



ALASKA DEPARTMENT OF FISH AND GAME

DIVISION OF COMMERCIAL FISHERIES

MEMORANDUM

TO: Steve Honnold
Westward Region Supervisor
Commercial Fisheries Division
Region IV - Kodiak

DATE: November 3, 2011

PHONE: (907) 486-1806

FAX: (907) 486-1841

THRU: Jeff Wadle
Finfish Management Supervisor
Commercial Fisheries Division
Region IV – Kodiak

FROM: Todd Anderson
Chignik Finfish Management Biologist
Commercial Fisheries Division
Region IV – Kodiak

SUBJECT: 2011 Chignik Salmon
Season Summary

cc:

Campbell
Regnart
Bruce
Aspelund
Dinnocenzo
Spalinger, G.
Tiernan
Murphy
Wilburn
Poetter
Volk
Jackson
St. Saviour
Hendrickson
Honnold
Moore
Foster
Tide
Nichols

Linderman
Miller
Schmidt
Tracy
Kelley
Bergstrom
Woodby
Gann
Fisher
Moreland
Hart
Fall
Fleener
Easley
Gardner
Sands
Fair
Shaker
Polum

City of Chignik Lake
City of Chignik Lagoon
City of Chignik Bay
Native Village of Perryville
Lake and Peninsula Borough
Chignik Advisory Committee
Sand Point Advisory Committee
Kodiak Advisory Committee
USFWS- King Salmon
USFWS-OSM-Fried
Trident Seafoods
International Seafoods of Alaska
Alaska Peninsula Fisherman
Cooperative
Fisheries Research Institute-UW
Concerned Area M Fisherman
United Fisherman of Alaska
Peninsula Marketing Association
United Salmon Association
Chignik Regional Aquaculture
Association

The following is a brief overview of the 2011 Chignik Management Area (CMA; Figure 1) commercial salmon season.

The Chignik River watershed supports two distinct sockeye salmon runs which traditionally provide the majority of directed harvest opportunities within the CMA. In 2011, the combined early- and late-run was the third largest Chignik-bound sockeye salmon run since 1970. The CMA was open to commercial salmon fishing for 74 days (June 5–August 29) and a total of 65 permits were fished.

