

RUN FORECASTS AND HARVEST PROJECTIONS
FOR 2000 ALASKA SALMON FISHERIES AND REVIEW OF THE 1999 SEASON:
THE SHORT VERSION

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The following modifications were made from the originally published version of this document dated February 2000:

- The projected year 2000 pink salmon total for Lower Cook Inlet (Table 1) was changed from an incorrect 2,410,000 fish to a correct 1,890,000 fish.
- The statewide projected total for year 2000 chinook salmon (found on page 1 and Table 1) was modified from an incorrect 631,000 fish to a correct 470,000 fish.
- The statewide projected total for year 2000 pink salmon (found on page 1 and Table 1) was modified from an incorrect 85,400,000 to a correct 84,900,000 fish.
- Westward Region total harvest estimates for 1999 (Table 2) were modified from an incorrect 600,000 coho salmon and 1,900,000 chum salmon to a correct 631,000 coho salmon and 1,920,000 chum salmon.
- The year 2000 projected catch data point was accidentally left out of Figure 2. This data point was added to remedy the error.

Last modified May 25, 2000

The Alaska Department of Fish and Game is expecting a drop in commercial salmon catch in 2000. This is because the pink salmon harvest is expected to return to more average levels — far below the 1999 statewide record catch for this species. The 2000 commercial catch all-species projection of 153 million is distributed as 470¹ thousand chinook, 41.0 million sockeye, 5.2 million coho, 85.4¹ million pink, and 21.1 million chum salmon. Table 1 shows specific projection numbers by species and fishing area. In some cases the projections are based on formal run forecasts, using information on previous spawning level, the environment, and other factors. In other cases, the catch projections are simply recent average catch levels. With two or three exceptions, such as the Southeast chinook troll fishery and South Peninsula June fishery, Alaskan salmon management will be based on actual observed salmon run strength. Alaska managers have the primary goal of maintaining spawning population sizes – not of reaching preseason catch projections.

At this time last year, department biologists were expecting an all-species commercial catch of 148 million for the 1999 season. As it turned out, the all-species catch reached 216 million — barely missing the all-time catch record of 218 million from 1995. In 1999, the overall catch of sockeye salmon was considerably higher than expected (an actual catch of 41.2 million compared to the preseason projection of 29.0 million). Notably, the statewide pink salmon catch of 146 million was far above expectations — setting a new statewide record — with pink salmon catch records set in Southeast Alaska and in Prince William Sound. Although statewide chum salmon catches were above expectation, runs of Western Alaska chum salmon were well below expectations once again. We suspect that poor ocean survivals were to blame. Table 2 shows 1999 harvest numbers by species and fishing area, in units of fish harvested, and Table 3 provides this information in units of pounds harvested.

The exvessel value of the commercial harvest reversed its long downward trend. The preliminary estimate for the total value of Alaska's 1999 harvest is \$370 million — up from the estimates of \$261 million for 1998, \$297 million for 1997, \$378 million for 1996, \$487 million for 1995, and \$489 million for 1994.

In recent years, news stories about unusual climatic and oceanographic conditions have become increasingly common. Because our forecasts are based on statistical relationships that have been observed in the recent past, we are always nervously looking for reasons to think that past conditions have changed. Global warming, strong El Niño events followed by ocean cooling, exceptional temperatures in the Bering Sea, large forecast errors in the Bristol Bay sockeye returns, and an unexplained spectacular drop in Western Alaska chum salmon production are just some of the things that worry salmon forecasters. This year we are puzzled by the age distribution of salmon in a number of last year's fisheries. We usually assume that a large return of younger fish predicts a larger return of their older siblings in the following year. We observed large proportions of younger fish in several fisheries, from Bristol Bay and Chignik sockeye salmon, to Southeast hatchery chum salmon. We don't know if these younger fish indicated a change in the year of ocean return, or if they indicate a coming increase in production.

Look for inseason harvest information, postseason statistics, and other information about salmon in Alaska on the World Wide Web at <http://www.cf.adfg.state.ak.us/>.

