

ANNUAL MANAGEMENT REPORT FOR THE  
GROUNDFISH FISHERIES IN THE KODIAK, CHIGNIK,  
AND SOUTH ALASKA PENINSULA MANAGEMENT AREAS, 2001

By

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and  
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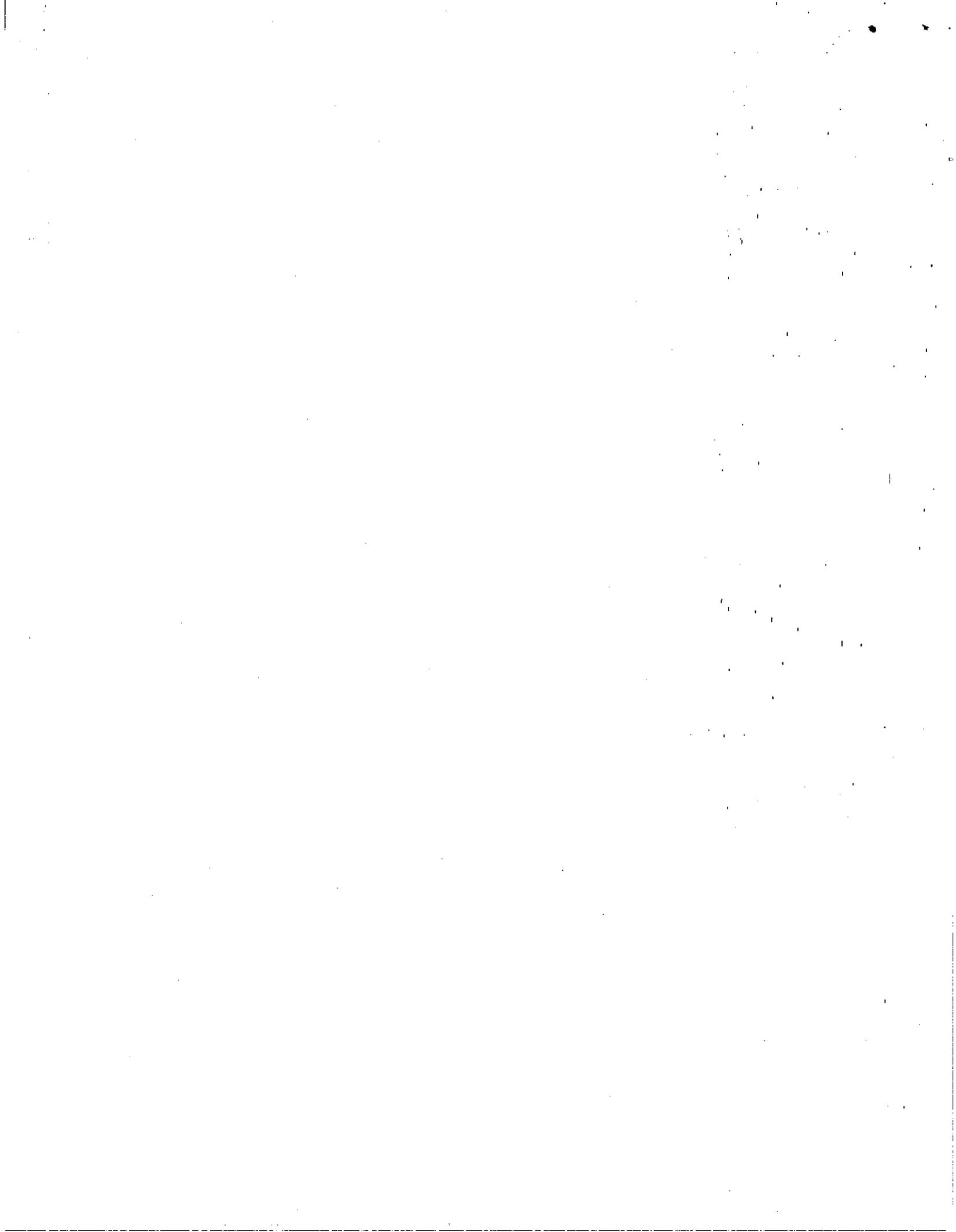
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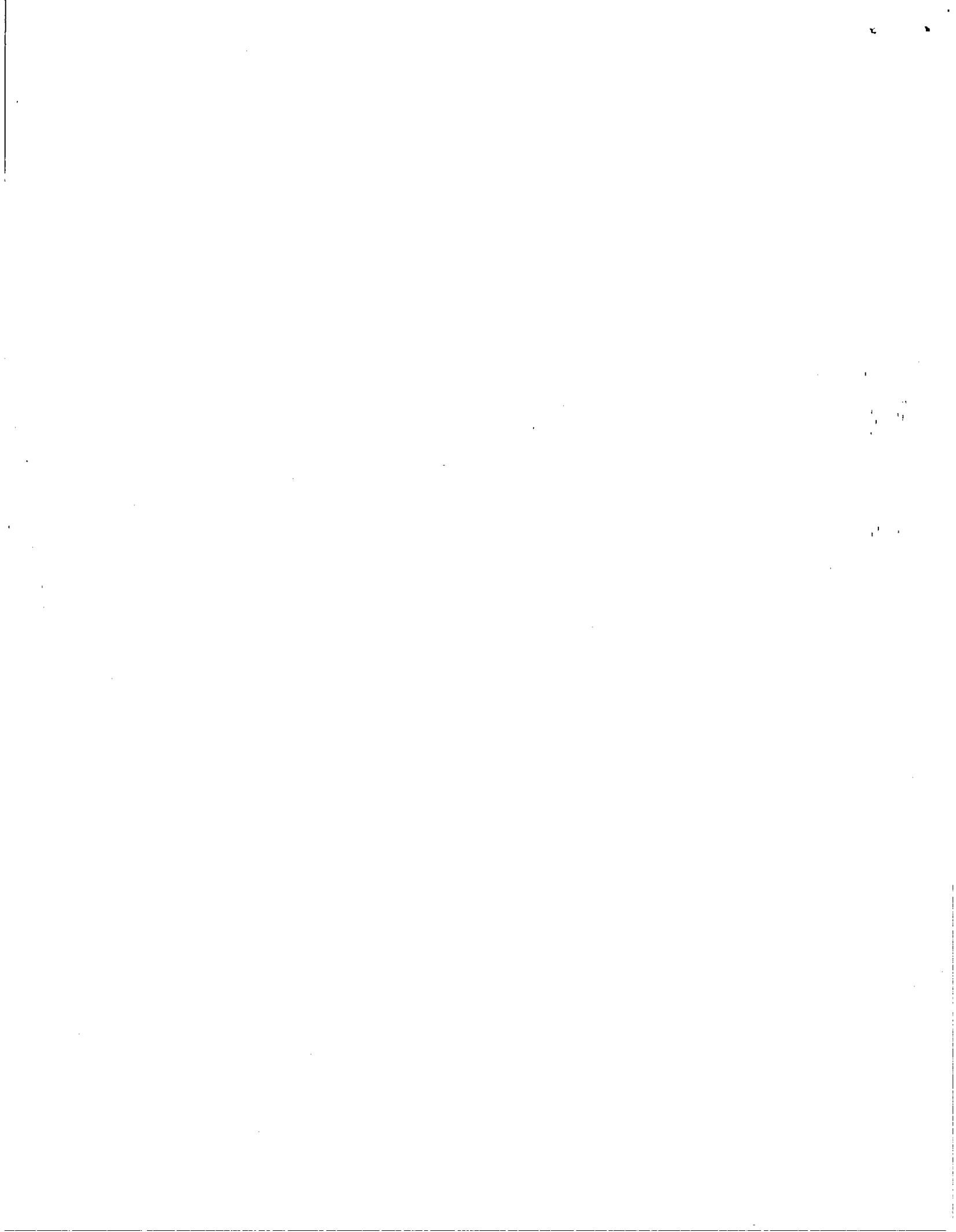
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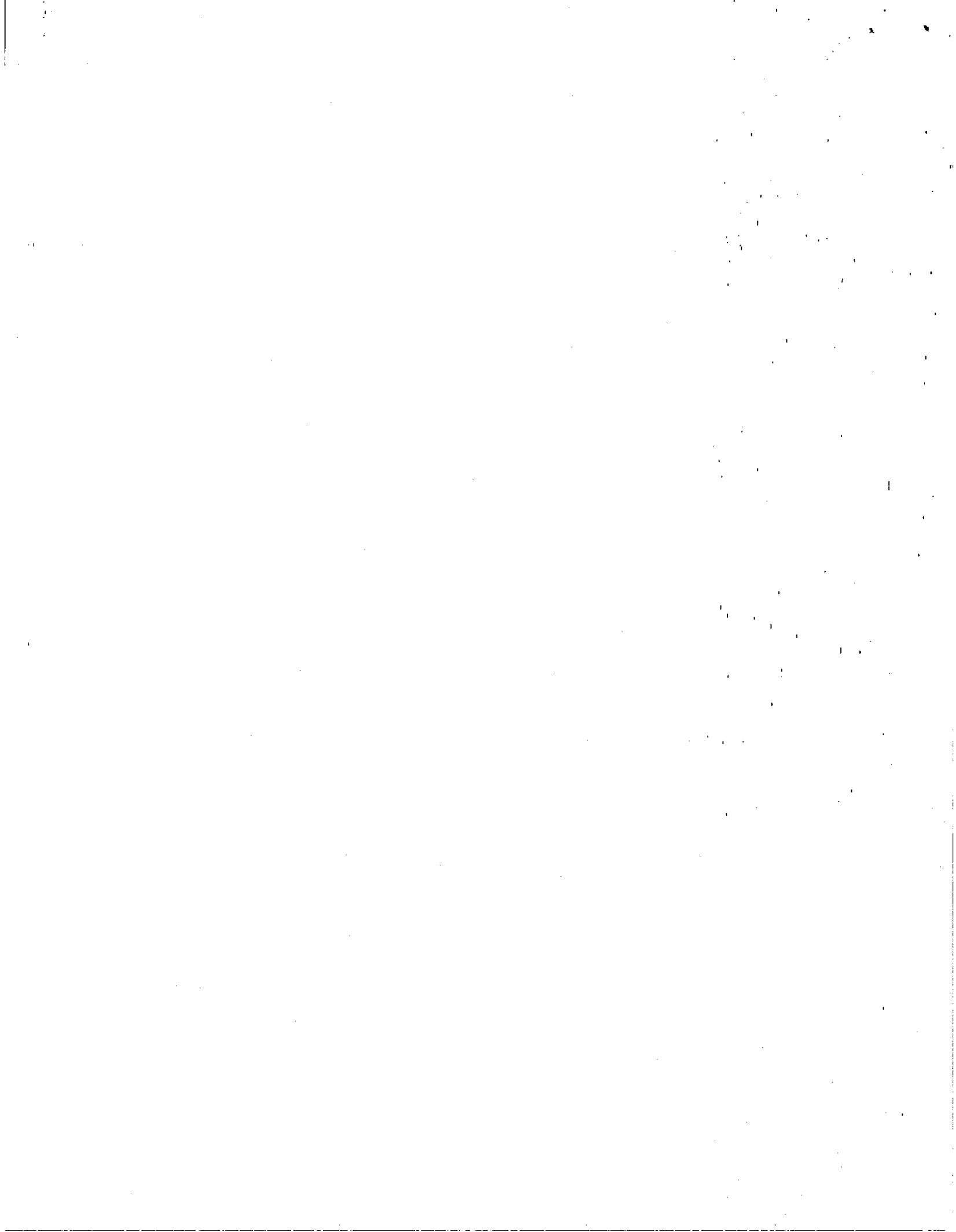
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## ABSTRACT

This report provides a summary of the 2001 state and federally managed commercial groundfish fisheries that occur in the state waters of the Kodiak, Chignik, and South Alaska Peninsula Areas. In the 2001 state-water Pacific cod *Gadus macrocephalus* fisheries in the Westward Region, 21.2 million pounds (9,598 mt) were harvested by 270 vessels for an estimated exvessel fishery value of \$6,536,992. Additional details on the 2001 state-water Pacific cod fisheries are provided, including season dates, effort, harvest, and value by gear type and area. Biological data collected from Pacific cod during the state-waters fishery is summarized for 2001.

A summary of the 2001 black rockfish *Sebastes melanops* fisheries in the Kodiak, Chignik, and South Alaska Peninsula Areas is also reported. Ninety vessels harvested black rockfish in the three management areas during 2001. The total harvest was 434,677 pounds (197 mt) for an estimated exvessel value of \$163,461. Biological data gathered during the black rockfish fishery is also summarized.

Minor harvests of lingcod *Ophidion elongatus* and sablefish *Anoplopoma fimbria* occurred in 2001. Information on the participation and value of these fisheries is reported in summary format.

Effort and harvest from the Pacific cod and walleye pollock *Theragra chalcogramma* fisheries prosecuted in state waters during the parallel fisheries are summarized. General information is provided on other groundfish species harvested in state waters, and a historic summary of non-pelagic trawl closures in the state waters of the Kodiak, Chignik, and South Alaska Peninsula Areas is provided.

## INTRODUCTION

Groundfish harvests in the Gulf of Alaska (GOA) and Bering Sea/Aleutian Islands (BSAI) are primarily managed by the National Marine Fisheries Service (NMFS) under guidelines developed by the North Pacific Fishery Management Council (NPFMC). The council establishes Acceptable Biological Catch (ABC) specifications for each species. The ABC may be reduced due to biological, economic, and social considerations to the level available for directed fishing, the Total Allowable Catch (TAC). Appendix A contains frequently used acronyms and key words.

Authorization for federal control of resources in the Exclusive Economic Zone (EEZ) from 3-200 nautical miles offshore comes from the Fishery Conservation and Management Act, now known as the Magnuson-Stevens Act, originally passed by the United States Congress in 1976 (MSFMCA 1996). The State of Alaska has management authority for groundfish resources within three nautical miles of the coast. Registration areas established by the State of Alaska differ from the federal management areas. State designated registration areas are the Eastern Gulf of Alaska, Prince William Sound, Cook Inlet, Kodiak, Chignik, South Alaska Peninsula, Bering Sea-Aleutian Islands and Chukchi-Beaufort Sea Areas (Figure 1). The latter five registration areas fall within the ADF&G's Westward Region. Areas used for federal groundfish fisheries management are shown in Figure 2.

For most groundfish fisheries, the Alaska Department of Fish & Game (ADF&G) issues an emergency order (EO) at the beginning of each year, creating what is referred to as the parallel fishing seasons. During parallel seasons, NMFS management gear, bycatch, and fishing season actions are duplicated in state waters. Exceptions to the parallel fishing seasons occur where the state has established separate harvest quotas and seasons for state waters. In the Westward Region, these are fisheries for sablefish *Anoplopoma fimbria*, lingcod *Ophidion elongatus*, Pacific cod *Gadus macrocephalus*, black rockfish *Sebastes melanops*, and blue rockfish *Sebastes mystinus*<sup>1</sup>. Actively managed state-waters fisheries for sablefish and Pacific cod occur within three nautical miles of shore. For lingcod and rockfish, the state has full management authority from shore to the 200 nautical mile boundary of the EEZ.

Pacific cod and walleye pollock comprise the largest volume of groundfish harvested from Kodiak, Chignik, and South Alaska Peninsula state waters. Fish ticket records show nearly 100 million pounds taken in 2001 (Figure 3). Various species of flatfish, skates, rockfish and other groundfish were also harvested (Table 1, Figure 4).

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<sup>1</sup> Blue rockfish are not typically found in the Westward Region, however management is delegated to the State of Alaska in all waters from shore to 200 nautical miles.

## STATE-WATERS FISHERIES

### *Pacific Cod*

#### **Historic Background**

In 1996, the Alaska Board of Fisheries (BOF) adopted state water Pacific cod management plans for fisheries in three groundfish areas in the Westward Region. Areas are outlined in chapter 5 of the Alaska Administrative Code (AAC) section 28.081, Kodiak as outlined in 5 AAC 28.467, Chignik as outlined in 5 AAC 28.537, and South Alaska Peninsula as outlined in 5 AAC 28.577. In addition, the BOF defined terms to distinguish state-waters, federal, and parallel seasons. These definitions can be found in 5 AAC 28.081.

Eligibility for participation in these areas was not restricted to vessels qualified under the federal moratorium or license limitation programs (LLP). Included within the plans were season, gear, and allocation specifications. Fishing seasons occur after the parallel season, which typically close in late winter/early spring. Exclusive registration areas were established and the fishery was limited to pot, hand troll, and mechanical jig gear. No more than 60 pots or 5 jig machines may be used to harvest Pacific cod. Harvest level for each area is set as a percentage of the estimate of ABC of Pacific cod as established by the NPFMC. Initial harvest levels were set at 15% of the Western Gulf ABC to be reserved for the South Alaska Peninsula Area, and 15% of the Central Gulf ABC to be apportioned between the Kodiak, Chignik, and Cook Inlet Areas. Harvest levels from the Central and Western Gulf were scheduled to step up to 20% and 25% of the area ABC's if annual harvest was within 10% of the established state-waters guideline harvest level (GHL).

Additional regulations adopted in 1996 included a 58 foot overall-length size limit for vessels in the Chignik and South Alaska Peninsula Areas and allocations between pot and jig gear types in Kodiak. The fishery management plans also provided for removal of restrictions on exclusive area registrations, vessel size restrictions, and gear limits after October 31 to increase late season production if the late season GHL was not expected to be attained.

In 1998 and 1999, further refinements were made to the original Pacific cod management plans. In 1998, the BOF added an 85% allocation of the area GHL to the pot fleet in the South Alaska Peninsula. The Chignik Area was designated as a superexclusive registration area for the state-waters Pacific cod fishery in 1998. The board adopted language in 1999 that restricted pot vessels greater than 58 feet in length to 25% of the total Kodiak Area GHL before September 1. Also in 1999, the board established a 15% allocation for jig gear in the Chignik Area; and an April 15 fishery opening date to both pots and jigs and an August 15 rollover to pot gear for any unharvested portion of the jig allocation. Clarification was added to the gear definitions of hand troll and jig gears. Jig vessels were also limited to 30 hooks per line or not more than 150 hooks on one line used in a continuous loop.

In 2001, uncertainty about how federal fisheries might be restructured following release of the Endangered Species Act Section 7 consultation; Biological Opinion and Incidental Take Statement (BiOp) on Steller sea lions prompted the BOF to restructure the state-waters Pacific cod fisheries. The BOF mandated that state-waters seasons would remain open after their

regulatory opening in the spring until area GHLs were fully attained or the season closed by regulation on December 31. State waters would not reopen to a parallel season if a federal fishery opening occurred and there was still state-waters GHL available. This measure was adopted as an interim measure for the year 2001 and has been retained for 2002.

### **2001 Westward Region State-waters Pacific Cod Fisheries**

The 2001 season was the fifth year of fishing under the state water Pacific cod management plans in the Westward Region. Two hundred seventy vessels harvested over 21.2 million pounds (9,597 mt)<sup>2</sup> of Pacific cod. The 13.4 million pound GHL in the South Alaska Peninsula Area was attained while fisheries in the Kodiak and Chignik Areas did not achieve their GHLs. The approximate total exvessel fishery value was \$6.5 million (Table 2). The largest catches came from Sanak Island, Morzhovi Bay, Nagai Island, Chignik Bay, and from the west and south sides of Kodiak Island (Figure 5).

