



**Summary Report on the Status of Groundfish Resources
of the Gulf of Alaska in 1995**

by

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Summary Report on the Status of Groundfish Resources of the Gulf of Alaska in 1995

The current status of individual groundfish stocks managed under the Fishery Management Plan (FMP) for the Gulf of Alaska are summarized in the following tables. Tables 1 and 2 provide a summary of the current stock status of the groundfish stocks, including catch statistics, acceptable biological catches (ABCs), and total allowable catches (TACs) for 1995, and recommendations for ABCs. The range of the preliminary 1996 ABCs for target species is 561,440-685,240 t. Because of halibut bycatch mortality considerations in the high-biomass flatfish fisheries, the overall sum of the TACs for 1996 will be considerably lower than the sum of the ABCs. For perspective, in 1995 the sum of the TACs was 279,463 t, and the sum of the ABCs was 535,140 t.

The following overview is based upon *Our Living Oceans: Report on U.S. Living Marine Resources in 1995* (in press):

Gulf of Alaska groundfish catches have fluctuated around 200,000 t since 1989. The groundfish catches are dominated by pollock, followed by Pacific cod, flatfish, and sablefish. The 1994 groundfish catch of 238,122 t was valued at \$114.5 million (ex-vessel value). Sablefish comprised about 54% (\$61.6 million). Other major revenue-producing species in 1994 were pollock (\$18.1 million), Pacific cod (\$16.9 million), and flatfishes (\$10.8 million).

Pollock: Pollock abundance has been declining in recent years due to poor recruitment trends. A conservative exploitation strategy is utilized for pollock to accommodate concerns about maintaining the pollock stock above threshold levels and ecosystem considerations such as limiting forage fish (e.g. juvenile pollock) removals important to marine mammals and seabirds. Pollock are considered fully utilized.

Pacific Cod: Pacific cod are abundant and fully utilized, but are expected to decline due to a lack of significant recruitment. The last strong year class was the 1984 cohort. A conservative exploitation rate has been applied to Pacific cod in light of uncertainty about the magnitude of the population not sampled by the survey gear.

Flatfish: Flatfish are in general very abundant, largely owing to great increases in arrowtooth flounder biomass. Flathead sole, rex sole and arrowtooth flounder are managed as separate categories, and the rest of the flatfish are managed as deepwater or shallow-water groups. Flatfish are under-utilized due to halibut bycatch mortality considerations.

Sablefish: Sablefish are still considered to be abundant, although on a slow declining trend due to a lack of strong recruitment. They are fully utilized. Sablefish will be harvested under an Individual Fishing Quota (IFQ) fishery for the first time in the 1995 season. This will significantly change the dynamics of the fishery.

Rockfish: Slope rockfish are at low levels and fully utilized. Within the slope group, Pacific ocean perch, shortraker and roughey rockfish, and northern rockfish are managed as separate categories. The principal species of the slope group, Pacific ocean perch, and shortraker and roughey rockfish are highly valued. Rockfish, particularly Pacific ocean perch, were intensively exploited by foreign fishing in the 1960s. Rockfish are long-lived, slow-growing species that are only now showing signs of rebounding from the heavy exploitation of three decades ago. A rebuilding plan is in effect specifically for Pacific ocean perch. Thornyhead rockfish are also highly valued and believed to be at a low level. They are conservatively

managed due to their sensitivity to over-exploitation. The abundance of pelagic shelf rockfish is unknown due to problems assessing the species with current methodology. The trawl surveys only sample those components of the population that are on or near smooth, trawlable bottom; since pelagic shelf rockfish are thought to inhabit the midwater environment at times, biomass estimates may underestimate true abundance. Very little is known about the biology of these fish; they are in need of further research. Demersal shelf rockfish are managed in Southeast Alaska; emphasis is placed on the target species, yelloweye rockfish. Traditional population assessment methods (e.g. trawl surveys) are not considered useful for these fish given their distribution, life history and physiology. They are currently being assessed by a manned submersible conducting line transects. While estimates of abundance are available, there is no historical information to place them into perspective. As this stock assessment approach evolves and is improved upon, more information on the abundance of demersal shelf rockfish will be available.

