

RUN FORECASTS AND HARVEST PROJECTIONS  
FOR 1999 ALASKA SALMON FISHERIES AND REVIEW OF THE 1998 SEASON:  
THE SHORT VERSION

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The Alaska Department of Fish and Game is expecting 1999 commercial salmon harvests to be similar to 1998's levels. The 1999 commercial catch all-species projection of 148 million is distributed as 0.613 million chinook, 29.0 million sockeye, 5.86 million coho, 92.8 million pink, and 19.4 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 chum catch, Alaskan salmon management will be based on actual observed salmon run strength. Alaska managers have the primary goal of maintaining spawning population sizes – not to reach preseason catch projections.

At this time last year, department biologists were expecting an all-species commercial catch of 146 million for the 1998 season. As it turned out, the overall catch of sockeye salmon was about 40% lower than expected, but statewide catches of pink salmon were about 20% higher than expected, and the all-species total reached 151 million salmon. Notably, pink salmon catches were far above expectations in Kodiak. Although statewide chum salmon catches were above expectation, and chum salmon catches in Southeast were far above expectation, other areas failed to produce at expected levels. For example, runs of Western Alaska chum salmon, Yukon River chinook salmon, and Bristol Bay sockeye salmon were well below expectations. We suspect that ocean conditions have changed and that unusually poor ocean survivals were to blame. Table 2 shows 1998 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 continued on its long downward trend. The preliminary estimate for the total value of Alaska's 1998 harvest is \$259 million – below the estimates of \$296 for 1997, \$378 for 1996, \$466 for 1995, and \$489 for 1994.

In both 1997 and 1998, the Bristol Bay sockeye salmon run was considerably less than the forecasted levels. The 1997 forecast was for a return of 35.8 million, with an in-Bay catch of 24.8 million. The actual run in 1997 was 20.1 million, with an in-Bay catch of 12.3 million. The forecast for 1998 was for a run of 32.1 million and an in-Bay catch of 20.6 million. The actual run in 1998 was 19.3 million, with an in-Bay catch of 10.0 million. We suspect that unfavorable climatic and oceanographic conditions reduced marine survival since parent-year escapements were at levels that had produced large runs in the past. The 13.8 million sockeye salmon harvest forecasted for Bristol Bay in 1999 should be used with caution since the climatic/oceanographic conditions that influence survivals are poorly understood and measured.

For 1999, biologists in Southeast Alaska are again expecting a *strong* run of pink salmon with catches in the range of 31 to 51 million. A run of 32.7 million pink salmon with a commercial catch of just over 29.9 million is being forecasted by biologists in Prince William Sound. The forecast for the Copper River sockeye salmon run is 2.2 million, with a catch of 1.5 million. The Upper Cook Inlet forecast of sockeye salmon is for a run of 3.5 million, with a harvest of 2.0 million. Kodiak area biologists are forecasting a run of 11.8 million pink salmon, with a catch of 9.5 million.

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/> .

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Table 1. Preliminary projections of 1999 Alaska commercial salmon harvests by fishing area and species, in thousands of fish.

Fishing Area	Species					Total
	Chinook	Sockeye	Coho	Pink	Chum	
Southeast Region	242 <sup>a</sup>	2,170 <sup>a</sup>	3,430 <sup>a</sup>	41,000 <sup>b</sup>	13,000 <sup>a</sup>	59,800
Prince William Sound						
<i>Common Property</i>	53	1,550	575	19,600	2,410	24,200
<i>Cost Recovery</i>	0	135	16	10,300	530	11,000
Upper Cook Inlet	16	2,000	300	75	200	2,590
Lower Cook Inlet	1	391	15	3,400	10	3,820
Bristol Bay	150	13,800	100	0	680	14,700
Central Region	220	17,900	1,000	33,400	3,830	56,300
Kodiak Area	20	3,500	350	9,500	500	13,900
Chignik	4	1,330	185	925	185	2,630
South Peninsula	10	2,100	250	8,000	750	11,100
North Peninsula	10	1,800	150	15	150	2,130
Aleutian Islands	0	0	0	0	0	0
Westward Region	44	8,730	935	18,400	1,590	29,700
AYK Region	107	155	493	2	963	1,720
Statewide Total	613	29,000	5,860	92,800	19,400	148,000

Columns and rows do not total exactly due to rounding.

