

ALEUTIAN ISLANDS BLACK ROCKFISH FISHERY

Report to the Alaska Board of Fisheries

By

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ABSTRACT

A black *Sebastes melanops* and dusky *S. ciliatus* rockfish fishery commenced in 1994 when the Alaska Department of Fish and Game assumed management authority over these species in state waters of the eastern Aleutian Islands. The fishery developed slowly, and only once has it attained the guideline harvest level.

The harvest area was expanded in 1998 to include all state waters of the Aleutian Islands, and, through a change in the Gulf of Alaska Fishery Management Plan, federal waters between Scotch Cap Light (166°44' West longitude) and 170° West longitude. The fishery was limited to black rockfish, since dusky rockfish were fully utilized in the federal-waters fishery.

Harvest to date totals almost 182,200 pounds and the total fishery value is in excess of \$57,000. Sixteen unique vessels have participated since 1995. On average, 4 vessels have made 21 deliveries in the directed fishery per year.

INTRODUCTION

The Alaska Department of Fish and Game (ADF&G) established a directed fishery for nearshore pelagic shelf rockfish in state waters of the eastern Aleutian Islands in December of 1994. The pelagic shelf rockfish group includes black *Sebastes melanops*, blue *S. mystinus*, widow *S. entomelas*, yellowtail *S. flavidus* and dusky *S. ciliatus* rockfish. In the eastern Aleutian Islands this group is represented by black and dusky rockfish due to the limited distribution of the other species.

The establishment of this fishery was in response to local public inquiries regarding the possibility of a state-managed black rockfish fishery. Under federal management black and other pelagic shelf rockfish were included in the larger assemblage of “other rockfish.” Directed fisheries, in both state and federal waters for this assemblage, occurred prior to 1994 but were of increasingly short duration. The fisheries were open to all gear types, however, they were managed as trawl fisheries as the harvest was predominantly by trawl vessels. Black and other pelagic shelf rockfish had become available to the local fleet primarily as bycatch in jig and longline fisheries for other groundfish. In 1994 the “other rockfish” assemblage was managed as bycatch only by the National Marine Fisheries Service (NMFS), through November only 43% of the allowable catch of this assemblage had been taken. According to ADF&G fish ticket data, approximately 4% of that harvest was pelagic shelf rockfish, of which less than 1% was black rockfish. The department, with notification to NMFS and the North Pacific Fishery Management Council (NPFMC), assumed management authority of nearshore pelagic shelf rockfish for a state-water fishery by emergency order (EO) on December 21, 1994. All legal groundfish gear types, except for seines, were allowed by regulation (trawls, hand troll gear, mechanical jigging machines, dinglebar troll gear, longline and pots). However, mechanical jigging machines and handlines were stipulated as the gear types for this fishery by news release. These gear types have a low level of exploitation that would not threaten to exceed the federal total allowable catch (TAC) and do not have the federal prohibited species bycatch caps of other gear types. Therefore, it was not necessary to set and monitor bycatch caps, nor be overly concerned with bypassing federal TAC specifications for the “other rockfish” category. Registration for the black rockfish fishery was similar to other groundfish fisheries, except vessels were registered for only one month at a time. The short duration of the registration was to allow the department greater control of the fishery.

DESCRIPTION OF AREA

The initial location of the black and dusky rockfish fishery in the eastern Aleutian Islands was the state waters immediately surrounding Unalaska, Sedanka, Unalga, Akutan and Akun Islands. The area expanded in 1998 and the fishery only included black rockfish; these changes will be discussed in a subsequent section. The current Aleutian Islands black rockfish fishery encompasses all state waters south of the latitude of Cape Sarichef (54°36' North latitude) and west of the longitude of Scotch Cap Light (164°44' West longitude); it also includes federal waters of the exclusive economic zone (EEZ) between Scotch Cap Light and 170° West longitude (Figure 1). This fishery occurs in waters that are part of the state Bering Sea-Aleutian Islands and South Alaska Peninsula registration areas, and in the Western Gulf of Alaska federal

management area west of Scotch Cap Light. Federal areas adjacent to the state fishery area are the Bering Sea and the Aleutian Islands federal management areas (Figure 2).

FISHERY HISTORY

The Alaska Department of Fish and Game established two areas of harvest in the eastern Aleutian Islands in 1994: the state waters around Unalaska, Sedanka and Unalga Islands, and the state waters around Akutan and Akun Islands. A guideline harvest level (GHL) of 100,000 pounds was established for this fishery, 50,000 pounds from each area. This moderate harvest level was deemed sufficient to demonstrate fishery potential. A conservative management policy for these slow growing and long lived, non-migratory species was considered necessary to prevent over exploitation.

