

Groundfish Fisheries

Since the first of May, domestic fishermen have landed 61.9 million pounds (28,088.7 metric tons) of groundfish off Alaska. Four Joint Ventures provided 83% of that catch with much of the remaining domestic catch taken in salt cod operations. Through the end of June, over 146 million pounds (66,442.1 metric tons) have been taken by domestic fishermen, 45 million pounds more than the total 1980 domestic groundfish catch.

Salmon

A complete review of salmon landings off Alaska for 1980 is attached.

Herring

A total of 25.1 million pounds (11,372 metric tons) of herring were landed in the Togiak herring fishery in 1981. There were six commercial openings, and the preliminary catch breakdown was taken 82 percent by purse seiners and 18 percent by gillnetters. All herring fishing areas are now closed.

Tanner Crab

Only the Opilio Tanner crab fishery in the Bering Sea remains open. Fishing for the larger Bairdi Tanner crab is closed in the Bering Sea. Total landings through July 12 are:

<u>Area</u>	<u>Harvest In Pounds</u>	<u>Status</u>
Yakutat	532,000	Closed
Prince William Sound	2,000,000	"
Cook Inlet	2,235,716	"
Kodiak	11,748,629	"
South	3,332,634	"
Chinik	3,637,090	"
East Aleutians	625,472	"
West Aleutians	220,716	Closed
Bering Sea	50,347,000	Bairdi Closed Opilio Open

*Total  
34000 MT*

As of July 15, no boats were fishing for Tanner crab in the remaining open area and with a closure scheduled for August 1, fishing is essentially over for the year.

ALL ALASKAN WATERS GROUND FISH DOMESTIC CATCH

Jan. 1 to June 30, 1981

CUMULATIVE  
Metric Tons <sup>1/</sup>

	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Total
Pollock	27.0	3,157.4	13,103.5	19,043.0	3,408.5	5,737.2	-	-	-	-	-	-	44,476.6
Pacific Cod	138.4	849.2	722.8	791.2	4,901.6	4,406.7	-	-	-	-	-	-	11,809.9
Sablefish	5.0	28.0	9.0	96.0	278.2	13.3	-	-	-	-	-	-	429.5
Flounder	3.0	20.5	19.8	23.0	3,544.6	3,120.6	-	-	-	-	-	-	6,731.5
Rockfish	10.4	10.9	53.9	43.0	26.3	25.4	-	-	-	-	-	-	169.9
Atka Mackerel	0	0	0	0	1,251.9	238.4	-	-	-	-	-	-	1,490.3
Other/Unspecified	39.0	56.8	60.5	42.1	848.3	287.6	-	-	-	-	-	-	1,334.3
Total	222.8	4,122.8	13,969.5	20,038.3	14,259.4	13,829.3	-	-	-	-	-	-	66,442.1

<sup>1/</sup> Dressed Weight

Alaska Department of Fish and Game  
7/16/81

TOTAL GULF OF ALASKA GROUND FISH DOMESTIC CATCH

Jan. 1 to June 30, 1981

CUMULATIVE  
Metric Tons <sup>1/</sup>

	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Total
Pollock	27.0	2,272.0	6,905.1	7,980.0	5.4	50.3	-	-	-	-	-	-	17,239.8
Pacific Cod	89.0	95.0	213.2	156.7	23.3	261.4	-	-	-	-	-	-	838.6
Sablefish	5.0	28.0	9.0	95.9	278.0	8.8	-	-	-	-	-	-	424.7
Flounder	3.0	20.5	19.8	22.4	0	0	-	-	-	-	-	-	65.7
Rockfish	10.5	10.9	53.9	42.8	24.8	19.2	-	-	-	-	-	-	162.1
Atka Mackerel	0	0	0	0	0	0	-	-	-	-	-	-	0
Other/Unspecified	39.0	53.8	60.5	41.0	1.7	15.2	-	-	-	-	-	-	211.2
Total	173.5	2,480.2	7,261.5	8,338.8	333.2	354.9	-	-	-	-	-	-	18,942.1

<sup>1/</sup> Dressed Weight

Alaska Department of Fish and Game  
7/16/81

BERING SEA GROUND FISH DOMESTIC CATCH  
 Jan. 1 to June 30, 1981  
 CUMULATIVE  
 Metric Tons <sup>1/</sup>

	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Total
Pollock	0	885.4	6,198.4	11,063.4	3,403.1	5,686.9	-	-	-	-	-	-	27,237.2
Pacific Cod	49.3	754.2	509.6	634.5	4,878.3	4,145.3	-	-	-	-	-	-	10,971.2
Sablefish	0	0	0	0	.2	4.5	-	-	-	-	-	-	4.7
Flounder	0	0	0	.2	3,544.6	3,120.6	-	-	-	-	-	-	6,665.4
Rockfish	0	0	0	0	1.5	6.2	-	-	-	-	-	-	7.7
Atka Mackerel	0	0	0	0	1,251.9	238.4	-	-	-	-	-	-	1,490.3
Other/Unspecified	0	3.0	0	.7	846.6	272.4	-	-	-	-	-	-	1,122.7
Total	49.3	1,642.6	6,708.0	11,698.8	13,926.2	13,474.3	-	-	-	-	-	-	47,499.2

<sup>1/</sup> Dressed Weight

Alaska Department of Fish and Game  
7/16/81

EASTERN GULF OF ALASKA GROUND FISH DOMESTIC CATCH

Jan. 1 to June 30, 1981

CUMULATIVE  
Metric Tons <sup>1/</sup>

	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Total
Pollock	0	0	0	0	0	0	-	-	-	-	-	-	0
Pacific Cod	T	6.9	2.6	3.6	2.9	3.0	-	-	-	-	-	-	19.0
Sablefish	4.9	27.0	7.2	95.6	278.0	8.8	-	-	-	-	-	-	421.5
Flounder	0	T	0	0	0	0	-	-	-	-	-	-	T
Rockfish	10.5	10.7	21.1	18.9	19.9	13.0	-	-	-	-	-	-	94.1
Atka Mackerel	0	0	0	0	0	0	-	-	-	-	-	-	0
Other/Unspecified	.5	44.8	.2	.5	1.2	6.2	-	-	-	-	-	-	53.4
Total	15.9	89.5	31.1	118.6	302.0	31.0	-	-	-	-	-	-	588.1