¹ Number corrected from that originally published in February 2000.

Table 1. Preliminary projections of 2000 Alaska commercial salmon harvests by fishing area and species, in thousands of fish.

Fishing Area	Species					Total
	Chinook	Sockeye	Coho	Pink	Chum	
Southeast Region Total	233 ^a	1,920 ^a	3,010 ^a	37,500 ^b	14,000 ^a	56,700
Prince William Sound						
<i>Common Property</i>	61	2,140	613	18,200	3,010	24,000
<i>Cost Recovery</i>	0	116	16	10,300	570	11,000
Upper Cook Inlet	15	3,000	150	500	200	3,900
Lower Cook Inlet	1	487	15	1,890	10	2,400
Bristol Bay	42	22,300	74	32	648	23,000
Central Region Total	119	28,000	870	30,900	4,440	64,300
Kodiak Area						
Kodiak Area	20	3,500	300	10,200	700	14,700
Chignik	4	3,470	185	1,000	200	4,950
South Peninsula	10	2,000	200	4,500	1,000	7,710
North Peninsula	8	2,000	125	75	75	2,280
Aleutian Islands	0	5	0	200	0	205
Westward Region Total	42	11,000	800	16,000	2,000	29,800
AYK Region Total	76	123	485	503	661	1,800
Statewide Total	470	41,000	5,170	84,900	21,100	153,000

Columns may not total exactly due to rounding.

^a Average harvest for the five-year, 1995–1999, period.

^b Mid point of the 55–84 million predicted return minus the 32 million midpoint of the 24–40 million escapement goal.

Modified April 6, 2000.

Note that these numbers correct mistakes made in the January 14, 2000 projections for Lower Cook Inlet, and for the statewide chinook total.

Table 2. Preliminary 1999 Alaska commercial salmon harvests, by fishing area and species, thousands of fish.

Fishing Area	Species					Total
	Chinook	Sockeye	Coho	Pink	Chum	
Southeast Region Total	190 ^a	1,160	3,570	77,700	14,900	97,500
Prince William Sound	63	2,030	245	45,000	2,990	50,300
Upper Cook Inlet	14	2,680	125	16	174	3,000
Lower Cook Inlet	2	477	8	1,140	8	1,640
Bristol Bay	28	25,300	20	0	716	26,000
Central Region Total	108	30,500	400	46,200	3,900	81,000
Kodiak Area	18	4,650	296	11,900	914	17,800
Chignik	3	3,120	89	1,690	141	5,000
South Peninsula	5	2,950	192	8,440	817	12,400
North Peninsula	5	1,780	54	4	50	1,890
Aleutian Islands	0	0	0	0	0	0
Westward Region Total	31	12,500	631	22,000	1,920	37,100
AYK Region Total	97	81	47	0	269	500
Total Alaska	430	44,200	4,600	146,000	21,000	216,000

Missing data indicates no harvest, and zeros indicate harvest activity but <1,000. Columns may not total exactly due to rounding.

^a Total commercial harvest of chinook salmon for the October 1, 1998 to September 30, 1999 catch accounting period.

Modified May 23, 2000

Note that totals for Westward Region coho and chum salmon have been modified from the original January 2000 estimates.

Table 3. Preliminary 1999 Alaska commercial salmon harvests by fishing area and species, in thousands of pounds.

Fishing Area	Species					Total
	Chinook	Sockeye	Coho	Pink	Chum	
Southeast Region Total	2,930	6,830	21,400	228,000	140,000	399,160
Prince William Sound	1,360	12,200	2,000	134,000	24,600	174,160
Upper Cook Inlet	337	15,400	732	50	1,400	17,919
Lower Cook Inlet	26	2,220	53	2,870	63	5,232
Bristol Bay	279	147,000	130	0	4,800	152,209
Central Region Total	2,000	177,000	2,900	137,000	30,900	349,800
Kodiak Area	233	24,500	2,200	36,400	7,240	70,573
Chignik	57	20,600	617	4,850	1,060	27,184
South Peninsula	87	16,100	1,150	25,900	5,560	48,797
North Peninsula	59	9,060	345	13	338	9,815
Aleutian Islands	0	0	0	0	0	0
Westward Region Total	400	70,300	4,300	67,200	14,200	156,400
AYK Region Total	1,810	530	302		2,100	4,742
Total Alaska	7,200	254,000	28,900	432,100	187,200	910,000

Missing data indicates no harvest, and zeros indicate harvest activity but <1,000.