Atka mackerel: The Atka mackerel stock occurs mainly throughout the Aleutian Islands. Their abundance in the Gulf of Alaska has fluctuated greatly; they supported a large foreign fishery through the 1980s. By the mid-1980s the population had all but disappeared. They were combined in the "other species" category due to low abundance and absence of a directed fishery in 1988. Targeting resumed in 1990, presumably as the population once again expanded into the Gulf of Alaska. They were separated from the "other species" category and became a separate target category again in 1994. Abundance estimates are available from bottom trawl surveys, however, since they are a shallow, schooling species which tends to reside on hard, rough and rocky bottom, the trawl area-swept technique may not be appropriate. Further research on survey methodology is needed for this species.

Table 1. Gulf of Alaska groundfish 1995 and 1996 ABCs, 1995 TACs, and 1995 catches reported through August 19, 1995. MSY is unknown for all species.

Species	ABC (mt)		1995 TAC	1995 Catch
	1995	1996		
Pollock	W(61)	30,380	16,700- 24,500	22,238
	C(62)	15,310	8,500- 12,500	11,928
	C(63)	16,310	8,800- 13,000	12,265
	E	3,360	1,800- 2,700	3,352
	Total	65,360	35,800- 52,700	65,360
Pacific cod	W	20,100	18,850- 31,900	22,203
	C	45,650	42,900- 72,600	40,683
	E	3,450	3,250- 5,500	1,121
	Total	69,200	65,000- 110,000	69,200
Deepwater flatfish ¹	W	670	670	47
	C	8,150	8,150	1,712
	E	5,770	5,770	189
	Total	14,590	14,590	11,080
Rex sole ²	W	1,350	1,350	217
	C	7,050	7,050	3,311
	E	2,810	2,810	121
	Total	11,210	11,210	9,690
Shallow water flatfish ³	W	26,280	26,280	336
	C	23,140	23,140	3,377
	E	2,850	2,850	3
	Total	52,270	52,270	18,630
Flathead sole	W	8,880	8,880	569
	C	17,170	17,170	1,267
	E	2,740	2,740	12
	Total	28,790	28,790	9,740
Arrowtooth flounder	W	28,400	28,400	1,344
	C	141,290	141,290	12,527
	E	28,440	28,440	670
	Total	198,130	198,130	35,000
Sablefish	W	2,600	2,240	1,308
	C	8,600	7,480	6,125
	WY	4,100	3,550	3,148
	SEO	6,200	5,430	3,872
	Total	21,500	18,700	21,500
Other Slope rockfish	W	180	180	28
	C	1,170	1,170	563
	E	5,760	5,760	369
	Total	7,100	7,100	2,235

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Table 1. (continued)

Species	1995	ABC (mt)		1995	1995
		1995	1996	TAC	Catch
Northern rockfish	W	640	640	640	111
	C	4,610	4,610	4,610	3,746
	E	20	20	20	32
	Total	5,270	5,270	5,270	3,889
Pacific ocean perch	W	1,180	1,460	1,014	1,420
	C	3,130	3,860	2,702	2,433
	E	2,220	2,740	1,914	966
	Total	6,530	8,060	5,630	4,819
Shortraker/rougheye	W	170	170	170	196
	C	1,210	1,210	1,210	1,161
	E	530	530	530	507
	Total	1,910	1,910	1,910	1,864
Pelagic shelf rockfish	W	910	910	910	66
	C	3,200	3,200	3,200	1,573
	E	1,080	1,080	1,080	356
	Total	5,190	5,190	5,190	1,995
Demersal shelf rockfish	SEO	580	580	580	168
Atka mackerel	GW	3,240	6,480		
	W			2,310	320
	C			925	85
	E			5	0
	TOTAL			3,240	405
Thornyhead rockfish	GW	1,900	1,560	1,900	905
Other species	GW		NA	13,308	3,240
Total		535,140	561,440- 685,240	279,463	172,190

- 1/ Shelikof Strait pollock is included within the W/C ABC range.
- 2/ "Deep water flatfish" means rex sole, Dover sole, and Greenland turbot in 1993. In 1994 rex sole is a separate target category.
- 3/ "Shallow water flatfish" means rock sole, yellowfin sole, butter sole, starry flounder, and other flatfish not specifically defined.
- 4/ Demersal shelf rockfish catch includes 97 mt of unreported mortality from halibut fisheries.