<sup>a</sup> Average harvest for the five-year period, 1994–1998.

<sup>b</sup> Midpoint of the 31-51 million forecast range.

*Modified December, 1998*

Table 2. Preliminary 1998 Alaska commercial salmon harvests by fishing area and species, in thousands of fish.

Fishing Area	Species					Total
	Chinook	Sockeye	Coho	Pink	Chum	
Southeast Region	230 <sup>a</sup>	1,370	2,900	42,500	15,500	62,500
Prince William Sound	71	1,710	195	28,700	1,270	31,900
Upper Cook Inlet	8	1,220	160	552	96	2,030
Lower Cook Inlet	1	284	16	1,450	5	1,760
Bristol Bay	126	9,990	125	25	391	10,700
Central Region	206	13,200	496	30,700	1,760	46,400
Kodiak Area	17	3,620	425	22,100	316	26,500
Chignik	4	1,050	130	777	129	2,090
South Peninsula	5	2,170	154	8,040	712	11,100
North Peninsula	6	1,090	135	35	70	1,340
Aleutian Islands	0	0	0	0	0	0
Westward Region	32	7,930	844	31,000	1,230	41,000
AYK Region	95	129	342	591	368	1,530
Total Alaska	563	22,600	4,580	105,000	18,900	151,000

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

<sup>a</sup> Total commercial harvest of chinook salmon for the October 1, 1997 to September 30, 1998 catch accounting period.

*Modified December, 1998*

Table 3. Preliminary 1998 Alaska commercial salmon harvests by fishing area and species, in thousands of pounds.

Fishing Area	Species					Total
	Chinook	Sockeye	Coho	Pink	Chum	
<b>Southeast Region</b>	3,950	8,270	22,500	147,000	138,000	320,000
Prince William Sound	1,590	10,400	1,670	105,000	10,400	129,000
Upper Cook Inlet	181	6,690	1,100	2,090	695	10,800
Lower Cook Inlet	14	1,290	120	4,540	35	6,000
Bristol Bay	2,230	57,200	1,050	85	2,500	63,000
<b>Central Region</b>	4,020	75,600	3,940	112,000	13,600	209,000
Kodiak Area	249	17,500	3,590	81,700	2,460	105,000
Chignik	67	6,440	1,050	2,590	918	11,100
South Peninsula	75	12,500	1,110	28,300	5,040	47,000
North Peninsula	89	6,080	1,090	126	497	7,890
Aleutian Islands	0	0	0	0	0	0
<b>Westward Region</b>	480	42,500	6,840	113,000	8,920	171,000
<b>AYK Region</b>	1,690	1,000	2,630	1,830	2,830	9,980
<b>Total Alaska</b>	10,100	127,000	35,900	374,000	163,000	710,000