1994 to 1997

The 1994 fishery opened at noon on December 21. Only one vessel registered for the fishery. No fishing for these species occurred in 1994 subsequent to the establishment of the directed fishery (Figure 3).

Fishing effort was minimal and sporadic throughout 1995. Fourteen vessels registered for the fishery. All harvest was as bycatch in the Pacific cod jig fishery. Harvest information is confidential because the actual number of vessels that participated was less than three.

In 1996 landings increased in the Unalaska, Sedanka and Unalga Islands Area to a harvest of just over 17,000 pounds (Table 1). Eighteen vessels registered for this fishery; only six vessels made deliveries. The average delivery was just over 1,400 pounds. Average exvessel price per pound in 1996 was \$0.18, for a fishery value of approximately \$3,100. The primary area of harvest was from the waters just north of Unalaska Island. Black rockfish was the predominate species of harvest; dusky rockfish was also harvested. No effort was reported from the Akutan and Akun Islands Area in 1996.

Fishing effort, in terms of number of landings and amount harvested, increased during 1997. The number of participating vessels, however, decreased in 1997. Vessels started fishing in April and continued through October; most of the harvest occurred during September and October. The majority of effort took place along the outer coast of Sedanka Island and just south of Akutan Island. The fishery was closed by EO on November 1, 1997. Harvest information by area is confidential due to the low number of vessels participating in each area (Table 2). The two areas, the Unalaska, Sedanka, and Unalga Islands Area and the Akutan and Akun Islands Area, are combined for the purpose of this report. Three vessels made 18 landings for a total harvest of 102,746 pounds. Average landing for the season was just over 5,700 pounds. Exvessel value averaged \$0.34 during the 1997 fishery, which produced a total fishery value in excess of \$35,000. The total harvest represents both black and dusky rockfish. Analysis of fish ticket data shows dusky rockfish comprise 7% of the harvest. Logbook data submitted by one operator showed dusky rockfish comprising 28% of the harvest for that vessel. Through analysis of otoliths obtained from limited dockside sampling in 1997, average age of black rockfish was

17 years; the harvested fish averaged 44 centimeters (cm) in length (Table 3). Dusky rockfish averaged 17 years old and 39 cm in length. All rockfish sampled in 1997 were from the waters around Sedanka Island.

1998

The nearshore rockfish fishery changed with the 1998 season. The area expanded to include all state waters of the Aleutian Islands south of Cape Sarichef and west of Scotch Cap Light, and all federal waters of the Pacific Ocean between Scotch Cap Light (164° 44' West longitude) and 170° West longitude. As the management area expanded, the department established a new area of harvest; this area encompassed state waters west of 168° West longitude. The new area was established in response to public interest in a rockfish fishery in the vicinity of Atka Island. Also, ADF&G assumed management responsibility for black and blue rockfish in the waters of the EEZ in the Gulf of Alaska as the NPFMC passed Amendment 46 to the Groundfish Fishery Management Plan which removed those species from the plan. Black and blue rockfish are shallow water nearshore pelagic shelf species that were not well assessed by federal surveys and not well addressed with current federal management practices. This action limited the directed harvest to only black rockfish in the Aleutian Islands. Blue rockfish have a limited distribution in Alaska and do not occur in the Aleutian Islands. The NMFS retained management authority over the other species of pelagic shelf rockfish (widow, yellowtail and dusky rockfish) in federal waters. This group is fully utilized in the federal fisheries; therefore dusky rockfish could now only be harvested as bycatch in the Aleutian Island rockfish fishery.

The guideline harvest level for the 1998 fishery was set at 40,000 pounds for both the Akutan and Unalaska Areas, and at 20,000 pounds for the area west of 168° West longitude. Directed fishing effort for black rockfish started July 21 in the Akutan Area. Five vessels made 29 deliveries for a total harvest of 38,296 pounds before the area was closed by EO on August 1. Average exvessel price per pound was \$0.29, which produced a total fishery value of approximately \$11,100. The nature of the fishery also changed in 1998. The fishery was dominated by short day trips and small loads. The average delivery in 1998 was just over 1,300 pounds, compared to approximately 3,900 pounds for the prior years. A total of eight vessels registered for this fishery in 1998, four of which indicated they would operate in the Unalaska Area. However, no harvest of black rockfish was reported for this area, and the fishery remained open to the end of the year. This marks the first year since 1994 no commercial effort toward black rockfish occurred in the Unalaska Area.

1999

In 1999 the department renamed the areas of harvest. The names of these areas differed between news releases and reports, and between years. The new Akutan District has previously been referred to as the Akutan Area or Section, or the Akutan and Akun Island Area. The new Unalaska District was formerly referred to as the Unalaska Area or Section, or the Unalaska, Sedanka, Unalga Islands Area, and the new Western District was formerly the Western Section or simply west of 168° West longitude.

