations are made to manage the fishery and not make life easy for enforcement to write tickets.

Identical is a standard that is impossible to reach. See buoy samples available at the meeting provided by fishermen and Spongex straight from the factory and letter attached from Spongex. Buoys will vary in size up to 5% and there is also color variations allowed to still meet specifications. On top of that during the Dungeness season some pots will fade (when there is sun) or get scrapped up and overtime make the buoys not identical. Some Troopers will look inside the cork and see that at one time they were approximately the same color and have just faded,

others will issue a warning or ticket. We have an email from a member who consulted with the Dept and was told that "identically buoyed and marked" means the same buoy set-ups, same knots, same type of markings, same buoy colors, and shapes etc. (Email available upon request)

Since most of the reason given for the need for identical buoys is for viewing from the air by enforcement it seems that a compromise to different language from identical could be found whether it is a single word of similar, approximately identical or sentences describing that buoys vary slightly in size and color and will fade at different rates, get scrapped up etc.. Otherwise Dungeness crab fishermen will need to replace a full string of buoys every-time they replace a single lost pot at an average price of \$4.35 to \$7.25 per buoy with most pots using two buoys each. (Price of buoy telephone quote from LFSI 1.10.12) This would equate into an expense of \$4,350.00 for a string of 300 pots double buoyed. This would create a significant cost to the fishermen if the word "identical" is not changed in this regulation.

In the Advisory committee minutes and public comments submitted on time and posted online in the index on January 10, 2012, the Sitka, Craig, Wrangell, Edna Bay and Petersburg advisory committees supported this proposal with only the Ketchikan AC in opposition and 6 public comments supported the proposal with no written opposition.

Thank you for considering our testimony and we look forward to working with you on this issue and finding suitable language to address the issue.

Sincerely,

A handwritten signature in cursive script that reads "Kathy Hansen" followed by a long horizontal line extending to the right.

Kathy Hansen
Executive Director



January 6, 2012

Dear Kathy,

It was a pleasure speaking with you regarding the inherent color variation and product tolerances that one can expect for a buoy. Additionally, 4 samples were sent to your attention at the specified address for your review.

Due to the properties of foam, color density can vary as the product is produced. This variation, along with small errors in colorant addition will impact the final color of the product. Color can vary from run to run, which can be as many as 250 buoys, depending on the size of the product.

Products will also vary in size. Our production tolerances allow for a variation of $\pm 5\%$ of the total product size.

If you need any additional information, please let me know.

Sincerely,

James Welch
Plant Manager
Spongex, LLC

Spongex LLC
3002 Anaconda Road
Tarboro, NC 27886

: 800.345.7279
x: 919.404.3100

www.spongexfoam.com

IN THE DISTRICT COURT FOR THE STATE OF ALASKA
FIRST JUDICIAL DISTRICT AT WRANGELL

AST CASE # 11-63961

State of Alaska

Plaintiff

Vs.

AFFIDAVIT BY POLICE OFFICER FILED in the Trial Courts
IN SUPPORT OF COMPLAINT State of Alaska, First District
WRANGELL

Jonathan Powell
DLN: 1061326
APSN: 1061326
ATN: 112286907

Defendant
DOB: 1-20-81

Case No. 1WR-11-66 CR.

JUL 27 2011
Clerk of the Trial Courts
By _____ Deputy

ADDRESS: 2.5 Mile Zimovia Hwy, PO Box 1733, Wrangell AK 99929

VRA CERTIFICATION

I certify that this document and its attachments do not contain (1) the name of the victim of a sexual offense listed in AS 12.16.140 or (2) a residence or business address or telephone number of a victim of or a witness to any offense unless it is an address used to identify the place of the crime or it is an address or telephone number in a transcript of a court proceeding and disclosure of the information was ordered by the court

I, Trp. Cody Litster, an Alaska Wildlife Trooper, attest to the following and state:

On 6-23-11 at 1153 hours, I was checking Dungeness crab gear near the mouth of Mills Creek near Wrangell in ADF&G regulation area A. I observed several different buoy configurations. Of the buoys I checked was ADF&*G number 51294. These buoys are registered to the F/V Seduction Point and it's permit holder Jonathan Powell of Wrangell. Inspection of the buoys showed that they were similar in size and shape of buoys, but varied greatly in color. One of the buoys on each pair was white with a black stripe. On this stripe was the ADF&G number of the fishing vessel. The other buoy varied in color. Some of them were white with a blue tip and others were neon orange with a blue tip. These buoys are required by regulation to be the same so a fisherman's gear is identical.

Powell was issued a summons on 7-2-11. He stated that he just added some new buoys to his string. He thought the new buoys would be close enough to match his other buoys. He agreed to change out the rest of his buoys to match the newer ones.

[Signature]
Signature of Complainant

Subscribed and sworn to before me this 27 day of July, 2011

[Signature]
Notary Public / Magistrate / Judge

My Commission Expires: September 20



Submitted by:
Southeast Alaska Fishermen's Alliance
with permission of the Fisherman Jonathan Powell
RE: Proposal # 165 - Support



King & Tanner Task Force
C/O John Barry, Chair

January 12, 2012

Alaska Dept of Fish & Game
Board of Fish – Support Section
PO Box 115526
Juneau, AK 99811

RE: King and Tanner Task Force

Dear Board of Fish Committee Members,

The King and Tanner Task Force (KTTF) was formed in 2000 by a joint effort of industry and ADFG to work through some contentious issues about the management of the king and tanner crab fisheries and hoping to come to a consensus on a harvest strategy for the 2002 Board of Fish meeting. At the 2002 Board of Fish meeting, industry and ADFG were farther than ever apart on management of the tanner fishery particularly. The Board of Fish adopted policy 2002-214-FB "Charge to the Alaska Department of Fish and Game and Southeast King and Tanner Crab Task Force.

At a KTTF meeting Jan 12th industry and the Dept reviewed the BOF adopted charge statement and realized that it was no longer appropriate with the actions that the KTTF, ADFG and BOF have taken since that time. We would like to suggest reverting back to the original purpose statement with some minor changes that the KTTF industry adopted to originally form the task force. We have included the charge on the following page along with a copy of the meeting notes from January 12, 2012 teleconference. Please review the meeting notes for more of the discussion that occurred at the task force meeting. We believe that you will find this updated charge statement In keeping with the topics that the KTTF and ADFG have addressed together over their 11 year collaborative history. While it was contentious many times, industry and ADFG have managed to continue to work together to address the issues and work through them.

We respectfully request that the Board of Fish adopt this new updated charge statement for the KTTF and ADFG along with continuing to provide a Board of Fish member as a liaison between the Board of Fish and the KTTF.

Sincerely,



Kathy Hansen for John Barry, Co- Chair KTTF

Attachments:
Meeting Notes KTTF 1.12.12
Alaska Board of Fisheries 2002-214-FB Charge to the KTTF

ALASKA BOARD OF FISHERIES

Charge to the Alaska Department of Fish and Game
and Southeast Alaska King and Tanner Crab Task Force

The Alaska Board of Fisheries requests the Alaska Department of Fish and Game and the Southeast Alaska King and Tanner Crab Task Force to work together collaboratively for the following purposes.

The King and Tanner Crab Task Force is an advisory industry group to provide direction and assistance to ADF&G on commercial SE AK King crab and tanner crab management including:

1. Research plan and designs,
2. Stock Assessment and survey design (timing, methodology etc),
3. Data Collection (logbooks, sampling etc.)
4. Management issues of immediate concern (season length, attaining GHL's)
5. Long term management plans and goals.

Additionally, the KTF (King and Tanner Task Force) and ADF&G will work together toward achieving consensus (to the extent possible) on king and tanner management proposals for the Board of Fish.

The management plan and associated regulations should be compatible with a vision for the sustainable management of the Southeast Alaska Crab fisheries, outlined as follows:

1. *Abundance based management by area with preseason GHL's, incorporating information about all stock segments;*
2. *Survey and stock assessment protocols in place that are understood by stakeholders;*
3. *In-season management targeting specific area GHLs;*
4. *Follow the policies set out in the board's King and Tanner Crab Policy*
5. *Maintain the concurrent tanner and golden king crab fisheries.*

Attachments:

Meeting Notes KTF 1.12.12

Alaska Board of Fisheries 2002-214-FB Charge to the KTF

King & Tanner Task Force Meeting

January 12, 2012

Meeting Summary Notes

9:10 am - Participants introduced themselves around the teleconference sites. Forrest Bowers, ADFG co-chair of the King and Tanner Task Force meeting reviewed the draft agenda listed below and there were no suggested changes.

Update on 2011/2012 king and Tanner crab fisheries

Review KTF charge from the Alaska Board of Fisheries

Discussion of 2012 Alaska Board of Fisheries king and Tanner crab proposals

Review KTF membership

UPDATE ON 2011/2012 KING AND TANNER CRAB FISHERIES:

Red King Crab Fishery: District 11 was 110% of the GHL in a one day fishery. 3 days in the Pybus and surrounding region and Non-surveyed areas were open 11 or 12 days and just short of the GHL while the St James/Excursion area had low catch rates. 56 permit fished with just under a \$2 million dollar value at an average price of \$10.66 lb. Forrest asked how the effort compared with to past participation? Joe didn't have that information.