**Kodiak Area.** A GHL of 10.6 million pounds (4,809 mt) of Pacific cod for the Kodiak Area state-waters fishery was announced by news release on January 25, 2001. The fishery began March 11, 2001, seven days after the closure of the federal and parallel Central Gulf of Alaska (CGOA) Pacific cod fishery. The opening date of the Kodiak Area fishery has varied over the first four seasons; the 2001 season opened on the same date as the 2000 season (Table 3).

The 2001 Kodiak Area fishery was characterized by fewer participants and less interest than in previous years. The number of vessels in the fishery dropped from 216 in 2000 to 109 in 2001 (Table 4). One vessel registered with both gear types over the course of the 2001 fishery. Weekly harvest rates were also lower than in previous seasons. In the first four weeks of the fishery, historically the time of the greatest pot gear harvest in the Kodiak Area, only 108 pot landings occurred. This compares to 200 in 2000 and 180 in 1999 during the same period. From 1997 through 1999, the 50% of the GHL allocated to pot gear was completely attained within the first six weeks of fishing. Jig gear production was similarly reduced during May, historically the best fishing time for that gear type. In May 2001, one hundred seventy two jig landings occurred, down from 567 in May 2000 and 389 in May 1999. Weight of individual pot and jig landings decreased only slightly in 2001 however, with the average pot landing approximately 2,000 pounds lower than 2000 and jig landings less than 500 pounds lower from the previous year. Fuel cost remained high over the course of the fishery. Several operators stated that cod operations were simply not profitable in 2001.

Pot gear harvest averaged slightly over 350,000 pounds (167 mt) per week for the first month of the fishery (Figure 6). Harvest peaked in the third week of April, when 23 landings occurred for 536,592 pounds (243 mt). Harvest and participation declined quickly thereafter, and by the end of May, there were few vessels participating in the Kodiak Area pot fishery. Less than three vessels made landings with pot gear from May through September, resulting in confidential data. On September 1, the allocation between gear types and vessel size restrictions on pot gear vessels were rescinded. The pot limit and exclusive area designation was removed at the end of October, and the fishery remained open until the regulatory closure date of December 31. Approximately 200,000 pounds (91 mt) were landed during the last month of the fishery. About 80% of the 2001 pot gear harvest was taken with vessels 58 feet or less.

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<sup>2</sup> All weights refer to round pounds; at-sea discards are not included in harvest totals.

The Kodiak jig harvest was also reduced from the previous year due to fewer participants. Weekly harvest peaked in May, which has been the case in all previous fisheries. The middle week of May had a harvest of 168,374 (76 mt) pounds from 46 landings. Comparatively, the same week in 2000 produced a record harvest in the Kodiak Area of over 480,000 pounds (218 mt) from 168 landings. As usual, effort decreased when salmon fisheries opened in June. One Kodiak processor that had been the primary processor of smaller volume jig deliveries closed their operation in July. There were, however, a number of landings throughout the summer. Less than three vessels participated in most weeks so the harvest data remains confidential. Some effort occurred in early September but none thereafter.

A number of vessels home ported in Kodiak did not register when the fishery opened. Citing poor fishing in the parallel fishery, they decided to see which of the three state-waters fishing areas in the Westward Region would produce the best catches. As a result, some Kodiak vessels traveled to the South Alaska Peninsula to participate in the pot and jig fisheries there.

The total 2001 harvest of Pacific cod in the Kodiak Area from the state-waters fishery was 5.0 million pounds (2,283 mt) taken with 109 vessels. The estimated exvessel fishery value was \$1.9 million. There were 3.6 million pounds (1,497 mt) taken with 35 pot vessels and 1.4 million pounds (560 mt) taken by 74 jig vessels (Table 4). One vessel fished both gear types. Thirty-four separate statistical areas were fished with the largest harvests coming from Kodiak's westside capes, the Alitak Bay area, and from Chiniak Bay near the city of Kodiak (Table 5, Appendix B).

The Kodiak Area attained the final GHL step-up increment in the 1999 fishery; therefore, the Kodiak Area will receive 12.5% of the 2002 CGOA Allowable Biological Catch for the 2002 fishery. The GHL for the 2002 fishery was set at 8.7 million pounds.

**Chignik Area.** A GHL of 6.0 million pounds (2,722 mt) of Pacific cod was set for the Chignik Area and announced by news release on January 25, 2001. The fishery opened on March 11, seven days following the closure of the CGOA (Table 6). Very little activity occurred in the Chignik Area because there was no local processor available until the second week of April. Less than three participants began fishing when the area opened. Harvest data from this period remain confidential.

Pacific cod were landed by 16 pot vessels in 2001 (Table 7). The peak of the pot gear harvest occurred in the second week of April when 31 landings resulted in 503,349 pounds (228 mt). Participation began to decline thereafter and weekly landings declined proportionately.

The number of participants in the Chignik Area jig fishery increased from five in 2000 to 18 in 2001. Individual landings averaged over 8,000 pounds (4 mt) and the last week of May produced the largest weekly harvest of over 53,000 pounds (24 mt).

A salmon strike during the first few weeks of June resulted in continued participation in the pot and jig fisheries in the Chignik Area. After the salmon strike was resolved, both fishers and processors switched exclusively to salmon. There was no jig effort in the Chignik Area after June. The gear allocation rollover occurred on August 15.

The total harvest from the 2001 Chignik state-waters Pacific cod fishery was 2.6 million pounds (1,179 mt) from 192 landings (Table 7). Pot gear harvested 2.2 million pounds (998 mt) from

119 landings. Seventy-three (73) jig gear landings totaled 377,355 pounds (171 mt). The approximate exvessel fishery value was \$705,678. Harvests were spread throughout the area with landings reported from ten statistical areas (Table 8, Appendix C). The majority of the harvest came from the statistical area 585601, which generally approximates Chignik Bay.

The 2001 Chignik Area Pacific cod fishery harvested 42% of the preseason GHL. The fishery did not achieve the harvest necessary to receive a larger allocation in 2002. The 2003 GHL will again be 7% of the Central Gulf ABC as set by the NPFMC. The GHL for the 2002 fishery was set at 4.9 million pounds.

***South Alaska Peninsula Area.*** A GHL of 13.4 million pounds (6,078 mt) of Pacific cod was set for the South Alaska Peninsula Area and announced by news release on January 25, 2001. The state-water Pacific cod fishery opened on March 6, 2001, seven days following the closure of the WGOA federally-managed Pacific cod season (Table 9). A preseason strike was held by vessel operators bargaining for a higher price per pound. This delayed the start of fishing until the third week of March.

Daily pot gear harvest rates ranged widely from approximately 25,000 pounds (11 mt) to over 1,000,000 pounds (454 mt). The pot gear allocation was harvested very quickly. After the strike was settled the fishery lasted roughly four weeks. A closure was announced for April 13. A liberal projection of the pot gear harvest indicated that the 11.4 million pound pot gear allocation would be taken. The liberal projection was done to ensure that jig gear would be afforded the opportunity to harvest 2.0 million pounds or 15% of the total GHL. The final harvest figure from pot gear was 10.4 million pounds (4,717 mt) from 310 landings, about one million pounds short of the 85% goal (Table 10). The fishery averaged 3.5 million pounds per week during the last 3 weeks.

Several area processors and pot fishery participants voiced displeasure with the spring harvest from pot gear falling 1.0 million pounds short of the goal. Many felt that jig gear would not be able to harvest the remaining 3.0 million pounds before scheduled federal WGOA Pacific cod fisheries in the fall. Given the recently implemented interim BOF provision to keep state waters open unless the entire state-waters GHL had been taken, many felt that opportunities to participate in a fall parallel fishery may not occur because jig allocation would still be available. This problem did not materialize as the entire GHL would be attained well in advance of the fall parallel opening.

The South Alaska Peninsula Area jig fishery opened concurrently with pot gear on March 6. No jig vessels registered or participated until the first week of April. Unlike previous years, effort increased rapidly. Several vessels home ported in other parts of Alaska traveled to the South Alaska Peninsula Area to participate in the 2001 jig fishery. The number of vessels landing Pacific cod increased from 28 in 2000 to 70 in 2001. Landings in the first week of May exceeded 400,000 pounds (181 mt). Several vessels arriving in the area for salmon fisheries registered and began participating. In the last week of May, 57 deliveries totaling nearly 600,000 pounds (272 mt) were landed an amount unprecedented in any state-waters Pacific cod jig fishery. It quickly became apparent that 3.0 million pounds would be harvested with jig gear before federal fishery opening in the fall.

In early June, several jig vessels began preparing for salmon fishing and reduced their effort for Pacific cod. A strike for salmon price prompted continued but somewhat decreased effort in the Pacific cod jig fishery. Harvest remained at comparatively high levels. Approximately 400,000 pounds a week (181 mt) were landed in the last week of May and first week of June. When cumulative harvest reached 2.8 million pounds (1,269 mt), processors began reporting landings daily. A closure was projected and announced for June 12. The final harvest with jig gear was 3,121,161 pounds (1,415 mt) from 417 landings with 70 vessels participating.

Total harvest for both gear types for the South Alaska Peninsula Pacific cod fishery was 13,511,988 pounds (6,129 mt) and cleared the way for fall parallel Pacific cod fishing. Landings were reported from thirty-one statistical areas with major catches harvested near Sanak Island and dispersed around the Shumagin Islands near Sand Point (Table 11, Appendix D). The South Alaska Peninsula Area fishery achieved the final GHL step up increment in 2001, and the GHL in subsequent years will be 25% of the Western Gulf ABC for Pacific cod. The GHL for the 2002 fishery has been set at 12.4 million pounds.

### **State Fishery Harvest Monitoring**

The department monitored the state-waters Pacific cod harvest in 2001 in the same manner as in previous years. Dockside sampling took place in the ports of King Cove, Sand Point, and Chignik during the first few months of the season when fishing effort and harvest rates were highest, and in Kodiak during the entire season. Port samplers conducted confidential interviews with vessel operators to obtain information on catch location, catch per unit effort, bycatch, and fishing effort. Samplers recorded fish length, reproductive status, and average weights, and removed otoliths for later analysis in the aging laboratory. ADF&G personnel were also opportunistically placed on two commercial vessels as observers to collect biological data and bycatch information.

Length frequency data has been collected every year during the state-waters fisheries. Data collected in 2001 did not differ greatly from data collected in previous years. In the Kodiak Area, sampled Pacific cod averaged 65.0 centimeters (cm) (Figure 7). Fish sampled from the Chignik Area averaged 65.2 cm in length. The average length for Pacific cod that were sampled in the 2001 South Alaska Peninsula Area was 68.5 cm. Pacific cod lengths sampled from jig gear averaged 64.4 cm in length while fish sampled from pot gear averaged 64.6 cm in length (Figure 8).

Average fish weights were calculated from data collected by dockside samplers. Sampled Pacific cod harvested with pot gear in the South Alaska Peninsula averaged 7.2 pounds; data on jig gear was not available. Average weights for the Kodiak Area harvest were 6.8 pounds for pot gear and 7.2 pounds for jig gear. A sample of Chignik Area fish harvested in pots averaged 7.8 pounds while those sampled from the jig catch averaged 7.9 pounds.

Otolith collections provided 3,718 pairs for aging from the Kodiak, Chignik, and South Peninsula Management Areas during the 2001 state-waters Pacific cod seasons. Analysis of the 2001 otolith age data has not been completed. Analysis of otolith data from the 1998 state-waters fishery shows that ages for Pacific cod ranged from 3 to 12 years with average ages of 5.6, 6.8, and 6.4 for Kodiak, Chignik, and South Alaska Peninsula. The six-year old age class was the

predominant age class sampled from these areas. Age analysis of subsequent collections is ongoing.

Reproductive condition of Pacific cod has been assessed during each state-waters fishery since 1997 by ADF&G dockside samplers. The height of the 2001 Kodiak Area spawning period appeared to be later in the year and more protracted than in 1997 and 1998 and was very similar to the period seen in 1999 (Figure 9). Spawning in the Chignik Area was protracted with spawned fish observed as late as May. In both the Kodiak and Chignik Areas, the spawn timing of Pacific cod may have influenced catch rates for pot gear. In 1997 and 1998, spawning events appear to be strongly correlated to higher harvest rates in the Kodiak and Chignik Areas. Data from the South Alaska Peninsula shows the 2001 pot fishery was prosecuted while approximately 75% of the fish sampled were in spawning condition with ripe milt and eggs. However, harvest rates in the South Alaska Peninsula and Kodiak Areas differed substantially although the spawn timing appears to be similar. This suggests that spawning aggregations alone are not the only factors that influence harvest rates of Pacific cod.

### ***Black Rockfish***

#### **Historic Background**

Black rockfish were of low market value and not generally harvested commercially in the Kodiak area until 1990. The catch jumped to 874,718 pounds (381 mt) in 1991 as operators fished previously unexploited populations (Table 12). Fishers primarily targeted black rockfish with jig gear but some bycatch occurred in longline and trawl fisheries. Effort was concentrated in areas easily accessible to the city of Kodiak. Fishery production fell sharply in the following years presumably due to low abundance. Lower prices and alternative fisheries may have been additional factors that limited production after 1991. ADF&G was also concerned that localized depletion could occur easily on this long-lived, low-fecundity species. Harvests during the 1992-1997 period averaged 250,000 pounds (109 mt) per year from the Kodiak Area.

Stocks along the Alaska Peninsula were initially targeted in 1995. Fishers worked in areas near the port of Sand Point and east to Mitrofanina Island. The highest catch occurred in 1996 with over 360,000 pounds (157 mt) total taken from the Chignik and South Alaska Peninsula Areas (Table 13 and 14).

Black rockfish fisheries were managed by NMFS prior to 1997 as part of the pelagic shelf rockfish group that included dusky *Sebasts ciliatus*, yellowtail *S. flavidus*, and widow rockfish *S. entomelas*. The dusky rockfish is the most abundant species in the group and predominated NMFS survey catches in the GOA. An annual ABC largely supported by dusky rockfish biomass estimates was assigned to the entire group, placing few restrictions on the take of individual species within the group. ADF&G was concerned with the harvest of black rockfish in several areas during that period; in some cases the department closed state waters by emergency order, but adjacent federal waters did not close in these instances. Although the majority of the black rockfish resource is in state waters, enforcement of closures became a problem. Landings continued with federal statistical areas reported on fish tickets. Those reports were not always credible.

ADF&G submitted a Fisheries Management Plan amendment to the NPFMC that would relinquish black rockfish management within state waters and the EEZ in the GOA to the state. This amendment was passed and implemented effective April 5, 1998. As an interim measure, the NPFMC separated black rockfish from the pelagic shelf group in 1997. This enabled federal fishery managers to place a 573,201 pound (260 mt) ABC on black rockfish in the CGOA. The ABC was based on the council's Tier 6 guidelines, which apply to fisheries with little stock assessment information. Harvest limits were set at 75% of average production from 1978-1995.

ADF&G fishery managers applied this limit to fisheries in Cook Inlet, Kodiak, and Chignik Areas when setting preseason guidelines in 1997. The NPFMC was in the process of delegating authority to the state, so these limits were set as an interim measure. They were, however only enforceable in state waters. Harvest levels were set low enough to accommodate potential black rockfish bycatch<sup>3</sup> in other fisheries and not exceed the 573,201 pound (260 mt) total. Assigning GHLS to areas within the CGOA was aimed at distributing effort and avoiding intense localized fishing that could lead to long-term harm on the stocks. In 1997, the total directed harvest GHL for the Kodiak Area was set at 170,000 pounds (77 mt). The GHL was further divided into four sections; three that encompassed the areas of historic harvest and one additional section for the rest of the area with a low GHL to allow for exploratory fishing. The Chignik Area directed harvest GHL was set at 100,000 pounds (45 mt) and the South Alaska Peninsula Area was assigned a 100,000 directed harvest GHL (45 mt) as well. The 1996 fishery took a combined 360,000 pounds from these two areas.

In 1998, the Kodiak Area was further subdivided into seven sections with individual directed GHLS. The areas were loosely based on existing Tanner crab management sections with modification to divide the area into sections that equally divided the highest effort. The Chignik and South Alaska Peninsula Areas remained as individual management units. The areas and sections established for the 1998 fishery have remained in use through 2001 (Figure 10).

### **2001 Kodiak Area Fishery**

The fishery opened with the federal groundfish seasons on January 1, 2001. The department issued a news release on February 5, 2001 specifying a directed fishing GHL of 185,000 pounds (83 mt) for the Kodiak Area. The Kodiak Area GHL was further divided into seven fishing sections to distribute the catch (Table 15).

A trend has emerged in the black rockfish fisheries over the past few seasons with directed effort beginning earlier each year. In 2001, the majority of the harvest in the Kodiak Area occurred in March. Five of the seven Kodiak sections closed between the onset of effort in late February and March 29.

The Northeast Section closed on February 23, 2001. Eight vessels made directed landings of black rockfish for a total of 22,697 pounds (8 mt). In previous years, the Northeast Section was also the first section to close, owing to its proximity to the city of Kodiak and areas accessible to smaller vessels in moderately foul weather. In contrast to previous years, the Northeast Section closed to directed harvest before the state-waters Pacific cod fishery opened.

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<sup>3</sup> Black rockfish bycatch is allowed at 5% of the target species weight.

The Eastside Section closed next, on March 6, 2001. Seven vessels made directed landings totaling 38,769 pounds (18 mt). This exceeded the directed GHL by 22% with nearly 25,000 pounds (11 mt) of the directed harvest taken in a 24-hour period. Individual landings ranged as high as 12,000 pounds (5 mt).

Effort was divided between the Afognak and Southeast Sections after the closure of the Eastside Section. Again, favorable weather and good catches resulted in a 24-hour period with a tremendous harvest. In the Southeast Section, over 30,000 pounds (14 mt) were delivered in one day. The directed harvest totaled 52,605 pounds (24 mt) and the section was closed on March 19, 2001. Seven vessels participated in the directed fishery. More vessels participated in the Afognak Section, but harvest rates were slower and were lower than previous years. With deliveries averaging approximately 1,000 pounds (0.5 mt), the Afognak Section closed on March 20. During the last part of March, several complaints were made to ADF&G that vessels were misreporting their harvest by stating that their catch came from open areas while actual fishing occurred in closed waters. Efforts at confirming or disconfirming these reports were unsuccessful, largely because the complaints were made too long after the fact to launch enforcement actions.

Effort was slower in the Southwest Section. Many vessels targeting black rockfish switched to fishing for Pacific cod in the state-waters season or moved to Chignik and the South Alaska Peninsula Areas. The section closed on March 29 with 9,501 pounds (4 mt) harvested. The directed harvest was well under the GHL. Several vessels believed to be fishing in the section when the closure was projected did not catch as much as expected or were simply not fishing in the section.

Sporadic effort occurred in the Mainland and Westside Sections following the closure of the Southwest Section. Historically, minimal effort has occurred in these two sections. In May, some vessels en route to the Chignik Area fished the Mainland Section and harvested the remaining GHL. The Mainland Section closed on May 22. Two vessels finished up the Westside GHL in July, with the fishery closing on July 30. This represented the first time since state management of black rockfish began that all seven of the Kodiak Area directed GHL sections had closed.