Columns may not total exactly due to rounding.

Modified January 14, 2000

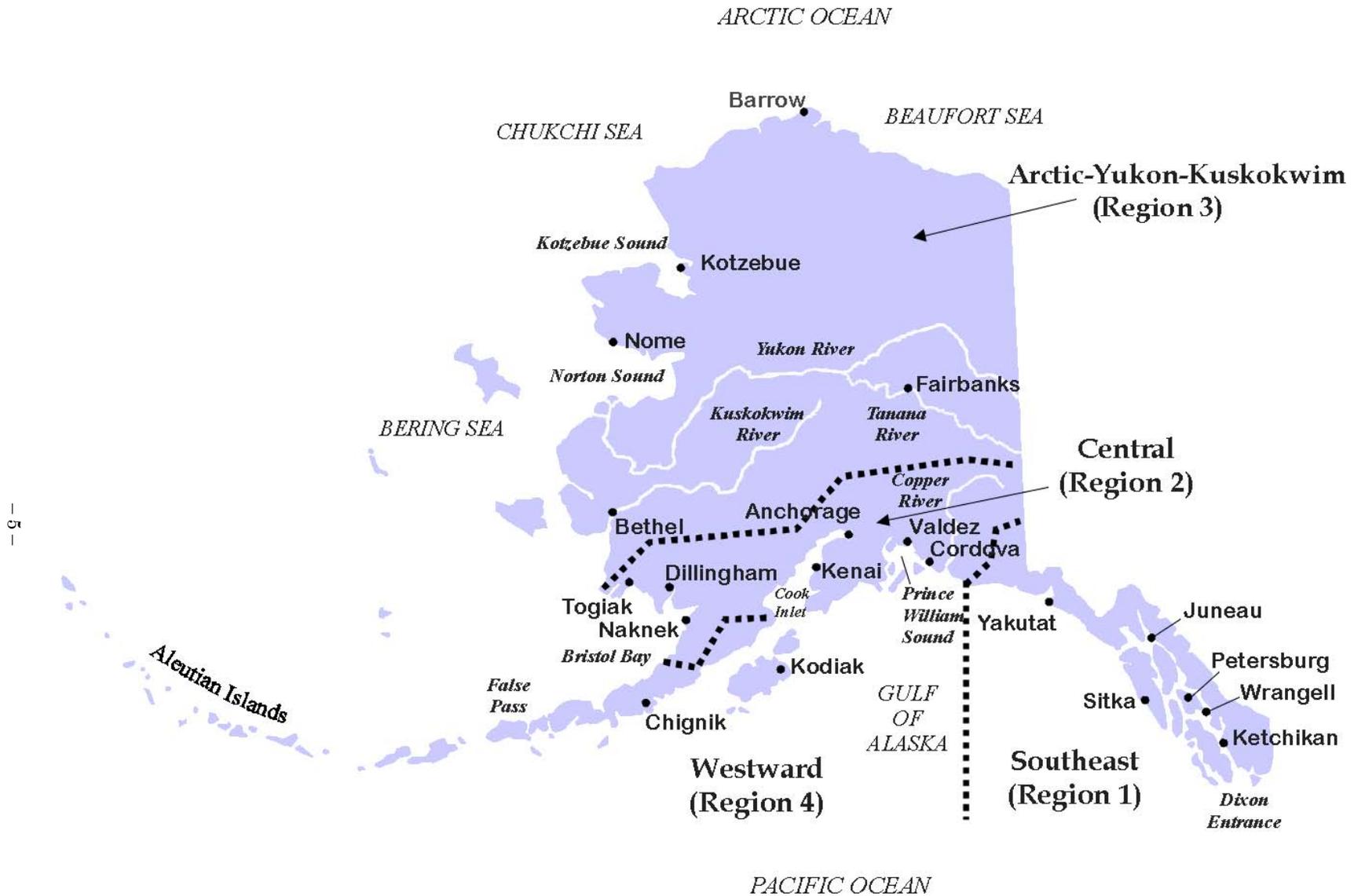


Figure 1. The four fishery management regions (Southeast, Central, Arctic-Yukon-Kuskokwim, and Westward) of the Alaska Department of Fish and Game, Division of Commercial Fisheries.

