

**Fishery Management Report No. 96-6**

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**Area Management Report for North Gulf of Alaska  
Recreational Groundfish Fisheries, 1995**

by

**Doug Vincent-Lang**

December 1996

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Alaska Department of Fish and Game

Division of Sport Fish



## Symbols and Abbreviations

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<b>Weights and measures (metric)</b>		<b>General</b>		<b>Mathematics, statistics, fisheries</b>	
centimeter	cm	All commonly accepted abbreviations.	e.g., Mr., Mrs., a.m., p.m., etc.	alternate hypothesis	$H_A$
deciliter	dL	All commonly accepted professional titles.	e.g., Dr., Ph.D., R.N., etc.	base of natural logarithm	e
gram	g	and	&	catch per unit effort	CPUE
hectare	ha	at	@	coefficient of variation	CV
kilogram	kg	Compass directions:		common test statistics	F, t, $\chi^2$ , etc.
kilometer	km	east	E	confidence interval	C.I.
liter	L	north	N	correlation coefficient	R (multiple)
meter	m	south	S	correlation coefficient	r (simple)
metric ton	mt	west	W	covariance	cov
milliliter	ml	Copyright	©	degree (angular or temperature)	°
millimeter	mm	Corporate suffixes:		degrees of freedom	df
<b>Weights and measures (English)</b>		Company	Co.	divided by	÷ or / (in equations)
cubic feet per second	ft <sup>3</sup> /s	Corporation	Corp.	equals	=
foot	ft	Incorporated	Inc.	expected value	E
gallon	gal	Limited	Ltd.	fork length	FL
inch	in	et alii (and other people)	et al.	greater than	>
mile	mi	et cetera (and so forth)	etc.	greater than or equal to	≥
ounce	oz	exempli gratia (for example)	e.g.,	harvest per unit effort	HPUE
pound	lb	id est (that is)	i.e.,	less than	<
quart	qt	latitude or longitude	lat. or long.	less than or equal to	≤
yard	yd	monetary symbols (U.S.)	\$, ¢	logarithm (natural)	ln
Spell out acre and ton.		months (tables and figures): first three letters	Jan,...,Dec	logarithm (base 10)	log
<b>Time and temperature</b>		number (before a number)	# (e.g., #10)	logarithm (specify base)	log <sub>2</sub> , etc.
day	d	pounds (after a number)	# (e.g., 10#)	mid-eye-to-fork	MEF
degrees Celsius	°C	registered trademark	®	minute (angular)	'
degrees Fahrenheit	°F	trademark	™	multiplied by	x
hour (spell out for 24-hour clock)	h	United States (adjective)	U.S.	not significant	NS
minute	min	United States of America (noun)	USA	null hypothesis	$H_0$
second	s	U.S. state and District of Columbia abbreviations	use two-letter abbreviations (e.g., AK, DC)	percent	%
Spell out year, month, and week.				probability	P
<b>Physics and chemistry</b>				probability of a type I error (rejection of the null hypothesis when true)	$\alpha$
all atomic symbols				probability of a type II error (acceptance of the null hypothesis when false)	$\beta$
alternating current	AC			second (angular)	"
ampere	A			standard deviation	SD
calorie	cal			standard error	SE
direct current	DC			standard length	SL
hertz	Hz			total length	TL
horsepower	hp			variance	Var
hydrogen ion activity	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

***FISHERY MANAGEMENT REPORT NO. 96-6***

**AREA MANAGEMENT REPORT FOR NORTH GULF OF ALASKA  
RECREATIONAL GROUND FISH FISHERIES**

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December 1996

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## SECTION I: OVERVIEW

### MANAGEMENT ARENA

The subject of this Fishery Management Report is the recreational fisheries for groundfish, specifically those for halibut, rockfish, and lingcod, that occur in the North Gulf of Alaska. In this report, the North Gulf of Alaska includes all state waters of the Gulf of Alaska west of Cape Suckling including the waters of Prince William Sound and Cook Inlet and those waters surrounding the Kodiak Island Archipelago, Alaska Peninsula, and Aleutian Islands (Figure 1). The North Gulf of Alaska management area crosses several Region II sport fish management areas including the Central Gulf, Kenai Peninsula, and Kodiak/Alaska Peninsula management areas. Major communities that support significant recreational groundfish fisheries along the North Gulf Coast include Valdez, Whittier, and Cordova in Prince William Sound; Seward along the North Gulf of Alaska coast; Homer, Deep Creek, Ninilchik, and Anchor Point along Lower Cook Inlet; and Kodiak on the Kodiak Island Archipelago. The state's roadways and marine highway system provide relatively good access to these locations and thus most of the North Gulf of Alaska recreational groundfish fisheries. At present, little directed recreational effort or groundfish harvest occurs along the Alaska Peninsula or Aleutian Islands.

Regulations governing North Gulf of Alaska recreational groundfish fisheries are found in Chapters 55 (Prince William Sound), 58 (Cook Inlet-Resurrection Bay Saltwater), 64 (Kodiak), and 65 (Alaska Peninsula-Aleutian Islands) of Title 5 of the Alaska Administrative Code. Statewide regulations and provisions, some of which apply to North Gulf of Alaska recreational groundfish, are found in Chapter 75.

Management and research functions for North Gulf of Alaska recreational groundfish fisheries are the responsibility of the Groundfish Management Biologist (Doug Vincent-Lang) stationed in Anchorage. An assistant (Scott Meyer) stationed in Homer supervises ongoing research projects and provides management assistance to the management biologist. Numerous seasonal biologists and technicians assist these positions.

### FISHERIES OVERVIEW

The marine waters of the North Gulf of Alaska support numerous stocks of marine groundfish. Although many groundfishes are harvested by recreational anglers, the most commonly harvested species include various flatfishes (halibut *Hippoglossus stenolepis*, arrowtooth flounder *Atheresthes stomias*, and starry flounder *Platichthys stellatus*), rockfish species of the genera *Sebastes* and *Sebastolobus*, and greenlings (lingcod *Ophiodon elongatus*, kelp greenling *Hexagrammos decagrammus*, and rock greenling *Hexagrammos lagocephalus*). In addition, Pacific cod *Gadus macrocephalus*, walleye pollock *Theragra chalcogramma*, Pacific herring *Clupea harengus*, and sablefish *Anoplopoma fimbria* are commonly caught by recreational anglers. Given current angler interest, the primary groundfish species of management importance at present are halibut, rockfish, and lingcod.

All fisheries are supported solely on wild stocks. Although accessible by road, all North Gulf of Alaska recreational groundfish fisheries are considered remote in that they require a boat or guide to participate; thus, the cost to participate is relatively high. Guides make up a significant component of the North Gulf of Alaska groundfish fishery (particularly the halibut fishery).



**Figure 1.-Area of management responsibility for marine groundfishes in the North Gulf of Alaska.**

Because of the availability of guides, these fisheries offer a range of angling opportunities for both experienced and inexperienced anglers.

## **ANGLING EFFORT**

Recreational angler effort in Alaska has been estimated annually since 1977 using a mail survey (Mills 1979-1994, Howe et al. 1995). This survey is used to generate estimates of the number of angler-days of sport fishing effort expended by recreational anglers fishing in Alaska and adjacent marine waters, and their harvest and release of select sport fishes. The survey is designed to provide these estimates on a site-by-site basis. Mills and Howe (1992) and Meyer (1994) have reviewed the postal survey and suggest that the estimates are sufficiently precise and accurate for management of "large" marine fisheries, such as those for halibut or rockfish. Some estimates for lingcod may not be accurate or precise given the small harvest of this species at some ports and angler confusion regarding species identification.

The postal survey is not designed to provide estimates of effort directed towards a single species. Based on port sampling and creel survey results, the estimated effort generated using the mail survey has been apportioned to effort directed at select species. Although the accuracy of these apportionments cannot be checked at present, it is felt that they can be used to index the relative growth of fisheries targeting select species. In 1994, North Gulf of Alaska halibut, rockfish, and lingcod stocks supported just over 310,000 days of angling effort (Table 1). In comparison, these fisheries supported just 135,000 days of recreational angling effort in 1987. Effort has risen near annually (Figure 2) and is projected to increase over the next several years as freshwater fisheries become fully utilized and demand increases in marine waters.

The most popular of the North Gulf of Alaska recreational groundfish fisheries are those for halibut. During 1994, recreational anglers expended just under 265,000 angler-days fishing halibut in the North Gulf of Alaska (Table 1), representing about 85% of the total recreational groundfish effort during 1994. Most (60%) of this effort was expended in Cook Inlet, with the remainder having been expended along the North Gulf Coast and the outer areas of Prince William Sound and in the waters surrounding the Kodiak Island Archipelago. Only a small amount of effort (<5,000 angler-days) has been expended along the Alaska Peninsula and Aleutian Islands. Rockfish have been the second most targeted groundfish species by recreational anglers, accounting for 11% (33,027 angler-days) of the recreational effort for groundfish during 1994 (Table 1). Most of the fishing effort for rockfish has occurred along the North Gulf Coast, in Prince William Sound, and Cook Inlet. Lingcod have become an increasing target of recreational anglers since 1987 and accounted for nearly 5% (14,063 angler-days) of the recreational groundfish effort during 1994 (Table 1). Most of the fishing effort for lingcod has occurred along the exposed coastline of the North Gulf of Alaska accessed from Seward. The amount of effort directed at other groundfish stocks has not been estimated to date.

A significant component of the annual effort expended in North Gulf of Alaska recreational groundfish fisheries is guided, particularly the halibut fishery. Beginning in 1995, all companies providing sport fishing guide services were required by the State of Alaska to register in all areas of Alaska. Thus, accurate estimates of the numbers of companies and guides operating in this area are available for the first time. Based on this registration, 359 companies employing 701 guides registered with the Alaska Department of Fish and Game (ADF&G) to provide marine

**Table 1.-Number of angler-days expended by recreational anglers fishing for halibut, rockfish, and lingcod in the North Gulf of Alaska, 1987-1994.**

Fishery	1987	1988	1989	1990	1991	1992	1993	1994
<u>Halibut</u>								
Lower Cook Inlet	50,220	87,570	79,200	92,610	95,670	111,582	152,964	156,890
Kodiak	23,203	17,855	15,209	13,382	23,802	18,884	31,793	30,388
North Gulf	37,862	41,131	43,605	53,056	55,476	58,277	71,618	77,388
Combined	111,285	146,556	138,014	159,048	174,948	188,743	256,375	264,666
<u>Rockfish</u>								
Lower Cook Inlet	3,906	6,811	6,160	7,203	7,441	8,679	11,897	12,203
Kodiak	6,187	4,761	4,056	3,568	6,347	5,036	8,478	8,248
North Gulf	8,835	9,597	7,267	8,843	9,246	9,713	11,638	12,576
Combined	18,928	21,169	17,483	19,614	23,034	23,428	32,013	33,027
<u>Lingcod</u>								
Lower Cook Inlet	1,674	2,919	2,640	3,087	3,189	3,719	5,099	5,230
Kodiak	1,547	1,190	1,014	892	1,587	1,259	2,120	2,062
North Gulf	1,262	2,742	4,360	5,306	5,548	5,828	6,267	6,771
Combined	4,483	6,851	8,014	9,285	10,324	10,806	13,486	14,063
<u>Combined</u>								
Lower Cook Inlet	55,800	97,300	88,000	102,900	106,300	123,980	169,960	174,323
Kodiak	30,937	23,807	20,278	17,842	31,736	25,178	42,391	40,698
North Gulf	47,959	53,470	55,232	67,205	70,270	73,818	89,523	96,735
Combined	134,696	174,576	163,511	187,947	208,306	222,977	301,874	311,756

## Number of Angler-Days

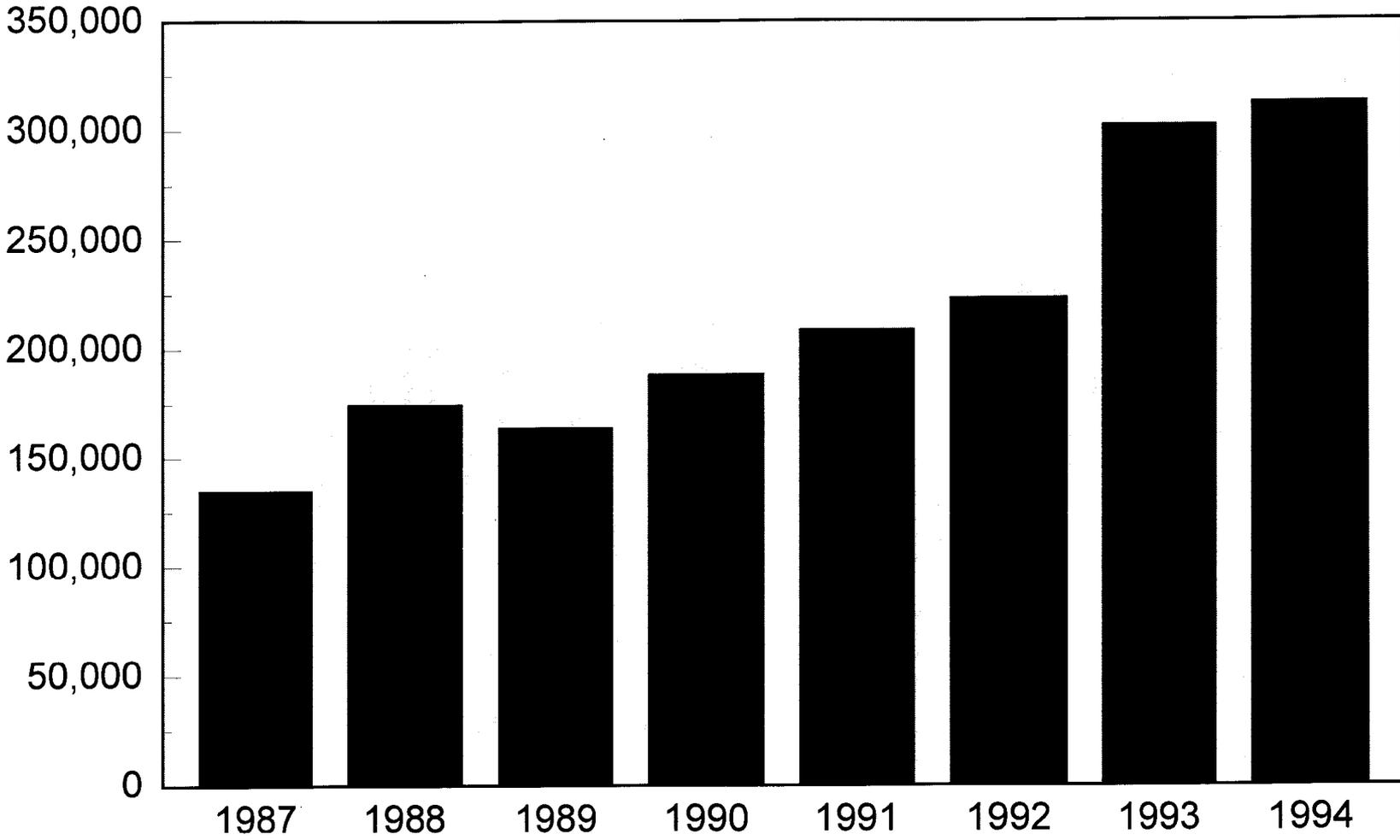


Figure 2.-Number of angler-days expended by recreational anglers fishing for halibut, rockfish, and lingcod in the North Gulf of Alaska, 1987-1994.

charter services in ports along the North Gulf of Alaska (Table 2). Some of these vessels are inactive and do not offer charter services.

Also, some have registered to provide services in a variety of areas or in both fresh and salt water and may not have been active in the North Gulf of Alaska. In addition, about 25 guides are offered by the United States military for recreation in Seward and Valdez. During 1995, 1,114 vessels were licensed by the International Pacific Halibut Commission (IPHC) for halibut sport charter fishing in Alaska. In addition, there were an additional 732 vessels which were registered to both commercial fish and sport charter for halibut in Alaska.

Chartered anglers accounted for 31% of the 1994 marine sport effort at Kodiak, 42% at Deep Creek/Anchor Point in Central Cook Inlet, 54% at Seward, 67% at Valdez, and 75% at Homer in Lower Cook Inlet (Table 3). Direct estimates of guided effort are unavailable for other areas of the North Gulf of Alaska; however, it is known that regional differences exist. It is estimated that between 25% to 50% of the annual effort expended in marine waters of this overall area is guided. Roth and Delaney (1989) have shown that catch rates of chartered anglers can be as much as five times higher than for nonchartered anglers.

### **ECONOMIC VALUE**

The recreational fishery for groundfish is important to the economy of southcentral Alaska. In 1986, sport anglers spent \$18.6 million in pursuit of halibut in southcentral Alaska (excluding the Kodiak Island Archipelago; Jones and Stokes 1987). In addition, they indicated a net willingness to pay an additional \$25.2 million to ensure the continued availability of halibut fishing opportunities. The economic value of other recreational groundfish fisheries has not been directly estimated.

Most port communities sponsor halibut derbies that offer lucrative prizes. These derbies attract anglers and support growing charter boat industries. The charter boat industry is an important economic component of the recreational fishery. For example, the Homer charter boat industry generated \$9.1 million in gross income for the Homer economy as well as an equivalent of 64 full-time, year-round jobs in 1985 (Coughenower 1986). Two-thirds of the chartered anglers surveyed stated they would not have come to Homer if charter services had not been available.

### **MANAGEMENT AUTHORITIES**

Halibut and their fisheries are managed under an international treaty, the Halibut Convention of 1953 and its 1979 Protocol. Under this treaty, the International Pacific Halibut Commission (IPHC) was formed to assure the optimal sustained yield of the North Pacific halibut resource. For purposes of management, the IPHC has divided the North Pacific halibut fishery into 10 regulatory areas, stretching from northern California to Alaska. Each year, the IPHC establishes separate catch quotas for each of these regulatory areas which assures the halibut stock's optimal sustained yield. These catch quotas represent the *maximum* number of halibut that can be harvested from each area annually and, under the treaty, total harvest by all user groups cannot exceed these quotas. The IPHC does not, however, have the authority to allocate the catch quota amongst the various fisheries exploiting the halibut stock in U.S. waters. In U.S. waters, the responsibility for allocation falls to the North Pacific Fishery Management Council (NPFMC) via the Magnuson Fisheries Conservation and Management Act of 1976. The Alaska Department of Fish and Game, Division of Sport Fish, provides technical data and other

**Table 2.-Number of companies and employed guides which registered with the department to provide sport fishing guide services in marine waters of the North Gulf of Alaska during 1995.**

Area	Companies	Guides
All areas	359	701
Area P (Kenai Peninsula)	246	382
Area N (West Cook Inlet)	169	287
Area K (Knik Arm)	68	121
Area L (Anchorage)	51	111
Area J (Prince William Sound)	136	270
Area Q (Kodiak)	102	253
Area R (Alaska Peninsula-Aleutian Islands)	74	244

**Table 3.-User group composition of the recreational fleet targeting groundfish at select North Gulf of Alaska ports, 1994.**

Fishery	% Private	% Chartered
Kodiak	69	31
Deep Creek/Anchor Point	58	42
Homer	25	75
Seward	46	54
Valdez	33	67

From: Meyer 1996

information to both the IPHC and the NPFMC to aid in making management and allocation decisions. The State of Alaska does not have direct management authority over halibut and their fisheries off Alaska.

Harvest of nearshore rockfishes by recreational and commercial anglers fishing North Gulf of Alaska waters primarily occurs in state waters. Responsibility for management and allocation of rockfish in state waters lies with the Alaska Board of Fisheries. The Division of Sport Fish takes the lead in managing the recreational fishery for rockfish while the Division of Commercial Fisheries Management and Development manages commercial rockfish fisheries. In adjacent federal waters, rockfish are managed under several federal fishery management plans adopted by the NPFMC. Management of rockfish fisheries in federal waters follows policies in these management plans. The National Marine Fisheries Service (NMFS) has the lead management responsibility in federal waters.

Like rockfish, lingcod are primarily harvested in state waters. Responsibility for management and allocation of lingcod in state waters lies with the Alaska Board of Fisheries. The Division of Sport Fish takes the lead in managing the recreational fishery for lingcod while the Division of Commercial Fisheries Management and Development manages commercial lingcod fisheries. Lingcod are not currently managed under a federal fishery management plan. In 1995, state authority over management of the species was extended into federal waters of the U.S. Economic Exclusive Zone (EEZ).

### **FISHERY OBJECTIVES**

Under the Halibut Convention of 1953 and its 1979 Protocol, North Pacific halibut stocks are managed for *optimum sustained yield*. Therefore, the objective of current management is to assure harvests do not exceed optimal sustained yields as established annually by the IPHC and remain within allocation schemes established annually by the NPFMC. For purposes of management, the IPHC has divided the North Pacific halibut fishery into 10 regulatory areas, stretching from northern California to Alaska. The North Gulf of Alaska falls within Regulatory Areas 3A, 3B, and 4.

The goal of current lingcod management is to assure depressed stocks in and near to Resurrection Bay can rebuild to permit sustainable harvests and to assure that harvests on healthy stocks do not exceed sustained yields and remain within established allocation schemes. The objective of current rockfish management is to assure harvests do not exceed sustained yields and remain within established allocation schemes.

### **FISHERY EVALUATION PROGRAM**

The Division of Sport Fish conducts a port sampling program aimed at assessment of North Gulf of Alaska groundfish stocks and their recreational fisheries. The objectives of this research program are to estimate the species, age, sex, and size compositions of the groundfish harvests at select North Gulf of Alaska ports and to characterize the recreational groundfish fisheries that occur at these ports. Ports sampled include Homer and Deep Creek in the Cook Inlet area, Seward along the North Gulf Coast, Valdez in Prince William Sound, and Kodiak along the Kodiak Island Archipelago. The Division of Sport Fish also periodically conducts fishery-independent sampling of lingcod near Seward. The primary objective of this research program is to assess recruitment of lingcod near Seward. No sampling was conducted in 1995; however, we plan to conduct these surveys again during 1996. The division provides data collected from this

research to the Alaska Board of Fisheries, the IPHC, and the NPFMC to aid decisions regarding management and allocation of North Gulf of Alaska groundfish resources.

## **MAJOR ISSUES**

A proposal has been submitted to the NPFMC to establish a quota for the recreational halibut fishery in Alaska. The proposal was submitted by the Alaska Longline Fishermen's Association (ALFA) to address what the ALFA perceives to be "rapid, uncontrolled growth of the guided sport halibut charter industry" in Alaska. The ALFA believes that further growth of the sport fishery is inevitable and that without some type of restriction, this growth will result in a reallocation of halibut from the traditional directed longline fishery, given that the resource is currently fully utilized. The ALFA believes this will result in economic and social costs to their traditional fisheries. The objective of their proposal is to minimize such impacts. Although not done off Alaska, there is precedence for establishing an allocation for the sport fishery. In regulatory area 2A (off the coasts of Washington, Oregon, and California) the sport fishery has been allocated an annual catch quota. This catch quota applies to the overall sport fishery, both guided and unguided. The ALFA proposal, first submitted in 1992, has undergone several reviews and has been expanded to include the entire recreational fishery (both charter and nonchartered) as well as other management options and allocation strategies. The proposal remains under consideration by the NPFMC.

Lingcod stocks in Resurrection Bay are severely depressed and are closed to both commercial and recreational fisheries until the stocks recover to permit a sustainable harvest, likely many years to come. Lingcod stocks near Resurrection Bay are depressed and recreational fisheries operating in these areas have been restricted to permit stocks to recover. Depressed stocks are being monitored to evaluate their recovery. Recovery of stocks is being evaluated through collection of fishery-independent length statistics to evaluate time-series trends in recruitment. Lingcod stocks in other areas of the North Gulf of Alaska are healthy, but targeting fisheries are managed under appropriate regulations given the susceptibility these stocks have shown to overharvest. Healthy stocks are being monitored through the port sampling program to evaluate trends in age and length compositions.