<sup>1/</sup> Dressed Weight

Alaska Department of Fish and Game  
7/16/81

WESTERN GULF OF ALASKA GROUND FISH DOMESTIC CATCH  
 Jan. 1 to June 30, 1981  
 CUMULATIVE  
 Metric Tons <sup>1/</sup>

	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Total
Pollock	0	0	0	0	0	8.0	-	-	-	-	-	-	8.0
Pacific Cod	11.3	52.5	49.8	2.7	0	82.0	-	-	-	-	-	-	198.3
Sablefish	0	0	0	0	0	0	-	-	-	-	-	-	0
Flounder	0	0	0	0	0	0	-	-	-	-	-	-	0
Rockfish	0	0	0	0	0	.1	-	-	-	-	-	-	.1
Atka Mackerel	0	0	0	0	0	0	-	-	-	-	-	-	0
Other/Unspecified	0	0	0	0	0	9.0	-	-	-	-	-	-	9.0
<b>Total</b>	<b>11.3</b>	<b>52.5</b>	<b>49.8</b>	<b>2.7</b>	<b>0</b>	<b>99.1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>215.4</b>

<sup>1/</sup> Dressed Weight

Alaska Department of Fish and Game  
7/16/81

CENTRAL GULF OF ALASKA GROUND FISH DOMESTIC CATCH

Jan. 1 to June 30, 1981

CUMULATIVE  
Metric Tons <sup>1/</sup>

	Jan	Feb	Mar	Apr	May	June	Jul	Aug	Sep	Oct	Nov	Dec	Total
Pollock	27.0	2,272.0	6,905.1	7,980.0	5.4	42.3	-	-	-	-	-	-	17,231.8
Pacific Cod	77.7	35.6	160.8	150.3	20.4	176.4	-	-	-	-	-	-	621.2
Sablefish	.1	1.0	1.8	.3	0	0	-	-	-	-	-	-	3.2
Flounder	3.0	20.5	19.8	22.4	0	0	-	-	-	-	-	-	65.7
Rockfish	T	.2	32.8	23.9	4.9	6.1	-	-	-	-	-	-	67.9
Atka Mackerel	0	0	0	0	0	0	-	-	-	-	-	-	0
Other/Unspecified	38.5	8.9	60.3	40.5	.5	0	-	-	-	-	-	-	148.7
<b>Total</b>	<b>146.3</b>	<b>2,338.2</b>	<b>7,180.6</b>	<b>8,217.4</b>	<b>31.2</b>	<b>224.8</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>18,138.5</b>

<sup>1/</sup> Dressed Weight

Alaska Department of Fish and Game  
7/16/81

1981 CUMULATIVE ALASKA COMMERCIAL SALMON CATCH, BY SPECIES AND MANAGEMENT AREA  
 PRELIMINARY DATA  
 Thousands of Fish

Alaska Department of Fish and Game  
 Division of Commercial Fisheries  
 Support Bldg.; Juneau, AK 99801  
 Compiled 18-Jul-81 (907)465-4210

MANAGEMENT AREA	THROUGH	CHINOOK	SOCKEYE	SPECIES COHO	PINK	CHUM	ALL
<b>SOUTHEASTERN REGION</b>							
Southern Southeast							
Portland Canal gill net	12-Jul	.7	70.8	1.3	46.4	21.2	140.4
Prince of Wales Island gill net	12-Jul	.7	46.3	.9	10.0	6.5	64.4
Stikine River gill net	12-Jul	.4	8.8	.1	1.2	3.5	14.0
Southern districts seine	12-Jul	.3	92.3	12.2	145.8	10.0	260.6
Annette Island trap	12-Jul	0.0	0.6	0.0	4.0	1.1	4.2
Southern Southeast total		2.1	218.8	14.5	207.4	41.3	484.1
Northern Southeast							
Taku-Snettisham gill net	12-Jul	1.0	29.4	.9	57.0	5.7	94.0
Lynn Canal gill net	12-Jul	.5	16.5	.4	29.8	7.3	54.5
Yakutat gill net	12-Jul	1.0	61.2	0.0	3.7	0.0	65.9
Northern districts seine	12-Jul						
Northern Southeast total		2.5	107.1	1.3	90.5	13.0	214.4
Southeastern Region troll	12-Jul	170.0	2.0	60.0	210.0	2.0	444.0
Southeastern Region total		174.6	327.9	75.8	507.9	56.3	1 142.5
<b>CENTRAL REGION</b>							
Bristol Bay							
Naknek and Kvichak districts	12-Jul	5.0	8 508.0			9.0	8 522.0
Mushagak District	12-Jul	198.0	6 542.0			717.0	7 457.0
Egegik District	12-Jul	6.0	3 257.0			1.0	3 264.0
Ugashik District	12-Jul	4.0	977.0			2.0	983.0
Togiak District	12-Jul	21.0	241.0		4.0	140.0	406.0
Bristol Bay total		234.0	19 525.0		4.0	869.0	20 632.0
Cook Inlet area							
Upper Cook Inlet							
Northern District	12-Jul	.5	93.7	4.7	2.6	10.1	111.6
Central District	12-Jul	4.1	525.7	5.8	2.6	88.2	634.1
Upper Cook Inlet total		4.6	619.4	10.5	12.2	99.0	745.7
Lower Cook Inlet							
Southern District	12-Jul	.1	58.3	.3	409.7	10.6	479.0
Kamishak District	12-Jul		5.4			8.9	14.3
Outer District	12-Jul	0.0	17.7	0.0	37.4	74.5	129.6
Eastern District	12-Jul		3.8			5.1	6.3
Lower Cook Inlet total		.1	87.2	.3	447.1	94.5	629.2
Cook Inlet area total		4.7	706.6	10.8	459.3	193.5	1 374.9
Cordova area							
Copper River	12-Jul	20.7	458.0	0.0	8.7	1.6	489.0
Bering River	12-Jul	.2	55.8	.3	10.2	8.5	75.0
Prince William Sound	12-Jul	2.2	192.2	.3	3 486.2	232.8	4 438.1
Cordova area total		21.1	711.7	.6	3 505.8	742.9	5 002.1
Central Region total		259.8	20 943.3	11.4	3 969.1	1 825.4	27 009.0
<b>ARCTIC-YUKON-KUSKOKWIM REGION</b>							
Kuskokwim area	12-Jul	73.6	65.8		.1	444.7	584.2
Yukon River							
Lower Yukon River	12-Jul	148.2				888.4	1 036.6
Upper Yukon River	12-Jul	7.6				292.4	215.0
Yukon River total		155.8				1 095.8	1 251.6
Norton Sound	12-Jul	7.7	0.0		35.6	116.3	159.6
Kotzebue area	12-Jul	0.0			0.0	4.2	4.2
Arctic-Yukon-Kuskokwim total		237.1	65.8		35.7	1 661.0	1 999.6
<b>WESTWARD REGION</b>							
Kodiak Island	12-Jul	1.2	679.6	.1	433.7	132.0	1 246.6
Chignik	12-Jul	.9	1 236.0	.1	26.4	32.5	1 315.9
Alaska Peninsula & Aleutians							
South Peninsula	12-Jul	8.5	1 930.1	2.9	465.4	690.9	3 097.8
North Peninsula	12-Jul	17.7	809.6		.2	122.9	950.4
Aleutian Islands	12-Jul		2.2		.1	2.2	3.0
Peninsula & Aleutians total		26.2	2 742.4	2.9	465.7	814.0	4 051.2
Westward Region total		28.3	4 658.0	3.1	925.8	998.5	6 613.7
ALASKA TOTAL		679.8	25 995.0	90.3	5 438.5	4 541.2	36 764.8