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

*Modified December, 1998*

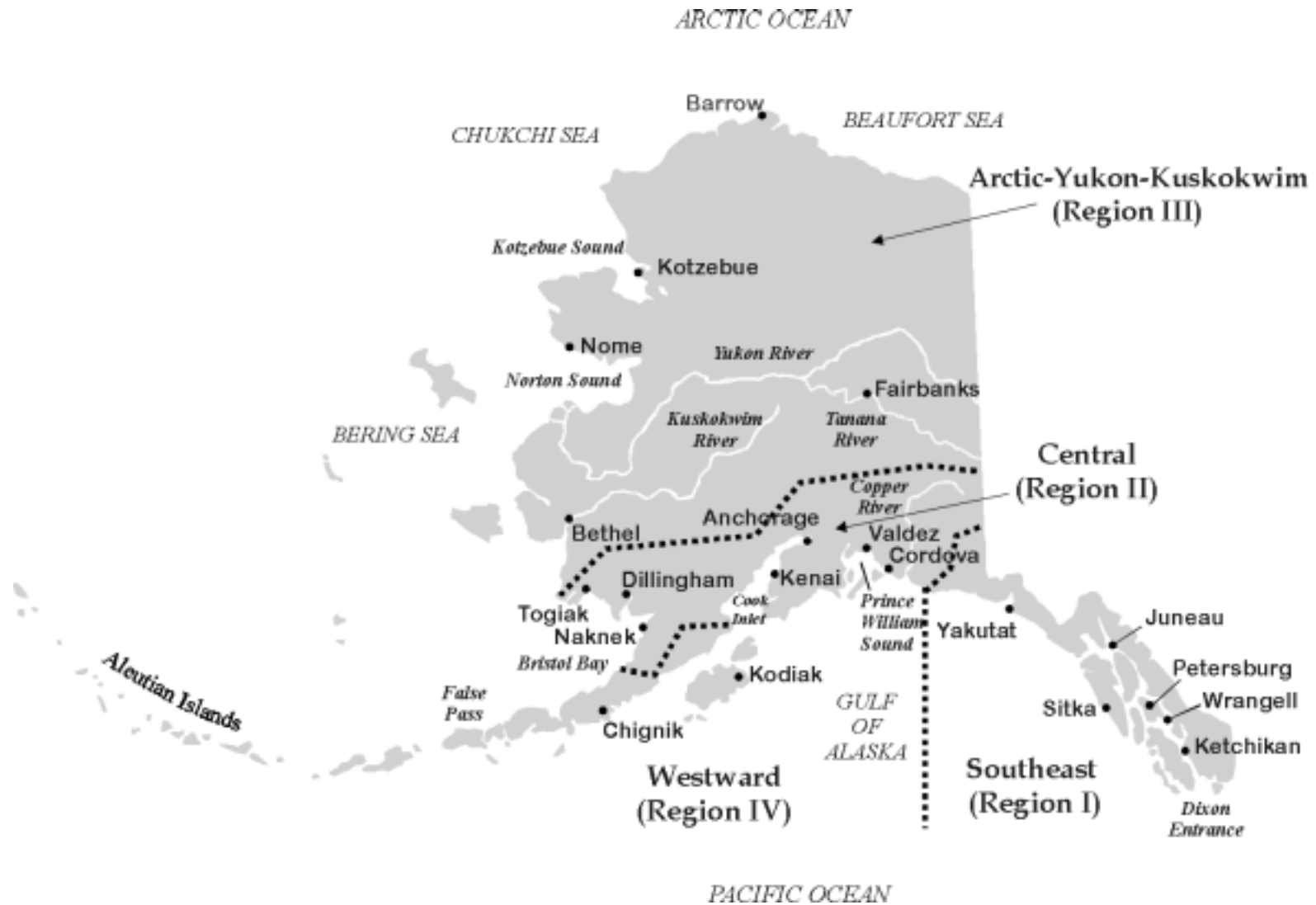


Figure 1. The four fishery management regions (Southeast, Central, Arctic-Yukon-Kuskokwim, and Westward) of the Alaska Department of Fish and Game, Division of Commercial Fisheries.