Tanner Fishery: No big changes for the 2012 season. This will be the third year with the new Board of Fish harvest strategy with core and non-core area time tied to pots registered. The biomass is at 3.1 million a slight increase from last year. Tanner specific News Release has been issued. 1068 pots have been registered so far. EN asked how many permits fished last year? Dept answered approx. 45 permits and 16 rings. A fisherman stated they appreciated the weather delay initiated in 2011.

Golden King Crab: 3rd year of maintaining the GHL increment so will be reviewed before next year. The GHL total will be 625,000 lbs for 7 fishing areas. The news release should be out later this week outlining the call in. Last year they were able to observe every region at least once and hope to do the same this year. It's particularly important that they observe all areas with the GHL review occurring later in the year. KH asked when they plan to review the GKC GHL's - In past years generally Nov or Dec. JK asked about if there is an increase being seen in parasitic crab?

BOARD OF FISH CHARGE:

The current Board of Fish charge was discussed along with the formation of the King and

Tanner Task Force which occurred several years prior to the Board of Fish charge. The BOF charge was written at a time of great dissent between the fishermen and the Dept over tanner management and was therefore very specific to Tanner crab. The original charge drafted between the fishermen and ADFG was:

PURPOSE: An advisory industry group to provide direction and assistance to ADF&G on commercial SE AK King crab and tanner crab management including:

1. Research plan and designs,
2. Stock Assessment and survey design (timing, methodology etc),
3. Data Collection (logbooks, sampling etc.)
4. Management issues of immediate concern (season length, attaining GHl's)
5. Long term management plans and goals.

Additionally, the KTTF (King and Tanner Task Force) and ADF&G will work together toward achieving consensus (to the extent possible) on king and tanner management proposals for the 2002 Board of Fisheries cycle. Proposals are due April 2001 with a tentative meeting in March, 2002.

After discussion, it was agreed that by dropping the specific reference to the 2002 BOF cycle the original charge is close to what the task force has followed since it's formation. Kathy Hansen volunteered to write up the charge and a letter to the Board of Fish asking that they consider rescinding the current charge and adopting this in it's place.

BOARD OF FISH PROPOSALS:

Proposal #157 – start for GKC and tanner crab seasons and clarifying closure dates. Forrest gave some information from the BOF briefing document. JK said he supports the current regulation over a fixed date. A fixed date creates lost gear if you start on large tide differentials. RD agrees, keep status quo. John Barry co-chair of the KTTF provided some background. The current regulation came from a KTTF proposal, it was recognized that on larger tides combination permit holders would start with tanner fishing before switching to GKC but if the fishery started on small tides they would start with GKC. GS agreed with JB. If there is more than a 17 foot difference in tide you start to lose gear. But also on a personal point of view believe that moving the start date to the week of March 1st lowest tidal range would go a long way towards addressing weather and mortality issues along with a better quality but would be some conflict with some fishermen who participate in halibut and herring. AK against #157. The Dept has followed the intent of the regulation and appreciates the less gear conflict. SS spoke against #157, Dept has the leeway to address safety, and gear conflict. ST agreed with other fishermen. John Jensen stated he was on the board of fish at the time the current

regulation was passed and that the points the fishermen were raising were all the same as they heard when they passed the regulation. YN remembered the same thing, it was to alleviate the pressure on Tanner crab and the regulation ended up being at the lowest tidal range but he thought the original intent was to be just before the lowest tidal range so that they had the smallest tides to actually fish through.

Forrest Bowers, co-chair said that he is clearly hearing a consensus by the Task Force members/industry to oppose proposal #157. John Barry added one last comment that the Dept put in proposal #157 after consultation with the KTF to create a discussion and either clarify the language of the current regulation or support moving back to a fixed date. DF said he supported the earlier comment about moving to a March 1st date.

Proposal #158: This is the proposal clarifying a policy for delaying the fishery due to weather. Dept. stated that if this wasn't adopted but would probably still consider implementing delays when appropriate but better to have some type of criteria. In other areas for crab fishery delays the Dept. has consulted with USCG & NOAA since weather delay has allocative aspects.

GS had a question about language in – does it take an advisory in all areas? Yes as written. GS went on to say that it is really a combination of wind and temperature (Below 20 degrees) that the fleet really has trouble and is dangerous. AK could support the proposal if it was changed – it is not the Gale it is the freezing spray. JK region wide might be a problem at times what about 2 out of 4 areas have freezing spray. ST one area have weather 30 knots or higher and it delays the fishery and have the stand down start for 5 or 10 days instead of day by day decisions. RD questioned the previous policy and decisions and Forrest read from staff comments on the proposal on what occurred previous years. DF the key word in the policy as written is gale but it should be freezing spray. JB stated that any delay should have high standard in order to be implemented and have to consider that delays at the beginning have an effect on the other end of the season. GS why do you delay the beginning of the season for weather but not the end when pots are being picked? AM answered for the Dept that when you are stacking gear you can store the pots in the water by taking out the bait jar and securing the openings open and if necessary can call the dept and get an extension to pick up the pots. Someone stated that standards on both ends should be considered it's just as dangerous when picking the pots if there is freezing spray. AK it's a good proposal but better if add in freezing spray.

Proposal #159: KTF proposal that was submitted last cycle to stack gear and put in restructuring committee. John Barry said that the proposal is still contentious within the fleet and he is planning to have the proposal withdrawn from the task force and instead put in an individual's name. The task force submitted the proposal after meeting with the CFEC several meetings and the idea was supported by TF members at the time. Forrest said CFEC submitted

comments on the proposals and read from PC #14 and main point was concern that it would activate latent permits and went over the Dept's position about the proposal. KH asked what did the Dept. mean by a competitive advantage? The boat is fishing more pots. ADFG is neutral on the allocative aspects of the proposal. GS this proposal is very controversial due to the activating the latent permits and happy to hear that it is being moved out of the KTTF name. Wasn't at that meeting so not sure how agreement was reached. AK said he is totally opposed to stacking gear, just look at crab rationalization and the loss of crew jobs. The fishery is economically viable the way it is even with a small vessel. SS said that as the crab biomass increases more permits will become active anyways and this is a way to get pots out of the water. YN does think that there is a competitive advantage to stacking permits and that it will get more permit holders not fishing activated.

Proposal #160: Proposal to stack permits in the RKC fishery. Forrest stated that the RKC was successful this year but had this proposal w/dual permit holders been in effect might have had to use more pre-determined fishing days for the different districts. SS commented about the efficiency of having more than one permit holder onboard. Reference comments from proposal #159.

Proposal #155: Proposal to lower the number of pots in the GKC and tanner crab fisheries to 50 pots. SS commented that it would take gear out of the water allowing for an extended season. ADFG stated that they are neutral on the allocative aspects of the proposal but a reduction to 50 pots more likely allow for management precision to manage to the GHL's. YN said he is not in favor of it, less pots wouldn't work in the area he fishes, you need the soak time and number of pots. JK is in favor of the proposal and a longer season would help maximize the GKC value. GS said he doesn't see this solution solving the problem, it would take production away as you need time and gear, particularly soak time where he fishes. If you take away pots the next thing you start to get hauling hours. AN said he just has a tanner permit (T19A) and opposes the proposal for all the same reasons. Believes it would be detrimental to the resource, already some guys are hauling pots in four hours with increased handling mortality. SS said he hears some opposition to the proposal but believes the safety aspects of less pots and extending the season are the results of the proposal. We are getting shorter and shorter seasons and becomes more difficult, less pots and you catch the same amount of crab but over a longer season.

MEMBERSHIP:

John Barry spoke to the membership issue and the difficulty to get a quorum to transact business. The processors can't vote. Forrest said that he would like a set list of Task force members with terms as part of the charge statement. KH spoke that she appreciated not having the method of determining the task force membership in the charge and gave the

example of the shrimp task force tasks PVOA and SEAFA to share the cost of running elections but they don't have the funding to do it consistently. ST stated he was part of the TF in the past and they had terms. John asked for ideas from the fishermen of how it should be structured and how do you approve a new member. As issues got less controversial there was less participation and unable to get a quorum to replace membership. When no one spoke John said that his personal idea is to make the Executive Directors of PVOA and SEAFA as voting members of the task force, have two processor seats (voting) and 6-8 fishermen possible 4 from Petersburg and 4 from outside of Petersburg. The task force should not be involved in allocative proposals and stick to biology and access issues. GS agreed with John's proposal and focus on communication with Dept. about biology. ST liked the idea when he was on the TF copies of the minutes were sent out to the fishermen but that hasn't happened in the last five years. KH stated that the minutes had been sent out in the past but she had missed some meetings and that the cost had gotten to be too much for an association to send out to fishermen who weren't contributing membership dues. GS try to get 4 Petersburg & 4 others. Fishermen have to pay attention to their business. LN stated that he wasn't aware of this meeting but if someone doesn't pick up the phone and call him, he doesn't pay attention to email or mail. John suggested sending something out to get nominations. GS suggested we try to accomplish this by March 1st when KH asked about the time frame that was being considered. After further discussion it was agreed that John Barry, Gary Slaven, Julianne Curry and Kathy Hansen would work on setting up an election process and notices.