Rockfish stocks of the North Gulf of Alaska are managed primarily for commercial and recreational uses. In recent years, commercial harvests have exceeded sport harvests in most areas of the North Gulf of Alaska. However, in some areas, notably along the North Gulf of Alaska near Seward, recreational harvests in some years exceed commercial harvests. Unfortunately, there is a lack of data to assess either the sustained yields or current status of North Gulf of Alaska rockfish stocks; thus, it is unknown at present whether current harvest levels are sustainable. Concern has been raised that some demersal rockfish species, particularly the longer-lived species such as yelloweye rockfish, are being overfished. Given the lack of data, recreational fisheries targeting North Gulf of Alaska rockfish stocks are managed under relatively restrictive regulations. To offer more protection to demersal shelf rockfish species, the Board of Fisheries at the request of the department has recently established more restrictive regulations for recreational rockfish fisheries in the Seward area of the North Gulf of Alaska. These regulations reduce daily bag and possession limits for nonpelagic rockfish such as yelloweye rockfish. In addition, data are being collected to form a long-term database of selected fishery and stock assessment parameters that hopefully can be used to assess the sustained yields of North Gulf of

Alaska rockfish stocks. There is also consideration of establishing marine fishing reserves to protect demersal rockfishes.

Concern has been raised that commercial rockfish and lingcod harvests may increase as a result of a new Individual Fishery Quota (IFQ) system enacted for the Alaskan commercial halibut fishery during 1995. Under the new IFQ system, commercial halibut fishermen have up to 8 months to catch their annual individual halibut quota. Under the old system, commercial halibut fishermen had, at maximum, up to two 24-hour periods to catch an area quota. This resulted in an incentive to fish clean, as bycatch during severely time-restricted openings resulted in reduced landing of halibut. Because bycatch in nearly all cases is lower in value than halibut, it resulted in a reduced value of the landing. There is a fear under the new system that because time is not limited, bycatch will increase. For fishes with high exploitable biomasses, this is not viewed as a problem. However, for fishes such as rockfish that have very low exploitable biomasses or lingcod for which there are identified stock conservation concerns, increased bycatch may result in overharvest. Department managers are considering asking the Board for permission to close areas in which rockfish or lingcod quotas have been achieved to commercial longline fishing to avoid further rockfish or lingcod bycatch. Observations during the first season of IFQ fishing suggest that some increase in harvest of nontarget species has occurred.

Concern has also been raised that an IFQ system will result in increased competition on the fishing grounds between commercial fishermen and sport anglers. Competition was minimal in the past because the commercial fishery operated far offshore where the abundance of large halibut was higher during spring and fall commercial openings. The long season permissible under the IFQ system will allow overlap of commercial and sport fishing times. In addition, the commercial fleet will likely fish close to port. Implementation of an IFQ system in Canada resulted in a significant number of vessels fishing closer to port, despite lower catch rates. These concerns have caused some recreational fishing groups to discuss establishment of exclusion zones for the commercial fishery that encompass their traditional fishing areas near major sport ports. As can be expected, such proposals have not been well received by commercial fishermen. Observations and discussions with fishermen during the first season of the IFQ fishery suggest that some conflict between user groups occurred as a result of small-quota IFQ holders fishing closer to port.

A bill (HB 175) has been introduced to the Alaska State Legislature to establish a statewide licensing program for businesses and individuals who provide sport fish guiding services in Alaska, and mandatory reporting requirements for this industry. The bill is the result of a convergence of ideas by several parties. The comprehensive licensing system established in the bill is needed to better define this diverse industry. The proposed licensing system also provides needed definitions for companies and individuals who provide sport fishing guiding, chartering, and outfitting services. Through such definitions, it is hoped that the industry can be more fully identified and organized. It is also believed that the definitions will close loopholes in current definitions, thereby providing a level playing field for the industry and better enforcement of regulations pertaining to sport fishing guides and charters. It is also hoped that comprehensive licensing will add stability to this economically important industry which supports many jobs throughout Alaska. Insurance requirements for companies and safety requirements for guides are stipulated to assure that anglers utilizing this industry are protected and a professional level in service is maintained. The proposed license package also establishes fees and mandatory

reporting requirements that provide the needed foundation to help management agencies build a reasonable and stable regulatory environment to assure for the long-term health of both the industry and the resource it depends upon. The department supports this legislation and is working to see that it is adopted into law.

There have been increased calls for establishment of either moratoriums or limited entry programs for the Alaskan sport fish guide industry. Under the current law it is unconstitutional to establish these programs. A resolution has been submitted to the Alaska State Legislature (HJR 51) asking for a vote to amend the state constitution to permit limited entry programs for the sport fish guide industry. The stated purpose for the resolution is “*resource conservation and to prevent economic distress among sport fish guides and allied professions.*” The department is neutral with respect to this resolution as a result of unresolved questions regarding possible implementation strategies for this concept. The department has a mandate with respect to resource conservation. To understand the potential of the sport fish guide industry to affect resource conservation and to make recommendations to the Board of Fisheries with respect to resource allocation, the department must track participation in the sport fish guide industry. The current registration program for sport fishing guides (or proposed license program discussed above), combined with department harvest survey information and available regulatory tools, currently provides the department with sufficient tools to assure resource conservation. Also, the department does not believe that limited entry in itself will assure resource conservation. Unless measures were made to reduce the number of participants, additional regulatory actions (e.g., changes in bag limits or method and means) would likely need to be taken to assure resource conservation. Such additional regulation could impact the economic well-being of this industry, thus jeopardizing one of the primary rationales for the program (e.g., to prevent economic distress). Also, the industry is not overcapitalized in all areas of the state. Measures would need to be enacted to assure that the industry could grow in undercapitalized areas. The department also has questions with respect to how the program would be implemented. The present form of the resolution is vague; as a result, there are many questions that remain to be addressed. For example, how would the program be implemented? Who would qualify and what would be the qualifying criteria? Unlike when limited entry was enacted for the commercial fishing industry, an accurate database of participants in the sport fish industry is only currently being developed. Also, what would be limited—the number of guides, the number of businesses, the number of guided vessels, or guided effort, and what is an allied profession? If the goal is to limit effort, what measures would be enacted to restrict businesses or guides from expanding their operations (e.g., buying bigger vessels, taking out more clients, or changing gear types)? Further, how would the state be partitioned and what qualifying criteria would be used to determine if there were too many guides in an area? Another question relates to whether the licenses would be transferable. Lastly, would the proposed limited entry system be based on a fishery or an area? Limited entry in commercial fisheries is based on a specific fishery. However, the sport guide industry is a service industry providing fishing opportunities for a diversity of species in an area. Thus, basing the program on a fishery may not be appropriate. The department has concerns about potential effects of limited entry of sport fishing guides on tourism and economic development throughout Alaska. The guide industry draws vast numbers of tourists, both residents and visitors to the state. Given this, it is imperative that economic impacts that may result due to limited entry in this industry be considered. Lastly, the department has concerns that anglers who utilize this resource could be impacted by limited entry system. As a service

industry, the sport fishing guide industry provides sport anglers, both residents and nonresidents, access to fishery resources throughout Alaska. Under a limited entry program, would the cost to participate in Alaska's common property fisheries increase? Will access to common property resources be unfairly restricted? Other service-related industries that are managed under limited entry programs are regulated to assure equal access and fair cost (e.g., the taxi industry). Will a special board need to be developed to oversee this industry to assure a fair cost and access? Do the costs of such oversight outweigh the potential benefits? Such questions need to be addressed prior to the establishment of limited entry or similar programs.

## SECTION II: FISHERIES

### NORTH GULF OF ALASKA RECREATIONAL HALIBUT FISHERY

Halibut and their fisheries are managed under an international treaty, the Halibut Convention of 1953 and its 1979 Protocol. Under this treaty, the International Pacific Halibut Commission (IPHC) was formed to assure for the optimal sustained yield of the North Pacific halibut resource. Under the treaty, the IPHC annually recommends harvest levels to the governments of the United States and Canada that assure the optimal sustained yield of the North Pacific halibut resource.

For purposes of management, the IPHC has divided the North Pacific halibut fishery into 10 regulatory areas stretching from northern California to Alaska (Figure 3). Regulatory Area 3A, which extends from Cape Spencer eastward to Cape Trinity on the southern end of Kodiak Island, encompasses most of the North Gulf of Alaska. The south side of the Alaska Peninsula south of Cape Trinity falls into Regulatory Area 3B. The waters surrounding the Aleutian Islands fall into Regulatory Area 4.

In United States waters the responsibility for allocation of catch amongst fisheries falls to the North Pacific Fishery Management Council (NPFMC) via the Magnuson Fisheries Conservation and Management Act of 1976. The IPHC does not have the authority to allocate catch amongst the various fisheries exploiting the halibut stock in U.S. waters. It does, however, through agreements with the NPFMC, maintain some management authority over various fisheries, notably the directed longline fisheries. The state of Alaska does not have direct management or allocative authority over halibut and their fisheries off Alaska. The Alaska Department of Fish and Game, Division of Sport Fish does, however, provide technical data and other information to both the IPHC and the NPFMC to aid in making stock assessment and allocation decisions.

A recent legal opinion from NOAA general council has helped to define these authorities (Appendix A). The Alaska Department of Law has reviewed this opinion specific to two questions:

1. ***Does the state agree with the opinion?*** The short answer to this question is yes. Authority of states to manage halibut or their fisheries is preempted by federal law. Additionally, federal regional fishery management councils or the Secretary of Commerce may not defer regulatory authorities to the states. Thus, if the state were to adopt regulations, they would need to be identical to federal regulations (i.e., a state cannot be more restrictive or liberal). It is even questionable whether states can have regulations pertaining to halibut on their books. So the current regulatory picture is: The IPHC has regulatory authority over biological concerns (i.e., they could pass a minimum size limit based on yield considerations) while the NPFMC has authority over allocation and fisheries in U.S. waters.
2. ***Can the State of Alaska establish complete closure zones to fishing based on stock conservation concerns for a species other than halibut?*** (The example given was a proposal to establish no-fishing zones off the mouths of Deep Creek and Anchor River based on inriver stock conservation concerns for chinook salmon.) The short answer is yes, so long as these no-fishing zones are created based on stock conservation concerns. Although not specifically stated as so in the legal opinion, the Alaska Attorney General's

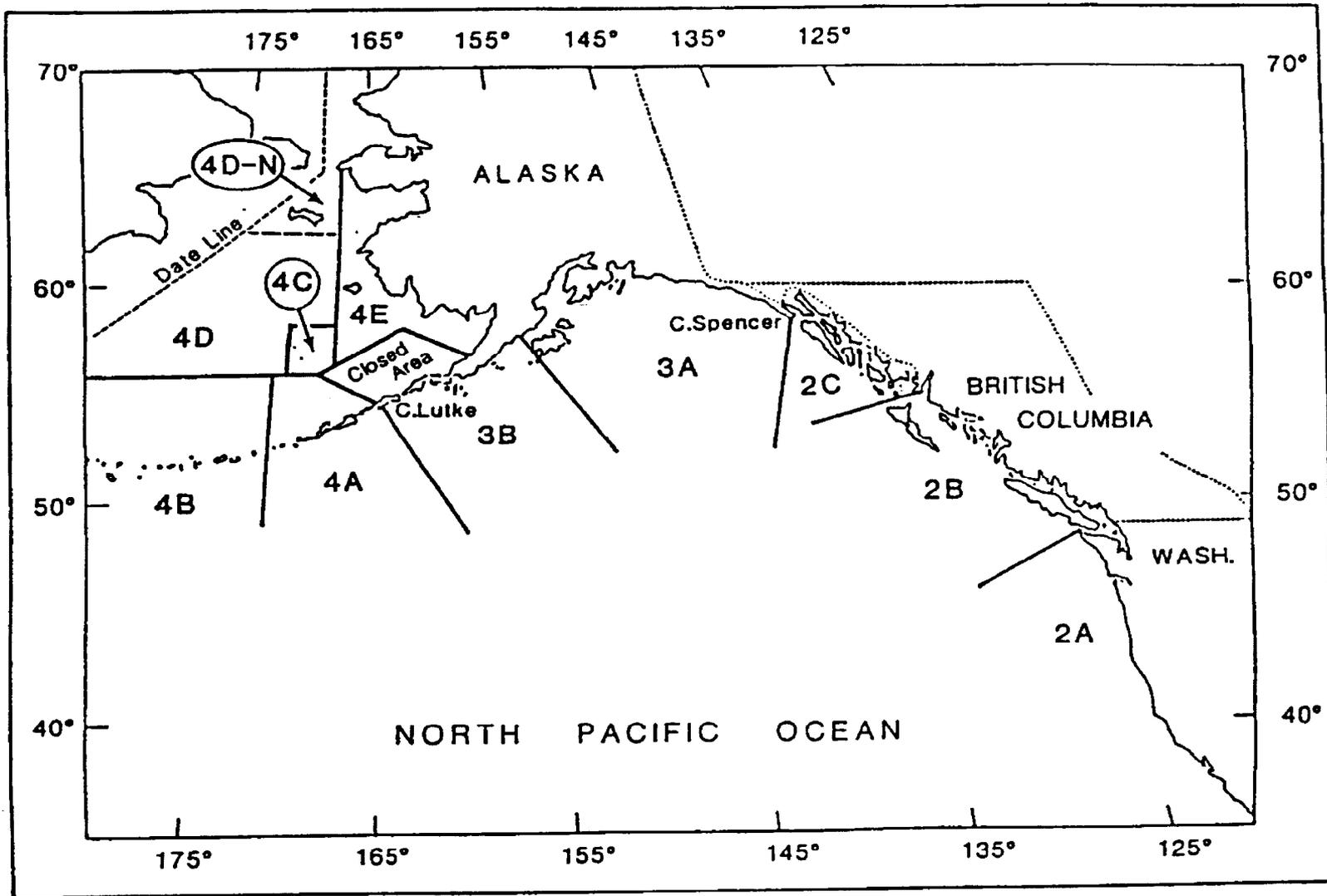


Figure 3.-Regulatory areas established by the International Pacific Halibut Commission to manage North Pacific halibut stocks.

office does not believe that NOAA will question our authority to establish such zones. The answer may differ if the reason for the establishment is allocative. In these cases, our authority to establish the closed zone may be questioned.

The limits for the halibut sport fishery off Alaska are currently 2 fish per day, 4 fish in possession coastwide. The fishery is open year-round with the exception of January, when the fishery is closed to protect spawning halibut. The January closure is essentially meaningless, given that few anglers currently fish halibut during January in the North Gulf of Alaska. Unlike the commercial fishery which has a 32 inch minimum size limit, there are no size restrictions placed on the recreational fishery.

The halibut sport fishery is of major importance to the economy of southcentral Alaska. In 1986, anglers spent \$18.6 million in southcentral Alaska in the pursuit of halibut, and indicated a willingness to pay an additional \$25.2 million to ensure the continued availability of halibut fishing opportunities (Jones and Stokes Associates, Inc. 1987). Many charter services provide guided sport fishing opportunities for halibut. In 1985, the Homer halibut charter industry generated \$9.1 million in gross income for the Homer economy as well as an equivalent of 64 full-time, year-round jobs. Two-thirds of chartered anglers surveyed said they would not have come to Homer if charter services had not been available (Coughenower 1986). In addition, proceeds from halibut derbies are often donated to support a variety of community projects and organizations.

### **Management Objective and Approach**

A constant exploitation strategy is employed by the IPHC to manage North Pacific halibut stocks for *optimum sustained yield*. The IPHC meets annually in January to calculate the exploitable biomass (yield) available for harvest in each of the 10 regulatory areas. Constant exploitation yield (CEY) is calculated for each regulatory area as the estimated exploitable biomass available times a 0.30 exploitation rate. Each CEY thus represents the total allowable harvest (in pounds) for each regulatory area. The IPHC also estimates the sport (based on a 2 fish daily bag limit and 4 fish possession limit and February 1 through December 31 open season) and personal-use/subsistence harvests and wastage and bycatch mortalities for each regulatory area. These are subtracted from the CEY on a regulatory area basis. The remainder is then "allocated" to the directed commercial halibut fishery.

This factoring of the catch has, to the present, been done by the IPHC and the final numbers "approved" by the NPFMC on an annual basis. Under this management approach CEY changes annually, reflective of the estimated biomass of exploitable halibut present (i.e., quotas are lower during years of low exploitable biomass and higher during years of high exploitable biomass). Currently, the North Pacific halibut stock is fully utilized.

There are currently no catch quotas for the recreational halibut fishery in Alaska. Although not done off Alaska, there is precedence for establishing an allocation for the sport fishery. In regulatory area 2A (off the coasts of Washington, Oregon, and California) the sport fishery has been allocated an annual catch quota. This catch quota applies to the overall sport fishery, both guided and unguided.

### **Stock Status**

Estimated abundance of the exploitable halibut stock in Alaska peaked in 1988 and has declined at a rate of 5% to 10% per year; this decline is expected to continue for several years

(Sullivan 1993). Recruitment and stock biomass are believed to be cyclical and recruitment is expected to remain low for several years.

The mean size of sport-caught halibut at several major ports throughout southcentral Alaska decreased for the first time in several years during 1994, suggesting that some new recruitment is occurring. It appears that the 1987 and 1988 year classes may have been stronger than initially thought (Meyer 1996). If this is true, recruitment may have reached its low point and exploitable biomass should begin growing by the latter part of the 1990s. This could result in more fish being available for harvest.

The IPHC has recently acknowledged increased uncertainty in their stock assessment procedures. For example, CPUE which is one of the variables used in the current stock assessment no longer tracks estimated abundance due to improvements in fishing technology. Also, assumptions regarding catchability and age-specific selectivity appear to be compromised as a result of recent changes in growth. The commission is currently reviewing its procedures and will make recommendations for improvements over the next several years.

## **Fishery Overview**

### **Regulatory Area 3A**

Halibut are a popular target of recreational anglers fishing Regulatory Area 3A waters. During 1994, recreational anglers expended about 265,000 angler-days fishing for halibut in this regulatory area (Table 4). In comparison, recreational anglers spent about 111,000 angler-days fishing halibut in these waters during 1987. Growth has been near annual (Figure 4) and is projected to increase over the next several years as demand increases; however, the rate of growth may decrease due to a variety of factors (Vincent-Lang and Meyer 1993). The waters of Cook Inlet account for about 60% of the annually expended effort (Table 4).

As with directed effort, the sport harvest of halibut from Regulatory Area 3A waters has also grown steadily, from about 18,000 halibut in 1977 to about 238,000 halibut in 1994 (Table 5, Figure 5). The 1994 harvest was a record for Area 3A waters. Most halibut in the Area 3A recreational fishery are harvested from May through September. Beginning in 1993, some charter services began offering charters during April and October. However, only a few charters were booked: weather and lack of interest were the likely reasons for the low bookings.

The Area 3A recreational fishery is important on a statewide as well as coastwide basis. Recent Area 3A sport harvests made up about 70% (in number) of the total Alaskan recreational halibut harvest (Table 5; Mills 1979-1994, Howe et al. 1995). On a larger scale, the 1994 sport harvest in Area 3A made up about 60% (by weight) of the entire recreational halibut harvest on the North American west coast (IPHC 1996).

The IPHC estimates harvest based on pounds rather than numbers of fish harvested. Numbers of fish recreationally harvested are annually converted to pounds of fish harvested based on sampling of recreational harvests to estimate the mean weight of harvested fish at various ports throughout southcentral Alaska (Meyer 1994, 1996). Because the mean weight of recreationally harvested halibut has increased over time, the number of pounds of halibut removed has

**Table 4.-Number of angler-days expended by recreational anglers fishing for halibut in the North Gulf of Alaska, 1987-1994.**

Fishery	1987	1988	1989	1990	1991	1992	1993	1994
Lower Cook Inlet	50,220	87,570	79,200	92,610	95,670	111,582	152,964	156,890
Kodiak	23,203	17,855	15,209	13,382	23,802	18,884	31,793	30,388
Central Gulf	37,862	41,131	43,605	53,056	55,476	58,277	71,618	77,389
Combined	111,285	146,556	138,014	159,014	174,948	188,743	256,375	264,666

**Table 5.-Number of halibut harvested by recreational anglers fishing in IPHC Regulatory Area 3A, 1977-1994.**

Year	Kodiak	Cook Inlet	North Gulf Coast	PWS	Yakutat	Total Area 3A	Alaska	Percent Area 3A
1977	994	13,466	1,705	1,247	428	17,840	23,244	76.8
1978	1,721	25,577	2,723	933	24	30,978	37,085	83.5
1979	3,013	26,997	2,902	1,691	78	34,681	47,705	72.7
1980	3,651	29,985	3,017	3,143	34	39,830	64,658	61.6
1981	6,858	38,721	3,443	2,495	65	51,582	74,212	69.5
1982	9,180	39,532	2,954	2,735	398	54,799	92,358	59.3
1983	8,545	60,126	2,619	3,493	682	75,465	117,042	64.5
1984	8,179	61,202	3,267	4,428	241	77,317	124,950	61.9
1985	7,303	63,158	5,934	4,527	520	81,442	127,634	63.8
1986	10,960	85,153	10,398	8,331	777	115,619	160,885	71.9
1987	9,869	78,431	7,171	4,379	1,194	101,044	145,829	69.3
1988	7,749	137,252	11,696	9,845	1,673	168,215	225,106	74.7
1989	10,435	126,917	7,251	8,697	772	154,072	229,016	67.3
1990	9,134	148,538	9,500	10,851	1,459	179,482	247,202	72.9
1991	12,089	148,646	13,818	12,733	2,112	189,398	266,523	71.1
1992	10,860	143,094	18,595	17,855	1,861	192,265	264,943	72.6
1993	14,169	162,413	25,525	19,716	2,752	224,575	313,147	71.7
1994	14,910	170,801	25,009	23,487	3,577	237,784	329,046	72.3