## Chinook Salmon

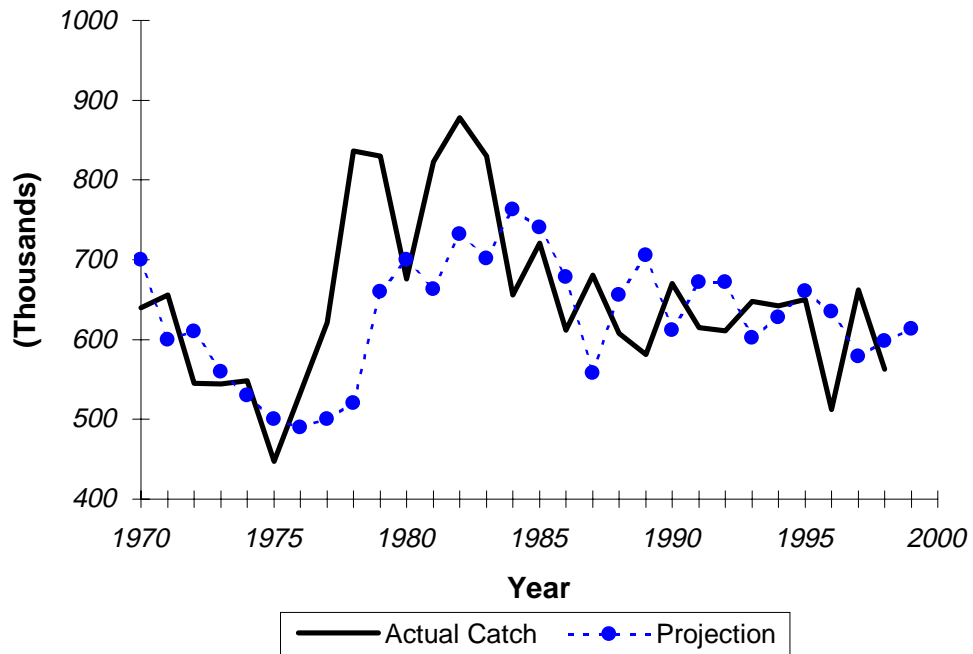


Figure 2. Relationship between actual catch (thousands) and projected catch (thousands) for Alaskan chinook salmon from 1970 to 1998, with the 1999 projection.



## Sockeye Salmon

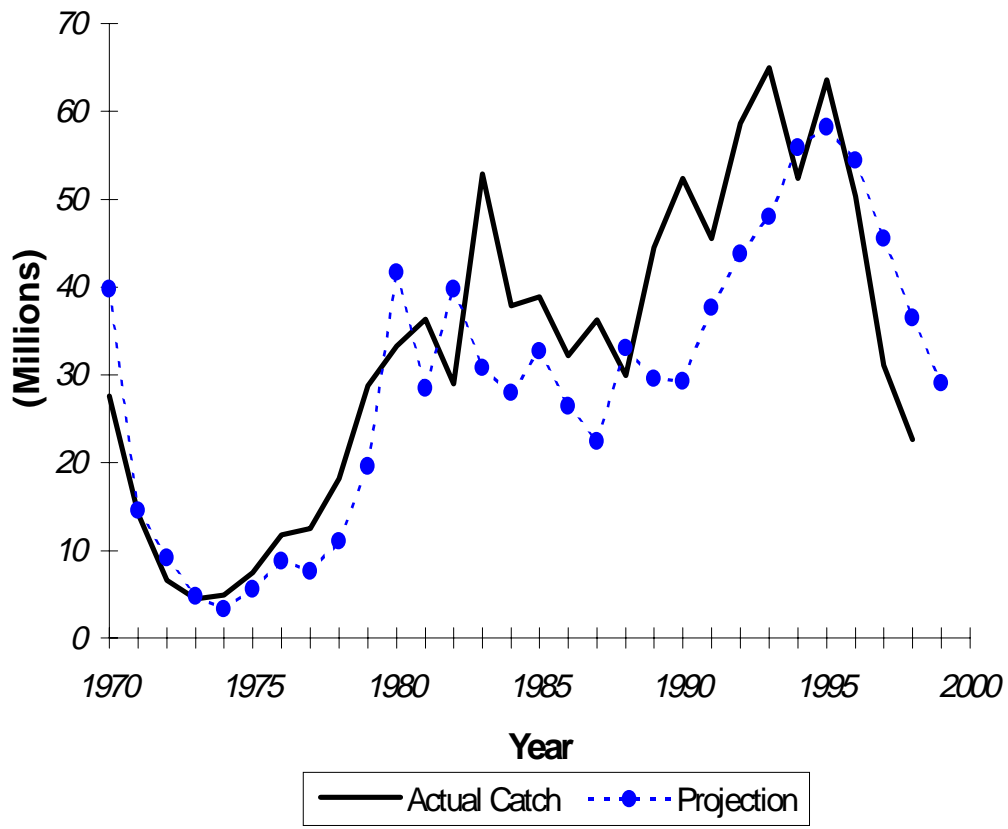


Figure 3. Relationship between actual catch (millions) and projected catch (millions) for Alaskan sockeye salmon from 1970 to 1998, with the 1999 projection.