The department reduced the 1999 GHL in the Akutan and Unalaska Districts from 40,000 pounds to 35,000 pounds in each district. The reduction was due to departmental concerns of possible localized depletion of the black rockfish stock around Akutan Island and the eastern part of Unalaska Island. Since 1995 approximately 60% of the black rockfish harvested came from two statistical areas, one from just south of Akutan Island and the other from the outer coast of Sedanka Island (Figure 4). This reduction was announced by news release on April 22. Fishers were encouraged at that time to spread their effort from previously fished areas to lessen the impact on those local populations. The GHL for the Western District remained at 20,000 pounds. Five vessels participated in the 1999 directed fishery. Effort started in mid June, and ceased by late September, although the fishery remained open for the rest of the year. No directed effort occurred during July; the participating vessels fished IFQ Pacific halibut at that time. In the directed fishery 38 deliveries were made for a harvest of 20,866 pounds. Four more vessels made four deliveries with 23 pounds of black rockfish as a bycatch to other species. The total harvest for the state managed fishery in 1999 was 20,889 pounds, this included all state waters of the Aleutian Islands and federal waters of the Western Gulf of Alaska between 164° 44' West longitude and 170° West longitude. Average exvessel price per pound in 1999 was \$0.35 and the estimated fishery value was \$7,200.

Average delivery in the 1999 directed fishery was 550 pounds, less than in 1998 when the average was just over 1,300 pounds and significantly under the 3,900 pound average for the years 1996 and 1997. The decrease in average delivery may be due to smaller vessels making shorter trips. In 1999 the average vessel length of participating vessels was 20 feet, a decrease from 23 feet in 1998, and from 36 feet in the 1996 and 1997 fisheries. The average trip length was less than one day in 1999, the same as in 1998 and less than the two days in prior years. The lower average delivery in 1999 may also be due to localized depletion of the population most heavily fished. Directed harvest occurred in all three districts, but primarily occurred in the Akutan District. In the three years of harvest from the Akutan District, 61% has come from the area just south of Akutan Island. In 1999, 62% of the harvest came from just south of Akutan Island, and most of it was from the waters between Talus Point and Green Bight. Results from limited Akutan dockside sampling in 1999 show the average and median length of harvested black rockfish to be 45 cm. The average age was 16 years and the median age was 15 years. All sampled rockfish came from the area between Talus Point and Green Bight.

2000 FISHERY

The department announced the 2000 GHL by news release on March 3. The levels were 35,000 pounds in the Akutan and Unalaska Districts and 20,000 pounds in the Western District, the same harvest levels as in 1999. In 2000, the Akutan and Unalaska Districts were divided into subdistricts and sections, each with a separate GHL (Table 4), and the area just south of Akutan Island between Talus Point and Green Bight was closed to the retention of black rockfish for the 2000 fishery (Figure 5). The new subdistricts and sections were established to disperse fishing effort, and the assigned GHLS were based on the amount of potential habitat. Closure of the waters south of Akutan Island was due to department concerns of localized depletion in that area.

Ten vessels registered for the 2000 fishery, however all harvest information is confidential since less than three vessels made deliveries. In recent years, most of the fishers also possessed IFQ

shares for Pacific halibut, and most fishing effort centered around that fishery. Participation in the black rockfish fishery has been secondary to that effort, as was the case this year. Weather, primarily wind direction, also limited fishing time for this small vessel fleet.

Effort was sporadic which limited dockside sampling to only one commercial delivery and several sport fishing trips from the Unalaska Bay/Wislow Section of the Unalaska District. Results of this sampling are not available at this time.

SUMMARY

Total harvest since 1995 is approximately 182,200 pounds. The fishery value to date is in excess of \$57,000. The established GHGs are low, and are intended to help prevent the over exploitation of this slow-growing and long-lived species. However, there is no regulation specific to registration for the black rockfish fishery, therefore, any vessel registered for groundfish may direct fishing effort toward this species. The establishment of a black rockfish registration regulation would help insure manageability of the fishery by the department.

When the department assumed management authority over black rockfish in state waters of the eastern Aleutian Islands, handlines and mechanical jigging machines were stipulated, by news release, as the gear types for this fishery. As the area expanded to include all state waters of the Aleutian Islands and federal waters of the Western Gulf of Alaska west of Scotch Cap Light, fishers were asked to maintain this policy when fishing effort was directed at black rockfish. To date this has been successful as approximately 20% of the harvest has been by handlines, over 79% by mechanical jigging machines, with longline, pots and trawls accounting for less than 1%. However, ADF&G fish ticket data shows trawl harvest has occurred in nearby waters, with 10,000 pounds taken by one catcher-only vessel in three days and almost 15,000 pounds taken by a catcher-processor in two weeks. The GHGs range from 750 pounds to 10,000 pounds in nine of the eleven subdistricts, and none exceed 12,850 pounds. A trawl vessel could easily exceed these levels and the manageability of the fishery would be in question.