### Number of Angler-Days

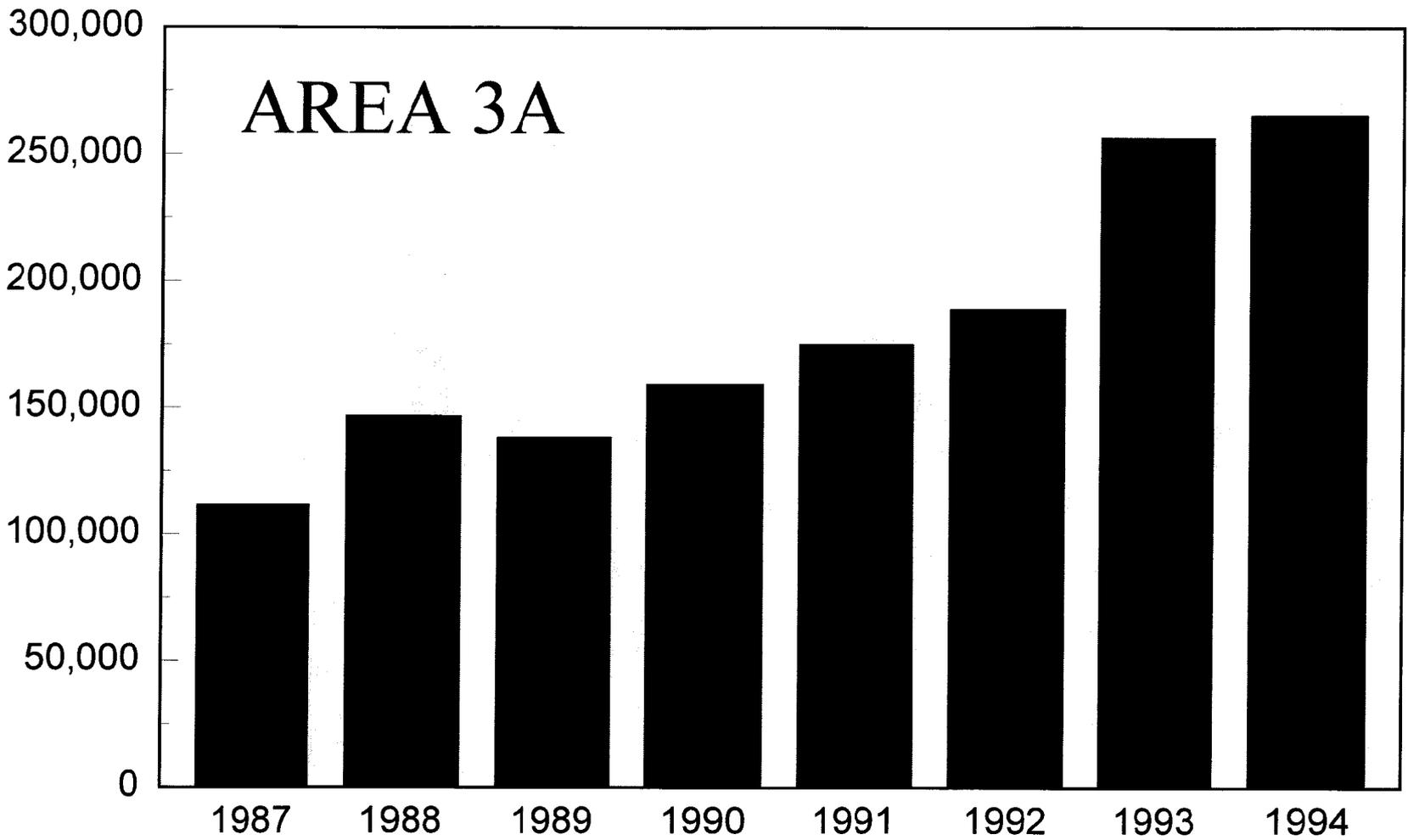
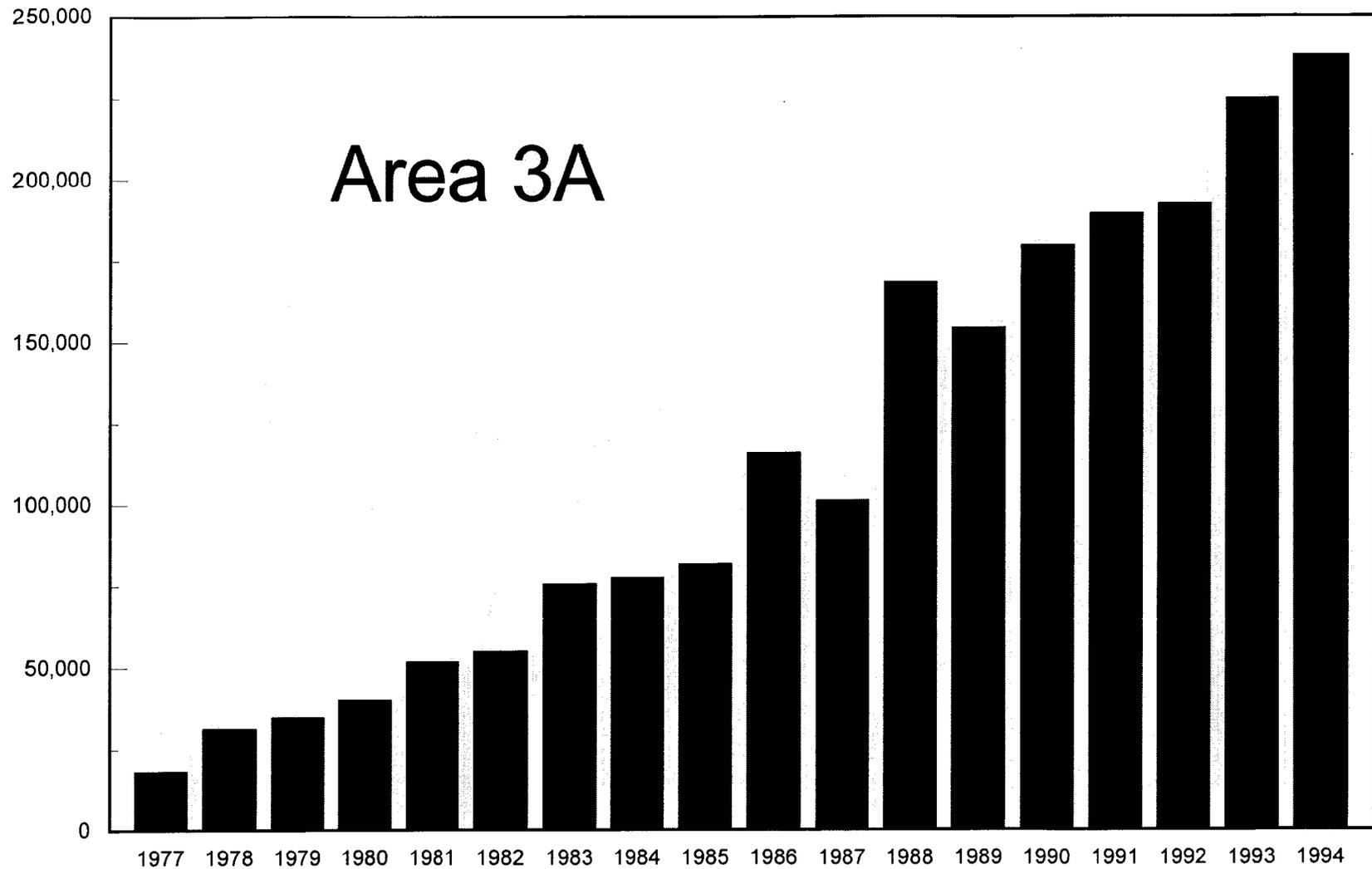


Figure 4.-Number of angler-days expended by recreational anglers fishing for halibut in IPHC Regulatory Area 3A, 1987-1994.

**Number of Halibut Harvested**



**Figure 5.-Number of halibut harvested by recreational anglers fishing for halibut in IPHC Regulatory Area 3A, 1977-1994.**

increased at a faster rate than numbers of halibut removed (Table 6, Figure 6). During 1994, the biomass harvested declined by about 15% from 1993 levels (Table 6, Figure 6) in spite of the number of halibut harvested increasing (Table 5, Figure 5). There is a variety of reasons for this. First, the central Cook Inlet halibut fishery was again sampled after not being sampled during 1992 and 1993. This sampling found that halibut taken in this fishery had a significantly lower mean weight than those taken in Lower Cook Inlet out of the Port of Homer. Not stratifying the estimates to account for these differences likely led to overestimation of the Area 3A harvest in 1992 and 1993. Second, estimates of mean weight for lower Cook Inlet declined from 25 to 21 pounds. Given this is the largest fishery in Area 3A, this decline has a large influence on the Area 3A estimate. Finally, the 1994 estimate was stratified by user group (charter versus noncharter). Not stratifying estimates prior to 1994 gave more emphasis to the charter harvest.

Data collected as part of the port sampling program during 1994 and 1995 indicate that the mean weight of sport-caught halibut at most Area 3A ports has decreased, indicating that recruitment due to a strong 1987 and 1988 year class may have occurred (Meyer 1996). If recruitment is increasing, mean weight of recreationally landed halibut will likely begin to stabilize, and may even drop, as the availability (abundance) of younger halibut increases.

Area 3A anglers released an estimated 31% to 49% of the halibut they caught during the period 1990-1994, or 86,000-218,000 fish per year (Table 7). In support of this estimate, an onsite creel survey estimated that 37% of halibut caught by the Valdez fleet were released in 1988 (Roth and Delaney 1989). Assuming a 5% release mortality for sport-caught halibut, this amounts to a maximum of about 11,900 more halibut being killed annually in Area 3A.

The Alaska Department of Fish and Game, in conjunction with the IPHC, has projected the growth of the sport harvest through the year 2000. While projections into the future are difficult, the most likely pattern is a continued increase in the numbers of halibut landed, but little change in the mean size of harvested halibut (Figure 7). Actual harvests during 1992 and 1994 were below the projection while the actual estimated harvest during 1993 was above the projection.

Although recreational harvests have increased in recent years, other sources of removals (e.g., commercial harvests and bycatch and wastage in other fisheries) continue to vastly outnumber recreational harvests in Area 3A (Figure 8). For example, during 1994 the directed longline fishery accounted for removals of 26.6 million pounds of halibut through direct harvest, personal use, and waste. Bycatch in various commercial fisheries was estimated to be 5.1 million pounds. In comparison, the Area 3A recreational harvest was 4.5 million pounds.

Regulatory Area 3A is composed of many regional and local recreational fisheries that are conducted in more or less separate geographic areas and possess distinctive patterns of harvest and use. The vast majority of harvest is taken in four major fisheries: Cook Inlet, Kodiak, North Gulf Coast (Seward), and Prince William Sound (Figure 9). A local fishery based in Yakutat harvests an insignificant number of fish and will not be discussed. The following descriptions of these fisheries is taken from Meyer (1994).

### **Cook Inlet**

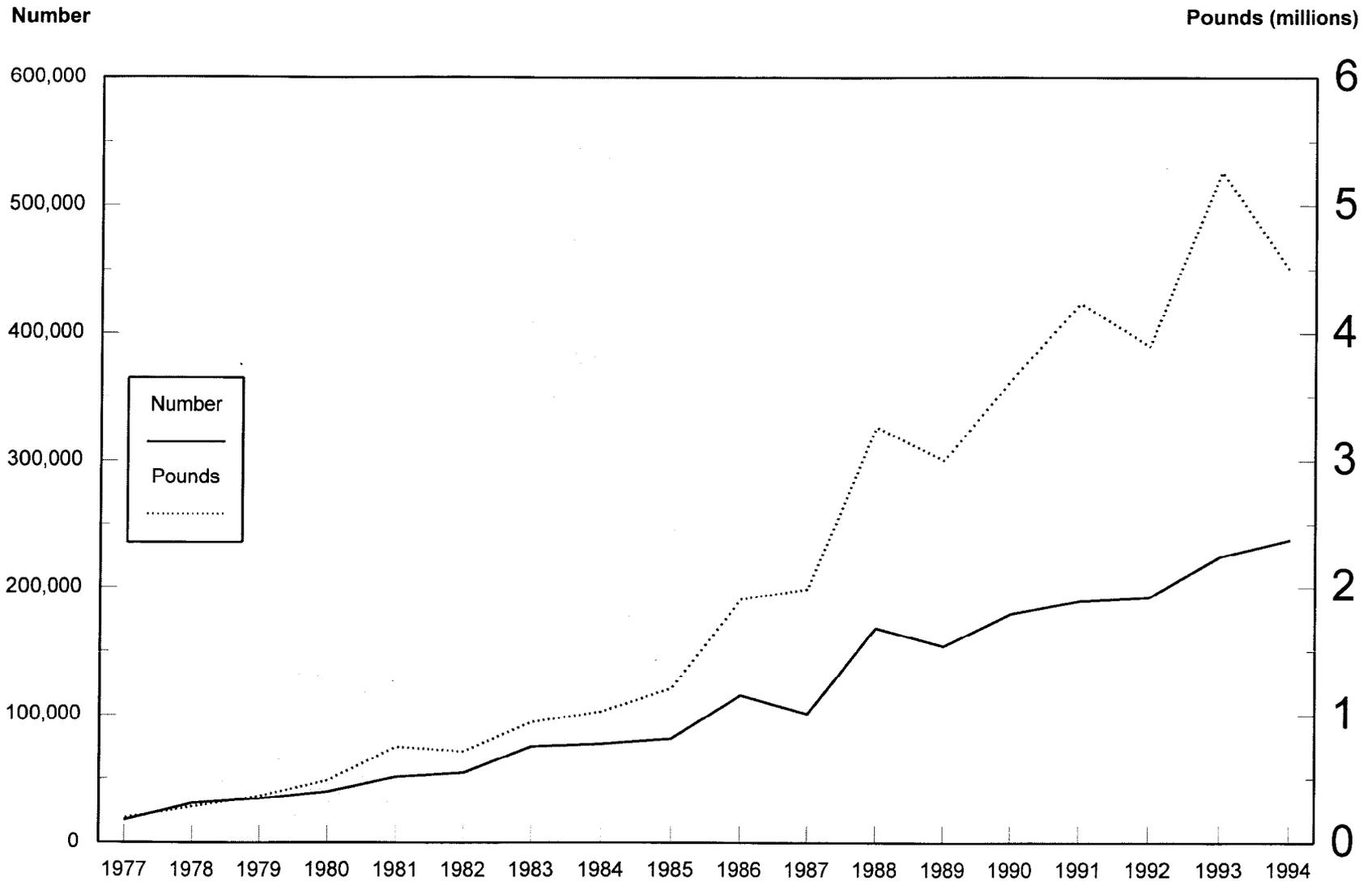
The Cook Inlet fishery is the largest local recreational halibut fishery in North America and has grown rapidly. Estimated harvest in this fishery has increased from 13,500 fish in 1977 to over 170,800 fish in 1994 (Table 8). Since 1977, the Cook Inlet fishery has accounted for 72% to

**Table 6.-Number of pounds of halibut harvested by recreational anglers fishing in IPHC Regulatory Area 3A, 1977-1994.**

Year	Number	Millions Pounds (net weight)
1977	17,840	0.196
1978	30,978	0.282
1979	34,681	0.365
1980	39,830	0.488
1981	51,582	0.751
1982	54,799	0.716
1983	75,465	0.945
1984	77,317	1.026
1985	81,442	1.210
1986	115,619	1.908
1987	101,044	1.989
1988	168,215	3.264
1989	154,072	3.005
1990	179,482	3.638
1991	189,398	4.236
1992	192,265	3.900
1993	224,575	5.265
1994	237,784	4.487

**Table 7.-Estimated halibut catch, harvest, and percent of catch released in the Area 3A recreational fishery, 1990-1994.**

Year	Catch	Harvest	Release	% Released
1990	332,025	179,482	152,543	46
1991	275,044	189,398	85,646	31
1992	333,552	192,265	141,287	42
1993	442,830	224,575	218,255	49
1994	390,245	237,784	237,461	39



**Figure 6.-Number and pounds of halibut harvested by recreational anglers fishing for halibut in IPHC Regulatory Area 3A, 1977-1994.**

## Million Pounds of Halibut Harvested

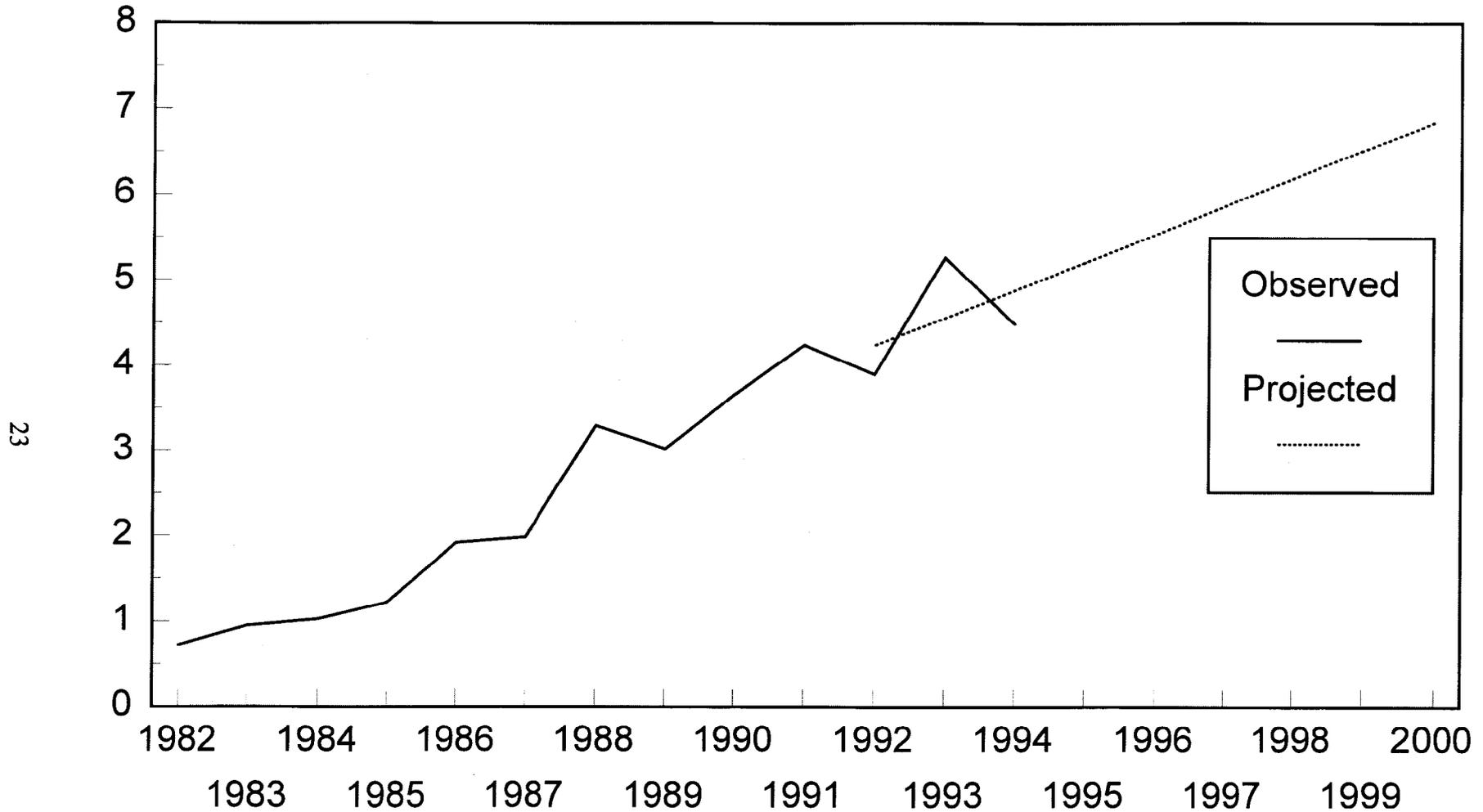
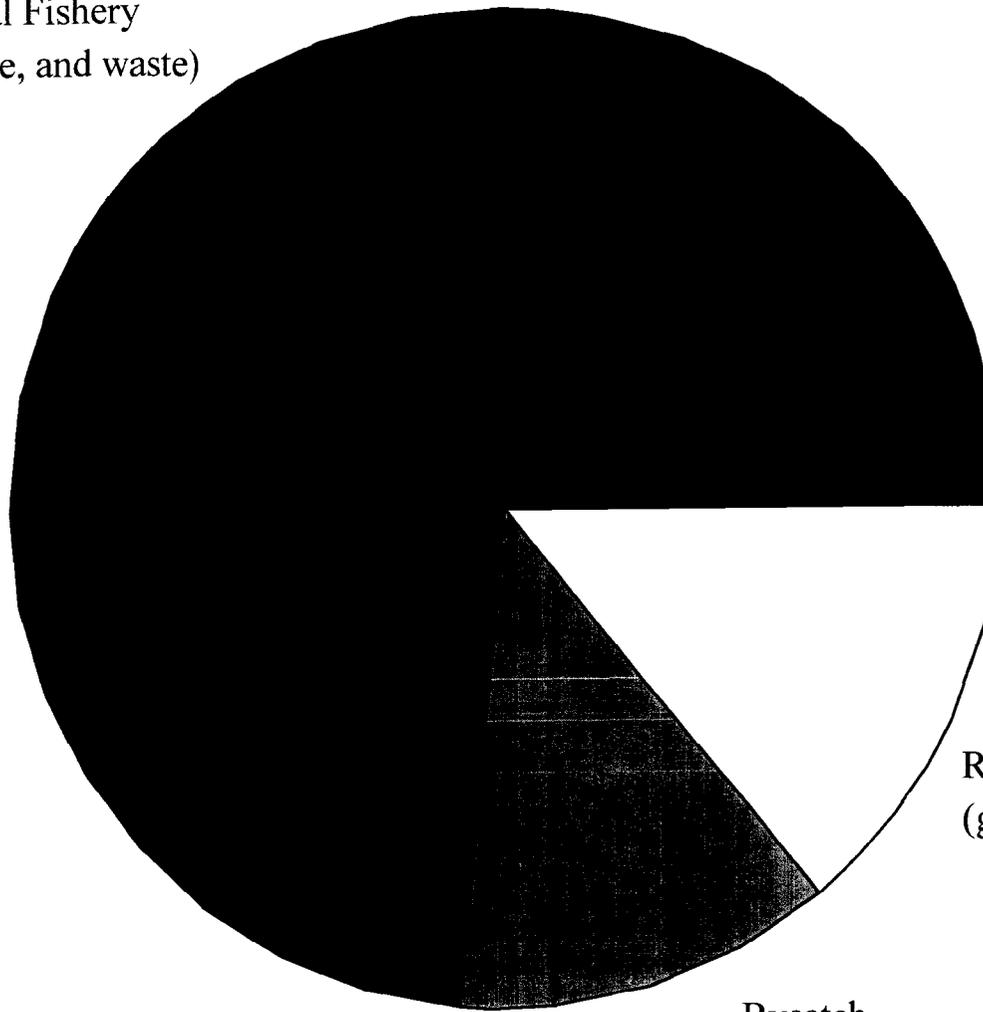


Figure 7.-Observed and projected growth in halibut harvests by recreational anglers (chartered and nonchartered) in IPHC Regulatory Area 3A through the year 2000.

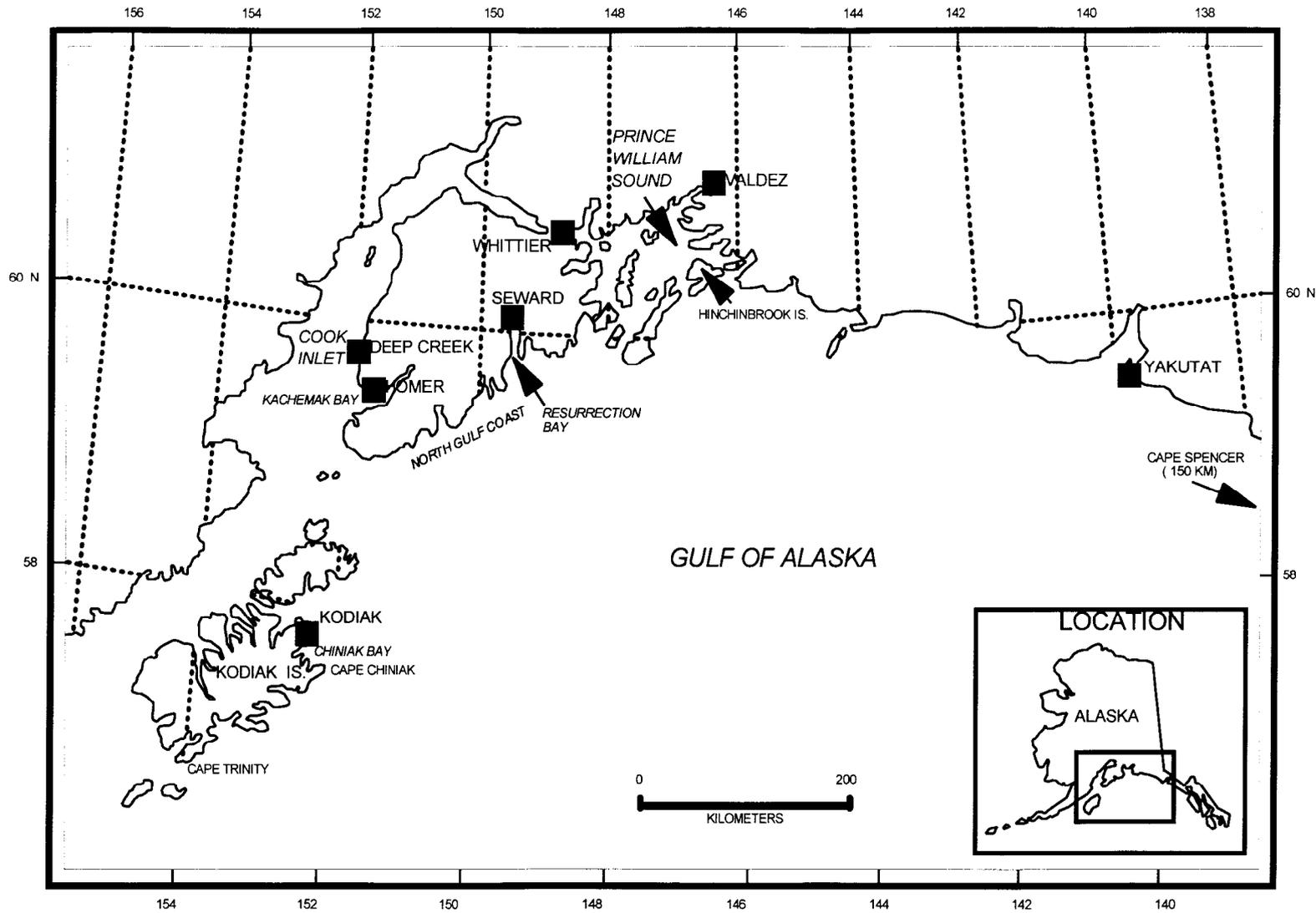
Directed Commercial Fishery  
(harvest, personal use, and waste)



Recreational Fishery  
(guided and unguided)

Bycatch

**Figure 8.-Removals of halibut in IPHC Regulatory Area 3A during 1994.**



**Figure 9.-North Gulf of Alaska coastal waters and major ports of recreational halibut landings in IPHC Regulatory Area 3A.**

**Table 8.-Number of halibut harvested in Cook Inlet recreational fisheries, 1977-1994.**

Year	Lower Cook Inlet	Central Cook Inlet	West Cook Inlet <sup>a</sup>	Total Cook Inlet	Percent of Area 3A
1977	9,416	4,050	-	13,466	75.5
1978	20,756	4,821	-	25,577	82.6
1979	20,479	6,518	-	26,997	77.8
1980	21,808	8,177	-	29,985	75.3
1981	29,294	9,427	-	38,721	75.1
1982	28,851	10,681	-	39,532	72.1
1983	36,623	23,503	-	60,126	79.7
1984	37,747	23,455	-	61,202	79.2
1985	41,450	21,198	510	63,158	77.5
1986	44,250	39,831	1,072	85,153	73.6
1987	45,707	31,855	869	78,431	77.6
1988	93,878	42,182	1,192	137,252	81.6
1989	76,606	49,087	1,224	126,917	82.4
1990	93,941	52,912	1,685	148,538	82.8
1991	89,998	57,072	1,576	148,646	78.5
1992	81,451	60,659	984	143,094	74.4
1993		159,906 <sup>b</sup>	2,507	162,413	72.3
1994	89,208	81,593	<sup>c</sup>	170,801	71.8

<sup>a</sup> No halibut harvest was recorded in West Cook Inlet until 1985.