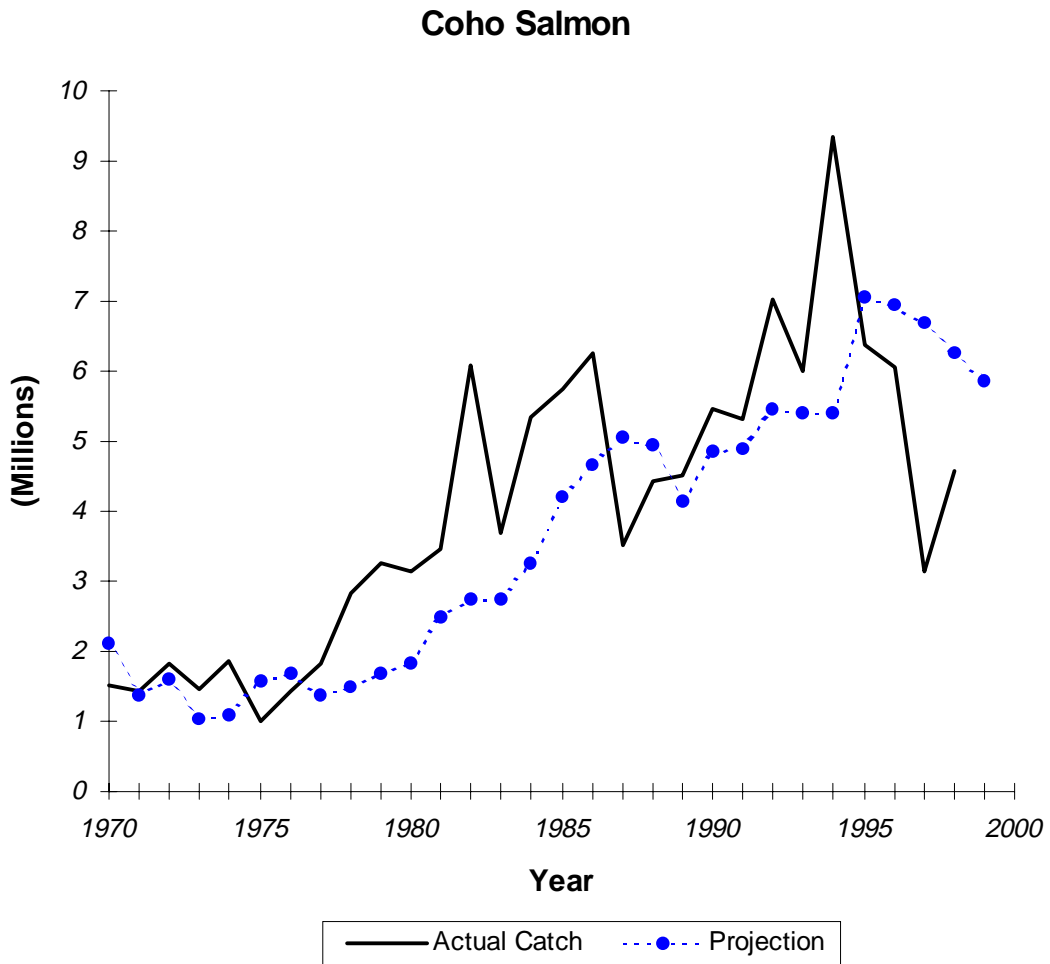


Figure 4. Relationship between actual catch (millions) and projected catch (millions) for Alaskan coho salmon from 1970 to 1998, with the 1999 projection.