NOTE: ABCs and TACs are rounded to nearest 10, except for Pacific ocean perch. GW means Gulfwide.

Catch data source: NMFS Blend Reports.

Northern rockfish were separated from Slope rockfish in 1993.

Atka mackerel was separated from "other species" in 1994.

Black rockfish was recommended for separation from the pelagic shelf rockfish in the Central Gulf for 1995.

Redbanded rockfish was removed from DSR and combined with other slope rockfish for 1995.

Table 2. Gulf of Alaska exploitable biomasses, 1996 ABCs, and estimated trends and abundances for Western, Central, Eastern, Gulfwide, West Yakutat, and Southeast Outside regulatory areas.

Species	Exploitable Biomass (mt)	----- 1996 -----				
		ABC	Overfishing Level	Abundance, ² Trend		
Pollock	551,000- 559,000-	{ W(61)	16,700-24,500}	79,000	Below, declining	
		{ C(62)	8,500-12,500}			
		{ C(63)	8,800-13,000}			
		E	1,800-2,700			4,300
		Total	35,800-52,700			83,000
Pacific cod	314,000- 557,000	W	18,850-31,900	149,000	Above, declining	
		C	42,900-72,600			
		E	3,250-5,500			
		Total	65,000-110,000			
Deep water flatfish	116,574	W	670	17,040	Unknown, Unknown	
		C	8,150			
		E	5,770			
		Total	14,590			
Rex sole	89,665	W	1,350	13,091	Unknown, ³ Stable	
		C	7,050			
		E	2,810			
		Total	11,210			
Shallow water flatfish	355,590	W	26,280	60,262	Unknown, ³ increasing	
		C	23,140			
		E	2,850			
		Total	52,270			
Flathead sole	198,470	W	8,880	31,557	Unknown, ³ stable	
		C	17,170			
		E	2,740			
		Total	28,790			
Arrowtooth flounder	1,585,040	W	28,400	231,416	Above, stable	
		C	141,290			
		E	28,440			
		Total	198,130			
Sablefish	210,000 179,000	W	2,240	26,100 22,400	Near, stable	
		C	7,480			
		WYK	3,550			
		SEO	5,430			
		Total	18,700			
Other Slope rockfish	112,812	W	180	8,395	Unknown, Unknown	
		C	1,170			
		E	5,760			
		Total	7,100			

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Table 2. (continued)

Species	Exploitable Biomass (mt)		----- 1996 -----		Abundance, ² Trend
			ABC	Overfishing Level	
Northern rockfish	87,845	W	640		Unknown, Unknown
		C	4,610		
		E	20		
		Total	5,270	9,926	
Pacific ocean perch	163,219	W	1,460	1,840	Below, increasing
		C	3,860	4,870	
		E	2,740	3,455	
		Total	8,060	10,165	
Shortraker/ Rougheye	71,811	W	170		Unknown, Unknown
		C	1,210		
		E	530		
		Total	1,910	2,925	
Pelagic shelf rockfish ²	57,644	W	910		Unknown, Unknown
		C	3,200		
		E	1,080		
		Total	5,190	8,704	
Demersal shelf rockfish	26,093	SEO	580	1,044	Unknown, Unknown
Atka mackerel	21,600	GW	6,480	9,800	Unknown, Unknown
Thornyhead rockfish	26,244	GW	1,560	2,220	Unknown, Stable
Other species	NA	W	NA		TAC = 5% of the sum of TACs
		C	NA		
		E	NA		

1/ Biomass estimates includes only Western and Central Gulf areas.

2/ Abundance relative to target stock size as specified in SAFE documents.

3/ Historically lightly exploited therefore expected to be above the specified reference point.

Note:

ABCs are rounded to nearest 10.

Overfishing is defined Gulf-wide, except for pollock and POP.

Northern rockfish were separated from slope rockfish in 1993.

Rex sole was part of deepwater flatfish until 1994.

Redbanded rockfish removed from DSR for 1995 and combined with other slope rockfish.