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MANAGEMENT AND DEVELOPMENT

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TO THE
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INTRODUCTION

Proposal # 24, 25, 26, 28, 31.

This report covers the state waters commercial fisheries for groundfish in the Central Region thus far in calendar year 1996. The Central Region reporting area includes the Prince William Sound Area, Cook Inlet Area, and the North Gulf District. The Prince William Sound (PWS) Area encompasses all waters of PWS enclosed by lines from Point Whittard to Point Bentinck, from Cape Hinchinbrook to Zaikof Point, and from Cape Clear to Cape Puget. The Cook Inlet Area consists of all waters of Cook Inlet enclosed by a line from Point Adam to Cape Elizabeth to Cape Douglas. The North Gulf District, which is in the Central Gulf of Alaska Area, includes all territorial waters of the Gulf of Alaska north of Cape Douglas and west of 147° W. long., excluding the Cook Inlet and PWS Areas (Figure 1).

State managed fisheries for sablefish, rockfish, pollock, and lingcod will be discussed. The lingcod fishery is reported for both state and federal waters (north of the latitude of Cape Douglas, which is the boundary between the Central and Westward Regions). Table 1 shows a summary of 1996 catches (Figures 1-3) and estimated exvessel values by major fishery. Table 2 chronologically lists emergency orders utilized in 1996 for all areas.

Some significant groundfish fisheries occurring in state waters, chiefly Pacific cod, are managed based on action taken by the National Marine Fisheries Service (NMFS) in federal waters. The Pacific cod fishery will be reported here as it is significant to the local groundfish industry and may be included in state management at some later date.

Under statewide regulation legal gear types for groundfish fishing are longline, trawl, hand troll, seine, mechanical jigging machine, dinglebar troll gear, or pots. Area regulations may further restrict gear types. In the Central Region exceptions to the above legal gear are: non-pelagic trawl gear in Cook Inlet Area and North Gulf District and seines in Cook Inlet are prohibited.

SABLEFISH

Proposal # 1, 27, 30, 40.

Prince William Sound

Introduction

Although sablefish have been actively pursued in PWS for the past decade, the recent escalation in price as well as the need to find alternative fisheries has stimulated increased effort in this fishery that occurs mostly in the deep waters of western PWS. Since 1984 catches have ranged from 110,000 lb in 1984 to 574,000 lb in 1995 while effort has ranged from 36 vessels in 1986 to 124 vessels in 1995 (Table 3).

Historically the majority of the harvest has been taken by longline gear with pot and trawl gear accounting for very minor portions of the annual catch. Delivery ports have included Cordova, Valdez, Whittier, and Seward.

From 1987 to 1993, seasons opened concurrently with adjacent federal waters and closed by emergency order. The department began to restrict effort in 1993 with the use of weekly fishing periods. The 1994 fishery was only open for 2 periods; one of 72 hr duration and the other of 24 hr. The 1995 fishery remained open for a single 48 hr period.

In 1996, limited entry to the Prince William Sound sablefish fishery was initiated under a program adopted by the Commercial Fisheries Entry Commission (CFEC). Based upon 4 qualifying years (1991-1994), the program established a target number of 49 permits divided into 4 vessel size classes and 3 gear types (longline, trawl, pot). Permittees were restricted to the same vessel size class (10 ft increments) utilized during the permit qualifying years. Full

implementation of the program will occur over several years as qualifying rules are established and permits adjudicated.

1996 Season Summary

There were 108 individuals eligible to receive PWS sablefish interim use permits in 1996, therefore, the department expected effort to be high. The following preseason measures were employed to manage the fishery:

1. The guideline harvest level was set at 275,000 lb from a range of 97,000 to 386,000 lb. The guideline harvest range was set using both historical catch and methodology employed in the Southeast Region utilizing an estimate of likely sablefish habitat.
2. The season opening date was set at May 1 with an initial fishing period of 24 hr. If the quota was not taken within the first period, then the fishery was to reopen for another 24 hr period during the following week. The weekly open periods were noon Wednesday to noon Thursday.
3. Processors were required to report catches to the department no later than noon the following Monday.
4. The department permit requirement was waived due to the limited entry program.
5. All groundfish fisheries and all gear types, were closed in PWS 6 days prior to opening of the sablefish fishery. This was done in order to allow for a fair and enforceable start and accurate catch reporting of the sablefish fishery.

The catch for the 1996 directed fishery was 251,394 lb taken by 64 longline and 1 trawl vessel, in a single 24 hr period. The estimated exvessel value of the catch was \$465,000.

Catch reporting by processors was both timely and accurate. Because the catch was within 8% of the guideline, the department announced on May 4 that sablefish fishing would not open for a second period. Groundfish fishing for other legal species in PWS was also reopened.

The department's research vessel *R/V Montague* was on the grounds to ensure a fair start and monitor the fishery. Fishermen contacted both before and after the fishery provided information on gear, bycatch, and gear loss. Bycatch was composed primarily of halibut, rockfish (rougheye, shortraker, and idiot), and sleeper sharks. Longlines consisted of both snap and stuck gear with the number of hooks fished ranging from 2,000 to 30,000. Several of the fishermen reported losing gear. The department is concerned about additional sablefish mortality associated with lost gear. For example, 3 vessels reported losing 37 skates or approximately 20,000 hooks. Commercial catch sampling was conducted in Cordova for size, sex, gonad condition, and age. The otoliths collected for aging have not been processed.

1997 Management Outlook

The PWS sablefish fishery remains a short term, intense fishery. The best available information (historic catch and fish size) indicates that the guideline harvest level for the 1997 season should be set at the midpoint of the guideline harvest range (241,500 lb). The season will open at 12:00 noon May 1, 1997. Based upon 1996 fishery performance, a single fishing period no more than 24 hr in duration will be adequate to achieve the guideline.

In 1996 the department began a sablefish longline survey designed to generate an index of sablefish abundance. However, several years of data will be required to develop a relationship between survey data and commercial harvest. The survey catch of groundfish was sold to recover a portion of the survey costs.

North Gulf District and Cook Inlet Area

Introduction

The North Gulf District and Cook Inlet Area are managed as a single unit for the sablefish fishery. Historically the North Gulf District provided the majority of the harvest with catch since 1987 ranging from 4,000 lb in 1989 to 172,000 lb in 1993. Cook Inlet catches for the same period have ranged from 0 in 1987 to 67,000 lb in 1988 (Table 4), however, total catch has not exceeded 2,000 lb in 6 of the past 8 years. Effort has ranged from 6 to 85 vessels in the North Gulf District and 1 to 12 vessels in Cook Inlet.