1971 ALASKA COMMERCIAL SALMON CATCH, BY TIME PERIOD, SPECIES, AND MANAGEMENT AREA  
 P R E L I M I N A R Y D A T A  
 Thousands of Fish

Alaska Department of Fish and Game  
 Division of Commercial Fisheries  
 Support Bldg.: Juneau, AK 99001  
 Compiled 19-Jul-81 (787)465-4210

MANAGEMENT AREA	FROM	THRU	CHINOOK	SOCKEYE	S P E C I E S COHO	PINK	CHUM	ALL
<b>SOUTHEASTERN REGION</b>								
Southern Southeast								
Portland Canal gill net	05-Jul	12-Jul	.2	20.4	.4	34.3	7.5	62.8
Prince of Wales Island gill net	05-Jul	12-Jul	.3	19.1	.3	4.9	3.8	28.4
Stikine River gill net	05-Jul	12-Jul	.2	5.1	0.0	1.1	3.0	9.4
Southern districts seine	05-Jul	12-Jul	.3	92.3	12.2	145.8	10.0	260.6
Annette Island trap	05-Jul	12-Jul	0.0	0.6	0.0	3.0	1.1	4.7
Southern Southeast total			1.0	137.5	12.9	190.1	24.4	365.9
Northern Southeast								
Taku-Snettisham gill net	05-Jul	12-Jul	.2	13.5	.6	42.0	3.0	59.3
Lynn Canal gill net	05-Jul	12-Jul	0.0	5.0	.3	18.7	2.2	26.2
Yakutat gill net	05-Jul	12-Jul	.1	21.0	0.0	3.5	0.0	24.6
Northern districts seine	05-Jul	12-Jul	0.0	0.0	0.0	0.0	0.0	0.0
Northern Southeast total			.3	39.5	.9	64.2	5.2	110.1
Southeastern Region troll	05-Jul	12-Jul	18.0	1.9	57.3	209.4	1.4	288.0
Southeastern Region total			19.3	178.9	71.1	463.7	31.0	764.0
<b>CENTRAL REGION</b>								
Bristol Bay								
Naknek and Kvichak districts	05-Jul	12-Jul	1.0	1 914.0			4.0	1 919.0
Nushagak District	05-Jul	12-Jul	13.0	4 048.0			376.0	4 437.0
Egegik District	05-Jul	12-Jul		1 173.0				1 173.0
Ugashik District	05-Jul	12-Jul		672.0			1.0	673.0
Togiak District	05-Jul	12-Jul	4.0	171.0		4.0	84.0	269.0
Bristol Bay total			18.0	7 978.0		4.0	465.0	8 465.0
Cook Inlet area								
Upper Cook Inlet								
Northern District	05-Jul	12-Jul	.2	88.1	4.7	2.5	9.9	103.4
Central District	05-Jul	12-Jul	1.9	314.3	3.3	6.2	43.2	372.2
Upper Cook Inlet total			2.1	402.4	10.1	9.2	73.8	497.6
Lower Cook Inlet								
Southern District	05-Jul	12-Jul	0.0	12.5	.3	294.4	5.9	313.1
Kanishak District	05-Jul	12-Jul		.6			.6	1.2
Outer District	05-Jul	12-Jul	0.0	4.4	0.0	33.9	71.6	109.9
Eastern District	05-Jul	12-Jul	0.0	0.0			0.0	0.0
Lower Cook Inlet total			0.0	17.5	.3	328.3	78.6	424.7
Cook Inlet area total			2.1	419.9	10.4	337.5	152.4	922.3
Cordova area								
Copper River	05-Jul	12-Jul	0.0	10.9	0.0	2.5	0.0	13.4
Bering River	05-Jul	12-Jul	0.0	1.9	.1	1.1	.2	3.3
Prince William Sound	05-Jul	12-Jul	0.1	38.3	.2	1 286.3	241.3	2 266.3
Cordova area total			.1	51.1	.3	1 990.0	241.5	2 283.0
Central Region total			20.2	8 449.0	10.7	2 331.5	858.9	11 670.3
<b>ARCTIC-YUKON-KUSKOKWIM REGION</b>								
Kuskokwim area-								
Yukon River	05-Jul	12-Jul	4.8	26.0		.1	137.1	168.0
Lower Yukon River	05-Jul	12-Jul	1.4				129.3	130.7
Upper Yukon River	05-Jul	12-Jul	0.7				15.8	16.5
Yukon River total			2.1				145.1	147.2
Horton Sound	05-Jul	12-Jul	.4	0.0		24.0	31.9	56.3
Kotzebue area	05-Jul	12-Jul	0.0			0.0	4.2	4.2
Arctic-Yukon-Kuskokwim total			7.3	26.0		24.1	318.3	375.7
<b>WESTWARD REGION</b>								
Kodiak Island	05-Jul	12-Jul		81.4	.1	264.8	59.9	406.2
Chignik	05-Jul	12-Jul	.4	397.2	0.0	10.8	22.9	431.3
Alaska Peninsula & Aleutians								
South Peninsula	05-Jul	12-Jul	3.3	75.7	2.9	38.3	125.7	245.9
North Peninsula	05-Jul	12-Jul	.6	305.4		.2	58.5	364.7
Aleutian Islands	05-Jul	12-Jul	0.0	2.2		.1	.2	3.0
Peninsula & Aleutians total			3.9	383.8	2.9	38.6	184.4	613.6
Westward Region total			4.3	862.4	3.0	314.2	267.2	1 451.1
<b>ALASKA TOTAL</b>			<b>51.1</b>	<b>9 516.3</b>	<b>84.8</b>	<b>3 133.5</b>	<b>1 475.4</b>	<b>14 261.1</b>