ADFG will continue to be co-chair of any future Task force set up.

Adjourn approximately 11:30 am

Attendees:

ADFG: Forrest Bowers, Quinn Smith, Andrew Olson, Adam Messmer, Chris Siddon, Joe Stratman, Kelli Woods

Public, Industry & Task Force Members

John Barry, Stan Savland by teleconference

Juneau:

Kathy Hansen, SEAFA seafa@gci.net

Jim Case, USFS

Dan Foley icywild@hotmail.com

Jason Kohlase J-S.Kohlase@att.net

Eric Norman, Taku Smokeries enorman@takusmokeries.com

Rick Daugherty Teeharbor1@yahoo.com

Bernie Osborne mgoose@gci.net

Petersburg:

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Randy Lantiegne, Icicle Seafoods, RandyL@IcicleSeafoods.com

Gary Slaven gslaven@aptalaska.net

Max Worhatch mnmnwiv60@gmail.com

Andy Knight fvkathyk@hotmail.com

Julianne Curry, PVOA, pvoa@gci.net

John Jensen, BOF, omasou64@yahoo.com

Wrangell:

Stevie Thomassen

Yancey Nilsen

**Alaska Board of Fisheries
2002-214-FB**

**Charge to the Alaska Department of Fish and Game
and Southeast Alaska King and Tanner Crab Task Force**

The Alaska Board of Fisheries requests the Alaska Department of Fish and Game and the Southeast Alaska King and Tanner Crab Task Force work together to develop a draft Southeast Alaska Tanner Crab Management Plan and an associated suite of regulations for consideration by the board during the next Statewide King and Tanner Crab Board of Fisheries meeting. We understand that the department and the task force have discussed these issues during the March 2002 board meeting and have found agreement upon the current problems and short-term goals, as well as a vision statement for the fishery. Based upon these agreements, the board believes that a management plan and regulatory framework can be developed that will best achieve the goals and visions set out here. Additional time will also allow the department, in consultation with industry, to refine the Tanner crab stock assessment program and develop a longer time series that will allow quantitative assessment of the stock. Because the department is uncertain about the effects of the measures contained in Proposals 481 and 482A, the board believes the best course of action is for the department and industry to work together under guidelines set by the Board of Fisheries. While this plan is developed, the department will continue to manage the fishery in a conservative manner.

Following is an outline of the current fishery problems and a vision for the sustainable management of the Southeast Alaska Tanner crab fishery:

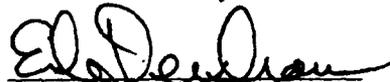
A management plan and associated regulations should address the following problems and goals:

- 1) Reduce fishing pressure in "core areas";
- 2) Reduce handling of females and sublegal males;
- 3) Develop the time and tools to allow for inseason management;
- 4) Develop an abundance based management plan with preseason guideline harvest levels (GHLs);
- 5) Continue a conservative management strategy until a new management plan is in place;
- 6) Maintain the concurrent season with golden king crab;
- 7) Continue and develop the stock assessment program in consultation with industry and communicate the goals and protocols of this program with the fleet.

The management plan and associated regulations should be compatible with a vision for the sustainable management of the Southeast Alaska Tanner crab fishery, outlined as follows:

- 1) Abundance based management by area with preseason GHLs, incorporating information about all stock segments;
- 2) Survey and stock assessment protocols in place that are understood by stakeholders;
- 3) Inseason management targeting specific area GHLs;
- 4) Follow the policies set out in the board's King and Tanner Crab Policy.

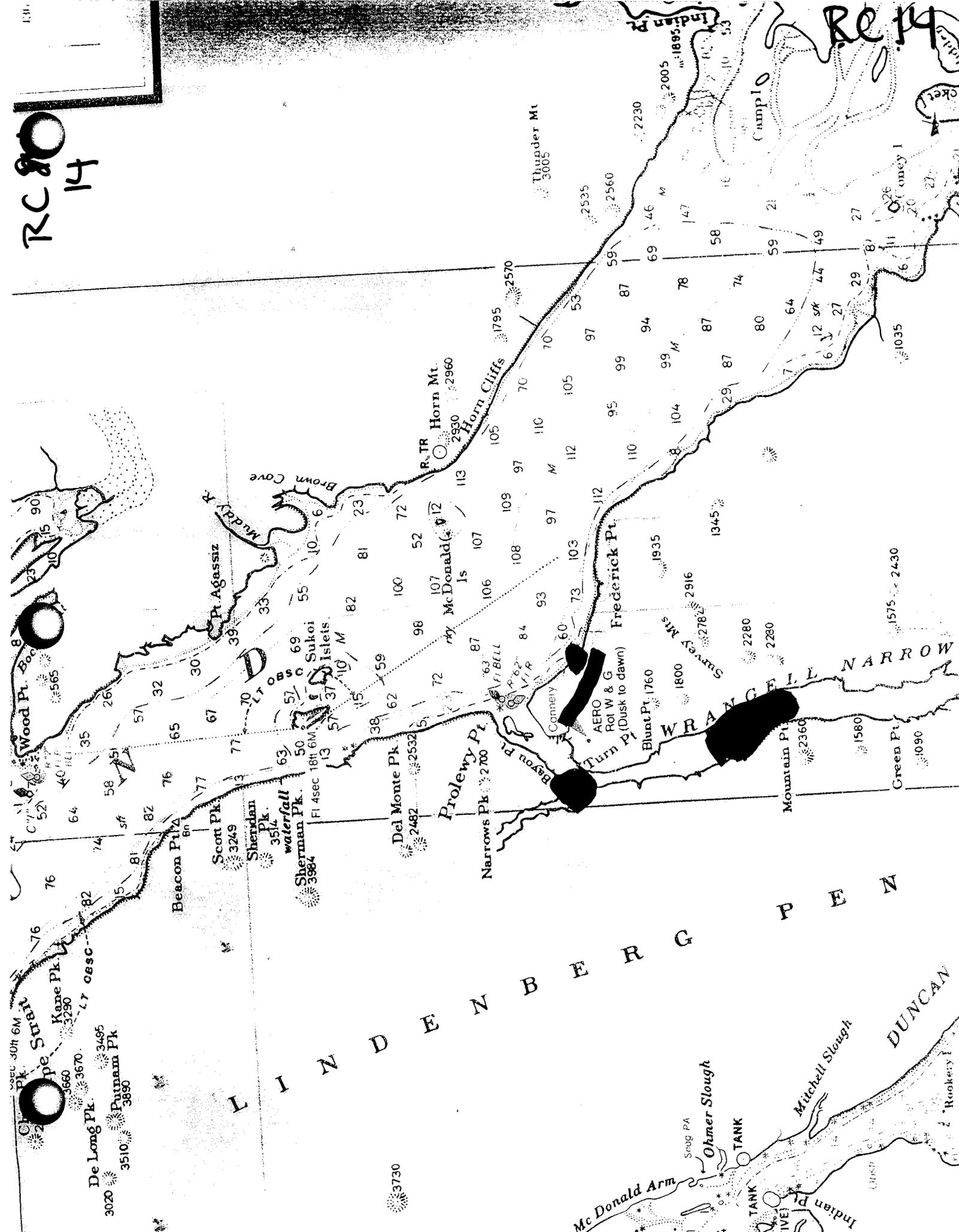
ADOPTED: March 21, 2002
Anchorage, Alaska


Ed Dersham, Chair
Alaska Board of Fisheries

VOTE: 6-0-1

RC 80
14

RE 14





UNITED FISHERMEN OF ALASKA

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Alaska Community Commercial Fishing and Seafood Processing Fact Sheets

A compilation of information on employment, income, and municipal revenue of selected Alaska cities, boroughs and census areas from information from State of Alaska and federal government sources. 2011 edition based on 2010 yearly data (2009 where 2010 is not available).

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Juneau, Alaska

Commercial Fishing and Seafood Processing Facts

JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Juneau City & Borough:

CFEC commercial fishing permit holders: **390**¹
 Total permits owned: **656**¹
 Permitholders who fished: **259**¹
 Commercial Crew license holders: **471**²
 Total Skippers who fished plus Crew in 2010: **730**^{1,2}
 Percentage of residents who fished: **2%**^{1,2,4}
 Vessels Home Ported: **748**³

Each of these individual small and family businesses represents investment, employment, and income in the Juneau City & Borough community.