Historic catch in the North Gulf District has been erratic, leading the department to believe that either sablefish distribution is seasonal and therefore may be affected by events elsewhere, or that the catch has been misreported. There is a general consensus among experienced fishermen and department groundfish staff that North Gulf District sablefish likely spend a portion of their annual life cycle in the deeper federal waters south of the district.

1996 Season Summary

The 1996 season opened concurrently with the federal IFQ sablefish fishery on March 15. By mid-August approximately 44,000 lb had been harvested and the department announced a season closure due to low sablefish catch rates over a 5 month season and total catch within the recent 5 year historical range. During the last 2 weeks of August catch rates increased dramatically. The season closed by emergency order at 12:00 noon September 1 with a harvest of 98,451 lb from 29 vessels. No sablefish were landed from the Cook Inlet area in 1996.

1997 Management Outlook

The 1997 fishery will open concurrently with the federal IFQ fishery on March 15. The season harvest guideline will be set using the recent 10 year average harvest of 96,000 lb adjusted to reflect percentage changes in the sablefish total allowable catch (TAC) set by National Marine Fisheries Service (NMFS) for the Central Gulf of Alaska Regulatory Area. For example, in 1996 the TAC was reduced by 22%. Applying this reduction to the average annual harvest from the North Gulf District yielded an allowable harvest of 75,000 lb. The TAC set by NMFS is based upon biomass estimates generated from annual surveys in the Gulf of Alaska. Because sablefish in the North Gulf District are part of the Gulf of Alaska stock, adjusting the harvest guideline based upon changes in the TAC is both reasonable and conservative.

The department will also monitor the sablefish fishery for bycatch levels of lingcod and rockfish. The fishery could close early if the guideline harvest levels of these species are attained.

The department does not conduct any sampling or stock assessment of North Gulf District sablefish.

ROCKFISH

Proposal # 1, 28, 38, 39, 41, 42.

Prince William Sound

Introduction

Since 1987 rockfish catches in PWS have ranged from 81,000 lb in 1993 to 489,000 lb in 1990 (Table 5). The rockfish species comprising the majority of the catches (in pounds) have been rougheye, shortraker, and yelloweye. Effort has ranged from 35 vessels in 1989 to 122 in 1995. Catches have primarily come from both directed longline effort and bycatch from other longline fisheries such as sablefish and halibut. During 1995, the peak harvest month was May when 95 vessels delivered 85,487 lb for a season total of 153,000 lb. The high rockfish harvest in May corresponded to the record effort level in the PWS sablefish fishery where rockfish were a significant bycatch component.

A key component of the PWS rockfish management strategy is the Prince William Sound Rockfish Management Plan that was adopted into regulation by the Alaska Board of Fisheries (BOF) in 1992. Provisions of the management plan are:

1. a 3,000 lb trip limit within a 5 day period.
2. a 20% bycatch limit once the directed fishery is closed, however, the above trip limit may not be exceeded.
3. a 150,000 lb guideline harvest level.

1996 Season Summary

Rockfish catch for all species as of September 1996, was 80,670 lb from 154 landings by 78 boats. Yelloweye, rougheye and shortraker comprised 27%, 20%, and 20% of the catch. Similar to 1995, May was the month of peak harvest with 30% of the total harvest. The season opened by regulation on January 1 and has remained open thus far in 1996.

1997 Management Outlook

The fishery will open by regulation on January 1, 1996. The guideline harvest level will initially remain at 150,000 lb. Significant effort is not likely to occur until weather improves and the halibut IFQ season opens on March 15. Although the proportion of the rockfish harvest taken as bycatch in the PWS sablefish fishery was somewhat lower in 1996, it should remain a meaningful component of the annual harvest.

The department will monitor monthly catch rates to determine if the directed fishery should be closed prior to achievement of the 150,000 lb guideline.

There has been very limited commercial catch sampling and no assessment of rockfish in the PWS area.

North Gulf District and Cook Inlet

Introduction

Although Cook Inlet is a large area, the North Gulf District yielded 95% or more of the rockfish catch from the two areas during any year. The rocky sloped habitat is more suitable

to rockfish than the generally evenly contoured, mud substrate of Cook Inlet. Since 1987 catches have ranged from 48,000 lb in both 1989 and 1990 to 351,000 in 1992 (Table 6). Effort has varied from 14 vessels in 1989 to 133 vessels in 1992. Black rockfish, taken primarily by jig gear, have composed 70% to 80% of the total harvest in a given year. Yelloweye, the second most dominant species, comprised 10% to 20% of the total annual catch. Almost 90% of the yelloweye harvest is taken by longline gear with 10% coming from jigs. Quillbacks and dusky rockfish constitute the other significant rockfish species in the commercial catch.

Rockfish in the North Gulf District and Cook Inlet Area have been managed via their respective regulatory management plans. Components of these plans include:

1. 5 day trip limits 1,000 lb for Cook Inlet, and 4,000 lb for the North Gulf.
2. a 20% bycatch limit (for both areas) once the directed fishery in the North Gulf District is closed, however, the aforementioned trip limits may not be exceeded.
3. a 150,000 lb guideline harvest level for the North Gulf District which acts as a trigger closing both areas.

1996 Season Summary

The total catch as of September 1996, was 140,131 lb with 138,048 lb taken by 116 boats from the North Gulf and 2,083 lb caught by 13 boats from Cook Inlet. Black rockfish taken primarily by directed jig effort composed 58% of the harvest. Yelloweye were 30% of the total harvest coming mostly as longline bycatch to sablefish and halibut. Approximately 34% of the 1996 total catch was taken in the peak harvest month of March. The season opened January 1. The directed fishery was closed by emergency order on May 6 when the harvest reached 100,000 lb. After the closure only bycatch of amounts of rockfish could be retained.

1997 Management Outlook

The fishery will open by regulation on January 1, 1997. The guideline harvest level will be 150,000 lb, which will include the catch from both the directed fishery and bycatch from other groundfish fisheries. At the November 1995 meeting, the Alaska Board of Fisheries expressed concern that the department was not implementing adequate controls in the commercial rockfish fisheries because the guideline was exceeded in both 1994 and 1995. Therefore, the directed fishery will again close once the total reported catch, from both the directed and bycatch fisheries, reaches 100,000 lb. This is likely to occur in April or May. The remaining 50,000 lb of the guideline will be accounted for by outstanding fish tickets from the directed fishery and bycatch from other fisheries. The North Gulf District and Cook Inlet Area will close simultaneously.

The commercial rockfish catch is sampled sporadically. The department does not conduct any stock assessment surveys.

POLLOCK

Proposal # 32, 34, 36.