<sup>b</sup> Cannot distinguish between Lower and Central Cook Inlet.

<sup>c</sup> Built into Lower and Upper Cook Inlet harvests.

83% (in number) of the Area 3A recreational harvest. The 1994 Cook Inlet harvest made up about 72% (by number) of the Area 3A harvest (Table 8). The proportion of the sport harvest caught by chartered anglers in Cook Inlet has steadily risen since 1986 (Figure 10). During 1994, chartered anglers accounted for 55% of the reported sport harvest from Cook Inlet waters.

The Cook Inlet fishery can be divided into two areas: Central Cook Inlet (CCI) consisting of waters north of the latitude of Anchor Point, and Lower Cook Inlet (LCI) consisting of waters south of Anchor Point, west to Cape Douglas, and east to Gore Point (Figure 11). Major access points in CCI include boat ramps and beach launch sites at Deep Creek, Ninilchik and Anchor Point. The Homer harbor is the primary access point for the LCI fishery, with relatively small numbers of boats also originating from Seldovia and other communities on the south side of Kachemak Bay. Boats based out of Homer fish primarily south of Anchor Point (Meyer 1992; pp. 46-50) but may range as far south as the Barren Islands and as far east as Port Dick. Boats launching in CCI generally fish the eastern half of Cook Inlet north of Anchor Point. Halibut are rarely caught north of the mouth of Kenai River.

Harvest in CCI has increased every year since 1987, while LCI harvest has been variable, but relatively stable, since 1988 (Table 8). Most of the increase in CCI has been due to a rapidly expanding charter fleet, particularly at Deep Creek. Until recently, the Deep Creek fishery has been dominated by unguided anglers. During the past 2-3 years, however, an increasing number of guides have been operating out of CCI, particularly Deep Creek, as improved boat launching facilities have been constructed.

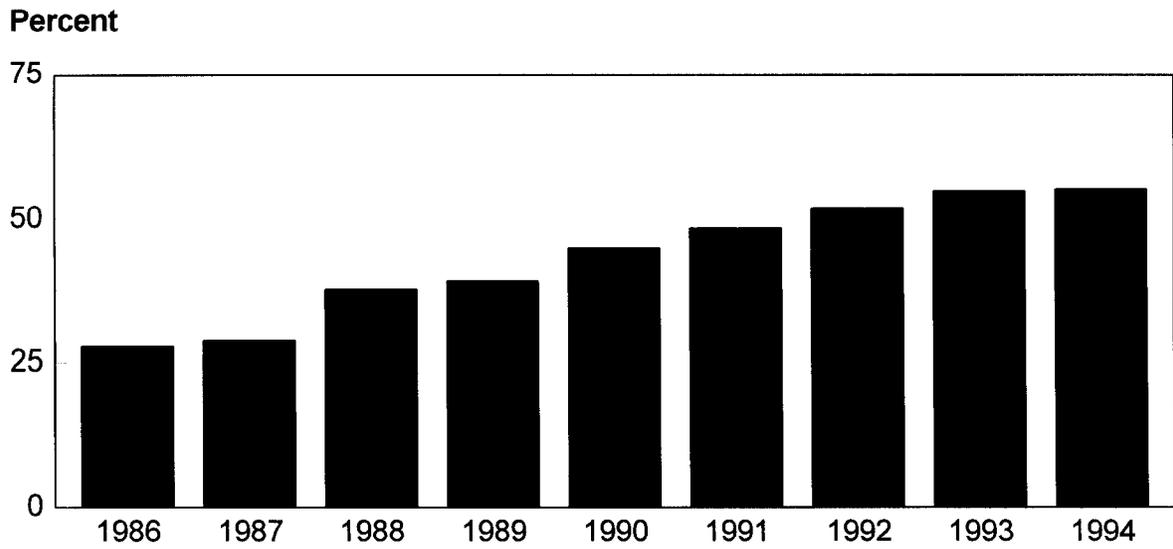
The stable and variable harvest in LCI is probably not due to a proportional decrease in fish abundance. More likely, the Deep Creek and Anchor Point fisheries are capturing the business of anglers that formerly fished at Homer. Kenai River guides are reportedly moving to Deep Creek to circumvent restrictions on the Kenai River chinook salmon fishery. In addition, the CCI saltwater fishery offers opportunities to harvest halibut as well as chinook salmon, is a shorter drive from Anchorage than Homer, and is a shorter and often smoother boat ride to the fishing grounds. Use of tractors to launch boats from the beach has reduced competition at boat ramps and allowed launching of larger boats on any tide.

### **Kodiak**

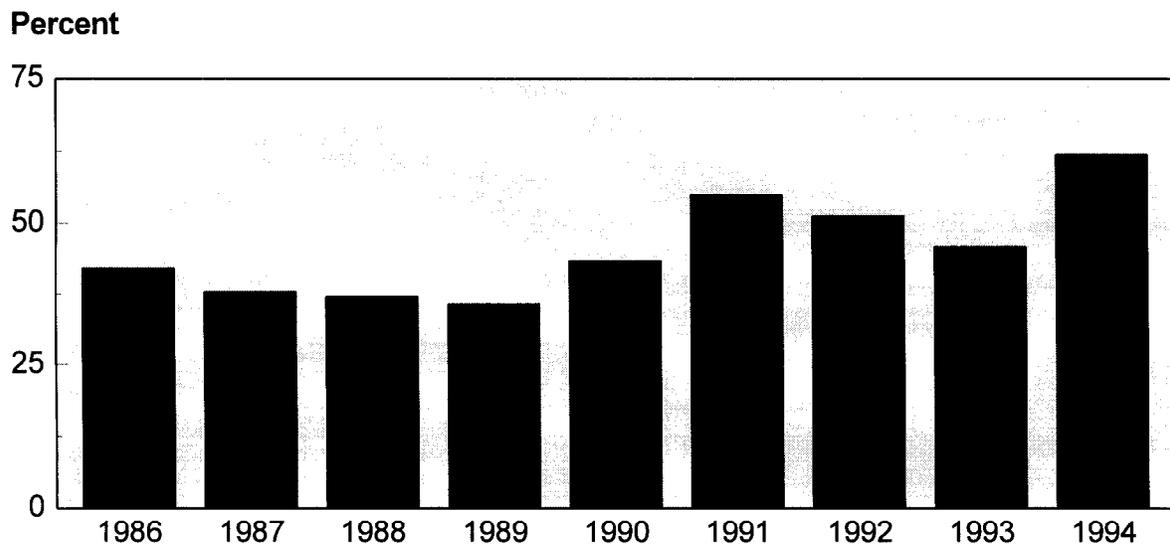
Halibut are harvested from numerous locations surrounding Kodiak and Afognak Islands, but the vast majority of the harvest is taken in Chiniak Bay and other waters close to the port of Kodiak. Most boats based in Kodiak fish north of Cape Chiniak and only occasionally venture farther west than Whale Island and as far north as the north side of Marmot Bay (Figure 12). The most heavily fished waters are in the vicinity of Buoy 4, Spruce Cape, Woody Island, and Long Island, all less than 20 km from port.

Although Kodiak is the hub of a thriving commercial longline fishery for halibut, the sport fishery is of much lower magnitude. Harvest in the Kodiak area, including waters surrounding Kodiak, Afognak, and the Barren Islands, grew from about 1,000 fish in 1977 to 14,900 in 1994 (Table 5). The 1994 Kodiak harvest made up only 6% (in number) of the Area 3A total harvest. The port of Kodiak supports an active charter fleet of about a dozen boats, but most effort and harvest is by unguided anglers. Growth of the fishery will probably be limited by geographic isolation and the high cost of transportation.

### Cook Inlet



### North Gulf Coast



**Figure 10.-Percentage of the total recreational halibut harvests by chartered anglers in Kenai Peninsula fisheries, 1986-1994.**

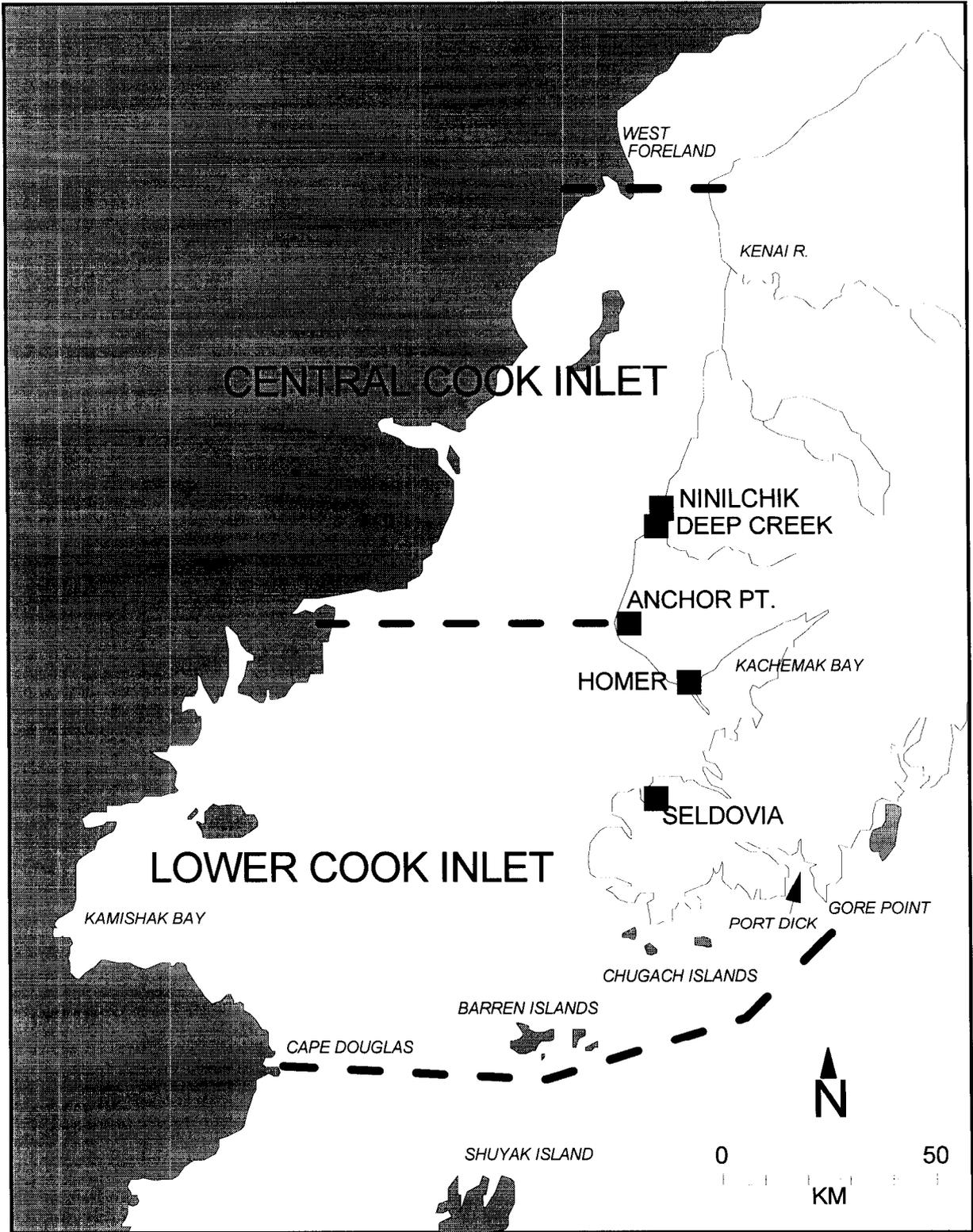
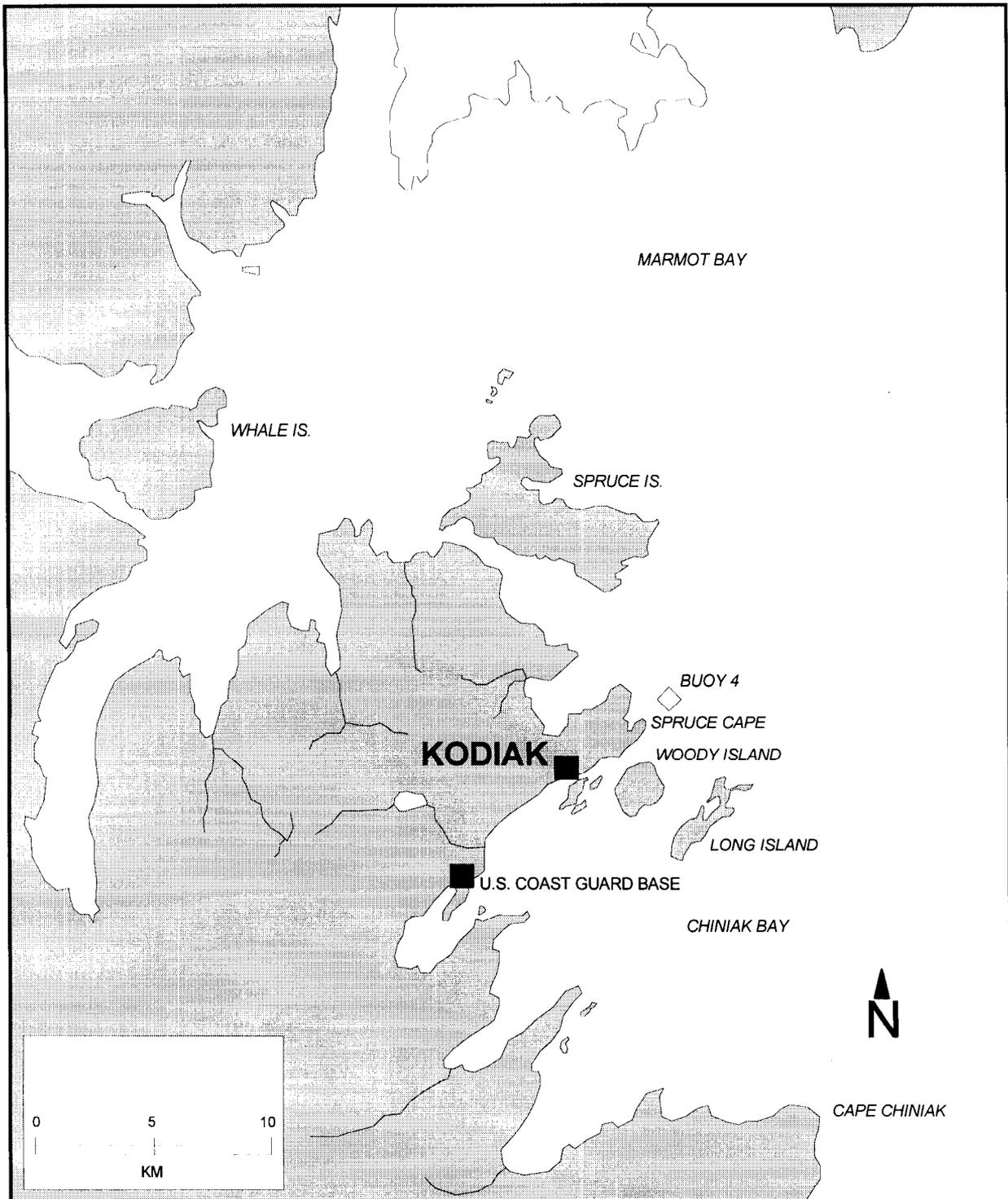


Figure 11.-Approximate areas fished in the Central and Lower Cook Inlet recreational halibut fisheries.



**Figure 12.-Approximate waters fished by the Kodiak-based recreational halibut fleet.**

### **North Gulf Coast**

Although the port of Seward is the only access point, this fishery ranges over an extremely large geographic area. Boats occasionally fish as far west as Nuka Bay and as far east as Cape Cleare, a maximum distance of 110 km from Seward (Figure 13). Most of the halibut effort and harvest, however, is distributed outside of Resurrection Bay between the Chiswell Islands and Cape Puget. A net redistribution of effort outward from Seward has occurred in the last 20 years (Meyer 1992).

Harvest in the North Gulf Coast fishery has risen from 1,700 fish in 1977 to 25,000 fish in 1994 (Table 5). Most of the growth has occurred since 1985. The proportion of the harvest by chartered anglers has generally increased since 1986 (Figure 10).

Although the Seward harbor is overcrowded and has a long waiting list for slips, some growth of the fishery is likely. Seward is only a 2-hour drive from Anchorage, and the City of Seward is currently planning construction of an additional launching ramp.

### **Prince William Sound**

Halibut harvest in Prince William Sound (Figure 14) grew from 1,250 fish in 1977 to 23,490 fish in 1994 (Table 5). The majority of the Prince William Sound recreational halibut harvest is from boats based in Valdez. Valdez currently supports an active civilian charter fleet of about 15-25 boats, and a military charter fleet of 7 boats. Although Whittier is close to Anchorage and supports high recreational boating use, most boaters do not fish for halibut, and the harvest is a small percentage of the total for the sound (Mills 1979-1994, Meyer 1992). Likewise, Cordova supports a large and active commercial fleet, but there is relatively little interest in recreational halibut fishing. Planned construction of a road connecting Cordova with the Alaska highway system would probably result in some growth of the recreational fleet and increased harvest.

Valdez-based boats generally fish a north-south corridor between Valdez Arm and Hinchinbrook Entrance, on the eastern side of the sound (Meyer 1992, 1994). Popular sites include Bligh Reef, Knowles Head, Hinchinbrook Entrance, and Seal Rocks (Figure 14). Few private boats from Valdez fish sites south of Knowles Head; mostly charter boats are equipped to handle the rougher water often encountered. In contrast, Whittier-based boats concentrate bottom fishing effort in the northwestern corner of Prince William Sound, in Passage Canal, Blackstone Bay, and in waters near Esther and Perry Islands.

### **Regulatory Area 3B**

Few recreational anglers fish halibut in Area 3B waters and as a result reliable estimates of recreational angler effort or halibut harvest are unavailable for these waters from the postal survey. It is believed that less than 2,500 angler-days are expended and less than 1,000 halibut are taken annually from these waters in total. Most of the effort and harvest occurs in the vicinity of Cold Bay. Significant increases in effort and harvest are not expected in the near future in this area given its remoteness.

Commercial harvests, bycatch, and wastage vastly outnumber sport removals in this regulatory area. During 1994, of the 3.96 million pounds of halibut which were removed from Area 3B waters, only 21,000 pounds (750 halibut at 28.5 pounds each) were harvested by recreational anglers.

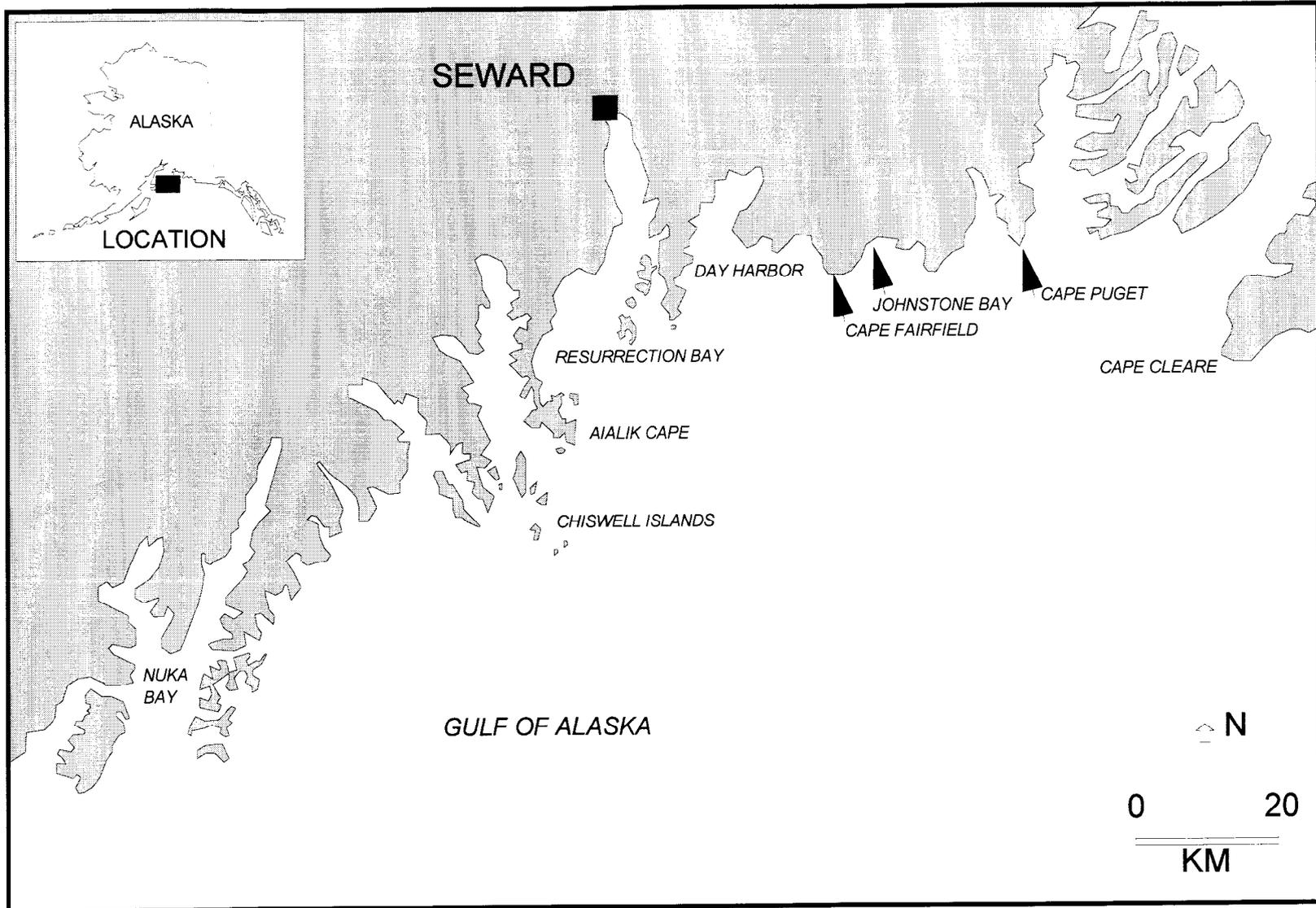


Figure 13.-Approximate waters fished along the North Gulf Coast by the Seward-based recreational halibut fleet.