Previous Kodiak Area black rockfish fisheries were characterized by a large number of vessels participating with small average deliveries, often less than 500 pounds (0.2 mt). Much of the black rockfish quota was harvested during the state-waters Pacific cod fishery. During the 2001 fishery, there were fewer participants with an increase in the average pounds per landing. This can be attributed to a small number of vessels making large directed landings, some exceeding 12,000 pounds (5 mt). Fifteen vessels made directed harvest landings of black rockfish in the 2001 Kodiak fishery. This was a reduction from the 49 vessels that had fished black rockfish in 2000. The average directed harvest landing was 2,275 pounds (1 mt) compared to just under 2,000 pounds (0.9 mt) in 2001.

Other trends have emerged in the past few seasons in the Kodiak Area as well. Vessels have started fishing earlier in the year each year since 1996. In 2001, some harvest occurred prior to the opening of the state-waters Pacific cod fishery on March 21 (Figure 11). The 2001 fishery harvested more than 100,000 pounds (45 mt) before the state Pacific cod season opened on March 11. Again, this was due to small group of vessels that began targeting black rockfish early and with great success.

As was the case in 2000, several vessels were able to make very large individual landings in a short period. Predicting these times was not possible as vessels fishing for black rockfish were not required to register for sections nor was it possible to keep a radio schedule with the fleet to obtain updated information from the grounds. On any day, it was not known what portion of the jig fleet was fishing or targeting black rockfish. Many of the participating vessels were small and did not have single side band radios. In some cases, periods of short, intense harvest caused section GHGs to be exceeded even when checking with processors on a daily basis. The variability in daily landing volume illustrates the sporadic nature of total fishery effort (Figure 12). There were several days when the directed harvest exceeded 10,000 pounds (5 mt). The 2001 Kodiak black rockfish harvest totaled 225,877 pounds taken by 55 vessels. The harvest came from 44 statistical areas throughout the area (Table 16).

ADF&G proposed several measures aimed at improving manageability of the Kodiak Area black rockfish fishery to the BOF. These include a single species registration so that directed effort can be anticipated, weekly trip limits so that large volume directed harvests are reduced to levels that hinder any section GHG from being taken on short notice, and section descriptions in regulation. These measures were adopted by the BOF in 2001 and will be implemented in the 2002 fisheries. The department intends to implement section registration if needed, to limit harvest to preseason GHGs.

### **2001 Chignik Area Fishery**

The first reported landings in the 2001 Chignik Area black rockfish fishery occurred in early April. During that month, weekly harvest was characterized by landings from several vessels of generally less than 200 pounds (0.1 mt) per delivery. Periodically, larger deliveries exceeding 1,000 pounds (0.5 mt) were landed. These larger deliveries were primarily made from boats that targeted black rockfish in the Kodiak Area and were moving west following closures in many of the Kodiak sections.

The first week of May was the first of many where the total landings exceeded 10,000 pounds (5 mt). Again, these landings were primarily from a group of vessels specifically targeting black rockfish rather than Pacific cod. In some cases, these boats were fishing in both the South Alaska Peninsula and Chignik Areas under a Westward Region Groundfish Registration and delivering in excess of 20,000 pounds (9 mt) combined from the two areas. Bycatch of black rockfish delivered from state-waters Pacific cod fisheries continued at a rate of a few hundred pounds per delivery. The cumulative Chignik Area harvest was approximately 30,000 pounds (14 mt) after the first week of May.

Harvest rates varied widely throughout May, with a total of approximately 60,000 pounds (27 mt) being taken for the month. In early June, two large deliveries occurred that brought the total harvest to approximately 87,000 pounds (39 mt). With favorable weather on the grounds and the expectation that additional large deliveries would occur, a closure was announced for June 5, 2001.

The final harvest from fishticket data was 102,904 pounds (47 mt) which included bycatch landings. The majority of the 2001 catch came from eight vessels directing their effort on black rockfish. The total directed harvest in 2001 was 101,151 pounds (45 mt). The average delivery was 2,940 pounds (1 mt); bycatch deliveries averaged 219 pounds (0.1 mt) while directed harvest

deliveries averaged 3,746 pounds (2 mt). The entire Chignik Area catch was harvested by vessels using jig gear.

The 2001 Chignik Area black rockfish fishery closed on June 5, the earliest closure on record. Nearly 85% of the harvest was taken by operators directing their effort towards black rockfish. Many of the directed effort vessels were boats that participated in all the black rockfish fisheries in the Westward Region. A highly variable daily landing rate also challenged management. The 100,000 pound (45 mt) GHL, provided more margin in accommodating larger volume deliveries than Kodiak area sections. Several vessels participated simultaneously in the South Alaska Peninsula Area and in the Chignik Area. These same vessels often delivered in different locations, making it difficult to know when or where they might be fishing and where their next deliveries would occur. Registration requirements for 2003 will help address these issues. The BOF limited the Chignik Area fishery to jig gear only, required a black rockfish specific registration, and designated the area as superexclusive for black rockfish.

ADF&G received several accusations concerning operators that may have misreported harvest locations. These instances were brought to the attention of the Division of Public Safety, Fish and Wildlife Protection (F&WP), however no citations were issued.

### **2001 South Alaska Peninsula Area Fishery**

The first reported landings in the 2001 South Alaska Peninsula black rockfish fishery occurred in early April, concurrent with the first jig landings of state-waters Pacific cod. The 2001 GHL, announced by news release on February 5, was 100,000 pounds (45 mt). The black rockfish fishery weekly harvest remained below 2,000 pounds (1 mt) for the first month of landings. No vessels targeted rockfish but there was incidental catch from the Pacific cod fishery.

In early May, weekly harvest increased to over 5,000 pounds (2 mt) due to effort directly targeting black rockfish. Also, the participation and weekly harvest rates were increased dramatically in the state managed Pacific cod fishery. The amount of bycatch black rockfish deliveries increasing proportionally. During the second week of May, several vessels that participated in the directed black rockfish fisheries in the Kodiak and Chignik Areas arrived in the South Alaska Peninsula Area. Weekly harvest rates increased significantly as individual landings in excess of 2,500 pounds (1 mt) occurred on a regular basis. By mid May, over 70 vessels were participating in the state-waters Pacific cod fishery and many were making bycatch landings of black rockfish. Five vessel operators were directing their effort towards black rockfish. The cumulative rockfish harvest was approximately 44,000 pounds (20 mt).

As the fishery entered June, landings from vessels used to target black rockfish averaged slightly over 5,500 pounds (3 mt) each. This effort, along with steady bycatch deliveries quickly increased the total harvest towards the 100,000 pound (45 mt) GHL. A closure was announced for June 7. Final harvest data from fishtickets indicates the total 2001 harvest tallied 105,896 pounds from 85 landings and 32 vessels. The average landing in the South Alaska Peninsula Area fishery was 1,246 pounds (0.5 mt).

The 2001 fishery was managed inseason from weekly processor reports for most of the fishery. When the weekly harvest rate increased following the entry of vessels directing their efforts towards black rockfish, processors were requested to submit reports on a more frequent basis.

Daily reports and information from plant managers were used in the final projections leading up to the closure announcement.

Managing the fishery from landing information entailed some difficulties. The current vessel registration structure does not give clear indication of which vessels are actively participating. At times, eligible rockfish vessels delivered loads consisting of entirely of rockfish, a mixture of rockfish and cod, or strictly cod. Individual landings varied from under 20 pounds to over 8,000 pounds and trip length ranged from one to five days. Most of the vessels participating in the black rockfish fisheries of the Westward Region are small, ranging in the South Alaska Peninsula from 17' skiffs to 58' salmon seiners. The participating vessels do not keep a radio schedule with processors or ADF&G regarding delivery timing. These factors can make inseason harvest projections difficult.

The South Alaska Peninsula Area is open for groundfish management proposals during the 2003/04 BOF cycle. The department intends to submit proposals similar to those developed for the Kodiak and Chignik Areas to make management of the fishery smoother.

### **Harvest Monitoring**

Black rockfish harvests are monitored through fish ticket records and dockside sampling of commercial catches. Information collected by dockside samplers includes fishing location and effort as well as fish length, sex, reproductive maturity and otoliths collection for aging. The 2001 harvest was spread throughout the region with catch recorded from 74 statistical areas (Table 16). Harvests were higher off the eastside of Kodiak Island, east of Chignik Bay and near the Shumigan Islands (Figure 13). Mean size of black rockfish sampled from landings in the region was 45.9 cm. The largest fish were harvested in the Kodiak area (Figure 14).

### ***Sablefish***

Sablefish harvest in state waters is managed separately from the federal IFQ program. Habitat for mature sablefish is extremely limited in Westward Region state waters. These fish generally prefer deeper waters of the continental slope. Stocks are not abundant in state waters of the Kodiak or Chignik, or the Eastern District of the South Alaska Peninsula Area. A directed fishery in these management areas has not been allowed. A 1% bycatch has been allowed in other fisheries; this allocation is managed by NMFS in both state and federal waters. A fishery in the Western District of the South Alaska Peninsula Area is managed as part of the Aleutian Islands state water fishery. The 2001 harvest of sablefish taken as bycatch from state waters in the three areas, excluding the South Alaska Peninsula Western District directed fishery, totaled 7,703 pounds (3.5 mt).

### ***Lingcod***

Current regulations in the Kodiak and Chignik Areas restrict lingcod harvest to the period from July 1 to December 31 and require fish to be a minimum of 35 inches in total length. These regulations are designed to eliminate fishing during the nest-guarding period and to ensure that only mature fish that have had at least one spawning opportunity are harvested. There are no

similar regulations in the South Alaska Peninsula Area as the abundance of lingcod appears significantly lower in that area. Currently, all commercial gear types are legal to use in the take of lingcod. Regional registration is required for vessels intending to target lingcod. Harvest primarily occurs in rocky, reef areas, although large catches are periodically taken in offshore trawl fisheries. Lingcod are an important species to sport fisheries in the Kodiak Area and annual harvest is approximately 1,700 fish (Donn Tracy, ADF&G, Division of Sportfish, personal communication).

Lingcod have generally not been the target of directed fishing in the region. The catch to date occurs primarily as bycatch in other fisheries, although directed harvest with jig gear has occurred sporadically. The highest harvest 136,000 pounds (60 mt) was taken in 1988, primarily from several trawl hauls (Table 17). The 2001 harvest was 12,686 pounds (6.0 mt). Lingcod catch occurs in jig, pot, longline, and trawl gear (Table 18).

Data are needed on the distribution and catch per unit effort of lingcod in the commercial fishery. The department has set a short-term goal of conservative management until further information of the sustainability of lingcod harvest can be determined. A long-term goal is to determine an acceptable biological catch level.

## PARALLEL PACIFIC COD FISHERIES

### *Introduction*

State waters were opened for a parallel Pacific cod fishing season concurrent with the federal season managed by NMFS. Pot, longline, and jig gears were legal gear types beginning January 1. Trawl gear was allowed beginning January 20, but trawl operators generally target walleye pollock in January and early February. In addition, most state waters in the Westward Region are closed to non-pelagic trawling, the trawl type used to direct effort on Pacific cod. During directed fishery openings, 100% of Pacific cod and walleye pollock must be retained under state regulation 5 AAC 28.075 UTILIZATION OF POLLOCK AND PACIFIC COD TAKEN IN A COMMERCIAL FISHERY. Federal regulation, 50 CFR 679.B.27 INCREASED RETENTION/ INCREASED UTILIZATION PROGRAM, contains similar language requiring full retention of these species during directed fisheries (Beardon 1999). During directed fishery closures, maximum allowable Pacific cod and walleye pollock bycatch percentages must be retained under a prohibited species designation by NMFS, typically set at 20% by target species weight.

During the parallel season, vessels that are not LLP eligible may participate inside state waters. However, to participate beyond three nautical miles, vessels must have a specific species, gear, and area endorsement from NMFS.

Several actions were taken by NMFS during 2001 in response to the BiOp issued in November of 2001. Actions taken to mitigate the effect of commercial fishing effort on Steller sea lions (SSL) changed widely over the course of the year and are best understood by referencing the appropriate federal documents. The State of Alaska sought to minimize the impact of the SSL measures in the parallel fishery by endorsing all sea lion rookery closures but not recognizing haul out listings.

Fishery statistics compiled by NMFS show Pacific cod landings from the GOA beginning in 1964 with the highest harvests occurring during the early 1990s. Catches since 1977 have averaged approximately 97.5 million pounds (44,223 mt) per year. Harvest figures for 2001 show a Central and Western GOA catch of approximately 107.6 million pounds (48,900 mt) with 60% coming from the CGOA and 40% from the WGOA (Figure 15). The harvest of Pacific cod from state waters during parallel seasons within the CGOA and WGOA has ranged from 12.2 million pounds (5,500 mt) in 1989 to 53.8 million pounds (24,410 mt) in 1999. The 2001 state waters harvest was 33.9 million pounds (15,400 mt) from the Central and Western GOA areas (Table 19). The 2002 ABC for Pacific cod in the Gulf of Alaska was reduced 15% from the previous year (Thompson et al, 2001).

### **2001 Kodiak Area Fishery**

The waters of the Kodiak Area, part of the CGOA, closed to directed fishing for the inshore processing component on March 4, 2001. The state-waters Pacific cod fishery opened seven days following and remained open to December 31. The federal CGOA reopened to Pacific cod fishing on September 1, 2001. However, as the total state-waters GHF had not been harvested, state waters did not reopen to a parallel fishery as stipulated in the Pacific cod management plan. The harvest of Pacific cod from state waters of the Kodiak Area in the 2001 parallel fishery totaled 5.7 million pounds (2,590 mt; Table 20). Pot gear accounted for the majority of harvest in the Kodiak fishery, with approximately 3.0 million pounds harvested (1,360 mt). Longline gear also contributed a significant portion of the Pacific cod production. The trawl harvest of Pacific cod was well below levels taken prior to the implementation of SSL measures. In addition to SSL restrictions, additional areas of state waters were closed to non-pelagic trawling beginning in 1999 by the BOF. The majority of Pacific cod harvest with trawls occurred as bycatch during directed flatfish fisheries on the westside of Kodiak Island where there are two seasonal non-pelagic trawl openings.

### **2001 Chignik Area Fishery**

The parallel season in the Chignik Area closed to directed fishing for the inshore processing component on March 4, 2001. As was the case in the Kodiak Area, the state-waters GHF had not been fully attained when the scheduled federal reopening of the CGOA occurred on September 1. Therefore, state waters remained under state-waters rules while the federal fishery opened beyond three nautical miles from shore. The 2001 parallel fishery catch from state waters of the Chignik Area was 302,099 pounds (136 mt) (Table 21). Pot gear accounted for the majority of harvest in the Chignik Area, with about 200,000 pounds (108 mt).

### **2001 South Alaska Peninsula Area**

The inshore processing component of the "A" season directed Pacific cod fishery in the federal WGOA, which includes the South Alaska Peninsula Area, closed on February 27, 2001. The state-waters fishery GHF was fully attained by September 1, so state waters reopened to a parallel fishery on that date and stayed open for the remainder of the year. The total 2001 harvest of Pacific cod from state waters during the parallel fishery was 6.0 million pounds (2,086 mt; Table 22). A significant reduction in the amount of Pacific cod harvested with trawl gear occurred in 2001. This stems largely from the SSL protection measures that dramatically reduced the near-shore areas available for trawling. The majority of vessels in the South Alaska Peninsula

parallel fishery were 58 feet overall length or smaller. Pot gear harvest also declined from 5.3 million in 2001 to 3.3 million pounds in 2000.

## **PARALLEL WALLEYE POLLOCK FISHERIES**

State waters opened for a parallel walleye pollock fishing concurrent with federal seasons managed by NMFS. Harvest quotas were released in four openings during 2001 and were designated A, B, C and D Seasons (Table 23). The catch was primarily retained with pelagic trawl gear, although other types of gear are legal. State water harvest of pollock from the CGOA increased to 21% of the total harvest up from only 4% in the previous year (Table 24). The proportion of Western GOA harvest that came from State waters was 74% in 2001, similar to the previous year. Much of the catch came from Unga Strait, only a short distance from the Sand Point processing facility (Figure 16). The harvest from the South Alaska Peninsula Area was the highest for all areas at 48.9 million pounds (22,200 mt; Table 25). The Kodiak Area harvest rose to 17.7 million pounds (8,050 mt) from 4.6 million the previous year.

### *Miscellaneous Groundfish*

Other species of groundfish harvested in state waters during 2001 parallel fisheries include Atka mackerel, Pacific Ocean perch, dusky rockfish, flathead sole, arrowtooth flounder, yellowfin sole, rock sole, English sole, and various skate species (Table 1). These fish were primarily taken in trawl fisheries but were occasionally captured incidentally by other gear types. A total of 2.1 million pounds (610 mt) of miscellaneous groundfish species were landed from state waters in the Kodiak, Chignik, and South Alaska Peninsula Areas during 2001. Exploitation of skates and flatfish has been limited primarily because non-pelagic trawls are prohibited in most state waters and longline halibut bycatch allowances are taken up by the Pacific cod fishery. Other harvest methods have not proven economically effective to capture flatfish.

### *Non-Pelagic Trawl Closures*

There has been a patchwork of time and area closures to non-pelagic trawl gear around Kodiak Island and along the Alaska Peninsula. Generally, bays have been closed year round (Figure 17). Most of the current trawl closures were adopted in 1986. Modifications occurred in 1993, when the BOF created a non-pelagic trawl fishery that required 100% observer coverage in Marmot Bay and South Sitkalidak Strait. Crab bycatch limits were established and vessels were required to report to ADF&G daily. Additional changes occurred in 1994 and 1995 when the BOF opened state waters near Castle Rock and Sanak Island.

Non-pelagic trawling was considered again during 1999 with public proposals to close all state waters in the Kodiak and Chignik Areas. The BOF adopted those proposals with the exception of a strip along the westside of Kodiak Island, which was left open seasonally from January 20 to April 30. This seasonal opening of state waters was left in place to allow non-pelagic trawls access to flatfish resources during parallel seasons. Additional closure areas in 1999 included state waters along the Alaska Peninsula from Cape Kumlik to Cape Douglas, Marmot Bay and South Sitkalidak on Kodiak Island, and areas off Sitkinak and Ugak Islands.

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Table 1. Kodiak, Chignik, and South Alaska Peninsula Areas state water groundfish harvest, 2001.

Species	Kodiak		Chignik		South Alaska Peninsula		Total <sup>a</sup>	
	Pounds	Vessels	Pounds	Vessels	Pounds	Vessels	Pounds	Vessels
Walleye pollock	17,330,676	91	375,084	4	48,543,341	49	66,249,101	144
Pacific cod	10,552,072	389	2,815,799	37	19,450,555	178	32,818,426	604
Arrowtooth flounder	761,550	49	9,972	4	343,799	25	1,115,321	78
Black rockfish <sup>b</sup>	225,877	55	102,904	14	105,896	32	434,677	87
Flathead sole	64,413	23	4,063	4	137,165	23	205,641	50
Other <sup>c</sup>	132,629	27	--Confidential--		3,473	23	136,102	50
Rock sole	97,015	40	0	0	1,758	4	98,773	44
Skate	40,431	40	0	0	0	0	40,431	40
Greenland turbot	15,650	4	0	0	8,445	10	24,095	14
Dusky rockfish	21,983	8	1,148	4	--Confidential--		23,131	12
Lingcod <sup>b</sup>	12,686	7	0	0	0	0	12,686	7
Rex sole	9,269	18	--Confidential--		2,946	18	12,215	36
Sablefish	7,488	15	0	0	215	7	7,703	22
Shark	3,831	16	0	0	0	0	3,831	16
Yelloweye rockfish	3,078	35	287	3	333	3	3,698	41
Sculpins	1,893	5	0	0	407	8	3,558	22
Alaska plaice	1,828	7	0	0	0	0	1,828	7
Starry flounder	629	3	0	0	--Confidential--		899	9
Shortraker rockfish	461	5	--Confidential--		397	3	858	8
Rougheye rockfish	717	9	54	3	56	8	827	20
Butter sole	278	5	0	0	--Confidential--		278	5
Shortspine thornyhead	191	3	--Confidential--		53	4	244	7
Dover sole	--Confidential--		0	0	0	0	0	0
Northern rockfish	--Confidential--		0	0	0	0	0	0
<b>Total</b>	<b>29,284,645</b>		<b>3,309,311</b>		<b>68,598,839</b>		<b>101,194,323</b>	

<sup>a</sup> Confidential harvest not reflected in Westward Region totals.