Prince William Sound

Introduction

Commercial pollock harvest was negligible in the Prince William Sound Area prior to 1995. The catch averaged 3,600 lb annually from, 1987 to 1994. Although trawl surveys by the

federal Bureau of Commercial Fisheries and its successor, the National Marine Fisheries Service, have always indicated pollock in noticeable abundance, the fish were small leading federal biologists to believe that the waters inside PWS may be a rearing area. During the late 1970's, when the state and fishing industry were trying to develop a commercial groundfish fishery in PWS and the adjacent portion of the Gulf of Alaska, pollock were generally ignored. More recently, annual ADF&G trawl surveys since 1990 for Tanner crabs in PWS have captured adult pollock each year.

In 1995 Kodiak based trawlers and a Cordova processor developed a market and a directed fishery for pollock in PWS. After the fishery began, the department established a guideline harvest range of 2.1 to 3.1 million lb from a trawl survey databased population model. The trawl fishery was closed by emergency order on February 16, 1995. The final catch for 1995 was 6,522,878 lb. Over 6.5 million lb of this harvest came from 9 midwater trawl vessels. The harvest was landed in both Cordova and Kodiak.

Regulations that affected the PWS pollock fishery included a permit requirement established as an emergency regulation during 1995. Additionally, there was a regulatory closure to all trawl gear in eastern PWS. The closure was intended to protect depressed king and Tanner crab stocks.

1996 Season Summary

The department anticipated trawl effort to increase for the 1996 PWS pollock fishery increasing the likelihood of a short term fishery. Preseason measures taken to ensure management of the PWS pollock fishery included:

1. The fishery opened by emergency order on January 20, concurrently with adjacent federal waters.

2. The guideline harvest level of 3 million lb (1400 metric tons) was based upon a 9% harvest rate applied to a biomass estimate of 34 million lb (15,345 metric tons). The harvest rate was identical to that used by NMFS for the Gulf of Alaska; the biomass estimate was developed using the 1994 estimate for PWS adjusted to reflect the same relative change in the adjacent federal waters.

3. An early registration deadline of January 13 was set.

4. Permit stipulations included check in prior to fishing, catch reporting, and logbook requirement.

Total catch in the directed trawl fishery was 3,264,052 lb from 22 landings by 9 midwater trawlers and a single pair trawl (2 vessels). The directed trawl fishery for pollock closed at 2200 hours January 25. Effort rose to 6 vessels during the first 4 days of the fishery; 5 additional vessels began fishing during the last day of the season. Fishery average tow duration and catch per unit of effort was 2.3 hr and 32,000 lb per hour.

The state *R/V Montague* was on the grounds during the trawl fishery to check in vessels, ensure a fair start of the fishery, collect catch reports, and sample the catch. The department's presence on the grounds aided conservative management of the fishery through the timely collection of both catch and catch rate information. Additionally, accurate catch reporting by the participants allowed the department to manage more closely to the guideline.

Fishing with pots, jigs, and longlines was left open after the directed trawl fishery closed to allow for potential development. Pollock harvest by other gear types totalled 1,538 lb taken as bycatch in other directed pot, trawl and longline fisheries.

After the directed trawl fishery closed, the department conducted a test fishery for pollock to generate revenues to support pollock stock assessment. A total of 420,517 lb was landed

during the test fishery bringing the total 1996 PWS pollock harvest to 3,686,107 lb from 29 landings by 13 vessels.

1997 Management Outlook

Management of the 1997 PWS pollock fishery will be very similar to 1996. Permit stipulations will include logbooks, check in prior to beginning fishing, and radio reports. The registration deadline will be 2 days prior to the season opening. The department management biologist will again be on the grounds aboard the state *R/V Montague*. The level of effort will depend upon the guideline harvest level and fishery performance in traditional pollock fishing areas.

The department plans to conduct a hydroacoustic survey of pollock in PWS during November 1996. However, it is not likely that analysis of the survey results will be completed before the 1997 fishery. Therefore, the 1997 guideline will be calculated in a manner identical to that used for the 1996 fishery and further adjusted by the percent change between 1996 and 1997 in the TAC set by NMFS for the Central Gulf Regulatory Area. Preliminary information from NMFS indicates that the pollock TAC will increase in 1997. When the TAC for the Central Gulf Area is finalized, the department will announce the 1997 pollock fishery harvest guideline.

North Gulf District and Cook Inlet Area

Introduction

The North Gulf District and Cook Inlet Area are managed in concert with NMFS actions for the pollock fishery in the adjacent waters federal exclusive economic zone (EEZ). The cumulative catch from these areas between 1987 and 1995 was 15,363 lb. Although the PWS fishery developed in 1995, no fishing occurred in the North Gulf District.

1996 Season Summary

Federal action on pollock seasons in 1996 set directed trawl fishery dates of January 20 - 23 and January 29 - February 2. During the second season a fishery developed in the North Gulf District. Total catch in the directed fishery was 1,936,439 lb from 13 landings by 3 vessels. Another 1,754 lb was landed as bycatch in other directed longline, pot, and trawl fisheries.

1997 Management Outlook

Management of pollock in the North Gulf District will coincide with NMFS management actions in adjacent federal waters. The department conducts no stock assessment or commercial catch sampling in the North Gulf District.

LINGCOD

Proposal # 43.

Prince William Sound

Introduction

The department manages the lingcod harvest in both state waters and adjacent federal waters. Lingcod harvests since 1987 have ranged from 139 lb in 1993 to 19,000 lb in 1991 and have averaged 5,000 lb (Table 7). Effort has ranged from 1 vessel in 1987 and 1993 to 10 vessels in 1992. Catches have come from directed jig effort (both hand and mechanical jig) and as bycatch in both jig and longline fisheries for other species such as rockfish and halibut.

Regulatory open season dates for the fishery are July 1 to December 31. There is a minimum size requirement of 35 inches overall or 28 inches measured from the front of the dorsal fin to the tip of the tail. The closure during the first half of the year protects lingcod during nest guarding and the minimum size is calculated to provide at least two spawning opportunities for adult lingcod.

1996 Season Summary

The current 1996 catch is confidential due to the low number of participants. A department policy makes catch information confidential when effort is 2 or less. Effort to date was from one longline and one jig vessel. Total catch is nearer the low end of the historic harvest range. The fishery will likely remain open through the 1996 regulatory season.

1997 Management Outlook

The fishery will open on July 1, 1997. Effort is expected to remain low. Lingcod may not be retained as bycatch during the closed season. The department conducts sporadic commercial catch sampling and no stock assessment of lingcod in the PWS area.

North Gulf District and Cook Inlet Area

Introduction

The North Gulf District and the Cook Inlet Area are managed similarly for lingcod. The harvest of lingcod from the Cook Inlet Area has been negligible (644 lb since 1987) while the North Gulf District supports very active commercial and recreational fisheries. This is likely attributable to the relative lack of suitable lingcod habitat in the Cook Inlet area.