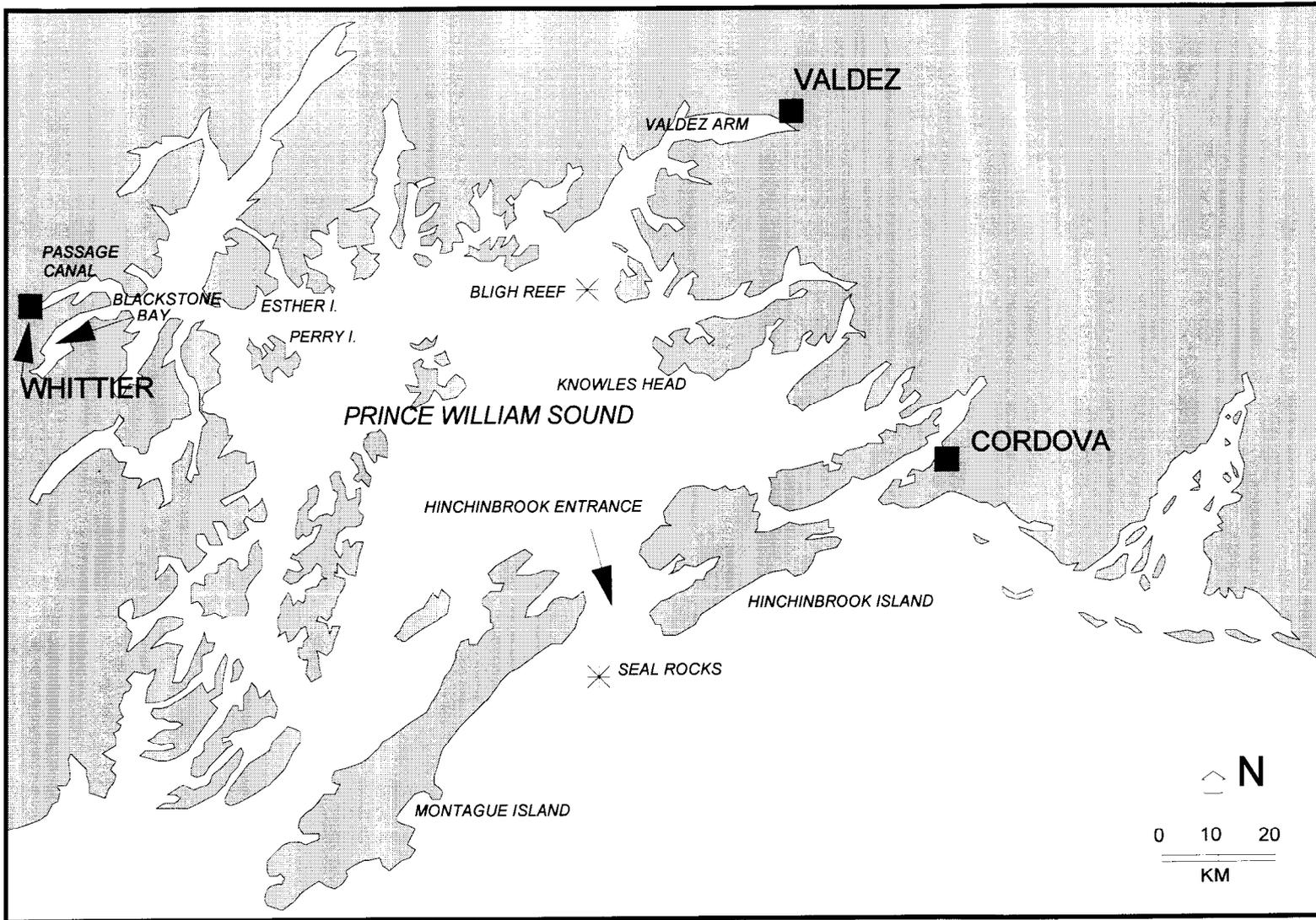


Figure 14.-Waters fished by recreational halibut fleets based out of Whittier, Valdez, and Cordova.

#### **Regulatory Area 4**

As with Area 3B, few recreational anglers fish halibut in Area 4 waters and as a result reliable estimates of recreational angler effort or halibut harvest are unavailable for these waters from the postal survey. It is believed that less than 3,000 angler-days and less than 1,500 halibut are taken from these waters in total. Most of this effort and harvest occurs in the vicinity of Adak. The Navy Base of Adak is in the process of closing, and the population in 1995 was reduced from 5,000 people to 100 people. The base is scheduled for complete closure in 1997. The 1994 angling effort for all species dropped to 1,050 angler-days, a 92% reduction in angling effort from the 1985-1994 average (Schwarz 1996). As a result, recreational halibut harvest is expected to decline significantly in the immediate future.

Commercial harvests, bycatch, and wastage vastly outnumber sport removals in this regulatory area. During 1994, of the 5.64 million pounds of halibut which were removed from Area 3B waters, only 54,000 pounds (1,900 halibut at 28.5 pounds each) were harvested by recreational anglers.

#### **Management Issues**

The Alaska Longline Fishermen's Association (ALFA) has submitted a proposal to the NPFMC to establish a quota for the sport charter industry in Alaska. The proposal was submitted to address what the ALFA perceives to be "rapid, uncontrolled growth of the guided sport halibut charter industry" in Alaska. The ALFA believes that further growth of the sport fishery, in particular the guided sport industry, is inevitable and that without some type of restriction, this growth will result in a reallocation of halibut from the traditional directed longline fishery, given that the resource is currently fully utilized. The ALFA believes this will result in economic and social costs to their traditional fisheries. The objective of their proposal is to minimize such impacts.

As can be expected, ALFA's proposal has not been well received by the sport charter industry. They argued that, although growing, sport removals in Alaska still represent a relatively small proportion of the total halibut removals in Alaska. Both removals by the directed longline fishery and bycatch and wastage in the directed and other nondirected fisheries (notably the trawl fishery) vastly outnumber sport removals (see above). A result of the proposal was the formation of organized charter boat associations throughout Alaska. Prior to this issue a few associations were organized, but for the large part most ports were without organized associations.

To address this issue, the NPFMC formed a work group composed of charter boat operators, commercial fishermen, sport anglers, and agency staff. The work group met on several occasions and received considerable public testimony on a variety of management options put forth by the council. Based on the group's recommendations, the council opted to drop harvest caps or Individual Fishery Quota (IFQ) programs from further consideration at this time. Instead, the council asked the work group to continue meeting and to focus future discussions on evaluating regional differences and forming appropriate regional halibut charter management areas. Based on testimony received, it was apparent that regional differences and varying stages of development are evident in the Alaskan halibut sport charter industry, and that a flexible regulatory scheme that could be applied regionally, not one that would be uniformly applied throughout Alaska, was warranted.

In terms of possible regulatory measures that could be applied to the Alaskan sport charter industry, the council asked the work group to evaluate elements and options of a license limitation or moratorium program that could be applied to 'appropriate' regional management areas (e.g., overcapitalized areas). Because guides are not required to register uniformly across Alaska, there is a lack of information on the number of guides currently operating throughout the state. The lack of such information makes it difficult to evaluate options regarding license limitation or moratorium programs. Alaska has stated its desire to maintain 'regulatory control' of the Alaskan sport charter industry in case a license limitation or moratorium were to be implemented. Currently, the state does not have the regulatory means to execute such control; however, a bill has been introduced to the Alaska Senate (by Senator Taylor) to give the state regulatory control of the sport charter industry through the Commercial Fisheries Entry Commission (CFEC). The bill also offers a means to require the registration of guides throughout Alaska.

The Council also asked the work group to provide additional detail on the following six items identified by the work group in their discussion paper presented to the Council:

1. Reduce bycatch in all fisheries. The charter industry has resolved to work with the Council in finding ways to reduce halibut bycatch.
2. Evaluate an individual annual catch limit and reporting system for recreational halibut fishermen. The charter industry has resolved to promote the wise-use ethic in the sport charter halibut fishery, and suggested analyzing catch limits ranging from 4 to 12 halibut per year.
3. Encourage ADF&G and the IPHC to improve their collection of catch, effort, and age composition of halibut taken by sport fishermen.
4. Develop a log book program for charter vessels.
5. Recognize that regional differences and varying stages of development in Alaska mandate a flexible regulatory scheme and not one that is uniformly applied throughout Alaska.
6. Request an opinion from NOAA general council about the legality of imposing limits on the number of halibut that can be exported out of state.

The work group was scheduled to present its recommendations to the NPFMC during their April 1994 meeting in Anchorage. However, the Council had a full schedule and decided to postpone discussion of this topic until a later meeting. The NPFMC is currently developing a Request for Proposals (RFP) to assess the potential biological, economic, and social impacts of a proposed limitation on the growth of the halibut sport fishery and/or guided halibut charter boat fishery operating in waters off Alaska. A draft of this RFP is provided in Appendix B as well as department comments. This RFP will be reviewed by the council at their June 1996 meeting in Portland. Results of the RFP will serve as an Environmental Assessment/Regulatory Impact Review (EA/RIR) for public and Council review prior to any decisions. No final action is expected on this issue prior to the 1998 fishery.

Another issue pertaining to the Alaskan sport halibut fishery is an IPHC halibut tagging program in cooperation with sport charter operators. Under the program, instituted in 1994, the IPHC provides operators with tagging equipment paid for by the operators. Charter operators, at the

request of guided clients, tag and release halibut and record data. The IPHC believes that tagging, if it becomes popular, could provide limited information on seasonal movements of fish to and from spawning grounds and across management area boundaries. They also believe that a similar tagging program could be implemented for the commercial fishery under the IFQ program, resulting in more information on fish under 32 inches. Enlisting the involvement and support of charter operators, anglers, and commercial fishermen in the management process is also viewed as a primary benefit. The IPHC recognizes that fostering a 'wise-use ethic' through catch and release will not reduce overall harvest; commercial catch quotas would simply be increased to offset reduced sport harvests. The department feels little useful biological data will be collected through this effort, but supports the IPHC conducting the program given current angler interest. It appears that few charter operators actually participated in this program during 1994. However, interest seems to have expanded, with participation increasing in 1995.

Another issue regards possible resource competition between sport charter and commercial fishermen. Charter boat operators are concerned that commercial longliners fishing under an IFQ program implemented in 1995 could deplete nearshore halibut stocks currently targeted by charter boat anglers and "crowd" recreational fishermen off their traditional fishing grounds. Based on discussions with several charter boat associations throughout southcentral Alaska, some conflict between user groups occurred during the 1995 fishery. To alleviate this problem, charter boat operators have suggested that the council consider establishing exclusive recreational fishing zones in their traditional fishing grounds, in which commercial longlining would be prohibited. As can be expected, this type of proposal has not been well received by commercial fishermen.

Lastly, the possibility that there may be many smaller discrete stocks of halibut within regulatory areas has been raised. This is contrary to the past theory that there is one large stock with most of the recruitment occurring in the Bering Sea and migrating down the coast. This raises the possibility of localized overfishing within a regulatory area, especially in areas near major ports where sport and commercial fishing effort may be high.

### **Management History**

The Alaska Board of Fisheries does not have direct management authority over halibut in Alaska. The Board has, however, for enforcement reasons, enacted regulations consistent with those enacted by the IPHC or NPFMC. In 1981, the Board of Fisheries adopted a 2 fish daily and in possession regulation for all state waters. In 1988, this regulation was changed to permit 4 fish in possession, the daily bag limit was not changed.

### **Ongoing Research and Management Activities**

A research program to evaluate the age, sex, and size compositions of the recreational halibut harvests from Area 3A waters continued during 1995 and is planned for 1996. Area 3A ports currently being sampled include Valdez and Seward in the North Gulf of Alaska and Kodiak and Homer. Secondary objectives of the study are to provide fishery managers with information regarding characteristics of the fishing fleet operating out of study ports. Staff recommend continuation of the above described research for the immediate future.

Information provided by ADF&G is needed for management of the fishery. Historically, only commercial removals were used to estimate exploitable biomass because other removals such as sport harvest were considered negligible. Recently, the IPHC has attempted to account for all

sources of removal, including sport, subsistence, bycatch, and wastage. Incorporation of sport harvest in the 1991 stock assessment led to a 10% to 15% increase in overall harvest and a 10% increase in estimated biomass over recent years (Sullivan et al. 1992). Age composition of the sport harvest will be incorporated into catch-at-age analyses to estimate exploitable biomass after more years of data become available. Estimates of the mean weight of fish taken in the sport fishery are used to obtain the harvest in pounds. Information on length and sex composition can be used to evaluate the effects of traditional management measures, such as size limits. Tallies of harvest per boat trip are used to evaluate the effects of changes in bag limits. Finally, knowledge of areas fished may be useful in evaluating competition on the fishing grounds and localized stock depletion.

### **NORTH GULF OF ALASKA RECREATIONAL ROCKFISH FISHERIES**

A variety of rockfishes inhabit the marine waters of the North Gulf of Alaska, including species of the genera *Sebastes* and *Sebastolobus*. For management purposes, these rockfishes are usually categorized into the following groups: slope rockfish, demersal shelf rockfish, and pelagic shelf rockfish (Table 9). The recreational fishery primarily targets the demersal shelf and pelagic shelf rockfish groups, with slope rockfish only occasionally being harvested. Although many species of rockfish have been identified as being harvested by recreational anglers fishing in the North Gulf of Alaska (Meyer 1993a), the most commonly harvested rockfish in the recreational fishery are the demersal shelf yelloweye rockfish *Sebastes ruberrimus* and the pelagic shelf black *S. melanops* and dusky *S. ciliatus* rockfishes.

The recreational fishery for rockfish in the North Gulf of Alaska occurs primarily in state waters. In state waters, responsibility for management and allocation of rockfish lies with the Alaska Board of Fisheries. Under Board-adopted regulations, there are no size restrictions for rockfish in any of the North Gulf of Alaska regulatory areas and limits for rockfish in the North Gulf of Alaska vary by regulatory area. In Prince William Sound the limits are 5 per day, 10 in possession from May through September and 10 per day, 10 in possession from September 16 through April 30. There is also a requirement that all rockfish which are removed from the water in this area must be retained as part of the bag limit of the person originally hooking them. In the Cook Inlet-Resurrection Bay Saltwater Area, the limits are 5 per day, 10 in possession year-round of which no more than 1 daily and 2 in possession may be nonpelagic rockfish. In the Kodiak and Alaska Peninsula-Aleutian Islands Regulatory Area, the limits are 10 per day, 20 in possession year-round. Although available and open year-round, most recreational rockfish are harvested from May through early September.

The commercial fishery for rockfish in the North Gulf of Alaska occurs both in state and federal waters. In state waters, the Alaska Board of Fisheries has allocative and management responsibility for rockfish. Up until 1993, the Commercial Fisheries Management and Development Division lacked specific strategies for the management of rockfishes in state waters and thus management was consistent with adjacent federal waters via the North Pacific Fishery Management Council management plans (Bechtol 1992). These management plans, based on a management strategy for slope rockfishes, however, appeared insufficient for conservation of nearshore rockfish assemblages which are dominated by pelagic and demersal shelf rockfishes. For this reason, the Board adopted the North Gulf of Alaska Rockfish Management Plan which

**Table 9.-Species comprising the slope, pelagic shelf, and demersal shelf rockfish assemblages.**

<b>Species Assemblage</b>	<b>Common Name</b>	<b>Scientific Name</b>	
<b>Pelagic Shelf</b>	Dusky rockfish	<i>Sebastes ciliatus</i>	
	Black rockfish	<i>Sebastes melanops</i>	
	Widow rockfish	<i>Sebastes entomelas</i>	
	Blue rockfish	<i>Sebastes mystinus</i>	
	Yellowtail rockfish	<i>Sebastes flavidus</i>	
<b>Demersal Shelf</b>	Canary rockfish	<i>Sebastes pinniger</i>	
	China rockfish	<i>Sebastes nebulosus</i>	
	Copper rockfish	<i>Sebastes caurinus</i>	
	Quillback rockfish	<i>Sebastes maliger</i>	
	Redbanded rockfish	<i>Sebastes babcocki</i>	
	Rosethorn rockfish	<i>Sebastes helvomaculatus</i>	
	Tiger rockfish	<i>Sebastes nigrocinctus</i>	
	Yelloweye rockfish	<i>Sebastes ruberrimus</i>	
	<b>Slope</b>	Pacific Ocean perch	<i>Sebastes alutus</i>
		Shortraker rockfish	<i>Sebastes borealis</i>
		Rougeye rockfish	<i>Sebastes aleutianus</i>
		Northern rockfish	<i>Sebastes polyspinis</i>
		Sharpchin rockfish	<i>Sebastes zacentrus</i>
Redstripe rockfish		<i>Sebastes proriger</i>	
Harlequin rockfish		<i>Sebastes variegatus</i>	
Silvergrey rockfish		<i>Sebastes brevispinis</i>	
Yellowmouth rockfish		<i>Sebastes reedi</i>	
Bocaccio		<i>Sebastes paucispinis</i>	
Greenstriped rockfish		<i>Sebastes elongatus</i>	
Darkblotched rockfish		<i>Sebastes crameri</i>	
Pygmy rockfish		<i>Sebastes wilsoni</i>	
Splitnose rockfish		<i>Sebastes diploproa</i>	
Aurora rockfish		<i>Sebastes aurora</i>	
Blackgill rockfish		<i>Sebastes melanostomus</i>	
Chilipepper rockfish		<i>Sebastes goodei</i>	
Shortbelly rockfish	<i>Sebastes jordani</i>		
Stripetail rockfish	<i>Sebastes saxicola</i>		
Vermilion rockfish	<i>Sebastes miniatus</i>		

From: NPFMC 1993

utilizes trip and bycatch limits and annual harvest guidelines to better protect nearshore rockfish assemblages. The plan became effective during 1993 and was a good first step towards management of this fishery.

The North Pacific Fishery Management Council has a Plan Team which addresses, among other items, stock assessment and management of rockfish. The state is increasing its involvement in this process as it takes a more active role in the management of rockfish species in state waters. Division of Sport Fish may be interested in gaining a seat on the Plan Team in the future.

### **Management Objective and Approach**

Rockfish stocks of the North Gulf of Alaska are managed for both commercial and recreational uses. In most years, commercial harvests have exceeded sport harvests in most areas of the North Gulf of Alaska. However, in some areas, notably along the North Gulf of Alaska near Seward, recreational harvests in some years exceed commercial harvests. At present, there are no major allocation issues surrounding North Gulf of Alaska rockfish stocks.

Due to a lack of stock assessment data, no specific fishery objectives have been formally established for recreational rockfish fisheries of the North Gulf of Alaska. An assumption of past and current fisheries management, however, has been to assure for the sustained yield of the various rockfish stocks that occur within the area while assuring continued and, where possible, expanded opportunity to participate in diverse fisheries targeting these stocks. Given the lack of data, recreational fisheries targeting North Gulf of Alaska rockfish stocks are managed under relatively restrictive regulations.

### **Stock Status**

Unfortunately, there is a lack of historic data to assess either the sustained yields or current status of North Gulf of Alaska rockfish stocks; thus, it is unknown at present whether current harvest levels are sustainable. However, based on known life history characteristics, it appears that some demersal shelf rockfish, specifically yelloweye rockfish, in the vicinity of Seward are being overharvested while the pelagic shelf black and dusky rockfishes are likely being harvested at or below sustainable levels. To reduce harvest on demersal-shelf stocks, the Board of Fisheries has recently adopted (at the department's request) reduced bag and possession limits for these species.

### **Fisheries Overview**

North Gulf of Alaska rockfish assemblages support popular and diverse recreational fisheries, which in 1994 supported about 33,000 days of angling effort (Table 1). In comparison, these fisheries supported just under 19,000 days of recreational angling effort in 1987. Major recreational rockfish fisheries occur out of Valdez, Whittier, and Cordova in Prince William Sound; Seward along the North Gulf of Alaska; Homer in Lower Cook Inlet; and Kodiak on the Kodiak Island Archipelago. Of these, the most popular fisheries in terms of effort and harvest are those that occur out of Seward along the North Gulf of Alaska.

Although accessible by road, all North Gulf of Alaska rockfish fisheries are considered remote, in that they require a boat or guide to participate in; thus, the cost to participate in these fisheries is relatively high. Guides make up a significant component of the North Gulf of Alaska rockfish fishery. Because of the availability of guides, these fisheries offer a range of angling

opportunities for both experienced and inexperienced anglers. Information is not available to estimate the economic value of the North Gulf of Alaska recreational fishery.

The sport harvest of rockfish from North Gulf of Alaska waters has generally increased since 1977, with the 1994 harvest of just over 54,500 rockfish being over double the 1977 harvest of 22,000 rockfish (Table 10, Figure 15). Assuming an average weight (round) of 4 pounds per harvested rockfish, the 1994 harvest amounts to a harvest of 218,000 pounds, the fourth largest harvest on record since 1977 (Table 10). North Gulf Coast waters accessible from Seward have accounted for a majority of the total rockfish harvest in all years (Table 10). The Seward area rockfish fishery is one of the largest recreational rockfish fisheries in Alaska (Mills 1991). Areas fished near Seward include waters from the entrances to Prince William Sound to Gore Point; however, most of the fishery occurs in the vicinity of the capes and islands near the entrance to Resurrection Bay.

In addition to the harvest of 54,565 rockfish from North Gulf of Alaska waters during 1994, an additional 40,242 rockfish were estimated to have been caught and released by sport anglers fishing these waters during 1994 (Table 11, Howe et al. 1995). In general, the number of rockfish released by recreational anglers has been increasing (Figure 16). Mortality of released rockfish, most notably the demersal shelf rockfishes, is believed to be high.

Harvest and catch estimates for rockfish are not yet available for the 1995 season. Observations of the fishery during 1995 suggest that rockfish harvests may be higher than average due to restrictions placed on North Gulf of Alaska recreational lingcod to assure the stock's long-term sustained yield. It appears that many anglers redirected effort they would have expended on lingcod towards rockfish, especially in Seward-area waters.

North Gulf of Alaska rockfish stocks are also harvested in several commercial fisheries. In the Central Region (extending from PWS eastward through Cook Inlet), commercial harvests have exceeded recreational harvests 6 of the last 8 years (Table 12). An exception is the waters near Resurrection Bay. In these waters, sport harvests have exceeded commercial harvests 3 of the last 8 years (Table 13).

### **Management Issues**

There has been a great deal of concern voiced by federal and state managers over the past decade regarding the status of North Pacific rockfish stocks and the validity of current practices and approaches used to manage these stocks. Specifically, managers are concerned that many rockfish stocks, specifically demersal shelf rockfishes, in the North Pacific Ocean are being overharvested, and that current management strategies are not protecting rockfish stocks from overharvest and not allowing depressed stocks to rebuild.