Income:

Estimated 2010 ex-vessel income by Juneau-based fishermen: **\$21,451,996**¹

Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Juneau City & Borough benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009): **430**⁵
 Total processing wages: (2009): **\$ 3,958,266**⁵
 First wholesale value (2009): **\$39 million**⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists.

Government related jobs include Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries • Ted Stevens Marine Research Lab • Alaska Seafood Marketing Institute • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **16 million pounds**⁷ of seafood were landed in Juneau City & Borough for an estimated value of **\$23.8 million**⁷, and most of this was shipped or flown out, providing many more jobs.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes – **Juneau City and Borough** and the **State of Alaska** each received **\$298,863**⁸ in fishery business and landing taxes through the municipal tax-sharing program from Juneau City & Borough fisheries landings and businesses.

Footnotes - Sources:

1. Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: http://www.cfec.state.ak.us/gpbycen/2010_mnu.htm
2. Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.
3. Vessel home port numbers are from AK CFEC online at <http://www.cfec.state.ak.us/plook/>
4. 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dca_commdb/CF_COMMDB.htm
5. Processor Employment and Wages Data is from Alaska Department of Labor at <http://labor.alaska.gov/research/seafood/statewide/AKSFPBORca.pdf>
6. Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute
7. National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology: <http://www.st.nmfs.noaa.gov/st1/commercial/index.html>
8. Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: <http://www.tax.alaska.gov/programs/sourcebook/index.aspx>

Ketchikan City & Borough, Alaska

Commercial Fishing and Seafood Processing Facts

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JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Ketchikan City & Borough:

CFEC commercial fishing permit holders: 283¹

Total permits owned: 494¹

Permitholders who fished: 209¹

Commercial Crew license holders: 350²

Total Skippers who fished plus Crew in 2010: 559^{1,2}

Percentage of residents who fished: 4%^{1,2,4}

Vessels Home Ported: 364³

Each of these individual small and family businesses represents investment, employment, and income in the Ketchikan City & Borough community.

Income:

Estimated 2010 ex-vessel income by Ketchikan City & Borough-based fishermen: \$19,886,698¹

Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Ketchikan City & Borough benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009 -Borough): 1,274⁵

Total processing wages: (2009-Borough): \$ 12,094,919⁵

First wholesale value (2009 – Borough): \$91 million⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists. **Government related jobs include** Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **75.7 million pounds**⁷ of seafood were landed in Ketchikan City & Borough for an estimated value of **\$41.3 million**⁷, and most of this was shipped or flown out, providing many more jobs.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes – The **City of Ketchikan** received **\$277,158**, the **Ketchikan Gateway Borough** received **\$407,888**, and the State of Alaska received **\$685,046**⁸ in fishery business and landing taxes through the municipal tax-sharing program from Ketchikan City & Borough fisheries landings and businesses.

Footnotes - Sources:

1. Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: <http://www.cfec.state.ak.us/gpbycen/2010/mnu.htm>

2. Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.

3. Vessel home port numbers are from AK CFEC – online at <http://www.cfec.state.ak.us/plook/>

4. 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dca/comddb/CF_COMDB.htm

5. Processor Employment and Wages Data is from Alaska Department of Labor at <http://labor.alaska.gov/research/seafood statewide/AKSFPBorca.pdf>

6. Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute

7. National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology:

<http://www.st.nmfs.noaa.gov/stl/commercial/index.html>

8. Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: <http://www.tax.alaska.gov/programs/sourcebook/index.aspx>

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Petersburg, Alaska

Commercial Fishing and Seafood Processing Facts

JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Petersburg:

CFEC commercial fishing permit holders: 469¹
 Total permits owned: 1104¹
 Permitholders who fished: 367¹
 Commercial Crew license holders: 471²
 Total Skippers who fished plus Crew in 2010: 838^{1,2}
 Percentage of residents who fished: 28.4%^{1,2,4}
 Vessels Home Ported: 579³

Each of these individual small and family businesses represents investment, employment, and income in the Petersburg community.

Income:

Estimated 2010 ex-vessel income by Petersburg-based fishermen: \$51,222,064¹
 Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Petersburg benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009 – City of Petersburg): 1,030⁵
 Total processing wages: (2009- City of Petersburg): \$ 8,507,095⁵
 First wholesale value (2009 – Wrangell – Petersburg Census Area): \$90 million⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists.

Government related jobs include Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **49.9 million pounds**⁷ of seafood were landed in Petersburg for an estimated value of **\$36.3 million**⁷, and most of this was shipped or flown out, providing many more jobs.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes – **Petersburg** and the **State of Alaska** each received **\$605,220**⁸ in fishery business and landing taxes through the municipal tax-sharing program from Petersburg fisheries landings and businesses.

Footnotes - Sources:

1. Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: http://www.cfec.state.ak.us/gpbycen_2010_mnu.htm
2. Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.
3. Vessel home port numbers are from AK CFEC – online at <http://www.cfec.state.ak.us/plook/>
4. 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.decd.state.ak.us/dca/commdb/CF_COMMDB.htm
5. Processor Employment and Wages Data is from Alaska Department of Labor at <http://labor.alaska.gov/research/seafood/statewide/AKSFPBorca.pdf>
6. Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute
7. National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology: http://www.st.nmfs.noaa.gov/st1/commercial_index.html
8. Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: <http://www.tax.alaska.gov/programs/sourcebook/index.aspx>

Sitka, Alaska

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Commercial Fishing and Seafood Processing Facts

JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Sitka:

CFEC commercial fishing permit holders: **564**¹

Total permits owned: **1094**¹

Permitholders who fished: **457**¹

Commercial Crew license holders: **648**²

Total Skippers who fished plus Crew in 2010: **1,105**^{1,2}

Percentage of residents who fished: **12.4%**^{1,2,4}

Vessels Home Ported: **605**³

Each of these individual small and family businesses represents investment, employment, and income in the Sitka community.

Income:

Estimated 2010 ex-vessel income by Sitka-based fishermen: **\$40,151,347**¹

Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Sitka benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009): **900**⁵

Total processing wages: (2009): **\$ 10,639,043**⁵

First wholesale value (2009): **\$104 million**⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists. **Government related jobs include** Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **74.6 million pounds**⁷ of seafood were landed in Sitka for an estimated value of **\$62.2 million**⁷, and most of this was shipped or flown out, providing many more jobs.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes – **Sitka** and the **State of Alaska** each received **\$917,991**⁸ in fishery business and landing taxes through the municipal tax-sharing program from Sitka fisheries landings and businesses.

Footnotes - Sources:

1. Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: <http://www.cfec.state.ak.us/gpbycen/2010/mnu.htm>
2. Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.
3. Vessel home port numbers are from AK CFEC - online at <http://www.cfec.state.ak.us/plook/>
4. 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dca/commdb/CF_COMDB.htm
5. Processor Employment and Wages Data is from Alaska Department of Labor at http://labor.alaska.gov/research/seafood_statewide/AKSFPBorca.pdf
6. Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute
7. National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology: <http://www.st.nmfs.noaa.gov/st1/commercial/index.html>
8. Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: http://www.tax.alaska.gov/programs/sourcebook_index.aspx

Wrangell, Alaska

Commercial Fishing and Seafood Processing Facts

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JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Wrangell:

CFEC commercial fishing permit holders: 214¹
Total permits owned: 399¹
Permitholders who fished: 159¹
Commercial Crew license holders: 214²
Total Skippers who fished plus Crew in 2010: 373^{1,2}
Percentage of residents who fished: 15.7%^{1,2,4}
Vessels Home Ported: 212³

Each of these individual small and family businesses represents investment, employment, and income in the Wrangell community.

Income:

Estimated 2010 ex-vessel income by Wrangell-based fishermen: \$9,596,131¹
Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Wrangell benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs: 397⁵ (Wrangell)... 1427⁵ (Wrangell-Petersburg Census Area)
Total processing wages: (2009-Wrangell-Petersburg Census Area): \$ 11,237,650⁵
First wholesale value (2009-Wrangell-Petersburg Census Area): \$90 million⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists.

Government related jobs include Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **4.4 million pounds**⁷ of seafood were landed in Wrangell for an estimated value of **\$7.9 million**⁷, and most of this was shipped or flown out, providing many more jobs.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes –**Wrangell and the State of Alaska** each received **\$105,984**⁸ in fishery business and landing taxes through the municipal tax-sharing program from Wrangell fisheries landings and businesses.

Footnotes - Sources:

- Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: http://www.cfec.state.ak.us/gpbycen/2010_mnu.htm
- Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.
- Vessel home port numbers are from AK CFEC online at <http://www.cfec.state.ak.us/plook/>
- 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dea/commdb/CF_COMDB.htm
- Processor Employment and Wages Data is from Alaska Department of Labor at <http://labor.alaska.gov/research/seafood/statewide/AKSFPBorca.pdf>
- Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute
- National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology: http://www.st.nmfs.noaa.gov/st1/commercial_index.html
- Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: <http://www.tax.alaska.gov/programs/sourcebook/index.aspx>

Aleutians East Borough, Alaska

Commercial Fishing and Seafood Processing Facts

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JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Aleutians East Borough:

CFEC commercial fishing permit holders: 204¹

Total permits owned: 465¹

Permitholders who fished: 185¹

Commercial Crew license holders: 320²

Total Skippers who fished plus Crew in 2010: 505^{1,2}

Percentage of residents who fished: 16%^{1,2,4}

Vessels Home Ported: 324³

Each of these individual small and family businesses represents investment, employment, and income in the Aleutians East Borough community.