Lingcod harvests since 1987 have ranged from 4,000 lb in 1990 to 88,000 lb in 1995 (Table 7). Effort has ranged from 12 vessels in 1989 to 92 vessels in 1992. Historically lingcod harvests have come from longline and jig gear both as directed catch and as bycatch from other directed fisheries such as Pacific cod and rockfish. During the years 1987 - 1990 and 1992, lingcod harvests came primarily from longline gear. Jig gear took greater than 90% of the total catch for the years 1991 and 1993-1995.

Regulations affecting the North Gulf District are identical to those in PWS with open season dates of July 1 to December 31 and minimum size requirement of 35 inches overall length or 28 inches from the front of the dorsal to the tip of the tail.

1996 Season Summary

The 1996 catch was 10,427 lb taken by 17 vessels. Harvest by jig gear was 8,468 lb or 81% of the total catch with most of the balance coming from longline effort. The department is managing for a 35,000 lb guideline. This figure is 50% of the recent 5 year harvest. The 1996 harvest through September is below that seen in recent years, however, the cause is unknown. Factors which may be attributable include decreased lingcod abundance, shorter duration of the directed rockfish and Pacific cod fisheries, and decreased incentive due to the price paid for lingcod or other species.

1997 Management Outlook

The proximity of the southcentral ports of Seward and Homer to lingcod habitat along the outer Kenai Peninsula as well as increased interest in a variety of fisheries may yield higher effort in 1997. The 1997 lingcod fishery will be monitored for indication of a conservation problem and if one arises the fishery may close by emergency order.

The department does not conduct any commercial catch sampling or stock assessment of lingcod in the North Gulf District.

PACIFIC COD

Proposal # 1, 29, 33, 34, 37.

Prince William Sound

Introduction

Harvests since 1987 have ranged from 68,000 lb in 1989 to 2.2 million lb in 1991 (Table 8). Effort since 1987 has ranged from 22 vessels in 1989 to 130 vessels in 1992. Prior to 1991, 99% of the harvest was taken by directed longline effort and as bycatch in other longline fisheries. In 1991 a directed pot fishery for Pacific cod developed. Since then, the proportion of the total catch taken by pot gear has increased to 80% and averaged 810,000 lb annually.

Management of the Pacific cod fishery is typically based upon inseason adjustments in adjacent federal waters, however, some exceptions have occurred. For example, directed fishing for Pacific cod with pot and jig gear was open through most of 1995 in PWS, although federal action closed directed fishing on two occasions.

Statewide regulations specify a groundfish pot tunnel eye perimeter of 36 inches or less and require that each pot be tagged with a label displaying the word "groundfish".

The eastern portion of Prince William Sound was closed by regulation to both trawl and groundfish pot gear. The closure protects depressed king and Tanner crab stocks.

1996 Fishery Summary

Management was by emergency order which set seasons to coincide with inseason adjustments made by NMFS in adjacent federal waters. Total catch was 681,104 lb from 102 landings by 40 vessels. Approximately 48% of the catch was from pots, 31% from trawls, and 21% from longline. Directed fishing for Pacific cod opened January 1 to all gears except trawl which opened January 20. Directed fishing for Pacific cod closed at noon March 18 and retention of Pacific cod as bycatch closed at noon May 5.

The regulatory pot closure area was modified by emergency order to allow fishing along the margins of Hinchinbrook Entrance in waters shallower than 75 fathoms. This has worked well and provided an opportunity for fishing within eastern PWS while minimizing potential impacts to depressed Tanner crab stocks.

1997 Management Outlook

Pacific cod will be managed concurrent with inseason adjustments made by NMFS for adjacent federal waters. The department does not perform any stock assessment on Pacific cod and commercial catch sampling is sporadic.

North Gulf District

Introduction

Annual catch and effort have ranged from 33,644 lb taken by 13 vessels in 1989 to 4,668,352 lb taken by 170 vessels in 1992 (Table 8). Since 1992 the total harvest has exceeded 1.5 million lb annually. Historically longline gear has taken 75% of the catch with smaller

amounts taken by pot and trawl gear. Although the directed fishery using pot gear developed around 1991, it has never exceeded 25% of the total harvest.

Management of the Pacific cod fishery has been set by emergency order to coincide with NMFS actions in adjacent federal waters.

1996 Fishery Summary

Management was again concurrent with adjacent federal waters. Total catch was 3,706,124 lb from 310 landings by 98 vessels. The proportion of harvest by gear type was 59% longline, 38% trawl, 2% pot, and 1% trawl. Although the Alaska BOF closed the district to non-pelagic trawl gear at the November 1995 meeting, the closure was not signed into regulation until February, 1996. The trawl harvest of 1,399,791 lb by 5 vessels was taken prior to the area closure and marked the second year in a row that trawlers operated in the district since 1987.

Directed fishing opened January 1 to all gear except trawls which opened January 20. Directed fishing for Pacific cod closed at noon March 18; retention of Pacific cod closed May 5. It will not reopen for the remainder of 1996.

1997 Management Outlook

Management will coincide with inseason adjustments in adjacent federal waters. Because effort has been inconsistent over time it is difficult to predict fishery performance. The department does not conduct any commercial catch sampling or stock assessment on Pacific cod.

Cook Inlet

Introduction

Annual harvests from 1987 to 1994 ranged from 7,000 lb in 1989 to 1.2 million lb in 1993. During the same period, effort ranged from 3 vessels in 1989 to 132 vessels in 1987. Until 1990, catches from longline gear took between 85% and 100% of the annual harvest. A directed pot fishery began in 1991 and has accounted for more than 80% of the annual harvest since 1992.

Similar to the aforementioned areas, management of the Pacific cod fishery was typically based upon inseason adjustments in adjacent federal waters.

Action taken by the BOF in 1995 established a regulatory closure to non-pelagic trawling for the entire Cook Inlet Area. This closure protects depressed king crab stocks and rebuilding Tanner.

1996 Fishery Summary

Management was by emergency order which set seasons in the Cook Inlet Area concurrent with inseason adjustments in adjacent federal waters. Total catch was 837,120 lb from 285 landings by 28 vessels. Pot gear took 93% of the harvest with longline gear taking most of the balance. Season dates for the Cook Inlet Area were identical to those in PWS and the North Gulf District.

Similar to 1995, portions of Kachemak Bay and the west side of Cook Inlet were again closed by emergency order to groundfish fishing with pots in order to protect crab resources.

1997 Management Outlook

Management will continue to be concurrent with inseason adjustments by NMFS in adjacent federal waters. The department does not conduct any commercial catch sampling or stock assessment on Pacific cod in the Cook Inlet Area.