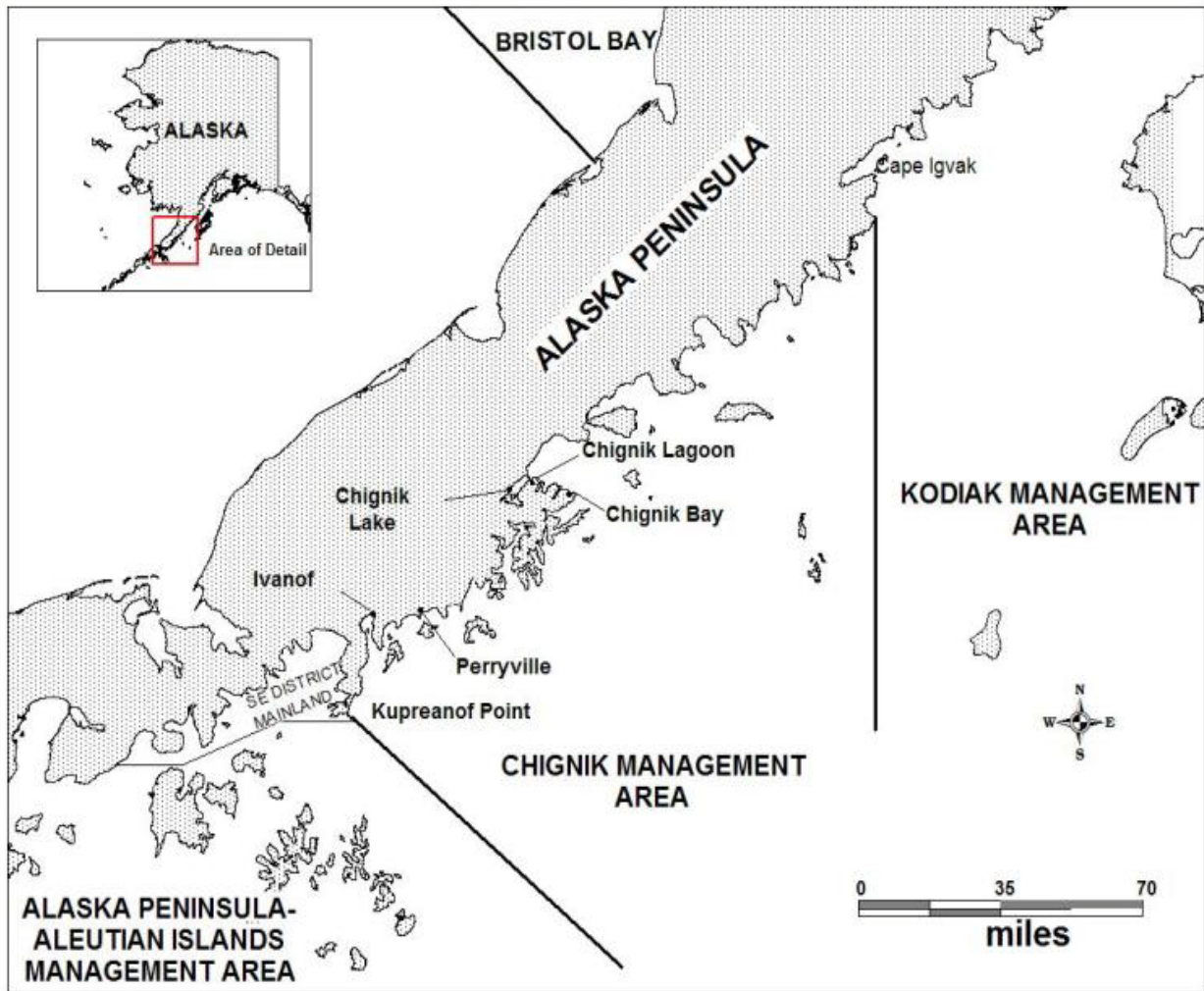


Figure 1.- Map of the Alaska Peninsula illustrating the relative locations of the Chignik, Kodiak, and Alaska Peninsula and Aleutian Islands Management Areas.

ESCAPEMENT

Escapement through the Chignik River weir was monitored using underwater digital video equipment. Two underwater gates in the weir were open to provide uninterrupted escapement. The numbers of fish passing the weir were counted, by species, for the first 10 minutes of each hour. The counts were expanded to obtain hourly escapement estimates, and then summed to provide an estimate of daily fish passage. A digital video archive was kept of each 10-minute counting period in the 2011 season with the first count occurring on May 31 when weir installation was complete, and the last weir count of the season took place on September 2, after which the weir was removed.

Aerial surveys were flown throughout the season to monitor escapement into CMA streams. Peak aerial survey counts, by index stream and species, were summed and compared to available escapement goals established by Nemeth et al. (2010). Pink and chum salmon escapements were measured against established area wide sustainable escapement goals (SEG).

Chinook Salmon

The Chignik River is the only Chinook salmon-producing stream within the CMA and one of the largest Chinook salmon streams on the South Alaska Peninsula. The biological escapement goal (BEG) for Chinook salmon in the Chignik River watershed is 1,300 to 2,700 fish (Nemeth et. al. 2010). The 2011 Chignik River Chinook salmon escapement, through the weir, of 2,728 fish (Table 1) was above the 5-year average but below the 10-year average. Subsistence and sport fishery harvest of Chinook salmon above the weir will not be known until permits and questionnaires are returned and tabulated by the spring of 2012.

Sockeye Salmon

Sockeye salmon escapement to the Chignik River is managed based on separate escapement objectives for both early- and late-run sockeye salmon. Despite one of the earliest commercial salmon fishing openers and the longest initial fishing period (37 days) in CMA history, the early-run SEG of 350,000 to 400,000 sockeye salmon through July 4 was exceeded with an estimated early-run escapement of 488,930 fish (Table 1).