STATUS OF STOCK

There has been little stock assessment activity by ADF&G in the Aleutian Islands for black rockfish. The department established a dockside sampling program in 1999. Information obtained through this program will help provide the department with basic population data, which will help provide the basis for future management decisions.

Table 1. Aleutian Islands rockfish fishery harvest statistics and economic performance, 1994 – 2000.

Year	Guideline Harvest Level ^a	Number of		Harvest ^a	Exvessel Value ^b	Fishery Value
		Vessels	Deliveries			
1994 ^c	100,000	NO COMMERCIAL HARVEST				
1995 ^c	100,000	CONFIDENTIAL				
1996 ^c	100,000	6	13	17,203	\$0.18	\$ 3,100
1997 ^c	100,000	3	18	102,746	\$0.34	\$35,000
1998 ^d	100,000	5	29	38,296	\$0.29	\$11,100
1999 ^d	90,000	9	41	20,889	\$0.35	\$7,200
2000 ^d	90,000	CONFIDENTIAL				

^aIn round pounds.

^bPer pound round weight.

^cBlack and dusky rockfish.

^dBlack rockfish only.

Table 2. Aleutian Islands rockfish fishery harvest by area, 1994 – 2000.

Year	Akutan District		Unalaska District		Western District	
	GHL ^a	Harvest	GHL ^a	Harvest	GHL ^a	Harvest
1994 ^b	50,000	0	50,000	0	NA	
1995 ^b	50,000	0	50,000	Confidential	NA	
1996 ^b	50,000	0	50,000	17,203	NA	
1997 ^b	50,000	Confidential	50,000	Confidential	NA	
1998 ^c	40,000	38,296	40,000	0	20,000	0
1999 ^c	35,000	13,465	35,000	Confidential	20,000	Confidential
2000 ^c	35,000	Confidential	35,000	Confidential	20,000	Confidential

^aGuideline harvest level in round pounds.

^bBlack and dusky rockfish.

^cBlack rockfish only.

Table 3. Black rockfish age (from otoliths) and length data obtained from fish harvested along the outer coast of Sedanka Island in 1997 and from just south of Akutan Island in 1999.

Year	Sample Size	Age ^a		Length ^b	
		Average	Range	Average	Range
1997	9	17.1	11 to 32	43.9	35 to 49
1999	92	15.9	8 to 30	45.3	37 to 51

^aIn years.

^bIn centimeters.

Table 4. Aleutian Islands black rockfish fishery guideline harvest levels (GHL) in round pounds, by district, subdistrict and section for the 2000 fishery.

District	Subdistrict	Section	GHL
Akutan	Akutan Island		10,000 Pounds
	Akun Island		10,000 Pounds
	Rootok Island		5,600 Pounds
	Tigalda Island		9,400 Pounds
Unalaska	Unalaska Island	Unalaska Bay/Wislow Section	3,000 Pounds
		Kalekta/English Bay Section	1,300 Pounds
		Beaver Inlet Section	2,300 Pounds
		West Unalaska Section	12,850 Pounds
		South Unalaska Section	12,300 Pounds
	Sedanka Island		2,500 Pounds
	Unalga Island		750 Pounds
Western			20,000 Pounds