P R E L I M I N A R Y D A T A  
Thousands of Pounds

Division of Commercial Fisheries  
Support Bldg.; Juneau, AK 99801  
Compiled 19-Jul-81 (907)465-4210

CATCH AREA	THROUGH	S P E C I E S					
		CHINOOK	SOCKEYE	COHO	PINK	CHUM	ALL
<b>SOUTHEASTERN REGION</b>							
Southern Southeast	12-Jul	21.3	1 017.1	67.7	886.2	367.6	2 357.9
Northern Southeast	12-Jul	25.2	560.0	6.7	352.6	100.1	1 044.6
Southeastern troll	12-Jul	2 518.4	11.8	270.5	877.9	16.7	3 695.5
Southeastern Region total	12-Jul	2 564.8	1 588.9	344.9	2 116.8	484.6	7 100.0
<b>CENTRAL REGION</b>							
Cordova area	12-Jul	406.7	3 498.8	3.3	12 688.5	4 851.6	21 448.9
Cook Inlet	12-Jul	52.1	3 430.5	48.9	1 557.7	1 105.2	6 202.4
Bristol Bay	12-Jul	3 320.8	91 520.2	-----	11.9	4 544.3	92 392.2
Central Region total	12-Jul	3 779.6	98 457.5	52.2	14 258.2	10 501.0	127 048.5
<b>ARCTIC-YUKON-KUSKOKWIM REGION</b>							
Kuskokwim area	12-Jul	1 014.8	380.7	-----	.3	2 465.6	3 861.4
Yukon River	12-Jul	2 905.9	-----	-----	-----	5 730.3	8 636.2
Norton Sound	12-Jul	119.6	0.0	-----	103.0	622.2	844.8
Kotzebue area	12-Jul	0.0	-----	-----	0.0	27.0	27.0
Arctic-Yukon-Kuskokwim total	12-Jul	4 040.4	380.7	-----	103.4	8 845.0	13 369.5
<b>WESTWARD REGION</b>							
Kodiak Island area	12-Jul	18.3	3 257.1	.5	1 272.0	690.4	5 238.3
Chignik	12-Jul	15.3	6 175.3	.6	67.3	217.9	6 476.4
Alaska Peninsula & Aleutians	12-Jul	383.7	12 245.8	13.0	1 111.3	3 868.2	17 622.2
Westward Region total	12-Jul	417.5	21 678.3	14.1	2 450.6	4 776.4	29 336.9
<b>ALASKA TOTAL</b>	12-Jul	10 802.3	122 105.4	411.2	18 928.9	24 607.0	176 854.8

1/ Estimated average dressed weight (without head).

The following multiplicative drawn (with head)-to-round conversion factors were used for Southeastern Alaska troll salmon: chinook 1.26; sockeye 1.18; coho 1.23; pink 1.12; chum 1.26.  
The following multiplicative round-to-dressed weight conversion factors were used: chinook 0.73; sockeye 0.78; coho 0.75; pink 0.85; chum 0.73.  
Average round (drawn for troll) weights were provided by ADF&G area biologists.  
Column entries may not sum to regional or statewide totals because of rounding.

1981 SEASON AVERAGE COMMERCIAL ROUND SALMON WEIGHTS, BY SPECIES AND CATCH AREA 1/  
P R E L I M I N A R Y D A T A  
Pounds

Alaska Department of Fish and Game  
Division of Commercial Fisheries  
Support Bldg.; Juneau, AK 99801  
Compiled 19-Jul-81 (907)465-4210

CATCH AREA	THROUGH	S P E C I E S					
		CHINOOK	SOCKEYE	COHO	PINK	CHUM	ALL
<b>SOUTHEASTERN REGION</b>							
Southern Southeast	12-Jul	13.9	6.0	6.2	5.0	12.2	6.1
Northern Southeast	12-Jul	13.8	6.7	6.9	4.6	10.5	6.1
Southeastern troll	12-Jul	20.3	7.5	6.8	4.7	11.6	11.0
Southeastern Region total	12-Jul	20.1	6.2	6.1	4.9	11.8	8.0
<b>CENTRAL REGION</b>							
Cordova area	12-Jul	26.4	6.3	7.3	4.3	8.7	5.3
Cook Inlet	12-Jul	15.2	6.2	6.0	4.0	7.8	5.7
Bristol Bay	12-Jul	19.4	6.0	-----	3.5	7.2	6.2
Central Region total	12-Jul	19.9	6.0	6.1	4.2	7.9	6.0
<b>ARCTIC-YUKON-KUSKOKWIM REGION</b>							
Kuskokwim area	12-Jul	18.9	7.4	-----	3.5	7.6	5.0
Yukon River	12-Jul	25.6	-----	-----	-----	7.2	9.5
Norton Sound	12-Jul	21.3	-----	-----	3.4	7.3	7.1
Kotzebue area	12-Jul	-----	-----	-----	-----	8.8	8.8
Arctic-Yukon-Kuskokwim total	12-Jul	23.3	7.4	-----	3.4	7.3	9.1
<b>WESTWARD REGION</b>							
Kodiak Island area	12-Jul	20.9	6.1	6.5	3.5	7.2	5.3
Chignik	12-Jul	23.3	6.4	7.5	3.0	5.7	6.3
Alaska Peninsula & Aleutians	12-Jul	20.1	5.7	6.0	2.8	6.5	5.6
Westward Region total	12-Jul	20.2	6.0	6.1	3.1	6.6	5.7
<b>ALASKA TOTAL</b>	12-Jul	21.1	6.0	6.1	4.1	7.4	6.2