OTHER GROUND FISH

Other groundfish such as various species of flatfish and skates were landed. The flatfish came primarily as directed trawl catch and totalled 96,365 lb of sole and flounder. A total of 47,941 lb of skates was landed as bycatch in other directed longline fisheries. Finally, octopus landed as bycatch in the pot fishery for Pacific cod totalled 5,561 lb.

Management of flatfish and skates is set by emergency order to coincide with NMFS management actions in adjacent federal waters.

Table 1. Landings and exvessel value of Central Region groundfish harvests during 1987 to 1996.

Year	Rockfish	Sablefish	Pacific Cod	Flounders	Other	Lingcod	Total
<u>1987 Harvest</u>							
Round Weight (lb)	279,740	227,362	2,111,306	163,238	69,849	26,254	2,877,749
Price (\$/lb)	\$0.31	\$0.64	\$0.24	\$0.28	\$0.25	\$0.45	
Value	\$86,719	\$145,512	\$506,713	\$45,707	\$17,462	\$11,814	\$813,928
<u>1988 Harvest</u>							
Round Weight (lb)	299,397	398,548	849,314	17,875	16,425	26,641	1,608,200
Price (\$/lb)	\$0.33	\$0.99	\$0.24	\$0.35	\$0.28	\$0.35	
Value	\$98,801	\$394,563	\$203,835	\$6,256	\$4,599	\$9,057.94	\$717,112
<u>1989 Harvest</u>							
Round Weight (lb)	140,683	194,430	110,579	11	5,037	8,306	459,046
Price (\$/lb)	\$0.41	\$0.89	\$0.21	\$0.10	\$0.16	\$0.36	
Value	\$57,680	\$173,043	\$23,222	\$1	\$806	\$2,990	\$257,742
<u>1990 Harvest</u>							
Round Weight (lb)	537,010	228,360	1,581,427	72,986	12,131	13,998	2,445,912
Price (\$/lb)	\$0.38	\$0.69	\$0.24	\$0.22	\$0.12	\$0.36	
Value	\$204,064	\$157,568	\$379,542	\$16,057	\$1,456	\$5,039	\$763,727
<u>1991 Harvest</u>							
Round Weight (lb)	373,322	458,729	5,198,745	4,560	3,954	84,613	6,123,923
Price (\$/lb)	\$0.28	\$0.91	\$0.28	\$0.23	\$0.46	\$0.37	
Value	\$104,530	\$417,443	\$1,455,649	\$1,049	\$1,819	\$31,307	\$2,011,797

- Continued -

Table 1. Continued.

Year	Rockfish	Sablefish	Pacific Cod	Flounders	Other	Lingcod	Total
<u>1992 Harvest</u>							
Round Weight (lb)	528,973	601,365	8,205,549	2,225	17,416	30,799	9,386,327
Price (\$/lb)	\$0.32	\$0.93	\$0.24	\$0.19	\$0.35	\$0.29	
Value	\$169,271	\$559,269	\$1,969,332	\$423	\$6,096	\$8,932	\$2,713,322
<u>1993 Harvest</u>							
Round Weight (lb)	165,668	486,361	6,239,067	766	32,518	15,332	6,939,081
Price (\$/lb)	\$0.36	\$0.95	\$0.22	\$0.22	\$0.53	\$0.38	
Value	\$59,640	\$462,043	\$1,372,595	\$166	\$17,235	\$5,826	\$1,917,507
<u>1994 Harvest</u>							
Round Weight (lb)	319,184	408,518	5,211,990	608	28,043	27,580	5,995,923
Price (\$/lb)	\$0.39	\$1.82	\$0.25	\$0.50	\$0.82	\$0.36	
Value	\$125,421	\$743,503	\$1,302,998	\$304	\$22,895	\$9,929	\$2,205,049
<u>1995 Harvest</u>							
Round Weight (lb)	460,220	608,790	5,910,654	1,092	48,319	88,406	7,117,481
Price (\$/lb)	\$0.63	\$2.22	\$0.24	\$0.20	\$0.05	\$0.49	
Value	\$289,939	\$1,351,514	\$1,418,557	\$218	\$2,416	\$43,319	\$3,105,963
<u>1996 Harvest</u>							
Round Weight (lb)	220,814	349,845	5,224,348	54,084	83,989	14,453	5,947,533
Price (\$/lb)	\$0.63	\$2.22	\$0.24	\$0.23	\$0.15	\$0.45	
Value	\$134,697	\$654,210	\$1,253,845	\$12,439	\$12,598	\$6,504	\$2,074,293

Table 2. Numeric listing of commercial groundfish emergency orders, affecting 1996 fisheries in the Cook Inlet Area, North Gulf District, and Prince William Sound Management Area.

Emergency order Number	Effective Date	Explanation
HQ-GF-01-96	January 1, 1996	Sets commercial groundfish fishing seasons in the territorial waters of Alaska in the Central Gulf of Alaska, Western Gulf of Alaska and Bering Sea-Aleutian Islands to coincide with federal inseason adjustments in the adjacent waters of the EEZ, with exceptions.
HQ-GF-02-96	January 1, 1996	Closes state waters within 10 nautical miles of 37 Steller sea lion rookeries.
2-GH-H-01-96	January 1, 1996	Modifies Central Region commercial groundfish seasons to coincide with federal inseason adjustments in the adjacent waters of EEZ, with exceptions.
2-GF-H-02-96	January 1, 1996	Closes the described waters of the Cook Inlet Area to groundfish fishing with pots.
2-GF-H-03-96	January x, 1996	Modifies the PWS pot closure by opening portions of Hinchinbrook Entrance.
2-GF-H-04-96	May 6, 1996	Closes the directed fishery for rockfish in the North Gulf District and the Cook Inlet Area.
2-GF-H-05-96	September 1, 1996	Closes the commercial fishing season for sablefish in the North Gulf District and the Cook Inlet Area.
2-GF-H-06-96	October 17, 1996	Closes waters in the Resurrection Bay area to any harvest of lingcod
2-GF-E-01-96	January 25, 1996	Closed the PWS directed trawl fishery for pollock.
2-GF-E-02-96	April 25, 1996	Sets a 24 hr fishing period for groundfish in PWS.
2-GF-E-03-96	May 4, 1996	Reopens PWS groundfish to fishing at any time.

Table 3. Annual effort and harvest from the commercial sablefish fishery in the Prince William Sound Area 1984 - 1996.