The late-run objectives include an additional 50,000 sockeye salmon which are incorporated into the late-run SEG to provide for additional freshwater subsistence fishing opportunity. The late-run (post-July 4) SEG of 250,000 to 400,000 sockeye salmon was met with an estimated escapement of 264,887 sockeye salmon (Table 1). Post-weir sockeye salmon escapement estimates were produced for the September 3-15 (5,275) and the September 16-30 (1,310) periods, which were included in the total late-run escapement estimate.

Early run escapement was above the prior 5- and 10-year average escapement (Table 1). The late run sockeye salmon escapement was below the prior 5- and 10-year averages (Table 1). Sockeye salmon escapements into other CMA streams were relatively minor.

Coho Salmon

Coho salmon begin to enter CMA drainages in mid-August and continue through November. The coho salmon run is generally building when the weir is removed; therefore, coho salmon escapement estimates are considered incomplete. The 2011 Chignik River coho salmon

escapement estimate through Sept 2 was 5,293 fish (Table 1). This was below prior 5- and 10-year average escapements (Table 1). Although no coho salmon escapement goals have been established for the CMA (Nemeth et. al. 2010), coho salmon escapement throughout the CMA appears to be consistent with past years and sustainable at this level.

Pink Salmon

An estimated 16,298 pink salmon passed the Chignik River weir in 2011, which was above previous 5- and 10-year average pink salmon escapements (Table 1). Pink salmon escapements into other CMA streams were estimated via aerial survey and summarized by district. The odd-year upper end of the SEG for all districts combined (800,000; Nemeth et al. 2010) was exceeded with an estimated total peak escapement of 986,248 pink salmon.

Chum Salmon

The 2011 Chignik River chum salmon escapement was 145 fish, which was average for the Chignik River (Table 1). Chum salmon escapements to other CMA streams were estimated via aerial survey and summarized by district. The lower bound SEG of all districts combined (57,400; Nemeth et al. 2010) was exceeded with an estimated total peak escapement of 278,145 chum salmon.

Table 1.- Estimated Chinook, sockeye, coho, pink, and chum salmon, and Dolly Varden escapement to the Chignik River, 2001 to 2011.

Year	Escapement						
	Chinook ^a	Sockeye		Coho	Pink	Chum	Dolly Varden
		Early-Run	Late-Run				
2001	3,028	744,013	392,905	103	1,464	66	6,416
2002	3,541	380,701	343,616	9,262	3,417	67	8,179
2003	6,412	350,004	334,119	7,635	1,897	68	36,397
2004	7,840	363,800	214,459	18,810	2,243	276	20,086
2005	6,486	355,091	225,366	18,206	13,637	408	13,940
2006	3,535	366,497	368,996	37,113	18,401	99	2,031
2007	2,000	361,091	293,883	10,299	20,464	118	6,993
2008	1,730	377,579	328,479	13,958	22,341	124	14,776
2009	1,680	391,476	328,586	7,670	12,873	109	8,618
2010	3,679	432,535	310,634	5,152	3,670	95	17,578
2011 ^b	2,728	488,930	264,887	5,293	16,298	145	19,225
Averages							
2001-10	3,993	412,279	309,630	12,821	10,041	143	13,501
2006-10	2,525	385,836	326,116	14,838	15,550	109	9,999

^a No escapement adjustments were made for Chinook salmon that spawn below the weir, or those removed by the sport and subsistence fisheries above the weir.

^b Late-run sockeye salmon total includes a post-weir escapement estimate.

COMMERCIAL FISHERY

The CMA was open to commercial salmon fishing for 74 days during the 2011 commercial salmon season. The first fishing period occurred on June 5 and the CMA closed to commercial salmon fishing shortly after processors ceased operations. In 2011, 65 permit holders (including the department's test fishery permit) made a total of 2,617 landings (Table 2).

Table 2.- Total commercial salmon harvests, including home pack, and department test fishery from the Chignik Management Area by species and year, 2001 through 2011.