<sup>b</sup> ADF&G manages black rockfish and lingcod in state and federal waters, therefore all harvest is reported here.

<sup>c</sup> Includes 14 miscellaneous species of groundfish.

Table 2. Catch, effort, value, and average weight from the Westward Region state-waters Pacific cod fisheries, 1997-2001.

Year	Vessels <sup>a</sup>	Landings	GHL <sup>b</sup>	Pounds harvested	Price/Pound	Fishery value	Avg. Weight (lbs.)
<b>Kodiak Area</b>							
1997	105	710	8.5	7,600,571	\$0.23	\$1,748,131	9.1
1998	129	979	8.1	8,279,269	\$0.23	\$1,904,232	8.5
1999	179	1,284	11.7	10,781,817	\$0.36	\$3,881,454	8.1
2000	216	1,824	12.0	8,635,207	\$0.38	\$3,281,379	7.5
2001	109	732	10.6	5,033,781	\$0.38	\$1,912,837	7.0
<b>Chignik Area</b>							
1997	12	74	5.9	1,143,261	\$0.18	\$205,787	7.5
1998	44	297	5.7	5,609,498	\$0.20	\$1,121,900	6.3
1999	43	450	8.2	6,454,215	\$0.22	\$1,419,927	6.4
2000	22	158	6.7	1,775,779	\$0.30	\$532,734	6.1
2001	34	192	6.0	2,613,624	\$0.27	\$705,678	7.9
<b>South Alaska Peninsula Area</b>							
1997	88	642	9.4	9,370,498	\$0.18	\$1,686,690	7.0
1998	69	421	9.0	8,639,769	\$0.17	\$1,468,761	7.3
1999	75	552	13.0	11,880,116	\$0.26	\$3,088,830	11.3
2000	94	671	15.1	15,133,686	\$0.29	\$4,388,769	6.8
2001	127	727	13.4	13,511,988	\$0.29	\$3,918,477	7.2
<b>Westward Region Total</b>							
1997	205	1,426	23.8	18,114,330	\$0.20	\$3,640,608	
1998	242	1,697	22.8	22,528,536	\$0.20	\$4,494,892	
1999	297	2,286	32.9	29,116,148	\$0.29	\$8,390,212	
2000	332	2,653	33.8	25,544,672	\$0.32	\$8,202,881	
2001	270	1,651	30.0	21,159,393	\$0.31	\$6,536,992	

<sup>a</sup> Some vessels used both gear types. <sup>b</sup> Guideline harvest level in millions of pounds.

Source: Alaska Department of Fish and Game fish ticket database.

Table 3. Kodiak Area state-waters Pacific cod fishery openings, 1997-2001.

	Pot Gear	Jig Gear
	<i>Fishery Dates:</i>	
1997	April 4 - May 4 September 1 - September 30 October 28 - December 31	April 4 - December 31 October 28- December 31
	<i>Management Actions:</i>	
	September 1 - reopened to pot gear October 31 allocation rollover - gear limits, exclusive registration area lifted.	
	<i>Fishery Dates:</i>	
1998	March 17 - April 27 September 1 - December 31	March 17 - December 31
	<i>Management Actions:</i>	
	September 1 - reopened to pot gear October 31 vessel size limit - gear limits, exclusive registration area lifted.	
	<i>Fishery Dates:</i>	
1999	March 21 - April 27 October 6 - December 31	March 21 - August 31 October 6 - December 31
	<i>Management Actions:</i>	
	October 6 - reopen to pot gear. (following CGOA opening) October 31 - gear limits lifted, exclusive registration area lifted.	
	<i>Fishery Dates:</i>	
2000	March 11 - December 31	March 11 - December 31
	<i>Management Actions:</i>	
	October 31 - limits on pots, jigs, and vessel size removed, exclusive registration area lifted.	
	<i>Fishery Dates:</i>	
2001	March 11 - December 31	March 11 - December 31
	<i>Management Actions:</i>	
	September 1 - reopen to pot gear. October 31 - limits on pots, jigs, and vessel size removed, exclusive registration area lifted.	

Table 4. Catch and effort by gear type from the Kodiak Area state-waters Pacific cod fishery, 1997-2001.

Year	Gear	Vessels	Landings	Pounds	Price per pound
1997	Jig	69	472	1,961,800	\$0.23
	Pot	38	226	5,458,536	\$0.23
1998	Jig	88	656	2,104,995	\$0.23
	Pot	50	311	6,316,635	\$0.22
1999	Jig	115	781	2,274,991	\$0.40
	Pot	84	475	8,541,161	\$0.34
2000	Jig	144	1,124	2,811,157	\$0.37
	Pot	72	479	5,726,905	\$0.38
2001	Jig	74	495	1,433,256	\$0.37
	Pot	35	237	3,600,525	\$0.38

Table 5. Catch by statistical area from the state-waters Pacific cod fishery in the Kodiak Area, 2001.

Statistical Area	Pounds	Vessels	Landings <sup>b</sup>
525701	435,551	39	140
525703	89,206	4	15
525731	122,826	17	43
525733	112,192	30	103
525803	47,051	3	5
525806	11,101	7	9
525834	109,217	4	6
535601	120,917	8	17
535631	336,189	22	103
535633	145,599	6	12
535634	147,269	6	15
535701	4,160	3	3
535703	19,334	4	5
535732	608,338	13	41
535733	5,658	3	3
535734	32,119	8	17
535803	202,235	11	24
545601	111,446	3	7
545632	567,591	9	43
545701	80,970	4	6
545733	476,473	3	26
545734	341,389	6	26
545802	127,685	3	10
545803	81,199	4	7
555732	42,346	3	3
Other <sup>a</sup>	655,720	13	43
<b>Total</b>	<b>5,033,781</b>		

<sup>a</sup> Total of 9 statistical areas.

<sup>b</sup> Some landings involve multiple statistical areas.

Source: Alaska Department of Fish and Game fish ticket database.

Table 6. Chignik Area state-waters Pacific cod fishery openings, 1997-2001.

	Pot Gear	Jig Gear
	<i>Fishery Dates:</i>	
1997	April 15 - June 15 August 1 - September 30 October 28- December 31	April 15 - June 15 August 1 - September 30 October 28- December 31
	<i>Management Actions:</i> October 31 allocation rollover-vessel size limit, gear limits, exclusive registration area lifted.	
	<i>Fishery Dates:</i>	
1998	April 1 - April 26	April 1- April 26 May 20 - December 31
	<i>Management Actions:</i> May 20 reopened to jig gear. October 31 allocation rollover - gear limits lifted.	
	<i>Fishery Dates:</i>	
1999	April 15 - September 1 October 5 - December 31	April 21 - September 1 October 5 - December 31
	<i>Management Actions:</i> October 31 allocation rollover - limits on number of pots, jigs, and vessel size removed, exclusive area designation lifted.	
	<i>Fishery Dates:</i>	
2000	April 15 - December 31	April 15 - December 31
	<i>Management Actions:</i> October 31 - limits on number of pots, jigs, and vessel size removed.	
	<i>Fishery Dates:</i>	
2001	March 11 - December 31	March 11 - December 31
	<i>Management Actions:</i> October 31 - limits on number of pots, jigs, and vessel size removed.	

Table 7. Catch and effort by gear type from the Chignik Area state-waters Pacific cod fishery, 1997-2001.

Year	Gear	Vessels	Landings	Pounds	Price per pound
1997	Jig	4	14	35,002	\$0.18
	Pot	10	59	1,081,193	\$0.18
1998	Jig	12	58	158,076	\$0.22
	Pot	32	217	5,451,422	\$0.18
1999	Jig	11	54	204,716	\$0.26
	Pot	30	346	6,249,499	\$0.18
2000	Jig	5	12	38,453	N/A
	Pot	19	146	1,693,069	\$0.30
2001	Jig	18	73	377,355	N/A
	Pot	16	119	2,236,269	\$0.27

Table 8. Catch by statistical area from the state-waters Pacific cod fishery in the Chignik Area, 2001.

Statistical Area	Pounds	Vessels	Landings
575603	143,258	4	14
575635	98,710	3	5
585531	636,557	6	18
585601	955,178	15	95
595531	363,242	11	38
Other <sup>a</sup>	416,679	6	22
Total	2,613,624		

<sup>a</sup> Total of 5 statistical areas.

<sup>b</sup> Some landings involve multiple statistical areas.

Source: Alaska Department of Fish and Game fish ticket database.

Table 9. South Alaska Peninsula Area state-waters Pacific cod fishery openings, 1997-2001.

	Pot Gear	Jig Gear
1997	<p><i>Fishery Dates:</i> April 4 -December 22</p> <p><i>Management Actions:</i> October 31 allocation rollover- vessel size limit, gear limits, exclusive registration area lifted.</p>	<p>April 4 -December 22</p>
1998	<p><i>Fishery Dates:</i> March 10 - April 14</p> <p><i>Management Actions:</i> October 31 allocation rollover- No action taken; federal WGOA reopened Oct. 9 - Dec 31.</p>	<p>March 10 - October 9</p>
1999	<p><i>Fishery Dates:</i> March 15 - April 11 October 31- December 31</p> <p><i>Management Actions:</i> October 31 allocation rollover- Reopened to pot gear. November 10- Number of pots and jig machine limits lifted.</p>	<p>March 15 - December 31</p>
2000	<p><i>Fishery Dates:</i> March 11 - April 8</p> <p><i>Management Actions:</i> Fishery closed when GHL allocations were attained.</p>	<p>March 11 - September 19</p>
2001	<p><i>Fishery Dates:</i> March 6 - April 13</p> <p><i>Management Actions:</i> Fishery closed when GHL allocations were attained.</p>	<p>March 6 - June 12</p>

Table 10. Catch and effort by gear type from the South Alaska Peninsula Area state-waters Pacific cod fishery, 1997-2001.

Year	Gear	Vessels	Landings	Pounds	Price per pound
1997	Jig	44	178	350,069	\$0.18
	Pot	53	474	9,119,779	\$0.19
1998	Jig	29	125	426,916	\$0.16
	Pot	61	342	8,699,338	\$0.17
1999	Jig	25	165	706,131	\$0.28
	Pot	60	397	11,473,971	\$0.24
2000	Jig	28	145	757,953	\$0.30
	Pot	68	505	14,286,151	\$0.28
2001	Jig	70	417	3,121,161	\$0.30
	Pot	57	310	10,390,827	\$0.28

Table 11. Catch by statistical area from the state-waters Pacific cod fishery in the South Alaska Peninsula Area, 2001.

Statistical Area	Pounds	Vessels	Landings
595432	176,953	8	15
595434	392,326	7	18
595502	164,328	3	10
595503	260,759	9	18
595533	176,965	13	21
605432	2,082,436	25	89
605501	230,845	20	42
605502	1,171,054	33	84
605504	1,600,449	38	165
605506	76,483	4	9
605507	188,422	10	21
605531	95,743	6	11
615432	10,816	3	3
625401	2,318,221	16	70
625431	133,980	7	22
625434	209,266	3	3
635432	1,976,780	26	84
635434	1,825,833	12	57
635436	226,042	3	8
Other <sup>a</sup>	194,287	13	23
<b>Total</b>	<b>13,511,988</b>		

<sup>a</sup> Total of 12 statistical areas.

<sup>b</sup> Some landings involve multiple statistical areas.

Source: Alaska Department of Fish and Game fish ticket database.

Table 12. Catch and effort, Kodiak Area black rockfish fishery, 1990-2001.

Year	Vessels	Landings	Directed GHL	Total Harvest	Price per lb.
1990	12	NA	NA	66,709	0.22
1991	58	NA	NA	874,718	0.29
1992	45	NA	NA	487,208	0.25
1993	18	NA	NA	107,825	0.22
1994	19	NA	NA	128,507	0.25
1995	41	NA	NA	320,899	0.36
1996	52	NA	NA	311,992	0.32
1997	65	NA	NA	224,237	0.27
1998	74	277	190,000	201,318	0.32
1999	92	320	185,000	135,589	0.40
2000	95	346	185,000	256,266	0.41
2001	55	236	185,000	225,877	0.40

Table 13. Catch and effort, Chignik Area black rockfish fishery, 1990-2001.

Year	Vessels	Landings	Directed GHL	Total Harvest	Price per lb.
1990	0	0	NA	0	NA
1991	0	0	NA	0	NA
1992	0	0	NA	0	NA
1993	4	NA	NA	357	0.26
1994	0	0	NA	0	NA
1995	12	NA	NA	28,668	NA
1996	12	NA	NA	201,828	NA
1997	10	NA	NA	80,742	NA
1998	15	30	100,000	87,912	0.23
1999	15	41	100,000	11,437	0.25
2000	13	24	100,000	95,747	0.41
2001	14	35	100,000	102,904	0.35

Table 14. Catch and effort, South Alaska Peninsula Area black rockfish fishery, 1990-2001.

Year	Vessels	Landings	Directed GHL	Total Harvest	Price per lb.
1990	*** <sup>a</sup>	NA	NA	*** <sup>a</sup>	NA
1991	6 <sup>a</sup>	NA	NA	145 <sup>a</sup>	NA
1992	0	0	NA	0	NA
1993	*** <sup>b</sup>	NA	NA	*** <sup>b</sup>	NA
1994	11 <sup>b</sup>	NA	NA	2,118 <sup>b</sup>	NA
1995	14	NA	NA	120,971	NA
1996	26	NA	NA	165,496	NA
1997	15	NA	NA	184,697	NA
1998	18	277	100,000	90,267	0.23
1999	23	320	100,000	71,241	0.37
2000	27	346	100,000	95,605	0.35
2001	32	85	100,000	105,896	0.35

<sup>a</sup> South Alaska Peninsula data from 1990 and 1991 combined to maintain confidentiality.

<sup>b</sup> South Alaska Peninsula data from 1993 and 1994 combined to maintain confidentiality.

NA = Not Available

Source: Alaska Department of Fish and Game fish ticket database.

Table 15. Black rockfish harvest from the Kodiak, Chignik, and South Alaska Peninsula Areas, 2001.

Area/District	Guideline Harvest Level <sup>a</sup>	Total Harvest <sup>b</sup>	Directed Fishery Closure Date	Pounds	
				Directed Harvest <sup>c</sup>	Nondirected Harvest Total <sup>d</sup>
<b>Kodiak Area</b>					
Afognak	35,000	33,168	March 20	32,280	888
Northeast	20,000	23,889	February 23	22,697	1,192
Eastside	30,000	42,970	March 06	38,769	4,201
Southeast	30,000	56,165	March 19	52,605	3,560
Southwest	20,000	12,001	March 29	9,501	2,500
Westside	30,000	28,539	July 30	28,069	470
Mainland	20,000	29,145	May 22	29,079	66
Total (Kodiak Area)	185,000	225,877		213,000	12,877
<b>Chignik Area</b>	100,000	102,904	June 05	101,151	1,753
<b>South Alaska Peninsula Area</b>	100,000	105,896	June 07	69,660	36,234

<sup>a</sup> For directed fishery.

<sup>b</sup> All harvest, includes directed effort and bycatch before and after directed fishery closure.

<sup>c</sup> Harvest by vessels directing effort towards black rockfish.

<sup>d</sup> Harvest incidental to other fishery targets, e.g. the state-waters Pacific cod fishery.

Source: Alaska Department of Fish and Game fish ticket database.

Table 16. Harvest, vessels, and landings by statistical area from the black rockfish fisheries in the Kodiak, Chignik, and South Alaska Peninsula Areas, 2001.

Stat area	Pounds	Vessels	Landings
<b>Kodiak Area</b>			
515700	241	3	3
515801	2,956	4	4
525701	31,693	15	36
525702	718	5	5
525703	10,318	5	7
525731	10,158	9	20
525732	2,075	6	6
525733	7,217	14	28
525805	6,843	9	14
525606	15,708	8	17
535631	34,496	14	26
535634	7,327	4	4
535705	11,561	4	4
535732	17,539	7	13
535803	4,255	4	5
545602	3,559	4	4
Other <sup>a</sup>	59,454	25	40
<b>Total</b>	<b>225,877</b>		
<b>Chignik Area</b>			
565633	26410	4	4
585531	2,956	3	4
585601	23,731	4	9
595531	43,902	8	14
Other <sup>b</sup>	5,905	4	4
<b>Total</b>	<b>102,904</b>		
<b>South Alaska Peninsula Area</b>			
595432	11628	3	5
595434	5,043	5	6
595503	1,539	4	5
595533	23,202	6	11
605432	28,276	12	20
605501	3,859	6	8
605502	1,585	7	7
605504	18,639	15	19
Other <sup>c</sup>	12,125	10	4
<b>Total</b>	<b>105,896</b>		

<sup>a</sup> Total of 28 statistical areas.

<sup>b</sup> Total of 4 statistical areas.

<sup>c</sup> Total of 12 statistical areas.

Source: Alaska Department of Fish and Game fish ticket database.

Table 17. Lingcod harvest from the Kodiak, Chignik, and South Alaska Peninsula Areas, 1988-2001.

Year	Kodiak	Chignik	South Alaska Peninsula	Total Pounds
1988	136,290	0	0	136,290 <sup>a</sup>
1989	***	***	***	12,194 <sup>a</sup>
1990	9,144	0	0	9,144
1991	***	***	***	10,028 <sup>a</sup>
1992	***	***	***	37,704 <sup>a</sup>
1993	***	***	***	6,143 <sup>a</sup>
1994	5,949	0	0	5,949
1995	35,949	2,811	4,638	43,398
1996	***	***	***	62,197 <sup>a</sup>
1997	***	***	***	28,635 <sup>a</sup>
1998	***	***	***	9,091 <sup>a</sup>
1999	21,560	***	***	21,869 <sup>a</sup>
2000	17,013	-----3,170 <sup>a</sup> -----	-----	20,183 <sup>a</sup>
2001	12,686	0	0	12,686

\*\*\* Denotes confidential data <sup>a</sup> Data combined due to confidentiality standards.

Source: Alaska Department of Fish and Game fish ticket database.

Table 18. Lingcod harvest by gear type from the Kodiak, Chignik, and South Alaska Peninsula Areas, 1988-2001.