Income:

Estimated 2010 ex-vessel income by Aleutians East Borough-based fishermen: \$23,431,377¹

Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Aleutians East Borough benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009 -Borough): 3,059⁵

Total processing wages: (2009-Borough): \$ 49,816,701⁵

First wholesale value (2009 – Borough): \$377 million⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists. **Government related jobs include** Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

Seafood is the primary export of Alaska coastal communities, providing hundreds of transportation jobs throughout the state.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes – **Aleutians East cities** received \$1.3 million, the **Borough** received \$1.6 million and the **State of Alaska** received \$2,972,542⁸ in fishery business and landing taxes through the municipal tax-sharing program from Aleutians East Borough fisheries landings and businesses.

Footnotes - Sources:

1. Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: <http://www.cfec.state.ak.us/gpbycen/2010/mnu.htm>

2. Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.

3. Vessel home port numbers are from AK CFEC – online at <http://www.cfec.state.ak.us/plook/>

4. 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dea/commdb/CF_COMDB.htm

5. Processor Employment and Wages Data is from Alaska Department of Labor at http://labor.alaska.gov/research/seafood_statewide/AKSFPBorca.pdf

6. Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute

7. National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology: <http://www.st.nmfs.noaa.gov/st1/commercial/index.html> (not available for Aleutians East Borough)

8. Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: http://www.tax.alaska.gov/programs/sourcebook_index.aspx

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Anchorage, Alaska

Commercial Fishing and Seafood Processing Facts

JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Anchorage:

CFEC commercial fishing permit holders: 788¹
 Total permits owned: 967¹
 Permitholders who fished: 496¹
 Commercial Crew license holders: 1,307²
 Total Skippers who fished plus Crew in 2010: 1,803^{1,2}
 Rank among Alaska cities for total skippers & crew fishing: #1^{1,2}
 Vessels Home Ported: 132³

Each of these individual small and family businesses represents investment, employment, and income in the Anchorage community.

Income:

Estimated 2010 ex-vessel income by Anchorage-based fishermen: \$43,342,138¹
 Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Anchorage benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs: 630⁵
 Total processing wages: \$ 5,816,664⁵
 First wholesale value: \$13 million⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists.

Government related jobs include Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **7 million pounds⁷** of seafood were landed in Anchorage for an estimated value of **\$9.5 million⁷**, and most of this was shipped or flown out, providing many more jobs.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes – **Anchorage** and the State of Alaska each received **\$143,049⁸** in fishery business and landing taxes through the municipal tax-sharing program from Anchorage fisheries landings and businesses.

Footnotes - Sources:

- Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: http://www.cfec.state.ak.us/gpbycen/2010_mnu.htm
- Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.
- Vessel home port numbers are from AK CFEC – online at <http://www.cfec.state.ak.us/plook/>
- 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dca/commdb/CF_COMDB.htm
- Processor Employment and Wages Data is from Alaska Department of Labor at <http://labor.alaska.gov/research/seafood/statewide/AKSFPBorca.pdf>
- Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute
- National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology: http://www.st.nmfs.noaa.gov/stl/commercial_index.html
- Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: <http://www.tax.alaska.gov/programs/sourcebook/index.aspx>

Bristol Bay Borough, Alaska

Commercial Fishing and Seafood Processing Facts

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JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Bristol Bay Borough:

CFEC commercial fishing permit holders: 163¹
Total permits owned: 183¹
Permitholders who fished: 140¹
Commercial Crew license holders: 162²
Total Skippers who fished plus Crew in 2010: 302^{1,2}
Percentage of residents who fished: 30%^{1,2,4}
Vessels Home Ported: 323³

Each of these individual small and family businesses represents investment, employment, and income in the Bristol Bay Borough community.

Income:

Estimated 2010 ex-vessel income by Bristol Bay Borough-based fishermen: \$551,888¹

Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Bristol Bay Borough benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009 -Borough): 3,093⁵
Total processing wages: (2009-Borough): \$ 20,611,835⁵
First wholesale value (2009 – Borough): \$161 million⁵

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists.

Government related jobs include Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **124.1 million pounds⁷** of seafood were landed in the Bristol Bay Area for an estimated value of **\$100.9 million⁷**, and most of this was shipped or flown out, providing many more jobs.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes – **Bristol Bay Borough** and the **State of Alaska** each received **\$1,796,505⁸** in fishery business and landing taxes through the municipal tax-sharing program from Bristol Bay Borough fisheries landings and businesses.

Footnotes - Sources:

- Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: <http://www.cfec.state.ak.us/gpbycen/2010/mnu.htm>
- Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.
- Vessel home port numbers are from AK CFEC – online at <http://www.cfec.state.ak.us/plook/>
- 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dca/commdb/CF_COMDB.htm
- Processor Employment and Wages Data is from Alaska Department of Labor at http://labor.alaska.gov/research/seafood_statewide/AKSFPBorca.pdf
- Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute
- National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology: <http://www.st.nmfs.noaa.gov/st1/commercial/index.html>
- Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: http://www.tax.alaska.gov/programs/sourcebook_index.aspx

Cordova, Alaska

Commercial Fishing and Seafood Processing Facts

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JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Cordova:

CFEC commercial fishing permit holders: 338¹
Total permits owned: 595¹
Permitholders who fished: 298¹
Commercial Crew license holders: 312²
Total Skippers who fished plus Crew in 2010: 610^{1,2}
Percentage of residents who fished: 27.2%^{1,2,4}
Vessels Home Ported: 663³

Each of these individual small and family businesses represents investment, employment, and income in the Cordova community.

Income:

Estimated 2010 ex-vessel income by Cordova-based fishermen: \$52,731,434¹
Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Cordova benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009 –Cordova-Valdez Census Area): 1,663⁵
Total processing wages: (2009 –Cordova-Valdez Census Area): \$16,989,536⁵
First wholesale value (2009 –Cordova-Valdez Census Area): \$125 million⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists. **Government related jobs include** Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **147.7 million pounds**⁷ of seafood were landed in Cordova for an estimated value of **\$84.3 million**⁷, and most of this was shipped or flown out, providing many more jobs.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes – **The City of Cordova and the State of Alaska each received \$757,961**⁸ in fishery business and landing taxes through the municipal tax-sharing program from Cordova fisheries landings and businesses.

Footnotes - Sources:

- Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: http://www.cfec.state.ak.us/gpbycen/2010_mnu.htm
- Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.
- Vessel home port numbers are from AK CFEC – online at <http://www.cfec.state.ak.us/plook/>
- 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dea_commdb/CF_COMMDB.htm
- Processor Employment and Wages Data is from Alaska Department of Labor at <http://labor.alaska.gov/research/seafood/statewide/AKSPBorca.pdf>
- Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute
- National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology: http://www.st.nmfs.noaa.gov/st1/commercial_index.html
- Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: <http://www.tax.alaska.gov/programs/sourcebook/index.aspx>

Dillingham, Alaska

Commercial Fishing and Seafood Processing Facts

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JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Dillingham:

CFEC commercial fishing permit holders: **610**¹

Total permits owned: **772**¹

Permitholders who fished: **380**¹

Commercial Crew license holders: **687**²

Total Skippers who fished plus Crew in 2010: **1,067**^{1,2}

Percentage of residents who fished: **22.3%**^{1,2,4}

Vessels Home Ported: **394**³

Each of these individual small and family businesses represents investment, employment, and income in the Dillingham community.

Income:

Estimated 2010 ex-vessel income by Dillingham-based fishermen: **\$5,259,935**¹

Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Dillingham benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009 –Dillingham Census Area): **919**⁵

Total processing wages: (2009- Dillingham Census Area): **\$ 6,441,357**⁵

First wholesale value (2009 – Dillingham Census Area): **\$51 million**⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists.

Government related jobs include Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes – the Dillingham Census Area and the State of Alaska each received **\$339,973**⁸ in fishery business and landing taxes through the municipal tax-sharing program from Dillingham fisheries landings and businesses.