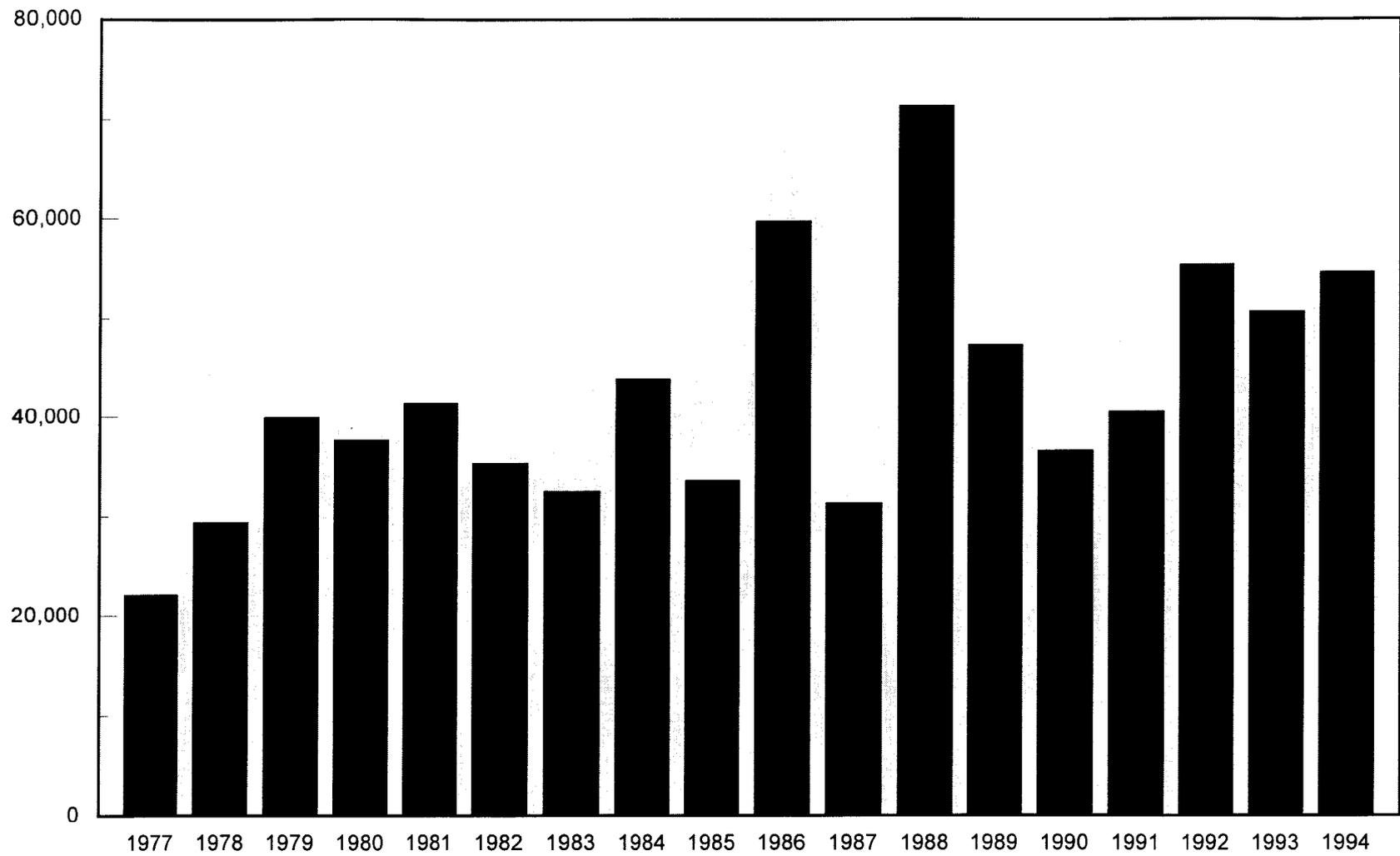
Historically, rockfish have been managed based on sustained yield principles using yield or production models based on relatively short-lived and fast-cycling species (less than 15 years). The validity of applying these models to longer-lived species like rockfish which exhibit extreme longevity is questionable, especially given the documented declines in many rockfish stocks over the past decade. Also, due to a lack of species-specific life history information for many rockfish species, rockfish are often grouped into species assemblages which are managed based on assumed or average life history characteristics of the species assemblage. This often leads to

**Table 10.-Harvest of rockfish, by area, by recreational anglers fishing North Gulf of Alaska waters, 1977-1994.**

Year	Prince William	North Gulf	Alaska Peninsula		Cook	Total	
	Sound	Coast	Kodiak	Aleutian Islands	Inlet	Number	Pounds
1977	4,401	13,021	2,810	0	1,860	22,092	88,368
1978	5,035	18,087	1,907	0	4,332	29,361	117,444
1979	11,018	22,281	3,599	0	2,989	39,887	159,548
1980	6,174	27,967	1,489	0	1,995	37,625	150,500
1981	11,610	19,526	6,242	421	3,575	41,374	165,496
1982	5,608	23,032	3,992	178	2,473	35,283	141,132
1983	6,514	18,339	3,252	62	4,361	32,528	130,112
1984	7,993	22,882	8,231	1,116	3,603	43,825	175,300
1985	8,853	17,105	4,691	199	2,723	33,571	134,284
1986	9,762	38,660	4,479	686	6,103	59,690	238,760
1987	6,563	12,768	6,501	2,046	3,386	31,264	125,056
1988	12,711	35,688	11,369	1,875	9,639	71,282	285,128
1989	12,919	24,888	5,070	255	4,140	47,272	189,088
1990	8,157	18,729	3,842	2,677	3,208	36,613	146,452
1991	8,733	19,803	8,036	1,044	2,819	40,435	161,740
1992	15,478	28,729	5,652	914	4,537	55,310	221,240
1993	12,274	24,978	7,569	781	4,993	50,595	202,380
1994	15,382	28,256	5,019	724	5,184	54,565	218,000

**Table 11.-Number of rockfish released, by area, by recreational anglers fishing North Gulf of Alaska waters, 1990-1994.**

Year	Prince William	North Gulf	Alaska Peninsula		Cook	Total
	Sound	Coast	Kodiak	Aleutian Islands	Inlet	
1990	10,263	13,276	5,064	3,371	7,240	39,214
1991	4,464	7,751	3,020	1,718	2,744	19,697
1992	6,643	11,055	7,384	1,540	9,654	36,276
1993	6,680	15,027	7,985	3,816	12,132	45,640
1994	9,924	20,461	5,965	685	3,207	40,242

**Rockfish Harvested**

**Figure 15.-Harvests of rockfish by recreational anglers fishing North Gulf of Alaska waters, 1977-1994.**

## Number of Rockfish Released

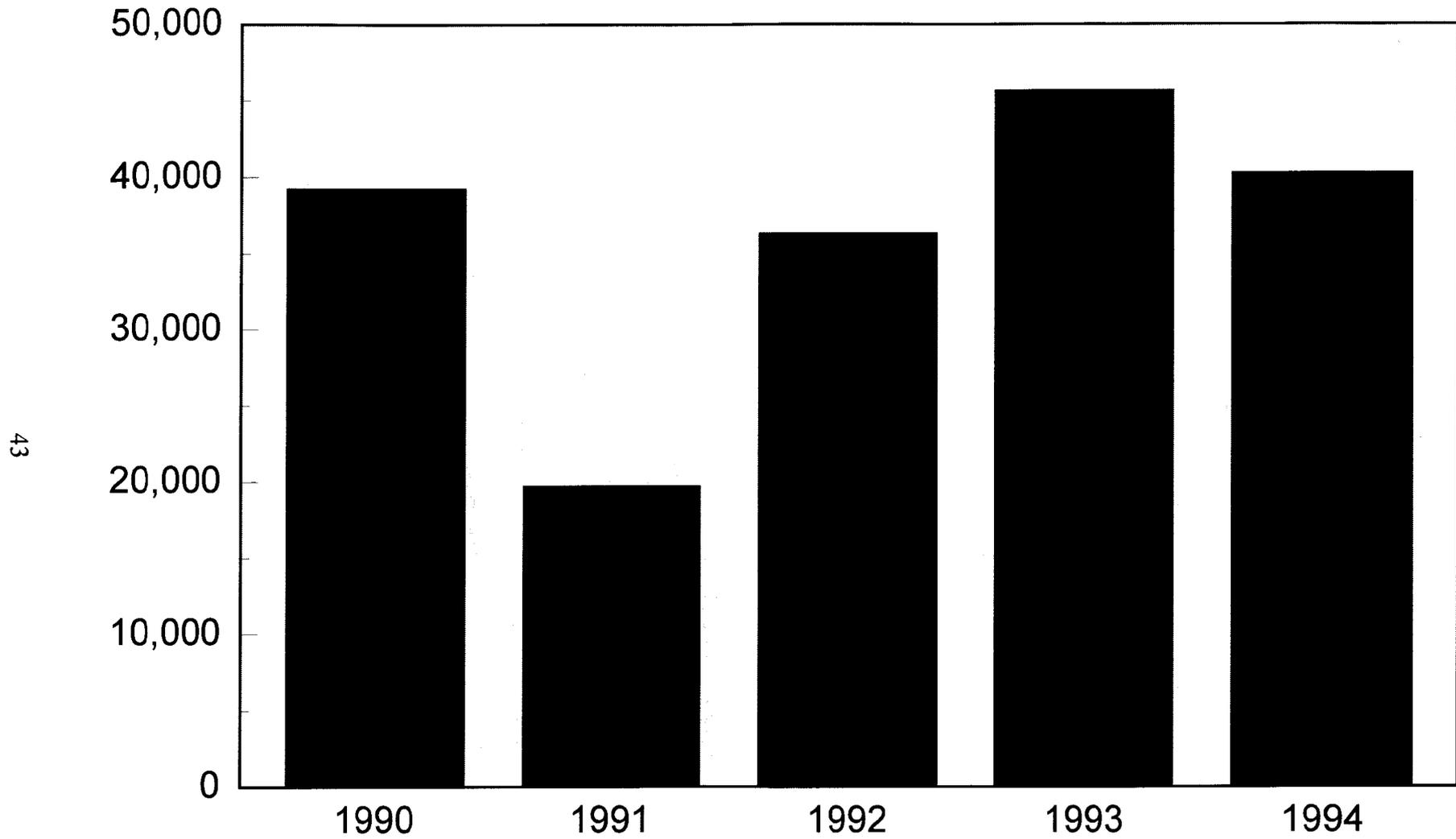


Figure 16.-Number of rockfish released by recreational anglers fishing North Gulf of Alaska waters, 1990-1994.

**Table 12.-Comparison of recreational and commercial harvests of rockfish (pounds, round weight) in the North Gulf of Alaska, 1987-1994.**

Year	Recreational		Commercial		Total
	Pounds	Percent	Pounds	Percent	
1987	90,868	25%	279,740	75%	370,608
1988	232,152	44%	299,397	56%	531,549
1989	167,788	54%	140,683	46%	308,471
1990	120,376	18%	537,018	82%	657,394
1991	125,420	25%	373,322	75%	498,742
1992	194,976	27%	528,973	73%	723,949
1993	168,980	1%	165,037	49%	334,017
1994	195,288	38%	319,184	62%	514,472

Note: Excludes Kodiak and the Alaska Peninsula/Aleutian Islands area harvests.

**Table 13.-Comparison of recreational and commercial harvests of rockfish (pounds, round weight) in Seward area waters, 1987-1994.**

Year	Recreational		Commercial		Total
	Pounds	Percent	Pounds	Percent	
1987	51,072	23%	169,109	77%	220,181
1988	142,752	44%	183,810	56%	326,562
1989	99,552	68%	47,606	32%	147,158
1990	74,916	62%	46,709	38%	121,625
1991	79,212	27%	219,151	73%	298,363
1992	114,916	25%	350,519	75%	465,435
1993	99,912	57%	77,050	43%	176,962
1994	113,024	34%	77,050	66%	334,398

more susceptible species in an assemblage being overexploited at the cost of harvesting the less susceptible species in that assemblage.

Much of the concern for rockfish arises from the inherent susceptibility of rockfishes to overexploitation. Rockfish tend to be slow growing and long-lived. Many rockfish do not mature until at least 10 years of age with some rockfish not maturing until age 20. Most rockfish also live to be over 50 years, however, some rockfish can live to over 100 years. Rockfish also display high survival rates. Most rockfish have annual survival rates exceeding 80%, with some rockfish having rates exceeding 95%. Lastly, juvenile survival is often at the mercy of marine environmental conditions. Given these life history characteristics, many rockfish have very low sustained yields. For some species, the acceptable fishing mortalities may be limited to bycatch mortality only, given that survival of released rockfish is low. Additionally, there is a lack of species-specific life history information for many rockfish species and an inability to obtain accurate biomass or abundance estimates for many rockfish species.

Commercial and recreational landings of rockfish have increased over the past decade as many traditional fisheries, such as salmon and crab, have experienced biological or economic declines. Stock composition data to assess the North Gulf of Alaska rockfish resources are limited. While stock data are being collected, efforts to control harvest levels and protect the rockfish resources of this area have involved adopting increasingly restrictive regulations for recreational fisheries, and federal management strategies and inseason closures for commercial fisheries. However, this approach has not offered sufficient protection to some heavily exploited nearshore stocks. Limited data from commercial test fishing and sport fishing in marine waters in and near Resurrection Bay suggest that the abundance of older black rockfish has declined since the early 1980s and that some species such as yelloweye rockfish are disappearing (Vincent-Lang 1991).

In past years, the Board of Fisheries has promulgated regulations that have increasingly restricted the bag and possession limits for recreational anglers along the North Gulf coast in an attempt to maintain the sustained yield of these stocks. However, harvests have grown under the more restrictive regulations raising the specter of stock conservation concerns.

During their 1992 meeting, the Board established a series of management plans for Central Gulf of Alaska commercial rockfish fisheries. These management plans (North Gulf Coast 5 AAC 28.465, Prince William Sound 5 AAC 28.265, and Cook Inlet 5 AAC 28.365) establish trip limits for allowable rockfish landings during a 5-day period for the North Gulf Coast, Prince William Sound, and Cook Inlet areas. The plans also establish harvest quotas for each area (150,000 pounds) after which the fishery in an area reverts to bycatch only. The Board is reviewing these plans during their 1996/97 cycle. The department is submitting proposals to attempt to bring harvest rates to sustainable levels in these fisheries. The state is also considering asking the North Pacific Fishery Management Council for management control of nearshore rockfish fisheries in federal waters adjacent to the North Gulf of Alaska.

If these measures are not sufficient to protect nearshore rockfish and stock declines occur, it may be necessary to adopt an even more restrictive management strategy. One such strategy being considered is setting aside rockfish refuges where no harvest of rockfish is allowed. This strategy has been suggested by several managers in the literature and is currently being employed in California. Implementation of this strategy, however, would significantly reduce fishing opportunity for other species and therefore must be carefully considered prior to implementation.

Some refuges already exist through exclusion zones around documented marine mammal haulouts. The effectiveness of these refuges should be evaluated in the future. A white paper discussing the merits and drawbacks of refuges is presented in Vincent-Lang 1995(a).

Concern has also been raised that commercial rockfish harvests may increase as a result of a new Individual Fishery Quota (IFQ) system enacted for the Alaskan commercial halibut fishery during 1995. Under the new IFQ system, commercial halibut fishermen have up to 8 months to catch their annual individual halibut quota. Under the old system, commercial halibut fishermen had, at maximum, up to two 24-hour periods to catch an area quota. This resulted in an incentive to fish clean, as bycatch during severely time-restricted openings resulted in reduced landing of halibut. Because bycatch in nearly all cases is lower in value than halibut, it resulted in a reduced value of the landing. There is a fear under the new system that because time is not limited, bycatch will increase. For fishes with high exploitable biomasses, this is not viewed as a problem. However, for fishes such as rockfish that have very low exploitable biomasses, increased bycatch may result in overharvest. Department managers are considering asking the Board for permission to close areas in which rockfish quotas have been achieved to commercial longline fishing to avoid further rockfish bycatch. Data to address this question has not been analyzed to date.

Concern has also been raised that an IFQ system will result in increased competition on the fishing grounds between commercial fishermen and sport anglers. Competition was minimal in the past because the commercial fishery operated far offshore where the abundance of large halibut was higher during spring and fall commercial openings. The long season permissible under the IFQ system will allow overlap of commercial and sport fishing times. In addition, the commercial fleet will likely fish close to port. Implementation of an IFQ system in Canada resulted in a significant number of vessels fishing closer to port, despite lower catch rates. Data to address this question has not been analyzed to date. However, these concerns have caused some recreational fishing groups to discuss establishment of exclusion zones for the commercial fishery that encompass their traditional fishing areas near major sport ports. As can be expected, such proposals have not been well received by commercial fishermen.

### **Management History**

Prior to 1973, the recreational fishery for rockfish along the North Gulf of Alaska was unregulated. In 1973, the Board adopted a 10 daily and 10 in possession limit for rockfish harvested in the Cook Inlet-Resurrection Bay Saltwater Area. In 1989, the Board reduced the daily bag limit for this area to 5, the possession limit did not change. This action was taken to reduce harvest given staff concern for the health of the resource in this regulatory area. Also in 1989, the Board adopted a 20 fish daily/20 fish possession limit for rockfish in the Prince William Sound Regulatory Area, of which no more than 5 rockfish could be red rockfish. This action was taken in recognition of rockfish as a sport species requiring management. The special requirement for red rockfish was enacted given staff concern for overharvest of these longer-lived rockfish (e.g., yelloweyes). In 1991, the Board reduced the limits in the Prince William Sound Regulatory Area using a seasonal approach, given staff concern for rockfish stocks in this regulatory area. During the summer months (May 1-September 15), the Board reduced the limits for rockfish in this regulatory area to 5 per day, 10 in possession from May through September 15, and 10 per day and in possession from September 16 through April 30. Additionally, the Board mandated that all rockfish which are removed from the water in this area

must be retained as part of the bag limit of the person originally hooking them. These actions were taken in an attempt to assure harvests would remain sustainable. The Board also removed the stipulation that only 5 may be red rockfish. This later action was taken over concern that many black rockfish were being released to harvest red rockfish and that many of the released black rockfish were suffering high mortality. In 1993, the Board adopted a 10 fish daily bag limit and 20 fish possession limit for rockfish in the Kodiak Regulatory Area. In 1994, the Board adopted a 10 fish daily bag limit and 20 fish possession limit for rockfish in the Alaska Peninsula-Aleutian Islands Regulatory Area. These last two actions were taken in recognition of rockfish as a sport species requiring management in these regulatory areas. In 1995, the Board adopted a new bag and possession limit for rockfish in the Cook Inlet-Resurrection Bay Saltwater Area. The new regulation, 5 rockfish daily, 10 in possession of which not more than 2 daily, 4 in possession may be nonpelagic rockfish, was taken to address conservation concern issues for pelagic shelf rockfish.

### **Ongoing Research and Management Activities**

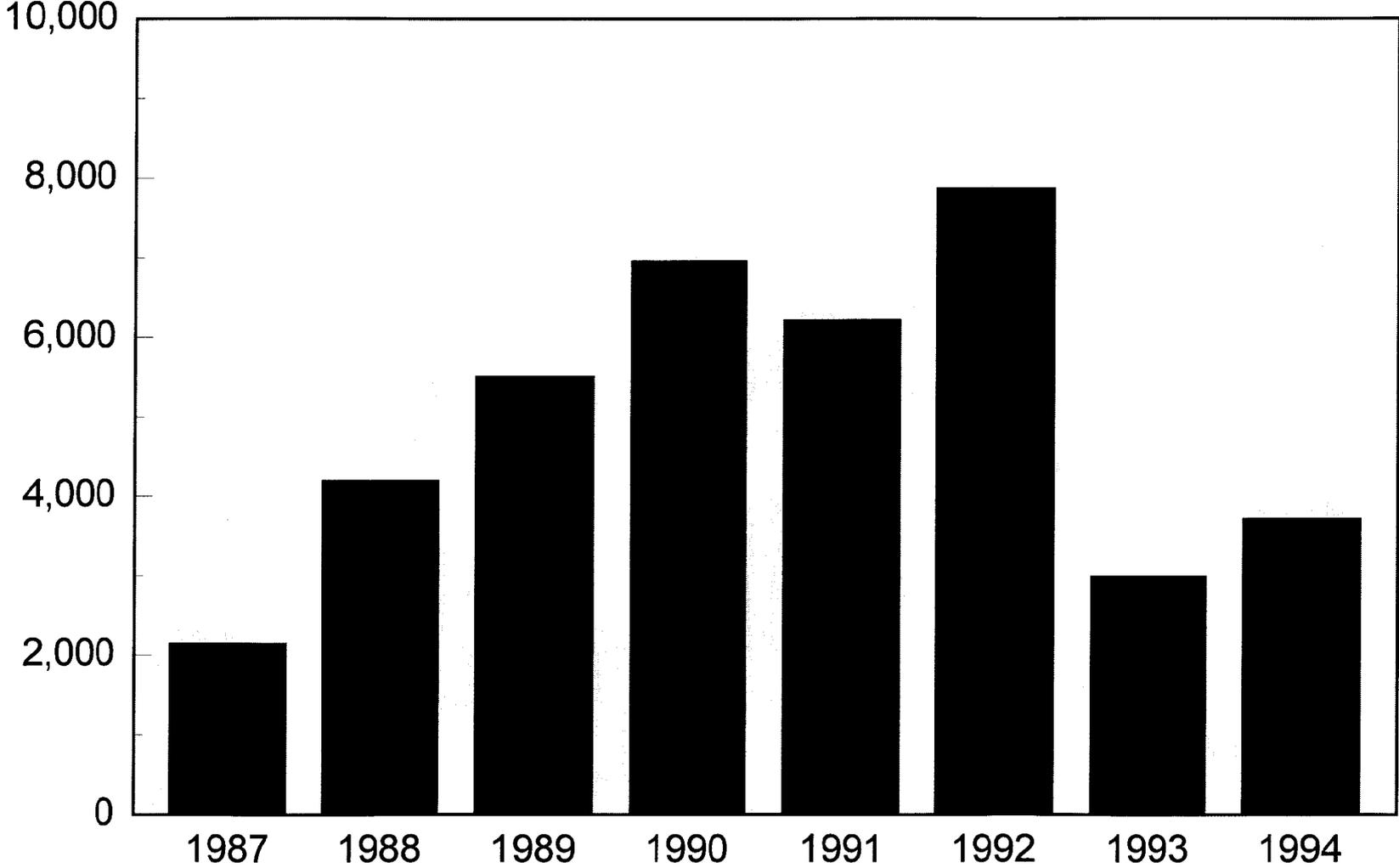
A research program to evaluate rockfish stocks in the North Gulf of Alaska is currently underway. The objectives of this program are to collect age, sex, and length composition data and to obtain species composition statistics for the sport harvest of rockfish in this area. In addition, the distribution of recreational groundfishing effort and harvests is being monitored. Ports currently being sampled include Valdez and Seward in the North Gulf of Alaska and Kodiak and Homer. In combination, these data are being used to determine selected life history characteristics of the commonly harvested rockfish species and to evaluate stock status and validity of current management strategies. Staff recommend continuation of the current research program. Additionally, staff recommend that an aging validation study for rockfish be implemented to determine the validity of and magnitude of errors associated with current aging practices.

### **NORTH GULF OF ALASKA RECREATIONAL LINGCOD FISHERY**

Lingcod belong to the Hexagrammids, a family of fish unique to the west coast of North America. These fish, which are actually greenlings and not true cods, are predatory and can grow to over 22 kg (50 pounds) and 122 cm (4 ft). Their distribution extends from the Alaska Peninsula/Aleutian Islands south to Baja California. In the North Gulf of Alaska, they are common from Cape Suckling eastward to Cape Trinity on the southern end of Kodiak Island.

Beginning in the mid-1980s, this species became a popular target of recreational anglers fishing North Gulf of Alaska waters, specifically those waters accessible from Seward (Table 14, Figure 17). The recreational fishery for lingcod in the North Gulf of Alaska occurs primarily in state waters. In state waters, responsibility for management and allocation of lingcod lies with the Alaska Board of Fisheries. In response to increasing harvests and concern expressed regarding the health of the North Gulf of Alaska lingcod resource, the Board adopted new regulations for North Gulf of Alaska recreational lingcod fisheries during 1993. Vincent-Lang and Bechtol (1992) summarize the actions taken by the Board of Fisheries to manage these stocks for sustained yield and the rationale the Board used towards taking these actions. The current regulations governing recreational lingcod fisheries in the North Gulf of Alaska are:

# Lingcod Harvest



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Figure 17.-Harvest of lingcod by recreational anglers fishing Seward area waters, 1987-1994.

**Table 14.-Harvest of lingcod, by area, by recreational anglers fishing North Gulf of Alaska waters, 1987-1994.**

Year	Prince William Sound	North Gulf Coast (Cape Puget - Gore Point)	Kodiak	Alaska Peninsula Aleutian Islands	Cook Inlet	Total
1987	---	2,142	---	---	---	---
1988	---	4,189	---	---	---	---
1989	---	5,505	---	---	---	---
1990	---	6,955	---	---	---	---
1991	1,979	6,126	1,352	993	2,841	13,291
1992	2,575	8,081	1,454	299	3,199	15,701
1993	2,008	3,079	922	198	1,681	7,888
1994	1,658	3,712	1,014	185	1,240	7,809

- ✓ Resurrection Bay, enclosed from a line extending from Cape Aialik to Cape Resurrection, is closed to the commercial and recreational harvest of lingcod. All lingcod caught in these waters must be released immediately.
- ✓ The bag and possession limit for sport-caught lingcod in the area between Cape Puget and Gore Point is 1. The bag and possession limit for all other waters of the North Gulf of Alaska are 2 and 4, respectively.
- ✓ In all North Gulf of Alaska regulatory areas lingcod may only be taken from July 1 through December 31.
- ✓ Only lingcod 35 inches or more in total length or 28 inches or more with their head off may be retained in the Prince William Sound and Cook Inlet-Resurrection Bay Saltwater regulatory areas. There are currently no size limits for lingcod in the Kodiak or Alaska Peninsula-Aleutian Islands regulatory areas.
- ✓ All sport-caught lingcod in the Prince William Sound, Cook Inlet-Resurrection Bay Saltwater, and Kodiak regulatory areas may be landed only by hand or net.