Year	Permits Making		Chignik Management Area Harvest					Total
	Deliveries	Landings	Chinook	Sockeye	Coho	Pink	Chum	
2001	93	2,906	2,939	1,511,587	131,448	1,281,767	199,003	3,126,744
2002	42	2,432	1,521	1,050,553	49,372	66,050	54,559	1,222,055
2003	44	2,073	3,068	1,100,297	103,896	502,638	64,044	1,773,943
2004	33	1,346	2,520	704,652	37	2,380	505	711,473
2005	97	1,669	3,408	1,152,133	6,956	194,045	8,821	1,365,363
2006	49	2,066	2,256	902,709	39,221	383,547	61,630	1,389,363
2007	56	2,101	1,773	834,547	73,277	2,019,748	78,553	3,007,898
2008	55	2,217	970	687,270	161,536	2,389,958	209,325	3,449,059
2009	56	2,172	3,319	1,198,105	110,373	1,408,339	256,425	2,976,561
2010	66	2,532	10,380	1,379,785	159,198	489,781	581,329	2,620,473
2011	65	2,617	6,586	2,497,004	76,792	905,166	269,503	3,755,051
Averages								
2001-10	59	2,151	3,215	1,052,164	83,531	873,825	151,419	2,164,293
2006-10	56	2,218	3,740	1,000,483	108,721	1,338,275	237,452	2,688,671

Harvest

Chinook Salmon

A total of 6,440 Chinook salmon were commercially harvested (excluding home pack and the department's test fishery) in 2011, which was above recent average harvests (Table 3). The majority of the 2011 CMA Chinook salmon harvest occurred in the Central and Western districts, with much of the remainder harvested in the Chignik Bay District (Table 3). Most of the Chinook salmon harvest occurred from late June until the end of July.

Sockeye Salmon

A total of 2,490,125 sockeye salmon were commercially harvested (excluding home pack and the department's test fishery) in the CMA during 2011, which was well above the prior 10-year average harvest and approximately 1,495,000 (150%) more than the prior 5-year average harvest. The majority of the 2011 CMA sockeye salmon harvest came from the Chignik Bay District, although there were a substantial number of sockeye salmon harvested in the Central District (Table 3).

In 2011, Southeast District Mainland (SEDM) and Cape Igvak opened to commercial salmon fishing for the first time on June 9. A total of 195,796 (156,637 considered Chignik-bound) sockeye salmon were harvested in SEDM through the end of the allocation period, on July 25. Cape Igvak fisherman harvested 549,487 (494,538 considered Chignik-bound) during the allocation period.

Coho Salmon

A total of 76,775 coho salmon were commercially harvested in 2011, which was lower than the prior 5-year and similar to the prior 10-year average harvest. The majority of the coho salmon harvest in 2011 took place during July and August in the Western District (Table 3).

Pink Salmon

A total of 905,108 pink salmon were commercially harvested in 2011, which was below the 5-year average and similar to the 10-year average harvest. The largest portion of the CMA pink salmon harvest came from the Western District, although the Central and Perryville districts also yielded a substantial portion of the CMA catch (Table 3). Most pink salmon were harvested between late June and mid-August.

Chum Salmon

A total of 269,492 chum salmon were commercially harvested in 2011, which was above both 5- and 10-year average chum salmon harvests. The majority of the chum salmon harvest in 2011 took place in the Central District, although the Western and Eastern districts also yielded substantial catches (Table 3). Most chum salmon were harvested between late June and mid-August.

Table 3.- Chignik Management Area commercial salmon harvest, excluding home pack, and department test fishery, by district, 2011.

District	Chinook		Sockeye		Coho		Pink		Chum	
	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
Chignik Bay	1,382	19,173	1,643,218	11,919,725	1,799	10,561	30,649	98,646	9,066	60,066
Central	2,092	24,197	670,097	4,787,356	12,900	87,948	225,307	723,646	116,580	817,961
Eastern	638	6,802	113,760	758,991	354	2,160	54,288	163,229	51,989	362,581
Western	2,115	20,088	40,252	253,969	50,504	349,593	368,351	1,121,673	75,363	514,340
Perryville	213	2,045	22,798	121,015	11,218	69,154	226,513	775,352	16,494	102,564
Total	6,440	72,305	2,490,125	17,841,056	76,775	519,416	905,108	2,882,546	269,492	1,857,512

Economic Value

The exvessel value of the 2011 CMA commercial salmon fishery was about \$23.8 million. The approximately \$371,327 per active permit holder was the highest dollar amount ever in the CMA, although this dollar amount is not adjusted for inflation. A majority of the value was from the sale of sockeye salmon (90%), with a total of approximately \$335,456 per active permit holder. The harvest of pink, chum, coho and Chinook salmon provided approximately \$16,254, \$14,369, \$4,350, and \$899 respectively, per active permit holder (Table 4).