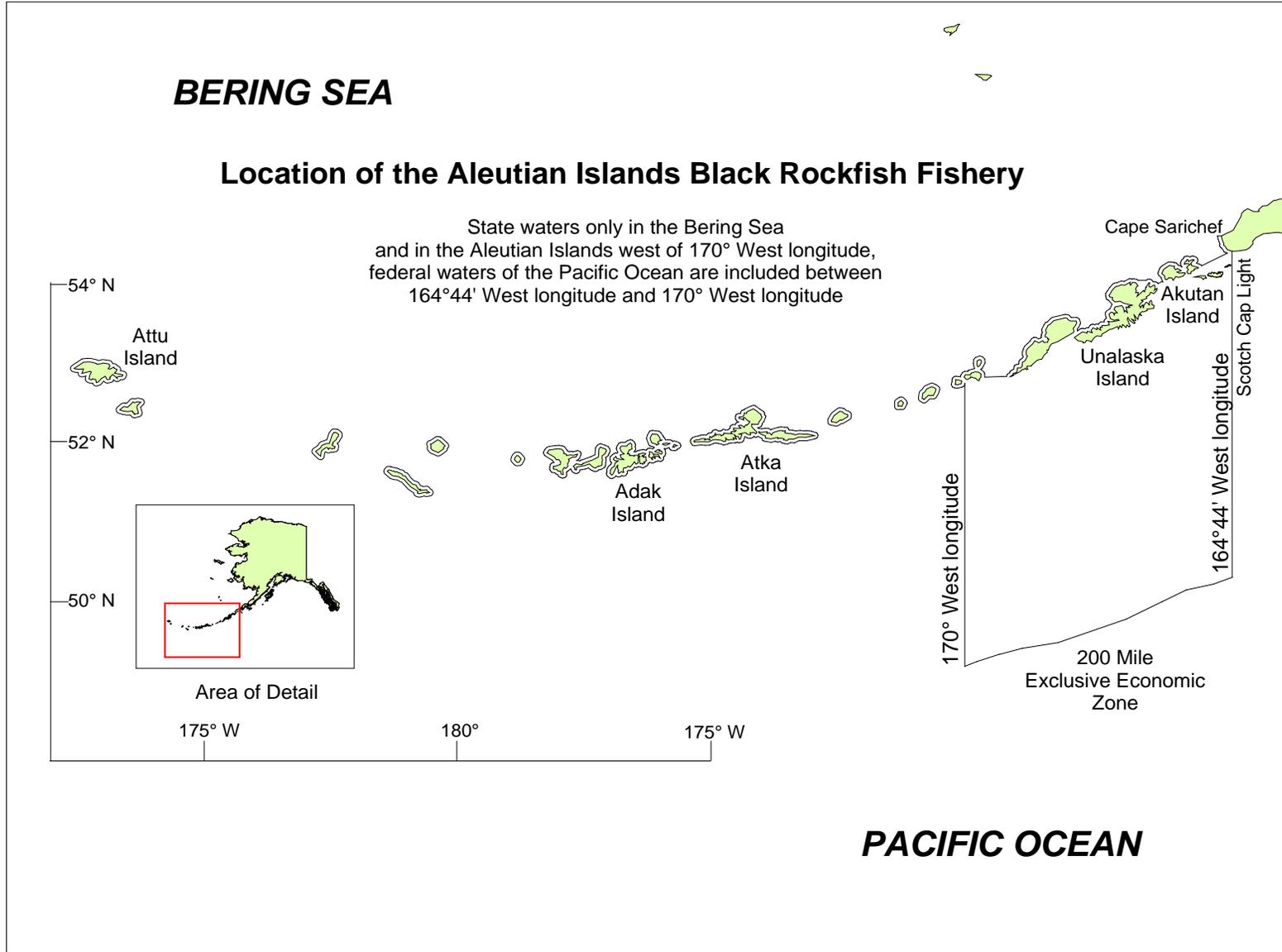


Figure 1. Map of the Aleutian Islands black rockfish fishery area.