Year	Gear type				Total
	Jig	Longline	Pot	Trawl	
1988	***	42	0	***	136,290 <sup>a</sup>
1989	***	0	0	***	12,194 <sup>a</sup>
1990	1,413	***	***	5,484	9,144 <sup>a</sup>
1991	8,403	501	***	739	10,028 <sup>a</sup>
1992	5,317	4,402	78	10,956	20,753 <sup>a</sup>
1993	***	1,161	0	4,772	6,143 <sup>a</sup>
1994	4,818	802	0	329	5,949 <sup>a</sup>
1995	36,077	3,563	1,143	1,996	42,779
1996	43,385	7,892	0	10,920	62,197
1997	12,628	6,489	***	5,267	28,635 <sup>a</sup>
1998	***	1,766	***	3,514	9,091 <sup>a</sup>
1999	1,358	4,294	11,215	5,002	21,869
2000	3,400	8,993	3,280	4,510	20,183
2001	527	2,966	3,597	5,596	12,686
Totals	121,274	43,716	25,551	207,400	397,941

\*\*\* Denotes confidential data <sup>a</sup> Data combined due to confidentiality standards.

Source: Alaska Department of Fish and Game fish ticket database.

Table 19. Pacific cod harvest in millions of pounds from the Central and Western Gulf of Alaska, 1989-2001.

Year	NMFS Area	Vessels	Landings	Pounds	State Waters	
					Pounds <sup>a</sup>	%
1989	Central	236	1,460	60.4	4.4	7%
	Western	137	598	31.1	7.8	25%
1990	Central	595	3,222	92.4	11.8	13%
	Western	165	985	85.7	13.1	15%
1991	Central	908	4,389	101.2	19.4	19%
	Western	280	1,380	76.5	4.8	6%
1992	Central	1093	5,115	89.9	16.3	18%
	Western	296	1,452	73.7	13.2	18%
1993	Central	727	3,347	72.1	11.5	16%
	Western	166	987	39.8	1.9	5%
1994	Central	632	2,825	63.5	12.9	20%
	Western	208	1,150	32.4	7.4	23%
1995	Central	907	4,369	97.1	21.7	22%
	Western	266	1,115	42.3	9.0	21%
1996	Central	655	3,916	91.7	16.9	18%
	Western	231	1,336	46.2	12.9	28%
1997	Central	581	5,589	102.9	24.5	24%
	Western	216	1,631	59.8	18.8	31%
1998	Central	575	6,225	96.7	24.3	25%
	Western	202	1,637	54.9	17.5	32%
1999	Central	644	6,309	103.0	32.8	32%
	Western	197	1,859	58.1	21.0	36%
2000	Central	674	6,334	78.4	21.6	28%
	Western	214	1,916	60.7	27.4	45%
2001	Central	487	4,183	64.8	14.1	22%
	Western	306	1,962	42.8	19.8	46%

<sup>a</sup>Total for all gear types, state-managed and parallel fisheries occurring in state waters.

Source: Alaska Department of Fish and Game fish ticket database.

Table 20. Pacific cod harvest in pounds by gear type from Kodiak Area state waters during parallel federal seasons, 1997-2001.

Year	Gear Type				Total
	Pots	Longline	Trawl	Jig	
1997	8,408,596	1,918,998	954,239	13,683	11,295,516
1998	4,674,372	2,169,287	824,080	5,457	7,673,196
1999	5,925,404	2,563,187	1,219,321	14,084	9,721,996
2000	4,335,868	3,574,916	249,225	78,876	8,238,885
2001	2,951,937	2,494,328	222,454	58,455	5,727,174

Table 21. Pacific cod harvest in pounds by gear type from Chignik Area state waters during parallel federal seasons, 1997-2001.

Year	Gear Type				Total
	Pots	Longline	Trawl	Jig	
1997	541,102	3,939	99,761	22	644,824
1998	1,424,592	9,226	192,673	0	1,626,491
1999	585,239	3,623	39,704	1,875	630,441
2000	334,494	46,807	53,513	0	434,814
2001	237,722	48,856	12,957	2,564	302,099

Table 22. Pacific cod harvest in pounds by gear type from South Alaska Peninsula Area state waters during parallel federal seasons, 1997-2001.

Year	Gear Type				Total
	Pots	Longline	Trawl	Jig	
1997	1,693,527	246,467	7,665,722	5,768	9,611,484
1998	4,357,072	429,139	3,867,735	23,083	8,677,029
1999	3,076,651	33,934	5,306,891	10,172	8,427,648
2000	5,329,545	242,233	6,635,160	11,499	12,218,437
2001	3,269,714	79,392	2,342,551	347,792	6,039,449

Source: Alaska Department of Fish and Game fish ticket database.

Table 23. Central and Western Gulf of Alaska walleye pollock fishery openings, 1998-2001.

1998	1999	2000	2001
Area 630	Area 630	Area 630	Area 630
January 20 - February 2	January 20-January 27	January 20-January 25	January 20-February 15
June 1 - June 12	June 1- Jun 10	March 15 - March 17	March 15 - March 17
September 1 - September 16	September 1-September 2	August 20 - August 29	August 20 - September 10
September 26 ( <i>12 hour opening</i> )	September 14-September 16	October 1 - November 1	October 1 - November 1
	September 21-September 24 ( <i>39 hours</i> )		
Area 620	Area 620	Area 620	Area 620
January 20 - February 7	January 20 - February 17	January 20 - January 27	January 20 - Bycatch status only
June 1 - July 1	June 1 - June 11	March 15 - March 15	March 15 - Bycatch status only
September 1 - October 12	September 1 - September 2	August 20 - September 15	August 20 - September 15
October 27 - October 30	September 14 -October 1	October 1 - November 1	October 1 - November 1
	October 6 - October 12		
	October 14 - October 15 ( <i>36 hour opening</i> )		
Area 610	Area 610	Area 610	Area 610
January 20 - January 26	January 20 - January 31	January 20 - January 31	January 20 - January 29
June 1 - June 3	June 1 - June 7	March 15 - March 18	March 15 - March 16
June 8 - June 19	September 1 ( <i>6 hour opening</i> )	August 20 - September 15	March 21 - March 21 ( <i>12 hour opening</i> )
September 1 - September 2	September 14 - September 20	October 1 - November 1	August 20 - September 7
September 9 - September 14	September 23 ( <i>12 hour opening</i> )		October 1 - October 13
September 24 - September 25			
		Shelikof Strait Harvest Area	Shelikof Strait Harvest Area
		January 20 - February 10	January 20 - March 1
		March 15 - March 25	March 15 - March 31

Source: National Marine Fisheries Service Alaska Region Homepage.

Table 24. Walleye pollock harvest in millions of pounds from the Central and Western Gulf of Alaska, 1989-2001.

Year	NMFS Area	Vessels	Landings	Pounds <sup>a</sup>	State Waters	
					Pounds <sup>a</sup>	%
1989	Central	117	672	118	15.3	13%
	Western	30	61	29	0	0%
1990	Central	210	1,423	154	6.2	4%
	Western	80	231	23	0.9	4%
1991	Central	245	1,359	112	14.5	13%
	Western	120	353	78	0.8	1%
1992	Central	436	1,880	148	7.4	5%
	Western	173	530	39	3.9	10%
1993	Central	332	1,753	196	27.5	14%
	Western	93	511	45	11.3	25%
1994	Central	312	1,609	176	66.9	38%
	Western	97	449	48	15.3	32%
1995	Central	336	1,175	75	9.0	12%
	Western	161	502	66	22.4	34%
1996	Central	394	1,551	50	12.5	25%
	Western	190	451	53	31.3	59%
1997	Central	570	2,446	115	34.6	30%
	Western	231	420	62	19.3	31%
1998	Central	458	2,562	207	70.6	34%
	Western	143	387	66	38.1	58%
1999	Central	394	1,560	139	40.0	29%
	Western	115	443	53	27.9	53%
2000	Central	263	1,395	107	4.6	4%
	Western	99	422	39	28.9	74%
2001	Central	329	1,558	87	18.0	21%
	Western	91	587	66	49.0	74%

<sup>a</sup>Total round pounds of catch, all gear types.

Source: Alaska Department of Fish and Game fish ticket database.

Table 25. Walleye pollock harvest in millions of pounds from Kodiak, Chignik, and South Alaska Peninsula state waters, 1989-2001.

Year	Millions of Pounds		
	Kodiak	Chignik	South Alaska Peninsula
1989	14.9	0	0
1990	6.6	<0.1	0.4
1991	14.3	** <sup>a</sup>	0.3
1992	7.8	<0.1	3.6
1993	28.1	** <sup>a</sup>	11.2
1994	66.7	** <sup>a</sup>	15.3
1995	7.4	2.1	22.4
1996	12.5	0	30.5
1997	19.6	15.8	19.3
1998	24.8	36.1	38.1
1999	30.4	5.7	27.7
2000	4.6	<0.1	28.9
2001	17.7	0.4	48.9

<sup>a</sup> Small harvest combined with Kodiak due to confidentiality restraints.

Source: Alaska Department of Fish and Game fish ticket database.

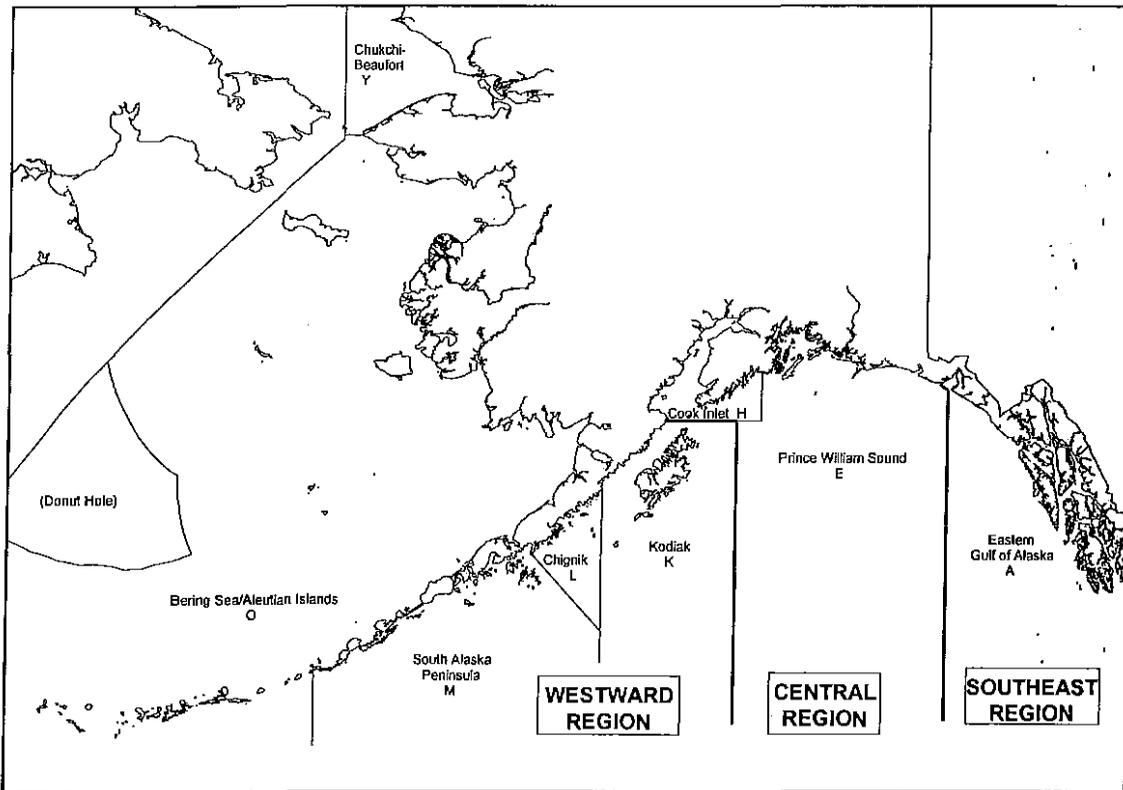


Figure 1. State of Alaska groundfish registration areas and regions.

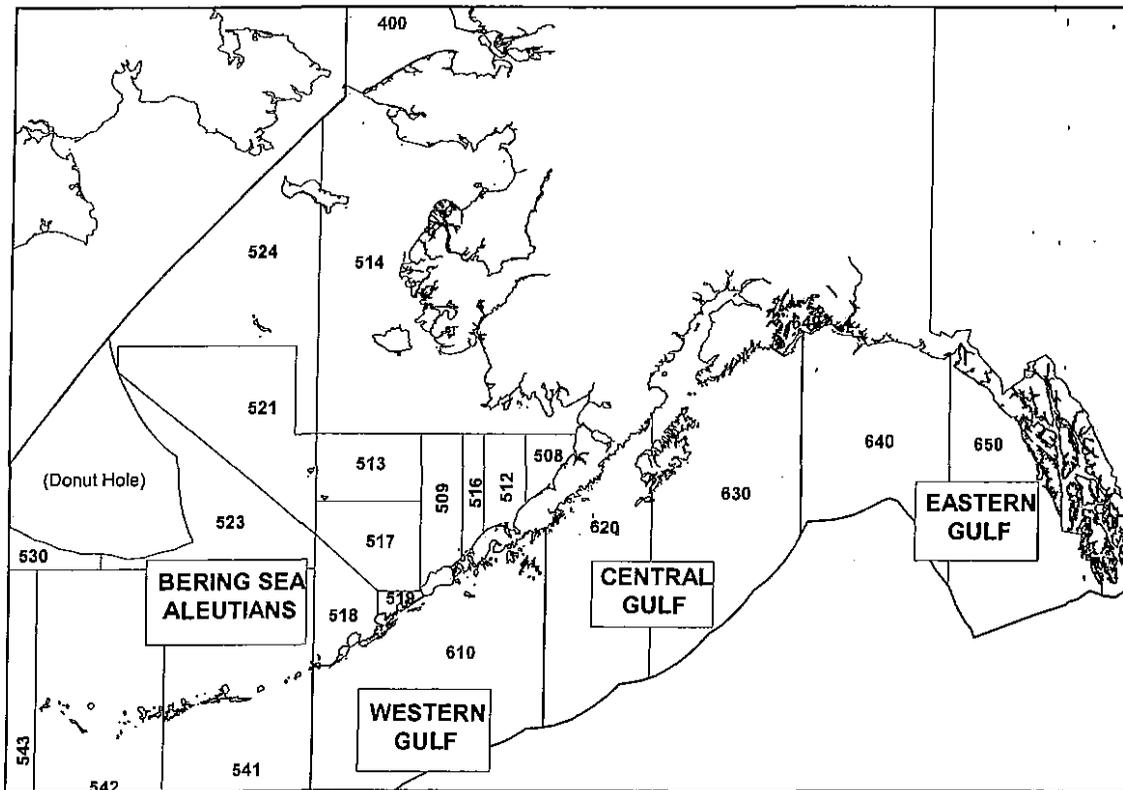


Figure 2. Federal groundfish management areas.

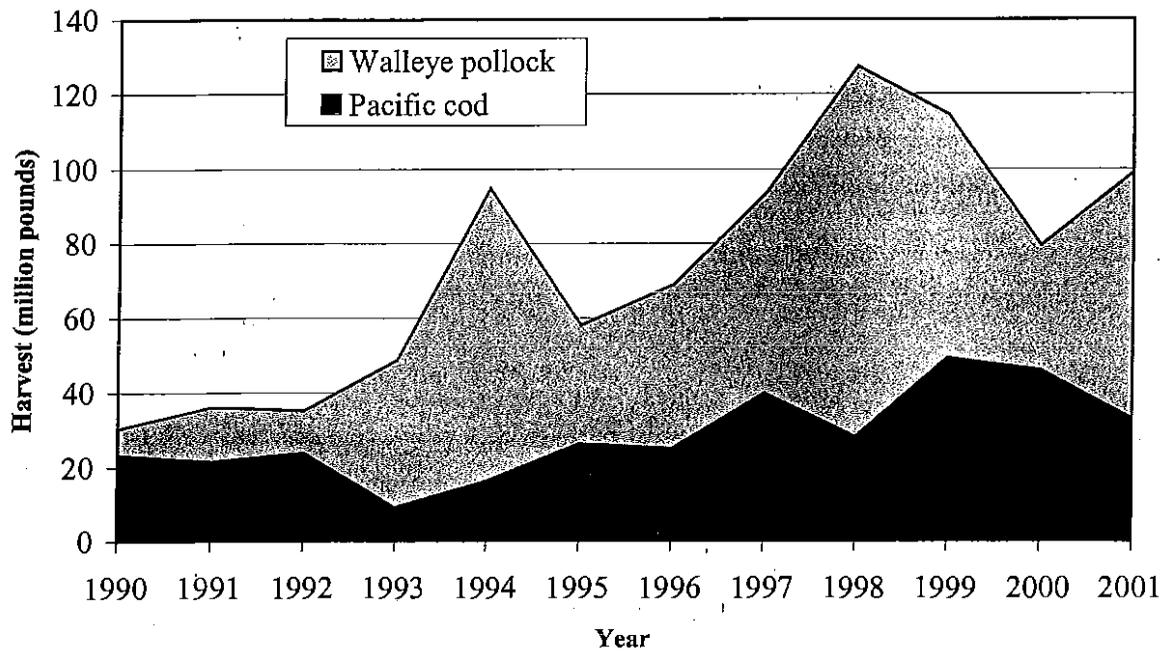


Figure 3. Kodiak, Chignik, and South Alaska Peninsula Areas harvest of Pacific cod and walleye pollock from state waters, 1990-2001.

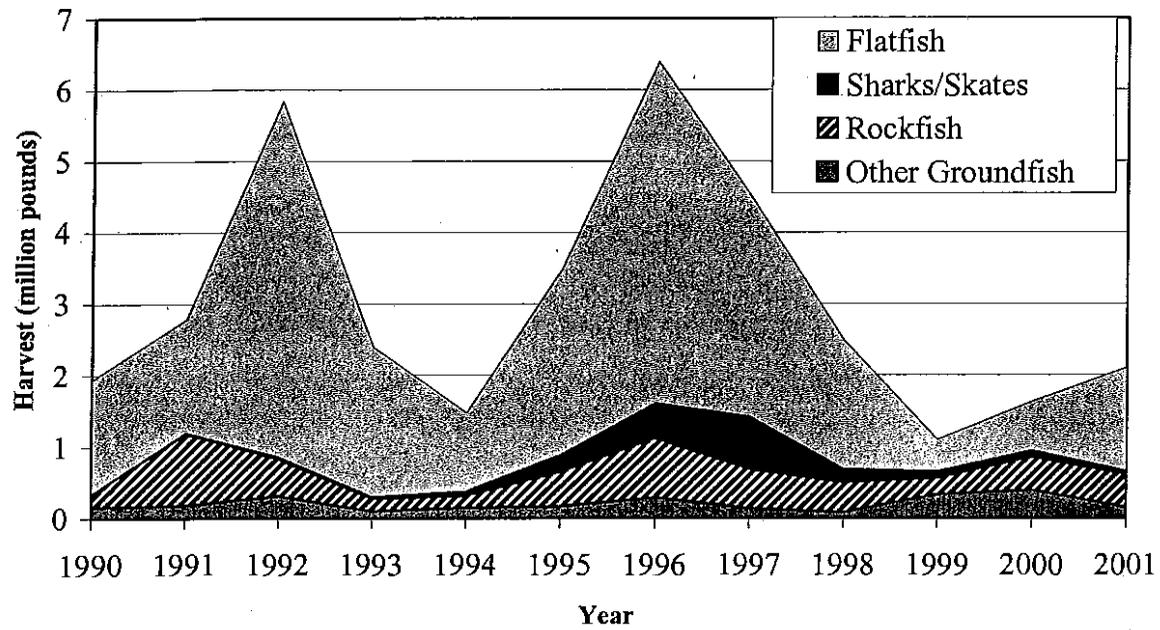


Figure 4. Kodiak, Chignik, and South Alaska Peninsula Areas harvest of flatfish, sharks/skates, rockfish, and other groundfish species from state waters, 1990-2001.