Chinook Salmon

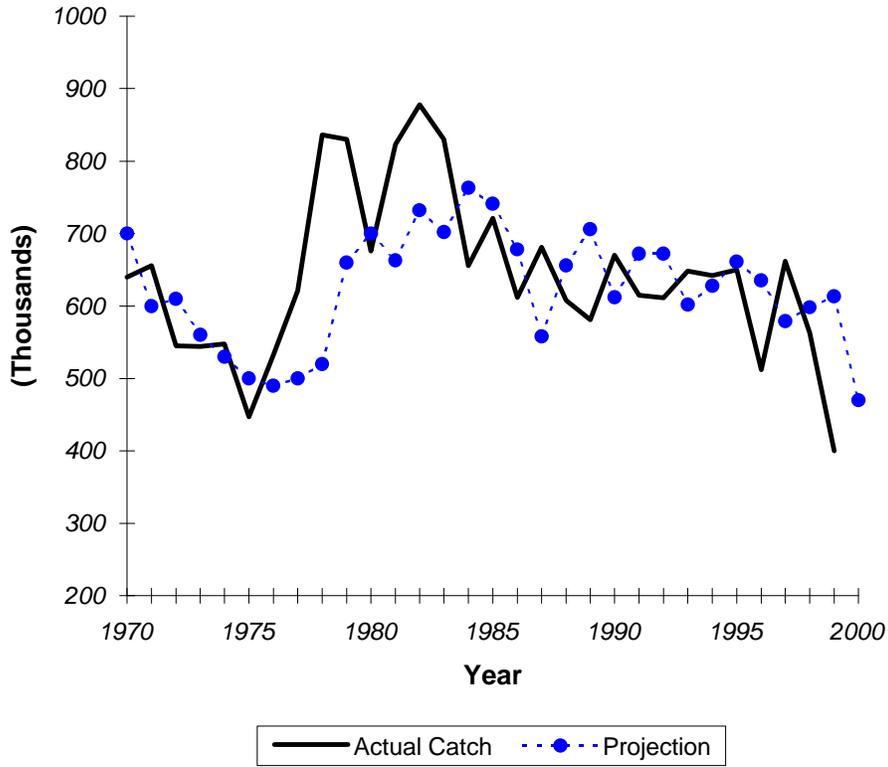


Figure 2. Relationship between actual catch (thousands) and projected catch (thousands) for Alaskan chinook salmon fisheries from 1970–1999, with the 2000 projection.