Year	Vessels	Landings	Pounds	Pounds per vessel	Pounds per landing
1984	20	37	109,920	5,496	2,971
1985	29	108	383,290	13,217	3,549
1986	32	36	189,850	5,933	5,274
1987	71	120	205,350	2,892	1,711
1988	53	147	222,206	4,193	1,512
1989	26	98	190,633	7,332	1,945
1990	70	257	213,974	3,057	833
1991	72	147	331,314	4,602	2,254
1992	54	119	438,301	8,117	3,683
1993	55	87	313,976	5,709	3,609
1994	55	92	279,292	5,078	3,036
1995	124	135	574,195	4,631	4,253
1996	65	68	251,394	3,868	3,697

Table 4. Annual effort and harvest from the commercial sablefish fishery in the Cook Inlet Area and North Gulf District 1987 - 1996.

Year	Vessels	Landings	Pounds	Pounds per vessel	Pounds per landing
1987	8	8	37,338	4,667	4,667
1988	44	84	176,342	4,008	2,099
1989	6	7	3,797	633	542
1990	25	28	14,386	575	514
1991	32	43	127,283	3,978	2,960
1992	88	116	163,064	1,853	1,406
1993	43	62	172,385	4,009	2,780
1994	61	78	129,226	2,118	1,657
1995	41	54	34,595	844	641
1996	29	88	98,451	3,395	1,119

Table 5. Annual effort and harvest from the commercial rockfish fishery in the Prince William Sound Area and the Cook Inlet Area and North Gulf District combined, 1987 - 1996.

Year	Prince William Sound			North Gulf District and Cook Inlet Area Combined		
	Vessels	Landings	Total lb	Vessels	Landings	Total lb
1987	57	124	97,923	79	201	181,817
1988	64	174	111,903	49	107	187,494
1989	35	98	93,047	15	34	47,636
1990	93	401	489,169	44	58	47,841
1991	88	242	153,869	68	161	219,453
1992	105	278	177,933	133	394	351,030
1993	67	185	81,475	89	227	84,193
1994	65	163	97,728	81	220	222,040
1995	122	221	152,886	130	334	307,332
1996	78	154	80,683	129	334	140,131

Table 6. Annual effort and harvest from the commercial lingcod fishery in the Prince William Sound Area, North Gulf District, Cook Inlet Area, and adjacent federal waters during 1987 - 1996.

Year	<u>Prince William Sound</u>			<u>North Gulf District and Cook Inlet Area Combined</u>			Federal waters lb	Combined total lb
	Vessels	Landings	Total lb	Vessels	Landings	Total lb		
1987	1	1	594	22	52	25,660	1,053	27,307
1988	3	5	1,338	12	29	18,303	4,245	23,886
1989	3	3	1,280	11	19	7,026	2,143	10,449
1990	9	11	8,117	15	17	2,549	1,688	12,354
1991	3	14	19,357	27	86	65,246	2,974	87,577
1992	10	15	2,357	75	144	27,175	19,591	49,123
1993	1	6	245	8	18	4,276	83,072	87,593
1994	6	17	9,540	9	12	22,069	37,160	68,769
1995	3	5	139	27	38	43,173	45,094	88,406
1996	3	6	1,945	11	14	5,421	7,087	14,453

Table 7. Annual effort and harvest from the commercial Pacific cod fishery in the Prince William Sound Area, Cook Inlet Area, and North Gulf District, 1987 - 1996.

Year	<u>Prince William Sound</u>			<u>North Gulf District</u>			<u>Cook Inlet Area</u>			Total all areas
	Vessels	Landing	Pounds	Vessels	Landings	Pounds	Vessels	Landings	Pounds	
1987	60	109	444,094	104	245	783,500	132	557	711,214	1,938,808
1988	37	85	325,860	31	85	307,284	37	137	211,338	844,482
1989	22	44	67,825	13	22	33,644	3	3	7,144	108,613
1990	81	300	1,153,538	20	26	50,774	34	101	219,894	1,424,206
1991	94	226	2,218,911	82	158	961,935	77	339	932,403	4,113,249
1992	130	511	1,854,359	170	637	4,668,352	56	269	785,003	7,307,714
1993	53	193	1,022,546	94	278	2,831,561	29	177	908,053	4,762,160
1994	44	172	1,671,503	59	162	1,499,023	28	244	1,200,508	4,371,034
1995	71	197	1,551,223	114	258	2,965,113	52	456	1,394,318	5,910,654
1996	40	102	681,104	98	310	3,706,124	28	285	837,120	5,224,348