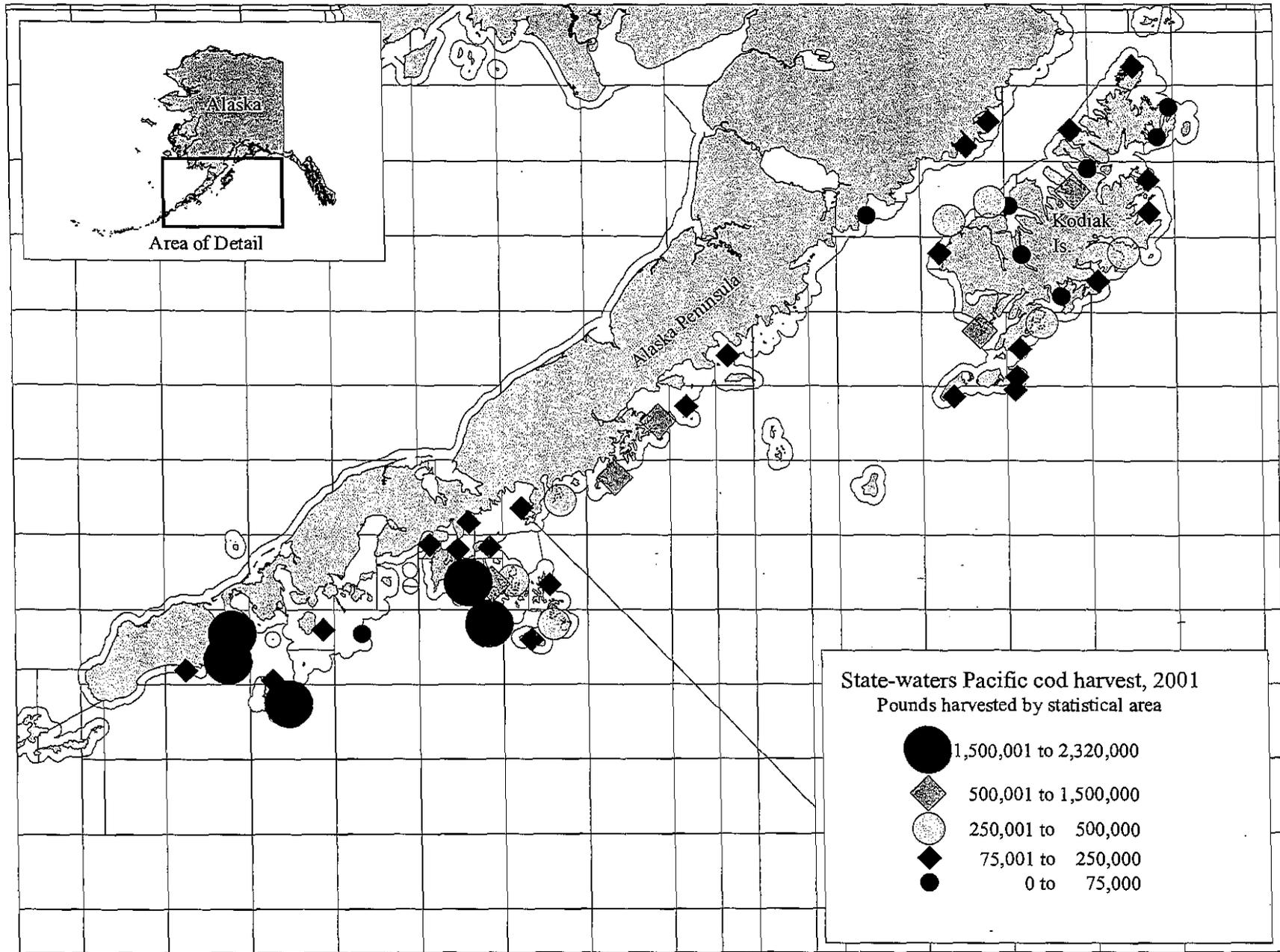


Figure 5. Pacific cod harvest by statistical area from the Kodiak, Chignik, and South Alaska Peninsula Areas state-waters fisheries, 2001.

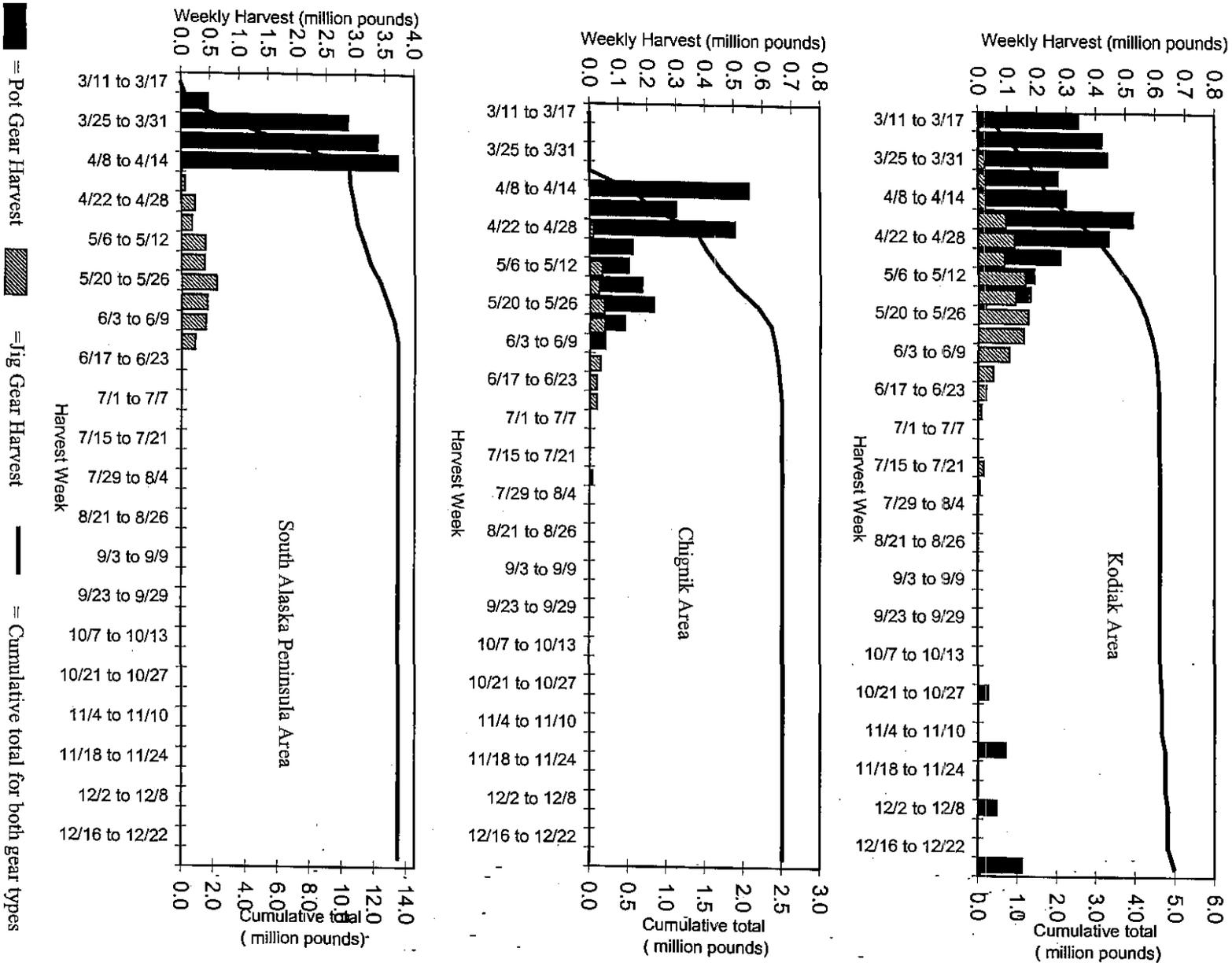


Figure 6. Pacific cod harvest by week and gear type for the Kodiak, Chignik, and South Alaska Peninsula Areas state-waters fisheries, 2001.

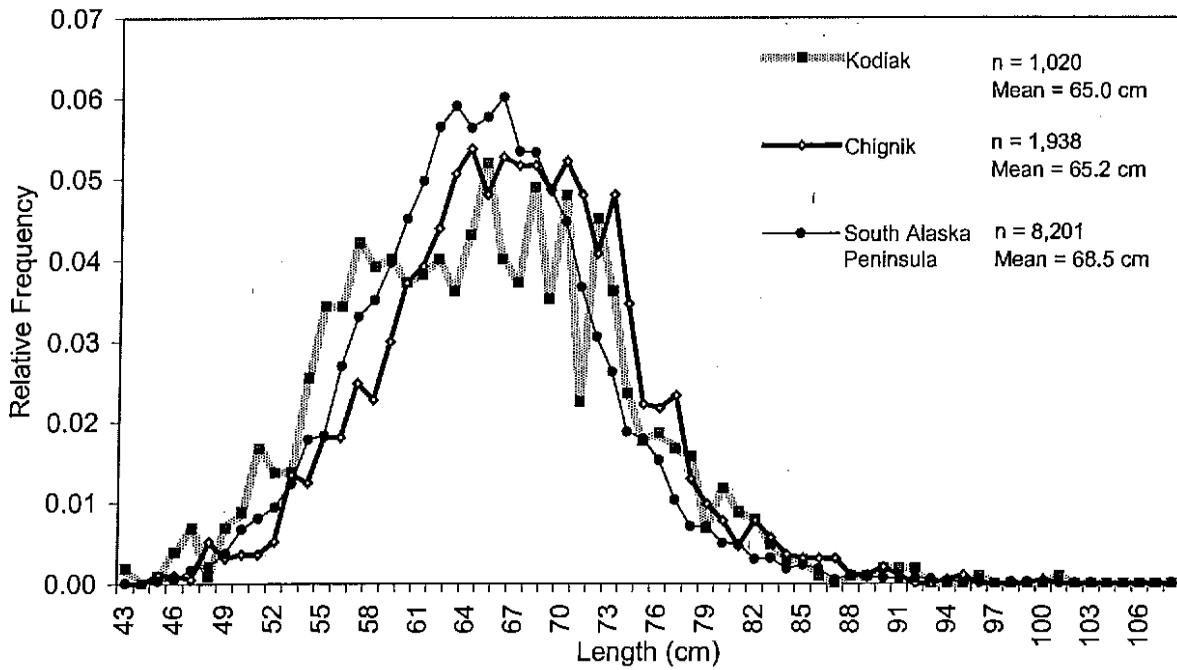


Figure 7. Pacific cod lengths by area collected from the 2001 state-waters fisheries in the Westward Region.

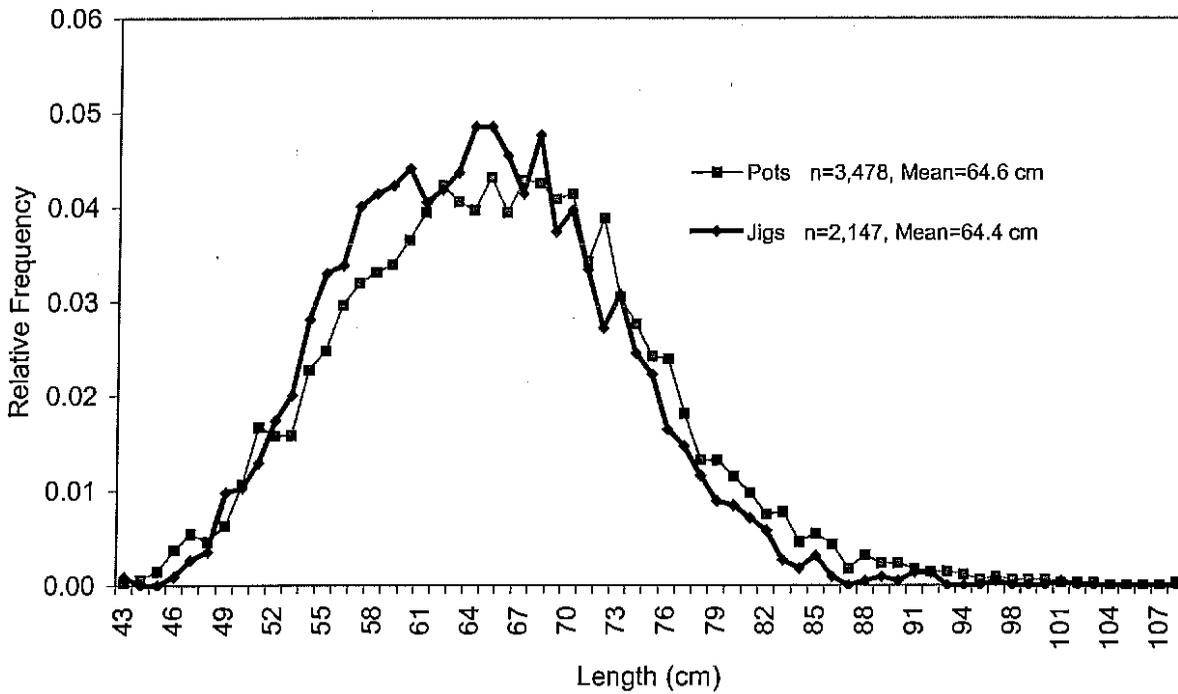


Figure 8. Pacific cod lengths by gear type collected from the 2001 state-waters fisheries in the Westward Region.

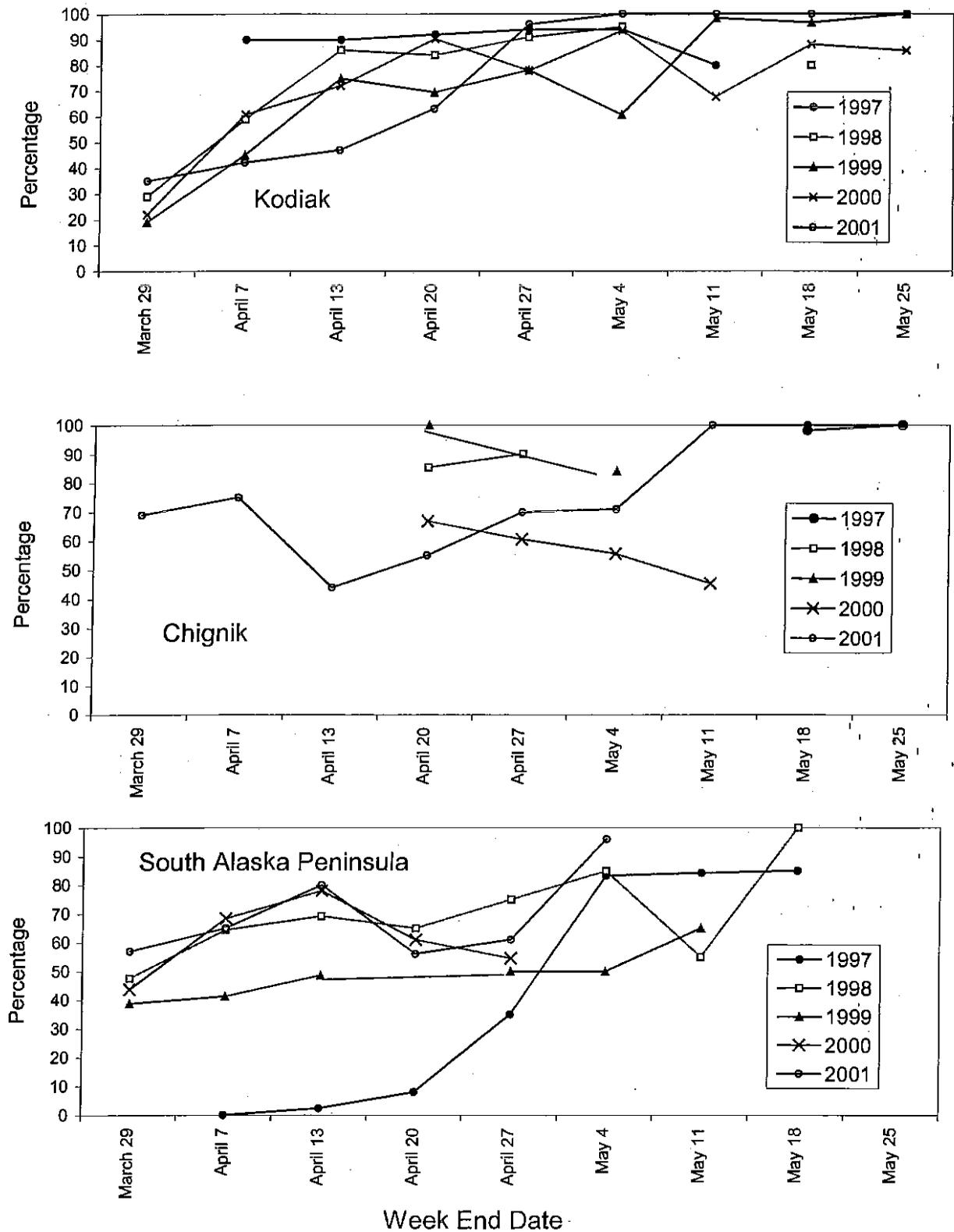


Figure 9. Estimated percentage of spawned Pacific cod from the Kodiak, Chignik, and South Alaska Peninsula Areas, 1997-2001.

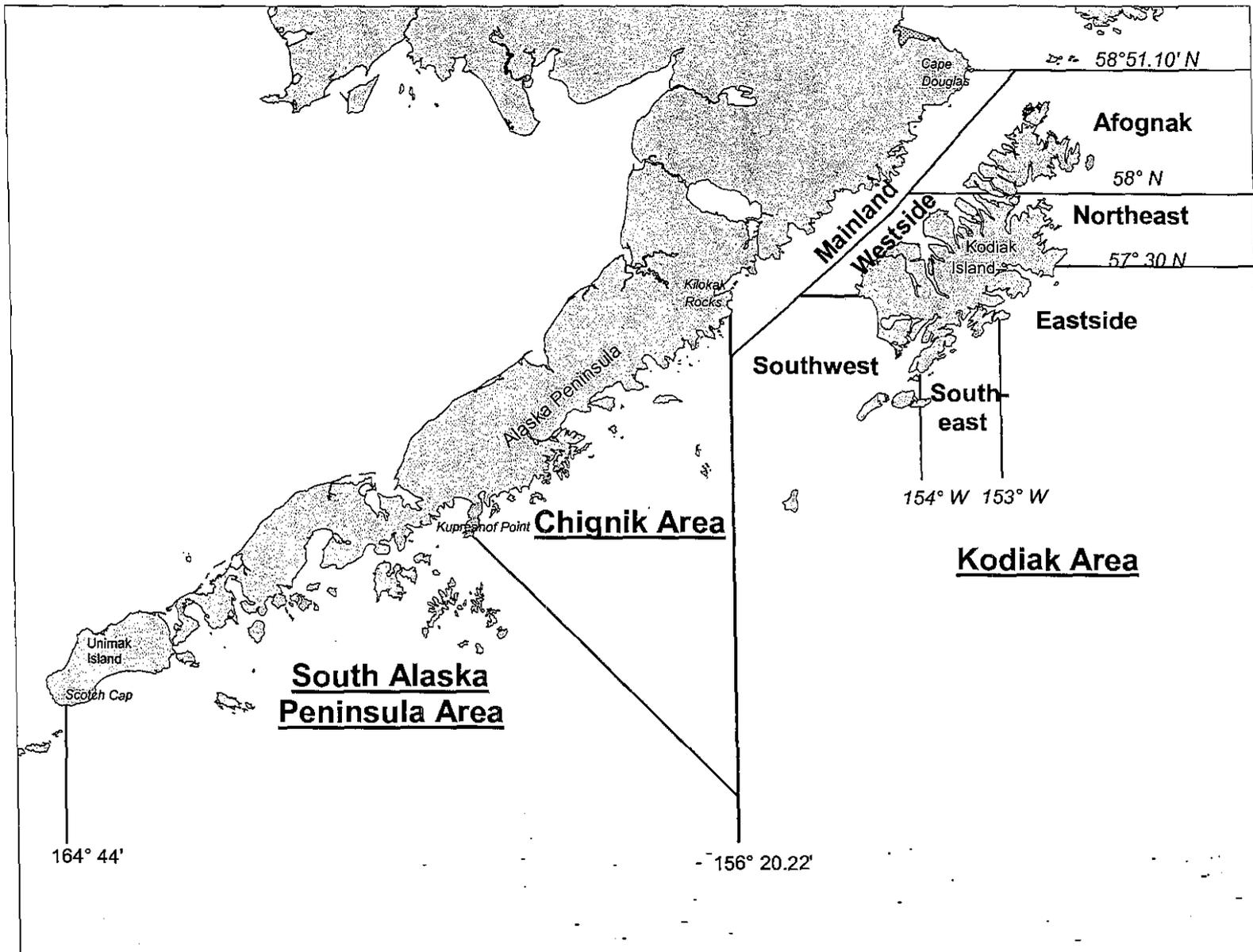


Figure 10. Black rockfish management sections in the Kodiak, Chignik, and South Alaska Peninsula Areas, 2001.