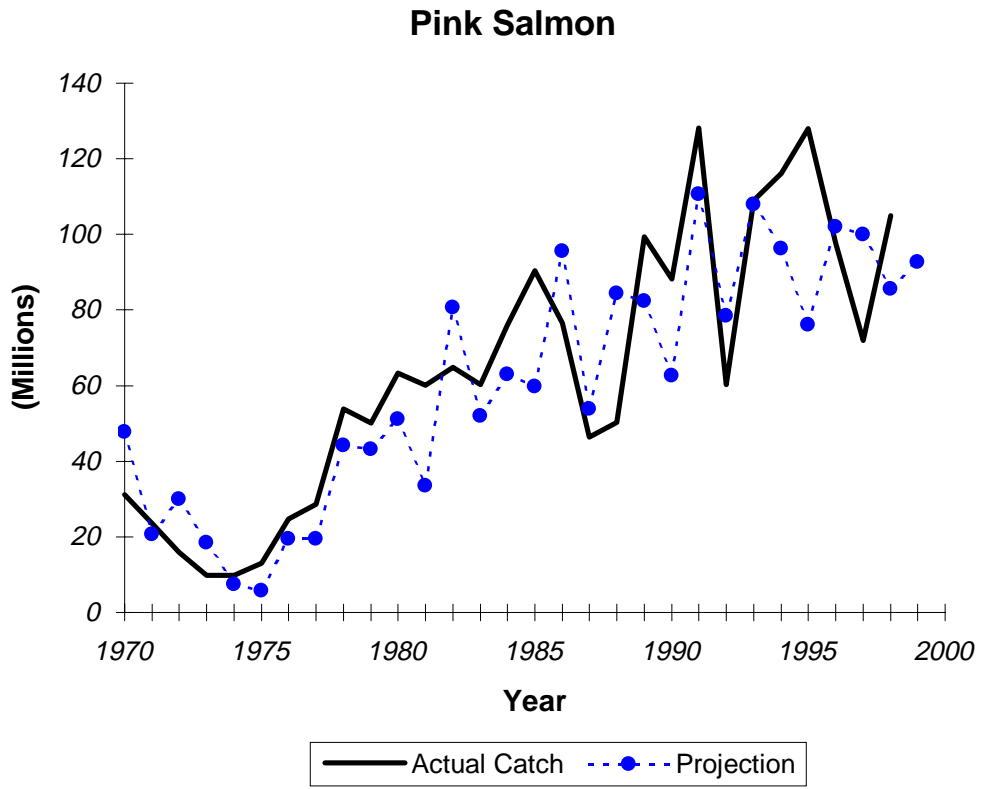


Figure 5. Relationship between actual catch (millions) and projected catch (millions) for Alaskan pink salmon from 1970 to 1998, with the 1999 projection.

### Chum Salmon

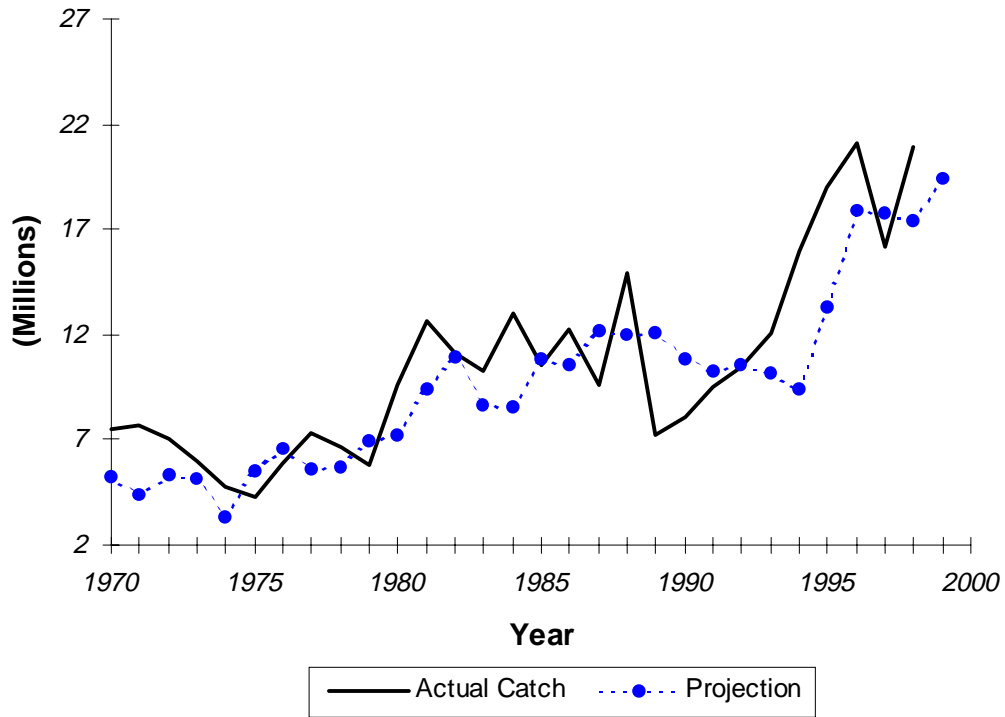


Figure 6. Relationship between actual catch (millions) and projected catch (millions) for Alaskan chum salmon from 1970 to 1998, with the 1999 projection.