1/ The following multiplicative drawn-to-round weight conversion factors were used for Southeastern troll salmon: chinook 1.26; sockeye 1.18; coho 1.23; pink 1.12; chum 1.26.  
Average round (drawn for troll) weights were provided by ADF&G area biologists.

Southeastern Region

Though favorable landings have been reported in some southern districts, troll catches of coho salmon have been poor in northern areas. Overall abundance of coho salmon in most inside fishing districts is below average for this time period. Pink and sockeye catches were good during the first purse seine opening at Noyes Island. Sockeye landings were improved this week in Portland Canal and above average in the Prince of Wales Island gill net fishery. Portland Canal chum catches remained low this period.

Bristol Bay

Sockeye escapements have been achieved in all but two river systems. The catch in Nushagak Bay is the second largest recorded harvest and has already surpassed the total run size forecast for that area. The Togiak sockeye return appears to be strong with above average catches for this time period. Harvest levels in most districts, with the exception of Ugashik have started to diminish.

Cook Inlet Area

The Upper Cook Inlet sockeye run is midway through the season. Drift fleet catches have been light due to dispersed quantities of fish. Setnetters have been doing very well with a record period sockeye harvest in the Northern District set net fishery of 75 000 fish. Sockeye escapement into the Kenai River is on schedule and Kaslof River escapement has passed the high end of the desired escapement range. Crescent River escapement is very low and closures in that area are likely. In Lower Cook Inlet, pink salmon returns to Tutka Bay hatchery have been excellent. The run totaled 400 000 fish by July 12, possibly reaching 600 000 fish by July 18. Pink returns to Port Dick, Port Chathan, Windy and Rocky Bays are below normal. The chum catch of 95 000 fish is excellent for this time period.

Cordova Area

The Southeastern District opened to purse seining this week producing above average catches. High catches also occurred in the Southwestern District with over 1 000 000 fish taken this period. The total chum catch for the Sound has already surpassed the forecast. Escapements for all districts open to fishing are very good for this time. Escapement of all species past the Miles Lake sonar counter through July 11, totaled 411 500 fish. Approximately 150 200 sockeye, 104 500 pinks and 600 chum salmon have entered the Coghill Lake system. The Northern, Montague and Eshany districts will remain closed until further notice.

Arctic-Yukon-Kuskokwim Region

The Lower Yukon summer chum run has peaked and catches are sharply declining. Small numbers of fall chums are beginning to show. Upper Yukon commercial catches of both chinook and chum salmon are also diminishing. Good catches of both species, however are still occurring in the Tanana commercial and subsistence fisheries. The summer chum season closed in District 1 of the Kuskokwim River. Commercial fishermen landed the second largest harvest of chum salmon since the inception of this fishery in 1971. Escapement appears strong for the three major species. The Norton Sound chum run has produced above average catches, with two subdistricts reporting record harvest levels. Minimum escapement goals have been achieved at Moses Point. Except for Moses Point, pink returns in most subdistricts have been weak. Both catch and effort during the first fishing period in Kotzebue were above 1980 levels.

Kodiak Island

A price agreement has been reached and purse seiners will begin fishing July 13. The gill net fleet has been fishing continuously since the fishery opened.

Chignik

Chum returns in the Western and Perryville Districts have been strong, and additional fishing time will be allowed July 15 through July 17. Continuous fishing this week in Chignik Bay and Central Districts produced a catch of almost 400 000 sockeye. Sockeye escapement into the Chignik River by July 11, totaled 723 900 fish.

Alaska Peninsula

North Peninsula fisheries have again been plagued by high winds. Pink salmon catch levels in the Shumagin Islands are similar to catches during the 1979 season. Chum catches are exceptionally strong for this time period. Sockeye escapement into Bear and Nelson Rivers totals 419 600 and 211 000 fish, respectively.

PACIFIC HERRING STOCKS AND FISHERIES  
IN THE EASTERN BERING SEA:  
PRELIMINARY REPORT FOR 1981

A Report to the North Pacific Fisheries Management Council  
July 1981

Prepared by: Bering Sea Herring Program  
Alaska Department of Fish and Game  
Division of Commercial Fisheries  
Anchorage, Alaska

This report presents a summary of current information on eastern Bering Sea Pacific herring stocks and fisheries within Alaskan waters. All 1981 information contained within this report is preliminary and may be revised upon further, more detailed, analysis.

#### COMMERCIAL FISHERY

A total of 17,650 m.t. of Pacific herring were harvested in eastern Bering Sea commercial fishing districts during 1981 (Figure 1, Table 1). This was the second highest total harvest recorded since the fishery began in the 1960's. Percent harvest of estimated available biomass ranged from 8.5, in Togiak District, to 17.9, in Norton Sound District. Roe recovery from harvested herring ranged from 7.7, in Goodnews Bay District, to 9.1%, in Togiak District. Wastage of herring was low; only about 50 m.t. were estimated to have been lost or dumped during the season. Numbers of buyers increased slightly in all areas (Table 2). Fishing effort levels decreased in Togiak District, but increased in all other areas. Roe-on-kelp harvests occurred only in Togiak and Norton Sound Districts and totaled 211,658 kg. (Table 3). Value of total herring and roe-on-kelp harvests to fishermen was estimated at \$6.5 million.