Sockeye Salmon

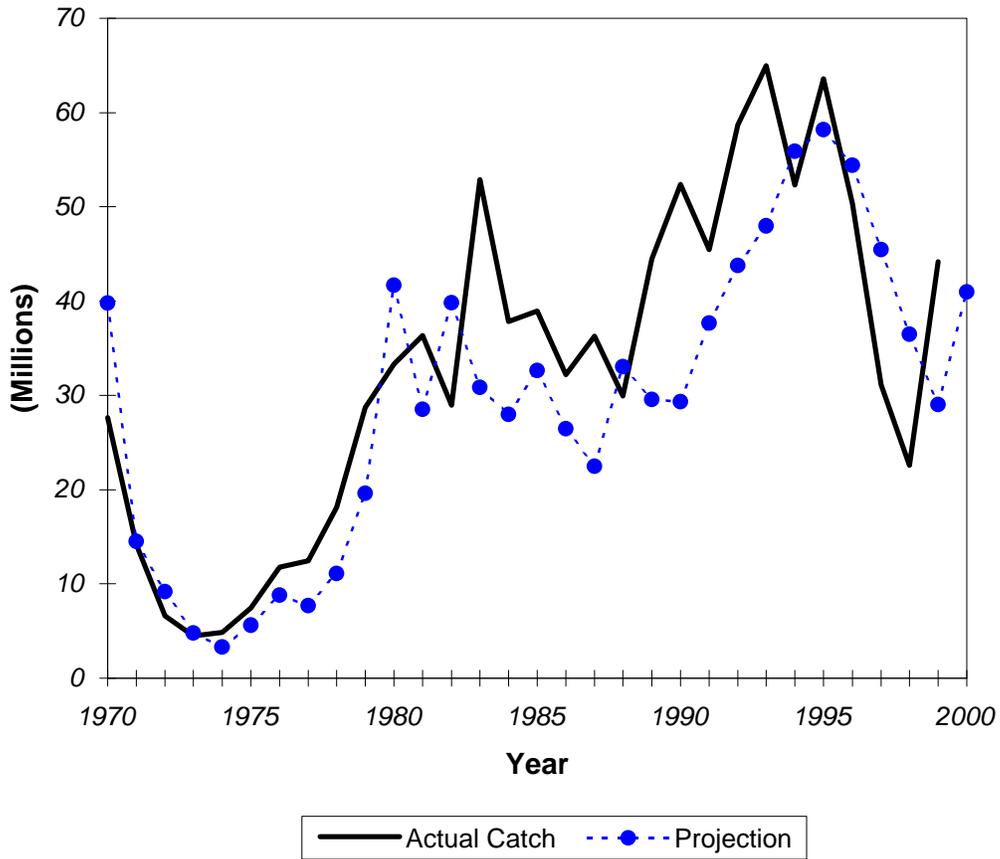


Figure 3. Relationship between actual catch (millions) and projected catch (millions) for Alaskan sockeye salmon fisheries from 1970–1999, with the 2000 projection.