Table 4.- Value, by species, and average value per active permit, in dollars, in the Chignik Management Area, 2001 to 2011.

Year	Chinook		Sockeye		Coho		Pink		Chum		(\$) ^a Total Value	Number of Permits ^c	(\$) ^a Value Per Permit
	Total ^a	Average ^b	Total ^a	Average ^b	Total ^a	Average ^b	Total ^a	Average ^b	Total ^a	Average ^b			
2001	12,205	133	7,419,339	80,645	263,160	2,860	366,714	3,986	209,239	2,274	8,270,657	92	89,898
2002	3,516	36	4,564,214	46,103	36,078	364	10,333	104	40,671	411	4,654,812	99	47,018
2003	20,212	202	5,283,962	52,840	173,625	1,736	182,100	1,821	71,140	711	5,731,039	100	57,310
2004	26,191	262	3,568,350	35,684	59	1	835	8	647	6	3,596,082	100	35,961
2005	36,060	377	6,314,036	64,429	11,280	115	55,070	562	10,917	111	6,427,363	98	65,585
2006	26,895	560	4,703,317	97,986	105,132	2,190	126,309	2,631	81,123	1,690	5,042,776	48	105,058
2007	26,176	476	4,154,210	75,531	195,754	3,559	1,034,322	18,806	162,089	2,947	5,572,550	55	101,319
2008	15,249	282	4,121,611	76,326	778,282	14,412	1,810,965	33,536	533,358	9,877	7,259,465	54	134,435
2009	30,714	558	7,058,058	128,328	220,823	4,015	800,523	14,555	520,791	9,469	8,630,909	55	156,926
2010	160,076	2,463	11,271,976	173,415	566,191	8,711	565,941	8,707	1,774,763	27,304	14,338,947	65	220,599
2011 ^d	57,524	899	21,469,153	335,456	278,391	4,350	1,040,264	16,254	919,586	14,369	23,764,918	64	371,327
Averages													
2001-10	35,729	535	5,845,907	83,129	235,038	3,796	495,311	8,472	340,474	5,480	6,952,460	77	101,411
2006-10	51,822	868	6,261,834	110,317	373,236	6,577	867,612	15,647	614,425	10,257	8,168,929	55	143,667

^a Total value of commercial catch in dollars, by species. Value does not include home pack or department test fishery.

^b Average value of commercial catch in dollars, by species. Average value does not include home pack or department test fishery.

^c Includes the number of commercial permits that received income from the harvest. These figures do not include department test fishery harvests.

^d Values represent the initial price paid, and do not include any post-season adjustments by any processor. The average 2011 exvessel prices per pound were: Chinook- \$.80, sockeye- \$1.20, coho- \$0.54, pink- \$0.36, chum- \$0.50.

Department Test Fishery

The department conducted test fisheries on three occasions in 2011. Data from these test fisheries were used to assess the buildup of sockeye salmon in Chignik Lagoon. An estimated 6,545 sockeye salmon were harvested, which provided approximately \$47,000 that was used to offset the cost of vessel charters and operating the Chignik weir.

SUBSISTENCE

At this writing subsistence harvest numbers for 2011 have not been finalized.

LITERATURE CITED

Nemeth, M. J., M. E. Loewen, H. Finkle, J. S. Schmidt, J. W. Erickson, M. J. Witteveen, and D. Barnard. 2010. Review of salmon escapement goals in the Chignik Management Area, 2010. Alaska Department of Fish and Game, Fishery Manuscript Series No. 10-08, Anchorage