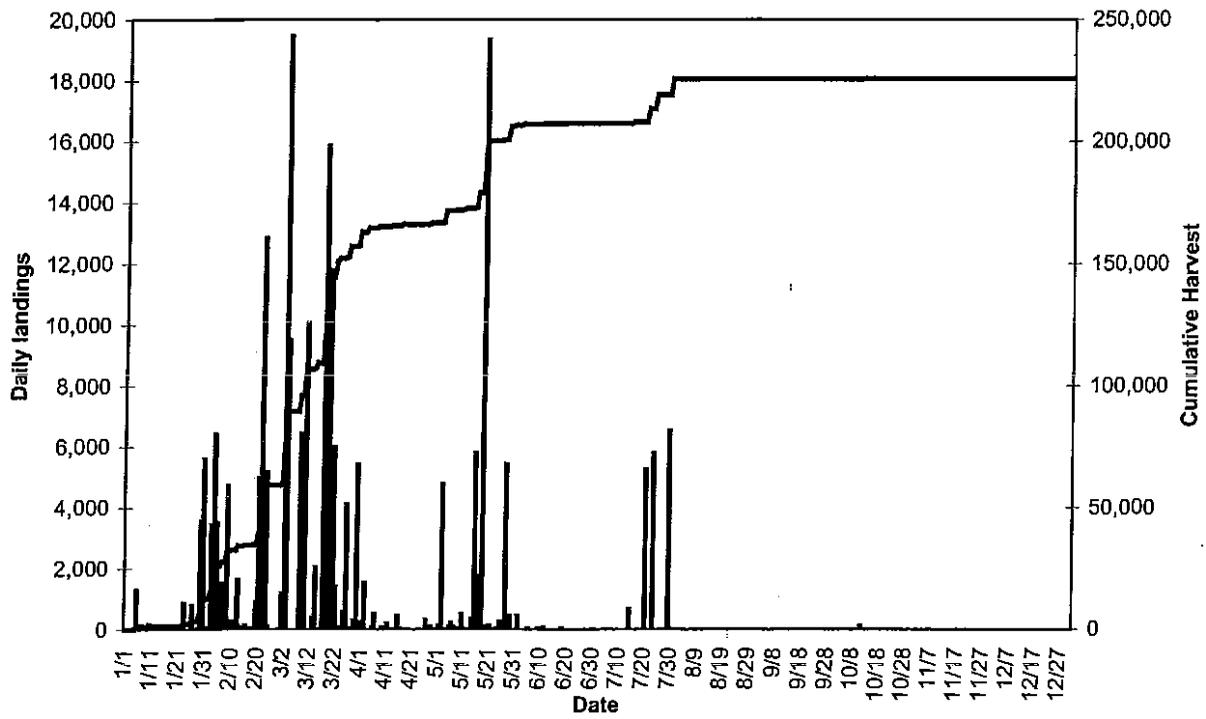


Figure 11. Kodiak Area black rockfish landings and cumulative harvest by day, 2001

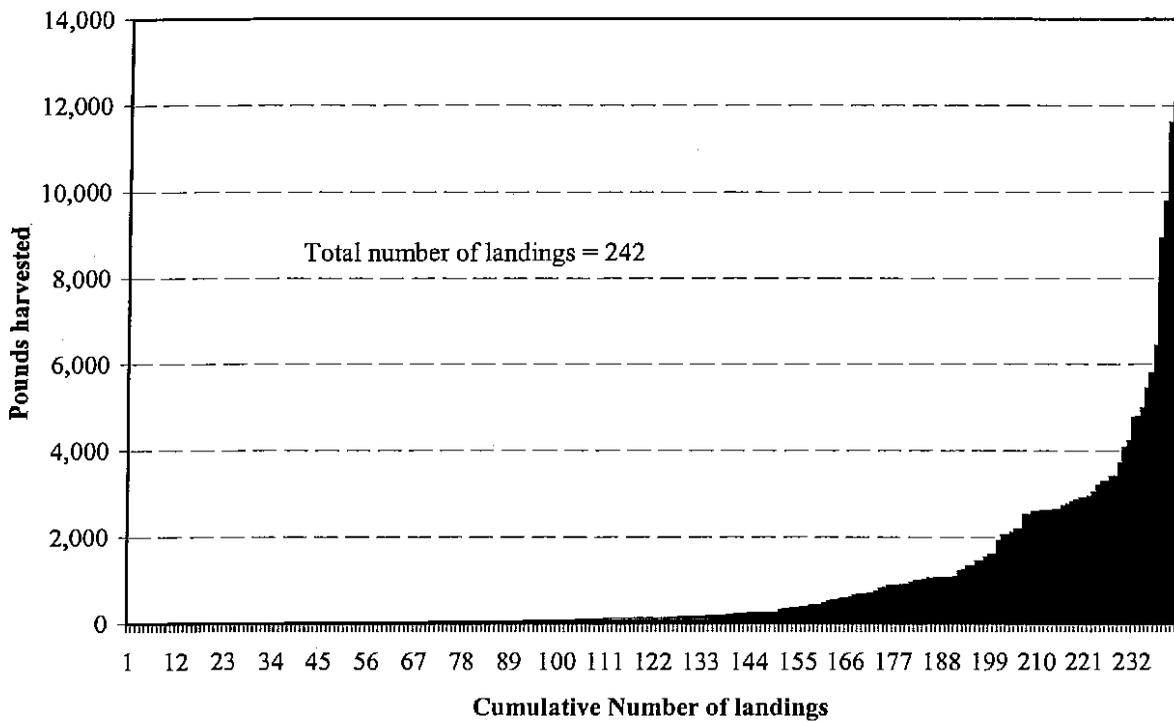


Figure 12. Kodiak Area black rockfish pounds per cumulative landings, 2001.

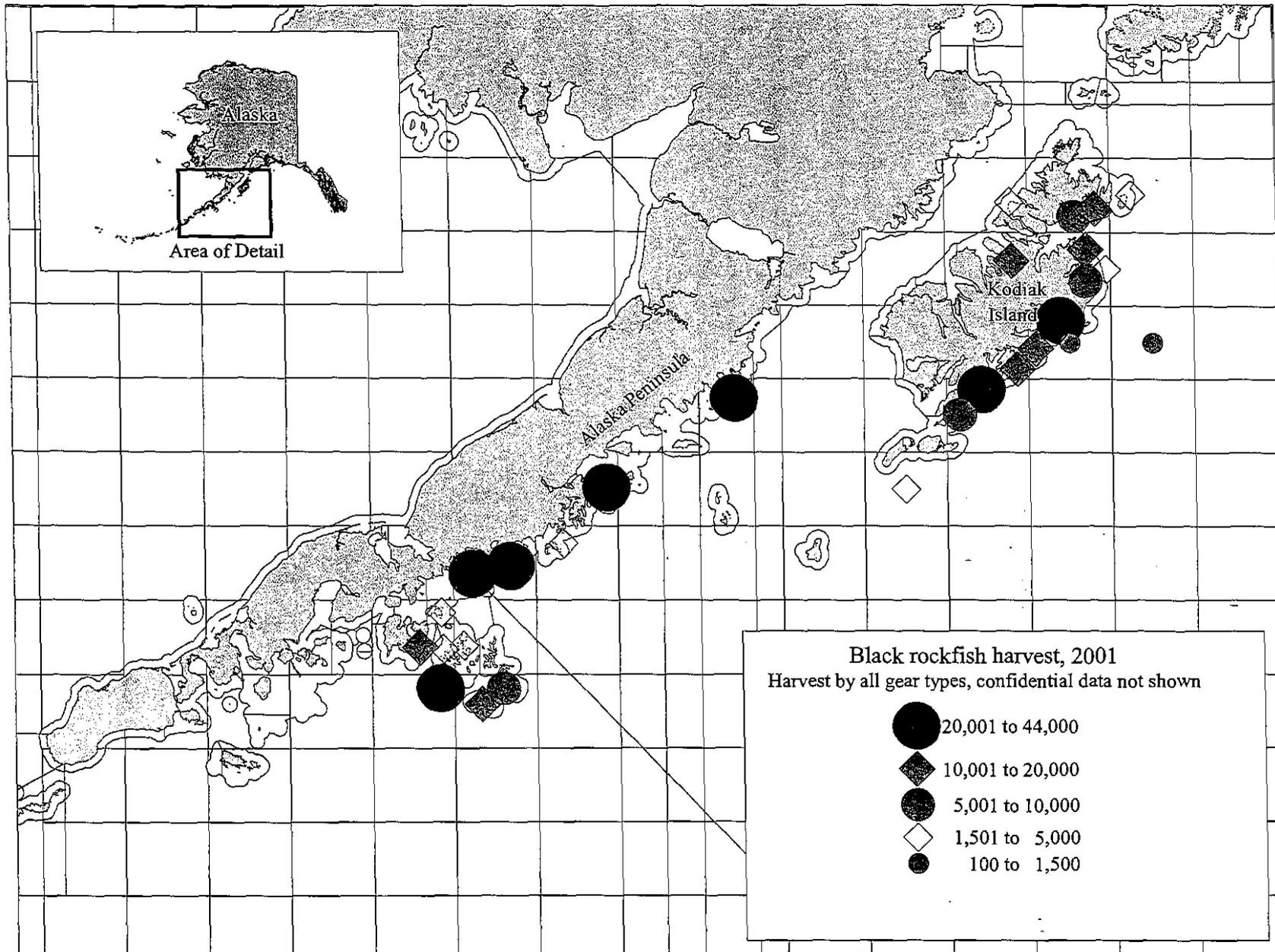


Figure 13. Black rockfish harvest by statistical area from the Kodiak, Chignik, and South Alaska Peninsula Areas, 2001.

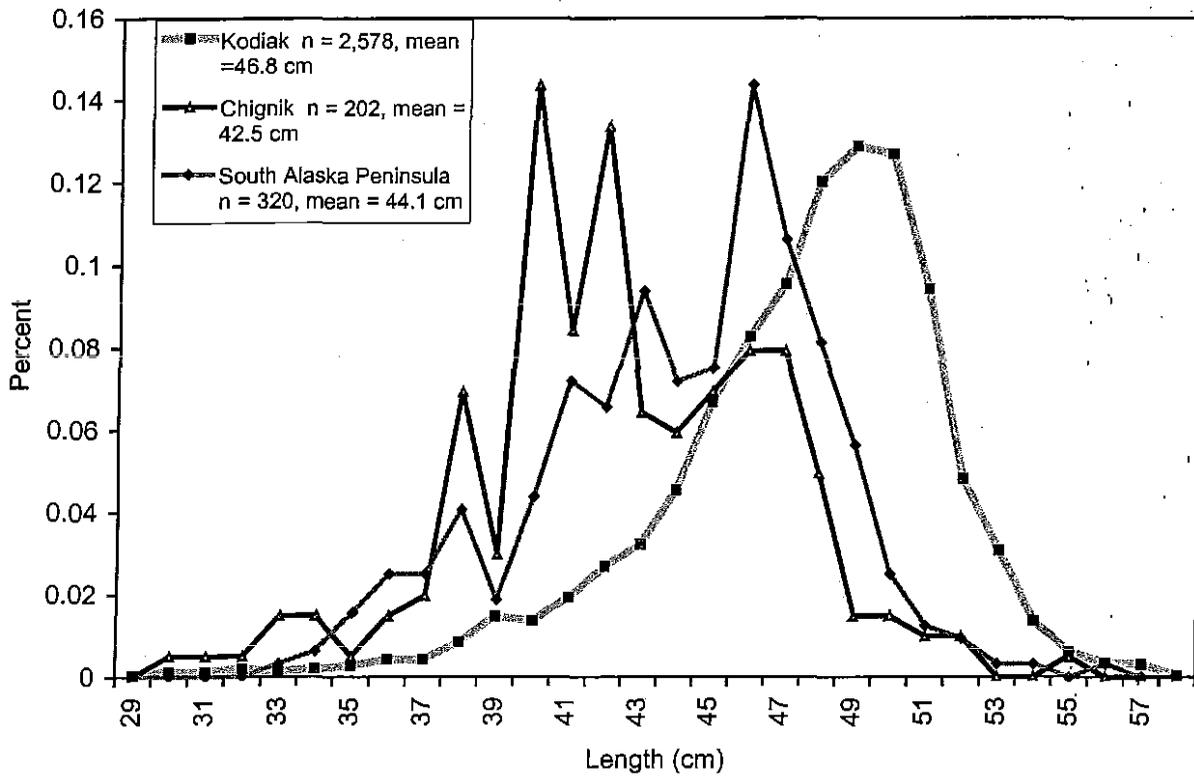


Figure 14. Size composition of black rockfish sampled from the 2001 fishery in the Kodiak, Chignik, and South Alaska Peninsula Areas.

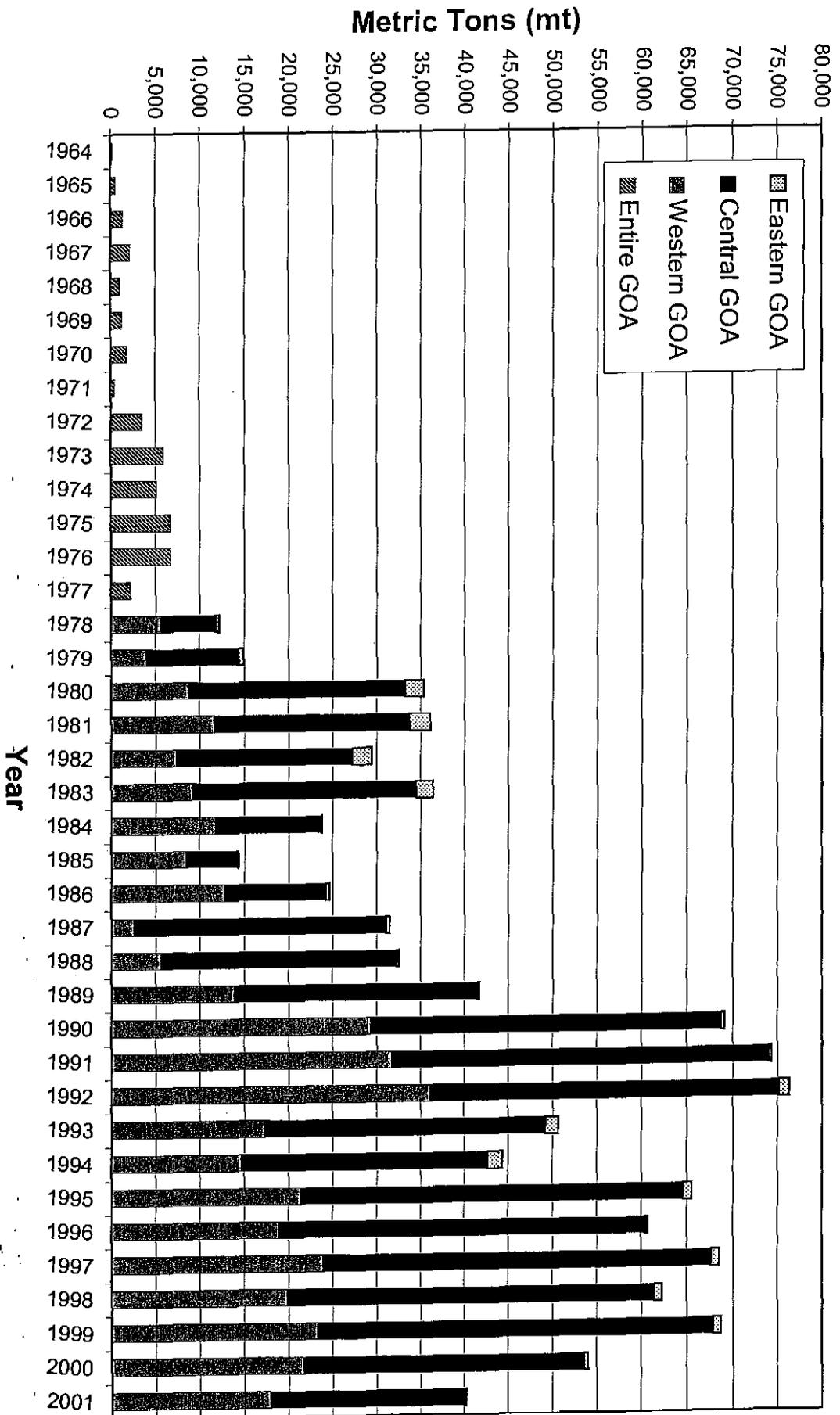


Figure 15. Pacific cod harvest from the Gulf of Alaska, 1964-2001. Source: NMFS Alaska Region Home Page.