A commercial fishery for lingcod also occurs in state waters of the North Gulf of Alaska (Table 15). In all years since 1991, commercial lingcod landings have been lower than recreational lingcod landings along the North Gulf of Alaska (Table 16). In state waters, the Alaska Board of Fisheries has allocative and management responsibility for lingcod. Up until 1993, the Commercial Fisheries Management and Development Division lacked specific strategies for the management of lingcod in state waters and the commercial harvest of this species was largely unmanaged. In 1993, the Board adopted several regulations governing the commercial harvest of lingcod in the north Gulf of Alaska. These regulations impose minimum size limits, season and area closures, and trip and bycatch limits to help rebuild depressed stocks and assure for the

**Table 15.-Commercial harvest (pounds, round weight) of lingcod, by area, along the North Gulf of Alaska, 1987-1994.**

Year	Prince William Sound	North Gulf Coast	Cook Inlet	Total
1987	594	25,557	103	26,254
1988	1,338	25,176	127	26,641
1989	1,280	7,026	0	8,306
1990	8,117	5,467	414	13,998
1991	19,357	65,256	0	84,613
1992	2,357	28,337	0	30,694
1993	245	15,087	0	15,332
1994	5,255	22,325	0	27,580

**Table 16.-Comparison of recreational and commercial harvests of lingcod from North Gulf of Alaska waters, 1987-1993.**

Year	Recreational		Commercial <sup>a</sup>		Total
	Number	Percent	Number	Percent	
1991	10,946	80%	2,820	20%	13,766
1992	13,448	93%	1,023	7%	14,471
1993	6,768	93%	511	7%	7,279
1994	6,610	88%	919	12%	7,529

Note: Waters include Prince William Sound, North Gulf Coast, and Cook Inlet.

<sup>a</sup> Based on a 30 pound average weight (round).

sustained yield of healthy stocks. The department has also submitted a proposal to the Alaska Board of Fisheries to establish a management plan for North Gulf of Alaska commercial lingcod fisheries. This proposal will be deliberated by the board during their 1996/97 cycle.

As more restrictive regulations governing lingcod harvest in state waters have been adopted, commercial harvest in adjacent federal waters has increased. During 1994, an additional 50,000 pounds of lingcod were commercially harvested in federal waters adjacent to the North Gulf Coast in addition to the 27,600 pounds reported in state waters. Until recently, only limited numbers of lingcod were harvested in federal waters in the North Gulf of Alaska. Because of the historic limited harvest, lingcod have not been included in any federal fishery management plan and this species is largely unmanaged in these waters. To cover this loophole, the state extended its regulatory authority into federal waters of the EEZ off Alaska through an emergency regulation in 1995. Both commercial and sport regulatory authority were extended.

### **Management Objective and Approach**

Management of North Gulf of Alaska lingcod stocks is directed towards assuring the sustained yield of the various lingcod stocks that occur within the area while assuring continued and, where possible, expanded opportunity to participate in diverse fisheries targeting these stocks.

In the marine waters of the North Gulf of Alaska, insufficient data are currently available to estimate exploitable biomass. No research is currently being conducted, or planned, to collect these data in the near-term future. Thus, recreational lingcod fisheries in the North Gulf of Alaska are managed using a conservative approach aimed at assuring optimal sustained yield. Given that lingcod recruitment has been shown to be highly variable, the current management approach is to assure that sufficient fish are present in the spawning population for future recruitment. This is done in three ways: (1) protect spawning and nest guarding fish—the sport and commercial season is closed from January 1 through June 30, (2) allow fish to spawn at least once before being subject to harvest—a 35 inch minimum size limit for both sport and commercial fisheries, and (3) restrictive catch limits - the sport fishery is currently restricted to a 2 fish daily, 4 fish in possession limit in areas of healthy stock status, in areas of less healthy stock status, the daily bag and possession limit is reduced. The commercial fishery is restricted by closed waters and seasons, minimum size restrictions, and bycatch quotas.

### **Stock Status**

Most lingcod stocks in the North Gulf of Alaska are currently healthy. However, stocks in and near to Resurrection Bay are currently depressed. To rebuild severely depressed stocks in Resurrection Bay, the sport and commercial fishery inside Resurrection Bay is currently closed. Catch rate and size information collected during the summer of 1993 during fishery-independent sampling indicate that these stocks remain severely depressed and recruitment has yet to occur in these stocks. Based on this, these waters will remain closed as currently regulated. To rebuild depressed stocks outside Resurrection Bay, the daily bag limit and possession limit has been reduced to 1 from Cape Puget to Gore Point.

### **Fishery Overview**

A complete history of the recreational and commercial fisheries for lingcod in the north Gulf of Alaska through 1992 is provided in Vincent-Lang and Bechtol (1992), Meyer (1993b), and Hepler et al. (1993).

Since the adoption of the new regulations for lingcod in 1993, both recreational and commercial harvests of lingcod have dropped. Recreational harvest along the North Gulf of Alaska dropped by half between 1992 and 1993 and remained at the 1993 level during 1994 (Table 14). Recreational lingcod harvests near Seward, where the most restrictive regulations were enacted to protect and rebuild depressed stocks, dropped the most, decreasing by 62% between 1992 and 1993 (Figure 17). This drop was on target with the goal of reducing the recreational harvest by half through the adoption of the new regulations. However, harvest has begun to increase again in 1994, rising to 3,712 from 3,079 in 1993 (Table 14). It appears that recreational anglers are releasing increasing percentages of their catch (Table 17, Figure 18). Mortality of released lingcod is considered to be low (likely less than 5%).

Commercial harvests also decreased by about 50% between 1992 and 1993 with the adoption of the new regulations (Table 15). However, as was the case with sport harvests, commercial harvests have increased during 1994.

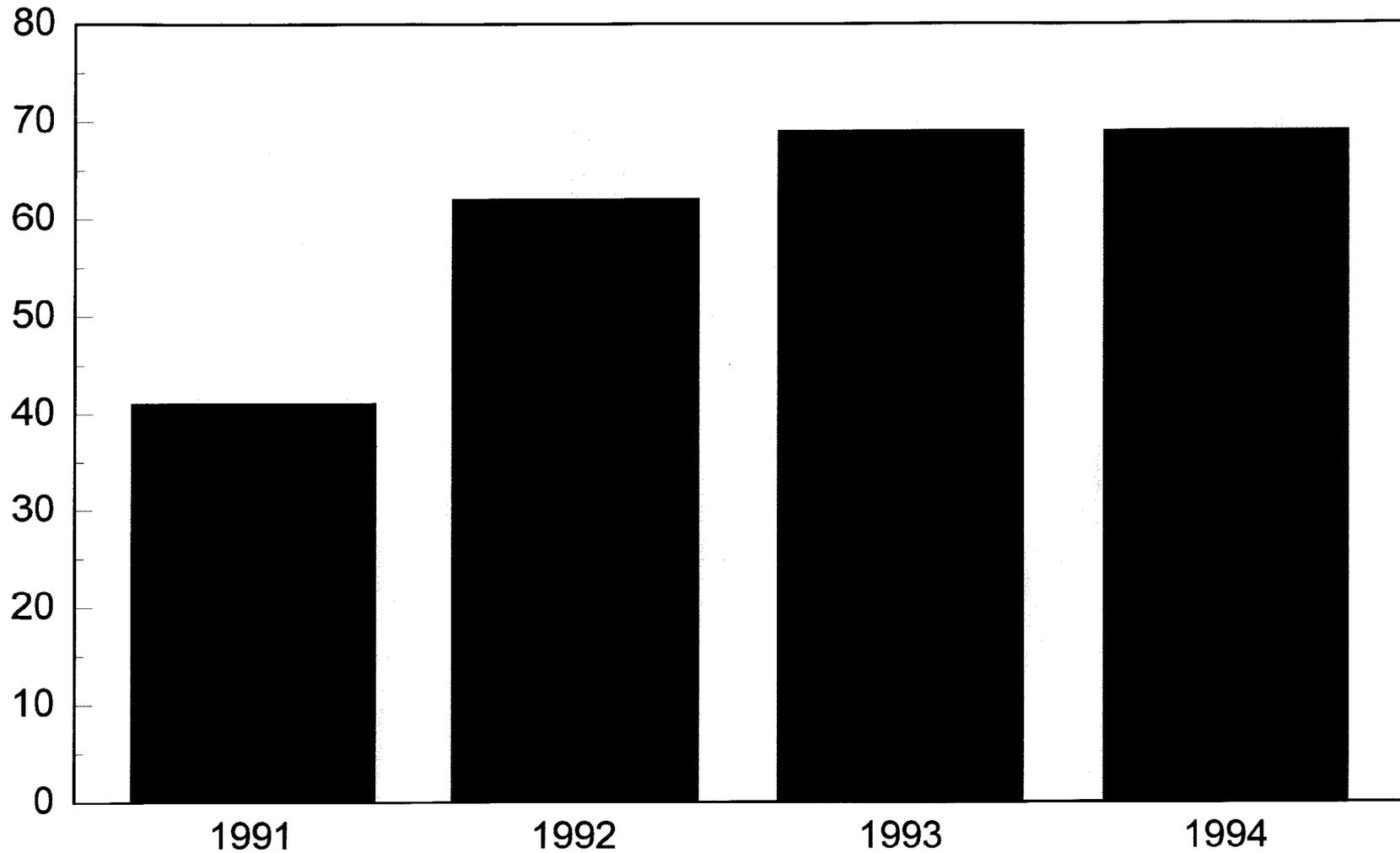
### Management Issues

Catch rate information from the fishery-independent sampling indicates that the abundance of lingcod within Resurrection Bay remains extremely low; thus, these waters will remain closed to the commercial and recreational harvest of lingcod. Length data collected during the fishery-independent sampling (Vincent-Lang 1995b) indicate that recruitment has yet to occur in Seward area lingcod populations outside Resurrection Bay (Figure 19); thus, the reduced bag and possession limits will remain in effect for these waters. No sampling was conducted during 1995 due to budget constraints. However, the sampling will be conducted again during the fall of 1996. If recruitment does not occur in these stocks, proposals will be submitted to the Board to further restrict or close the recreational and commercial lingcod fisheries in the Chiswell Island area.

**Table 17.-Percent of lingcod catch, by area, that was released by recreational anglers fishing North Gulf of Alaska waters, 1991-1994.**

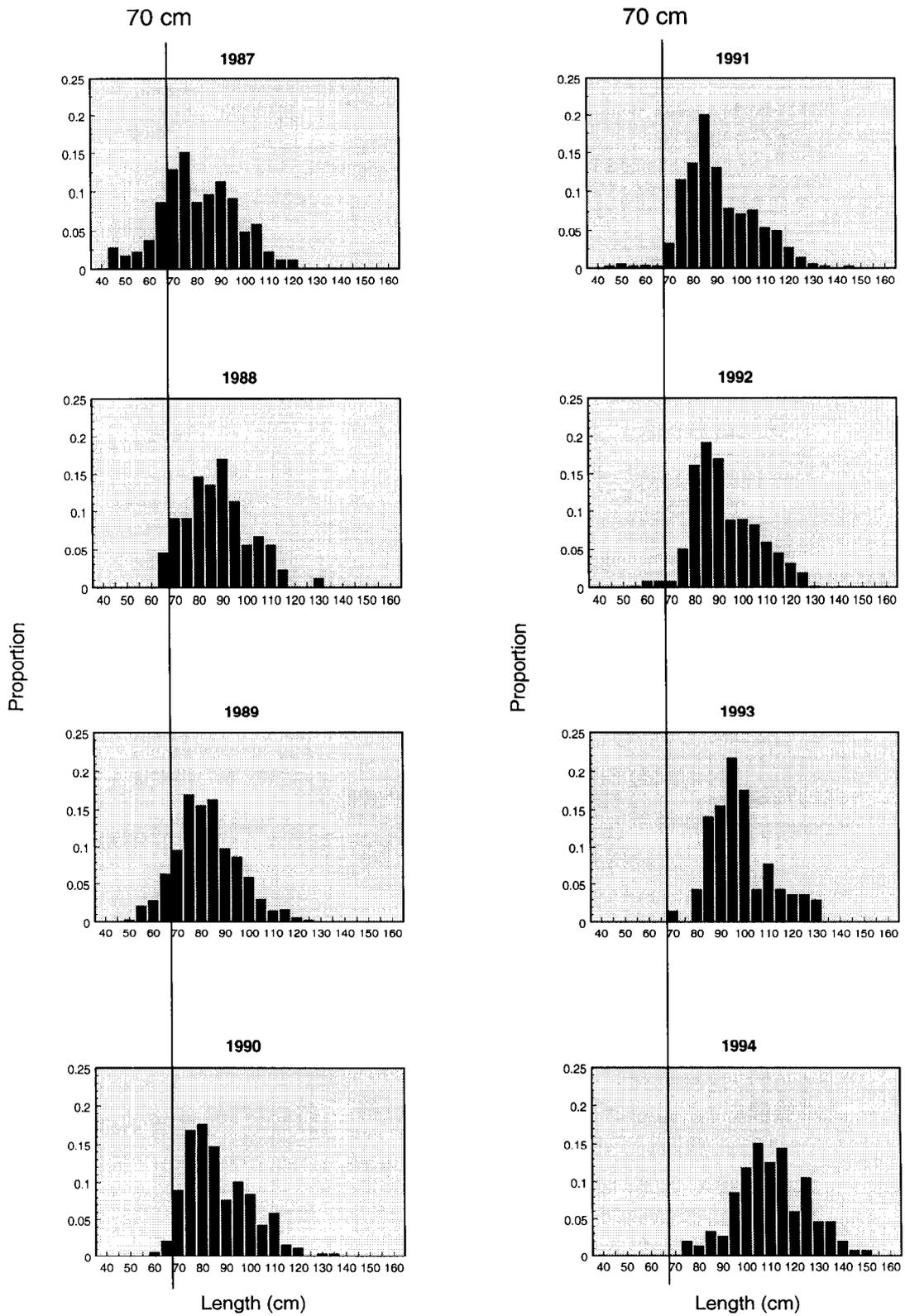
Year	Prince William	North Gulf	Kodiak	Alaska Peninsula	Cook	Total
	Sound	Coast		Aleutian Islands	Inlet	
1991	45	16	34	55	61	41
1992	70	29	53	90	77	62
1993	71	57	62	74	80	69
1994	63	70	69	61	87	69

## Percent Released



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Figure 18.-Percent of lingcod caught by recreational anglers fishing North Gulf of Alaska waters that were released, 1991-1994.



**Figure 19.-Length frequencies of lingcod sampled near Seward, 1987-1994.**

Concern has also been raised that commercial lingcod harvests may increase as a result of a new Individual Fishery Quota (IFQ) system enacted for the Alaskan commercial halibut fishery during 1995. Under the new IFQ system, commercial halibut fishermen have up to 8 months to catch their annual individual halibut quota. Under the old system, commercial halibut fishermen had, at maximum, up to two 24-hour periods to catch an area quota. This resulted in an incentive to fish clean, as bycatch during severely time-restricted openings resulted in reduced landing of halibut. Because bycatch in nearly all cases is lower in value than halibut, it resulted in a reduced value of the landing. There is a fear under the new system that because time is not limited, bycatch will increase. For fishes with high exploitable biomasses, this is not viewed as a problem. However, for fish such as lingcod that have identified stock conservation issues and resultant low exploitable biomasses, increased bycatch may result in overharvest. Data from 1995 suggest that commercial harvest has in fact increased and that much of this increase is due to bycatch. The department has submitted a proposal to the Alaska Board of Fisheries to establish a management plan for North Gulf of Alaska commercial lingcod fisheries. This proposal will be deliberated by the Board during their 1996/97 cycle. Department managers are also considering asking the Board for permission to close areas in which lingcod quotas have been achieved to commercial longline fishing to avoid further lingcod bycatch.

Concern has also been raised that an IFQ system will result in increased competition on the fishing grounds between commercial fishermen and sport anglers. Competition was minimal in the past because the commercial fishery operated far offshore where the abundance of large halibut was higher during spring and fall commercial openings. The long season permissible under the IFQ system will allow overlap of commercial and sport fishing times. In addition, the commercial fleet will likely fish close to port. Implementation of an IFQ system in Canada resulted in a significant number of vessels fishing closer to port, despite lower catch rates. Data to address this question has not been analyzed to date. These concerns have caused some recreational fishing groups to discuss establishment of exclusion zones for the commercial fishery that encompass their traditional fishing areas near major sport ports. As can be expected, such proposals have not been well received by commercial fishermen.

### **Management History**

Prior to 1987, recreational fisheries for lingcod were unregulated in the North Gulf of Alaska. In 1987, the Board adopted a 2 fish daily, 4 fish possession limit for the Cook Inlet-Resurrection Bay Saltwater Regulatory Area to reduce harvest, given staff concern that local stocks near Resurrection Bay were being overharvested. In 1991, the Board adopted a 2 fish daily, 4 fish possession limit for the Prince William Sound Regulatory Area. In 1993, the Board revamped the lingcod regulations for the North Gulf of Alaska. Effective for the 1993 season, the Board of Fisheries adopted the following regulations:

- ✓ Resurrection Bay, enclosed from a line extending from Cape Aialik to Cape Resurrection, is closed to the commercial and recreational harvest of lingcod. All lingcod caught in these waters must be released immediately. This regulation was put in place in 1993 to protect and help rebuild severely depressed lingcod stocks in these waters.

- ✓ The bag and possession limit for sport-caught lingcod in the area between Cape Puget and Gore Point is 1. This regulation was put in place in 1993 to protect and help rebuild depressed lingcod stocks in these waters.
- ✓ In all North Gulf of Alaska regulatory areas except the Alaska Peninsula-Aleutian Islands regulatory area, lingcod may only be retained from July 1 through December 31. The closed period was put in effect in 1993 to protect spawning and nest-guarding lingcod.
- ✓ Only lingcod 35 inches or more in total length or 28 inches or more with their head off may be retained in the Prince William Sound and Cook Inlet-Resurrection Bay Saltwater regulatory areas. This regulation was established in 1993 to assure lingcod could spawn at least once prior to being subject to harvest.
- ✓ All lingcod sport-caught in the Prince William Sound, Cook Inlet-Resurrection Bay Saltwater, and Kodiak regulatory areas may be landed only by hand or net. This regulation was put in place in 1993 to increase the survival of released lingcod.

In 1994, the Board adopted a closed season (January 1 through June 30) and daily bag (2) and possession (4) limit for lingcod in the Alaska Peninsula-Aleutian Islands area. In 1995, the state extended its regulatory authority into federal waters of the EEZ off Alaska through an emergency regulation. Both commercial and sport regulatory authority were extended. This was possible given lingcod were not covered under a federal Fishery Management Plan. The North Pacific Fishery Management Council is considering whether to include lingcod as part of the Gulf of Alaska Fishery Management Plan.

### **Ongoing Research and Management Activities**

A research program aimed at estimating the age, sex, and length compositions of the recreational lingcod harvests from Central Gulf of Alaska waters has been annually conducted since 1987. Healthy stocks are being monitored through this port sampling program to evaluate trends in age and size compositions. Depressed stocks in and near Resurrection Bay are being monitored to evaluate their recovery. Recovery of stocks is being evaluated periodically through collection of fishery-independent age and size statistics to evaluate time-series trends in recruitment. With the implementation of minimum size limits, the ability to assess recruitment to these stocks via sport harvest monitoring was lost. It is recommended that these two research efforts continue.

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**APPENDIX A. LEGAL OPINION FROM NOAA GENERAL  
COUNCIL REGARDING MANAGEMENT AUTHORITIES FOR  
HALIBUT OFF ALASKA.**



December 4, 1995

MEMORANDUM FOR: North Pacific Fishery Management Council

THROUGH: Lisa Lindeman  
Alaska Regional Attorney *Lisa Lindeman*

FROM: Jonathan Pollard *Jonathan Pollard*  
Attorney-Advisor

SUBJECT: State regulatory authority over the Pacific halibut fisheries

QUESTION PRESENTED:

Is State authority to regulate fishing for Pacific halibut in Convention waters preempted by the Convention Between the United States and Canada for the Preservation of the Pacific Halibut Fishery of the Northern Pacific Ocean and the Bering Sea ("Convention") and the Northern Pacific Halibut Act, 16 U.S.C. §§ 773-773k?

BRIEF ANSWER:

Yes. State authority to regulate fishing for Pacific halibut in Convention waters is preempted by federal law. The Convention and the Northern Pacific Halibut Act amount to comprehensive and pervasive federal regulation of, and a dominant federal interest in, direct and uniform regulation of the Pacific halibut fishery in Convention waters.

SHORT DISCUSSION:

A preemption question requires examination of Congressional intent. First, Congress explicitly may define the extent to which its enactments preempt State laws. Second, preemption may be inferred through Congress' occupation of a given field to the exclusion of State law. Such an inference may be drawn when --



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the pervasiveness of federal regulation precludes supplementation by the States, or

the federal interest in the field is sufficiently dominant, or

the object of the federal law and the character of the obligations imposed by it reveal the same purpose.

See Pacific Gas and Electric Co. v. State Energy Resources Conservation and Development Commission, 461 U.S. 190, 204 (1982). The Supreme Court repeatedly has held that where Congress has exercised exclusive jurisdiction over a general and inclusive area of activity, the very delegation of regulatory power to an administrative agency will supersede any State action over that area. See Ray v. ARCO, 435 U.S. 151, 157 (1978); Bethlehem Steel v. New York Labor Relations Board, 330 U.S. 767 (1947). Such a comprehensive arrogation of governmental powers nullifies looser or stricter direct State regulation of the subject matter. See Ray v. ARCO, 435 U.S. 151 (1978); Huron Portland Cement v. Detroit, 362 U.S. 440 (1960).

Finally, even where Congress has not entirely displaced State law in a particular field, State law is preempted to the extent that it actually conflicts with federal law. Such a conflict will be found when --

it is impossible to comply with both State and federal law, or

the State law stands as a<sup>•</sup> obstacle to the accomplishment of the purposes and objectives of Congress.

See Pacific Gas and Electric Co. v. State Energy Resources Conservation and Development Commission, 461 U.S. 190, 204 (1982).

Although the Convention and the Halibut Act do not expressly preempt State laws directly regulating the Pacific halibut fishery in Convention waters, the Convention and the Act amount to a pervasive scheme of federal regulation occupying the field to the exclusion of all State laws that are not identical to the federal regulations. Article I of the Convention states that all

fishing for Pacific halibut in Convention waters (including State waters) is prohibited except as expressly provided in the Convention. Further, persons may fish for Pacific halibut only in accordance with the Convention and the approved regulations of the International Pacific Halibut Commission. The Commission has broad authority to adopt regulations to develop and maintain the stocks of Pacific halibut pursuant to Article III of the convention. Article I, paragraph 2, states that each "Party" (the United States and Canada) may establish additional regulations governing the taking of Pacific halibut that are more restrictive than those adopted by the Commission.

The Halibut Act implements the Convention, and provides that the Secretary of Commerce has general responsibility to carry out the Convention and the Halibut Act, and that the regional fishery management councils may develop Pacific halibut fishery regulations that are in addition to, and not in conflict with, Commission regulations. Council regulations can be implemented only with the approval of the Secretary of Commerce.

Taken together, the Convention and the Halibut Act and implementing Commission and federal regulations constitute a comprehensive and pervasive regulatory scheme that completely occupies the field of Pacific halibut fishery regulation, including research, open and closed areas, gear limitations, quotas, allocation and more. Furthermore, this conclusion is also supported by the possibility of collision between Pacific halibut fishery regulations adopted by Alaska, Washington, Oregon and California and those adopted by the Commission and the federal government. When State regulations could affect the ability of the federal government to regulate comprehensively and uniformly or presents the prospect of interference with the federal regulatory power, then State law will be preempted even though collision between State and federal law may not be an inevitable consequence. Scheidewind v. ANR Pipeline Co., 485 U.S. 293, 310 (1988); Northern Natural Gas Co. v. State Corporation Commission of Kansas, 372 U.S. 84, 91-92 (1963).

In conclusion, States have no authority to directly regulate aspects of the Pacific halibut fishery in Convention waters that have been preserved by the Convention and the Halibut Act to the exclusive regulatory jurisdiction of the Commission, the regional

fishery management councils and the Secretary of Commerce<sup>1</sup> - such matters as research, designation of open and closed areas, gear limitations, quotas, and allocation of fishing privileges. Consequently, States have no regulatory authority in this area to which the regional fishery management councils and the Secretary of Commerce may defer.