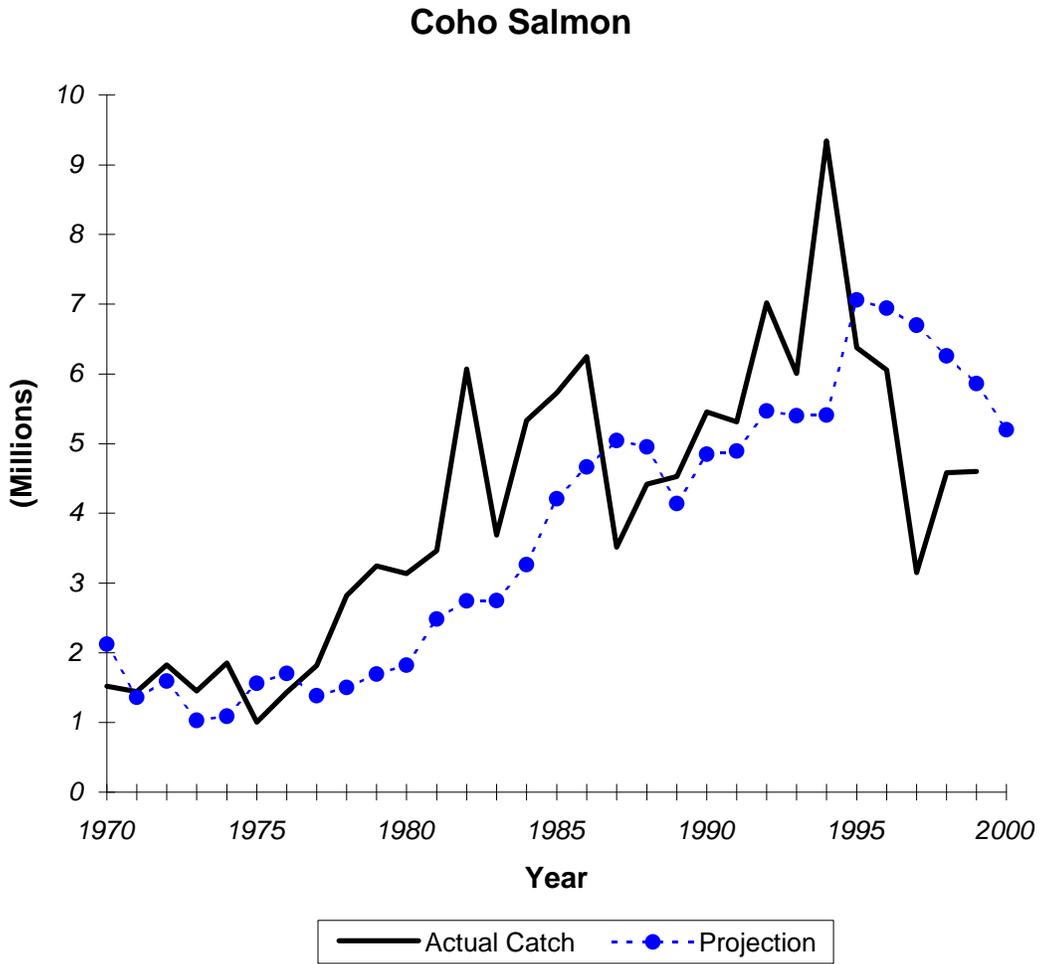


Figure 4. Relationship between actual catch (millions) and projected catch (millions) for Alaskan coho salmon fisheries from 1970–1999, with the 2000 projection.