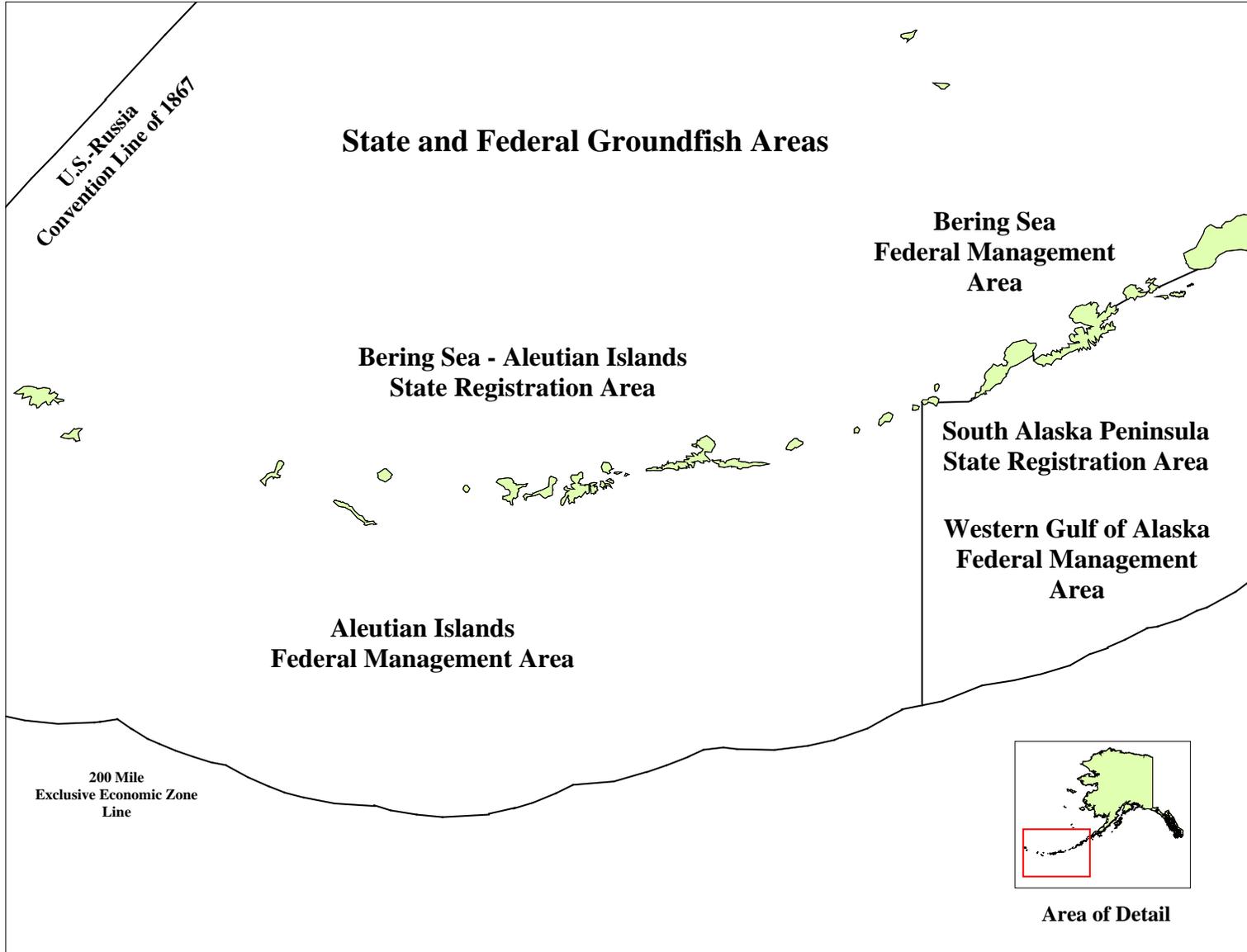


Figure 2. Map of the state registration and federal management areas of the Aleutian Islands black rockfish fishery area.