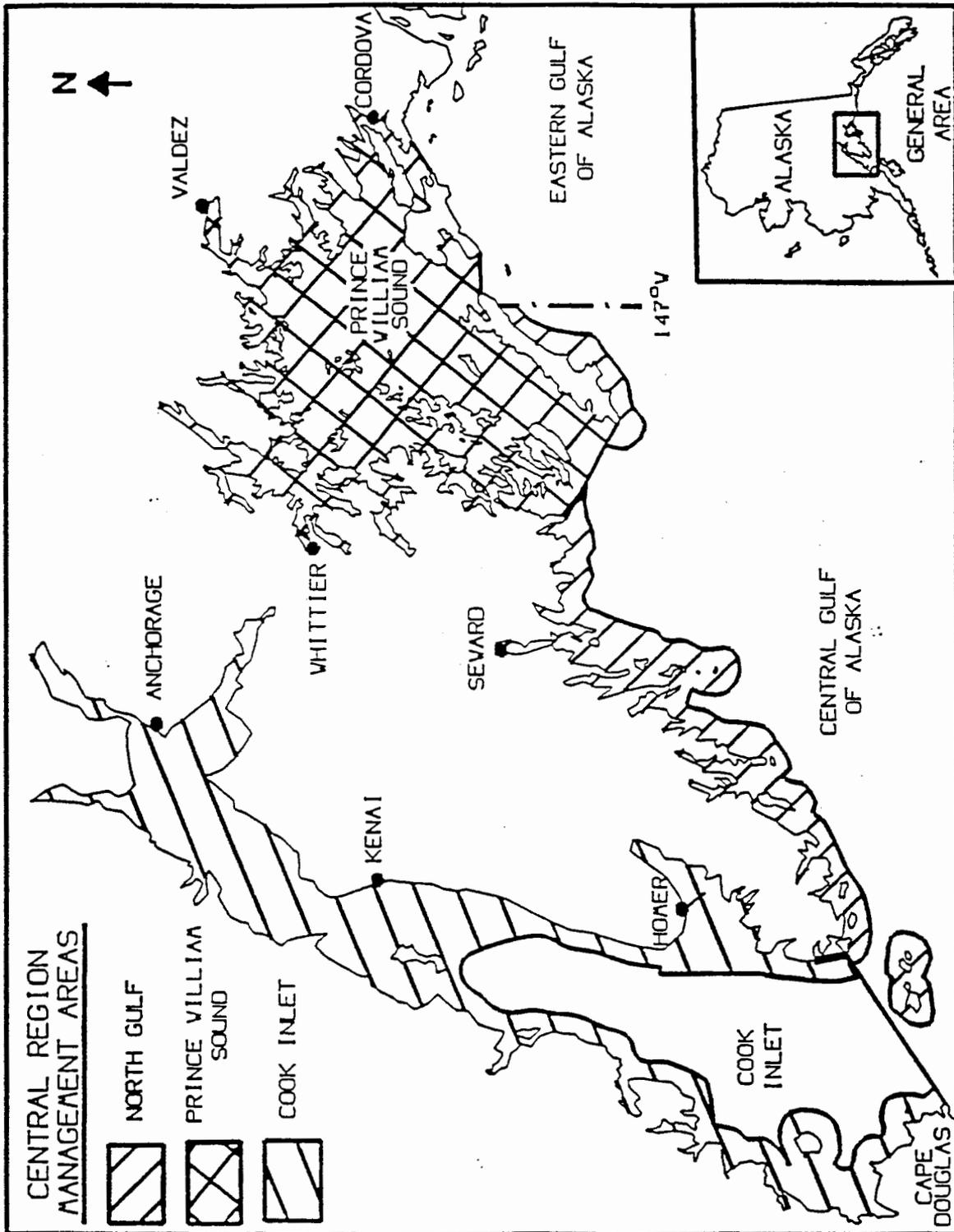


Figure 1. Groundfish management areas for state waters in the Central Region.

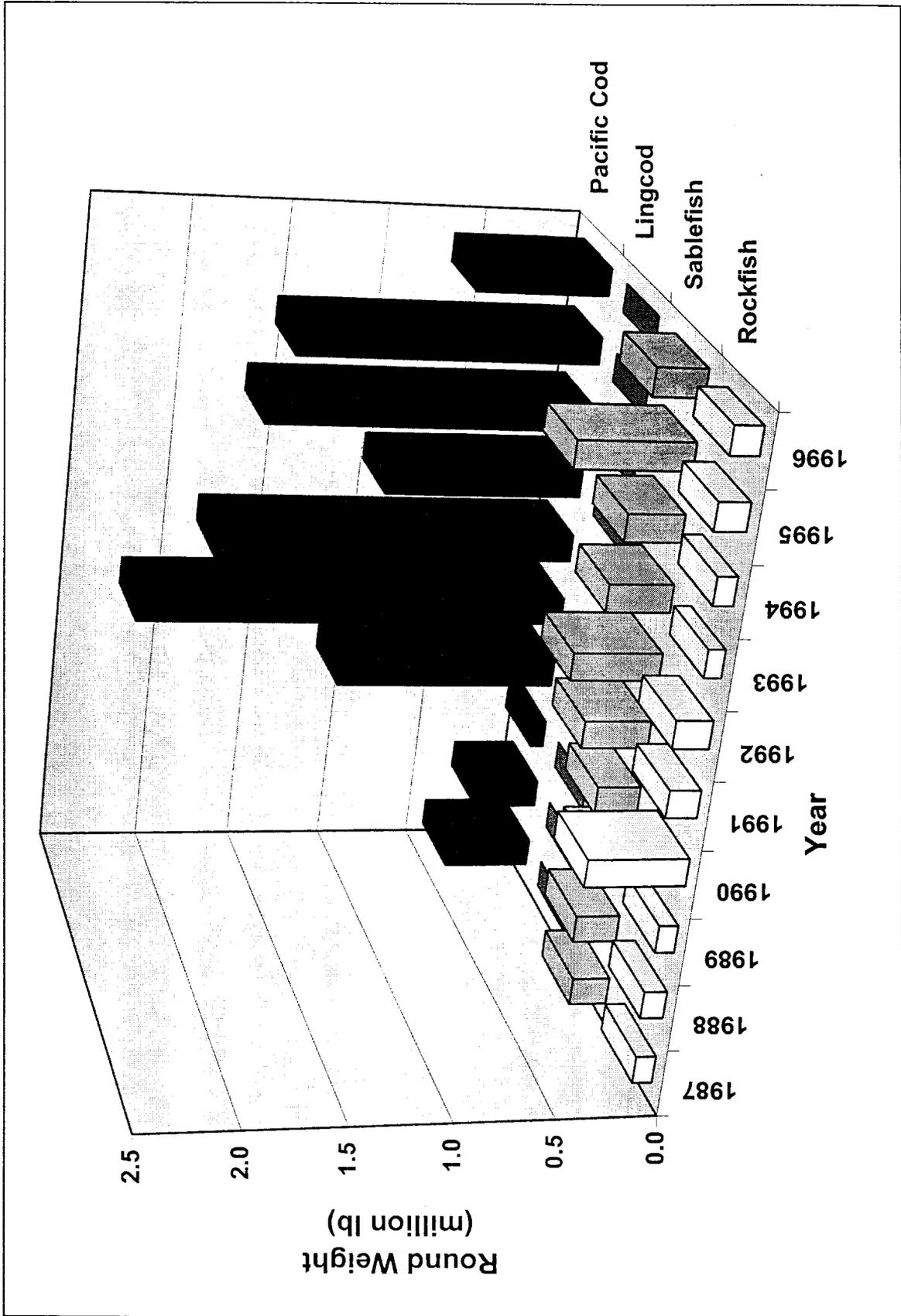


Figure 2. Groundfish harvests from the Prince William Sound Management Area during 1987 - 1996.