Footnotes - Sources:

1. Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: <http://www.cfec.state.ak.us/gpbycen/2010/mnu.htm>
2. Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.
3. Vessel home port numbers are from AK CFEC – online at <http://www.cfec.state.ak.us/plook/>
4. 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dca/commdb/CF_COMDB.htm
5. Processor Employment and Wages Data is from Alaska Department of Labor at http://labor.alaska.gov/research/seafood_statewide/AKSFPBORca.pdf
6. Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute
7. National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology: http://www.st.nmfs.noaa.gov/st1/commercial_index.html (not available for Dillingham)
8. Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: http://www.tax.alaska.gov/programs/sourcebook_index.aspx

Homer, Alaska

Commercial Fishing and Seafood Processing Facts

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JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Homer:

CFEC commercial fishing permit holders: 575¹
Total permits owned: 1047¹
Permitholders who fished: 424¹
Commercial Crew license holders: 632²
Total Skippers who fished plus Crew in 2010: 1,056^{1,2}
Percentage of residents who fished: 21.1%^{1,2,4}
Vessels Home Ported: 493³

Each of these individual small and family businesses represents investment, employment, and income in the Homer community.

Income:

Estimated 2010 ex-vessel income by Homer-based fishermen – includes deliveries statewide: **\$77,242,343¹**
Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Homer benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009 - Kenai Peninsula Borough): **1,846⁵**
Total processing wages (2009 - Kenai Peninsula Borough): **\$ 11,590,049⁵**
First wholesale value (2009 - Kenai Peninsula Borough): **\$151 million⁶**

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists.

Government related jobs include Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **19.9 million pounds⁷** of seafood were landed in Homer for an estimated value of **\$56.1 million⁷**, and most of this was shipped or flown out, providing many more support sector jobs.

REVENUE to the State and Community through Fishery Taxes...

FY 2010 Shared taxes – The city of **Homer** received **\$74,283**, **Kenai Peninsula Borough** received **\$622,268**, and the **State of Alaska** received **\$1,149,746⁸** in fishery business and landing taxes through the municipal tax-sharing program from Homer and Kenai Borough fisheries landings and businesses.

Footnotes - Sources:

- Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: http://www.cfec.state.ak.us/gpbycen/2010_mnu.htm
- Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.
- Vessel home port numbers are from AK CFEC online at <http://www.cfec.state.ak.us/plook/>
- 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dca/commdb/CF_COMDB.htm
- Processor Employment and Wages Data is from Alaska Department of Labor at <http://labor.alaska.gov/research/seafood/statewide/AKSFPBorea.pdf>
- Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute
- National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology: http://www.st.nmfs.noaa.gov/st/commercial_index.html
- Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: <http://www.tax.alaska.gov/programs/sourcebook/index.aspx>

Kenai, Alaska

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Commercial Fishing and Seafood Processing Facts

JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Kenai:

CFEC commercial fishing permit holders: 226¹

Total permits owned: 280¹

Permitholders who fished: 161¹

Commercial Crew license holders: 292²

Total Skippers who fished plus Crew in 2010: 453^{1,2}

Percentage of residents who fished: 6.4%^{1,2,4}

Vessels Home Ported: 164³

Each of these individual small and family businesses represents investment, employment, and income in the Kenai community.

Income:

Estimated 2010 ex-vessel income by Kenai-based fishermen: \$10,113,036¹

Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Kenai benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009 - Kenai Peninsula Borough): 1,846⁵

Total processing wages: (2009 - Kenai Peninsula Borough) \$ 11,590,049⁵

First wholesale value (2009 - Kenai Peninsula Borough): \$151 million⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists. **Government related jobs include** Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **21.2 million pounds**⁷ of seafood were landed in Kenai for an estimated value of **\$25.1 million**⁷, and most of this was shipped or flown out, providing many more jobs.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes – The **City of Kenai** received **\$148,581**, the **Kenai Peninsula Borough** received **\$622,268**, and the **State of Alaska** received **\$1,149,746**⁸ in fishery business and landing taxes through the municipal tax-sharing program from Kenai and Kenai Peninsula Borough fisheries landings and businesses.

Footnotes - Sources:

1. Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: <http://www.cfec.state.ak.us/gpbycen/2010-mnu.htm>

2. Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.

3. Vessel home port numbers are from AK CFEC – online at <http://www.cfec.state.ak.us/plook/>

4. 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dca/commdb/CF_COMDB.htm

5. Processor Employment and Wages Data is from Alaska Department of Labor at http://labor.alaska.gov/research/seafood_statewide/AKSFPBorca.pdf

6. Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute

7. National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology:

http://www.st.nmfs.noaa.gov/st1/commercial_index.html

8. Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: http://www.tax.alaska.gov/programs/sourcebook_index.aspx

Kenai Peninsula Borough, Alaska

Commercial Fishing and Seafood Processing Facts

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JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Kenai Peninsula Borough:

CFEC commercial fishing permit holders: 1,428¹

Total permits owned: 2,203¹

Permitholders who fished: 1,024¹

Commercial Crew license holders: 1,659²

Total Skippers who fished plus Crew in 2010: 2,683^{1,2}

Rank among Alaska Boroughs and Census Areas for total permit holders: #1⁶

Vessels Home Ported: 981³

Each of these individual small and family businesses represents investment, employment, and income in the Kenai Peninsula Borough community.

Income:

Estimated 2010 ex-vessel income by Kenai Peninsula Borough-based fishermen: \$122,140,353¹

Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Kenai Peninsula Borough benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009): 1,846⁵

Total processing wages: (2009): \$ 11,590,049⁵

Percentage of Alaska resident seafood processing jobs in Kenai Peninsula Borough (2009): 46.6%⁵

Percentage of seafood processing wages paid to Alaska resident seafood processing workers in K.P. Borough: 51.2%⁵

First wholesale value (2009): \$151 million⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists. **Government related jobs include** Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **124.1 million pounds**⁷ of seafood were landed in the Kenai Peninsula Area for an estimated value of **\$100.9 million**⁷, and most of this was shipped or flown out, providing many more jobs.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes – **Kenai Peninsula Borough** and the **State of Alaska** each received **\$1,796,505**⁸ in fishery business and landing taxes through the municipal tax-sharing program from Kenai Peninsula Borough fisheries landings and businesses.

Footnotes - Sources:

1. Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: http://www.cfec.state.ak.us/gpbycen/2010_mnu.htm

2. Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.

3. Vessel home port numbers are from AK CFEC – online at <http://www.cfec.state.ak.us/plook/>

4. 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dca/commdb/CF_COMMDB.htm

5. Processor Employment and Wages Data is from Alaska Department of Labor at <http://labor.alaska.gov/research/seafood/statewide/AKSFPBorea.pdf>

6. Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute

7. National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology: <http://www.st.nmfs.noaa.gov/st1/commercial/index.html>

8. Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: <http://www.tax.alaska.gov/programs/sourcebook/index.aspx>

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Commercial Fishing and Seafood Processing Facts

JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Kodiak (includes Kodiak Island Borough):

CFEC commercial fishing permit holders: 592¹

Total permits owned: 1324¹

Permitholders who fished: 458¹

Commercial Crew license holders (does not include CFEC permitholders who crewed): 961²

Total Skippers who fished plus Crew in 2010: 1,419^{1,2}

Percentage of residents who fished: 10%^{1,2,4}

Vessels Home Ported: 622³

Each of these individual small and family businesses represents investment, employment, and income in the Kodiak community.

Income:

Estimated 2010 ex-vessel income by Kodiak-based fishermen: \$126,918,455¹

Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Kodiak benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009 -Borough): 2,936⁵

Total processing wages: (2009-Borough): \$ 41,068,725⁵

First wholesale value (2009 – Borough): \$261 million⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists. **Government related jobs include** Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **325.3⁷ million pounds** of seafood were landed in Kodiak for an estimated value of **\$128.1 million⁷**, and most of this was shipped or flown out, providing many more jobs.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes – **The City of Kodiak received \$740,960, Kodiak Island Borough received \$1,046,401** and the **State of Alaska received \$1,875,076⁸** in fishery business and landing taxes through the municipal tax-sharing program from Kodiak Island fisheries landings and businesses.

Footnotes - Sources:

1. Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: <http://www.cfec.state.ak.us/gpbycen/2010/mnu.htm>

2. Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.

3. Vessel home port numbers are from AK CFEC – online at <http://www.cfec.state.ak.us/plook/>

4. 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dca/commdb/CF_COMDB.htm

5. Processor Employment and Wages Data is from Alaska Department of Labor at http://labor.alaska.gov/research/seafood_statewide/AKSFPBorca.pdf

6. Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute

7. National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology:

<http://www.st.nmfs.noaa.gov/st1/commercial/index.html>

8. Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: http://www.tax.alaska.gov/programs/sourcebook_index.aspx

Lake & Peninsula Borough, Alaska

Commercial Fishing and Seafood Processing Facts

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JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Lake & Peninsula Borough:

CFEC commercial fishing permit holders: 147¹
Total permits owned: 191¹
Permitholders who fished: 113¹
Commercial Crew license holders: 220²
Total Skippers who fished plus Crew in 2010: 333^{1,2}
Percentage of residents who fished: 20.8%^{1,2,4}
Vessels Home Ported: 153³

Each of these individual small and family businesses represents investment, employment, and income in the Lake & Peninsula Borough community.