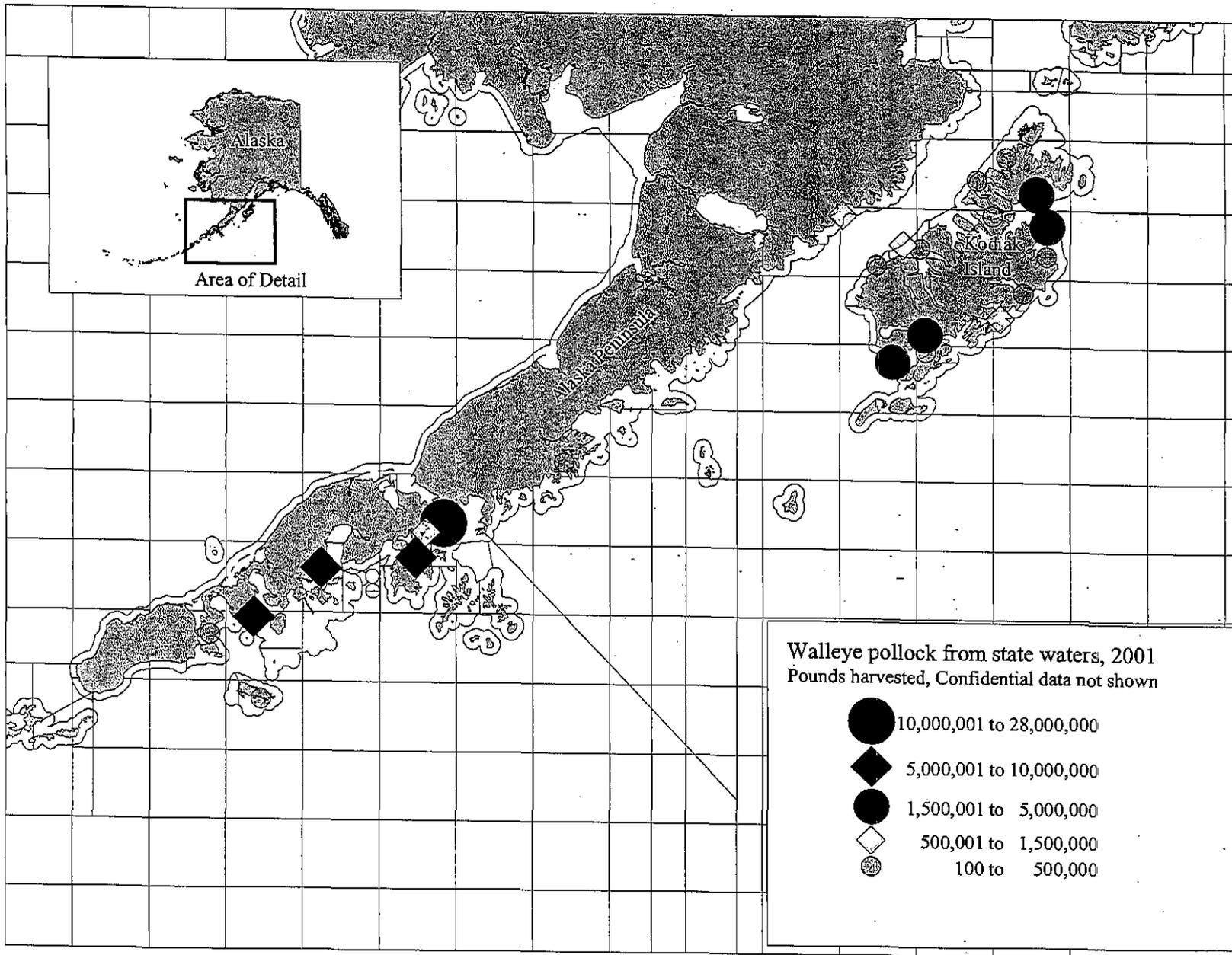


Figure 16. Walleye pollock harvest by statistical area from the Kodiak, Chignik, and South Alaska Peninsula state waters, 2001.

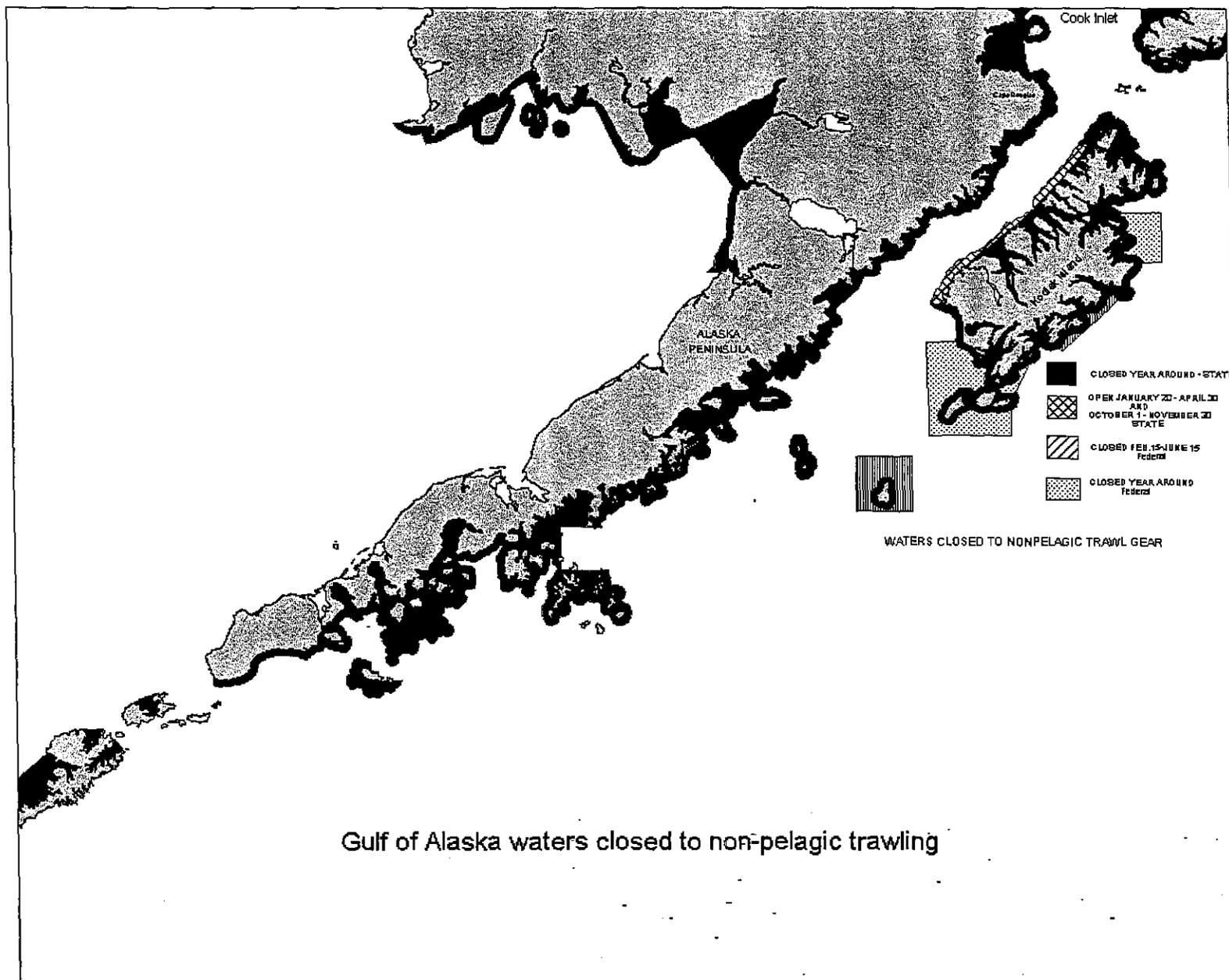


Figure 17. Selected Westward Region non-pelagic trawl gear closures, 2001.



**APPENDIX**

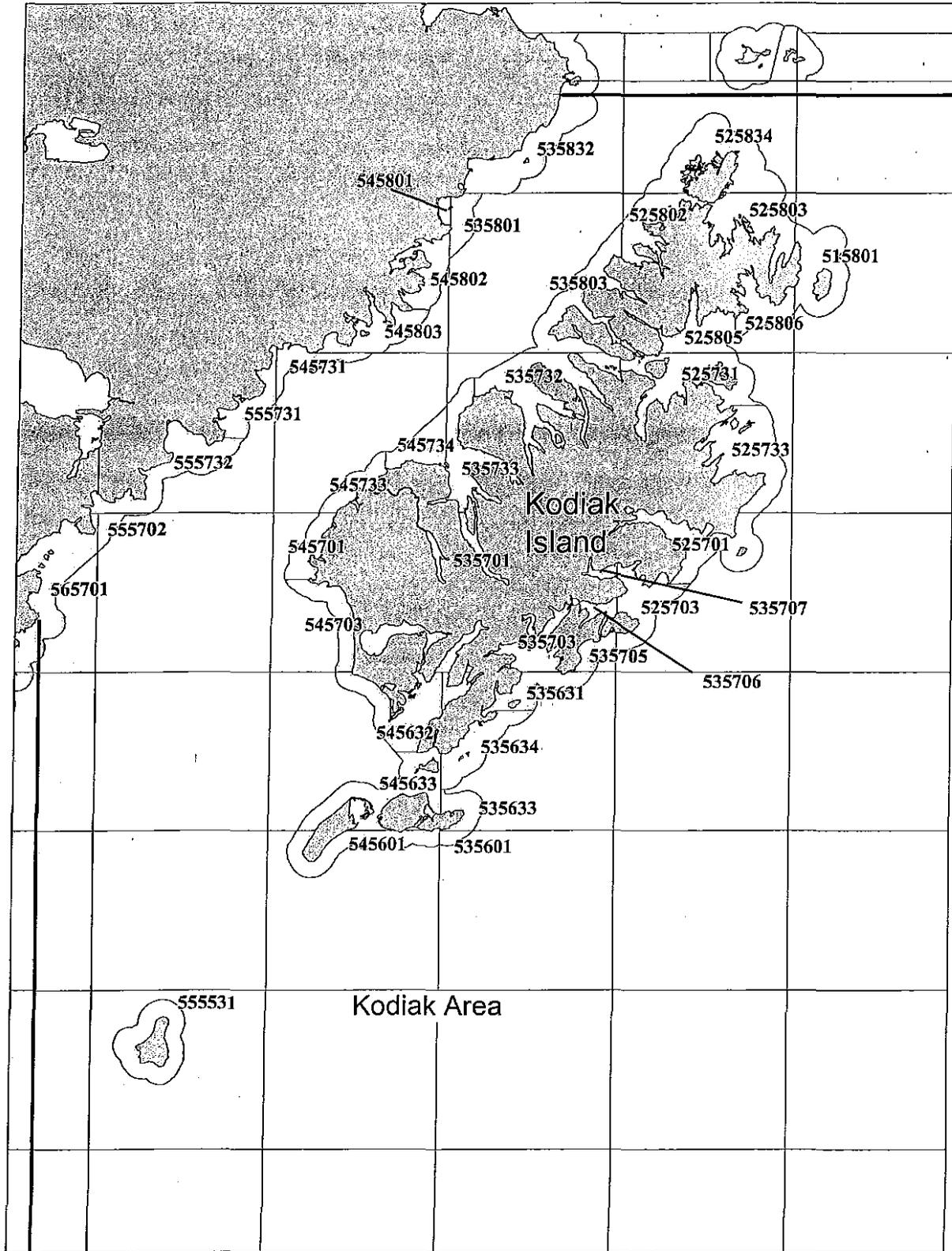


Appendix A. Frequently used acronyms and key words.

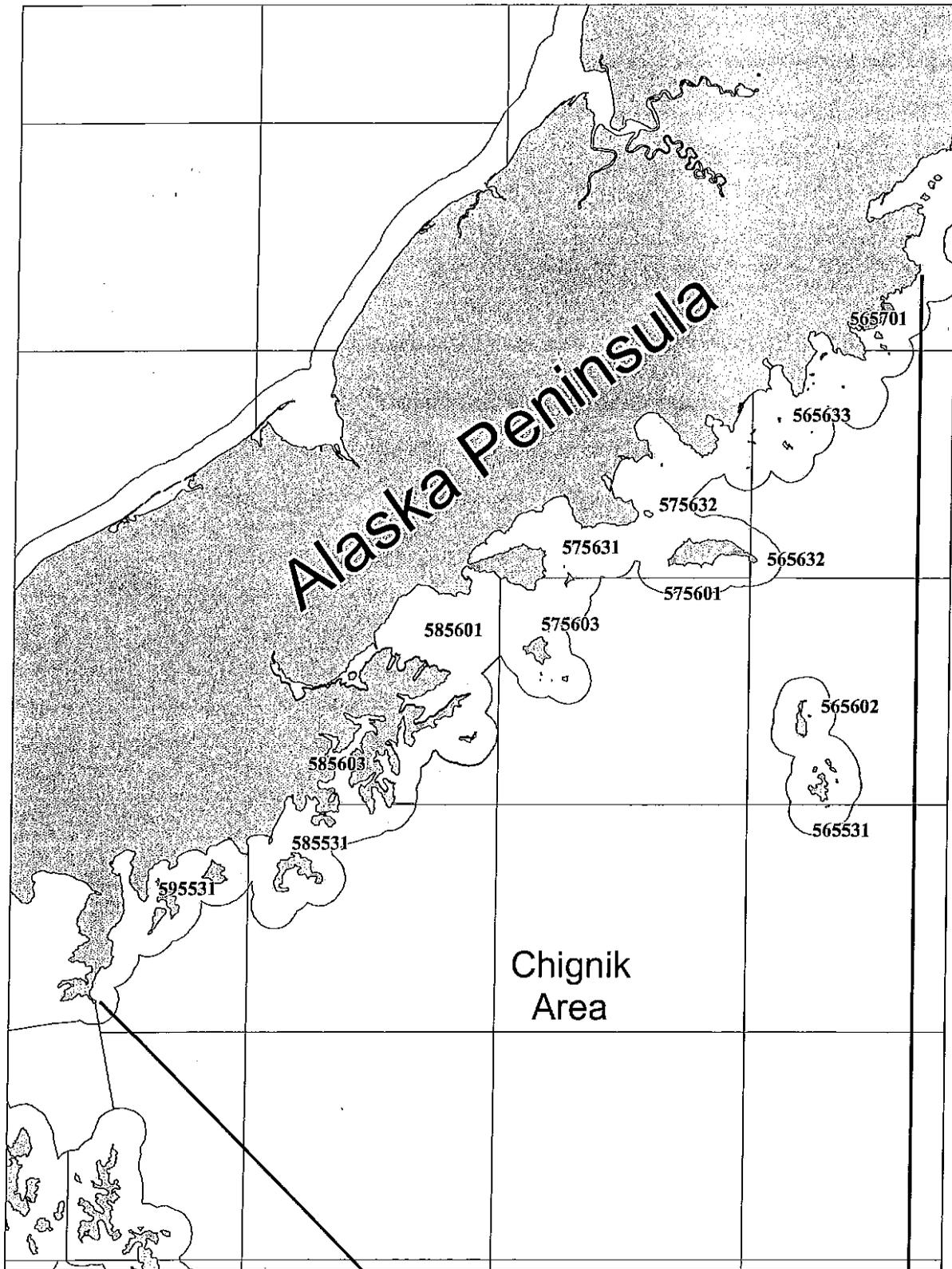
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Acronym	Definition
ABC	Acceptable Biological Catch, stock specification as set by the NPFMC on an annual basis
ADF&G	Alaska Department of Fish and Game
BOF	The Alaska Board of Fisheries
BSAI	Bering Sea/Aleutian Islands Areas, state management area and federal management area composed of several sub areas.
CGOA	Central Gulf of Alaska, federal management areas 620 and 630
EEZ	Exclusive Economic Zone, from 3 to 200 nautical miles offshore
EGOA	Eastern Gulf of Alaska, federal management areas 640 and 650
EO	Emergency order, management action taken by ADF&G to effect regulatory change
GOA	Gulf of Alaska
LLP	Federal License Limitation Program
mt	metric tons (equal to 2,204.62 pounds)
NMFS	National Marine Fisheries Service
NPFMC	North Pacific Fishery Management Council
Parallel fishery	State waters from 0 to 3 nautical miles open under federal rules while a federal fishery is ongoing from 3 to 200 nautical miles
State waters	Territorial sea from shore to three nautical miles
TAC	Total Allowable Catch, final federal harvest specification for directed fishing as recommended by the NPFMC and set by NMFS
WGOA	Western Gulf of Alaska, federal management area 610
<hr/> Kodiak Area Chignik Area South Alaska Peninsula Area	State-waters groundfish areas with specific Pacific cod management plans

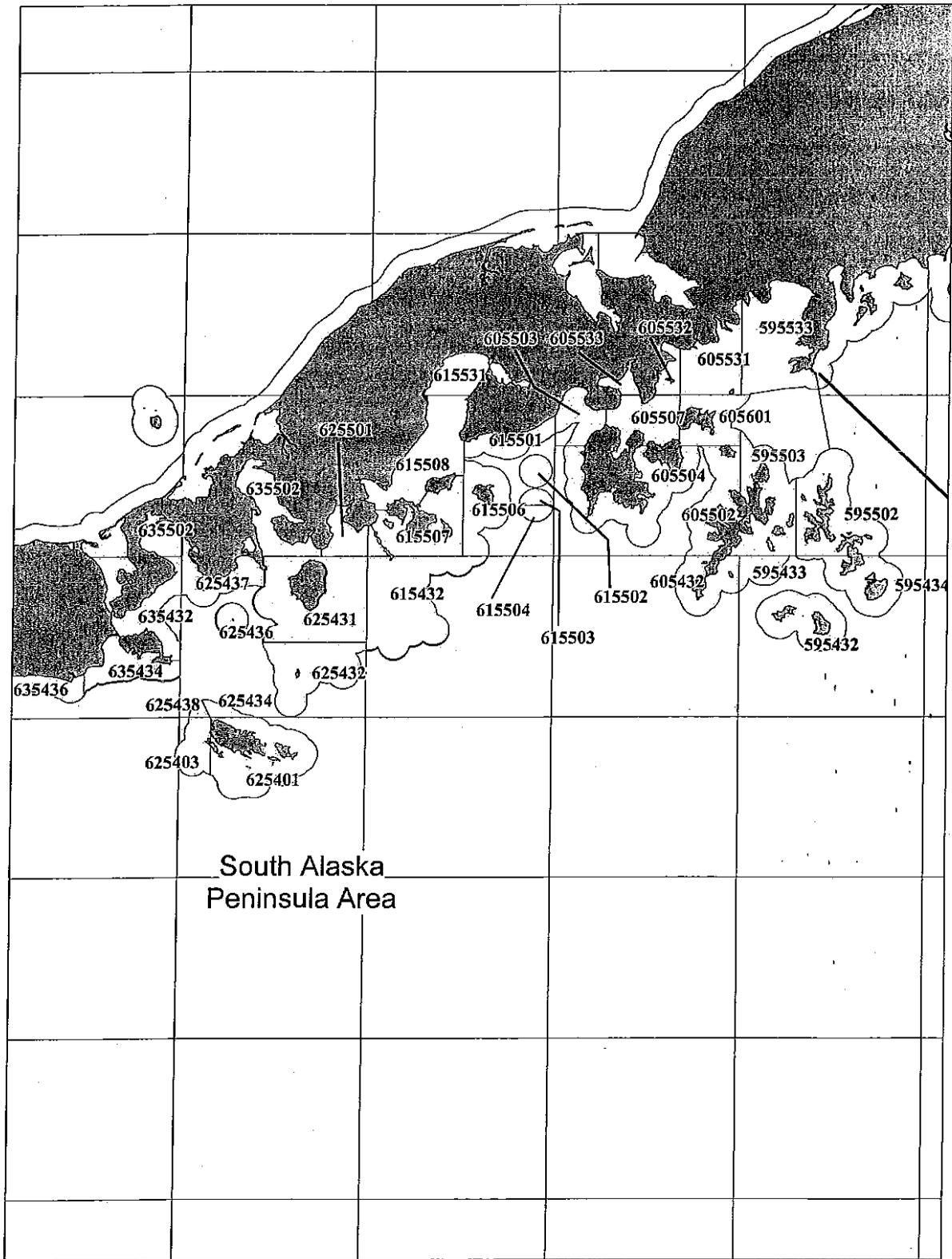
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Appendix B. Kodiak Management Area state water statistical areas for groundfish.



Appendix C. Chignik Management Area state water statistical areas for groundfish.



Appendix D. South Alaska Peninsula Area state water statistical areas for groundfish.

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