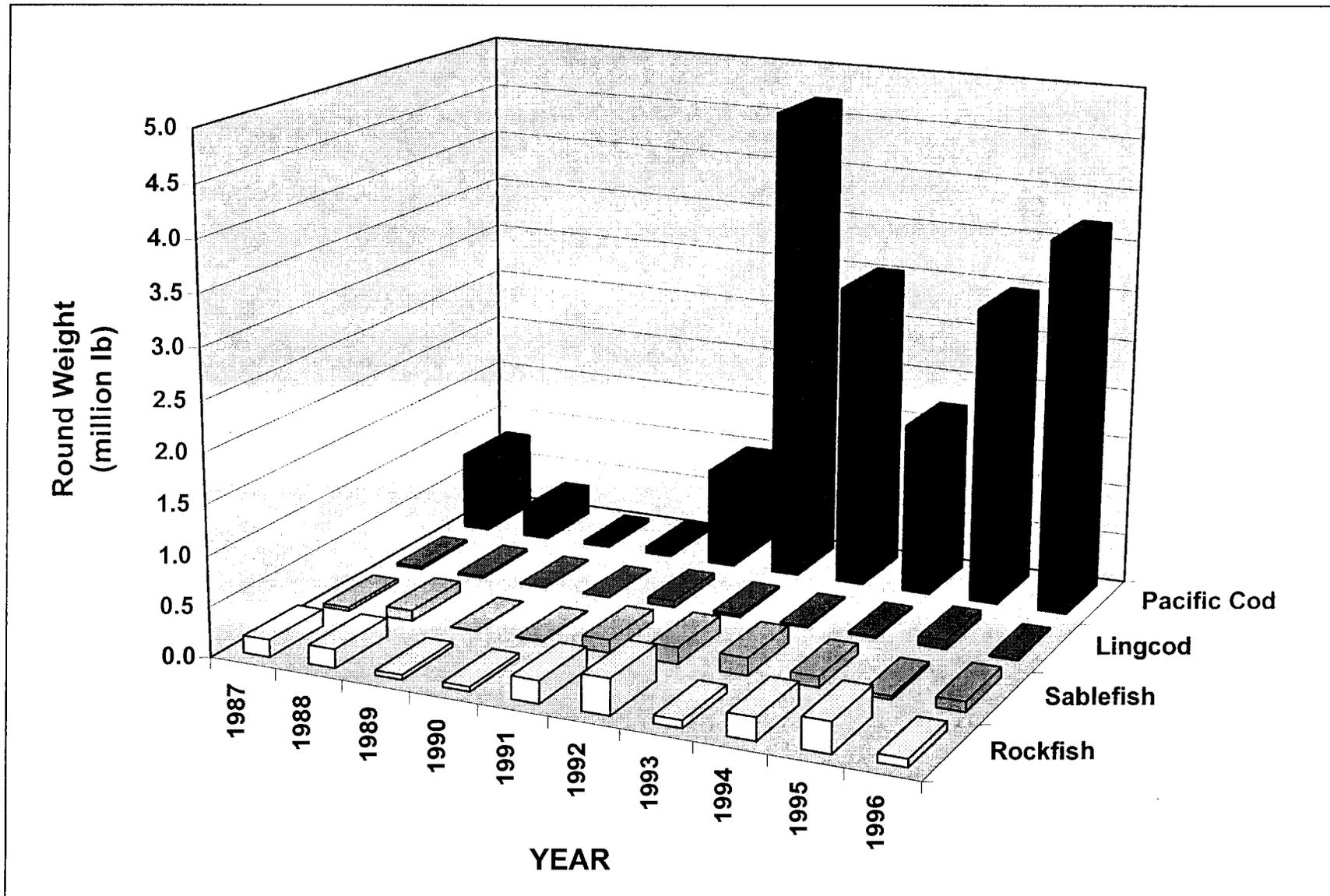


Figure 3. Groundfish harvests from the North Gulf District during 1987 - 1996.

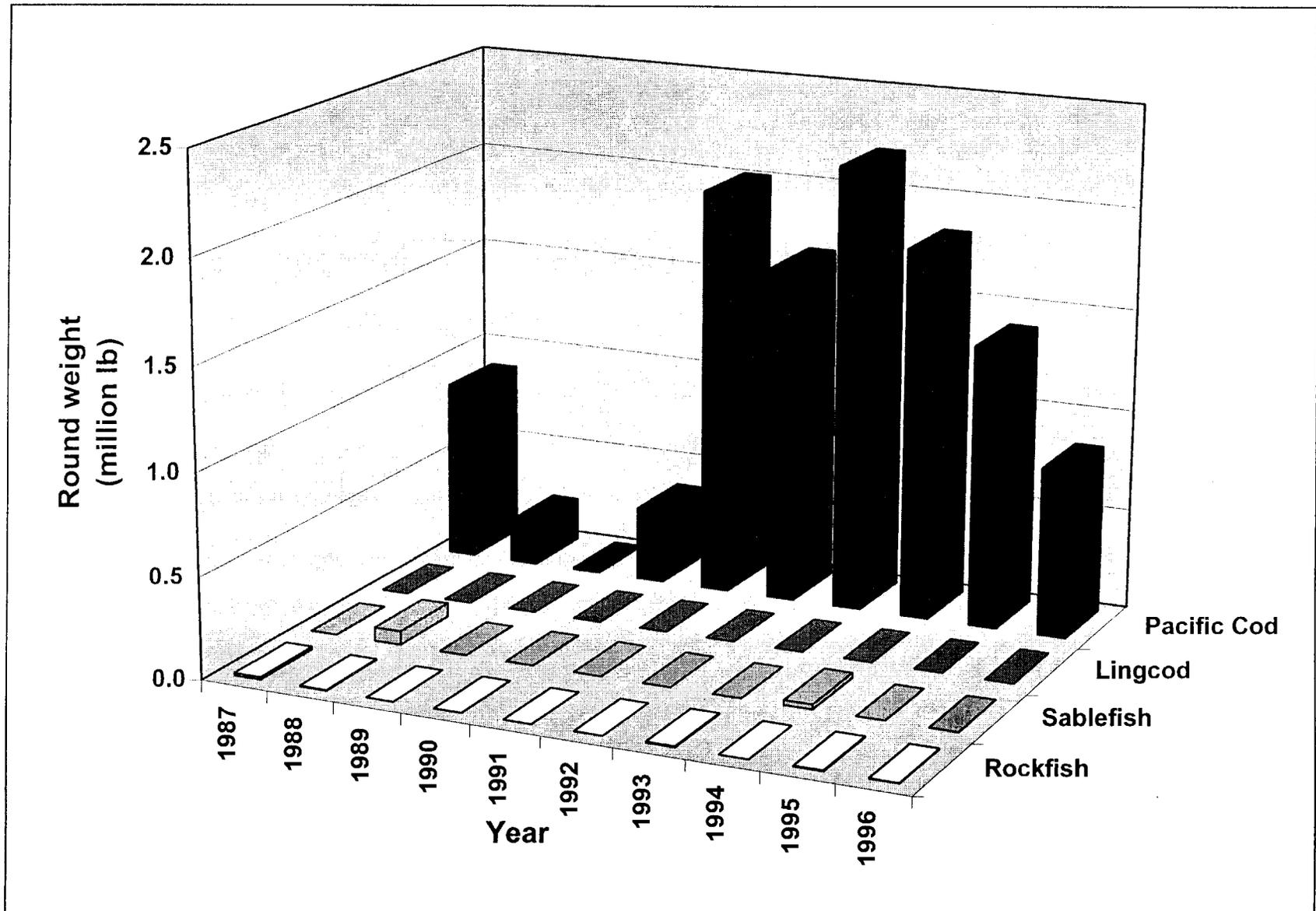


Figure 4. Groundfish harvests from the Cook Inlet Management Area during 1987 to 1996.

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