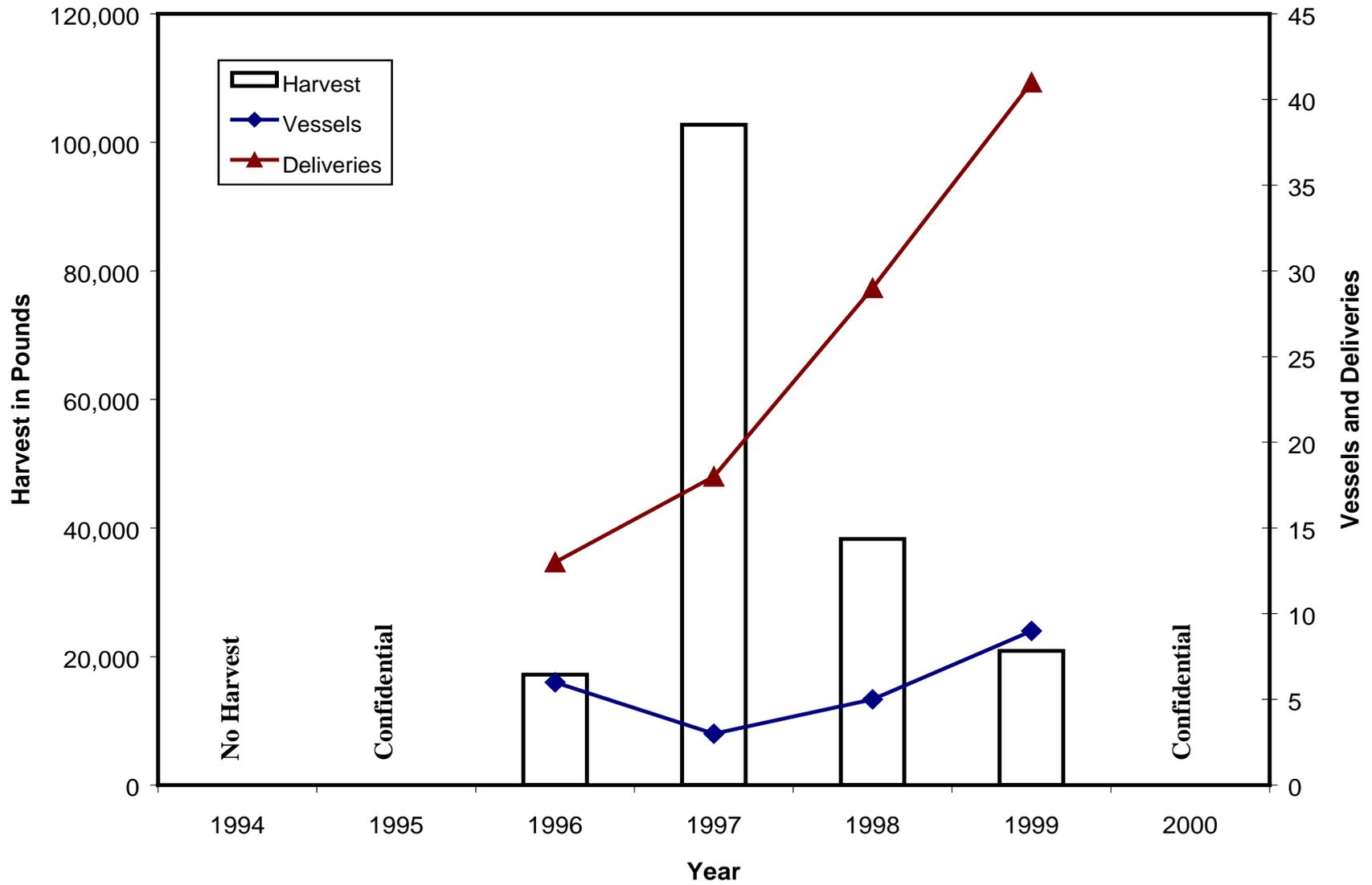


Figure 3. Harvest, number of vessels and deliveries in the Aleutian Islands rockfish fishery, 1994 to 2000.

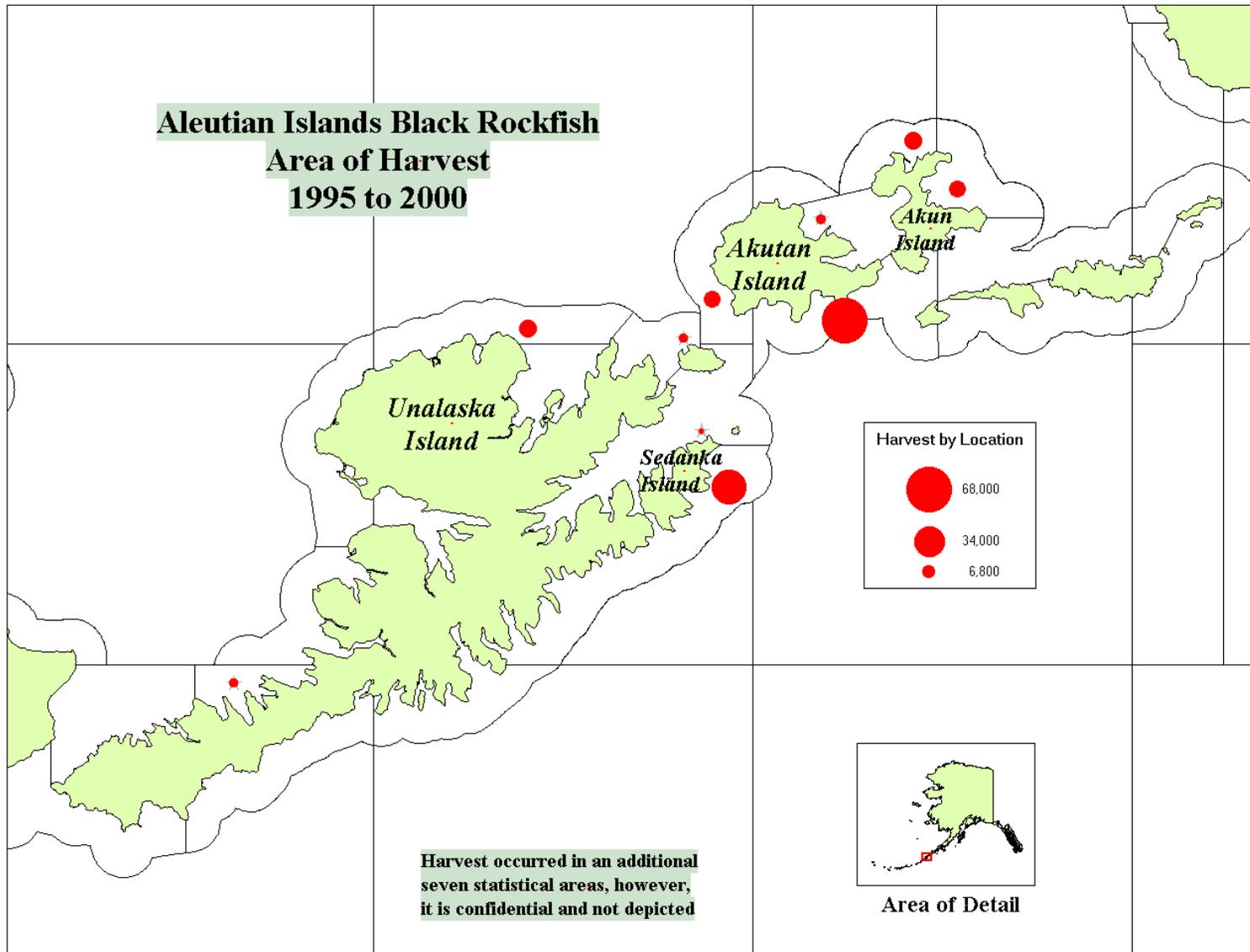


Figure 4. The area of harvest observed in the rockfish fishery from 1995 through 2000.