#### STATUS OF THE STOCKS

Aerial surveys were conducted within all fishing districts, except Cape Romanzof, to determine relative abundance, distribution and estimated biomass of herring schools. Basic methods of data collection were similar to those used in previous years. Test fishing with variable mesh gillnets and sampling of commercial

landings were conducted in all fishing districts to determine age, size and sexual maturity of herring and to estimate occurrence and abundance of other pelagic fishes.

Pacific herring stocks appeared to be much more abundant in all areas during 1981 than in 1980 (Table 4). In general, this seemed to be due to a strong recruitment of four year old herring from the 1977 year class. Spawn deposition also seemed to be good, with totals of 64, 16 and 21 linear km of milt sighted during the season in Togiak, Security Cove and Norton Sound Districts, respectively.

Two abundance peaks of herring occurred in Togiak District: an early peak on May 3 composed of age five and older herring and a later peak on May 15 composed primarily of age four herring (Table 5). A single abundance peak was noted in Security Cove and Goodnews Bay Districts on May 14 and in Norton Sound District on May 26 (Tables 6-8).

#### STOCK ASSESSMENT STUDIES

A total of 209 hr was spent in aerial assessment surveys of herring spawning stocks: 107 hr in Togiak (including about 11 hr of helicopter flying time), 32 hr in Security Cove/Goodnews Bay, and 70 hr in Norton Sound. This represented the highest intensity of aerial survey work ever before achieved. Although weather and water conditions were generally better than in past years, poor conditions still hampered survey coverage at least during part of the season in most districts (Tables 5-8). This posed the greatest problem in Togiak District during the period April 23 to May 3 at the time older age classes of herring peaked in

abundance. Availability of a chartered helicopter on the Togiak fishing grounds increased surveying capabilities and greatly aided test fishing, catch sampling and spawn deposition programs.

Contracted purse seine vessels provided tonnage data on three additional herring schools within Togiak District during 1981 (Table 9). As further information is collected each year the early hypothesis of herring tonnage per unit surface area of school increasing with greater water depth appears to be substantiated.

Although further increases in aerial survey coverage and additional tonnage conversion estimates will provide improved assessment capabilities, other studies and techniques are needed to refine biomass estimates. Tagging studies would provide valuable information on movement patterns of herring and estimates of residency time on the spawning grounds.

Hydroacoustic surveys might also provide useful data on school movements as well as school density. Also, other assessment techniques need to be developed and evaluated so that independent estimates of stock abundance can be calculated and compared with those determined by aerial surveys. These could include spawn deposition estimates to provide post-season determinations of spawning population size, offshore hydroacoustic/trawl surveys to provide pre-season stock estimates (along with stock separation work to provide estimates of stock components), and increased use of collected fishery statistics in mathematical models to predict future abundance and explain past fluctuations of stocks.

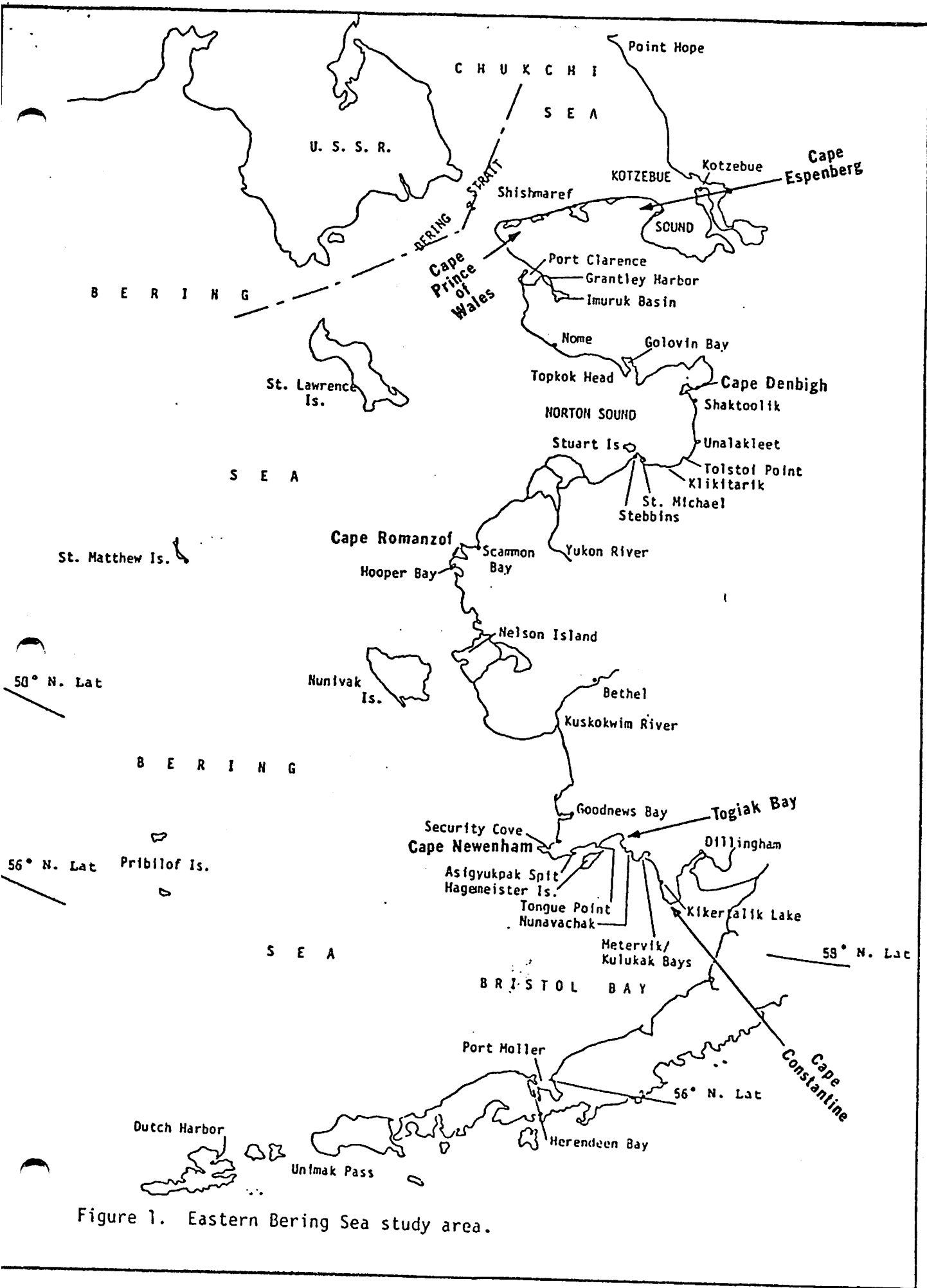


Figure 1. Eastern Bering Sea study area.