Income:

Estimated 2010 ex-vessel income by Lake & Peninsula Borough-based fishermen: **\$10,420,448¹**
Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Lake & Peninsula Borough benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009 -Borough): 523⁵
Total processing wages: (2009-Borough): \$ 4,132,173⁵
First wholesale value (2009 – Borough): \$38 million⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists. **Government related jobs include** Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

Seafood is the primary export of Alaska coastal communities, providing hundreds of transportation jobs throughout the state.

REVENUE to the State and Community through Fishery Taxes...

FY 2010 Shared taxes – **Lake and Peninsula Borough** received **\$214,796** and the **State of Alaska** received **\$382,879⁸** in fishery business and landing taxes through the municipal tax-sharing program from Lake & Peninsula Borough fisheries landings and businesses.

Footnotes - Sources:

1. Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: http://www.cfec.state.ak.us/gpbycen/2010_mnu.htm
2. Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.
3. Vessel home port numbers are from AK CFEC – online at <http://www.cfec.state.ak.us/plook/>
4. 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dca_commdb/CF_COMDB.htm
5. Processor Employment and Wages Data is from Alaska Department of Labor at <http://labor.alaska.gov/research/seafood/statewide/AKSFPBorca.pdf>
6. Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute
7. National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology: http://www.st.nmfs.noaa.gov/st1/commercial_index.html (not available for Lake & Peninsula Borough)
8. Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: <http://www.tax.alaska.gov/programs/sourcebook/index.aspx>

Seward, Alaska

Commercial Fishing and Seafood Processing Facts

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JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Seward:

CFEC commercial fishing permit holders: 62¹
Total permits owned: 118¹
Permitholders who fished: 43¹
Commercial Crew license holders: 118²
Total Skippers who fished plus Crew in 2010: 161^{1,2}
Percentage of residents who fished: 6%^{1,2,4}
Vessels Home Ported: 88³

Each of these individual small and family businesses represents investment, employment, and income in the Seward community.

Income:

Estimated 2010 ex-vessel income by Seward-based fishermen: \$10,746,450¹
Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Seward benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009 - Kenai Peninsula Borough): 1,846⁵
Total processing wages: (2009 - Kenai Peninsula Borough): \$ 11,590,049⁵
First wholesale value (2009 - Kenai Peninsula Borough): \$151 million⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists. **Government related jobs include** Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Life Center • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **75.4 million pounds**⁷ of seafood were landed in Seward for an estimated value of **\$69.2 million**⁷, and most of this was shipped or flown out, providing many more jobs.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes – The **City of Seward** received \$298,316⁸, the **Kenai Peninsula Borough** received \$622,268⁸, and the **State of Alaska** received \$1,149,746⁸ in fishery business and landing taxes through the municipal tax-sharing program from Seward and Kenai Peninsula Borough fisheries landings and businesses.

Footnotes - Sources:

1. Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: <http://www.cfec.state.ak.us/gpbycen/2010/mnu.htm>
2. Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.
3. Vessel home port numbers are from AK CFEC – online at <http://www.cfec.state.ak.us/plook/>
4. 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dca/commdb/CF_COMDB.htm
5. Processor Employment and Wages Data is from Alaska Department of Labor at http://labor.alaska.gov/research/seafood_statewide/AKSFPBorca.pdf
6. Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute
7. National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology: <http://www.st.nmfs.noaa.gov/st1/commercial/index.html>
8. Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: http://www.tax.alaska.gov/programs/sourcebook_index.aspx

Unalaska - Dutch Harbor & Aleutians West Borough, Alaska Commercial Fishing and Seafood Processing Facts

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JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Unalaska - Dutch Harbor - Aleutians West Borough:

CFEC commercial fishing permit holders: 21¹

Total permits owned: 38¹

Permitholders who fished: 19¹

Commercial Crew license holders: 73²

Total Skippers who fished plus Crew in 2010: 92^{1,2}

Percentage of residents who fished: 1.7%^{1,2,4}

Vessels Home Ported: 30³

Each of these individual small and family businesses represents investment, employment, and income in the Unalaska - Dutch Harbor and Aleutians West Borough community.

Income:

Estimated 2010 ex-vessel income by Unalaska - Dutch Harbor - Aleutians West Borough-based fishermen: \$3,283,682¹

Earnings generated from commercial fishing circulated in the local economy through property and sales taxes, purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Unalaska - Dutch Harbor and Aleutians West Borough benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009 -total for Borough): 3313⁵

Total processing wages: (2009-Borough): \$ 55,434,469⁵

First wholesale value (2009 - Borough): \$360 million⁶

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists. **Government related jobs include** Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

TRANSPORTATION JOBS AND BENEFITS

In 2010, **515.2 million pounds**⁷ of seafood were landed in Unalaska - Dutch Harbor & Aleutians West Borough for an estimated value of **\$163.1 million**⁷, and most of this was shipped or flown out, providing many more jobs.

REVENUE to the State and Community through Fishery Taxes ...

FY 2010 Shared taxes -Unalaska received \$6.1 million, St. Paul received \$758,340, and the State of Alaska received \$6,953,153⁸ in fishery business and landing taxes through the municipal tax-sharing program from Unalaska - Dutch Harbor & Aleutians West Borough fisheries landings and businesses.

Footnotes - Sources:

1. Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at: http://www.cfec.state.ak.us/gpbycen/2010_mnu.htm

2. Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.

3. Vessel home port numbers are from AK CFEC - online at <http://www.cfec.state.ak.us/plook/>

4. 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at: http://www.dced.state.ak.us/dea/commdb/CF_COMDB.htm

5. Processor Employment and Wages Data is from Alaska Department of Labor at <http://labor.alaska.gov/research/seafood/statewide/AKSFPBorca.pdf>

6. Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute

7. National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology:

http://www.st.nmfs.noaa.gov/st1/commercial_index.html

8. Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: <http://www.tax.alaska.gov/programs/sourcebook/index.aspx>

Wasilla, Palmer & Mat-Su Borough, Alaska

Commercial Fishing and Seafood Processing Facts

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JOBS - FISHING

Permit holders, Crew and Vessels (2010) in Wasilla - Palmer -Mat-Su Borough:

CFEC commercial fishing permit holders: 301¹

Total permits owned: 375¹

Permitholders who fished: 213¹

Commercial Crew license holders: 405²

Total Skippers who fished plus Crew in 2010: 618^{1,2}

Rank among Alaska census areas for total skippers & crew fishing: #11⁶

Vessels Home Ported: 28³

Each of these individual small and family businesses represents investment, employment, and income in the Wasilla - Palmer -Mat-Su Borough community.

Income:

Estimated 2010 ex-vessel income by Wasilla - Palmer -Mat-Su Borough-based fishermen: **\$14,694,432¹**

Earnings generated from commercial fishing circulated in the local economy through property and sales taxes; purchases of homes, rentals, hotels, electricity, entertainment, fuel, vehicles, food, repair and maintenance parts, transportation, travel, medical, and other services. **Virtually every business in Wasilla - Palmer -Mat-Su Borough benefits from commercial fishing dollars.**

JOBS - PROCESSING

Seafood processing jobs (2009 -Borough): 35⁵

Total processing wages: (2009-Borough): **\$ 168,160⁵**

...AND MORE JOBS

In addition to direct harvester and processor workers, fisheries related jobs include fuel, accountants, consultants, air and water travel, hardware and marine repair and supply businesses, advocacy and marketing organizations, air cargo crew, freight agents, and scientists.

Government related jobs include Alaska Department of Fish and Game • Fish and Wildlife Protection/Alaska Department of Public Safety • Docks and Harbors • Alaska State Troopers • United States Coast Guard • University of Alaska School of Fisheries, • Alaska Sea Grant Marine Advisory program, and more.

REVENUE to the State through Fishery Taxes-

The State general fund received over **\$16 million⁸** in its share of fishery business and landings taxes in 2010, and seafood industry contributions totaled over **\$70 million⁸**. The seafood industry is second only to oil & gas in revenue generated to the State (2010).

Footnotes - Sources:

1. Commercial fishing permit activity, estimated harvest and earnings by permit holders are from AK Commercial Fishery Entry Commission (CFEC) at:

<http://www.cfec.state.ak.us/gpbycen/2010/mnu.htm>

2. Crew numbers are from Alaska Department of Fish and Game 2010 Crew license list, and is the number of individuals who list their address in a given city.

3. Vessel home port numbers are from AK CFEC – online at <http://www.cfec.state.ak.us/plook/>

4. 2010 Population figures used to calculate percentage of resident skippers who fished plus crew is from DCCED AK Community Information Database online at:

http://www.dced.state.ak.us/dca/commdb/CF_COMDB.htm (this source not used in this sheet).