Of course, every State law that has some indirect effect on the regulation of the Pacific halibut fishery within Convention waters is not preempted. Cf. Metropolitan Life Insurance Co. v. Massachusetts, 471 U.S. 724, 753-756 (1985). However, State regulations that directly regulate matters that Congress intended the Commission, the regional fishery management councils and the Secretary of Commerce to regulate are preempted within Convention waters.

cc: Jay Johnson  
Steve Pennoyer  
Eileen Cooney

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<sup>1</sup> Compare section 306(a)(3) of the Magnuson Act, 16 U.S.C. § 1856(a)(3), which provides that a State may not directly or indirectly regulate any fishing vessel outside its boundaries, including waters of the EEZ, unless the vessel is registered under the laws of that State. Here Congress actually preserved a regulatory role for the States in the comprehensive federal fishery regulatory scheme implemented by the Magnuson Act. See also the Pacific Salmon Treaty Act, 16 U.S.C. §§ 3631 - 3644, and the Interjurisdictional Fisheries Act, 16 U.S.C. §§ 4101 - 4107, which both provide a regulatory role for the States. Neither the Convention nor the Halibut Act preserve any regulatory role whatever for the States, even within State waters.



**APPENDIX B. DRAFT RFP ON THE HALIBUT ALLOCATION  
ISSUE AND DEPARTMENT COMMENTS**

*Hal. Sp'*

# North Pacific Fishery Management Council

Richard B. Lauber, Chairman  
Clarence G. Pautzka, Executive Director  
Telephone: (907) 271-2809



605 West 4th Avenue, Suite 306  
Anchorage, AK 99501-2252  
Fax: (907) 271-2817

## MEMORANDUM

TO: SSC Members  
FROM: Chris Oliver *Chug*  
Deputy Director  
DATE: April 4, 1996  
SUBJECT: Halibut Sport (Charter) Management - Request for Proposals

Post-It® Fax Note	7671	Date	4/8	# of pages	9
To	A. VINCENT-LANG	From	J. DiCosimo		
Co./Dept.		Co.	NPFMC		
Phone #		Phone #	271-2809		
Fax #		Fax #			

Enclosed is a draft RFP for the Halibut Sport (Charter) Management proposal. We still have not received word on our overall FY96 budget, so we are still uncertain as to when we will actually be releasing this RFP; however, we want to be ready with it if we get word that our additional funding has come through. I have spoken to SSC Chairman Keith Criddle about our game plan for this issue. Essentially, we intend to present the Council with some recommendations at the April meeting, under 'Staff Tasking', regarding the scope of the RFP and the alternatives to be analyzed. We will be looking for them to reduce the range of alternatives to make the study more feasible, given existing time and budget restrictions.

For example, we may be able to narrow the scope to focus only on the guided (charter) fishery, as opposed to all halibut sport fishing. Additionally, we may be able to remove the IFQ management option - this appears to be justifiable for several reasons: (1) the charter industry has advised that they are not interested in that option, (2) it would add considerably to the scope of work in the RFP, and (3) the current versions of the Magnuson Act reauthorization would appear to preclude this option anyway. These two items alone would significantly reduce the scope of this study, not to mention the contentiousness of the issue.

The enclosed RFP would, of course, need to be revised if any changes in the alternatives occur. We are hoping that the SSC could provide the Council with comments regarding the current scope of work relative to the amount of money we have to spend, and thereby encourage them to reduce the alternatives as noted above. Recognizing that the RFP will need to be redrafted, it is still in fairly rough form. We would welcome any additional SSC comments on specifics of the RFP, noting that we will likely be presenting you with a 'final' draft at the June meeting. Thanks for your input and we look forward to seeing you in two weeks.

FACONTRACT\FIL\BT\_CHT\SSCMEM.396

April 3, 1996

**DRAFT**  
**REQUEST FOR PROPOSALS**

(RFP 96-1)

by the

**NORTH PACIFIC FISHERY MANAGEMENT COUNCIL**

**INTRODUCTION**

The North Pacific Fishery Management Council (Council) is announcing a formal Request for Proposals (RFP) to assess the potential biological, economic, and social impacts of a proposed limitation on the growth of the halibut sport fishery and/or guided halibut charter boat industry operating in waters off Alaska's coast. The results of this study will serve as an Environmental Assessment/Regulatory Impact Review (EA/RIR) for public and Council review prior to any decisions.

This study is expected to provide the Council with adequate information to make future halibut sport/charter boat industry management decisions. These decisions must be in compliance with guidelines defined in the Magnuson Fishery Conservation and Management Act. Thus the information needed, in general, will relate to historical and present participation in the halibut fisheries (commercial and recreational), the value of these fisheries, dependence on the fisheries by the fishing industry and communities, the cultural and sociological framework of the fisheries, effects of the proposed management alternatives on participants in the fisheries, effects of the proposed management alternatives on communities whose members participate in the fisheries, and on participants in adjacent fisheries. Additionally, the analysis should incorporate considerations of the personal use and subsistence fisheries, including current and projected levels of halibut take in those fisheries.

The commercial longline halibut fisheries are regulated by an Individual Fishing Quota (IFQ) program. IFQs give the fisherman the right to harvest a specific percentage of the halibut Total Allowable Catch (TAC) in an area. The TAC is determined by the International Pacific Halibut Commission (IPHC). Recreational harvests, which includes the charter boat industry, are deducted from the total amount of halibut available for harvest before the commercial TAC is set. This deduction is based on estimates of the total removals expected for the upcoming year by the sport fishery. Recent expansion of the sport fish catch off Alaska, coupled with estimates of further expansion, has prompted concern that a redistribution of catch from the commercial sector may be occurring.

Charter boats operate under licenses granted by the State of Alaska and IPHC. Each agency collects information on the charter boat operators. The data that are available may need to be supplemented with a primary data collection effort to provide economic and social descriptions of both sectors.

**SCOPE OF ALTERNATIVES UNDER CONSIDERATION**

The Council has identified their problem statement and the alternatives they wish to see analyzed. These are listed below.

**Problem Statement**

The recent expansion of the halibut charter industry, including outfitters and lodges, may make achievement of Magnuson Act National Standards more difficult. Of concern is the Council's ability to maintain the stability,

economic viability, and diversity of the halibut industry, the quality of the recreational experience, the access of subsistence users, and the socioeconomic well-being of the coastal communities dependent on the halibut resource. Specifically, the Council notes the following areas of concern with respect to the recent growth of halibut charter operations, lodges and outfitters:

1. Pressure by charter operations, lodges and outfitters may be contributing to localized depletion in several areas.
2. The recent growth of charter operations, lodges and outfitters may be contributing to overcrowding of productive grounds and declining catches for historic sport and subsistence fishermen in some areas.
3. As there is currently no limit on the annual harvest of halibut by charter operations, lodges, and outfitters, an open-ended reallocation from the commercial fishery to the charter industry is occurring. This reallocation may increase if the projected growth of the charter industry occurs. The economic and social impact on the commercial fleet of this open-ended reallocation may be substantial and could be magnified by the IFQ program.
4. In some areas, community stability may be affected as traditional sport, subsistence, and commercial fishermen are displaced by charter operators, lodges, and outfitters. The uncertainty associated with the present situation and the conflicts that are occurring between the various user groups may also be impacting community stability.
5. Information is lacking on the socioeconomic composition of the current charter industry. Information is needed that tracks: (1) the effort and catch of individual charter operations, lodges, and outfitters; and (2) changes in business patterns.
6. The need for reliable catch data will increase as the magnitude of harvest expands in the charter sector.

#### Alternatives for Analysis

The Council initiated analysis of a Regulatory Amendment to establish a management plan for the halibut charter (guided) fleet with the goal of addressing the concerns identified in the above problem statement. The alternatives will be analyzed, both separately and in combination, with respect to the problem statement. The alternatives that will be analyzed are as follows:

<b>Alternative 1:</b>	<b><u>Status Quo.</u></b>
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<b>Alternative 2:</b>	<b><u>Implement Reporting Requirements.</u></b>
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Charter boat operators will be required to fill out a federally mandated catch report for all retained and discarded catch for all species on each trip.
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<b>Alternative 3:</b>	<u>Annually allocate the TAC between sport and commercial fisheries.</u>
<b>Option 3a:</b>	Annually allocate the TAC between <u>guided</u> sport and commercial fisheries. The allocation will be based on a range between 8.8% and 11.7% of the TAC being allocated to the guided sport fleet, under the statewide area alternative. These percentages are based on the guided catch for 1994 listed in Table 1. That catch (and the attendant percentages) are based on data from the ADF&G Sport Fish Division and the CFEC).
<b>Option 3b:</b>	Annually allocate TAC between <u>guided/unguided</u> sport <sup>1</sup> (all sport fisheries) and commercial fisheries based on a range between the following percentages: <ol style="list-style-type: none"> <li>1. 8.8% to 11.7% of the TAC for <u>guided</u> sport</li> <li>2. 7.5% to 10.0% of the TAC for <u>unguided</u> sport</li> <li>3. 78.3% to 83.7% of the TAC for <u>Commercial</u>.</li> </ol>
<b>Suboption:</b>	Implement a moratorium on the charter boat fleet with options 3a or 3b.
<p>The above percentages are statewide totals based on the percent of the 1994 TAC that charter boats would have taken if they had caught 105% to 140% of their actual 1994 catch. Selecting a specific percentage within that range will result in the <u>guided</u> fleet being issued a fixed percentage of the TAC each year. Because the allocation is based on a percent of the TAC, the actual pounds of halibut issued to the charter fleet will fluctuate from year to year with changes in the TAC.</p>	

<b>Alternative 4:</b>	<u>Implement an absolute poundage catch cap on the guided fleet.</u>
<b>Option 4a:</b>	Implement the cap <u>and</u> a moratorium on the <u>guided</u> fleet.
<b>Option 4b:</b>	Implement the cap <u>without</u> a moratorium on the <u>guided</u> fleet.
<p>In either option the cap is equal to the pounds of halibut that the <u>guided</u> fleet would have harvested if they had caught 105% to 140% of their actual 1994 catch. Based on the data used in Table 1, this would result in a statewide allocation of 4.07 to 5.42 million pounds to the <u>guided</u> fleet. This allocation will result in the guided fleet being issued a fixed number of pounds of halibut each year (i.e. the amount of the allocation will not change from year to year with fluctuations in the TAC, as it would under alternative 3).</p>	

1/ May delegate sports management to the State after the long term allocation is made.

<b>Alternative 5:</b>	<b>Implement an IFQ program.</b>
<b>Option 5a:</b>	Implement a stand alone IFQ program for charter industry. IFQs would not be interchangeable with commercial fisheries IFQs.
<b>Option 5b:</b>	Implement an IFQ program for charter industry. IFQs <u>would</u> be interchangeable with commercial fisheries IFQs.
<b>Option 5c:</b>	Implement an IFQ program where charters could lease additional IFQ from the commercial fleet, for continuous operation after their cap was reached in a given year.

Each alternative will also include the following three area options:

1. Statewide
2. IPHC areas 2C and 3A only
3. By zone:
 

<i>Zone 1 Southeast:</i> ADF&G areas A, B, C, D, E, F, G & H	% of '94 guided sport
<i>Zone 2 Prince William Sound:</i> ADF&G area J	% of '94 guided sport
<i>Zone 3 Cook Inlet/Kenai:</i> ADF&G areas K, L, N, and P	% of '94 guided sport
<i>Zone 4 Kodiak:</i> ADF&G area Q	% of '94 guided sport
<i>Zone 5 Alaska Peninsula:</i> ADF&G area R	No limit
<i>Zone 6 Bering Sea:</i> ADF&G areas T, U, V, W, X, Y and Z	No limit

Table 1 will report the results of the above alternatives by IPHC areas 2C and 3A, statewide totals will also be included. The allocations will be broken out by guided sport, unguided sport, and commercial catch. Guided and unguided sport halibut landings were estimated from ADF&G Sport Fish Division data. These data included the number and average weight of halibut by area. Commercial catch for 1994 was taken from halibut fishtickets provided by CFEC.

### STATEMENT OF WORK

The contractors are directed to focus on the alternatives selected by the Council. While biological effects must be considered, emphasis should be placed on the economic and social impacts, to both recreational and commercial halibut fisheries, of limiting growth of the sport/charter boat catch of halibut. These impacts should consider, but are not necessarily limited to, other target fisheries, sport fishing, personal use and subsistence, the charter boat industry, the State of Alaska economy, tourism, commercial halibut industry (harvesters and processors), coastal communities, and the nation.

A concise description of the historic and current halibut fleets (guided, unguided and commercial) will be developed as part of this contract. Growth trends in the various sectors of the fleet, as estimated in 1994, will be examined by the areas listed in the Council's alternatives. Less aggregated community level information may also be provided. A necessary part of the contractor's work would be to determine if these estimates were realized in 1995, and to provide estimates of growth beyond 1995.

Comparing the value of halibut derived from the commercial and sport fisheries will be an important aspect of the analysis. Limiting the amount of halibut available to charter boat operators may disrupt their fishing seasons. This may have significant impacts on the sport/charter fleet fishing season, and the indirect economic activities associated with recreational halibut fishing. With the uncertainty surrounding the availability of halibut, clients

may be more likely to book reservations early in the season. Early season trips would be more likely to have halibut available. The potential greater demand in the early season may increase halibut charter rates at that time. Customers may also opt to book charters for other target species, such as salmon, rockfish, or ling cod. These species are also currently fully allocated. However, late season trips may sell at a discount, rely more on "walk in" customers, or target other recreational species. The contractor will be expected to, at least qualitatively, explore this type of potential change in the charter fleets operations. Conversely, reducing the amount of halibut available to the commercial fishery may have significant impacts on the participants, their communities of origin, and on the indirect activities associated with commercial halibut fishing.

Non-market valuation methods are generally used to determine the dollar value of products that are not sold in the marketplace. Halibut caught by sport anglers fit into this category. Estimating the value recreational anglers place on halibut will require information that is not currently available. Collecting these data through mail or phone interviews may be an effective approach, particularly since anglers that hire charter boat operators are often from states outside Alaska. 'Self-guided' sport anglers much more typically reside in the State of Alaska, and an alternative approach may be required to gather information on this sector. It will be the responsibility of the contractor to collect these data. Studies have been completed for other fisheries around the United States which attempt to value recreational fisheries, and some studies by the Alaska Department of Fish and Game have been completed, though these have primarily been focused on the king salmon fisheries. Information or methodologies from these studies may be useful for completing the analysis under this RFP.

Access to the sport halibut fishery should also be studied. Limits imposed on the charter fleet could place sport fishers without access to a private boat at a disadvantage. These individuals would effectively be unable to participate in the halibut fishery because they could not reach the fishing grounds, while individuals with access to a private boat could continue to fish halibut.

Finally, proposals are not restricted to a specific method of analysis. Commercial/recreational allocations of groundfish are relatively new in the North Pacific. However, these allocations are quite common in other areas of the country and some literature has been published. Using the available literature, contractors are encouraged to develop and present suitable Statements of Work that can be completed within the budget and time frame outlined in this RFP.

Table 1. Estimates of the various allocation alternatives by IPHC area and statewide.

Alternative	2C			3A			Statewide		
	Sport		Commercial	Sport		Commercial	Sport		Commercial
	Guided	Unguided		Guided	Unguided		Guided	Unguided	
1994 Catch (1,000 lb)	1,288	1,197	9,805	2,572	2,096	23,756	3,874	3,329	41,981
1994 Catch (% of Total)	10.5%	9.7%	79.8%	9.0%	7.4%	83.6%	7.9%	6.8%	85.4%
1	Status Quo - No cap on total sport catch or number of charter vessels.								
2	Charter boat operators will be required to fill out a federally mandated catch report for all retained and discarded catch for all species on each trip.								
3a as % of the TAC	12.3% to 16.4%	Open Access	Remainder	10.4% to 13.8%	Open Access	Remainder	8.8% to 11.7%	Open Access	Remainder
3b as % of the TAC	12.3% to 16.4%	11.4% to 15.2%	68.4% to 76.3%	10.4% to 13.8%	8.5% to 11.3%	74.9% to 81.2%	8.8% to 11.7%	7.5% to 10.0%	78.3% to 83.7%
4a & 4b in (1,000 lb)	1,352 to 1,803	Open Access	Remainder	2,700 to 3,600	Open Access	Remainder	4,068 to 5,424	Open Access	Remainder
5a, 5b & 5c	IFQ options will require additional information to calculate the individual allocations								

#### DATA SOURCES

The following sources of data will be made available to the Council's contractor. In the event that these data can not be made available to the contractor, the contract will not be awarded.

- 1) Estimates of halibut biomass, ABCs, and TACs by area.
- 2) IPHC halibut fishtickets of commercial harvests. These data can be linked with Commercial Fisheries Entry Commission permit files and vessel registration files. This will provide information on the amount of catch, value of catch, vessel, vessel owner, vessel's home port, area of harvest, day of harvest (this will be more relevant in 1995 when the fishery operated under the IFQ program).
- 3) IPHC halibut licenses are issued in the commercial, sport, and both commercial/sport categories. Data included in the license data base identifies the type of license issued, the license holder, the license holder's address, the vessel number, and the vessel's name and length. This data does not indicate if the person actually participated in the halibut charter fishery, it only shows that a license was issued.
- 4) ADF&G annual mail-out survey. The survey is mailed out to about 30,000 anglers annually. Typically half these surveys are completed and returned to ADF&G. These data are used by the IPHC to estimate annual sport halibut removals (this includes charters). Cost and expenditure data are not included in this survey.
- 5) Membership lists from charter boat associations. Charter boat operators within a geographic area often form associations. These groups often maintain lists of their members along with member addresses and phone numbers. These lists may be available from many of the charter boat associations.

- 6) Alaska business licenses. Charter businesses that operate in the State of Alaska are required to obtain an Alaska business license.

#### TIME SCHEDULE

- 1) Deadline for receiving proposals: June 7, 1996 (tentative)  
 2) Contract awarded: June 20, 1996 (tentative)  
 3) Progress report due: September 20, 1996 (tentative)  
 4) Final report due: January 15, 1997 (tentative)

#### LEVEL OF FUNDING

Negotiable, but not to exceed \$100,000 (tentative)

(this is a preliminary estimate based on 15 man-months of analyst time (at \$5,000 per month) for a total of \$75,000 plus an additional \$25,000 for primary data collection efforts, report generation, and miscellaneous expenses)

#### PROPOSAL SUBMISSION

Submit a narrative proposal, including approach, manpower, (in person months), other resources available, resume of principal investigator, and a proposed budget to:

Dr. Clarence G. Pautzke, Executive Director  
 North Pacific Fishery Management Council  
 605 West 4th Avenue, Suite 306  
 Anchorage, Alaska 99501

no later than June 7, 1996. For additional information contact Mr. Chris Oliver, Deputy Director NPFMC at 907-271-2809.

#### INSTRUCTIONS FOR PREPARATION OF PROPOSALS

The contractor shall be responsible for all aspects of this project and shall furnish services, materials, labor, supplies, and equipment as necessary. Selection of the contractor will be based primarily on the results of the technical evaluation with cost also being carefully considered. Selection of the contractor will be in compliance with the Council's Statement of Organization, Practices, and Procedures.

Proposals should contain separate and distinguishable sections dealing with (1) technical aspects and (2) business management and cost aspects. The technical sections should not make reference to cost estimates so that evaluation may be made separately on the basis of technical merit. Proposals must be specific on the technical approach proposed to satisfy the requirements and ~~not merely paraphrase the specifications of the RFP~~. Ten (10) copies of the technical proposal and 10 copies of the cost proposals will be required for submission, signed by someone authorized to legally bind the Offeror.

Proposals must be received, by mail or hand delivery, no later than 5:00 pm Alaska Standard Time, on June 7, 1996. For hand deliveries, the Council offices are located at 605 W. 4th Avenue, Suite 306, Anchorage, Alaska 99501. Proposals are guaranteed confidential. Outer envelopes should be marked with the appropriate RFP number for reference.

### NEGOTIATIONS, AWARDS, AND CRITERIA FOR EVALUATION

#### (1) Award

Dependent on funding approval, the award will be made to the responsible Offeror in accordance with the criteria set forth in this RFP and consistent with the Council's procurement standards. Issuance of this solicitation does not constitute an award commitment on the part of the federal government. This request does not commit the Council to pay for costs incurred in preparation and submission of a proposal or for any other costs incurred prior to the execution of a formal contract unless specifically authorized in writing by the Executive Director.

#### (2) Criteria for Evaluation

All proposals will be reviewed by the Council Staff, members of the Scientific and Statistical Committee, and the Council's Finance Committee. Each proposal will be ranked against all other proposals according to the following four categories, listed in descending order of importance:

1. Soundness of approach
2. Pertinent experience of staff
3. Capability and past performance of staff
4. Price of contract

In general, proposals will not be considered where there appears to be a problem with confidentiality of statistics or a conflict of interest within the groundfish or crab industry. Proposals, in general, will also not be considered which do not conform to the schedule, format, or objectives listed in this RFP. Because of the specialized nature of this project, proposals submitted should demonstrate sufficient local knowledge, prior pertinent experience, and key personnel.

### PROPOSAL FORMAT

To aid in the evaluation, all proposals should follow the same general format and should, at a minimum, contain the information specified below:

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| <p><b>A. Technical</b></p> <ol style="list-style-type: none"> <li>1. Table of Contents</li> <li>2. List of Tables and Figures, if applicable</li> <li>3. Short Introduction and Summary</li> <li>4. Technical Discussion of Approaches</li> <li>5. Program Organization</li> <li>6. Program Schedules</li> <li>7. Facilities and Equipment, as applicable</li> <li>8. Personnel Qualifications</li> <li>9. Supporting Data or Other Information</li> </ol> | <p><b>B. Budget</b></p> <ol style="list-style-type: none"> <li>1. General Cost Proposal</li> <li>2. Cost Breakdown</li> <li>3. Cost Form</li> <li>4. Direct Labor</li> <li>5. Indirect Costs</li> </ol> |
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Dave,

Following are my comments on the RFP dealing with the halibut allocation issue:

- There are two issues addressed in this document:
  1. Collection of information necessary for the Council to make an informed decision regarding the allocation of halibut between the affected user groups based on the National Standards contained in the Magnuson Act and
  2. An analysis of the various management options that can be used to achieve the settled upon allocation for the sport fishery.

It is very difficult to simultaneously address both these issues. I continue to believe that the issue of allocation needs to be addressed prior to evaluating the various options for managing the fisheries to achieve that allocation. It is very difficult to evaluate options for managing a fishery when you don't know what the "target" is. I believe we as a department would be interested in participating in this second analysis, once the first issue is decided, given the potential impact to Alaska's coastal communities.

- One significant issue that is missing from the RFP is consideration of the impact any action would have on other stocks such as lingcod, rockfish, and salmon which are state-managed. Undoubtedly, establishing a quota on halibut would increase pressure on these stocks, some of which have identified stock conservation concerns (lingcod and rockfish) and others which are fully allocated (southeast Alaska and Cook Inlet chinook salmon). This issue needs to be addressed.
- I question whether it is wise to eliminate the option of eliminating the "unguided" sport fishery for the scope of the study at this time. I believe we are where we are now because the IFQ analyses did not address the sport fishery when it was considered for implementation. Eliminating the unguided sport fishery raises several ethical and legal questions regarding fair and reasonable access to common property resources. Do we really want to limit sport anglers access to halibut fisheries that do not own boats? I think the answer to that question would depend upon where you live and whether you own a boat. Also, limiting only one component of the sport fishery (the guided component) would undoubtedly result in growth in the other component. I think we would be wise to invest in a boat franchise if this occurs! I recommend not separating these users groups depending upon how the resource is accessed.
- Lastly, I believe the time line for completion is unrealistic. Too much is attempting to be achieved by the date specified. I would recommend either limiting the study to the issue of allocation only or limiting the scope of the entire study. I support the elimination of the consideration of ITQ/IFQ for sport charters given the present status of this management option in the Magnuson Act reauthorization. Also, I expect few people will bid on this extensive of a project at \$100,000

Call me at 242-4006 if you have any questions or want to talk about these comments. I will be in Kenai on Saturday dealing with habitat issues. I'll check with you on Sunday to see if you need my help.

Doug