Table 1. Estimated biomass and commercial harvest of Pacific herring in eastern Bering Sea fishing districts, Alaska, 1978-1981.

District	Biomass (m.t.)	Harvest (m.t.)	Roe %	% Biomass Harvested
<u>1981</u>				
Togiak	134,400	11,372	9.1	8.5
Security Cove	7,000	1,064	8.1	15.2
Goodnews Bay	4,000	596	7.7	14.9
Cape Romanzof	---	653	8.0	---
Norton Sound	22,200	3,965	8.8	17.9
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Totals	167,600	17,650		10.5
<u>1980</u>				
Togiak	62,300	17,774	9.2	28.5
Security Cove	1,400	632	8.2	45.1
Goodnews Bay	1,100	406	9.5	36.9
Cape Romanzof	3,600	554	9.8	15.4
Norton Sound	7,600	2,224	8.1	29.3
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Totals	76,000	21,590		28.4
<u>1979</u>				
Togiak	216,800	10,115	8.6	4.7
Security Cove	19,500	385	8.5	2.0
Goodnews Bay	6,700	82	4.7	1.2
Cape Romanzof	2,700	653	9.8	24.2
Norton Sound	7,000	1,172	7.0	16.7
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Totals	252,700	12,406		4.9

Table 1. Continued.

District	Biomass (m.t.)	Harvest (m.t.)	Roe %	% Biomass Harvested
		<u>1978</u>		
Togiak	172,600	7,030	8.2	4.1
Security Cove	1,200	259	---	21.6
Goodnews Bay	400	0		0.0
Cape Romanzof	2,700	0		0.0
Norton Sound	4,800	14	---	0.3
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Totals	181,700	7,303		4.0

Table 2. Numbers of buyers (companies registered) and fishermen participating in eastern Bering Sea Pacific herring fisheries, Alaska, 1978-1981.

District	Number of Buyers	Number of Fishermen	
		Gillnet	Purse Seine
<u>1981</u>			
Togiak	28	106	83
Security Cove	2	113	**
Goodnews Bay	5	175	**
Cape Romanzof	4	69	**
Norton Sound	13	332	**
<u>1980</u>			
Togiak	27	363	140
Security Cove	8	175	**
Goodnews Bay	4	165	**
Cape Romanzof	2	111	**
Norton Sound	8	289	**
<u>1979</u>			
Togiak	33	350	175
Security Cove	6	61	**
Goodnews Bay	1	41	**
Cape Romanzof	No Fishery Conducted		
Norton Sound	7	50	17
<u>1978</u>			
Togiak	16	40	25

\*\* Purse seine gear prohibited

Table 3. Commercial harvest of Pacific herring "roe-on-kelp" in eastern Bering Sea fishing districts, Alaska, 1978-1981.

District	Harvest (kg.)			
	1981	1980	1979	1978
Togiak	171,700	86,107	188,286	149,756
Norton Sound	39,952	22,173	11,810	3,000

Table 4. Estimated relative abundance (total surface area of fish schools sighted divided by 50 m<sup>2</sup>, the size of a standard small school) of Pacific herring in eastern Bering Sea fishing districts, Alaska, 1978-1981. Information obtained from aerial surveys.

District	Relative Abundance			
	1981	1980	1979	1978
Togiak	55,262	15,249	137,630	43,050
Security Cove	2,228	407	2,912	246
Goodnews Bay	1,593	**	3,729	241
Cape Romanzof	**	**	539 <sup>1/</sup>	539 <sup>1/</sup>
Norton Sound	6,516	2,242	1,860	1,277

\*\* No estimate possible due to water and weather conditions

<sup>1/</sup> No surveys made; estimate based upon 50% of stock size at Nelson Island

Table 5. In-season biomass estimates (m.t.) of Pacific herring within Togiak fishing district, Alaska, 1981.

Date	Survey 1/ Rating	Kulukak	Nunavachak	Togiak	Hagemeister	District2/ Total
4/20	G-F	0	0	0	0	0
4/22	E-G	116	0	262	919	1,297
4/23	E-G	0	0	1,126	2,535	3,661
4/24	G-P	316	0	1,751	1,683	3,750
4/25	G	340	0	2,896	2,443	5,676
4/26	E-G	238	1,556	3,728	864	6,386
4/27	G-F	259	483	3,100	3,137	6,979
4/28	P	1,516	680	4,575	---	6,771
4/30	U	---	---	---	---	---
5/1	U	425	1,444	0	---	1,869
*5/2	P-U	184	262	---	---	446
*5/3	G-P	605	3,721	58,279	2,335	64,940
*5/4	G	408	880	3,608	130	5,026
*5/5	P	---	122	38	36	196
*5/6	P	51	---	3,111	60	3,222
5/7	G	833	1,149	21,915	559	24,456
5/8	E-G	2,139	1,189	25,270	1,537	30,135
5/9	E-G	6,469	1,002	22,679	1,074	31,224
5/10	P-U	---	987	801	1,176	2,964
*5/12	G-F	3,580	3,484	21,294	7,076	35,434
*5/13	E-G	29,971	1,745	20,507	3,278	55,501
*5/14	E	51,439	2,110	21,949	3,910	79,408
*5/15	E-G	65,304	2,972	25,245	1,792	95,313
*5/16	P-U	9,963	305	629	466	11,363
5/17	U	---	---	---	---	---
5/20	U	---	---	---	---	---
5/22	P-U	---	---	---	---	---
5/23	F-P	469	1,234	---	---	1,703
5/26	G	469	703	26,217	61	27,450
6/3	G-F	1,285	87	178	0	1,550

\* Commercial fishing periods occurred on these dates:  
 5/2-3 (10 hr), 5/3-4 (24 hr), 5/5 (24 hr), 5/6 (24 hr),  
 5/12-13 (10 hr), 5/15-16 (9 hr)

1/ E=excellent, G=good, F=fair, P=poor, U=unsatisfactory

2/ Conversion factor = sliding scale based upon water depth  
 (shallow water, 3 m or less = 1.2 m.t. per RAI unit;  
 medium depths, 5-6 m = 2.4 m.t. per RAI unit;  
 deep water, 7 m or greater = 3.4 m.t. per RAI unit)

a/ Two surveys flown on these days; highest biomass estimate used

Table 6. In-season biomass estimates (m.t.) of Pacific herring within Security Cove fishing district, Alaska, 1981.