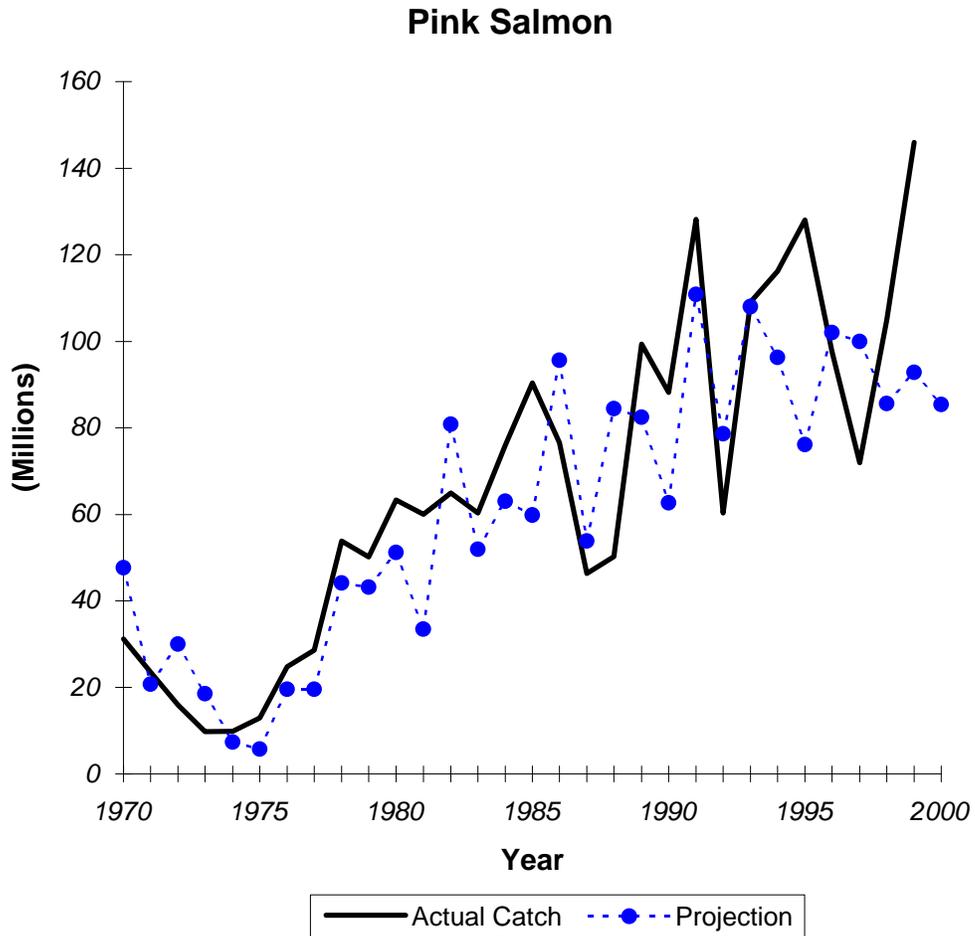


Figure 5. Relationship between actual catch (millions) and projected catch (millions) for Alaskan pink salmon fisheries from 1970–1999, with the 2000 projection.

Chum Salmon

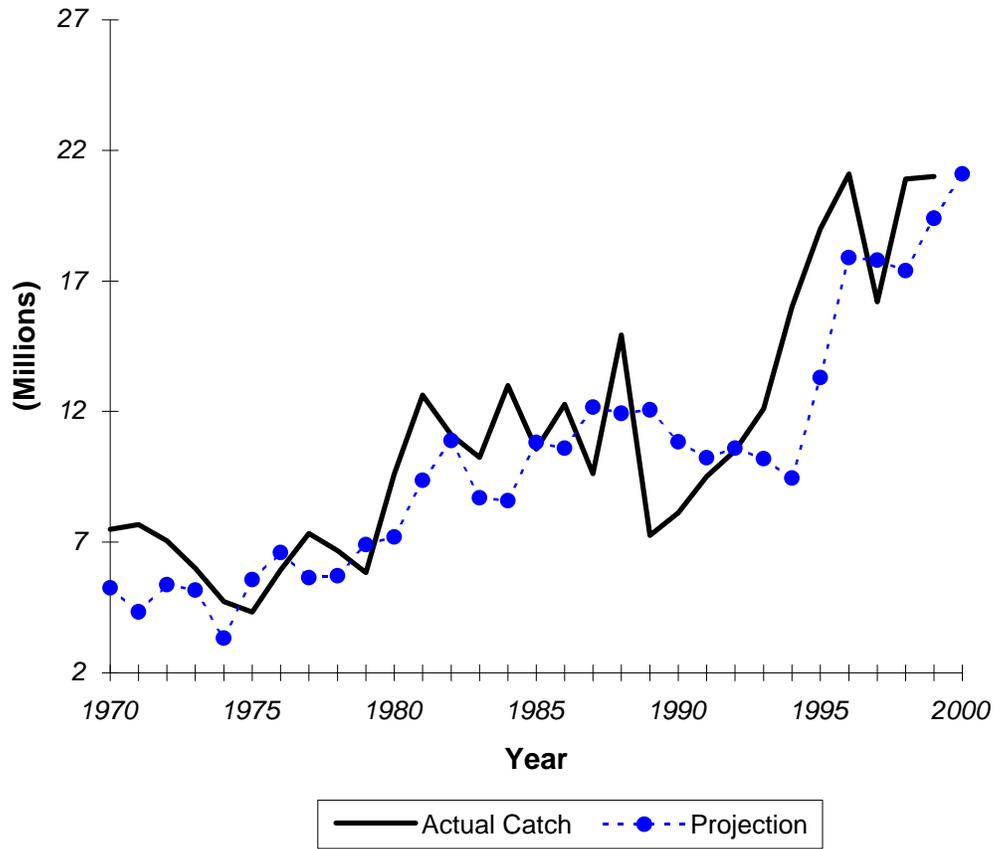


Figure 6. Relationship between actual catch (millions) and projected catch (millions) for Alaskan chum salmon fisheries from 1970–1999, with the 2000 projection.