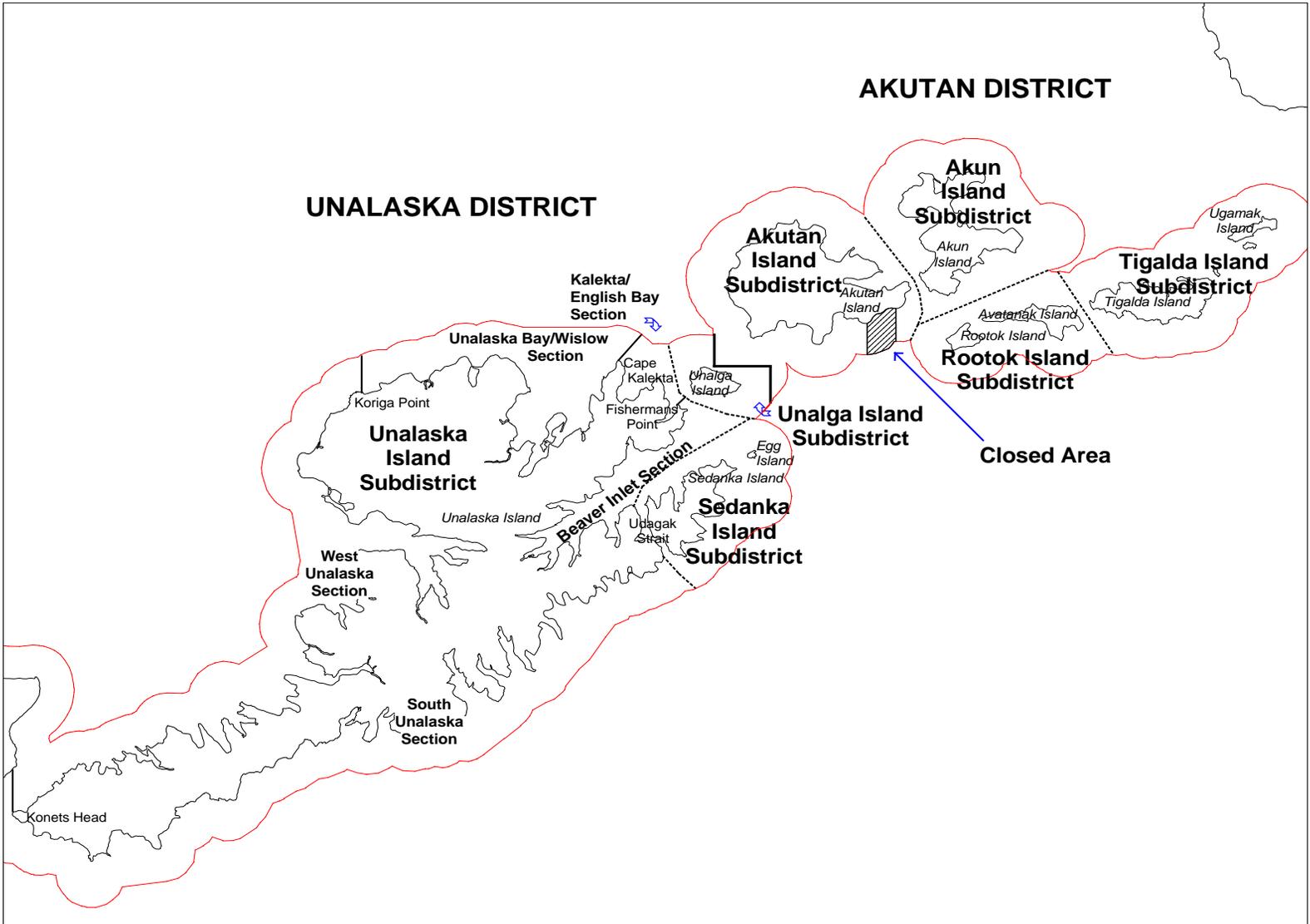


Figure 5. Map of the Unalaska and Akutan Districts of the Aleutian Island black rockfish fishery showing subdistricts and sections.