5. Processor Employment and Wages Data is from Alaska Department of Labor at <http://labor.alaska.gov/research/seafood/statewide/AKSFPBorca.pdf>

6. Processor 1st wholesale value by Census Area 2009 provided by Alaska Seafood Marketing Institute

7. National rank and NOAA total landings and value for selected ports is from NOAA Fisheries - Office of Science & Technology:

<http://www.st.nmfs.noaa.gov/st1/commercial/index.html>

8. Revenue figures from 2010 AK Dept of Revenue Shared Taxes report: <http://www.tax.alaska.gov/programs/sourcebook/index.aspx>

RC 16



UNITED FISHERMEN OF ALASKA

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January 13, 2012

ATTN: BOF COMMENTS
Alaska Department of Fish and Game
Boards Support Section
PO Box 115526
Juneau, AK 99811-5526

RE: Comment on Southeast Shellfish Proposals

Dear Chairman Johnstone and Board of Fisheries Members,

United Fishermen of Alaska (UFA) is the largest statewide commercial fishing trade association, representing 37 commercial fishing organizations participating in fisheries throughout the state and its offshore federal waters. UFA supports access by the public to Alaskan's seafood resources through commercial fisheries, with the largest proportion of users obtaining their seafood through retail and restaurant channels supplied through sustainable commercial fisheries.

In general, our comments are based on the need for well-documented scientific basis assessment of the economic effects for proposals that would restrict or eliminate commercial fishing access. To help illustrate the impact of commercial fisheries to Southeast and Alaska communities, we are separately providing Board members with copies of our Community Commercial Fishing and Seafood Processing Fact Sheets of statistics on fishing and processing jobs, income, and shared municipal revenue from State of Alaska and Federal government sources (also online at <http://www.ufa-fish.org/cff.htm>).

We offer the following comments on selected proposals before the Board of Fisheries at its Southeast Shellfish meeting, beginning January 15, 2012.

#141 – UFA opposes this proposal to create a Marine Conservation Zone near Cache Island and close bottom fishing and shellfish to all users. The closing off of access by the public for conservation purposes should be done only with very well documented scientific basis and careful study of the need, benefits, and impacts on all users. We do not believe that this proposal is warranted by the information provided.

#142-144 – UFA opposes these proposals to close bottomfishing and shellfish to all non-residents and establish Marine Conservation Zones in the Behm Canal, Naha Bay, and Cedar Island areas, for the same reasons as #141 above. These proposals are re-allocations that

would restrict access without adequate research on the benefits to the resources, or effects on users and local communities.

#148 - UFA opposes this proposal that would close District 11-A (around Juneau) to commercial red king crab fishing. The current 60-40 split between personal use and commercial participants provides for public access to the red king crab resource when available biomass permits harvest, through local retail sellers. The proposal is an arbitrary reallocation to a restricted user group without scientific basis, economic justification, or demonstrated need.

Proposals 160 -164 - UFA opposes these proposals that would close waters to commercial Dungeness crab fishing. These proposals also are arbitrary re-allocations of the public resource to a far more limited subset of users. There is not a demonstrated scientific basis for eliminating commercial fishing for Dungeness crab in these areas, and there are already many waters close to Juneau where commercial crab fishing has been closed that are available to local Juneau personal use participants.

#140 While UFA does not have explicit support for this proposal, and we acknowledge that the proposal calls for ADF&G to implement a new program without the benefit of assured funding, we strongly support accurate and timely accounting of all species harvests, as a prerequisite to sustainable fisheries management.

Thank you for your consideration, and for your public service as a Board of Fisheries member.

Sincerely,



Armi Thomson
President

January 13, 2012

To Whom It May Concern,

This letter is to authorize Yancey Nilsen to act on my behalf at the upcoming Board of Fish meetings in Petersburg dealing with shellfish in Southeast Alaska, as I will be absent. He will be withdrawing BOF proposals 159 and 160. These proposals were initially proposed by the King and Tanner Task Force at the last cycle. They were sent to the restructuring committee and automatically put back in this cycle. There is contention within the fleet regarding both these proposals (as there was at the last cycle) and the King and Tanner Task Force would like to completely withdraw them.

Thank you for your time,

John Barry, King and Tanner Task Force Chair

pillarbay@gmail.com

January 15, 2012

To: Board of Fisheries

From: Gerry Merrigan, Petersburg, AK

Re: Analysis of ADF&G staff comments on Proposal 154 (prohibition on square pots in SE brown (golden) king crab fishery)

ADF&G comments on this proposal are stated to be NEUTRAL. However, ADF&G Shellfish staff also chose to provide the following data:

"Between 2007 and 2011, observers in the Southeast golden king crab sampled 1185 pots and observed 11 halibut in those pots. Forty one of the pots sampled between 2007 and 2011 were square pots and did not contain halibut."

And then apparently based on the above, the ADF&G staff comments conclude:

"It is unlikely that adoption of this proposal would result in a measurable reduction in halibut bycatch mortality in the Southeast Alaska golden king crab fishery."

This is a curious conclusion by ADF&G that eliminating squares will have little effect on reducing halibut mortality. This conclusion appears to be based on observation of 41 square pot lifts – out of 54,242 total pot lifts in the SE golden king crab fishery over five seasons (2007-2011). The 41 observed pot lifts of squares represents a sample size of **0.076%** of total effort for five seasons across seven management areas.

ADF&G comments may reflect that the observed halibut bycatch in the fishery is low – regardless of gear type, but unfortunately the small data sample and conclusion infers that squares do not catch significantly more halibut than cones. It is also unknown if the IPHC will consider these observations a valid sample - based on a 2.2% sample of effort – and with only a very small portion of these observations being of square pot lifts.

The conclusion in the staff comments is in direct contrast to a previous joint IPHC/ADF&G study. The IPHC/ADF&G study was conducted in SE Alaska (Yakutat) and found that the halibut bycatch rate in side-loading square pots was **36 times** higher than that of top-loading pots (cones). This study conducted 257 observed pot lifts of which 163 were with square pots (or 63%). The pots were fished systematically in an alternately spaced grid pattern to compare the two gear types – as well as having consistent soak times and bait. In the direct comparison study of the two gear types (Experiment 1), side-loading squares caught 140 halibut and top-loading gear caught 4 halibut.

The study concluded, *"Side-Entry Pots versus Top-Entry Pots: The results from Experiment 1 clearly show a much higher incidence rate of halibut in side-entry pots [squares] than in top entry pots [cones]; the overall number caught per pot lift was 1.43 (+ or - 0.11) for side-entry*

pots; compared to 0.04 (+ or - 0.02) for top entry pots. The average size halibut was lower for top entry pots (6.0 pounds versus 16.1 pounds) but the sample size (four fish) was small. The analysis of the variance tests showed that top-entry pots caught significantly fewer halibut on each of the five days of the experiment, a definite indication that the catch rate of halibut is much lower in top-entry pots than in side-entry pots."

Now consider what ADF&G staff apparently based its conclusion upon (41 observed square pot lifts in five years in the SE GKC fishery, 2007-2011):

- According to Table 3.12 of the management report, between 2007 and 2011, there were 54,242 pot lifts in the SEAK GKC fishery – of which 1185 (or **2.2%**) were observed.
- Of the 1185 pot lifts observed over five seasons, only 41 of the observations were of square pots (or **3.46%**).
- For the five year period, the observed square pot lifts (41) represent **0.076%** of the total pot lifts in the SE GKC fishery for the same period (2007-2011).
- ADF&G observed an average of 8.2 square pot lifts per year and that represents **0.076%** of the total pot lifts in the SE GKC fishery for the same period (2007-2011 avg.)

In contrast, the IPHC/ADF&G study reached the opposite conclusion of the ADF&G comments:

- The IPHC/ADF&G study observed four times (163) as many square pot lifts in one week than ADF&G observed over five years (41 observed square pot lifts).
- In the IPHC/ADF&G study, **63%** of the observed pot lifts were of square pots. In the ADF&G observations, only **3.46%** of the observed pot lifts were squares.
- The pots in the IPHC/ADF&G study were fished systematically in a grid pattern for direct scientific comparison with uniform baiting and soak times.
- ADF&G observations in the commercial fishery are opportunistic sampling and do not reflect direct comparisons of cone and square pots being fished systematically with consistency as to location, baiting, and soak times. Observations are spread over seven GKC management areas over five years.
- The IPHC/ADF&G study provides a standard error analysis with its conclusions. The data provided in the ADF&G staff comments provides no error analysis or variance.

It is not clear why ADF&G chose not to examine the relative halibut bycatch rates by cone and square gear in the SE red king crab survey (which is conducted in the summer when halibut are shallow, while the fishery is in the winter when halibut are much deeper). For over 20+ years the RKC survey was conducted with squares but has now changed over to cone gear in recent years.

Again, I would urge the BOF to take action to place a moratorium on squares in the GKC fishery and phase out the squares currently in use. I would also urge the BOF to request the IPHC to revise their longstanding estimate (303,000 net pounds per year) of halibut bycatch in the SE crab pot fisheries. These crab pot fisheries are under the authority and responsibility of the BOF. This IPHC bycatch estimate has remained unchanged for these SE fisheries since 1987 (and represents 25 years or 7.5 M net pounds of halibut bycatch).

Gerry Merrigan, Petersburg, Alaska