Date	Survey 1/ Rating	Security 2/ Cove	Red 2/ Mountain	Carter 3/ Bay	District Total
4/20	G	0	0	0	0
4/24	G-F	0	0	0	0
4/27	F-P	10	20	0	30
4/30	U	0	0	--	0
5/2	F-P	0	--	--	0
5/3	F-P	14	17	--	31
*5/5	F-P	10	0	--	10 a/
5/6	U	0	0	--	0
5/7	F-P	31	629	--	660
*5/8	F-P	479	1,238	52	1,769 b/
*5/9	F-P	1,008	860	7	1,875
5/10	F-P	2,649	20	24	2,693
*5/11	F-P	432	--	--	432
*5/12	G-P	1,540	751	--	2,291
5/13	F-P	765	3,750	872	5,387
5/14	G-F	2,359	3,393	1,314	7,066
*5/15	U	--	--	--	--
*5/16	U	--	--	--	--
*5/17	G-P	2,312	3,499	80	5,819
5/23	F-P	255	218	--	473
5/26	P	133	211	--	344
6/2	P	173	112	132	417

\*Commercial fishing periods occurred on these dates:  
 5/5 (10 hr), 5/8 (12 hr), 5/9 (12 hr), 5/11 (12 hr), 5/12 (12 hr),  
 5/15-16 (12 hr), 5/17-18 (9 hr), 5/20 (11 hr)

1/ E=excellent, G=good, F=fair, P=poor, U=unsatisfactory

2/ Conversion factor = 3.4 m.t. per RAI unit

3/ Conversion factor = 2.5 m.t. per RAI unit

a/ Two surveys flown on this day; highest biomass estimate used

b/ Three surveys flown on this day; highest biomass estimate used

Table 7. In-season biomass estimates (m.t.) of Pacific herring within Goodnews Bay fishing district, Alaska, 1981.

Date	Survey <u>1</u> / Rating	District <u>2</u> / Total
4/20	G	0
4/24	F	0
4/27	F-P	0
5/3	P	0
*5/5	F-P	7
5/7	G-F	883
*5/8	P	225
*5/9	F	1,052
5/10	P	685
*5/12	F	1,055
5/13	F-P	1,465
*5/14	G	3,982
*5/17	P	1,040
5/23	U	0
5/26	P	770
6/2	U	0

\* Commercial fishing periods occurred on these dates:  
 5/5 (10 hr), 5/8 (12 hr), 5/9 (12 hr), 5/11 (12 hr), 5/12 (12 hr),  
 5/14 (3 hr), 5/15-16 (12 hr), 5/17-18 (12 hr), 5/21-22 (24 hr),  
 5/24 (12 hr), 5/27 (12 hr)

1/ E=excellent, G=good, F=fair, P=poor, U=unsatisfactory

2/ Conversion factor = 2.5 m.t. per RAI unit



Table 8. In-season biomass estimates (m.t.) of Pacific herring within Norton Sound fishing district, Alaska, 1981.

Date	Survey <u>1/</u> Rating	Saint Michaels	Unalakleet	Cape Denbigh	District <u>2/</u> Total
*5/8	G-U	0	112	704	816
*5/17	F-U	37	13	3	53
*5/18	F-U	71	0	3,189	3,260
*5/20	G-U	1,622	0	--	1,622
*5/21	G	1,884	146	--	2,030
*5/22	F-U	--	0	500	500
*5/23	G-U	4,815	3,516	2,924	11,255 <u>b/</u>
*5/25	G-P	13,008	2,244	2,190	17,442 <u>a/</u>
*5/26	G-F	6,722	10,842	2,621	20,185 <u>a/</u>
*5/27	P	--	163	1,995	2,158
*5/28	P	--	187	1,570	1,757 <u>a/</u>
5/30	F-U	--	0	2,292	2,292
6/1	U	--	0	7	7
6/2	F	5,198	5,804	--	11,002
6/3	F-P	--	7,473	1,459	8,932
6/5	F-P	3,682	418	3,148	7,248
6/8	F-U	7	0	894	901

\* Commercial fishing opened 15 April, but first delivery 18 May; Commercial fishing closed (in the above subdistricts) 29 May (fishing was allowed in all other subdistricts through 31 July, but less than one ton reported from these areas all season)

1/ E=excellent, G=good, F=fair, P=poor, U=unsatisfactory

2/ Conversion factor = 3.4 m.t. per RAI unit

a/ Two surveys flown on these days; highest biomass estimate used

b/ Three surveys flown on this day; highest biomass estimate used

Table 9.2 Conversion estimates (metric tons of Pacific herring per 50 m<sup>2</sup> school surface area) obtained from test purse seine fishing, Togiak fishing district, Alaska, 1978-1981.

Year	Water Depth (m)	Biomass per RAI unit (m.t./50 m <sup>2</sup> )	
1981	2	1.1	Catch landed
1980	3	1.2	Catch landed
1980	5	1.1	Catch landed
1980	5	1.2	Catch estimated in net
1979	6	2.4	Catch landed
1980	6	3.0	Catch estimated in net
1980	6	2.6	Catch estimated in net
1981	6	1.7	Catch landed
1980	8	1.6	Catch estimated in net
1981	8	4.0	Catch landed
1978	?	6.7	Catch estimated in net
1978	?	11.0	Catch estimated in net

Mean all estimates = 3.1  
 Mean estimates at 2-3 m = 1.2  
 Mean estimates at 5-6 m = 2.0  
 Mean estimates at 8 m = 2.8